

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

PG&E Data Request No.:	CalAdvocates_016-Q002		
PG&E File Name:	WMP-Discovery2023_DR_CalAdvocates_016-Q002		
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DRU Index #:		Requester:	Holly Wehrman

The following questions relate to your 2023-2025 WMP submission.

**QUESTION 002**

Regarding PG&E's Load Break Elbows:

- a) Please explain PG&E's operating procedure for operating a load break elbow in a vault to energize or de-energize a circuit or circuit segment.
- b) Please provide PG&E's written procedures or other documentation related to your response to part (a).
- c) Please explain in detail PG&E's operating procedure, from start to finish, for the following: after opening a circuit segment via a load break elbow that is normally in a closed position, the circuit segment is returned to its normally closed position during switching.
- d) Please explain in detail PG&E's operating procedure from start to finish of the following operation: after closing a circuit segment via a load break elbow that is normally in an open position, then the circuit segment is returned to its normally open position during switching.

**ANSWER 002**

**The confidential attachments are being provided pursuant to the accompanying confidentiality declaration.**

- a) For distribution operations operating procedures, if de-energizing or energizing from Load break elbows that are not protected by fuses on the source side, then reclosing a relay is first cut out or verified cut out on the source side protective device as well as ground relay verified cut in. Following the source side protective setup (reclosing relay cut/out ground relay cut/in), the ok is then given to the field operations to then manually remove or place load break elbow to de-energize/energize circuit segment. De-energizing elbows will be placed on insulated stand off and protective equipment installed. To energize elbows, protective equipment is removed, and elbows are placed/closed in operating position. Once operation is complete, relays are then placed to their previous state. Load Break elbows are not to be used when energizing a segment with a known or potential fault.

- b) Please reference “WMP-Discovery2023\_DR\_CalAdvocates\_016-Q001Aatch01CONF.pdf” and “WMP-Discovery2023\_DR\_CalAdvocates\_016-Q001AAatch02CONF.pdf” provided in response to Question 001(b) of this Data Request Set for a copy of these Procedures.
- c) For distribution operations operating procedures, see the answer to subpart a) for energizing/deenergizing. If the segment to place normal is already energized, a parallel cannot be made using load break elbows, however, a parallel can be made adjoining the 2 circuits at a different location (i.e. an UG SCADA switch) in order to loop switch with the load break elbows. Protection schemes for a parallel have ground and reclosing relays cut out, as well as any fuses in the path bypassed. Before closing load breaks in a loop, while still in parallel, ground relays must be cut in, reclosing relays verified cut out, and then the ok will be given to the field to perform the operation of closing the load break elbow on a loop. The abnormally closed device will then be opened to separate the loop. Relays will then be placed in their proper configuration to address the current parallel, and then parallel will be separated and relays and fuses placed into their beginning state, placing the circuit normal. If no parallel is needed (i.e. only one circuit involved), cut-out the source side protective device’s reclosing relay and verify the ground relay is cut in, bypass fuses before closing on a loop, and then open the abnormally closed device to separate the loop. Protective schemes will be then placed in their previous state.
- d) For distribution operations operating procedures, please see the answer to subpart c). The process is the same for opening a load break elbow when placing circuit normal using a larger parallel path, if more than one circuit involved, and creating a local loop to address load break elbow on an already energized segment of line.