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THIRD READING

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Bill No: SB 884  
Author: McGuire (D)  
Amended: 4/26/22  
Vote: 21

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SENATE ENERGY, U. & C. COMMITTEE: 10-0, 4/18/22  
AYES: Hueso, Becker, Dodd, Eggman, Gonzalez, Hertzberg, McGuire, Min,  
Rubio, Stern  
NO VOTE RECORDED: Dahle, Borgeas, Bradford, Grove

SENATE GOVERNANCE & FIN. COMMITTEE: 4-1, 4/20/22  
AYES: Caballero, Durazo, Hertzberg, Wiener  
NOES: Nielsen

SENATE APPROPRIATIONS COMMITTEE: 5-2, 5/19/22  
AYES: Portantino, Bradford, Kamlager, Laird, Wieckowski  
NOES: Bates, Jones

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**SUBJECT:** Electricity: expedited utility distribution infrastructure  
undergrounding program

**SOURCE:** Author

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**DIGEST:** This bill requires the California Public Utilities Commission (CPUC) to establish an expedited utility distribution infrastructure undergrounding program. This bill requires large electrical corporations, as defined, who elect to participate in the program to submit a plan to the CPUC that identifies the undergrounding projects they will construct and encourage participation with proposed changes in environmental review, local permit streamlining, and costs allocation to telecommunications providers colocated on electric utility poles.

**ANALYSIS:**

Existing law:

- 1) Establishes and vests the CPUC with regulatory authority over public utilities, including electrical corporations. (Article XII of the California Constitution)

- 2) Provides it is the policy of this state to achieve, whenever feasible and not inconsistent with sound environmental planning, the undergrounding of all future electric and communication distribution facilities that are proposed to be erected in proximity to designated state scenic highways and that would be visible from those highways if erected above ground. (Public Utilities Code §320)
- 3) Requires electrical corporations to include in their Wildfire Mitigation Plan (WMP) whether and where they considered undergrounding electric utility lines as part of their plan to mitigate wildfire risks. (Public Utilities Code §8386)
- 4) Establishes the California Environmental Quality Act (CEQA) and requires lead agencies with the principal responsibility for carrying out or approving a proposed discretionary project to prepare a negative declaration, mitigated declaration, or environmental impact report (EIR) for this action, unless the project is exempt from CEQA. (Public Resources Code §21000 et seq.)
- 5) Requires the Office of Planning and Research (OPR) to adopt guidelines for implementation of CEQA by public agencies and requires the guidelines to include a list of classes of projects that have been determined not to have a significant effect on the environment. Requires OPR to transmit the guidelines to the Natural Resources Agency. (Public Resources Code §§21083, 21084)
- 6) Authorizes the Governor, via the Jobs and Economic Improvement Through Environmental Leadership Act of 2021, until January 1, 2024, to certify projects that meet specified requirements for certain streamlining benefits related to CEQA. (Public Resources Code §21178)
- 7) Requires public agencies, via the Permit Streamlining Act, to approve or disapprove of a development project within specified timeframes. (Government Code §65920)
- 8) Requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement. (Article XIII of the California Constitution)

This bill:

- 1) Requires the CPUC to establish an expedited utility distribution infrastructure undergrounding program, and authorizes a large electrical corporation, as defined, to participate in the program by submitting to the CPUC, on or before July 1, 2023, a plan that identifies the eligible undergrounding projects that it

will construct as part of the program, including timelines for the completion of those undergrounding projects.

- 2) Requires telecommunications providers, if the CPUC approves the electrical corporation's plan, to cooperate with the electrical corporation to underground non-wireless telecommunications infrastructure on utility poles that will be removed as part of an undergrounding project, except as specified. Requires telecommunications providers to pay their proportionate costs for undergrounding telecommunications infrastructure.
- 3) Requires each undergrounding project to fully exhaust all available federal, state, and other nonratepayer moneys before any costs are recovered from ratepayers, and deems each undergrounding project to be an environmental leadership development project for purposes of the Jobs and Economic Improvement Through Environmental Leadership Act of 2021 and a development project for purposes of the Permit Streamlining Act, as specified.
- 4) Requires that an electrical corporation earn a rate of return on its investments or expenditures made pursuant to the program, subject to a performance metric developed by the CPUC that would, at a minimum, require the withholding of those earnings until 60 consecutive months have elapsed without either the undergrounding project's infrastructure causing a deenergization event or a wildfire resulting from the undergrounding project's infrastructure.
- 5) Imposes new duties on local agencies by expanding the applicability of the Permit Streamlining Act to undergrounding projects. Provides that no reimbursement to local agencies is required by this act because a local agency has the authority to levy service charges, fees, or assessments sufficient to pay for the program mandated by this act or because costs incurred may be incurred because this act creates a new crime or changes the definition of a new crime.

## **Background**

*Undergrounding of electric utility lines.* Undergrounding is the process of replacing overhead utility lines (including poles, wires, and related equipment) that provide services such as electricity or communications to underground facilities (consisting of trenching of conduit that houses the wires, underground vaults and/or surface mounted structures). The undergrounding of electrical and communications lines is typically done for aesthetic or safety purposes in order to remove the visible overhead lines and poles or to reduce the risk of damage or fire from being exposed to the elements (including high winds and winter storms that can topple lines and poles). Undergrounding is generally much more expensive

relative to installing overhead infrastructure – on the order of between 2.5 to 10 times or more expensive. While operating costs for undergrounded infrastructure can be less, assuming the undergrounding of the infrastructure results in a reduced need to repair damaged lines, restoration of service after an outage can take longer and there can be safety issues related to potential explosions and fires in underground vaults. The costs for undergrounding utility lines vary depending on the location of the lines, the topography, geology, population density served by the lines, labor costs, terrain, and other issues. Undergrounding is typically more expensive than overhead lines to build and maintain, therefore, most existing overhead utility systems remain above ground.

*California Overhead Conversion Program, Electric Tariff Rule 20.* The CPUC requires electric investor-owned utilities (IOUs) to allocate a certain amount of ratepayer funds each year for undergrounding conversion projects. The electric utility annually allocates funds via credits under Electric Tariff Rule 20 to communities, either cities or unincorporated areas of counties, to convert overhead electric lines to underground facilities. Since ratepayers contribute the bulk of the costs of Rule 20A programs through utility rates, the projects must be in the public interest, meeting specified criteria.

*Wildfire mitigation plans (WMPs).* Electrical equipment, including downed power lines, arcing, and conductor contact with trees and grass, can act as an ignition source. Risks for wildfires also 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. After numerous wildfires, including several catastrophic and deadly wildfires, the state has passed numerous statutes to require electric utilities to mitigate wildfire risks. As a result of SB 1028 (Hill, Chapter 598, Statutes of 2016), and further expanded by SB 901 (Dodd, Chapter 626, Statutes of 2018) and AB 1054 (Holden, Chapter 79, Statutes of 2019), electric IOUs are required to file WMPs with guidance by the CPUC and now-Office of Energy Infrastructure Safety at the Natural Resources Agency, specifically the Wildfire Safety Division (WSD). The WSD reviews and determines whether to approve these plans and ensures compliance with guidance and statute. The electric IOUs' WMPs detail, describe, and summarize electric IOU responsibilities, actions, and resources to mitigate wildfires. These actions include plans to harden their system to prevent wildfire ignitions caused by utility infrastructure, such as widespread electric line replacement with covered conductors designed to lower wildfire ignition, pole replacement, and other actions. The plans also includes information regarding the electric IOUs' efforts to conduct extensive vegetation management to reduce the risk of tree branches, grasses, and other vegetation from coming into contact with

utility infrastructure. The WMPs also require electric utilities to incorporate their protocols and procedures for proactive power shutoffs intended to be used as a last-resort to prevent wildfire ignitions. Per statute, electric utilities must include information regarding whether and where undergrounding of electric facilities is being considered. While the electric utilities incorporate undergrounding efforts in their wildfire mitigation plans, it is a strategy 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. As a result, generally, electric utilities are incorporating other wildfire mitigation efforts that are more cost-effective.

*Costs to underground electric utility infrastructure.* According to data gathered from California's electric IOUs and analyzed by the CPUC, converting overhead distribution infrastructure to underground is up to 10 times more expensive than installing new distribution overhead lines and undergrounding of electric distribution lines is 8 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 Pacific Gas & Electric (PG&E), Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E), the costs for undergrounding existing overhead distribution infrastructure can range between \$1.85 million to \$6.072 million per mile. With the ranges for each electric IOU shown below:

- PG&E: \$3.4 M-\$6.1M per mile.
- SDG&E: \$2.64M-\$3.696M per mile.
- SCE: \$1.85M-\$5.23M per mile.

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. For transmission, the cost for constructing new overhead transmission ranges from \$1 million to \$11 million per mile and \$6 million to \$100 million per mile to convert existing overhead transmission to underground.

*PG&E announces effort to underground 10,000 miles of electric lines.* In July 2021, within days of disclosing to the CPUC that their equipment may have ignited the Dixie Fire that was then-burning in Northern California, PG&E announced a safety initiative to protect communities from the threat of wildfire by moving 10,000 miles of power lines underground in areas with high-fire risk. PG&E's public statements acknowledge a shift in their perspective on the need to underground electric facilities as a preferred strategy to reduce wildfire risks based

on adjustments in the calculations for undergrounding infrastructure (largely given to the growing costs and risks of continued wildfires) and costs of other strategies (including the need for ongoing vegetation management and use of power shutoffs). While the utility did not release a detailed plan, including how costs would be paid, they noted the intent to underground 1,000 miles per year over ten years and a desire to work with all stakeholders to develop a plan.

*PG&E recent WMP.* In its most recent WMP, filed earlier this year, PG&E provided additional detail on their intentions and efforts to underground 10,000 miles of electric lines. The utility 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 generally 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.” PG&E noted that it had thus far completed 73 miles of undergrounding work, and plans to double that amount for the current year (2022) to achieve 175 circuit miles of undergrounding work (this includes Butte County Rebuild efforts from the Camp Fire impacts). The utility then plans to increase to 400 miles in 2023, 800 miles in 2024, 1,000 miles in 2025, and 1,200 miles in 2026. PG&E also stated its goal to reduce the cost of undergrounding, from historically about \$4 million per circuit mile to a target for \$3.75 million per circuit mile in 2022 and an aim to reach \$2.5 million per circuit mile by 2026. The utility also noted that these efforts would not negate other hardening efforts for other high-fire risk circuits.

*Undergrounding telecommunications facilities may improve resilience in some circumstances.* To address the need to retain telecommunications service during power outages, the CPUC adopted decisions in 2020 (D.20-07-011) and 2021 (D.21-02-029) to require wireless and wireline telecommunications providers to deploy back-up power to ensure that service can be maintained for at least 72 hours in the Tier 2 and Tier 3 fire threat areas. While undergrounding telecommunications infrastructure can lessen the extent to which certain disasters impact utility services (e.g. heavy snowfall and high winds can damage utility poles and impact service), however, undergrounding may not be sufficient to protect facilities from damage in certain disasters, including catastrophic wildfires, flooding, and debris flows. To the extent that undergrounding improves the resiliency of electric power service, it may lessen telecommunications providers’ reliance on emergency backup power systems.

*SB 884.* This bill attempts to advance the undergrounding of electric infrastructure by requiring the CPUC to establish an expedited utility distribution infrastructure undergrounding program as a voluntary program to encourage the three large electric IOUs to develop plans that identify undergrounding projects, including completion timelines. This bill proposes to encourage electric IOU participation in the program by offering, in exchange for the plans: (1) a requirement that telecommunications providers pay for the portion of the costs associated with undergrounding its infrastructure collocated on the utility pole, and (2) deeming these projects to be environmental leadership development projects for environmental review expediting and local jurisdiction permit streamlining afforded in the Permit Streamlining Act. This bill also requires the CPUC to develop a performance metric that requires withholding any moneys earned by the participating large electric IOUs through the rate of return until five years (60 consecutive months) have elapsed without either a power shutoff or a wildfire resulting from the undergrounding project's infrastructure.

*Communities frustrated by wildfire ignitions, proactive power shutoffs, and increasing electric rates.* The frustration experienced by residents and businesses in communities at risk of wildfires from electric utility infrastructure ignitions or loss of power due to proactive power shutoff of electric lines has been expressed on numerous occasions to this committee, including an 8-hour long oversight hearing in 2019. While undergrounding electric utility infrastructure has been a known mitigation strategy, as noted above, there are numerous calculations and considerations, especially the high costs and feasibility within the varied terrain and communities served by electric IOUs. However, the announcement by PG&E to underground 10,000 miles of electric lines came as both a welcome shift in perspective for those who had sought undergrounding as a more prominent strategy, and also raises many concerns about the impacts of such an endeavor (especially the potential impacts on customers' electric utility bills to recover the likely 15 to 20 billions of dollars or more in costs for the full 10,000 miles). The lack of details from PG&E have also increased these and other concerns, though the utility has since established an advisory committee of stakeholders to begin developing more details.

*Carrots or sticks?* SB 884 attempts to both advance undergrounding of electric infrastructure and mitigate impacts to ratepayers by limiting the electric IOU's rate of return recovered for these projects if the electric IOU does not satisfy the performance metric – including having no deenergization or wildfire ignitions for five years from the project infrastructure. The rate of return refers to the profit that is authorized by the CPUC or actually earned on the rate base/capital investment over a period of time (the rate of return is a calculation utilizing the weighted

average cost of debt and equity). In this regard, the bill is attempting to provide a stick. However, the benefits of a permit streamlining process or an expedited environmental review via the Environmental Leadership Program, may not provide the intended incentives, or carrots, to encourage electric IOU participation. As noted by the electric IOUs in opposition to the bill, the undergrounding of electric infrastructure currently benefits from some exemptions of the state's environmental review process, including those afforded as part of the CPUC's General Order 131-D and some categorical exemptions from the CEQA, though it is unclear to what extent the large scale nature of the proposed undergrounding projects would benefit from the categorical exemption. Nonetheless, based on the comments by SCE and SDG&E, they argue the proposed benefits of this bill would be too limiting, confusing, and undermine the current undergrounding efforts under Rule 20 and WMPs to afford them any encouragement to participate in the voluntary program and could slow-down undergrounding efforts.

*Bill requires the CPUC to establish a process for identifying colocated telecommunications providers' undergrounding costs.* This bill requires a telecommunications provider to pay their portion of the costs for undergrounding colocated telecommunications infrastructure when the CPUC approves an electrical corporation's undergrounding plan. While existing law enables the CPUC to require a telecommunications provider to underground colocated facilities, the CPUC generally requires a hearing to determine costs before it issues an order to underground infrastructure. Several telecommunications providers have tariffs that identify some rules regarding undergrounding telecommunications infrastructure, however, each company's tariff is different and does not necessarily cover the undergrounding projects authorized by this bill.

Since most telecommunications providers are not rate-regulated, the CPUC does not have an existing standard process for specifying a telecommunications provider's portion of undergrounding costs and determining a cost recovery mechanism for those costs. As a result, telecommunications companies' costs may be passed to all consumers through higher rates. Since telecommunications service territories are not aligned with electric utility service territories, to the extent that telecommunications providers recover costs for undergrounding from all their customers, telecommunications customers in other electric utility service areas would likely pay a portion of the costs associated with undergrounding telecommunications infrastructure in large electric IOU service territories. By requiring telecommunications providers to cover their portion of costs for undergrounding colocated infrastructure, this bill will likely require the CPUC to establish a method for determining telecommunications providers' portion of these costs before ordering a company to underground facilities.



*Absence of utility poles may impact certain plans for expanding telecommunications services.* This bill may require the removal of electric utility poles across large geographic regions. While telecommunications providers already operating in these areas may be able to underground facilities when the electric utility relocates its infrastructure, providers seeking to deploy new telecommunications infrastructure after poles are removed will need to integrate underground installations into their plans for deployment. Undergrounding may increase costs for wireline deployment proposals, and the absence of poles may limit the locations where wireless infrastructure can be installed.

NOTE: Please refer to the Senate Energy, Utilities and Communications Committee policy analysis for Related/Prior Legislation.

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

According to the Senate Appropriations Committee:

- CPUC estimates ongoing costs in the low millions of dollars annually (ratepayer funds) to establish an expedited utility distribution infrastructure undergrounding program as would be required by this bill.
- To the extent that this bill results in increased undergrounding of utility infrastructure that reduces the risk of catastrophic wildfire from what it otherwise would be, this bill would result in unknown but potentially significant cost savings for reduced fire suppression (General Fund).

**SUPPORT:** (Verified 5/20/22)

CAL FIRE Local 2881  
City of Thousand Oaks  
Northern California Power Agency  
Sonoma Clean Power

**OPPOSITION:** (Verified 5/20/22)

Bay Area Council  
California Cable & Telecommunications Association  
California Communications Association  
California Farm Bureau  
California Taxpayers Association  
Clean Coalition  
Crown Castle

CTIA

Frontier Communications

Indivisible: Alta Pasadena, CA Green Team, Cloverdale, Livermore, Marin,  
Resistance Riverside, Resistance Northridge, Media City Burbank, Mendocino,  
Sacramento, San Diego, San Jose, Sonoma, South Bay LA, Stand Strong LA,  
and Stanislaus

Long Beach Alliance for Clean Energy

Progressive Democrats of the Santa Monica Mountains

San Diego Gas & Electric

SoCal 350

Southern California Edison

USTelecom - the Broadband Association

Valley Women's Club of San Lorenzo

**ARGUMENTS IN SUPPORT:** According to the author, “For far too long, America’s largest utility – PG&E – has failed its customers and made California unsafe. For years, the utility underfunded modernization and wildfire safety efforts, which has had devastating impacts here in the Golden State. PG&E has been charged with nearly 100 felonies in the deaths of California residents in wildfires they caused over the past four years. Californians have literally run for their lives while their homes burned to escape flames from PG&E-caused wildfires. Californians have sat in the dark with food spoiling in their warm refrigerators for days on end during wind-driven public safety power shutoffs, and they’ve been left without access to critical lifeline services when power lines go down. This has been our reality for long enough.

“SB 884 will provide a path to expedite undergrounding of 10,000 miles of PG&E utility lines in the highest fire risk zones, save ratepayers money, and hold PG&E accountable to their timelines. Currently, PG&E undergrounds less than 100 miles of their electrical lines annually.”

**ARGUMENTS IN OPPOSITION:** Southern California Edison (SCE) and San Diego Gas & Electric express concerns that the proposed new undergrounding program would be duplicative of existing efforts in the WMP and Rule 20 programs. They argue that this bill undermines wildfire mitigation efforts and slow-down any undergrounding activities with confusing environmental review and permitting provisions. SCE also expresses concerns that the impact to the regulatory compact between the utility and the regulator could impact borrowing costs for the utility with the potential to increase costs to ratepayers.

The California Farm Bureau opposes this bill as it could increase costs to ratepayers from the undergrounding activities. Many of the telecommunications providers opposed to this bill express concerns regarding the impacts of the costs to maintain and/or expand their service (including wireless and broadband service already difficult for many rural areas). The telecommunications companies oppose unreasonable requirements on their companies to pay for costs for undergrounding electric infrastructure.

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5/21/22 15:39:25

**\*\*\*\* END \*\*\*\***