



Electric Safety Report

2010/11

CALIFORNIA PUBLIC UTILITIES COMMISSION / CONSUMER PROTECTION AND SAFETY DIVISION /
UTILITIES SAFETY AND RELIABILITY BRANCH



2010/11 Electric Safety Report



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Executive Summary

This report presents an account of the activities carried out under the California Public Utilities Commission’s (CPUC’s) electric and communication infrastructure provider (CIP) safety programs for the 2010 and 2011 calendar years. The CPUC has been entrusted with the safety jurisdiction over the facilities covered by its programs through legislative mandates. The CPUC is responsible for enforcing state safety regulations, inspecting all work affected by state statutes, and making the regulatory changes necessary to secure the safety of utility workers and the general public.

1. Overview of the CPUC’s Electric Safety Programs

The Utilities Safety and Reliability Branch (USRB) of CPUC’s Consumer Protection and Safety Division (CPSD) is responsible for administering the CPUC’s electric and CIP safety programs. USRB works to ensure that utility facilities are designed, constructed, operated and maintained to provide safe and reliable service to the public. To do this, USRB:

- Audits utility records and inspects utility facilities
- Investigates incidents involving utility facilities
- Responds to safety and reliability complaints from the public
- Helps develop regulations to improve utility safety and reliability
- Works on special projects intended to improve utility safety and reliability

USRB’s activities are driven primarily by the regulations in GO 95 (Overhead Electric Facilities), GO 128 (Underground Electric Facilities), and GO 165 (Utility inspection and reporting requirements). Investor-owned electric utilities, publicly owned utilities, and CIPs fall under the jurisdiction of the commission and these General Orders.

In addition to the GOs listed above, USRB also administers segments of the California Public Utilities (PU) Code pertaining to electric safety.

USRB is divided into two units based on geographic location. Utilities based in Northern California are mainly overseen by USRB’s Northern Unit which has offices in San Francisco and Sacramento. Utilities based in Southern California are overseen by USRB’s Southern Unit which has an office in Los Angeles. County lines determine the actual geographic areas overseen by the two units, as shown below in Table 1.

	USRB Unit Jurisdiction	
	Northern CA Unit	Southern CA Unit
Counties	Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Kern, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba.	Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Tulare, and Ventura.

Table 1. Geographical areas overseen by USRB, by North and South Unit

2. Electric Program Summary

A. Size and Characteristics of the California Electric System

California has one of the largest electric and communications systems in the United States, serving nearly 12 million customers. There are over 4 million utility poles in California in addition to over 700,000 underground enclosures and surface mounted structures. The equipment installed on and in these facilities supports close to 300,000 miles of overhead and underground cable. Tables 2 and 3 and Figure 1 illustrate California’s electric system as of December 2011.

Utility Company	Overhead Transmission Lines (miles)	Overhead Distribution Lines (miles)	Total Overhead Lines (miles)	Number of Poles
PG&E	18,015	133,525	151,540	2,203,062
SCE	11,942	52,000	63,942	1,500,000
SDG&E	1,700	6,656	8,356	217,135
PacifiCorp.	729	2,356	3,085	65,728
Liberty Utilities	344	1,060	1,404	27,352
Total	32,730	195,597	228,327	4,013,277

Table 2. Summary of Overhead Electric Facilities in California

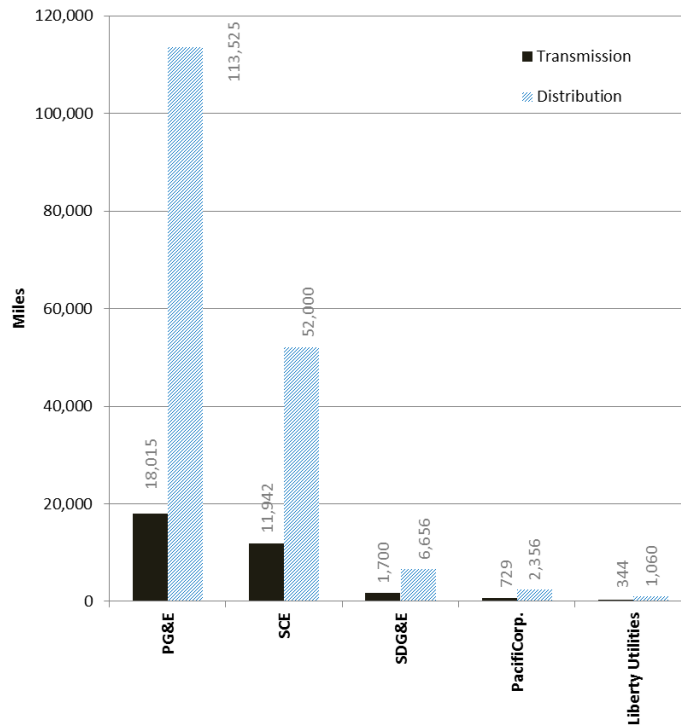


Figure 1. Length of Electric Transmission and Distribution Overhead Lines, by Utility

Utility Company	Undergnd Transmission Lines (miles)	Undergnd Distribution Lines (miles)	Total Undergnd Lines (miles)	Surface Mounted Structures	Undergnd Structures
PG&E	171	27,896	28,067	143,877	214,248
SCE	336	36,000	36,336	172,457	23,987
SDG&E	114	10,213	10,327	114,579	45,078
PacifiCorp.	0	610	610	6,851	376
Liberty Utilities	1	439	440	3,297	7,806
Total	622	75,158	75,780	441,061	291,495

Table 3. Summary of Underground Electric Facilities in California

B. Electric Audits

USRB engineers conduct combined Audits of overhead and underground electric lines for compliance with the Public Utilities Code, Commission Decisions, and GOs 95, 128, and 165. During USRB Audits, USRB engineers survey electric facilities and perform a document review of pertinent utility maintenance records over a three to four day period. The record review is validated by spot checks in the field. Engineers document each violation discovered during the inspection and discuss them with the appropriate utility personnel, a procedure which expedites the violation correction process. Electric Audits are conducted to ensure that the utility is following all pertinent Commission rules and regulations to keep the grid and facilities safe. Table 4 summarizes the Electric Audits and infractions cited by USRB engineers in 2010 and 2011.

Utility	Audits	Violations
PG&E	11	33,273
SCE	12	9,970
SDG&E	1	6
Munis / Others	19	950
Total	43	44,199

Table 4. Summary of Inspections and Infractions in 2010 and 2011

C. Electric Incidents

USRB engineers receive and investigate reportable electric incidents from regulated utility companies. Reportable incidents are those which (a) result in fatality or personal injury rising to the level of in-patient hospitalization, (b) result in property damage of \$50,000 or more, or (c) are the subject of significant public attention or media coverage.

Utilities reported a total of 93 electric incidents in 2010. Of these, 70 were related to overhead equipment, and 23 involved underground equipment. In 2011, a total of 127 electrical incidents were reported; 90 were related to overhead equipment and 37 which were associated with underground structures. Section III of this report contains a detailed breakdown of incidents by type.

D. Special Electric Projects

In addition to the regular activities described above, USRB was active in the following special projects in 2010 and 2011:

- Substation General Order – continued to work with utilities to develop the substation General Order.
- San Bernardino Incident Investigation – this investigation looks into the incident involving downed Southern California Edison conductors and three (3) fatalities.
- Southern California Wind Storm Investigation – this report will investigate the cause of the outages, SCE's communication with customers during and after the incident, SCE's restoration efforts and its preservation of evidence. Additionally, this report makes recommendations for improvements in SCE's system.
- Pacific Gas and Electric's (PG&E's) North Valley Division Whistleblower Investigation – USRB staff conducted a non-routine audit and also investigated four (4) allegations of unsafe hazards within PG&E's territory.

3. General Public Complaints and Inquiries

USRB also responds to safety related complaints and inquiries from the general public in all of the areas under USRB's jurisdiction. There were 83 customer complaints and inquiries in 2010 and 82 in 2011. Section IV of this report contains a summary of the complaints and inquiries by type.

Introduction

Purpose of Report and Organization

This Annual Report provides general information about Utilities Safety and Reliability Branch (USRB) activities and summarizes the progress of its safety programs during the 2010 and 2011 calendar years.

The CPUC monitors the safety of investor-owned electric utilities and communication infrastructure providers under General Orders (GOs) 95, 128, and 165, which contain rules for electric supply and communication facility design, construction, maintenance, and safety.

The mission of USRB is to conduct effective oversight of the safety and reliability of California's electric and telecommunications infrastructure. By enforcing CPUC safety and reliability regulations on jurisdictional electric and communication entities, USRB attempts to secure utility operational safety and reliability for the protection of the public and the utility employees.

Section I of this report provides a description of USRB's electric supply and communication safety inspections, reports, and programs. Section II lists the utilities operating in California by type. Section III provides statistical data regarding electric systems, inspection results, and electric incidents reported and investigated. Section IV summarizes general public complaints and inquiries received and addressed by USRB.

Section I: Electric Safety Inspections, Reports, and Programs

1. General Orders 95, 128 and 165

As part of its electric program, USRB administers and enforces GOs 95, 128 and 165 on behalf of the CPUC. These GOs govern the construction, maintenance and inspection of electrical facilities owned by investor-owned utilities (IOUs), Municipal Utilities (Municipalities/Munis), Cooperatives (Co-Ops), and communication facilities owned by Communication Infrastructure Providers (CIPs). The CPUC is directly responsible for administering and implementing revisions of and amendments to these GOs through its formal rulemaking processes.

GO 95, adopted by the CPUC on July 1, 1942, formulates uniform requirements for overhead electrical line construction. Facilities covered by GO 95 include utility poles, the communication and power conductors attached to those poles, and the ancillary communication and power support equipment installed on those poles. Amendments to GO 95 in 2009 broaden its scope to include requirements for non-power utility inspections.

GO 128, adopted by the CPUC on December 12, 1967, establishes the construction requirements for underground electric facilities. Facilities covered by GO 128 include underground and pad mounted electrical enclosures and equipment.

GO 165, adopted by the CPUC on March 31, 1997, applies to five major investor-owned electric distribution utilities and requires them to inspect their lines and equipment based on outlined time intervals. GO 165 also establishes the record keeping and reporting requirements for those inspections. Decision (D.) 98-03-036, issued March 12, 1998 by the CPUC, extended the requirements of GO 165 to Munis and Co-Ops.

USRB regularly audits and inspects electrical facilities for compliance with these GOs. USRB also investigates incidents which may involve violations of these GOs. Additionally, USRB staff participates

in Commission projects or proceedings involving these regulations.

2. Description of a Typical Electric Audit

USRB normally conducts audits of electric utilities or, in the case of large utilities, their operational units every three or four years. USRB may increase the frequency of these audits if it finds any significant problems within a utility or utility unit. This frequency is adjusted depending on the severity of the problems discovered. Once the problems are remedied to the satisfaction of USRB, staff returns the electric utility or unit to its normal inspection cycle. A typical audit lasts three to five days, depending on the utility or unit and its size.

The goal of an USRB electric audit is to ensure that an electric utility is following the construction, maintenance and inspection requirements outlined in GOs 95, 128 and 165. To do this, USRB engineers review utility records and perform field inspections of utility facilities.

As part of the records review, USRB engineers examine facility inspection logs to check if the utility is compliant with the inspection cycles outlined in GO 165. While checking for inspection cycle compliance, the engineer is also scanning those logs for any anomalous findings. If an engineer finds something of interest on those records, he or she may look into that record in more detail by requesting additional paperwork or explanation from the utility. While reviewing records, the engineer is also choosing recently inspected locations, recent repairs and pending work for field verification.

The field inspection focuses on verifying the records looked at during the records review and on performing quality assurance on the work done by utility employees.

The engineer does this by ensuring:

- 1) Utilities are documenting or correcting all problems during their inspections.
- 2) Problems found during their inspections are correctly prioritized.
- 3) Repairs made by the utility are satisfactory.

Throughout both parts of the audit, the engineer is also taking note of any systemic problems in the utility's compliance procedures.

Within 30 days of the audit, the USRB engineers compile their findings into an audit summary that they send to the utility. The summary includes all violations noted during the audit and an explanation of why the USRB considers each violation valid. The letter may also suggest changes in utility procedures in order to improve the safety and reliability of their electric systems. Utilities typically are given 30 days to respond to the audit summary with a plan to correct all noted violations.

3. Communication Infrastructure Provider Audits

USRB audits CIPs separately from electric utilities. Unlike electric utilities, CIPs are not bound by the inspection requirements outlined in GO 165. Prior to 2009, CIP inspection procedures were instead largely based on GO 95 Rules 31.1 and 31.2 and GO 128 Rules 17.1 and 17.2. These rules required CIPs to inspect their facilities, but did not specify any time intervals for those inspections. On August 20, 2009, CPUC adopted D.09-08-029 which required CIPs to conduct visual inspections of their facilities in high and very high fire threat zones in Southern California by September 2010. D.09-08-029 additionally amended GO 95 to include Rule 18. Rule 18 in part requires CIPs to create a maintenance plan to correct problems discovered on their systems.

As of the end of 2011, some CIPs are still developing their maintenance procedures, most of which are significantly different than the power utility procedures. As a result, the logistics of a CIP audit differ slightly from the electric audits, mainly because the engineer is looking at a different set of paper records and at different types of facilities. The engineer, however, is still looking for fundamentally the same things during a CIP audit as they are during an electric audit. During a CIP audit, the USRB engineer continues to check records, verify

them in the field, and look for systemic procedural problems.

USRB determines CIP audit cycles based on the severity of non-compliance issues found within a CIP. CIP audits typically last for two to three days.

4. Incident Reporting and Investigation

In addition to conducting audits, USRB engineers, on behalf of the CPUC, conduct investigations of reportable incidents disclosed by the utilities. This authority is granted to CPUC by Section 315 of the PU Code, which requires the CPUC to "investigate the cause of accidents occurring upon the property of any utility, or arising from or relating to the maintenance or operation of the utility's system."

Reportable electric incidents are defined in Appendix B to CPUC Resolution E-4184 as those which meet any of the following criteria:

- (a) Involves a fatality or personal injury rising to the level of in-patient hospitalization.
or
- (b) Results in property damage of \$50,000 or more.
or
- (c) Is the subject of significant public attention or media coverage.

USRB staff investigates all reportable incidents. An investigation by USRB staff may include, but are not limited to, a visit to the incident site, written data requests to utilities, and interviews of utility representatives and witnesses to the incident.

5. Consumer Complaints

USRB engineers also respond to safety related consumer complaints sent to the CPUC pertaining to GOs 95, 128, and 165. These complaints are generally handled informally through phone calls or correspondence between the consumer, USRB engineers, and the utility. However, if a complaint is considered significant to USRB, USRB engineers may conduct a formal, full-scale investigation into that complaint.

6. Current Special Projects

A. Substation GO

The Commission established the rulemaking on substation inspections (R10-09-001) on September 2, 2010. The assigned Administrative Law Judge (ALJ) ordered the utilities to submit information on their substation inspection programs on January 21, 2011. On March 30, 2011, the ALJ directed parties to file opening briefs that included a discussion of the Commission's jurisdiction over publically owned utility substation inspection programs. On May 9, 2011, the ALJ held a status conference with all parties involved in the rulemaking.

The rulemaking will continue with a decision anticipated in 2012.

B. San Bernardino Incident Investigation (Incident EIR20110114-01)

On January 14, 2011, two (2) SCE 12 kV overhead conductors on the Vargas Circuit came into contact or near contact with each other causing conductors to fall to the ground and start a small fire. Three (3) residents at the incident site were electrocuted when they went near the downed conductors in efforts to put out the fire.

USRB staff conducted a field investigation and interviewed witnesses on scene. USRB will continue investigating the incident and plans to publish a preliminary investigation report by December 2012.

C. Southern California Wind Storm Event

On November 30, 2011 and December 1, 2011, powerful winds swept through Southern California Edison Company's (SCE) territory knocking down utility facilities, uprooting trees, and causing prolonged power outages. Two-hundred forty-eight wood poles and 1,064 overhead conductors were affected. The highest number of simultaneous customer outages was 226,053. USRB staff found that SCE failed to preserve evidence for examination. Of the sections of failed poles preserved, staff examined the pieces to determine a loss in strength due to environmental factors and confirmed safety factors provided by SCE.

USRB will continue to investigate and publish an investigative report by January 2013.

D. PG&E's North Valley Division Whistleblower Investigation

On August 29, 2011, USRB conducted a special audit of PG&E's North Valley Division after allegations of unsafe hazards were reported by an anonymous PG&E whistleblower. USRB staff focused on the electric portion of the allegations about PG&E's electric facilities.




Of the four (4) allegations about PG&E's electric facilities, two (2) were confirmed. Staff found the other allegations to be the responsibility of other parties and not PG&E's. On November 8, 2011, an investigation report was completed by USRB staff and sent to PG&E for appropriate corrective action. The report detailed all violations found by USRB staff during their audit visit.

USRB will continue to monitor the required corrections to ensure the safety of PG&E facilities.





Section II: Utility Companies




The CPUC has authority under the PU Code to adopt and enforce the requirements of GOs 95, 128, and 165 requirements on all electric and communication utilities. There are a number of investor-owned electric and communication utility companies providing service in California as well as utilities operated by municipalities and cooperatives. This section lists some of the companies that the USBR has audited in the past. This list is not intended to be a comprehensive list of all the companies in California under CPUC jurisdiction.

1. Major Electric Utilities

	<p>Pacific Gas and Electric Company (PG&E)</p> <p>Pacific Gas and Electric provides electric service to about 5.4 million customers. Its service area covers 70,000 square miles.</p>
	<p>San Diego Gas and Electric Company (SDG&E)</p> <p>San Diego Gas and Electric provides electric service to 1.4 million customers in San Diego and Orange County.</p>
	<p>Southern California Edison Company (SCE)</p> <p>SCE provides electric service to 4.9 million customers. Its service area covers 50,000 square miles.</p>

2. Other Electric Service Companies

Investor-Owned Companies			
			
Bear Valley Electric	Mountain Utilities	Liberty Utilities	PacifiCorp

Electric Cooperatives			
		Anza Electric Cooperative, Inc. <small>A Touchstone Energy® Cooperative</small>	
Surprise Valley Electrification Corp.	Plumas-Sierra Rural Electric Cooperative	Anza Electric Cooperative	Valley Electric Association

Municipalities				
				
Alameda Municipal Power	Anaheim Public Utilities	Azusa Light and Water	Banning	Biggs
				
Burbank Water and Power	Colton Public Utilities	Glendale Water & Power	Gridley	Healdsburg
				
Hercules Municipal Utility	Imperial Irrigation District	Island Energy	Lassen Municipal Utility District	Lodi
				

2. Other Electric Service Companies (continued)

Lompoc	Los Angeles DWP	Modesto Irrigation District	Needles	Northern California Power Agency
				
South Feather Water and Power	Palo Alto	Pasadena	Redding Electric Utility	Riverside
				
Roseville	Sacramento Municipal Utility District	Silicon Valley Power	Shasta Lake	Southern California Public Power Authority
				
Moreno Valley	Trinity County	Truckee Donner Public Utility District	Turlock Irrigation District	Ukiah
				
Vernon	Victorville			

3. Communication Infrastructure Providers

				
Astound	AT&T	Charter Communications	Comcast	Cox Communications
				
MetroPCS	Surewest	Time Warner	Verizon	

Section III: Electric Statistics

This section describes the California electric system, summarizes USBR inspection results for 2010 and 2011, and discusses electric incidents.

1. Size and Character of the California Electric System

California has one of the largest electric and communications systems in the United States, serving over 11 million customers. There are over 4 million utility poles in California in addition to over 700,000 underground enclosures and surface mounted structures. The equipment installed on and in these facilities supports close to 300,000 miles of overhead and underground cable. Table 9 and Figure 7 summarize the characteristics of California’s overhead electric facilities. Table 10 and Figure 8 present similar data for underground facilities. Table 11 and Figure 9 summarize utility customer data.

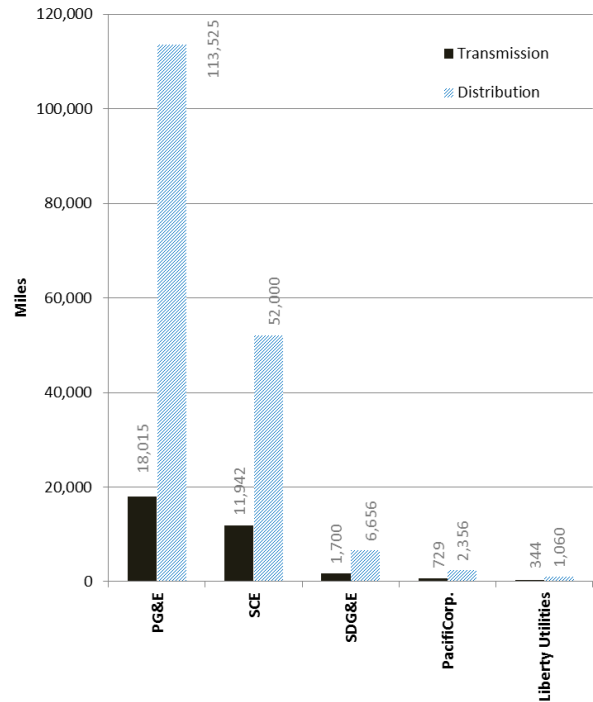


Figure 7. Length of Overhead Distribution and Transmission lines as of 2011, by Utility

A. Overhead Facilities in California

Utility Company	Overhead Transmission Lines (miles)	Overhead Distribution Lines (miles)	Total OH Lines (miles)	Number of Poles
PG&E	18,015	113,525	131,540	2,203,362
SCE	11,942	52,000	63,942	1,500,000
SDG&E	1,700	6,656	8,356	217,135
PacifiCorp.	729	2,356	3,085	65,728
Liberty Utilities	344	1,060	1,404	27,352
Total	32,730	175,597	208,327	4,013,577

Table 9. Summary of Utility Overhead Facilities as of 2011, by Utility

B. Underground Facilities in California

Utility Company	Undergnd Trans. Lines (miles)	Undergnd Dist. Lines (miles)	Total UG Lines (miles)	Surface Mounted Structures	Undergnd Structures
PG&E	171	27,896	28,067	143,877	214,248
SCE	336	36,000	36,336	172,457	23,987
SDG&E	114	10,213	10,327	114,579	45,078
PacifiCorp	0	610	610	6,851	376
Liberty Utilities	1	440	441	3,297	7,806
Total	622	79,338	79,937	441,061	291,495

Table 10. Underground Electric Facilities as of 2011, by Utility

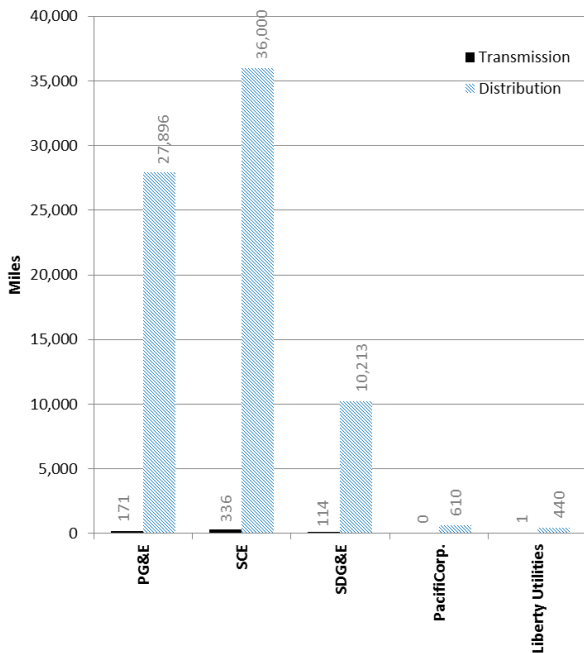


Figure 8. Length of Underground Transmission and Distribution lines as of 2011, by Utility

C. Customer Data

Utility Company	Number of Customers
PG&E	5,411,331
SCE	4,900,000
SDG&E	1,394,078
PacifiCorp.	44,993
Liberty Utilities	49,047
Total	11,799,449

Table 11. Customer Data for Major Electric Utilities in 2009

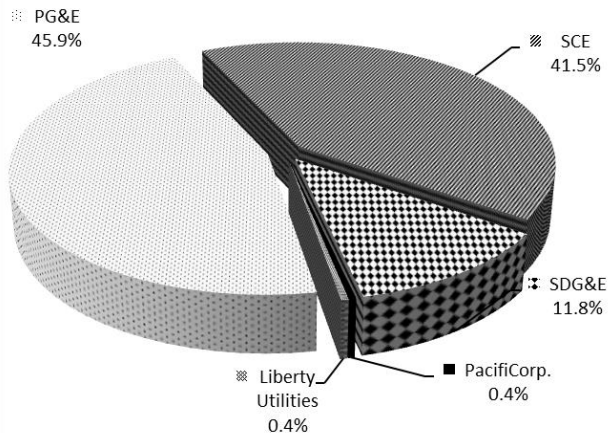


Figure 9. Comparison of Total Electric Customers in 2009, by Utility

2. Electric Inspection Statistics

USRB is divided into two units. Each unit was assigned specific counties in which to conduct Electric (GO 165, 95 and 128) inspections in California. Below is a listing of the counties each unit is responsible for:

Northern Unit: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kings, Kern, Lake, Lassen, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Placer, Plumas, Sacramento, San Benito, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Yolo, and Yuba.

Southern Unit: Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, Tulare, and Ventura.

Section 1, Subsections 2 and 3 contain a description of a typical electric and CIP audit. Tables 12 and 13 summarize the electric power and communication inspections performed by USRB engineers in 2010 and 2011.

Utility	Inspections	Infractions		
		GO 165	GO 95 (overhead)	GO 128 (underground)
PG&E	11	2,230	31,021	22
SCE	12	9,672	285	13
SDG&E	1	-	6	-
Munis / Others	19	88	764	98
Total	43	11,990	32,076	133

Table 12. USRB Electric Power Inspections and Infractions in 2010 and 2011, by Utility

Communication Provider	Inspections
AT&T	1
Charter Communications	2
Comcast	1
Cox Communications	1
Time Warner	1
Surewest	1
Astound	1
Verizon	2
T-Mobile	1
Leap's Cricket Communications	1
Volcano Telephone Company	1
TDS Telecom	1
ExteNet	1
Total	15

Table 13. USRB Communication Inspections in 2010 and 2011, by Provider

3. Electric Incident Statistics

USRB engineers receive and investigate reports of electric incidents from regulated utility companies. CPUC Resolution E-4184 defines reportable incidents as those which are attributable or allegedly attributable to utility owned facilities and:

- 1) Result in a fatality or personal injury rising to the level of in-patient hospitalization.
or
- 2) Cause over \$50,000 in damage.
or
- 3) Become the subject of significant public attention or media coverage.

The CPUC requires electric utilities to provide notice of reportable electric incidents to USRB within two hours during working hours or four hours during non-working hours. The notice must identify the time and date of the incident, the location of the incident, identification of casualties and property damage, and the name and telephone number of a utility contact person.

USRB maintains an incident database which tracks electric incidents by cause, location, date, and utility.

Table 14 and Figure 10 show an overview of overhead incidents by cause. Table 15 and Figure 11 show similar data for underground incidents. The majority of overhead incidents were attributed to causes categorized as "Other". The leading cause of underground incidents was cable failure.

A. Incidents Involving Overhead Equipment

Cause	Count	Fatalities	Injuries
Aircraft	5	2	0
Animal	3	0	1
Crane	2	1	1
Fire	5	0	0
Falling Tree	7	0	0
Fire	4	2	0
Irrigation Pipe	5	1	1
Line Failure	10	1	2
Metal Object	11	2	4
Natural Cause	22	2	8
Other	28	2	5
Overhead Splice Failure	5	0	0
Transformer Malfunction	3	0	0
Tree Trimmer	10	1	8
Tree/Line Contact	1	0	0
Unknown	7	0	0
Vehicle	14	4	1
Working Overhead	12	1	11
Total	154	19	42

Table 14. Reported Electric Overhead Incidents with Injuries and Fatalities in 2010 and 2011

B. Incidents Involving Underground Equipment

Cause	Count	Fatalities	Injuries
Dig-in	8	0	0
Switch Malfunction	8	0	3
Underground Cable Failure	15	0	0
Underground Splice Failure	13	0	1
Underground Transformer Failure	4	0	2
Working Underground	4	1	1
Total	52	1	7

Table 15. Reported Electric Underground Incidents with Injuries and Fatalities in 2010 and 2011, by Cause

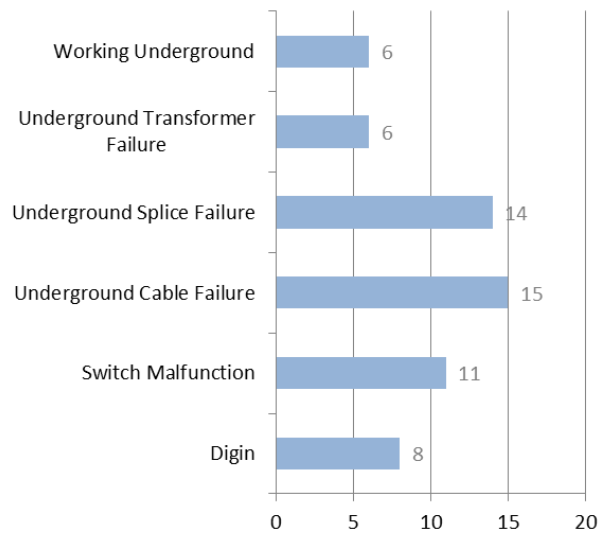


Figure 11. Number of Reported Electric Underground Incidents in 2010 and 2011, by Cause

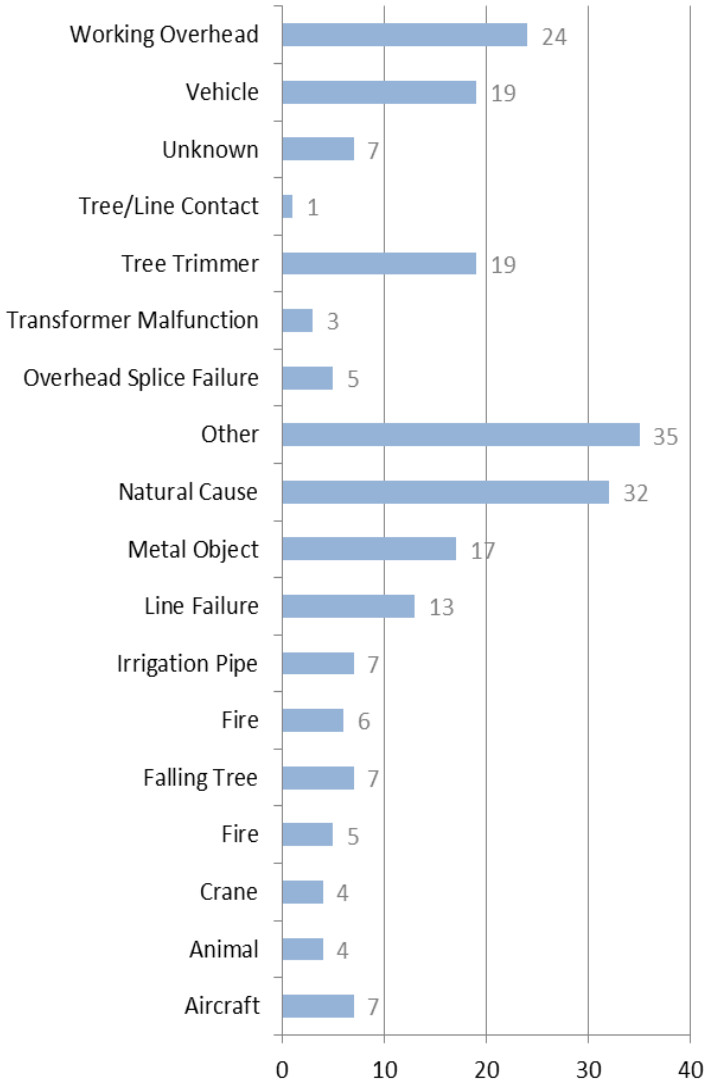


Figure 10. Number of Reported Electric Overhead Incidents in 2010 and 2011, by Cause

Section IV: Public Complaints and Inquiries

USRB responsibilities include recording, analyzing, and resolving complaints and inquiries received from the general public for those areas under USRB jurisdiction. Table 16 provides a summary of inquiries and complaints to USRB in 2010 and 2011. Figure 12 provides a percentage comparison for 2010 and 2011.

The reasons behind customer complaints and inquiries to USRB vary greatly from each instance. Examples of safety complaints that may be forwarded to USRB engineers include consumer concerns about utility pole location or condition, vegetation issues around power lines, etc. USRB also field investigates some service complaints from utility employees.

Inquiries to USRB engineers generally involve questions regarding the rules and regulations that they administer. Individuals involved in construction projects may call USRB for clarification on the clearance requirements for their building relative to overhead lines.

USRB engineers make an effort, through investigation and necessary fieldwork, to resolve all complaints and inquiries adequately. USRB occasionally receives complaints and inquiries that are often not within USRB jurisdiction to resolve. In these cases, USRB engineers will attempt to forward the complaint to the appropriate group or agency.

Category	Complaints and Inquiries
Electric	104
Telephone	35
Cable	18
Multiple Utilities	8
Total	165

Table 16. USRB Public Complaints and Inquiries in 2010 and 2011, by Industry

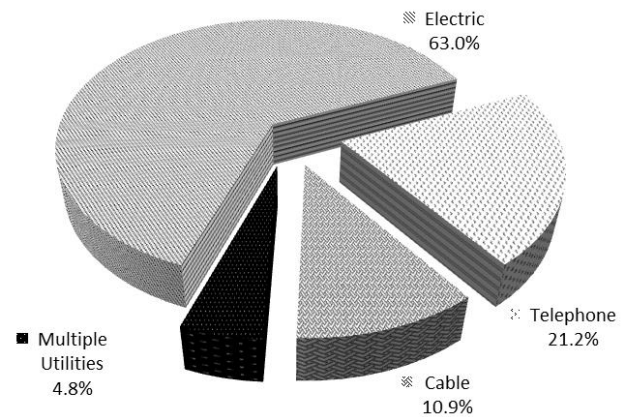


Figure 12. Complaint/Inquiry by Percentage of Total in 2010