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THIRD READING

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Bill No: SB 1003  
Author: Dodd (D)  
Amended: 3/21/24  
Vote: 21

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SENATE ENERGY, U. & C. COMMITTEE: 17-0, 3/19/24

AYES: Bradford, Dahle, Ashby, Becker, Caballero, Dodd, Durazo, Eggman,  
Gonzalez, Grove, Limón, Min, Newman, Rubio, Skinner, Stern, Wilk

NO VOTE RECORDED: Seyarto

SENATE APPROPRIATIONS COMMITTEE: 7-0, 5/16/24

AYES: Caballero, Jones, Ashby, Becker, Bradford, Seyarto, Wahab

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**SUBJECT:** Electrical corporations: wildfire mitigation plans

**SOURCE:** The Utility Reform Network

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**DIGEST:** This bill requires electrical corporations to take into account both the amount of wildfire risk reduction for the cost-effectiveness and time value of the proposed mitigation measure within the utility's wildfire mitigation plan.

**ANALYSIS:**

Existing law:

- 1) Establishes and vests the California Public Utilities Commission (CPUC) with regulatory authority over public utilities, including electrical corporations.  
(Article XII of the California Constitution)
- 2) Establishes the Office of Energy Infrastructure Safety (OEIS) within the Natural Resources Agency which, as of July 1, 2021, houses the Wildfire Safety Division (WSD) to review the wildfire mitigation plans (WMPs) of electrical corporations and oversee and enforce electrical corporations' compliance with wildfire safety. Requires the OEIS to adopt guidelines setting forth the

requirements, format, timing, and any other matters required to exercise its powers, perform its duties, and meet its responsibilities. (Government Code §§15740 *et seq.* and 15475.6, Public Utilities Code §§326 and 8385)

- 3) Requires electrical corporations to construct, maintain, and operate their electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment. (Public Utilities Code §8386(a))
- 4) Requires electrical corporations to annually prepare and submit their WMP to the OEIS for review and approval. Requires the WMPs to include a description of preventive strategies and programs to minimize the risk of catastrophic wildfire, including consideration of dynamic climate change risk, a description of the metrics used to evaluate the plan's performance and underlying assumptions for the use of those metrics, and a list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the electrical corporation's service territory. (Public Utilities Code §8386(b))
- 5) Requires the CPUC to establish an expedited utility distribution infrastructure undergrounding program, and authorizes only those electrical corporations with 250,000 or more customer accounts within the state to participate in the program. Provides these electrical corporations to submit a 10-year plan for undergrounding electrical distribution lines that includes cost comparisons to above ground hardening options, among its many requirements. (Public Utilities Code §8388.5)

This bill:

- 1) Makes several findings and declarations related to: wildfire risks posed by infrastructure owned by electrical corporations, wildfire mitigation as a cost driver on electric utility bills, and the need to account for time value and cost-effectiveness in relation to wildfire mitigation measures.
- 2) Requires electrical corporations to take into account both the need to minimize risks of its electrical lines and equipment causing catastrophic wildfires as soon as possible and the amount of risk addressed for the cost of the proposed mitigation.
- 3) Revises the requirements of the WMP to, among other things:

- a) Requires the preventative strategies and programs to also include consideration of the cost effectiveness calculated consistent with the CPUC's requirements and the relative reduction of exposure to wildfire risk caused by variations in implementation timelines for the preventive strategies and programs.
- b) Requires the description of the performance metrics to include a description of how cost-effectiveness and variations in implementation timelines for different elements of the plan are incorporated.
- c) Requires the list to also include particular risks and risk drivers associated with the speed in which wildfire risk mitigation measures can and will be deployed by the electrical corporation.
- d) Requires the presentation of certain cost-effectiveness measures adopted by the CPUC.
- e) Requires the electrical corporation, for each undergrounding location, to demonstrate that undergrounding is the most appropriate mitigation measure.

## Background

- 1) *Electric utility-related wildfires.* Wildfire represents the single most significant risk for all of California's investor-owned electric utilities (IOUs), according to the CPUC. Electrical equipment, including downed power lines, arcing, and conductor contact with trees and grass, can act as an ignition source. The risks for wildfires has increased with extended drought conditions, bark beetle infestation that has increased tree mortalities, extreme heat and high wind events, along with increased encroachment of development into forested and high-fire threat areas. In response to a number of catastrophic and deadly wildfires ignited by electric utility infrastructure, including the Camp Fire (2018), the state has passed many statutes to require electric utilities to mitigate the risk of their equipment igniting wildfires. Additionally, electric utilities shoulder the property liability costs from wildfires ignited by their equipment through the application of inverse condemnation.
- 2) *Addressing safety risks from energy utility operations.* The CPUC oversees the development of the risk framework each IOU uses as basis for analyzing their risks. The risk framework includes a Risk-Assessment and Mitigation Phase (RAMP) whereby CPUC staff scrutinize energy IOU safety-risk threat assessments along with associated proposed mitigation plans and estimated costs and spending requests. The risk reports are submitted to the CPUC on a four-year cycle basis to inform applications and approval of system-wide IOU

operating and capital spending. In addition to the RAMP filings, the Safety Model Assessment Proceeding (S-MAP) is a parallel rulemaking track at the CPUC to continually refine and improve the RAMP and its associated mandates. The S-MAP continuously updates utility risk-related requirements and provides interpretations to support California utilities' capacity building to respond to new and growing risks and makes use of the latest risk-modeling science. RAMP and S-MAP efforts inform each energy IOUs' general rate case (GRC) and help the CPUC (and stakeholders) assess whether the utilities are properly directing resources to wildfire and safety risks.

- 3) *Wildfire mitigation plans.* In addition to the RAMP and S-MAP processes, the state has created a separate entity, the OEIS, and a special process to review wildfire-related risks via electric IOU WMPs. Electric IOUs are required to annually file WMPs with guidance by OEIS, which reviews and determines whether to approve these plans and ensures compliance with guidance and statute. Under this framework, the OEIS is responsible for reviewing, approving or denying and overseeing compliance with WMPs, while the CPUC evaluates the reasonableness of costs associated with implementation of the WMPs for purposes of cost recovery and has enforcement authority with regard to electric IOUs' performance of their WMPs and utility-caused wildfire.
- 4) *PG&E recent WMPs.* Pacific Gas & Electric (PG&E) has provided additional detail on their intentions and efforts to underground 10,000 miles of electric distribution lines in areas with high-fire risk. PG&E noted the 10,000 miles would be for distribution electric lines (generally, the lower voltage lines that connect electric service in streets to homes and business in communities, as opposed to the higher voltage transmission lines which connect from electric generating resources). PG&E further stated that undergrounding overhead lines reduces ignition risk by approximately 99 percent and "is the best long-term solution for keeping customers and communities safe." PG&E acknowledged various criteria for consideration of undergrounding infrastructure, and stated undergrounding as a "preferred option after [electric] line removal or remote grid, where appropriate."
- 5) *SB 884 (McGuire, Chapter 819, Statutes of 2022).* SB 884 requires the CPUC to establish a program for expediting the undergrounding of large electric IOUs distribution infrastructure. Electric IOUs with 250,000 or more customer accounts (only PG&E, Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E)) may participate in the program. Electric IOUs wishing to participate in the program must first submit their 10-year plan to OEIS for

review who must approve or deny the plan within nine months. If OEIS approves the plan, the electric IOU submits an application to the CPUC for conditional approval of the plan's costs. The CPUC adopted guidelines for the new undergrounding expedited program, which includes a three-phase process requiring a review of the plan by OEIS and a second review by the CPUC. The electric IOU must compare the costs and benefits of undergrounding to alternative system hardening and risk mitigation measures. The plan must provide information about how forecasted costs are anticipated to decline over time due to efficiencies and economies of scale. The plan must also include a methodology that demonstrates how any avoided costs might be translated into savings for ratepayers.

- 6) *Wildfire mitigation as significant driver of costs in electric utility bills.* The CPUC in its most recent SB 695 Utility Cost Report has noted that wildfire-related costs are a key driver putting upward pressure on customers' electric rates. The CPUC has stated that over the next several years, wildfire risk mitigation costs are projected to continue their upward trend. In a recent study by the Energy Institute at Haas "Risk-Cost Tradeoffs in Power Sector Wildfire Prevention", the authors note that in 2023 WMPs, California electric IOUs proposed investing over nine billion dollars annually to reduce wildfire ignition risk. PG&E's recent GRC included authorization to underground up to 1200 miles of electric distribution lines. This contributed to the overall rate increases that customers are experiencing this year, roughly \$35 per month more for the average utility bill, with another rate increase approved for a portion of the utility's wildfire-related expenses, and the expectation that more are on the horizon.

## Comments

- 1) *Costs to underground electric utility infrastructure.* While the electric utilities incorporate undergrounding efforts in their WMPs, it is a strategy that had been utilized for very few of their electric circuit lines, largely due to costs in comparison to other mitigation options, and the long-lead time for undergrounding projects. According to data gathered from electric IOUs, and analyzed by the CPUC, converting overhead distribution infrastructure to underground can be 10 times more expensive than installing new distribution overhead lines and undergrounding of electric distribution lines can be eight times more expensive than insulating (covering) the conductors (wires) to prevent them from igniting when contacting vegetation and other foreign objects. Per the data collected from PG&E, SCE and SDG&E, the costs for

undergrounding existing overhead distribution infrastructure can range between \$1.85 million to \$6.072 million per mile.

- 2) *Costs of other mitigation measures.* Generally, electric utilities are incorporating other wildfire mitigation measures that can be more cost-effective, including covered conductor, sectionalizing circuit lines, vegetation management, and operational controls such as fast-trips and public safety power shutoffs. Per the data collected by the CPUC, installing new overhead distribution infrastructure is much less expensive. On average, installing new overhead distribution infrastructure costs between \$634,000-\$760,000 per mile, according to the electric utilities' Rule 21 interconnection unit cost guides. PG&E has shared that their undergrounding efforts are averaging under \$3 million per mile and overhead upgrades are averaging just over \$1 million. The Energy Institute at Hass report on wildfire mitigation prevention measures notes that undergrounding powerlines, despite the higher investment cost, is more cost effective than pruning and removing vegetation. However, new operational controls, especially the use of "fast-trip" settings is significantly more cost effective than other strategies.
- 3) *Tradeoffs abound!* The OEIS has proposed some level of review on interim measures that may be needed when mitigation measures can not be implemented within a year. Additionally, OEIS reports an intention to incorporate cost-effectiveness criteria, in line with the CPUC's updated cost-benefit approach within the RAMP and S-MAP processes. The changes to this bill are intended to ensure that such considerations are required as part of the annual WMP process, without prescribing particular strategies. Supporters of this bill contend that increasing electric utility bills and the contributing costs of wildfire mitigation necessitate a review of WMP measures that take into consideration the time horizon by when they will be implemented and the cost-effectiveness of these measures. The supporters contend that waiting several years for undergrounding projects does not reduce the risk of wildfire ignitions quickly enough and comes with too high a price tag as compared to other measures that can be deployed sooner. In this regard, there are no shortage of tradeoffs, as deploying some of these measures could result in some continued level of wildfire ignition risk for the long-term, though it may come with a lower price tag overall for ratepayers, and a continued risk of outages with the use of operational controls to prevent wildfires.
- 4) *Ratepayer impacts.* As noted above, efforts to underground electrical infrastructure can be costly. However, the risk of utility equipment igniting fires

can also pose significant costs on utility customers given the associated liability and potential impacts of the borrowing costs to the utility. With the growing risks of fires and the expenses associated with other strategies, including the costs of ongoing vegetation management, electric utilities are reassessing these costs and calculations. In the case of PG&E, the utility contends that undergrounding 10,000 miles of electric distribution utility lines will help to better mitigate the risks for the long-term. This bill intends to require the electric IOUs to consider how cost-effectiveness and the time by when a measure will be implemented within its WMPs impacts the electric IOU's wildfire risk reduction efforts. The author and supporters of this bill contend that such an approach will better ensure that costs to ratepayers are better managed and more judiciously targeted.

### **Related/Prior Legislation**

(See policy committee analysis for fuller list of related legislation.)

SB 884 (McGuire, Chapter 819, Statutes of 2022) required the CPUC to establish an expedited electric utility distribution infrastructure undergrounding program for large electrical corporations. Required the OEIS to approve or deny the plan within nine months and requires additional actions and reports.

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

According to the Senate Appropriations Committee:

- The California Public Utilities Commission (CPUC) estimates ongoing costs of \$210,000 annually (ratepayer funds) to review any new cost efficiency data that might be submitted with a future WMP from the six investor-owned utilities (IOUs), as well as to ensure each utility correctly identifies the distinct financial accounting mechanisms used to track WMP implementation costs, avoiding any potential overlap in venue, among other things.
- Unknown, potentially significant costs for the Office of Energy Infrastructure Safety (OEIS) to review and approve of the WMPs based upon an accurate assessment of cost-efficiency and with possible variations in implementation timelines.
- Unknown potential fiscal impact on the state as an electric utility ratepayer. The State of California is an electrical customer, purchasing roughly one percent of the state's electricity. As such, the state incurs costs when rates increase as well

as savings in cases of rate decreases. This bill could potentially have an impact on ratepayers, including the state.

**SUPPORT:** (Verified 5/15/24)

The Utility Reform Network (source)  
California Farm Bureau  
Clean Power Campaign  
Defenders of Wildlife  
Pacific Forest Trust  
Planning and Conservation League  
Sierra Forest Legacy  
U.S. Green Building Council – Los Angeles

**OPPOSITION:** (Verified 5/15/24)

None received

**ARGUMENTS IN SUPPORT:** According to the author:

SB 1003 would direct the Office of Electrical Infrastructure Safety (OEIS) to consider the timeliness of [electric] investor owned utility (IOU) electrical infrastructure upgrades when reviewing [electric] IOU wildfire mitigation plans (WMPs), to ensure that the maximum amount of risk from utility sparked wildfires is reduced in the shortest amount of time.

While the current [electric] IOU wildfire mitigation plan review process does assess the amount of wildfire risk reduction from different strategies, relative to cost, it does not consider the speed with which different strategies can be delivered. Safety today has a different value than safety in 3 or 10 years. Failure to take this factor into account may result in today's utility customers paying higher electric utility rates without commensurate benefit from wildfire risk reduction.

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5/17/24 11:56:22

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