

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



September 6, 2018

EA2018-801

Dean McFarren  
Manager – EAM Distribution Compliance  
Pacific Gas and Electric Company (PG&E)  
1850 Gateway Blvd., 5<sup>th</sup> Floor, Room 5053C  
Concord, CA 94520

**SUBJECT:** Audit of PG&E's Humboldt Division

Mr. McFarren:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Brandon Vazquez of ESRB staff conducted an electric distribution audit of PG&E's Humboldt Division from June 18 through June 22, 2018. During the audit, ESRB staff conducted field inspections of PG&E'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 the violations outlined in Sections II & IV of the enclosed Audit Findings.

If you have any questions concerning this audit, please contact Brandon Vazquez at (415) 703-1076 or [brandon.vazquez@cpuc.ca.gov](mailto:brandon.vazquez@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  
Rickey Tse, Senior Utilities Engineer- Supervisor, ESRB, CPUC  
Brandon Vazquez, Utilities Engineer, ESRB, CPUC

## AUDIT FINDINGS

### I. Records Review

During the audit, ESRB staff reviewed the following records:

- Completed and cancelled work orders in the last 12 months
- Completed, cancelled, and pending late work orders in the last 60 months
- Patrol and detailed inspection records in the last 60 months
- Pole loading calculations in the last 12 months
- Third party notifications received and sent out in the last 12 months
- Reliability metrics such as System Average Interruption Duration Index, System Average Interruption Frequency Index, and Customer Average Interruption Duration Index and outage reports for each feeder in the division in the last 60 months
- Sustained outages in the division in the last 60 months
- New construction projects in the last 12 months
- Completed, deferred, and delayed equipment test records in the last three years

### II. Records Violations

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

#### 1. GO 95, Rule 18-A2a states in part:

*“All companies shall establish an auditable maintenance program for their facilities and lines. All companies must include a timeline for corrective actions to be taken following the identification of a Safety Hazard or nonconformances with General Order 95 on the company’s facilities.”*

#### 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 PG&E did not address a total of 489 work orders by their assigned due dates.

**2. GO 128, Rule 17.2, Inspection** states in part:

*“Systems shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and in conformance with all applicable requirements these rules.”*

**GO 165, Section III-B, Standards for Inspection** states in part:

*“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 noted that PG&E completed underground inspections for the following maps past their assigned due date:

1. Map JJ17 – Inspection was due on December 31, 2013. PG&E completed the inspection on January 8, 2014.
2. Map X3008 – Inspection was due on October 7, 2016. PG&E completed the inspection on December 8, 2016.
3. Map BB3019 – Inspection was due on July 28, 2017. PG&E completed their inspection on September 21, 2017.

### III. Field Inspection

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

Location	Structure Type	Structure Number	Address	City
1	Pole		5200 Branscomb Rd. (SM-18469)	Laytonville
2	Pole		5200 Branscomb Rd.	Laytonville
3	Pole		Baechtel Rd. & S Main St.	Willits
4	Pole		Baechtel Rd. & S Main St.	Willits
5	Pole		Baechtel Rd. & S Main St.	Willits
6	Pole		Baechtel Rd. & S Main St.	Willits
7	Pole		Baechtel Rd. & S Main St. (F-6753)	Willits
8	Pole		90 Baechtel Rd.	Willits
9	Pole		Baechtel Rd. (Capacitor Bank 646)	Willits
10	Pole		180 Baechtel Rd.	Willits
11	Pole		Willow Ln. (SM-21834)	Willits
12	Pole		1440 Willow Ln.	Willits
13	Pole		1470 Willow Ln.	Willits
14	Pole		600 S Main St.	Willits
15	Pole		2 Spans Past F-7659	Willits
16	Pole	120170585	Live Oak Rd.	Willits
17	Pole		Across from 4101 Chinquapin Rd.	Willits
18	Pole		4101 Chinquapin Rd.	Willits
19	Pole		Adjacent to 3990 Chinquapin Rd.	Willits
20	Pole		18200 Walker Rd.	Willits
21	Pole		1 Span Past 18200 Walker Rd.	Willits
22	Pole		18590 Walker Rd.	Willits
23	Pole		18300 Walker Rd.	Willits
24	Padmount Transformer	T-1132	160 Parducci Rd.	Ukiah
25	Pole		160 Parducci Rd. (F-6669)	Ukiah
26	Pole		160 Parducci Rd. (1 Span Past F-6669)	Ukiah
27	Pole	110089349	160 Parducci Rd.	Ukiah
28	Pole		Adjacent to 160 Parducci Rd.	Ukiah
29	Pole		Near Tollini Ln. & W Lake Mendocino Dr.	Ukiah

Location	Structure Type	Structure Number	Address	City
30	Junction Box	J-0102	3322 Hamby Ford Rd.	Ukiah
31	Padmount Transformer	T-1816	3332 N State St.	Ukiah
32	Padmount Transformer	T-2147	3342 N State St.	Ukiah
33	Pole	120122701	97115 Hensley Creek Rd.	Ukiah
34	Subsurface Transformer	T-915	1300 Vista Verde	Ukiah
35	Subsurface Transformer	T-1201	1250 Vista Verde	Ukiah
36	Subsurface Transformer	T-1202	1180 Vista Verde	Ukiah
37	Pole		Near 226 Vichy Springs Rd. (1 Span Past SW-835)	Ukiah
38	Pole		Near 226 Vichy Springs Rd. (SW-835)	Ukiah
39	Pole		226 Vichy Springs Rd. (SW-1995)	Ukiah
40	Pole		1140 Vichy Springs Rd.	Ukiah
41	Pole	110427331	N Orchard St.	Ukiah
42	Pole		N Orchard St. (1 Span Across of 110427331)	Ukiah
43	Pole		11807 West Rd.	Redwood Valley
44	Pole		3 Poles W/O Tomki Rd.	Redwood Valley
45	Pole		5 Poles W/O Tomki Rd.	Redwood Valley
46	Pole		2 Poles W/O Tomki Rd.	Redwood Valley
47	Pole		12301 Tomki Rd.	Redwood Valley
48	Pole		3 Poles E/O 6831 N State St.	Redwood Valley
49	Pole		6691 N State St.	Redwood Valley
50	Pole		775 HWY 20	Upper Lake
51	Pole		5180 Lakeshore Blvd.	Lakeport
52	Pole		1172 Mellor Dr.	Lakeport
53	Pole		1343 Mellor Dr.	Lakeport
54	Pole		1422 Mellor Dr.	Lakeport
55	Pole		1468 Mellor Dr.	Lakeport
56	Pole		1554 Mellor Dr.	Lakeport

Location	Structure Type	Structure Number	Address	City
57	Padmount Transformer	T-979	1046 Adams St.	Lakeport
58	Pole		5 <sup>th</sup> St on Forbes St.	Lakeport
59	Pole		385 Forbes St.	Lakeport
60	Pole		422 Konocti Ave.	Lakeport
61	Pole		420 Konocti Ave.	Lakeport
62	Pole		342 Konocti Ave. (F-3032)	Lakeport
63	Pole		250 Konocti Ave.	Lakeport
64	Pole		902 S Forbes St. (F-5517)	Lakeport
65	Pole		926 S Forbes St.	Lakeport
66	Pole		1 Span Past 926 S Forbes St.	Lakeport
67	Pole		2 Spans Past 926 S Forbes St.	Lakeport
68	Pole		1150 Osprey St.	Lakeport
69	Pole		Across from 1150 Osprey St.	Lakeport
70	Pole		610 Yellow Hammer Ln.	Lakeport
71	Pole		6805 Kelsey Creek Rd.	Kelseyville
72	Pole		7296 Wight Way	Kelseyville
73	Pole		7460 Kelsey Creek Rd.	Kelseyville
74	Pole	120044022	9935 Lake St.	Lower Lake
75	Pole	120122744	1 Pole S/O 9985 Lake St.	Lower Lake
76	Pole	120122743	9840 Lake St.	Lower Lake
77	Pole	120103154	9775 Lake St.	Lower Lake
78	Pole	110385199	9725 Lake St.	Lower Lake

#### 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 at Location 3 at the intersection of Baechtel Rd. and S Main St., Willits had damaged visibility strips.

The poles at the following locations had a damaged crossarm:

- Location 10 at 180 Baechtel Rd., Willits
- Location 52 at 1172 Mellor Dr., Lakeport

The poles at the following locations were damaged:

- Location 1 at 5200 Branscomb Rd., Laytonville had cracking and woodpecker damage at the top half of the pole.
- Location 7 at the intersection of Baechtel Rd. and S Main St., Willits had cracking and a hole at the top of the pole.
- Location 11 on Willow Ln., Willits had wood pecker holes.

The poles at the following locations had vegetation contact at or above the anchor guy insulator:

- Location 10 at 180 Baechtel Rd., Willits
- Location 20 at 18200 Walker Rd., Willits
- Location 49 at 6691 N State St., Redwood Valley

The pole at Location 39 at 226 Vichy Springs Rd., Ukiah had a broken primary insulator pin.

##### 2. 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 poles at the following locations had a missing or damaged High Voltage sign:

- Locations 3, 4, and 6 at the intersection of Baechtel Rd. and S Main St., Willits
- Location 39 at 226 Vichy Springs Rd., Ukiah
- Location 72 at 7296 Wight Way, Kelseyville

**3. GO 95, Rule 56.9, 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.”*

The pole at Location 10 at 180 Baechtel Rd., Willits had a damaged guy marker.

**4. GO 128, Rule 12.2, Maintenance states in part:**

*“Systems shall be maintained in such condition as to secure safety to workmen and the public in general. Systems and portions thereof constructed, reconstructed, or replaced on or after the effective date of these rules shall be kept in conformity with the requirement of these rules.”*

The junction box, J-0102, at Location 30 at 3322 Hamby Ford Rd., Ukiah had damaged visibility strips, broken fault indicators, and vegetation obstruction.

The padmount transformer, T-979, at Location 57 at 1046 Adams St., Lakeport had damaged silicone tape on a primary 12 kV cable.