

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

PG&E Data Request No.:	OEIS_002-Q009		
PG&E File Name:	WMP-Discovery2023_DR_OEIS_002-Q009		
Request Date:	April 13, 2023	Requester DR No.:	P-WMP_2023-PG&E-002
Date Sent:	April 18, 2023	Requesting Party:	Office of Energy Infrastructure Safety
DRU Index #:		Requester:	Colin Lang

**SUBJECT: REGARDING PG&E’S RESPONSE TO ACI PG&E-22-32**

**QUESTION 009**

- a. Provide the definitions for the EPSS Outage Types under Column J for the tab labeled “2022 EPSS Outage Data”.
- b. What analysis has PG&E performed on EPSS-caused outages to determine which outages would have led to an ignition?
- c. What percentage of EPSS-caused outages since the establishment of the EPSS program would have led to an ignition had EPSS not been enabled?
- d. Broken down by year since establishment of the EPSS program, how many ignitions have occurred on EPSS-enabled circuits while EPSS was enabled at the time of ignition?
- e. Broken down by year since establishment of the EPSS program, how many ignitions have occurred on EPSS-enabled circuits while EPSS was not enabled at the time of ignition?
- f. In PG&E’s response to RN-PG&E-22-12, PG&E provided additional reliability measures in Table RN-PG&E-22-12-05: EPSS System Reliability Remediations & Correction Actions, such as targeted equipment repairs. Is PG&E still using all of the identified reliability measures within this table? If not, provide a list of reliability measures PG&E is no longer using, as well as an explanation as to why it is no longer being used.
- g. Provide the GIS file for Figure PG&E-22-32-1: Circuits by Number of EPSS Outages.
- h. Provide an updated Excel version of 2023-03-27\_PGE\_2023\_WMP\_R0\_Appendix D ACI PG&E-22-32\_Atch01 with additional columns on the tab labeled “2022 CPZ Data”:
  - i. Whether or not the CPZ qualifies for additional mitigations based on the results of the study
  - ii. The mitigation type(s) being used on the CPZ as a result (vegetation management, installation of animal guards, etc.)

**ANSWER 009**

- a. The table below defines each of the four (4) values appearing in column “J” of the spreadsheet PG&E provided.

EPSS Outage Type	
FTS	"Fast Trip Setting"; Post-Optimized Circuit Settings
HLT	"Hot Line Tag"; Pre-Optimized Circuit Settings
T-EPSS	"Transmission"-EPSS; EPSS outages on transmission lines
C/OUT	"Reclosing Cut-out"; Only subject to reclose blocking

- b. EPSS does not cause outages. Any time there is a fault condition on powerlines, there is an inherent risk of sparks and/or thermal energy dissipation from that fault condition leading to a potential wildfire ignition. Those conditions have been simulated in a laboratory environment to both demonstrate that a fault condition can ignite vegetation as well as demonstrate that de-energization of the line with EPSS significantly reduces the fault energy and associated sparks contacting the vegetation. It is acknowledged that certain fault types may not present as high of a risk of wildfire ignition. An example of this could be an underground cable fault within a mixed overhead and underground system protected by a common protective device. Out of the total outages experienced during EPSS enablement only a small fraction of the outages could be characterized as having a low ignition potential.
- c. More than 95% of outages that occurred in 2022 while EPSS protection was enabled presented a potential ignition risk.
- d. In 2021, there were five Reportable Fire Ignitions (RFIs) in HFTD on circuits enabled with EPSS over the time period of July 28<sup>th</sup> – October 20<sup>th</sup> when the EPSS pilot was implemented on 170 circuits. In 2022, there were thirty-one RFIs on EPSS-enabled circuits in HFTD over the time period of May 20<sup>th</sup> – Oct 26<sup>th</sup>. There have been 0 ignitions with EPSS enabled in 2023 year to date.
- e. We understand this question to be asking about RFIs that occurred downstream of an EPSS capable device when EPSS was not enabled. In 2021, there were 2 RFIs in HFTD downstream of an EPSS capable device that was not EPSS enabled; in 2022, there were 23 RFIs in HFTD downstream of an EPSS capable device that was not EPSS enabled, and in 2023 year to date there have been 9.
- f. Yes.
- g. GIS file is attached/included “WMP-Discovery2023\_DR\_OEIS\_002-Q009Atch01CONF.kmz” (in KMZ format). Please note a redacted version of the requested document is not being provided because it could not be reasonably redacted.
- h. The updated excel version of “WMP-Discovery2023\_DR\_OEIS\_002-Q009Atch02.xlsx” includes two additional columns as requested. These columns outline what CPZs are being scoped for additional reliability mitigations in column X. These reliability mitigations are scoped to the CPZ where they will have the greatest impact based on the mitigation and the reliability history.