

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



December 12, 2018

EA2018-817

Tim Santo  
Superintendent  
City of Ukiah Electric  
1320 Airport Road  
Ukiah, CA 95482

**SUBJECT:** Audit of City of Ukiah Electric Utility

Mr. Santo:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Ivan Garcia, Mina Botros, Stephen Lee, and Matthew Yunge of ESRB staff conducted an electric distribution audit of City of Ukiah Electric from September 10, 2018 to September 13, 2018. During the audit, ESRB staff conducted field inspections of City of Ukiah Electric's facilities and equipment and reviewed pertinent documents and records.

During 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 within 30 days of your receipt of this letter indicating all corrective actions and preventive measures, taken or planned, to address the violations to ensure compliance with GO requirements. The response should indicate the date of each remedial action and preventive measure completed within 30 days. For any outstanding items not addressed within 30 days, please provide the projected completion dates of all actions for all violations outlined in Sections II & IV of the enclosed Audit Findings.

If you have any questions concerning this audit, please contact Ivan Garcia at 916-928-5875 or [ivan.garcia@cpuc.ca.gov](mailto:ivan.garcia@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 Audit Findings

Cc: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC  
Lee Palmer, Deputy Director, Office of Utility Safety, SED, CPUC  
Charlotte TerKeurst, Program Manager, ESRB, CPUC  
Rick Tse, Senior Utilities Engineer – Supervisor, ESRB, SED, CPUC  
Ivan Garcia, Utilities Engineer, ESRB, SED, CPUC

## AUDIT FINDINGS

### I. Records Review

During the audit, ESRB staff reviewed the following records:

- Completed, cancelled, and pending work orders in the last 60 months
- New construction projects in the last 60 months
- Patrol and detailed inspection records from the last 60 months
- Third party notifications sent and received in the last 60 months

### II. Records Violations

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

#### 1. GO 165, Table 1, Distribution Inspection Cycles states in part:

*“Underground transformers, switching/protective devices, regulators/capacitors in urban areas must be patrolled at least once a year.”*

*“Underground transformers, switching/ protective devices, regulators/capacitors in urban areas must have a detailed inspection at least once every three years.”*

The City of Ukiah Electric does not have an acceptable underground patrol and detailed inspection program. ESRB staff also found that the City of Ukiah Electric has not conducted underground facility inspections per GO 165 and it does not schedule such inspections to be done per the requirement. The City of Ukiah Electric only inspects underground facilities when there is work notification at the underground location or as a need to inspect basis.

#### 2. GO 95, Rule 18-B, Maintenance Programs 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.”*

**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 late work orders and determined that City of Ukiah Electric did not address a total of 21 work orders by the assigned due date.

<b>Date</b>	<b>Work Order</b>	<b>Status</b>	<b>Expected Completion Date</b>	<b>Completion Date</b>
3/23/2015	1401-01-200	In Progress		
3/3/2015	2015-14	In Progress		
6/29/2015	2015-17	In Progress		
7/2/2015	2015-19	In Progress		
12/3/2015	2015-20	In Progress		
2/10/2016	2016-04	In Progress		
5/23/2017	2017-013	In Progress	6/20/2017	
6/28/2017	2017-015	Complete	7/19/2017	8/23/2017
7/5/2017	2017-017	In Progress	Within a few days	

8/4/2017	2017-026	Complete	Within a few days	11/30/2017
11/16/2017	2017-031	Complete	11/23/2017	1/29/2018
1/17/2018	2018-001	Complete	2/14/2018	4/2/2018
1/17/2018	2018-002	Complete	2/14/2018	6/5/2018
3/28/2018	2018-010	Complete	4/25/2018	6/6/2018
4/2/2018	2018-011	In Progress	8/2/2018	
4/4/2018	2018-014	Complete	5/2/2018	6/6/2018
4/5/2018	2018-015	In Progress	5/3/2018	
5/30/2018	2018-023	In Progress	7/11/2018	
5/31/2018	2018-024	Complete	7/12/2018	8/1/2018
5/31/2018	2018-025	In Progress	7/12/2018	
6/5/2018	2018-027	In Progress	8/28/2018	

### III. Field Inspection

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

Structure Type	Structure Number	Address
Pad mounted Transformer	1869	724 S Orchard Ave (Inside Orchard Substation)
Pad mounted Switchgear	PMS 724	724 S Orchard Ave (Outside Orchard Substation)
Splice/ Junction Box	726	724 S Orchard Ave (Outside Orchard Substation)
Submersible Transformer	Vault 62	Intersection of N State St and W Henry St
Submersible Transformer	Vault 64 576	N School St @ Palace Hotel
Submersible Transformer	Vault 63	N School St and W Smith St
Submersible Transformer	Vault 83 2039	110 S State St
Pole		3191 N State S
Pad mounted Transformer	2138	513 South Empire Dr
Pad mounted Transformer	367	841 Low Gap Rd
Pad mounted Transformer	1278 LF	950 N State St
Pad mounted Transformer	LF 1120	775 Yosemite Dr
Pole		405 Oak Manor Dr
Pole		Across from 395 Oak Manor Dr
Pad mounted Transformer	1232	425 S Orchard Ave
Pad mounted Transformer	1116	835 Waugh Ln
Pole		835 Waugh Ln
Pole		1220 Airport Blvd (Comfort Inn)
Pad mounted Transformer	1262	CAL FIRE Air Attack Base
Pad mounted Transformer	259	240 Observatory Ave
Pole		231 Observatory Ave
Pole		Observatory Ave, in front of Pad mounted Transformer 1309
Pole		746 N Bush St
Pole		751 N Bush St
Pole		Across from 731 N Bush St

<b>Structure Type</b>	<b>Structure Number</b>	<b>Address</b>
Pole		Across from 745 N Bush St
Pole		309 Clara Ave
Pole		219 Clara Ave
Pole		215 Clara Ave
Pole		207 Clara Ave
Pad mounted Transformer	1358	110 Norton St
Pole		Front of "Radiant Yoga", Norton St
Pole		Front of 110 Norton St
Pole		210 Norton St
Pole		390 Main St
Pole		342 Main St
Pole		334 Main St
Pole		"Ukiah Valley Golf Course" Sign on Park Blvd
Pole		Intersection of Clubhouse Dr and Park Blvd
Pole		Front of "City of Ukiah Summer Safari Day Camp" building, on Clubhouse Dr
Pole		Front of "Wicked Slush" on Clubhouse Dr
Pole		Front of "Living Tree Adoption Memorial Program Members" Sign on Clubhouse Dr
Pole		Pole with "No Parking Between Signs" sign on Clubhouse Dr
Pole		Pole next to "Lee Rodriguez" shed dedication plaque on Clubhouse Dr
Pole		447 Park Blvd
Pole		444 Park Blvd
Pole		Intersection of Park Pl and Park Blvd
Pole		429 North Dora St
Pole		581 and 585 N Dora St
Pad mounted Transformer	1871	245 South Barnes St
Pole		423 Jones St
Pole		421 Jones St
Pole		416 Jones St
Pole		Intersection of Spring St and Jones St
Pole		504 Jones St
Pole		506 W Mill St
Pole		410 W Mill St
Pole		408 W Mill St
Pole		407 W Mill St

**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.”*

- The pole located on Observatory Ave, in front of pad mounted transformer 1309 had a Mylar balloon stuck on one of the primary conductors.
- The pole located at 835 Waugh Ln had an anchor guy anchor buried in the ground.

**2. GO 95, Rule 51.6-A, Marking and Guarding, 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.”*

The following poles had missing or damaged “High Voltage” signs:

Missing “High Voltage” Signs	Damaged “High Voltage” Signs
<ul style="list-style-type: none"> <li>- Pole at 215 Clara Ave</li> <li>- Pole at 390 Main St</li> <li>- Pole at 444 Park Blvd</li> <li>- Pole at 416 Jones St</li> <li>- Pole at the intersection of Spring Street and Jones St</li> <li>- 407 W Mill St</li> </ul>	<ul style="list-style-type: none"> <li>- Pole in front of 110 Norton St</li> </ul>

**3. 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).”*

- The ground molding on the pole located at the intersection of Clubhouse Dr and Park Blvd was exposed at about 20 feet above the ground line.
- The ground molding on the pole located at 207 Clara Ave was missing a four-foot section spanning two feet to six feet above the ground line.

**4. GO 95, Rule 54.8-B-1, Service Drops, Clearances above Ground, Above Public Thoroughfares** states in part:

*“Service drop conductors shall have a vertical clearance of not less than 18 feet above public thoroughfares, except that this clearance may grade from 18 feet at a position not more than 12 feet horizontally from the curb line to a clearance of not less than 16 feet at the curb line, provided the clearance at the centerline of any public thoroughfare shall in no case be less than 18 feet. Where there are no curbs the foregoing provisions shall apply using the outer limits of possible vehicular movement in lieu of a curb line.”*

- The service drop located at 423 Jones St had a vertical ground clearance of 14 feet and 3 inches measured at the curb.
- The service drop located at 421 Jones St had a vertical ground clearance of 14 feet and 3 inches measured at the curb.

**5. GO 95, Rule 56.7-B, Location of Sectionalizing Insulators, Anchor Guys** states in part:

*“In order to prevent trees, buildings, messengers, metal-sheathed cables or other similar objects from grounding portions of guys above guy insulators, it is suggested that anchor guys be sectionalized, where practicable, near the highest level permitted by this Rule.”*

The poles located at the following addresses had vegetation in contact with a section above the sectionalizing insulator of the anchor guy:

- Across from 395 Oak Manor Dr
- Front of “Radiant Yoga” on Norton St

**6. GO 95, Rule 56.9, Guy Marker (Guy Guard)** states in part:

*“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.”*

The outermost anchor guy located at 405 Oak Manor Dr did not have a guy marker.

**7. GO 95, Rule 18-A-2, Resolution of Potential Violations of General Order 95 and Safety Hazards** states in part:

*“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.”*

City of Ukiah Electric did not notify the communications company of the following safety hazards:

- Communication facilities located on an abandoned pole across from 731 N Bush St have not been transferred to the new joint pole.
- Communication facilities located on an abandoned, woodpecker-damaged pole near the “Ukiah Valley Golf Course” sign on Park Blvd have not been transferred to the new joint pole.
- Communication facilities located on an abandoned pole in front of the “City of Ukiah Summer Safari Day Camp” building on Clubhouse Dr have not been transferred to the new joint pole.

**8. GO 128, Rule 34.3-A, Strength** states in part:

*“The equipment case or enclosure shall be secured in place and be of sufficient strength to resist entrance or damage to the equipment by unauthorized persons.”*

The pad mounted transformers at the following locations were not bolted down:

- 841 Low Gap Rd
- 950 N State St
- 775 Yosemite Dr
- 425 S Orchard Ave
- CAL FIRE Air Attack Base
- 240 Observatory Ave

**9. GO 128, Rule 34.3-B, 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.”*

The pad mounted transformers at the following locations had exposed live-fronts:

- 950 N State St
- 775 Yosemite Dr
- 425 S Orchard Ave
- 835 Waugh Ln
- CAL FIRE Air Attack Base
- 240 Observatory Ave

**10. GO 128, Rule 35.1, Identification of Cables** states in part:

*“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.”*

The cables on the primary side of the pad mounted transformer located at 110 Norton St did not have identification tags.

**11. GO 128, Rule 35.3, Warning Signs** states in part:

*“Warning signs indicating high voltage shall be installed on an interior surface, or barrier if present, inside the entrance of vaults, manholes, handholes, pad mounted transformer compartments, and other above ground enclosures containing exposed live parts above 750 volts. Such warning signs shall also be installed on an exterior surface of all such pad mounted transformer compartments and other above ground enclosures. Such signs shall be clearly visible to a person in position to open any such access door, other opening, or barrier.”*

The live-front transformer located at 950 N State St did not have high voltage warning signs located inside the enclosure.