

PACIFIC GAS AND ELECTRIC COMPANY
Wildfire Mitigation Plans Discovery 2022
Data Response

PG&E Data Request No.:	CalAdvocates_023-Q02		
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PG&E Witness:		Requester:	Henry Burton

Fast Curve Settings for 2022

QUESTION 02

Please provide the protective device settings that PG&E plans on using in HFTD areas during high fire-risk weather in 2022, including the following parameters:

- a) The minimum to trip current;
- b) Definite time delay;
- c) Time curve; and
- d) Coordination parameters.

ANSWER 02

Please see table below for a current summary of PG&Es 2022 normal and EPSS protective device settings parameters. These settings are based upon calculated values using fault analysis and using device telemetry and load flows to understand the normal loading on the protective devices.

Element	Normal Operation	EPSS Operation
51P (Phase Time Overcurrent)	< 60% Prot Zone EOL	< 60% Prot Zone EOL
	> 1.2x Normal Load Current	> 1.2x Normal Load Current
	Normal Time Current Characteristic (TCC)	Normal Time Current Characteristic (TCC)
51N (Ground Time Overcurrent)	< 50% Prot Zone EOL.	< 50% Prot Zone EOL
	> 1.2x Normal Load Imbalance on 4-wire	> 1.2x Normal Load Imbalance on 4-wire
	Normal TCC	Normal TCC
50P (Phase Instantaneous Overcurrent)	Set for I^2t , equipment interrupting rating, and arc flash protection	Set at 51P
		Delay = Max 0.1s (6 cycles)
50N (Ground Instantaneous Overcurrent)	Set for I^2t , equipment interrupting rating, and arc flash protection	Set at 51N
		Delay = Max 0.1s (6 cycles)

The normal protection zone end of line (EOL) is defined to be up to downstream fuses, interrupters, and other single phase protective devices. EPSS EOL is to be set to reach past fuses, interrupters, and other single phase protective devices. 1.2 – 3 cycle definite time delay between reclosers and circuit breakers for coordination. 50GS/SEF/SGF (Sensitive Ground Fault) is incorporated in some areas based upon system configuration. The typical settings are 15A and 15s trip with 3s of coordination margin for the SGF element.