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

PG&E Data Request No.:	CalAdvocates_014-Q005		
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The following questions relate to your 2023-2025 WMP submission.

QUESTION 005

P. 363 of PG&E's WMP states,

> "Temporary distribution microgrids are designed to support community resilience and reduce the number of customers impacted by PSPS by energizing 'main street corridors' with clusters of shared services and critical facilities so that those resources can continue serving surrounding residents during PSPS events."

a) Please list the temporary distribution microgrids that PG&E had available in 2020, 2021, and 2022 to mitigate the effect of a possible PSPS event.

b) For each temporary distribution microgrid listed in part (a), state the number of times the temporary distribution microgrid was used in 2020, 2021, and 2022 to mitigate the effects of a PSPS event.

c) For each instance in part (b), list the number of customers that remained energized during a PSPS event.

d) How does PG&E determine what locations would warrant deployment of a temporary distribution microgrid?

e) How does PG&E determine when to deploy a temporary distribution microgrid?

f) How does PG&E determine when to remove a deployed temporary distribution microgrid?

ANSWER 005

a-c) Responses are summarized in the tables below, by year:

<u>2020:</u>

Temporary Distribution Microgrid available to operate in 2020	Number of 2020 PSPS events supported	Approx. qty of service pts energized per 2020 PSPS event
Angwin	4	48

Shingletown	4	79
Calistoga	3	1554
Placerville (temporary configuration without a pre-installed interconnection hub)	1	487
Clearlake North (temporary configuration without a pre-installed interconnection hub)	0	n/a
Clearlake South (temporary configuration without a pre-installed interconnection hub)	0	n/a

2021:

Temporary Distribution Microgrid available to operate in 2021	Number of 2021 PSPS events supported	Approx. qty of service pts energized per 2021 PSPS event
Angwin	1	48
Shingletown	1	83
Calistoga	1	1556
Magalia	1	83
Georgetown	0	n/a
Pollock Pines	0	n/a
Foresthill	0	n/a
Middletown	0	n/a

2022:

Temporary Distribution Microgrid available to operate in 2022	Number of 2022 PSPS events supported	Approx. qty of service pts energized per 2022 PSPS event
Angwin	0	n/a
Shingletown	0	n/a
Calistoga	0	n/a
Magalia	0	n/a

Georgetown	0	n/a
Pollock Pines	0	n/a
Foresthill	0	n/a
Middletown	0	n/a
Colfax	0	n/a
Arnold	0	n/a
Groveland	0	n/a
Lucerne	0	n/a

d) To determine the appropriate locations for the permanent installation of infrastructure that enables temporary distribution microgrids (i.e. pre-installed interconnection hubs, isolation devices, etc), we identified distribution circuits most likely to be impacted by PSPS events in the future, based on foundational data analysis of 10 years of historical weather events. This "historical PSPS lookback" takes historical weather events and builds the associated PSPS events that would have occurred, including both transmission and distribution impacts.

   We reviewed these circuits to identify communities with clusters of shared services (i.e., those involving food, fuel, healthcare, and/or shelter) and critical facilities served by electrical infrastructure that would likely be safe to energize during PSPS events without significant additional modifications.

   After identifying high-impact circuits with clusters of shared and critical services, we then determined whether distribution microgrids would present viable, effective near-term mitigation measures. We ran a review for implementation feasibility (i.e., land availability and construction complexity) and the potential for those locations to be served by alternative grid solutions.

   Finally, we met with county and/or local government representatives to review candidate sites and ensure local priorities were accounted for.

   Given the time needed for design, land acquisition, permitting, and construction following site selection, (approx. 2 years), We repeated this process multiple times as the PSPS Lookback was updated and parallel hardening projects and PSPS improvements were implemented. In some instances, we modified our approach (i.e. canceling early-stage projects with low impact frequency) based on new data.

e) We "deploy" (i.e. energize and operate using temporary generation) temporary distribution microgrids when those sites are impacted by PSPS events.

   We take into account frequency of projected impacts per the latest PSPS Lookback model and quantity of service points to determine for which sites to proactively rent and pre-stage temporary generators for the fall (i.e. when conditions triggering PSPS are most seasonally likely). For sites without pre-rented temporary generators, our Emergency Operations Center coordinates generator rental and

delivery as it prepares to execute a PSPS event in accordance with the evolving PSPS event scope.

f) The infrastructure enabling temporary distribution microgrids (i.e. pre-installed interconnection hub, isolation devices, etc) is permanently installed and not currently planned to be removed. We modify our temporary generation rental strategy on a year-to-year basis to account for system changes per the latest PSPS Lookback.