Community Microgrid Enablement Program

Presentation to San Mateo County Resource Management and Climate Protection Committee

October 21, 2020

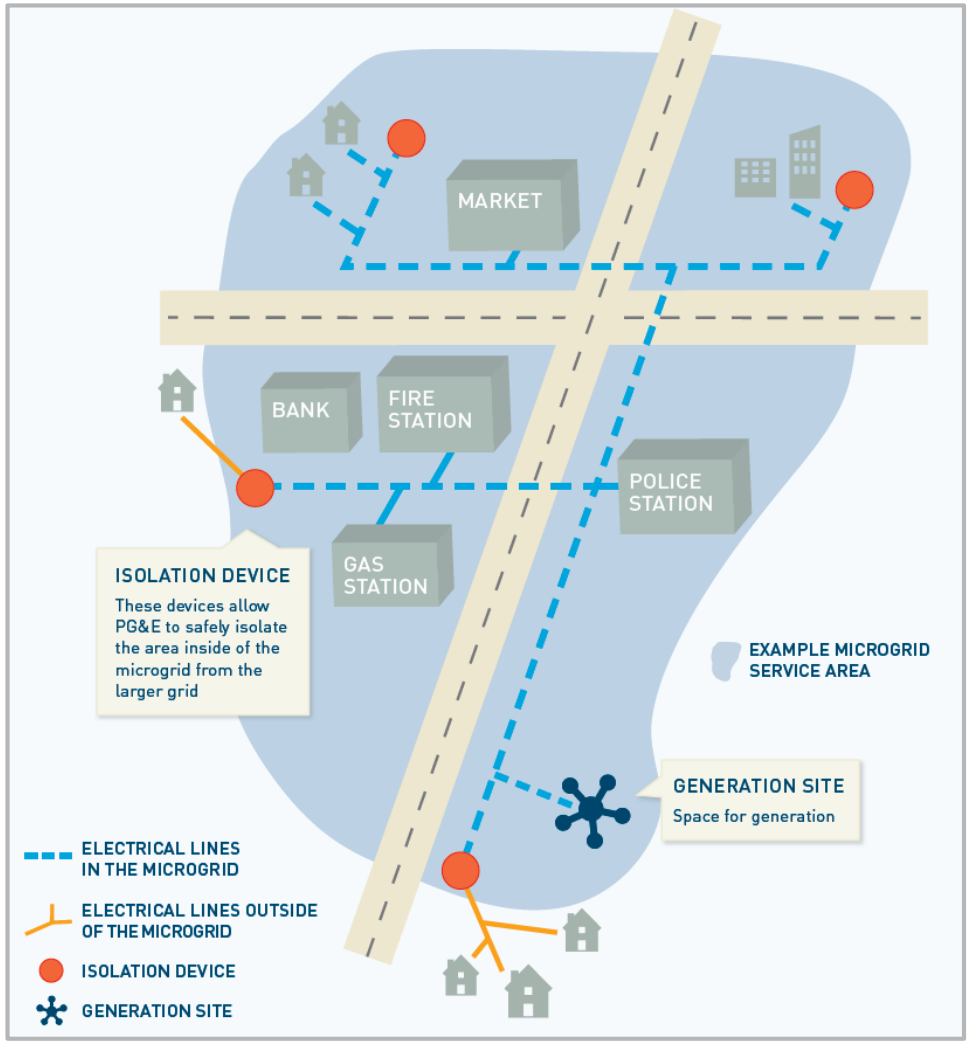
What is a Community Microgrid?

A **community microgrid** consists of a group of interconnected customers and distributed energy resources within clearly defined electrical boundaries that can disconnect from and reconnect to the grid.

These microgrids are typically designed to serve the portions of communities that include **community resources**, such as:

- Hospitals
- Police and fire stations
- Gas stations and markets

Each community microgrid is uniquely designed by the community to address **their specific goals and needs**. A range of variables will dictate the size of the microgrid, what community services are served and what elements are included in the design.



The diagram above represents an approximate layout of a community microgrid. The layout and dimensions are approximate and for illustrative purposes only.

PG&E's Community Microgrid Enablement Program (CMEP) Proposal

Regulatory Status

- PG&E proposed the Community Microgrid Enablement Program to the CPUC on January 21st, 2020.
- The CPUC approved the program framework, with modifications, in D.20-06-017.
- PG&E filed a CMEP Implementation Plan on August 17th, 2020.
- PG&E is awaiting resolution on that Advice Letter.

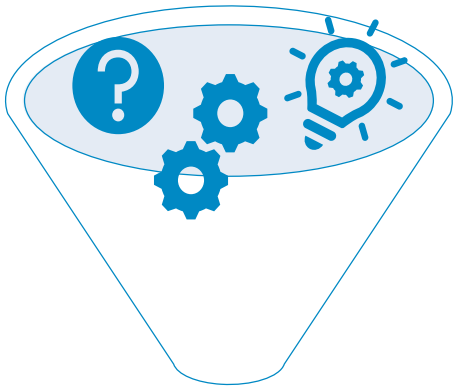
All program descriptions described herein are therefore preliminary and subject to change.

Community Microgrid Enablement Program Overview

CMEP Objective: To partner with communities in their resilience efforts by supporting community-driven resilience for critical facilities and vulnerable customer groups.

CMEP Elements

Inquiry Intake



- Enhanced Tools & Information
- Enhanced Utility Technical Support
- Community Microgrid Enablement Tariff
- CMEP Cost Offsets

Target

Some elements of this may support behind-the-meter (BTM) as well as front-of-the-meter (FTM) microgrids

Specifically intended to support FTM, multi-customer microgrids

CMEP is Designed to Serve Communities With the Highest Resilience Needs

"Community Microgrid" Eligibility

- *Location*: Tier 2/3 High Fire Threat District, or prior Public Safety Power Shutoff (PSPS)-impacted, or "prone to outages"*
- *Customers served*: At least 1 critical facility, plus 1 additional customer
- *Project Resources*: Not to exceed 20 MW in aggregate
- *Community Interest*: Must have demonstrated support from local government, Tribe, or CCA having jurisdiction over the area

2 Categories of Project Prioritization

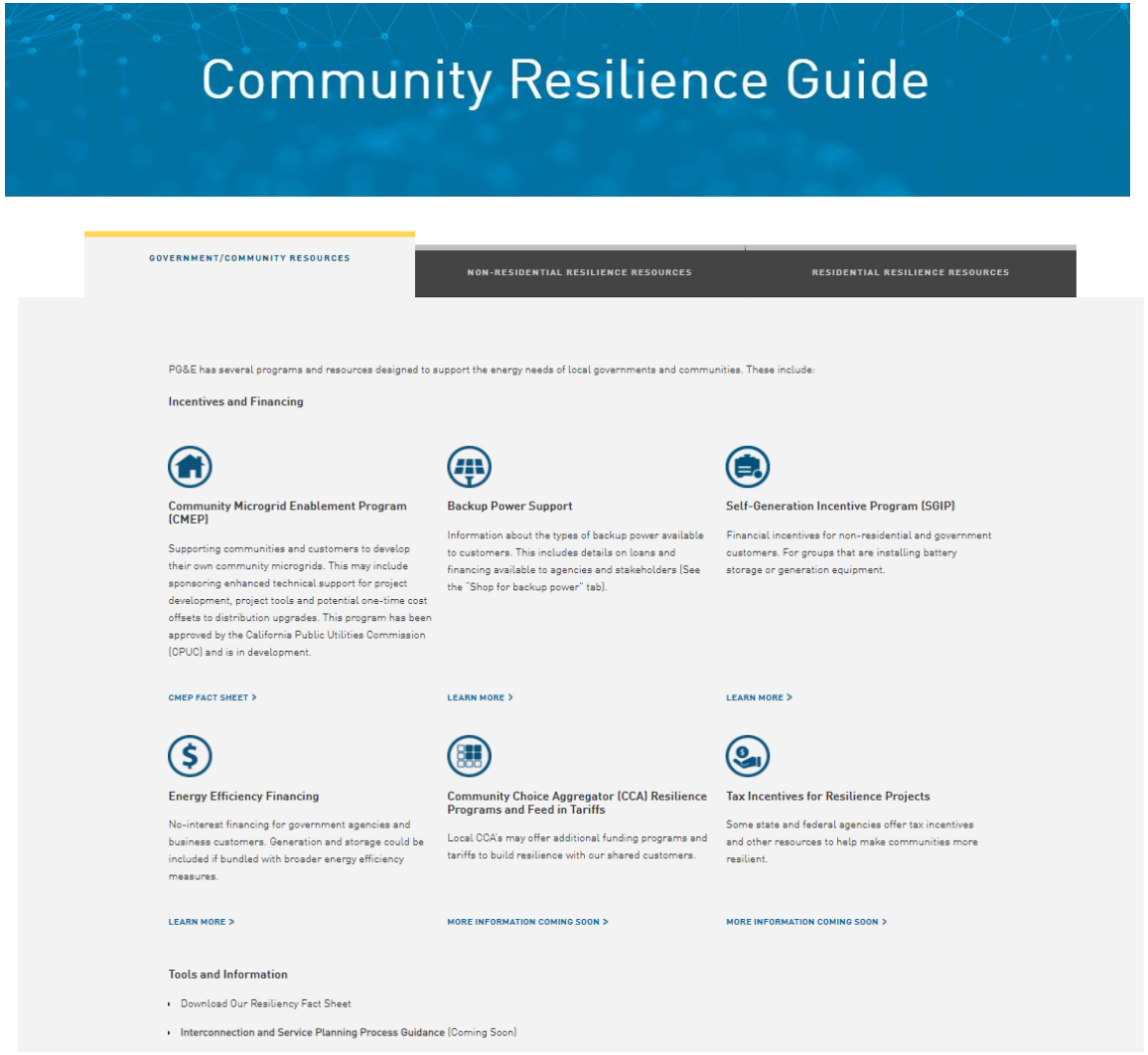
- Disadvantaged Vulnerable Communities – As defined in Climate Adaptation OIR
- Projects that are most urgent for public health, safety, and public interest

* Defined for this purpose as the top 1% Worst Performing Circuits excluding Major Event Days from PG&E's Annual Electric Reliability Report, in either the AIDI or AIFI category, in either of the last 2 years

CMEP Tools and Information

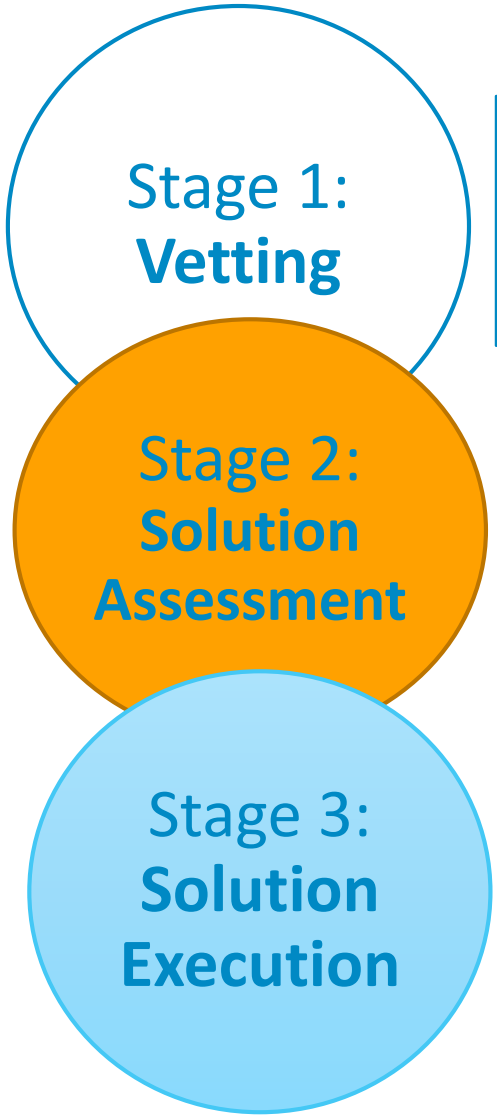
PG&E will provide tools and information on a publicly available website for customers to access:

- Comprehensive information on behind-the-meter (BTM) and community microgrid implementations
- Technical resources, applicable PG&E standards, and guidance to help local and tribal governments navigate PG&E's service planning and interconnection processes
- Tools to assist communities in assessing initial project viability and siting considerations, including relevant maps, studies, and reports pertaining to PG&E's transmission and distribution system.



Enhanced Utility Technical Support

PG&E will provide support to facilitate project development from **initial concept exploration**, through **solution assessment**, and finally, for certain types of resilience solutions, through **project completion**.



Stage Objectives

To help the community discern what resiliency approach may best meet their needs.

To support the community and its technical partner(s) in planning and designing a robust multi-customer resilience solution

To ensure that the execution of the multi-customer MG is coordinated across all PG&E functions.

CMEP Cost Offsets

PG&E distribution upgrades necessary to enable a community microgrid are typically charged to the customer or community which requests them.

PG&E has proposed to offset **100% of costs**, up to a cap of **$3M per project**, for PG&E equipment to enable the islanding function of a community microgrid, or to ensure its safe operation.

Examples of the types of equipment to be covered include:

- Equipment to enable a section of the grid to disconnect from the larger grid (e.g., isolation devices)
- Equipment to operate the microgrid (e.g., PG&E's microgrid controller)
- Equipment to ensure it is safe to operate (e.g., fault protection devices and hardening)

The CMEP program will not cover storage or generation-related costs.

Thank you

Molly Hoyt
Molly.hoyt@pge.com