SENATE COMMITTEE ON ENERGY, UTILITIES AND COMMUNICATIONS
Senator Ben Hueso, Chair
2019 - 2020 Regular

Bill No:	SB 70	**Hearing Date:**	4/24/2019
Author:	Nielsen		
Version:	4/3/2019 As Amended		
Urgency:	No	**Fiscal:**	Yes
Consultant:	Nidia Bautista		

SUBJECT: Electricity: undergrounding of electrical distribution infrastructure

DIGEST: This bill would require the California Public Utilities Commission (CPUC) to require each investor-owned utility (IOU) to underground electric distribution infrastructure in specified situations, including areas destroyed as a result of fire in very high fire hazard severity zones and overhead infrastructure removed due to an accident. This bill would also establish an Electrical Infrastructure Undergrounding Working Group (EIUWG) to focus undergrounding activities for areas affected by wildfires from 2013 to 2020.

ANALYSIS:

Existing law:

1) Provides that the CPUC has regulatory authority over public utilities, including IOUs. (California Constitution, Article 12)

2) Declares that it is the policy of the state to achieve, whenever feasible and not inconsistent with sound environmental planning, the undergrounding of all future electric and communication distribution facilities which are proposed to be erected in proximity to any highway designated a state scenic highway and which would be visible from such scenic highways if erected above ground. (Public Utilities Code §320)

3) Under its existing authority, the CPUC requires IOUs to implement the California Overhead Conversion Program, Rule 20A, to provide financial assistance to local governments to facilitate projects that are in the public interest and that remove overhead infrastructure, replacing it with infrastructure in underground trenches.

4) Requires the CPUC to develop formal procedures to incorporate safety in a rate case application by an IOU or gas corporations. (Public Utilities Code §750)

5) Requires each IOU to construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of catastrophic wildfire posed by those electrical lines and equipment. Requires each IOU to annually prepare and submit a wildfire mitigation plan to the CPUC for review and approval. Requires those wildfire mitigation plans to include specified information, including protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure. (Public Utilities Code §8386)

This bill:

1) Makes a number of findings and declarations related to the benefits of undergrounding electrical lines.

2) Requires the CPUC, on or after January 1, 2021, to require each IOU to do both of the following:

   a) Replace overhead electrical distribution infrastructure in a very high fire hazard severity zone, as determined by the California Department of Forestry and Fire Protection (Cal FIRE), in the electrical corporation's territory that is destroyed as a result of fire with underground electrical distribution infrastructure.

   b) Convert overhead electrical distribution infrastructure that is removed due to an accident to underground electrical distribution infrastructure.

3) Prohibits the CPUC from requiring the construction of underground electrical distribution infrastructure where it finds that the construction of underground electrical distribution infrastructure is physically infeasible, including due to weather conditions such as the presence of heavy snow or terrain conditions such as the presence of bedrock, or if the CPUC finds that there is an immediate need to construct overhead electrical distribution infrastructure to restore electrical service following an outage.

4) Prohibits an IOU that has not complied with its wildfire mitigation plans submitted pursuant to Section 8386 from recovering from ratepayers that costs of complying with the requirements of this section except for those costs specifically related to the permitting process, including costs relating to the California Environmental Quality Act, staff time, permit fees, and consulting fees.

5) Establishes the EIUWG in state government to promote the undergrounding of electrical infrastructure and the implementation of a statewide joint trenching policy. Requires the EIUWG to focus on areas affected by wildfires from 2013 to 2020 during the rebuilding and restoration phases of those areas. Requires the EIUWG to prioritize undergrounding along those streets and highways that serve as county-designated evacuation routes.

6) Requires EIUWG to consist of representatives from all of the following entities:
    a) CPUC
    b) Cal FIRE
    c) Office of Emergency Services (OES)
    d) Department of Transportation (DOT)
    e) California State Association of Counties (CSAC)
    f) League of Cities
    g) Rural County Representatives of California

7) Appropriates the sum of one million dollars from the General Fund to the EIUWG in the 2019-20 fiscal year for its administration.

Background

Undergrounding of electric facilities. Undergrounding is the process of replacing overhead lines that provide services such as electricity or communications with lines located underground. 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. Undergrounding is generally much more expensive relative to overhead infrastructure – on the order of 10 times or more. However, operating costs may be less assuming the underground results in a reduced need to repair damaged lines. Nonetheless, the costs for undergrounding lines can vary depending on the location of the lines: rural, urban, or suburban communities.

California Overhead Conversion Program, Rule 20. The CPUC requires 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. The local jurisdiction may either accumulate their allocated credits, or borrow future undergrounding allocations for up to five years. Tariff Rule 20 provides three levels (A, B, and C) of progressively diminishing ratepayer funding for the projects, based on specified criteria. Once a project is completed, the electric utility records its costs in its electric plant account for recovery through the utility's

rate base. The CPUC authorizes the utility to recover the costs from ratepayers until the project is fully depreciated. 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. The CPUC instituted the current undergrounding program in 1967 and has made mostly slight adjustments to the program over the 50 years.

San Diego Gas & Electric (SDG&E) Rule 20D. In 2014, the CPUC authorized SDG&E the ability to consider wildfires when converting electric facilities to underground. The CPUC agreed with SDG&E that undergrounding could mitigate the risks of wildfires in the more fire-prone areas of SDG&E's service territory. The CPUC approved a SDG&E specific version of Rule 20D that is modeled on Rule 20A, but targeted to the most fire-prone areas. Under Rule 20D, the governing body has determined that undergrounding will occur in the SDG&E Fire Threat Zone, as identified, and SDG&E has determined that undergrounding is a preferred method to reduce fire risk and enhance the reliability of the facilities to be undergrounded.

The table below notes the Electric Tariff Rule 20 programs and the ratepayer contribution for each:

Electric Tariff Rule 20			
Rule	**Ratepayer Contribution**	**Municipality or Third Party Contribution**	**Criteria**
20A	80-100%	Max. of 20% cost from street to meter Min. 0% if use main line funds	Public interest
20B	20%	80%	N/A
20C	Minimal	100%	Typically small projects
20D	80%	Max. 20% cost from street to meter Min. 0% if use main line funds	Facilities within SDG&E Fire Threat Zone

Local jurisdiction contributions. Under the Improvement Act (Act) of 1911, cities, counties and other municipal governments are authorized to designate areas within which public agencies officials and individual property owners may enter into contractual assessments to finance a wide range of public infrastructure projects.

An assessment district is formed as an alternative method for financing public improvements by a sponsoring local government agency. One type of assessment district that the Act authorizes is an underground utility district (UUD), which is formed for the purposes of converting above ground infrastructure to below ground. UUDs are formed via petition or by a determination of the legislative body. Current law requires a legislative body to determine that the city or a public utility has voluntarily agreed to pay over 50 percent of all costs of conversion, excluding costs of users' connections to underground electric or communication facilities in order to initiate proceedings.

Mapping fire. The state has three different maps related to mapping fire threats. This bill references the Cal FIRE Hazard Severity Zone Map. However, Cal FIRE developed another map, the CPUC High Fire-Threat District Map, to address the intersection of electric utility infrastructure and wildfires.

> *Cal FIRE Hazard Severity Zone Map*. Cal FIRE identifies moderate, high, and very high fire threat zones in order to classify lands in the state where a very high fire hazard is present so that public officials, especially local officials, are able to identify and adopt measures to mitigate against fire risk, pursuant to Government Code §§51175 and 51177. These maps have been used to inform mitigation and regulatory requirements in local responsibility areas and state responsibility areas.
>
> *CPUC High Fire-Threat District*. The CPUC's efforts to map high-fire threat stem from the catastrophic wildfires caused by utility infrastructure in San Diego County in the 2000s. The CPUC mapping efforts combine the Tree Mortality Taskforce Map with CPUC/Cal FIRE Tier 2 and Tier 3 designations. Tier 2 fire-threat areas depict areas where there is an elevated risk (including likelihood and potential impacts on people and property) from utility associated wildfires. Tier 3 fire-threat areas depict areas where there is an extreme risk (including likelihood and potential impacts on people and property) from utility associated wildfires.

Wildfire mitigation plans. As a requirement of SB 901, electric utilities must file wildfire mitigation plans with specified information. In the recently filed plans, some of the electric utilities considered the potential to underground some lines as part of their wildfire mitigation efforts. However, in most instances, the electric utilities' wildfire mitigation plans included the potential to underground lines but recommended an assessment to identify what electric lines made sense to underground. As one plan noted: "While underground systems can help reduce the risk of wildfires and increase reliability during high winds and storms, they also take longer and costs much more to construct, maintain, and repair – particularly in

mountainous regions and those with steep terrain." In general, the electric utilities are incorporating other wildfire mitigation efforts that are more cost-effective, including conductor covers, replacing wooden poles with poles made of more fire-resistant materials, and other mitigation actions.

SB 70. This bill would largely require an IOU to underground electrical infrastructure in a high fire severity zone that had experienced wildfire or had an accident, as long as it was physically feasible to do so. As noted above, undergrounding electrical infrastructure is a very costly endeavor. As such, efforts to require undergrounding of infrastructure must also consider the costs, which in this case could be borne largely by utility ratepayers, depending on whether the utility complied with its wildfire mitigation plan. However, it is unclear exactly how the utility must comply with its wildfire mitigation plan. Additionally, the inclusion of undergrounding infrastructure due to an accident could result in undergrounding activities that may not have much to do with reducing wildfire risks.

This bill also establishes a new undergrounding working group and requires an appropriation of one million dollars for the purposes of this working group's efforts to help coordinate joint trenching for areas that experienced wildfire that occurred in 2013 to 2020. It is not fully clear what additional work the new working group would be conducting that is not today done in relation to coordinating activities to undergrounding infrastructure from multiple services (telecommunications, sewer, electrical, etc.). To the extent the working group is intended to provide additional level of coordination for communities that have been destroyed by fires, as is the case in the Town of Paradise, and are rebuilding, it is possible that such an entity could be useful. However, the dates are not necessary, and may arbitrarily limit the efforts of this new working group. *The author and committee may wish to amend this bill to delete the specific mention of the dates (2013 to 2020) and the amount to be appropriated for the new working group.*

Impact to ratepayers? As currently drafted, this bill would likely result in hundreds of millions of dollars, and potentially more, in impacts to ratepayers to pay for the undergrounding activities. This committee recently heard a bill that also encouraged undergrounding activities, SB 584 (Moorlach, 2019). In that bill, this committee amended the bill to limit the use of ratepayer funds to pay for the undergrounding of electrical lines only for instances where the CPUC determined it was the preferred method to address wildfire risks. *The author and committee may wish to strike Section 2 of this bill and replace with language in the required wildfire mitigation plans that would require the electric utilities to note where and how undergrounding of electrical infrastructure was considered within the plan.*

Prior/Related Legislation

SB 584 (Moorlach, 2019) would make changes to programs that help fund conversion projects to replace overhead electrical infrastructure with underground electrical infrastructure in specified areas of the service territory of IOUs. The bill is scheduled to be heard in Senate Committee on Natural Resources and Water on April 23, 2019.

SB 1463 (Moorlach, 2016) would have required the CPUC, in consultation with the Cal FIRE, to prioritize areas where communities are subject to conditions that increase fire hazards associated with overhead utility facilities when determining areas which it will require enhanced mitigation measures for wildfire hazards posed by overhead electrical lines and equipment. The bill was vetoed.

SB 901 (Dodd, Chapter 626, Statutes of 2018) addressed numerous issues concerning wildfire prevention, response and recovery, including funding for mutual aid, fuel reduction and forestry policies, wildfire mitigation plans by electric utilities, and cost recovery by electric corporations of wildfire-related damages.

SB 1028 (Hill, Chapter 598, Statutes of 2016) required electric CPUC-regulated utilities to file annual wildfire mitigation plans and requires the CPUC to review and comment on those plans.

FISCAL EFFECT: Appropriation: Yes Fiscal Com.: Yes Local: Yes

SUPPORT:

None received

OPPOSITION:

California Chamber of Commerce

ARGUMENTS IN SUPPORT: According to the author:

> "As a matter of public safety to California residents as well as electrical utility reliability, something must be done to address threatening aboveground lines in high fire hazard severity zones.
>
> Undergrounding distribution lines may be the answer. Underground electrical lines have many benefits: they are better insulated than overhead

electrical lines, are less likely to be affected by hazardous weather conditions and animals, and are better protected from wildfires.

Underground lines also generally have a longer lifespan and create less interference with other communication infrastructure, than overhead electrical lines.

Californians must harden their utility infrastructure, in order to live with wildfires and to reduce the risk of future catastrophic wildfires. Undergrounding is not just an investment in reliable infrastructure, but an investment in lives."

ARGUMENTS IN OPPOSITION: In opposition to this bill, the California Chamber of Commerce expresses concerns about the potential for significant increases to energy rates by requiring electric utilities to underground their lines as this bill proposes. The Chamber notes that "wildfire mitigation is a complex solution, not easily subjected to a one-size fits all approach such as burying lines." The Chamber further acknowledges that the requirements of SB 901 wildfire mitigation plans already require consideration of undergrounding. "Where appropriate, strategic undergrounding is being proposed by the utilities as a portion of the wildfire prevention approach."

-- END --