PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2023
Data Response

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PG&E Witness:		Requester:	Holly Wehrman

QUESTION 008

Describe the challenges or advantages entailed in increasing load capacity on a circuit that has previously been hardened with underground conductor.

ANSWER 008

The challenges or advantages associated with increasing capacity on an underground electric distribution system will differ depending on whether the underground system was built recently or in the past under different engineering and design standards.

Based on current design standards and practices, it is likely that recent undergrounding projects include physical capacity to support forecasted load growth in the sense that spare conduits or larger cable may have already been installed. However, if load capacity above the design of a recently built underground system is required, then additional cable systems and enclosures would likely need to be installed. In these cases, digging near existing underground infrastructure can be more difficult than installing underground assets in the first place, and finding locations for additional enclosures may be challenging. Lastly, in some limited cases, a higher capability compact cable can be pulled through the existing conduit system to support additional load growth without having to do additional trenching or installing additional conduits.

If load capacity needs to increase on an underground system built before our current engineering and design standards, then any potential challenges would depend on the health of the existing underground system. If the existing conduit is compromised then it may not be possible to pull new cable through the existing conduit, and a more extensive rebuild would be required involving installing new conduit and, potentially, new enclosures as well. If the existing conduit is generally intact, it may be possible to pull new cable through that conduit to facilitate some load growth without significant rebuild.