
**SENATE COMMITTEE ON ENERGY, UTILITIES AND
COMMUNICATIONS**

Senator Ben Hueso, Chair

2019 - 2020 Regular

Bill No:	SB 548	Hearing Date:	4/2/2019
Author:	Hill		
Version:	2/22/2019	As Introduced	
Urgency:	No	Fiscal:	Yes
Consultant:	Sarah Smith		

SUBJECT: Electricity: transmission facilities: inspection

DIGEST: This bill requires the California Public Utilities Commission (CPUC) to establish a schedule for electrical corporations to conduct transmission facility inspections.

ANALYSIS:

Existing law:

- 1) Requires the CPUC to establish rules for a public utility and revise those requirements through an order or rule whenever the CPUC, after a hearing, finds that existing rules, practices, equipment, appliances, facilities or service of any public utility or manufacturing, distribution, transmission, storage or supply methods employed by the public utility are unjust, unreasonable, unsafe, improper, inadequate, or insufficient. (Public Utilities Code §761)
- 2) Requires the CPUC to adopt inspection, maintenance, repair, and replacement standards and must consider adopting rules to address the physical security risks to the distribution systems of electrical corporations. The standards or rules must be prescriptive and/or performance based and may be based on risk management, for each type of distribution equipment or facility. The standards or rules must provide for high-quality, safe, and reliable service. When setting these standards or rules, the CPUC shall consider the following: cost, local geography and weather, applicable codes, potential physical security risks, national electric industry practices, sound engineering judgment, and experience. The CPUC shall also adopt standards for operation, reliability, and safety during periods of emergency and disaster. (Public Utilities Code §364)
- 3) Requires the California Independent System Operator (CAISO) to adopt inspection, maintenance, repair, and replacement standards for transmission facilities under its control. In adopting these standards, the CAISO must consider cost, local geography, weather, applicable codes, national electric

industry practices, sound engineering judgement, and experience. The CAISO must also require each transmission facility owner or operator to report annually on its compliance with the standard, and that report must be available to the public. (Public Utilities Code §348)

This bill requires the CPUC to establish a schedule for electrical corporations to conduct transmission facility inspections. This schedule may be adopted through a new order or revisions to an existing order.

Background

Transmission vs. Distribution. Generally, electricity is created at generation facilities across the state. Transformers at substations either step power up to a higher voltage for transmission or a lower voltage for distribution. Transmission lines generally carry electricity for longer distances at higher voltages. Distribution lines generally carry power locally at a lower voltage. Both transmission and distribution facilities have safety risks that must be mitigated. While the higher voltage of transmission lines and their role in transporting energy over long distances through challenging terrain can pose special safety management challenges, electrical corporations typically own and maintain more distribution lines than transmission lines. For example, Pacific Gas and Electric (PG&E) is responsible for 106,681 circuit miles of distribution lines and 18,466 circuit miles of transmission lines.

Transmission Facility Safety: Who's on first? Under existing law, the CPUC is required to develop inspection, maintenance, repair, and replacement standards for electrical corporations' distribution facilities. Existing law also requires the CAISO to adopt inspection, maintenance, repair, and replacement standards for transmission facilities under its control. However, the CAISO's role in transmission maintenance is largely focused on ensuring reliability; the statute establishing its authority (AB 1890, Brulte, Chapter 854, Statutes of 1996) states that the CAISO's authority to adopt transmission maintenance standards is intended to reduce the potential for outages and encourage participation in the operation of the CAISO. The CAISO's transmission maintenance program consists of the following:

- **Availability Measures:** measures that track the availability of utility transmission facilities over time.
- **Utility-Specific Maintenance Practices:** utilities submit plans to the CAISO, and the CAISO reviews them to ensure that they are consistent with federal reliability standards and good utility practice.
- **Maintenance Activity Review:** the CAISO conducts a review of each utility's performance activities, including a review of a sample of the

utility's maintenance records and physical site inspections of a subset of that sample.

While the CAISO's transmission maintenance role primarily emphasizes reliability, the CPUC has broader statutory authority to establish utility safety requirements. The CPUC has more strict regulatory authority over public utilities, and existing law requires the CPUC to establish requirements for public utilities and revise those requirements whenever it determines that existing rules and practices are unjust, unreasonable, unsafe, improper, inadequate, or insufficient. The CPUC's authority to regulate public utilities extends beyond state law; existing federal law (47 United States Code §§224 and 253) affirm the CPUC's authority to regulate poles, ducts, conduits and rights of way as well as the CPUC's authority to adopt regulations to protect public safety and welfare. State legislation has added additional specification to CPUC's utility safety role, including requirements for wildfire mitigation. This bill further specifies that CPUC's regulatory duties must include establishing a schedule for electrical corporation transmission inspection.

CPUC General Order (GO) 165. The CPUC first established transmission and distribution inspection requirements by adopting GO 165 in 1997 through a commission decision (D. 97-03-070). Since the establishment of the initial requirements, the CPUC has revised GO 165 twice. The most recent revision occurred in 2012, when the CPUC revised the inspection requirements in response to findings that the 2007 Witch, Rice, and Guejito fires in San Diego were caused by a combination of electric utility and telecommunications lines. In its 2012 revisions to GO 165, the CPUC expanded distribution infrastructure maintenance requirements, including establishing reporting requirements and minimum timeframes for inspecting all distribution equipment. However, these amendments to GO 165 did not extend these minimum inspection timeline requirements to transmission infrastructure. Instead, GO 165 required electrical corporations to prepare and follow procedures for transmission facility maintenance and inspection.

Catastrophic wildfires of 2017 and 2018. In the past two years, California has experienced several of its largest and most destructive wildfires in the state's modern history. Utility infrastructure has been the ignition point for a number of these fires. The Thomas Fire in Ventura and Santa Barbara Counties burned over 281,000 acres, destroying over 1,000 buildings and killing two people. The Thomas Fire also indirectly resulted in the deaths of 21 people who died in a debris flow created by heavy rains fell on the area burned by the fire. CalFire reports indicated that utility infrastructure was associated with the ignition of the Thomas Fire. Reports by the California Department of Fire and Forestry Protection (CalFire) also indicated that at least 18 of the 170 fires that formed the 2017 North

Bay Fire Sieges were caused by Pacific, Gas & Electric (PG&E) equipment. However, CalFire reports indicate that the deadliest of the North Bay fires, the Tubbs Fire, was caused by a private electrical system, which was not attributed to PG&E.

While California's 2017 fire season was historically destructive, the state's 2018 fire season was even larger and more destructive. The Woolsey Fire in Los Angeles and Ventura counties resulted in the destruction of 1500 structures, and three deaths. The Camp Fire in Butte County became the deadliest fire in the state's history, destroying over 18,800 buildings and killing 85 people. The Mendocino Complex fire, the largest fire in California history, crossed into four counties, destroyed 280 buildings, and killed one firefighter. These fires are still under investigation, and CalFire has not determined causes of ignition.

Several investigative reports have indicated that PG&E may have delayed repairs to its Caribou-Palermo transmission line, which runs in the North Valley area of PG&E territory. Upgrades to the line have been noted in CPUC and CAISO documents since 2010; however, some of these improvements may have been part of a long-term reliability upgrade plan known as the South of Palermo Reinforcement Project.

Reports on potential delayed repairs to PG&E infrastructure also indicate that a timeline for inspections may be warranted. The CAISO's transmission upgrade observations are largely focused on the need to prevent outages, and reports indicate that CPUC responded to questions from investigative journalists about transmission upgrade delays by noting that an inspection time frame for transmission infrastructure is not required by law. This bill would require the CPUC to adopt, through a new or existing order, a timeline for electrical corporations to conduct transmission facility inspections. This requirement is consistent with CPUC's role as a regulator with broad authority to establish safety requirements for utilities and it requires the CPUC to exercise that role for transmission inspections.

Prior/Related Legislation

SB 247 (Dodd, 2019) requires CalFire to generate and maintain a "trim list", then audit the compliance of the utilities to that trim list. The bill also requires the CPUC to establish a two-way balancing account for each electrical corporation for all costs incurred by the corporation for vegetation management. The bill is pending in the Senate Committee on Energy, Utilities and Communications.

SB 291 (Hill, Chapter 601, Statutes of 2013) required the CPUC to develop and implement a safety enforcement program for gas and electrical corporations by July 1, 2014, and January 1, 2015, respectively.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: Yes

SUPPORT:

Sierra Club California

OPPOSITION:

None received

ARGUMENTS IN SUPPORT: According to the author:

“SB 548 requires the CPUC to establish minimum timelines for electric transmission inspections. The CPUC adopted minimum timelines for distribution facility inspections in 2012, but did not extend these timelines to transmission facility inspections. As a result, utilities carry out transmission facility inspections when they deem necessary.

Recent news reports signal utilities may go too long between inspections or overlook key equipment failures due to limitations of aerial patrols. The Camp Fire in Paradise last year points to this possibility. A faulty connector hook on a transmission tower is suspected to have led to the blaze. Previous aerial inspections of the tower failed to identify this risk. SB 548 simply requires baseline standards for transmission facility inspections to be established, in order to help identify these risks sooner.”

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