

UNDERGROUNDING

UNDERSTANDING THE FACTS



Faced with the threat of more frequent and catastrophic wildfires, California is implementing additional steps to make critical infrastructure more resilient. Southern California Edison continues to strengthen its electric grid.

INSULATED WIRES

SCE is implementing a variety of innovative tools, technologies and practices to further protect customers and communities from the growing risks of wildfires. One of the most effective ways to make the grid more resilient in high fire risk areas is the use of insulated wires, also known as covered conductors. While bare wire has been the traditional design standard for overhead power lines, insulated wire effectively and significantly reduces the possibilities of objects contacting these lines and starting a wildfire. SCE is prioritizing the use of insulated wire on its overhead lines in high fire risk areas.

UNDERGROUNDING

SCE is also considering undergrounding where appropriate as an additional risk mitigation measure. Underground systems can help reduce the risk of wildfires and increase reliability during high winds and storms by reducing the exposure of electrical infrastructure to extreme weather conditions. However, underground power lines take much longer to construct, are more costly and are more difficult to maintain and repair — particularly in mountainous and rocky terrain. In addition, communities may still have poles and wires serving the telecommunications industry regardless of power lines being undergrounded.

Benefits

- Can reduce frequency of outages during storms
- Can reduce risk of wildfires caused by electrical infrastructure
- Can improve neighborhood aesthetics
- Can present fewer hazards for wildlife



Drawbacks

- Cannot be visually inspected
- Require longer service interruptions to perform repairs and maintenance
- Can take much more time to install due largely to permitting and construction (e.g. traffic/road closures, trenching, enclosure construction, cable pulling and road resurfacing requirements)
- Cost: ~\$3 million per mile (~\$430,000 per mile for covered conductor), which will lead to higher customer rates

REGULATION

SCE and the other state investor-owned utilities are participating in a California Public Utilities Commission proceeding looking at the regulations governing undergrounding, known as Rule 20. The proceeding is looking at when and how cities and unincorporated areas of counties can request undergrounding, including in high fire risk areas. When undergrounding takes place under Rule 20, the bulk of the costs associated with such undergrounding work is paid by ratepayers. Cities and counties interested in undergrounding can participate in the CPUC Rule 20 proceeding to share their perspectives. SCE has notified cities and counties in its service area of the current CPUC proceeding.