

# Microgrid Incentive Program (MIP) Handbook

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A guide for developing a multi-customer  
Community Microgrid



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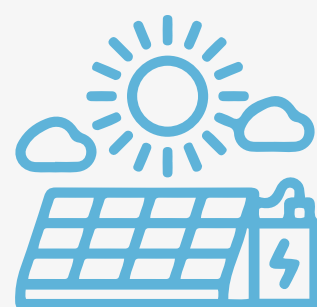




Microgrid Incentive Program Goals:



Increase electric reliability and resiliency in disadvantaged and vulnerable communities



Distribute the benefits of clean, reliable energy equitably across the IOU service areas



Advance energy resilience technology and inform regulatory action around future clean energy initiatives

**The California Investor-Owned Utilities (IOUs) are committed to delivering electric energy to customers safely and reliably.** These utilities include Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric Company (SDG&E), and Southern California Edison (SCE).

**Innovative solutions like microgrids can increase local energy resilience and reliability, and reduce emissions. Microgrids allow the three California IOUs to continue delivering electricity when customers would otherwise be de-energized as a result of severe weather, wildfires or other grid conditions. PG&E, SDG&E and SCE are working together to support the development of microgrids in disadvantaged and vulnerable communities (DVCs) most impacted by climate change.**

Background

Senate Bill 1339 (enacted in 2018) directed the California Public Utilities Commission (CPUC), in consultation with the California Energy Commission (CEC) and California Independent System Operator (CAISO), to develop policies related to microgrids throughout California. **In April 2023, the CPUC approved plans for a \$200 million Microgrid Incentive Program (MIP) to support the development of clean Community Microgrids in DVCs.** The program is funded by ratepayers of the three IOUs.

Local and Tribal governments, and community-based organizations (CBOs) that are eligible for the MIP have the opportunity to request funding to support the critical energy needs of vulnerable populations most likely to be impacted by grid outages.

Program Funding by IOU

UTILITY	TOTAL BUDGET*
PG&E	\$87.2M
SCE	\$91.34M
SDG&E	\$21.46M
TOTAL	\$200M

\*Includes utility program and administrative costs



# Microgrids: The Basics

Click on a section below to learn more.

MICROGRIDS:  
THE BASICS





# What is a Microgrid?

A microgrid is an interconnected, self-sufficient energy system within a clearly defined electrical boundary that can act as a single, controllable entity. It can connect to, disconnect from, or run in parallel with larger portions of the electric grid, and can be managed and isolated to withstand larger disturbances and maintain electrical supply to connected critical infrastructure.

Microgrids provide energy resilience by disconnecting from the larger electric grid during outages and providing power to customers within the boundary of the microgrid, utilizing local energy-generating resources such as solar panels, batteries, generators, etc.

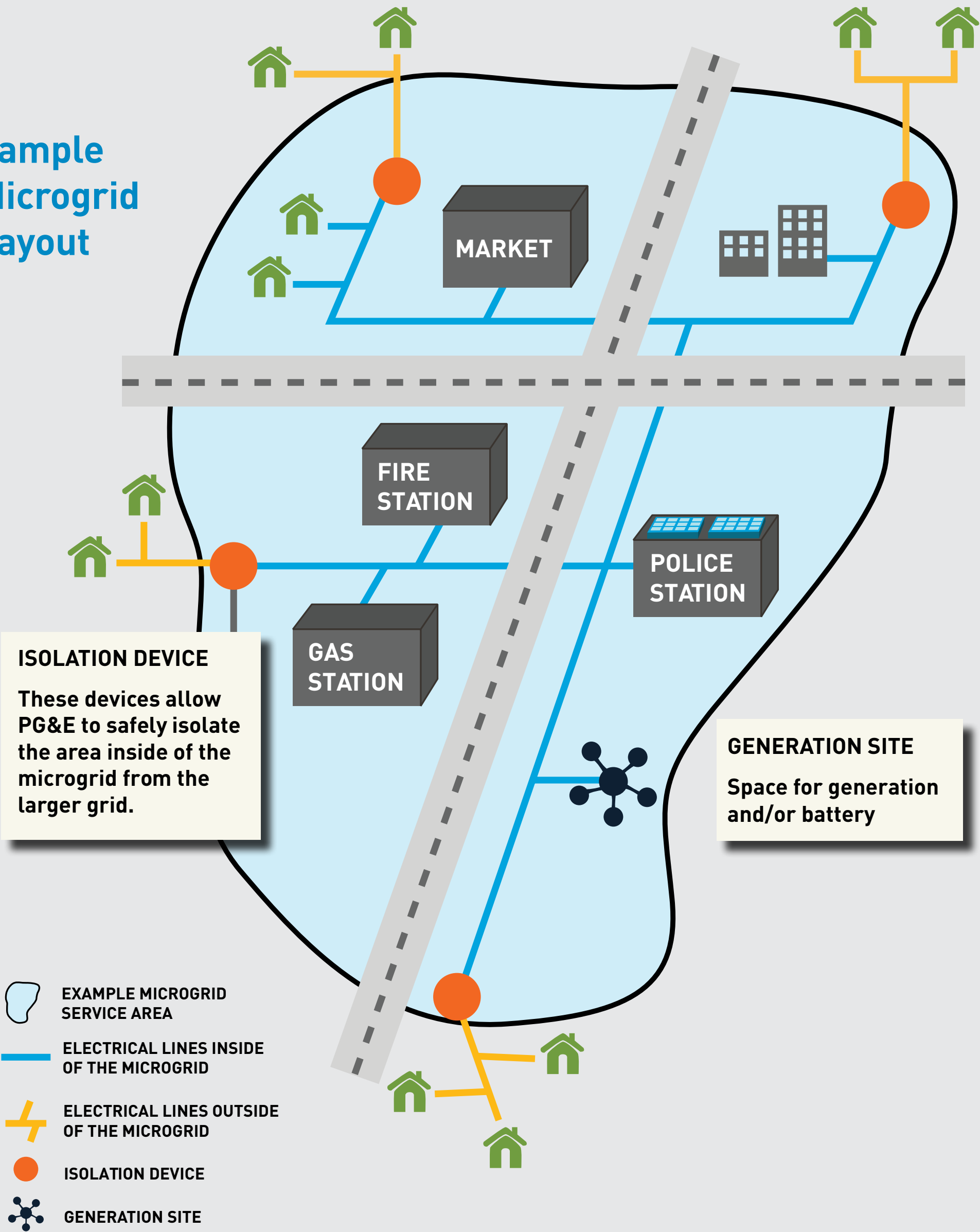
The MIP provides funding specifically for Community Microgrids. These are distinguished by a few key features:

- They serve multiple customers connected by utility distribution infrastructure.
- They utilize grid-forming generation resources and/or batteries located on the utility-controlled side of the electric meters (often referred to as located “in front of the meter”). These resources may be owned by the community or its partners.
- They involve a partnership between the 3rd party owner of one or more Distributed Energy Resources (DERs), a Community Microgrid Aggregator (CMG Aggregator), as the operator of the grid-forming resources, and the utility, as the grid owner and operator. Together, we partner in the development and operation of the microgrid.

## How Does a Microgrid Work?

When necessary, microgrids can become isolated energy sources and independently provide electricity when an outage of the larger grid occurs. Outages can be planned or unplanned and happen for a variety of reasons including severe weather, wildfires, a Public Safety Power Shutoff (PSPS), or for other safety or reliability reasons. When a microgrid disconnects from the larger grid during an outage, it is designed to remain energized.<sup>1</sup> This is called Island Mode. However, most of the time, microgrids operate in Blue Sky Mode. This is when the larger electric grid is functioning under normal conditions, and resources within the microgrid boundary may, if they have authorization to interconnect to the grid during Blue Sky conditions, generate and store energy in parallel to the grid, and participate in regional energy markets.

## Sample Microgrid Layout



## MICROGRIDS: THE BASICS







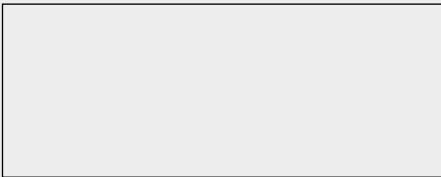
## Community Microgrid Benefits

As California’s climate evolves, communities may experience power outages for many reasons. Microgrids can serve as a vital layer of protection in ensuring that communities can continue to have access to safe, reliable power. Benefits include:

- Increase in electric reliability and resiliency in communities with higher risk of electrical outages
- Back-up energy source for critical services and infrastructure such as fire stations, hospitals and water treatment facilities that might otherwise lose power during an outage
- Fewer impacts from power outages and fewer disruptions for:
  - Disadvantaged and vulnerable communities
  - Low-income households
  - Individuals who rely on power for medical needs
  - People with other Access and Functional Needs (AFN)
- Reduced greenhouse gas (GHG) emissions through deployment of clean generation technologies that are added as part of the microgrid development

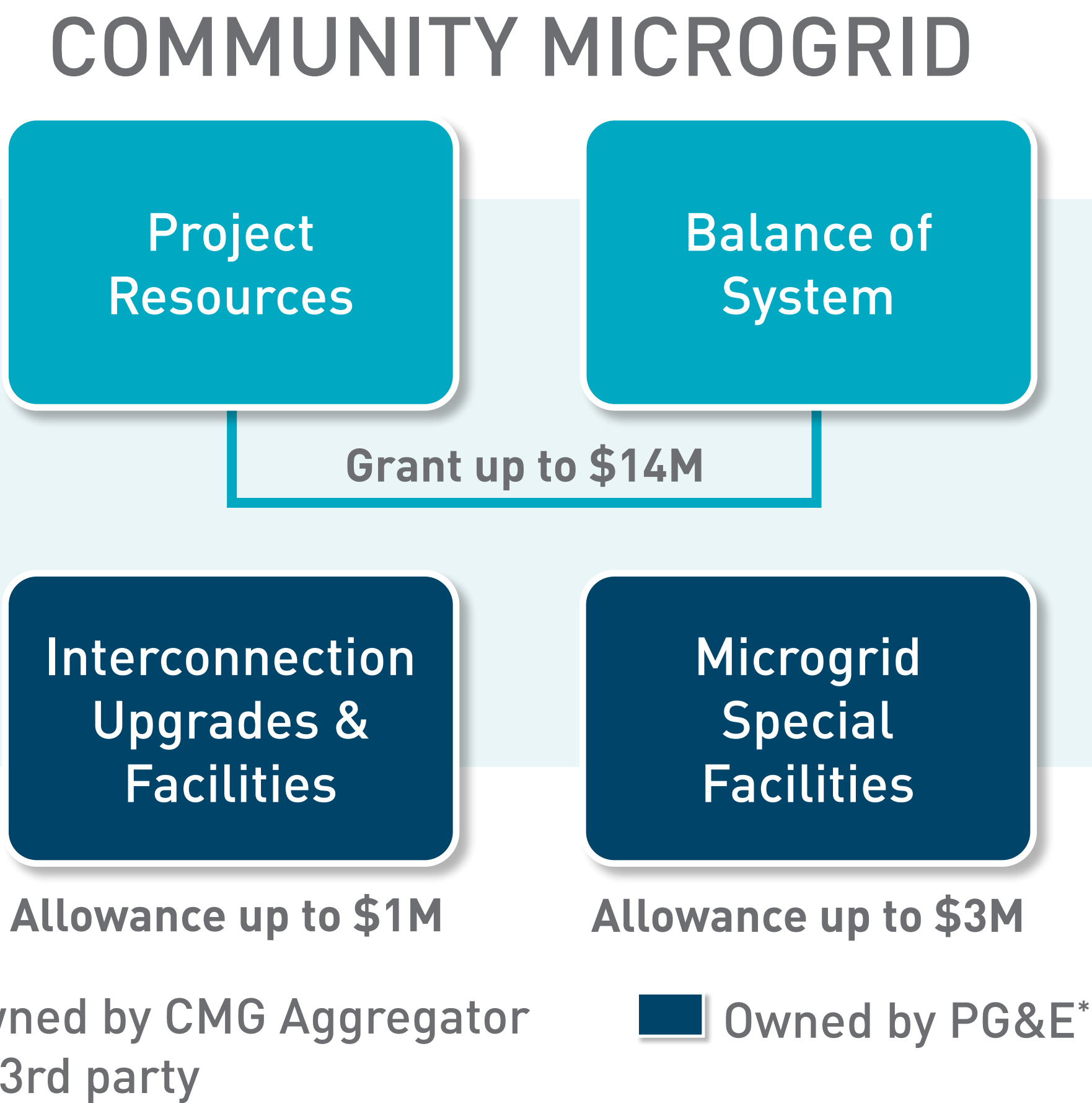
## Common Microgrid Misconceptions

-  **Will the community still be a part of PG&E’s electric grid?**  
Yes, the community microgrid will be seamlessly connected to the broader grid most of the time. The community microgrid will go into island mode and operate independently only when the utility grid is unavailable. For the safety and stability of the grid, PG&E retains operational control over the islanding status of the microgrid.
-  **What types of outages will the community microgrid provide back-up support for?**  
It depends on the specific design of the microgrid. Generally, microgrids can be designed to address a wide range of potential causes of outages such as PSPS events, earthquakes, grid maintenance work and grid failures. Your technical partner and PG&E can help advise on vulnerabilities in your area and microgrid design options to help mitigate the potential for outages.
-  **Will the Project Resources sell energy directly to the customers within the microgrid?**  
The Community Microgrid Aggregator may not directly sell power to customers within the microgrid. However, front of the meter resources can participate in the CAISO wholesale markets for energy and related services during Blue Sky and Island Modes. The revenue generated from those sales will accrue to the community or their designated partner.
-  **Do energy rates change with a microgrid?**  
The existence of a microgrid, by itself, will not modify customer energy rates for those customers within the microgrid boundary compared to similarly situated customers outside of the boundary. Customers within the microgrid still receive service from PG&E, or a Community Choice Aggregator (CCA), or a Direct Access (DA) provider. Customers will be metered and billed according to their selected rate plan, whether the microgrid is operating in Blue Sky Mode or Island Mode.





# What Are the Components of a MIP-funded Community Microgrid?



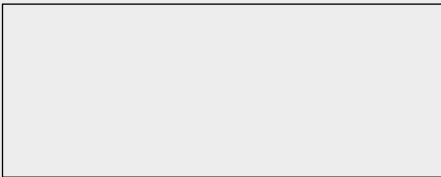
**Project Resource<sup>2</sup>:** In-front-of-the-meter (IFOM) electric generation and/or storage technology that is used to form a utility-operated microgrid. At least one Project Resource must have sufficient grid-forming capability to maintain acceptable frequency and voltage during Island Mode operation. A Project Resource is controlled by the CMG Aggregator but may be owned by another party.

**Balance of System:** Assets, facilities and equipment, other than the Project Resources, owned or controlled by the CMG Aggregator necessary to meet the requirements of the project and any applicable tariff or agreements.

**Interconnection-Related Upgrades & Facilities:** Distribution Upgrades and Interconnection Facilities necessary to enable the interconnection of a DER; Distribution Upgrades are utility-owned; Interconnection Facilities may be owned by DER owner (producer) or utility.

**Microgrid Special Facilities:** Utility-owned and operated equipment that enables the safe islanding and operation of the microgrid (e.g. microgrid controller that communicates with Project Resources’ controllers, isolation and fault protection devices).

\*Interconnection Facilities may be owned by either DER owner (producer) or by Utility.





# Funding

Click on a section below to learn more.

FUNDING



May 2024 | V1.1

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# What Does the MIP Pay For?

The MIP pays for the costs to design and develop a Community Microgrid. The funding falls in several categories as described below.

## MIP Funding

FUNDING

Up to  
**\$14M**  
per project

Up to  
**\$3M**  
per project

Up to  
**\$1M**  
per project

### Application Incentive Request (AIR)

For eligible **project engineering and development costs**, such as:

- IFOM batteries and generation resources
- Engineering and project management costs
- Property purchase or lease costs

Also includes the Application Development Grant of up to \$25,000.

### Microgrid Special Facilities Allowance

For **utility equipment and services** that would otherwise be the cost responsibility of the Applicant, to enable the safe islanding of a Community Microgrid, such as:

- Microgrid Island Study (MIS)
- Equipment to enable safe transition and operation in Island Mode, which may include:
  - Isolation devices
  - Fault protection devices
  - Utility microgrid controller
  - System hardening

### MIP Interconnection Allowance

For eligible **Interconnection Studies and equipment** that would otherwise be the cost responsibility of the Applicant, such as:

- Interconnection Study costs for eligible IFOM Project Resources
- Interconnection Facilities and Distribution Upgrades identified in the Interconnection Study





# Application Incentive Request (AIR)

Costs eligible for the AIR include:

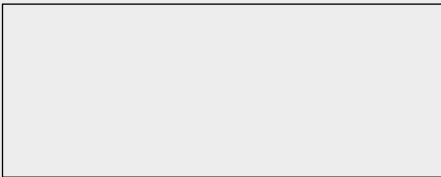
- The costs for purchasing IFOM Project Resources and their grid-forming and grid-following inverters
  - To be eligible, none of these resources can be part of an Interconnection Agreement with PG&E executed before the close of the Application Window used for your Microgrid Application.<sup>3</sup>
- The costs for purchasing IFOM Project Resource’s controller, protection and communications equipment
- Permitting and licensing expenses incurred for IFOM Project Resource(s) and Balance of System prior to a microgrid’s Islanding Operation Date
- Expenses related to reconfiguring behind-the-meter (BTM) electric service equipment so specific customer or facility loads can be isolated and served when the microgrid is in Island Mode
- Project management costs, including costs related to engineering, studies, system integration and construction activities for IFOM Project Resource and Balance of System. Includes site preparation, civil, electrical and mechanical work
- Expenses associated with purchasing or leasing property for the IFOM Project Resources and Balance of Systems
  - Leasing property expenses should reflect the present value of the lease for the property needed for the IFOM Project Resources and Balance of System.
- Costs related to community outreach activities conducted for the microgrid
- Costs associated with developing a microgrid proposal and MIP Application, to the extent not covered in the optional MIP Application Development Grant
- Related legal costs
- Taxes to the extent applicable on any of the above

**The financial costs to be covered under the Interconnection Allowance and Microgrid Special Facilities Allowance will not be estimated until the Interconnection Studies and Microgrid Islanding Studies are completed in Stage 3.**

When these studies are complete, PG&E will identify the required facilities and upgrades needed for the project. This information, along with the estimated costs, will be documented in the Generator Interconnection Agreement and in the Microgrid Special Facilities Agreement.

Owners of IFOM Project Resources will only be required to pay for the costs of Interconnection Facilities and Distribution Upgrades to the extent the costs exceed the \$1 million allowance cap. Likewise, MIP Awardees will only be required to pay for the costs of Microgrid Special Facilities to the extent the costs exceed the \$3 million allowance cap.

FUNDING





# Application Development Grant

PG&E recognizes that it can be costly to develop a technical application required for the MIP. For this reason, the MIP will reimburse the costs incurred in development of an eligible MIP application, up to a cap of \$25,000, whether the Applicant is awarded a MIP incentive grant or not. This one-time Application Development Grant, if requested, will be paid to the requesting eligible Applicant following confirmation of program eligibility, as described on the next page.

Applicants must detail the technical support costs associated with the grant request, along with an explanation of how the funds were used.

FUNDING





# Eligibility

To be eligible for MIP, a proposed project must:

- Meet at least one requirement in **section A**
- Meet at least one requirement in **section B**
- Meet all technical requirements in **section C**

Eligible communities are encouraged to apply either on their own or through a designated representative. **The MIP application process is competitive and eligibility does not guarantee funding.**

Speak to a PG&E Resilience Coordinator at [communitymicrogrids@pge.com](mailto:communitymicrogrids@pge.com) for assistance in determining if your community meets these criteria.

ELIGIBILITY

## A

### Vulnerable to Outages

Project must be located in one of the following areas:

- Tier 2 or 3 High Fire-Threat District
- Area that experienced prior PSPS outage(s)
- Elevated earthquake risk zone
- Locations with lower historical reliability

Local or Tribal government leadership may be able to justify other forms of vulnerability.

## B

### Disadvantaged and Vulnerable Community

Project must be located in a DVC (one of four criteria below), or power a critical community facility that primarily serves a DVC.

- Census tracts with median household incomes less than 60% of state median
- California Native American Tribal Community
- Community with highest risk per CalEnviroScreen
- A rural area<sup>4</sup>

## C

### Technical Eligibility

Project must:

- Meet the eligibility requirements of the [Community Microgrid Enablement Tariff](#) (CMET)
- Be able to serve a minimum of 24 consecutive hours of energy in Island Mode as determined by a typical load profile within the Microgrid Boundary

Project Resources must:

- Interconnect on a distribution line that is at 50kV or below
- Comply with the emissions standards adopted by the State Air Resources Board pursuant to the distributed generation certification program requirements of Section 94203 of Title 17 of the California Code of Regulations, or any successor regulation
- Have aggregate emissions, along with Non-Project Resources, no greater than equivalent grid power when operating in Island Mode
  - Energy storage that is charged with grid power will be deemed to have the emissions equivalent of the average system emissions for the Utility.



# The 5-Stage MIP Project Lifecycle

Click on a section below to learn more.

The creation of a multi-customer Community Microgrid is a complex endeavor involving the community, its technical partner, and PG&E as the distribution system owner and operator. PG&E advises that communities seek a technical partner early in the process, as a technical partner will be needed in order to submit a MIP application.

MIP projects will progress through a five-stage process.

Approx. 6 Months

2-3 Months

12-18 Months

18-36 Months

10+ Years

MIP PROJECT  
LIFECYCLE STAGES



**NOTE:** Each project is unique and will follow different timeframes. These estimates are provided as guidelines only.



# Stage 1: Consultation

## Goals:



Identify resiliency needs within the community



Discuss potential projects/energy solutions to meet community's need



Review the eligibility requirements for MIP funding



Discuss with Applicant's engineering partner any design challenges, and coordinate on solutions in preparation for application

## Community Interest Notification

To begin the consultation process, your community should notify PG&E of its interest by sending an email to [communitymicrogrids@PGE.com](mailto:communitymicrogrids@PGE.com). PG&E will promptly respond and provide information on next steps. An initial resilience consultation will then be scheduled. You will be provided with a consultation request form that must be completed prior to the consultation. Please read through the form and familiarize yourself with information required to provide to PG&E before continuing with the handbook.



STAGE 1:  
CONSULTATION



# Initial Resilience Consultation

The initial resilience consultation and the subsequent technical consultation are important steps toward the submittal of a MIP application. The initial consultation is the first opportunity to share your community’s specific goals and energy needs with PG&E, and to discuss potential resilience solutions. The consultation will take place by phone or video call.

During the initial resilience consultation, PG&E will work with you to evaluate whether a MIP-eligible Community Microgrid is the best option to meet the community’s resilience objectives. Options to be explored may include:


- ✓ **A MIP-eligible, Community Microgrid involving<sup>5</sup>:**
  - IFOM resources
  - A combination of both IFOM and BTM resources
- ✓ **Other resiliency options that are ineligible for MIP funding may include:**
  - Single-customer microgrids using BTM solutions
  - Modification of existing utility facilities such as undergrounding overhead distribution facilities, pursuant to a Special Facilities Agreement

During this consultation, PG&E will also ensure you understand the criteria for MIP eligibility (please refer to the [Eligibility section](#) of this handbook). Tribal government applicants should be sure to discuss the issues pertaining to contract enforceability, and the likely need for a limited waiver of sovereign immunity.

## The initial resilience consultation may also cover the following:

- Incentive application and scoring procedures
- Overview of microgrid study and development process, including relevant agreements
- Overview of utility transmission and distribution system characteristics in the identified Community Microgrid area
- Known technical issues related to the interconnection of new resources and/or microgrid configuration
- Information about the capacity of the proposed distribution facilities within the boundary of the microgrid
- Relevant information about PG&E’s past and planned PSPS mitigation activities
- Community Microgrid information, including potential grid isolation points that could establish the boundary of the microgrid (i.e., the Microgrid Islanding Point(s))

STAGE 1:  
CONSULTATION



**If the proposed microgrid is likely eligible<sup>6</sup> and you wish to pursue incentive funding, you may proceed to the Microgrid Technical Consultation.** From this point in the MIP process onwards, PG&E requires you to partner with an engineering firm with the qualifications to design the technical elements of the microgrid. As part of the initial resilience consultation, PG&E can help you identify characteristics of a competent technical partner.





# Microgrid Technical Consultation

The microgrid technical consultation will support you and your technical partner(s) in planning and designing a multi-customer Community Microgrid and in preparing a complete MIP Application. Relevant technical aspects of the proposed MIP project, including electrical conditions of the distribution system within the proposed microgrid boundary, will be shared and reviewed with you and your technical/engineering partner(s). Your technical/engineering partner(s) should familiarize themselves with PG&E’s [Community Microgrid Technical Best Practices Guide](#).

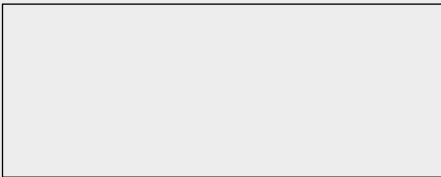
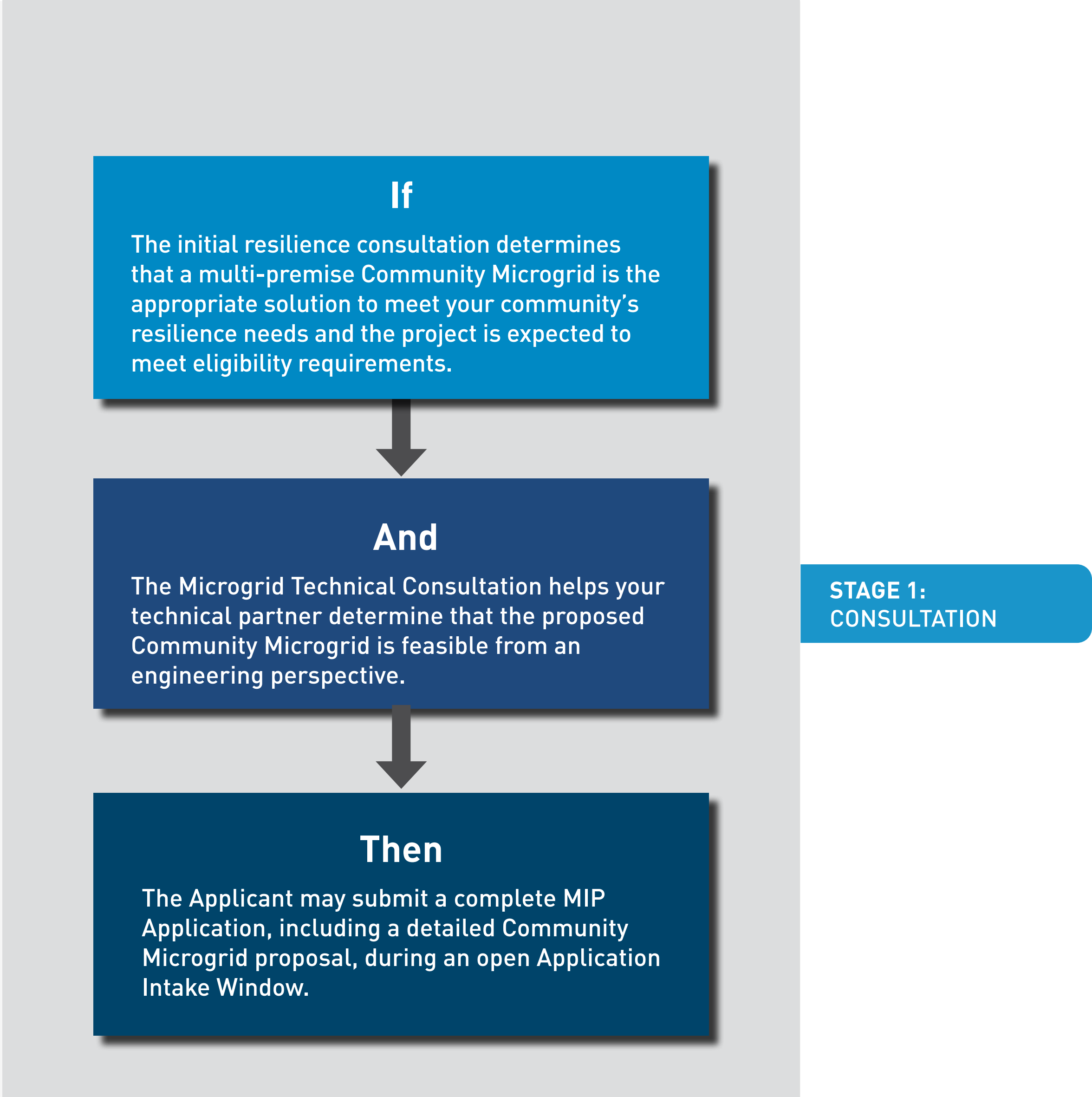
The technical consultation may take place in-person or virtually, as mutually agreed by you and PG&E. You and your technical partner(s) will complete a [Request for Microgrid Technical Consultation](#), which allows PG&E to evaluate project-specific information. All parties that participate in these technical conversations must review, agree to and submit a PG&E confidentiality and non-disclosure agreement (NDA).<sup>7</sup>

During this step, PG&E will provide relevant information necessary to prepare a complete MIP Application, such as aggregated customer load profiles including forecasted growth over the 10-year operating term, subject to all applicable customer and data privacy regulations. The load data is important to help your technical engineering partner design the microgrid to meet the required 24-hour minimum service requirement.

PG&E will also review the MIP application requirements with you and your technical partner.

Once the microgrid technical consultation is complete, PG&E will refer you to the following templates and information to begin reviewing contractual conditions and processes:

- MIP Grant Agreement
- Information on the generator interconnection process
- Microgrid Island Study Agreement
- Microgrid Special Facilities Agreement
- Microgrid Operating Agreement (MOA)<sup>8</sup>





# Request for Microgrid Technical Consultation

Please contact your PG&E Resilience Coordinator for the form to request a Microgrid Technical Consultation. The required information includes:

- Proposed Single Line Diagram (30% design)
- Proposed Site Map, including:
  - Planned Project Resources
  - Proposed Microgrid Electrical Boundary
  - Proposed Point of Interconnection for planned and existing Project Resources
  - Proposed Microgrid Islanding Point, if known
  - Location of controls and networking rack, if known
- Proposed new generation type and size (i.e. Battery Energy Storage System – 1 MW/2MWh) and manufacturer, if known
- When in Island Mode, the desired minimum number of consecutive hours of service
- Technical Representation
  - Engagement Letter from the Applicant Engineer
  - Name and contact for any engineering or development resources assisting the community (one contact per involved party)
  - Applicant experience attestation
- Community Support
  - If requester is not a Local or Tribal government, please include a letter of support from the authority having jurisdiction over the area where the microgrid is contemplated.

**Note:** You will not be held to these designs or technical information in your eventual MIP Application.



STAGE 1:  
CONSULTATION





# Stage 2: Application

## Goals:



Develop and gather information for your MIP Application



Complete and submit the MIP Application to PG&E during a MIP Application Window



Complete the Grant Agreement

## Preparing Your Application

Now that the Consultation Stage is complete, the Applicant and their technical partner(s) can begin to prepare and submit a MIP Application during an open application window. See [www.pge.com/mip](http://www.pge.com/mip) for application window timing. Please familiarize yourself with the application requirements before proceeding with the handbook.

Below is a summary of information needed to complete each of the four sections included in the MIP Application. Note, a MIP Application can only be submitted during an open MIP Application Window.

### Applicant Information

- The name and contact information of the Local or Tribal Government or CBO Applicant.
- The name(s) and contact information for the technical design/engineering partner(s) for the project.
- A description of each of the technical design/engineering partners and their role on the project; engagement letter(s) from each partner on their company letterhead; evidence of each partners' relevant professional qualifications.
- Tribal government Applicants may be required to sign a limited waiver of sovereign immunity to ensure contract enforceability and oversight jurisdiction by the CPUC.



**Note:** If the Applicant is not a Local or Tribal Government, one or more support letters from a Local or Tribal authority having jurisdiction over the area where the project is located is required. Such letter(s) must be included in the Attachments section of the application.



# Preparing Your Application (Continued)

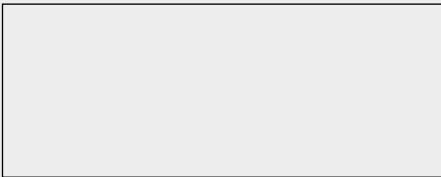
## Project Description

- Executive Summary describing the project, the resilience need it serves, its location, microgrid boundary and islanding point(s)
- A demonstration of how the project meets eligibility requirements “A” (Vulnerable to Outages) and “B” (Disadvantaged and Vulnerable Community)
- Locations of all Project Resources (both existing and planned), and any known non-project resources
- Additional information necessary to score the project:<sup>9</sup>
  - The number of California Alternate Rates for Energy Program (CARE) and/or Family Electric Rate Assistance Program (FERA) or otherwise vulnerable customers, including an attestation from Local or Tribal authority having jurisdiction for vulnerable customer data
  - The number and description of Critical Facilities and Community Resilience Service facilities located within the microgrid project’s boundary
- Summary project cost estimate and Application Incentive Request, with details to be provided in Attachment section:
  - Actual costs incurred [or expected to be incurred] to develop the MIP Application (Application Development Grant request, capped at \$25k)
  - Total estimated project cost that the community anticipates incurring and that is eligible for reimbursement
  - Amounts that will be funded by your organization, other organizations or grants, and the MIP (Application Incentive Request)
  - Calculations showing how the Applicant accounted for actual and estimated costs eligible for funding under the MIP and actual and estimated non-MIP revenue sources, to arrive at the amount of its MIP incentive request.

## Participating Loads and Project Resources

- Hourly aggregate load profiles of the customers within the microgrid boundary, including a forecast of how these metered load profiles will grow over the lifetime of the microgrid project (10 years). This information will be provided by PG&E during the Technical Consultation.
  - The number and types of planned and existing IFOM and BTM Project Resources (solar, wind, battery-based energy storage, etc.) and, if known, planned and existing IFOM and BTM non-Project Resources.
  - Each Project Resource’s manufacturer, technical data and operating parameters
  - If these Project Resources currently exist or if they will be new and need to submit an interconnection request to the utility
  - A brief showing how these Project Resources will support the load of the customers and facilities connected to the microgrid(detailed engineering analysis to be provided in Attachments)
- An estimate of the greenhouse gas emissions per kilowatt/hour (kWh)<sup>10</sup> of electricity generated by Project Resources and Non-Project Resources when the Microgrid Project is in Island Mode.

STAGE 2:  
APPLICATION





# Preparing Your Application (Continued)

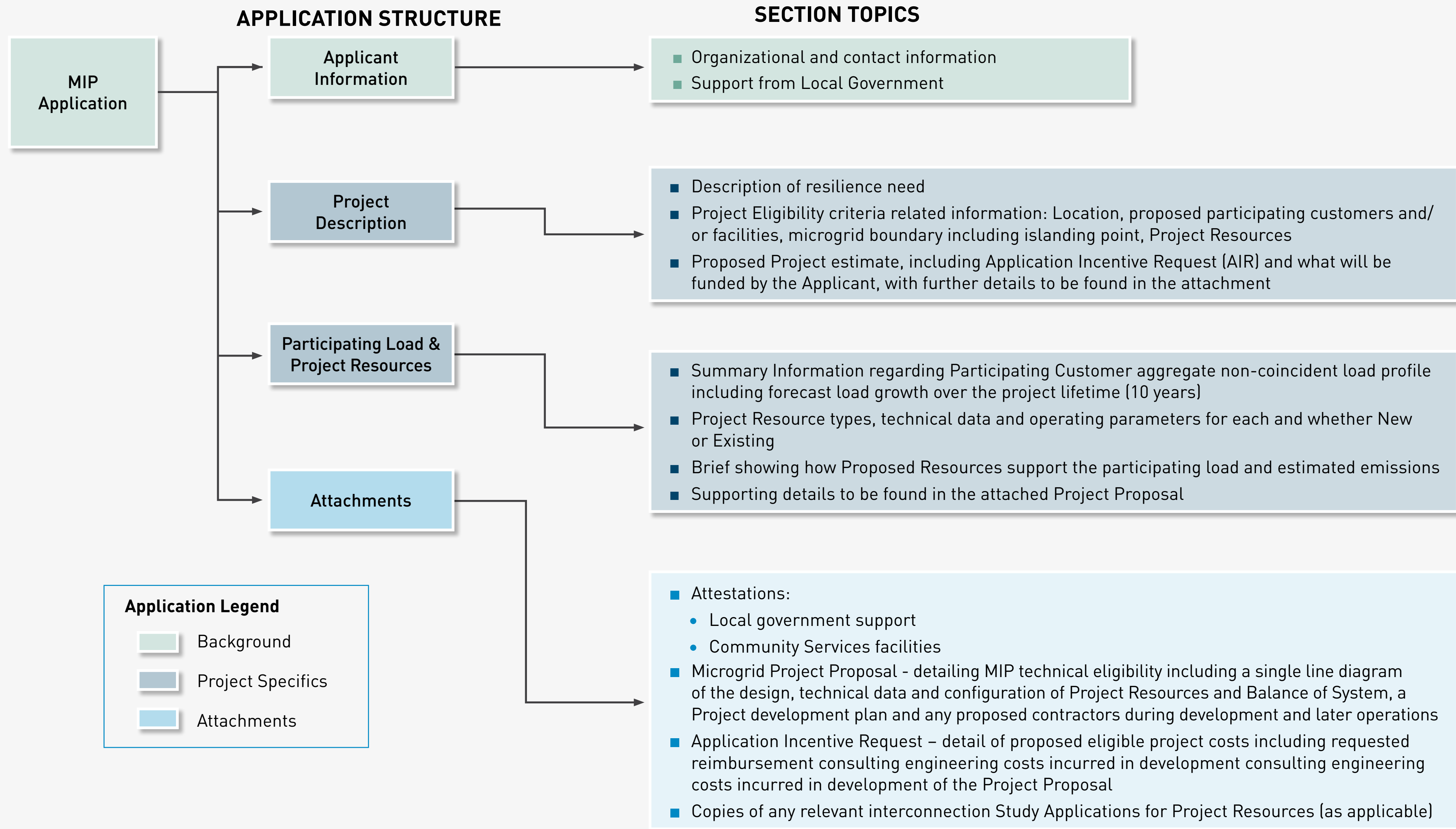
## Attachments

- AIR Request,<sup>11</sup> including the following information:
  - Detailed estimate of costs to be incurred for those activities and facilities that are eligible for reimbursement under the MIP.
  - Detailed accounting of actual application development costs incurred, subject to reimbursement up to \$25k through the Application Development Grant.
  - Breakout of costs to be funded by:
    - Self (community or CMG Aggregator) funding
    - Other grants or other sources
    - MIP
- Attestations/letters of support from Local and Tribal governments; if applicable
- Microgrid Proposal detailing MIP technical eligibility, including:
  - A 30% single-line diagram of the proposed microgrid that describes the microgrid's:
    - Microgrid Islanding Point(s)
    - Boundary, e.g., geographic polygon indicating boundary
- Project Resources and Balance of System to extent known
  - Project site(s) details:
    - Location(s)
    - The status of control your organization will have over the project site(s)
    - Customers to be energized
    - Permits you will need to secure to deploy and operate your microgrid's Project Resources
  - Microgrid development plan
  - An engineering analysis demonstrating how the proposed microgrid's Project Resources will support the projected loads for a minimum of 24 consecutive hours in Island Mode.<sup>12</sup>
  - Copies of any relevant Interconnection Study applications for Project Resources (as applicable)

STAGE 2:  
APPLICATION







**STAGE 2:  
APPLICATION**



# Application Process Overview

Once the Consultation Stage is complete, you can prepare and submit a MIP Application during an open application window.

## ✓ STEP 1: Submitting Your Application

Applications may be submitted via a secure portal accessible from [www.pge.com/mip](http://www.pge.com/mip).

- All applications received within the application window will be acknowledged and reviewed for completeness. PG&E will treat the information and attachments included in the MIP Application as confidential, pursuant to non-disclosure provisions of applicable NDA.
- No preference or priority will be given to applications received earlier or later within the MIP application window.
- If an application is incomplete, PG&E will inform the Applicant which aspects need to be completed or updated before it can be accepted. Once Applicant has been notified of the necessary changes/information, they have a **10-business day cure period** to resolve the deficiency.
- If the Applicant is unable to resolve the deficiency before the end of the cure period, the revised application can be resubmitted during the next open Application Window, if one is available.
- Applicants may not submit multiple applications for substantially similar projects in the same area. Proposed projects may not have overlapping boundaries.

## ✓ STEP 2: Eligibility Confirmation

After submission of a complete application, PG&E will conduct a review to confirm the application’s eligibility for the MIP.

- Applicants will be informed whether their application is deemed eligible or ineligible. Eligible applications will proceed to the scoring stage.
- Ineligible applications may be corrected and resubmitted in subsequent application windows, if available. However, the \$25,000 Application Development Grant is one-time only, unless the subsequent application is substantially different.



- After the MIP Application Window closes and PG&E has accepted or rejected all applications as complete and eligible, PG&E will calculate a Project Score for all complete and eligible MIP Applications.
- The MIP Application and related information will be used to generate a benefit score, which along with the AIR, will be used to calculate the Project Score.
- The formula and calculations PG&E uses to develop Project Scores are designed to minimize subjectivity and prioritize those microgrids that will deliver the most customer, community, resilience and environmental benefits per AIR dollar requested.

### STAGE 2: APPLICATION





# Application Scoring

## A Benefit Score

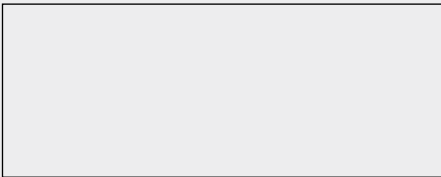
PG&E will calculate the Benefit Score, which is equal to the sum of the MIP Application’s customer and community benefits points, resilience benefits points and environmental benefit points. Each category receives the following:

- Customer and Community Benefits: **50 points max**
- Resilience Benefits: **30 points max**
- Environment Benefits: **20 points max**

**Total Possible Points: 100**



STAGE 2:  
APPLICATION





## Customer and Community Benefits (50 Points Max)

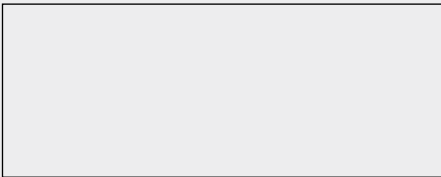
Customer and Community Benefits points are based on the benefits a microgrid will deliver to PG&E Distribution Customers within eligible DVCs, as well as facilities that serve DVCs. They are determined by:

- Number of low-income customers that would be served by the microgrid
  - Low-income customers are the number of California Alternate Rates for Energy Program (CARE) and/or Family Electric Rate Assistance Program (FERA)<sup>13</sup> customers located within the microgrid’s boundary, according to PG&E’s records.
- Number of vulnerable customers within the proposed microgrid’s boundary
  - Vulnerable customers are the number of Access and Functional Needs (AFN), Medical Baseline (MBL) or Life Support customers<sup>14</sup>. This number is determined by PG&E’s customer service records.
- Number of critical facilities serving DVC residents within the proposed microgrid’s boundary
  - Fire stations, hospitals and other critical facilities are defined by the CPUC<sup>15</sup>, and will be identified by PG&E based on its records.
- Number of Community Resilience Services facilities for DVC residents within the proposed microgrid’s boundary
  - This number is determined by how many Community Resilience Services facilities are listed within the Microgrid’s Boundary in the Local government or Tribal attestations included in the MIP application.

## Resilience Benefits (30 Points Max)

Resilience Benefits Points are based on the outage risk of the utility distribution facilities within the microgrid boundary, plus the continuous length of time the proposed microgrid can provide electricity when operating in Island Mode. They are determined by:

- Whether the microgrid will be located on an electric circuit that passes through a [CPUC Level 2 or 3 High Fire-Threat District \(HFTD\)](#)
- Whether the microgrid location:
  - Will be on a circuit that has been identified over the past two years as one of PG&E’s 1% Worst Performing Circuits, in terms of duration or frequency, in [PG&E’s Annual Electric Reliability Reports](#).
  - Has been impacted by a past PSPS event.
  - Is in an area that PG&E has excluded from all reasonably anticipated potential future outage events due to other resilience mitigation activities. If the proposed microgrid is in such an area, it will not be awarded points in this category, even if it has been impacted by past PSPS events.
- The number of six-hour periods that the microgrid can operate in Island Mode beyond the 24-hour minimum requirement
  - This number of six-hour periods of subsequent operation is determined by the typical load profile of the customers and facilities served by the microgrid and the expected electricity capacity of the microgrid’s Project Resources and non-Project Resources within the Microgrid Boundary.<sup>16</sup>





Environmental Benefits (20 Points Max)

Environmental benefits are based on the microgrid’s use of clean energy, and the extent to which the microgrid will be able to help customers or facilities avoid using emergency or backup generation powered by fossil fuels. They are determined by:

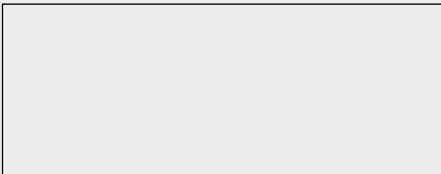
- Whether the aggregate nameplate generating capacity of the microgrid’s clean energy IFOM Project Resources is equal to or greater than 80% of the aggregate nameplate generating capacity of all IFOM Project Resources located within the microgrid’s boundary.
  - Interconnection capacity for existing IFOM Project Resources as set forth in the generator Interconnection Agreement. Interconnection capacity for planned IFOM Project Resources is the amount of interconnection capacity that will be requested in the generator interconnection request application. For IFOM Project Resources that are, or plan to be, interconnected as hybrid resources, the interconnection capacity will be allocated to each individual hybrid resource in proportion to each resource’s installed capacity.
  - The nameplate capacity for Project Resources that use inverters will be based on their Alternative Current (AC) output capability.
  - Any Project Resources within the Microgrid Boundary that will not operate during Island Mode are excluded from this calculation.
- Whether, from the time the microgrid begins commercial operation, at least one critical facility will rely on the microgrid as its primary source for backup power instead of relying on an existing emergency/standby generator powered by fossil fuels.
  - To earn this point, the MIP application should include an attestation from the critical facility confirming the microgrid will replace its existing emergency/standby generator as its primary source for backup power.

**Note:** The critical facility does not have to remove its existing emergency/standby generators for the microgrid to earn points for displacing these generators.

Once a proposed microgrid’s Customer and Community Points, Resilience Points and Environmental Points are calculated, they are added together to determine a total Benefit Score.



STAGE 2:  
APPLICATION





Points Breakdown						
Benefit Scoring Category	Subcategory	Scoring Parameter / Criteria	Validation	Points	Points Cap	Max Points
Customer & Community Benefits	Low Income Customers	Number of CARE/FERA customers within MIP Project	Utility Records	0.1	8	50
	Vulnerable Customers	Number of AFN/Medical Baseline/Life Support customers within MIP Project excluding CARE and FERA customers	Utility Records	0.2	10	
	Critical Facilities	Number of Critical Facilities within MIP Project Boundary	CPUC Definition	5	30	
		Number of Critical Facilities within MIP Project Boundary Serving DVC	CPUC Definition	10		
	Community Services	Community Resilience Service facilities within MIP Project (min. of 1)	Attestation from authority with jurisdiction	2	2	
Resilience Benefits	Location Outage Risk	HFTD 2	CPUC HFTD Map	3	6	30
		HFTD 3	CPUC HFTD Map	6		
		Prior PSPS Events* - 2 points per historical PSPS event (any year) that has not been substantially mitigated at the time of MIP application	Utility Records	2	14	
		1% Worst Performing Circuits (past 2 years)	Appears in either of prior 2 years of Utility Annual Electric Reliability Report	4	4	
	Island Duration	Duration of Islanded Operation provided by MIP Project Beyond 24hr minimum requirements	Each subsequent 6-hour period of operation beyond 24 hours determined by typical load profile of the microgrid electrical boundary	0.5	6	
Environmental Benefits	Clean Energy	100%	% of installed IFOM clean energy Project Resource capacity in relation to the total installed IFOM resource capacity within MIP Project. Points given for MIP Projects where % percentage exceed 80%. Installed capacity for resources using inverters will be based on the Alternating Current (AC) output capability.	17	17	20
		95-99%		12		
		90-94%		7		
		80-89%		2		
		<79%		0		
	Fossil Fuel Displacement	Fossil Fuel Emergency/Backup Gen Displacement as primary back-up (min. of 1)	Application Attestation	3	3	

\*It is currently PG&E’s policy that circuits in HFTD which are not undergrounded may not be energized during PSPS. If the microgrid design is such that it cannot be energized during PSPS according to PG&E policy, resilience points for PSPS events will not be awarded.



## B Application Incentive Request (AIR)

The AIR is the Incentive Award funding requested in the MIP Application. The AIR should reflect all eligible MIP project costs the Applicant included in the application, minus any anticipated federal, state or local grants, or other sources of funding for the microgrid project. These other sources of funding should be included in the AIR attachment submitted with the application.

Note that the optional Application Development Grant request of up to \$25,000 will not be included in the calculation of the AIR for purposes of determining a Project Score.

For other potential energy resilience grant funding sources, see:

- [CPUC Clean Energy Access Grants](#)
- [California Grants Portal](#)
- [Governor’s Office of Planning and Research – Federal Grant Info](#)

## C Project Score

PG&E will calculate the Project Score of each eligible application by dividing its Benefit Score by its AIR. Thus, ancillary funds from outside the MIP that reduce the AIR will improve the Project Score.

## Incentive Award Notifications

Each Applicant will be notified of a decision once all Applications have been processed and scored.

The funding of MIP Applications is prioritized through a process in which the Application with the highest Project Score receives their requested amount of AIR funding. This process repeats, with the next highest scoring Application receiving its requested AIR funding until either:

1. **There are no eligible applications who have not received funding;**  
  
Or
2. **There are insufficient MIP funds to fully meet an eligible application’s AIR funding request.**

If insufficient funds are available to support a full award, the Applicant may be offered a partial Incentive Award. The Applicant can elect whether to move forward. If the Applicant elects not to move forward with the partial Incentive Award, the funds may be offered to the Applicant receiving the next highest Project Score. Any unused funds will be carried over into the next Application Window, or returned to ratepayers in the event there are no remaining Application Windows.



**Eligible MIP Applications that do not receive any award will be placed in the prioritization list of the next open Application Window, if applicable.**

Nothing precludes an Applicant that does not receive an award from pursuing the development of a Community Microgrid outside of the MIP, utilizing PG&E’s Community Microgrid Enablement Tariff. PG&E, as program administrator, retains discretion regarding Incentive Awards and allowances considering ratepayer interests. For dispute resolution procedure, please see [here](#).

**STAGE 2:  
APPLICATION**



## Dispute Resolution Pertaining to MIP Award Decisions

PG&E and any potential or actual MIP Applicant shall attempt in good faith to resolve any dispute arising out of, or relating to, the development of MIP applications and the related MIP award decisions made by PG&E promptly by negotiations between PG&E or its designated representative and the MIP Applicant or its designee. The aggrieved party must give the other party written notice of any dispute; if such notice is to PG&E it should be by email to [communitymicrogrids@pge.com](mailto:communitymicrogrids@pge.com).

Within thirty calendar days after delivery of the notice, the parties shall meet, and attempt to resolve the dispute. If the matter has not been resolved within thirty calendar days of the first meeting, any party may pursue other remedies including mediation. All negotiations and any mediation conducted pursuant to this dispute resolution provision are confidential and shall be treated as compromise and settlement negotiations, to which Section 1152.5 of the California Evidence Code shall apply; provided, that either party may disclose information related to these negotiations to the extent required by law.

Notwithstanding the foregoing provisions, a party may seek a preliminary injunction or other provisional judicial remedy if in its judgment such action is necessary to avoid irreparable damage or to preserve the status quo. In the event of any conflict between the provisions of this dispute resolution provision, any applicable dispute resolution terms in a related tariff, and any applicable dispute resolution terms in any bilateral agreement in effect between the parties, the tariffed dispute resolution terms shall govern first, and contractual dispute resolution terms shall be applied second.

## Grant Agreement

Applicants who have been notified of selection for the MIP award will be offered a MIP Grant Agreement. The MIP Grant Agreement sets forth the terms and conditions governing the disbursement and use of approved MIP incentive funding and allowances, including the:

- Application Incentive Request (AIR) of up to \$14M
- Interconnection Allowance of up to \$1M
- Microgrid Special Facilities Allowance of up to \$3M

The entity (Local or Tribal government or CBO) that executes the MIP Grant Agreement is the entity that will receive the AIR funds. The signing of the Grant Agreement marks the conclusion of Stage 2 (Application) and triggers the beginning of Stage 3 (Studies). The terms of the Grant Agreement will be linked to the MOA performance requirements, default provision and key development milestones.

### Grant Agreement Term

The term of the Grant Agreement will be from the date of execution until the conclusion of Stage 4: Development. The MOA has an initial term of 10 years with automatic 1-year renewals unless otherwise agreed by the parties. However, it is recognized that the MOA will not be executed until after the conclusion of the study phase (Stage 3), which may be 1-2 years after the execution of the Grant Agreement. If a MOA is not successfully executed in accordance with the provisions of the CMET, then the executed Grant Agreement will be terminated.



## Disbursement of Incentive Funds

PG&E will disburse to the Awardee the grant amount approved through a milestone incentive payment schedule that is tied to the Applicant’s planned project expenditures and progress milestones in development of the Community Microgrid. As such, the specific milestone incentive payment schedule will be based on the proposed project development plan in the MIP Application, that will be finalized by the Awardee and PG&E in the Grant Agreement. This will include one or more preliminary incentive payments to cover specific initial development costs (e.g., environmental studies, obtaining a project site, etc.) prior to the MOA. Incentive payment milestones are complementary to the development requirements and milestones in the MOA. That is, while incentive payments are based on an Awardee’s expenditure needs, they are also linked to development and operational obligations in the MOA. In the event the parties are unable to reach an agreement on a milestone incentive payment schedule, PG&E retains the right to establish an incentive payment schedule at its sole discretion, aligned with the proposed development plan in the Application and ratepayers’ interest in successful project completion and operation. An illustrative example of a milestone incentive payment schedule is shown here.

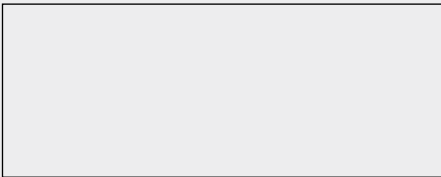
All MIP incentive funds disbursed to the Awardee must be used for eligible project costs. Failure to meet development milestones and/or performance requirements may result in project suspension, and if not corrected, may lead to termination, change of control, and/or economic damages.

Illustrative Example of Milestone Incentive Payment Schedule

Item	Critical Milestone	Responsible Party	Incentive Payment
1	Grant Agreement executed (Preliminary Development Expenses Prior to MOA)	CMG Aggregator, Utility	Amount based on Application’s Proposed Project Development Plan <sup>1</sup>
2	CMG Authority signs contract for construction of IFOM Project Resource	CMG Aggregator	10% of Remaining Grant after Preliminary Payment
3	CMG Authority signs contract for construction of Balance of System	CMG Aggregator	10% of Remaining Grant after Preliminary Payment
4	Project Resource site preparation start (e.g., grading for planned resource/s)	CMG Aggregator	10% of Remaining Grant after Preliminary Payment
5	Project Resource/s delivered to site	CMG Aggregator	35% of Remaining Grant after Preliminary Payment
6	Later of (a) Project Resource/s installed, and (b) Balance of System installed	CMG Aggregator	20% of Remaining Grant after Preliminary Payment
7	Permission to Island CMG Confirmation Letter issued	Utility	15% of Remaining Grant after Preliminary Payment

<sup>1</sup>Initial incentive payments prior to the MOA may be separated into multiple milestone payments based on the planned expenditures.

STAGE 2:  
APPLICATION





# Interconnection Allowance

The MIP provides up to a \$1 million Interconnection Allowance for the cost of Interconnection Studies and fees, and Interconnection Facilities and Distribution Upgrades necessary for the Awardee to interconnect new IFOM generation within the boundary of the microgrid for the purpose of supporting microgrid operations in Island Mode. Only new IFOM generation identified within, and developed by the Awardee pursuant to, the Application’s proposed project development plan, and the Microgrid Operating Agreement (MOA)’s Project Implementation Plan (PIP) is eligible for this Interconnection Allowance. The PIP is provided in Appendix III-B of the MOA.

Any new generation interconnecting outside the boundaries of the Community Microgrid, or any new BTM generation is not eligible for the Interconnection Allowance. Only those generator Interconnection Study costs and fees, and the actual costs of generator interconnection-related Interconnection Facilities and Distribution Upgrades identified by PG&E prior to the Islanding Operation date of the CMG, are eligible for the Allowance.<sup>17</sup>

The costs that may be included in the Interconnection Allowance include:

- Utility’s Interconnection Study costs and fees for eligible IFOM Project Resources
- Utility’s Interconnection Facilities (e.g., switches and wires needed to connect the generating facility to the grid) identified in the Interconnection Study
- Distribution System Upgrades (e.g., substation transformer, required reconductoring, etc.) identified in the Interconnection Study
- Cost of Ownership for above items, as applicable

**The Interconnection Allowance does not include Transmission Network Reliability Upgrades.**

PG&E will provide the Awardee with the applicable Interconnection Allowance by reducing the Awardee’s otherwise billable costs related to the items listed above, determined in accordance with PG&E WDT or Rule 21 (see Stage 3: Studies). The Awardee will be responsible for the Interconnection-related costs that exceed \$1 million. The Awardee may not include an estimate of any amounts above the caps in its AIR.



**Note:** The Awardee may submit a generator Interconnection Request to PG&E at any time, including prior to when the Awardee receives an incentive offer from PG&E. However, only those Awardees who have executed the MIP Grant Agreement are eligible for the Interconnection Allowance. The Interconnection Allowance will only be applied to those eligible interconnection-related costs that have not yet been billed; i.e., the Interconnection Allowance will not be retroactively applied to interconnection-related costs that have already been billed to the Awardee.





## Microgrid Special Facilities Allowance

MIP Awardees will be provided up to a \$3 million MGSF Allowance for the cost of utility-owned special facilities and services<sup>18</sup> that:

- Are determined by PG&E to be necessary to operationalize the Community Microgrid
- Would otherwise be the cost responsibility of the Awardee, as identified in the MIS

This may include the cost of the Microgrid Island Study (MIS), and equipment to enable the safe transition and operation in Island Mode.

At the conclusion of the MIS, PG&E and the Awardee will enter into a Microgrid Special Facilities Agreement that identifies the required upgrades and estimated costs (including cost of ownership), and obligates the Awardee to reimburse PG&E for the actual costs of such Special Facilities to the extent the costs exceed the MGSF Allowance.

Required upgrades may include, for example, devices necessary to isolate the Community Microgrid from the larger distribution system, a microgrid controller that PG&E will use to dispatch the Awardee’s DER controller(s) in order to maintain acceptable frequency and voltage during Island Mode operation, or the undergrounding of Distribution Facilities within the microgrid boundary that are determined to be necessary for safe and reliable Island Mode operation.

Only those costs of Special Facilities identified by PG&E prior to the Islanding Operation Date of the microgrid are eligible for the MGSF Allowance.<sup>19</sup>

PG&E will provide the Awardee with the applicable MGSF Allowance by reducing the Awardee’s otherwise billable MIS and special facility costs. The Awardee will only be responsible for the actual costs of the MIS and special facilities that exceed \$3 million.

## Reporting Requirements

PG&E is required to report the following information to the CPUC on a quarterly basis after a MIP grant is awarded. Awardee must support PG&E in compiling reporting information as requested.

- Status of project
- Number of customers served/to be served by the Community Microgrid
- Number of DVCs served/to be served by the Community Microgrid
- Number of Critical Facilities served/to be served by the Community Microgrid





# Stage 3: Studies

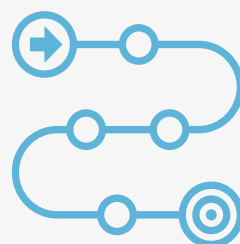
## Goals:



Complete the studies required for the Technical Evaluation: **Interconnection Study (IS)** and **Microgrid Islanding Study (MIS)**



Execute the Interconnection and Microgrid Special Facilities agreements



Determine whether to move forward with developing the MIP Community Microgrid

## Technical Evaluation Studies

Once a MIP Awardee executes a Grant Agreement with PG&E, the Awardee’s project will move on to the Technical Evaluation Studies Stage, in accordance with the terms and conditions of the Grant Agreement.

This includes two separate studies – an Interconnection Study (IS) and a Microgrid Islanding Study (MIS). These studies are important because they identify equipment and estimated costs necessary to safely interconnect Project Resources to PG&E’s grid (IS), and to island the microgrid from the larger grid in the event of an outage (MIS). Ultimately, these studies will be used by PG&E to develop the Project Resource’s Interconnection Agreement and project’s Microgrid Special Facilities Agreement.

Once these Agreements are executed, the project will proceed to the Development Stage, in which the MOA will be executed.

## Studies:

Click on a section below to learn more.



# Interconnection Study

To develop an Interconnection Study (IS) for the Awardee’s Microgrid Project, Awardees must first submit an Interconnection Application to PG&E for each Project Resource(s). To initiate this study, Awardees must determine whether it is preferred for the Project Resource(s) to participate in the CAISO’s wholesale market. If the Project Resources are to participate in the CAISO’s wholesale market, Awardees are to follow the PG&E’s Wholesale Distribution Tariff (WDT) generator interconnection process.<sup>20</sup> If not, Awardees are to follow the PG&E’s Electric Rule 21 generator interconnection request process. See [PG&E’s Getting Started Guide for Electric Generator Interconnections](#), and contact the PG&E Resilience Coordinator or liaison identified in Stage 1 for further guidance. The IS determines what Distribution Upgrades, transmission network reliability upgrades and Interconnection Facilities are needed to interconnect the Project Resources safely and reliably to PG&E’s distribution system.

Applicants do not have to wait until their project receives an Incentive Award to submit an Interconnection Application; Applicants may submit an Interconnection Application at any time, including during the Technical Consultation Stage or Application Stage of the MIP. However, only those Awardees who have executed the MIP Grant Agreement are eligible for the Interconnection Allowance. The Interconnection Allowance will only apply to eligible interconnection-related costs for Project Resources that have not already entered into a generator Interconnection Agreement at the time the Applicant submits its incentive request.

After the generator Interconnection Application is submitted, PG&E will review and confirm it is complete. PG&E will conduct the IS in accordance with the study procedures and timelines specified in PG&E’s WDAT or Rule 21.


As part of the IS, PG&E will prepare an estimated construction timeline and cost estimate for the Distribution Upgrades and Interconnection Facilities required for the proposed microgrid project. This timeline and cost estimate will be reflected in the Interconnection Agreement that will be delivered to the entity submitting the interconnection request when the IS is complete. This Interconnection Agreement will need to be executed before the MOA.

The Interconnection Allowance may be applied to eligible Interconnection Application and Study costs, as well as the costs of Distribution Upgrades and Interconnection Facilities described in an eligible Interconnection Agreement. To be eligible, the Interconnection Agreement for each IFOM Project Resource must be executed after the submission of the Applicant’s AIR and prior to, or at the same time as, execution of the MOA. These Distribution Upgrades and Interconnection Facilities costs may include:

- Switches, wires and other equipment needed for the Project Resource’s Interconnection Facilities
- Substation transformer upgrades, line refurbishments and other distribution system upgrades

Transmission Network Reliability upgrades are not covered by the Interconnection Allowance. Cost responsibility for these upgrades is specified in the WDT and Rule 21.

The procedure by which the Interconnection Allowance is granted to entities requesting interconnection of Project Resources is set forth in the Grant Agreement.



**The Interconnection Application process proceeds on a separate timeline from the MIP process.**





# Microgrid Islanding Study (MIS) and Microgrid Special Facilities Agreement

The MIS is a set of evaluations that assess the safety and performance requirements of Community Microgrid Project Resources. The MIS focuses only on Island Mode operation of the microgrid system and transition to and from Island Mode. The MIS will be performed in parallel with the IS to the extent possible.

To begin the MIS, the Awardee must complete and execute a MIS Agreement. After PG&E reviews the application and determines that the necessary information has been provided, PG&E and the Awardee will work together to conduct the MIS.

This MIS will build on the Microgrid Technical Consultation previously conducted for the proposed microgrid project. The MIS will cover topics such as power flow and voltage analysis, protection settings, power quality, transitional operation and transient stability studies. The cost for the MIS is eligible to be paid through the Microgrid Special Facilities Allowance.

Once the Microgrid Islanding Study is complete, PG&E will have a Final Report Meeting with the Awardee to:

- 1. Review the results of the study
- 2. Discuss potential mitigating solutions for any adverse results
- 3. Identify the Microgrid Special Facilities which will be required for the safe operation of the microgrid

At the end of this Final Report Meeting, both PG&E and Awardee should have a common understanding of the requirements which were met/unmet and agree on the next steps forward.

The MIS will establish a list of equipment that will be required to enable Island Mode. This list of equipment and the associated cost estimates will inform the Microgrid Special Facilities Agreement.

Ultimately, the project must pass the MIS to proceed to Stage 4 “Contracting and Development,” and for the CMG Aggregator to be eligible to sign the MOA.

The CMG Aggregator is eligible to receive a Microgrid Special Facilities Allowance capped at \$3 million to offset eligible Microgrid Special Facilities and MIS costs. Eligible costs that can be offset by this allowance include:

- PG&E’s MIS study fees
- Microgrid Special Facilities equipment upgrades, such as:
  - Fault interrupting Supervisory Control and Data Acquisition (SCADA) switches, reclosers, line hardening, undergrounding and other equipment upgrades required to support the microgrid’s islanding function
  - New or upgraded switches, relays, and other communication/infrastructure to connect SCADA switches and microgrid controllers to PG&E’s control center
  - Upgrades to PG&E’s:
    - Electric service equipment, including routers, security gateways, firewalls or other networking equipment
    - Towers, fiber optics, leases or other communications infrastructure
    - Network project management and equipment Installation expenses
- Upgrades and testing of PG&E’s Microgrid Controller hardware and software
- Cost of ownership of items above, as applicable





## Final Estimated Project Scope and Cost

The results of the IS and MIS (including the Special Facilities identified by the MIS) will provide the following information and allow the Awardee to evaluate whether to proceed with the proposed microgrid project:

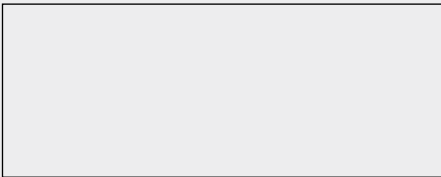
- Project Resource(s) and other microgrid costs that the Awardee will be obligated to pay and the extent these costs will be covered by the Incentive Award
- Distribution upgrade and Interconnection Facility costs and the extent these costs can be offset by the Interconnection Allowance
- Microgrid Special Facilities costs and the extent these costs can be offset by the Microgrid Special Facilities Allowance

If the Awardee decides to move forward with their proposed microgrid, they will execute the Microgrid Special Facilities Agreement with PG&E and begin the Contracting and Development Stage. Similarly, the Interconnection Agreement must be signed prior to the project progressing to the Contracting and Development Stage.

If after this evaluation an Awardee decides not to move forward with the proposed microgrid, the Awardee will notify PG&E of this decision, and any further grant obligations will be terminated in accordance with the terms of the MIP Grant Agreement. The remaining Incentive Award and allowances will be returned to PG&E’s MIP funds and made available to other MIP Applicants in accordance with the process described in the **Incentive Award Notifications** Section.



STAGE 3:  
STUDIES





# Stage 4: Contracting and Development

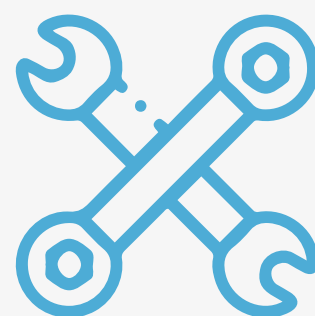
Goals:



Prepare and execute a MOA between Awardee and PG&E detailing how the microgrid project will be developed, commissioned and operated.



Developer/CMG Aggregator develops the Project



PG&E installs any necessary Distribution Upgrades, Interconnection Facilities and Microgrid Special Facilities

Click on a section below to learn more.



## Microgrid Operating Agreement (MOA)

A MOA describes the roles and responsibilities of both PG&E and the Community Microgrid Aggregator (CMG Aggregator) during the development, commissioning and operation of the microgrid project. This includes contractual terms and conditions governing:

- Project development, including milestones and associated payments of the accepted Incentive Award; and
- Microgrid operation

MIP contracts such as the MOA must be enforceable by and subject to the oversight jurisdiction of the CPUC. As such, if the Applicant is a tribal government, executing contracts, including the MOA, may require a limited waiver of sovereign immunity.



## MOA Terms and Conditions

The MOA defines the contractual terms and conditions of the microgrid. As an umbrella agreement, it incorporates, by reference and addendum, other microgrid-related contracts and agreements, including:

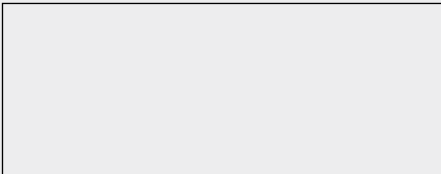
- Interconnection Agreements for Project Resources
- Microgrid Special Facilities Agreement
- Mutual Non-Disclosure Agreement
- Other related Agreements (e.g., Grant Agreement)

Importantly, the MOA defines:

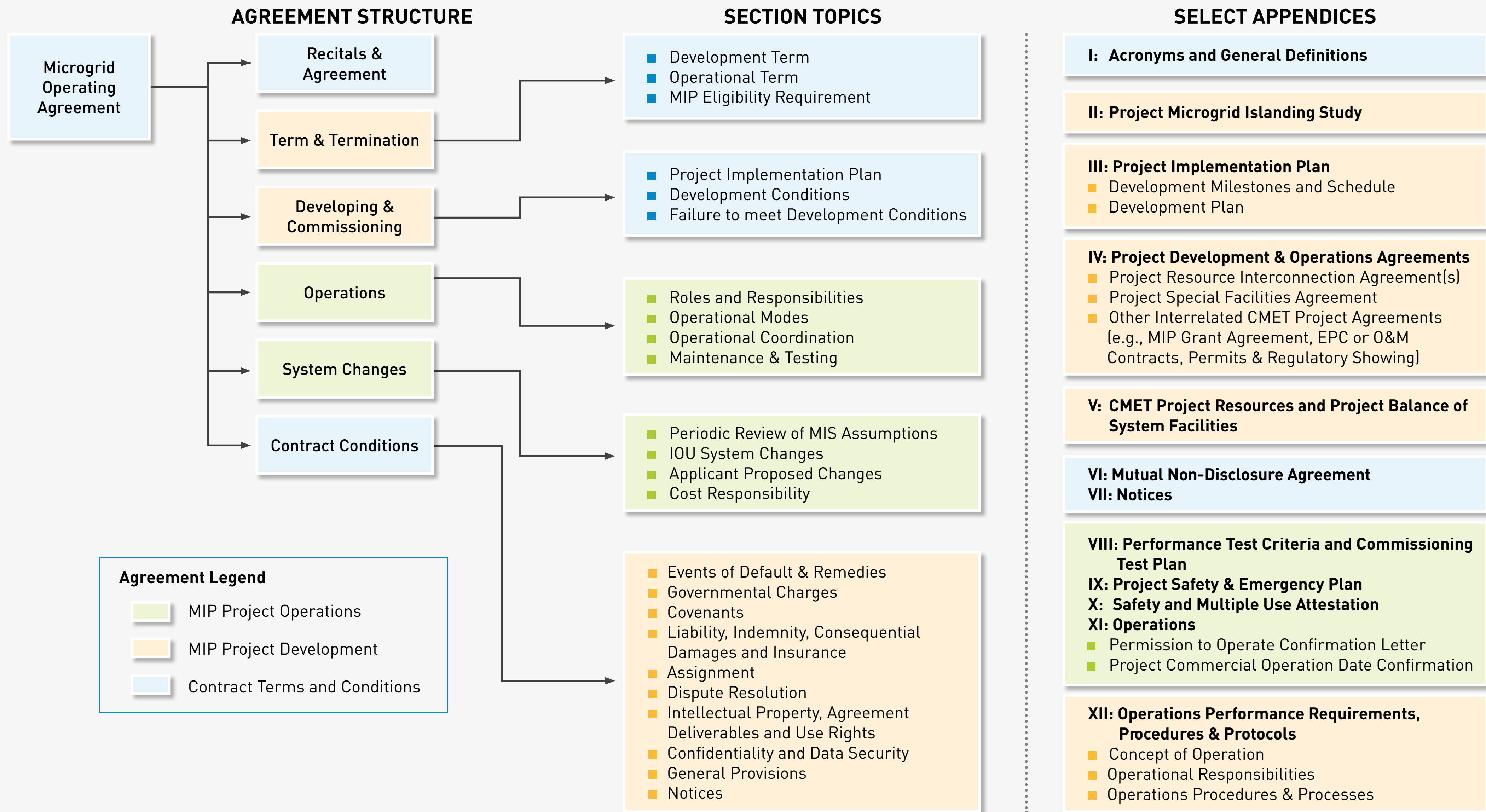
- **Project Development Term:** The 24-month period during which the Applicant and PG&E will construct, test and commission the microgrid. This term begins on the MOA’s effective start date and is complete on the MIP Project Islanding Operation Date (IOD). Upon mutual agreement between the Applicant and PG&E, this 24-month term can be extended up to a maximum of 36 months, per CPUC guidelines.
- **Project Operation Term:** The period during which the CMG Aggregator and PG&E will operate the microgrid. The initial 10-year Operating Term commences on the project’s IOD. At the end of 10 years, this Operating Term is automatically renewed annually for one-year terms until the MOA is terminated.

The MOA also defines the terms and conditions for suspension and/or termination.

STAGE 4:  
CONTRACTING &  
DEVELOPMENT







**STAGE 4:**  
CONTRACTING &  
DEVELOPMENT



# The MOA Project Implementation Plan

The CMG Aggregator and PG&E will collaborate on the completion of a Project Implementation Plan (PIP). The PIP details how the microgrid will be safely developed and operated, with a focus on the Project Resources and Balance of System components of the microgrid. This plan will include the parties’ best estimate of task, schedule and dependencies for design, construction and development for the project.

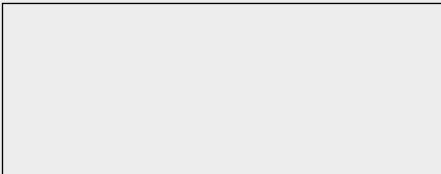
The implementation plan may include, but not be limited to, the following:

- ✓ **Component Plan Development:** Items such as operational review and commissioning test plan, operating performance requirements and communication and safety plans.
- ✓ **Development and Testing Schedule:** For Project Resources, Balance of System, Microgrid Special Facilities and Project Resource Interconnection
- ✓ **Project Management:** PMO approach and plan, progress meetings and reports, risk management and dependencies

The PIP may incorporate by reference any implementation plan(s) associated with CMET Project Resource Interconnection(s) and Microgrid Special Facilities for purposes of presenting an overall view of the CMET Project development. However, the MOA does not govern those interconnection and associated special facilities schedules, development milestone dates or commitments.



STAGE 4:  
CONTRACTING &  
DEVELOPMENT





# Project Commissioning

For the microgrid project to be commissioned, PG&E must verify that it can safely deliver the islanding performance outlined in the MOA. This is referred to as a MIP Project Commissioning Test.

Before the Project Commissioning Test can take place, all the microgrid’s construction and subsystem testing must be complete. In addition, PG&E needs to have granted all the microgrid’s IFOM and BTM Project Resources Permission to Operate (PTO). PTO is governed by the relevant tariff for these Project Resources (Rule 21 or WDT).

To begin, the Awardee and PG&E will create a plan, as described in the MOA, to test the microgrid’s operation and performance. This plan should include:

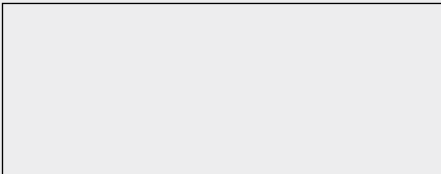
- Criteria used in the test (developed by PG&E)
- Procedures by which to test whether the microgrid meets these criteria

When the MIP Project Commissioning Test Plan is complete and approved by PG&E, it will be appended to the MOA. Approval of the MIP Project Commissioning Test Plan is a required development milestone and should occur at least 60 business days before the project’s scheduled Permission to Island (PTI) date.

After the MIP Project Commissioning Test plan has been approved, the Awardee and PG&E will work together to perform the plan’s MIP Project Commissioning Test. During the test PG&E employees can be present at any of the locations where the microgrid’s Project Resources are located.



STAGE 4:  
CONTRACTING &  
DEVELOPMENT





## Islanding Operation Date (IOD)

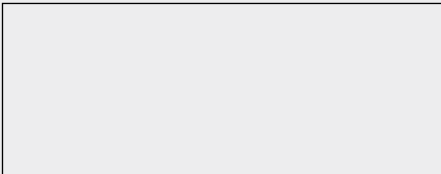
After the MIP Project Commissioning Test is complete and approved, the Awardee is responsible for preparing a Commissioning Test Report that documents test results.

PG&E will review the report and, if acceptable, issue a Permission to Island (PTI). After a PTI is received, the CMG Aggregator will submit a MIP Project IOD confirmation notice to PG&E. The MIP Project PTI notice signifies PG&E has reviewed and approved the MIP Commissioning Test results. It also confirms that the project meets all MOA development terms and conditions and prompts the final Incentive Award payment.

The microgrid is considered fully operational after the submission of the MIP IOD confirmation notice to PG&E. Note that “fully operational” means that the microgrid is available to be operated in Island Mode, not that the microgrid is actually isolated from the larger system and being operated in Island Mode. Most of the time, the microgrid will be in Blue Sky Mode where it is connected to and operated as part of the larger electric system.



**STAGE 4:**  
CONTRACTING &  
DEVELOPMENT





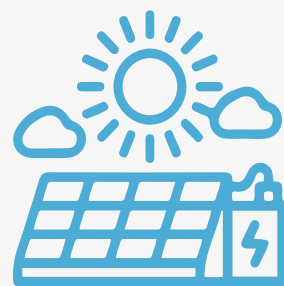


# Stage 5: Operations

## Goals:



Safely operate and maintain the microgrid through the end of its Operating Term



Provide an extra layer of energy resilience to DVCs

At this stage the Community Microgrid Aggregator will have:

- Completed development of the microgrid pursuant to the MOA
- Received confirmation that the microgrid can operate safely and reliably while in Island Mode
- Established procedures and protocols that the CMG Aggregator and PG&E will use to coordinate the operation of the microgrid

Once the microgrid is approved to safely operate, the 10-year Operational Term begins.

Click on a section below to learn more.



## Operational Coordination

During the Operational Term of the MOA,

- PG&E is responsible for:
  - Providing Distribution Service to the microgrid’s customers
  - Operating and maintaining the microgrid’s Distribution System, including all PG&E-owned Distribution upgrades, Interconnection Facilities and Microgrid Special Facilities
- The CMG aggregator is responsible for:
  - Operating the microgrid’s Project Resources and demand-side management resources, following the provisions of Electric Rule 2, the WDT, Electric Rule 21 and any other applicable rules and standards
  - Costs related to System Changes (including Microgrid Islanding Study), ownership, operation, scheduling and microgrid’s Project Resources and Balance of System to ensure the microgrid continues to be safe to island
  - Biennial Project Test

In addition to the responsibilities described in the Operational Coordination section, during the microgrid Operational Term, PG&E and the Community Microgrid Aggregator will conduct a performance test of the microgrid at least once every two years to demonstrate the Community Microgrid can meet operating and performance requirements and can safely operate in Island Mode. Other tests might need to be scheduled at PG&E discretion.

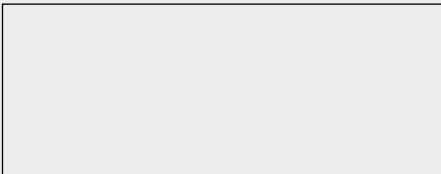
After a test is conducted, the Community Microgrid Aggregator will need to deliver PG&E a test report. This report should demonstrate the microgrid complies with the operating performance requirements found in the MOA.

If the microgrid fails the test, PG&E may require the CMG aggregator to develop a plan to address the issues that caused failure. Once improvements have been implemented, PG&E will retest the microgrid to determine compliance with the MOA’s operating performance requirements.

If the microgrid continues to be out of compliance with the operating performance terms found in the MOA, the MOA may be suspended or terminated.

## System Change

During the microgrid project’s Operational Term, the Community Microgrid Aggregator is required to notify PG&E if the Community Microgrid Aggregator becomes aware of a System Change. After this notification, PG&E will review the System Change and determine how it might impact the operation of the microgrid. If PG&E determines that the system change has the potential to adversely affect Island Mode operation, PG&E may perform a MIS to determine whether additional Special Facilities are required to maintain safe and reliable operations. Please consult the MOA for cost responsibility for the MIS and microgrid upgrade costs.





# Project Termination

The length of the microgrid’s initial Operating Term is 10 years from the date of the Microgrid’s IOD. After this 10-year term ends, the Operating Term is automatically renewed annually for one-year terms until the MOA is terminated.

The Operating Term can be terminated if the Community Microgrid Aggregator and PG&E mutually agree to terminate. It can also be terminated if one of the following occurs:

- A new Microgrid Islanding Study determines that a System Change requires upgrades to the microgrid project in order to continue operating safely and the necessary upgrades are not completed
- The microgrid project no longer meets the eligibility requirements of the CMET
- The CPUC or other Regulatory Authority requires the MOA to be terminated
- The Interconnection Agreement for one or more Project Resources is terminated such that, in PG&E’s judgement, the ability to safely and reliably operate the microgrid in Island Mode is jeopardized
- If the microgrid project fails to satisfy any of the operating performance requirements in its MOA



STAGE 5:  
OPERATIONS





# Glossary

**Affected System:** An electric system other than the Distribution Provider’s Distribution System or Transmission System that may be affected by a System Change.

**Application:** The Application is the formal documentation package submitted to the PG&E under the MIP, including an Application Development Grant, an Application Incentive Request and a Microgrid proposal along with other required information.

**Application Incentive Request (AIR):** The amount of reimbursement, excluding the MIP Application Development Grant, requested by the MIP Applicant.

**Application Intake Window:** A time period with a specific starting date and ending date in which potential MIP Applicants may apply for the MIP. PG&E will determine the number of Application Intake Windows needed, the timing and the allocation of the MIP funds for each Application Intake Window.

**Balance of System:** All of the microgrid components owned or controlled by the MIP Awardee, other than the Project Resources and Non-Project Resources, necessary to meet the requirements of the Community Microgrid as identified in the Microgrid Islanding Study.

**Behind the Meter (BTM):** Electrical infrastructure, including resources, on the end-use customer side of the customer’s utility billing meter. A Generating Facility may be connected BTM.

**Blue Sky Mode:** The mode of operation when the Community Microgrid is connected to and operating in parallel with the Distribution System.

**California Independent System Operator Corporation (CAISO):** The entity that provides open access to the majority of the state’s bulk electric power system through short-term wholesale energy and ancillary service market mechanisms.

**California Public Utilities Commission (CPUC):** A regulatory agency that oversees privately owned electric, natural gas, telecommunications, water, railroad, rail transit and passenger transportation companies.

**Commissioning Criteria:** Requirements outlined in MOA that must be satisfied by the MIP Awardee prior to Islanding Operation Date.

**Commissioning Test:** A test that demonstrates the Community Microgrid can meet the Commissioning Criteria.

**Community-Based Organization (CBO):** A public or private non-profit organization having demonstrated efficacy that is representative of a community or significant segments of a community; and engaged in meeting that community’s needs in the areas of social, human or health services.

**Community Microgrid:** A microgrid with Distribution System-connected Project Resources that supply energy to at least two customers or two customer premises connected by PG&E Distribution System within a Microgrid Boundary capable of Island Mode operation.

**Community Microgrid Proposal:** A detailed description of the proposed Microgrid submitted as part of the application. The proposal identifies the proposed Microgrid Boundary, Project Resources, and known Balance of System elements, supporting engineering analysis and cost estimates as well as a proposed implementation schedule and status of all required permits.

**Community Microgrid Technical Evaluation:** Set of studies comprised of the Interconnection Study and the Microgrid Islanding Study; used to develop Project Resource Interconnection Agreements and the Microgrid Special Facilities Agreement.

**Community Resiliency Service(s):** Services, in addition to those provided by a Critical Facility, which strengthen a community’s ability to prepare for anticipated hazards, adapt to changing conditions, withstand and recover rapidly from disruptions, or otherwise maintain social continuity.

**Consulting Engineer:** A licensed engineering firm, EPC Contractor or other consulting organization with microgrid-related engineering and economic qualifications that is contracted by the MIP Applicant.

**Critical Facility:** A facility that provides critical services to the surrounding community pursuant to the CPUC’s current definition of [Critical Facilities](#) in Rulemaking R.18-12-005.\*

\*OIR to examine electric utility de-energization of powerlines in dangerous conditions.



**Development Term:** The period commencing on the Effective Date of the Microgrid Operating Agreement (MOA) and ending upon the Community Microgrid Island Operation Date (IOD). Community Microgrid IOD will occur no later than 24 months from the effective date, unless extended by mutual agreement with a total term not to exceed 36 months from the MOA effective date.

**Distribution Customer:** An end-use customer taking Distribution Service from a Distribution Provider.

**Distribution Provider:** A Utility, which owns, controls and operates the facilities and systems that provide Distribution Service to the end-use customers within and outside the Microgrid Boundary.

**Distribution Service:** The transporting of electric power over and through various facilities owned by the Distribution Provider for delivery to a Distribution Customer. Distribution Service includes all of the associated systems necessary to effect such delivery including meter reading, billing and customer service.

**Distribution System:** A Distribution Provider’s system broadly consisting of the stepdown substations, the primary distribution circuits and the secondary distribution system. The secondary distribution system consists of the line transformers that step the primary voltage down to a secondary voltage, and the secondary conductors including service drops and meters.

**Distribution System Operator:** Distribution Provider acting in its role as distribution owner and operator to fulfill responsibilities associated with Distribution Service under both Blue Sky and Island Modes.

**Distribution Upgrades:** The additions, modifications and upgrades to Distribution Provider’s Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the Distribution Service. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date:** The date specified in the Microgrid Operating Agreement (MOA) upon which both parties have agreed the provisions of the MOA are in effect.

**Electric Rule 21:** Electric Rule 21 is a tariff that describes the interconnection, operating and metering requirements for generation facilities to be connected to a Utility’s Distribution system. The tariff provides customers wishing to install generating or storage facilities on their premises with access to the electric grid while protecting the safety and reliability of the distribution and transmission systems at the local and system levels.

**Engineering, Procurement and Construction (EPC) Contractor:** Contractor or such person providing engineering services, purchasing equipment and installing equipment during the Development Phase of the Microgrid Proposal.

**Generating Facility:** All generators, electrical wires, equipment and other facilities, excluding Interconnection Facilities owned or provided by the Producer for the purpose of producing electric power, including storage.

**High Fire-Threat District (HFTD):** An area where there is an elevated risk of powerline-induced fires with the potential to spread rapidly. HFTDs are identified by the California Public Utilities Commission (CPUC). (See the CPUC’s [Fire-Threat Map, Tiers 2 and 3, as may be amended](#).)

**Incentive Award:** The portion of a MIP Applicant’s Application Incentive Request (AIR) that is authorized for payment to the MIP Applicant and which the MIP Applicant agrees to accept in the MIP Grant Agreement or Microgrid Operating Agreement (MOA) “Rider,” as applicable.

**In Front of the Meter (IFOM):** Generating resources that are directly connected to the Distribution System, and associated electrical infrastructure that is on the generating resource owner’s side of the utility revenue meter. A Generating Facility may be connected IFOM.

**Interconnection Agreement:** The agreement and associated documents or any successor agreement and associated documentation governing the terms and conditions of the interconnection of the Project Resource(s) with PG&E’s grid under the Wholesale Distribution Access Tariff (WDAT or WDT) or Rule 21 for applicable Project Resources, including any description of the plan for interconnecting the Project Resource(s) to the grid.

GLOSSARY



**Interconnection Allowance:** An amount funded by utility ratepayers in addition to the MIP Incentive Award, the MIP Application Development Grant and the Microgrid Special Facilities Allowance, that covers all or a portion of the costs of Interconnection Studies, Interconnection Facility Upgrades and Distribution Upgrades identified per the applicable interconnection tariff for eligible Project Resources.

**Interconnection Facilities:** The required electrical wires, switches and related equipment, in addition to the facilities required to provide electric Distribution Service to a customer that allow interconnection of a Generating Facility. Interconnection Facilities may be located on either side of the Microgrid Islanding Point as appropriate to their purpose and design. Interconnection Facilities may be owned by either Producer or Distribution Provider.

**Interconnection Facility Upgrades:** Interconnection Facilities owned by the Distribution Provider.

**Interconnection Study:** A study to establish the requirements for interconnection of a Generating Facility to Distribution Provider’s Distribution System or Transmission System, pursuant to WDAT or Rule 21, as applicable.

**Island Mode:** Operation of the microgrid by the Distribution Provider when the microgrid that normally operates in Blue Sky Mode is disconnected from the remainder of the Distribution System at the Microgrid Islanding Point(s). The Distribution Provider will operate the microgrid in Island Mode by:

- Direct dispatch of Project Resources within the Microgrid Boundary and/or
- By directing Project Resources to operate within parameters specified by the Distribution Provider for voltage, frequency and power quality.

**Islanding Operation Date (IOD):** The date upon which the Community Microgrid has successfully demonstrated through the testing and commissioning process that it can successfully transition from Blue Sky Mode to Island Mode, safely operate in Island Mode, and successfully transition from Island Mode to Blue Sky mode pursuant to the MOA’s Operational Requirements.

**Load Management Technology:** All equipment and other facilities used for the purpose of controlling the consumption of electric power, including storage.

**Local Government:** Any county, city, city and county, including a charter city or county, any special district, or any other local or regional governmental entity, where “special district” shall explicitly include an agency of the State, formed pursuant to general law or a special act, for the local performance of governmental or proprietary functions with limited geographic boundaries including, but not limited to, school districts and redevelopment agencies.

**Matching Funds:** One-time funds authorized by the CPUC to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid (e.g., CMEP). These Matching Funds are the funding source for the Microgrid Special Facilities Allowance and are in addition to the total MIP budget for eligible costs.

**Microgrid:** As defined in Public Utilities Code (PUC) Section 8370 (d), a microgrid is an interconnected system of loads and energy resources, including, but not limited to, distributed energy resources, energy storage, demand response tools, or other management, forecasting and analytical tools, appropriately sized to meet customer needs, within a clearly defined electrical boundary that can act as a single, controllable entity, and can connect to, disconnect from, or run in parallel with, larger portions of the electrical grid, or can be managed and isolated to withstand larger disturbances and maintain electrical supply to connected critical infrastructure.

**Microgrid Boundary:** An electrically contiguous area which can be separated from the larger Distribution System at the Microgrid Islanding Point that defines a microgrid as a single, controllable entity.

**Microgrid Controller:** The Distribution Provider’s system that monitors and controls the Distribution System and Project Resources within the Microgrid Boundary when islanded, and which may coordinate with Non-Project Resources that support the microgrid.

**Microgrid Incentive Program (MIP):** A program to enable community-proposed Microgrids that provide enhanced resilience for vulnerable customer groups and/or critical facilities pursuant to the CPUC’s Decisions [D.21-01-018](#) and [D.23-04-034](#).

GLOSSARY



**Microgrid Islanding Point:** The point(s) on a Distribution System that allows the microgrid to separate from and reconnect to the rest of the Distribution System.

**Microgrid Islanding Study (MIS):** An engineering study conducted by the Distribution Provider or its agents to determine the required modifications to and specifications for the Distribution Provider’s Distribution Facilities to support Island Mode operation, including the cost and scheduled completion date for such modifications.

**Microgrid Islanding Study Agreement (MIS Agreement):** A contractual agreement between PG&E and the MIP Awardee to conduct a Microgrid Islanding Study (MIS).

**Microgrid Operating Agreement (MOA):** An agreement between the Distribution Provider and the MIP Awardee that governs the Community Microgrid development and testing, and commercial operations to ensure safety and service quality in compliance with applicable Distribution Provider rules.

**Microgrid Special Facilities:** Modifications to the Distribution Provider’s Distribution Facilities required to operationalize the Microgrid Boundary and Island Mode such that the microgrid can maintain voltage, frequency and power quality in accordance with the Distribution Provider’s requirements and Rule 2.

**Microgrid Special Facilities Agreement (Microgrid SFA):** The agreement that describes the upgrades on the Distribution System to be installed under the terms and conditions regarding Special Facilities (or Added Facilities) on file with the California Public Utilities Commission (CPUC), pursuant to Electric Rule 2, and incorporated in the Microgrid Operating Agreement (MOA).

**Microgrid Special Facilities Allowance:** An amount funded by utility ratepayers in addition to the MIP Incentive Award, the MIP Application Development Grant and the Interconnection Allowance to cover all or a portion of the costs of the Microgrid Special Facilities and the MIS.

**Milestones:** Key development activities and the agreed upon completion dates required for the development and operation of the Community Microgrid as set forth in the MOA.

**MIP Applicant:** The person or entity who submits an Application to PG&E for the MIP. Upon receiving a MIP Incentive Award, the MIP Applicant will be referred to as a MIP Awardee.

**MIP Application Development Grant:** Reimbursement up to \$25,000 for the costs incurred in the development of an eligible MIP application; available subsequent to acceptance of Applicant’s AIR whether an Applicant is awarded a MIP incentive grant or not.

**MIP Awardee:** An Applicant to whom a partial or full MIP incentive award is offered.

**MOA “Rider”:** The agreement, executed by the MIP Awardee upon its acceptance of a partial or full MIP incentive award, which provides the terms and conditions governing the Interconnection Allowance, the Special Facilities Allowance and MIP incentive payments to the extent such payments occur prior to execution of the MOA.

**Performance Test:** A biennial (every other year) test to demonstrate that the Community Microgrid and project personnel can successfully meet the operating performance requirements set forth in the MOA.

**Operating Term:** The 10-year initial period commencing on the Community Microgrid IOD as set forth in MOA; automatically renewed annually for one-year terms until termination of the MOA or expiration of a Project Resource Interconnection Agreement.

**Permission to Island:** Distribution Provider’s express written permission before a Community Microgrid may operate in Island Mode.

**Permission to Operate:** Distribution Provider’s express written permission required before a Project Resource or Non-Project Resource may parallel with the Distribution System, pursuant to applicable tariffs (Rule 21 or WDAT).

**Producer:** The entity that executes a Generator Interconnection Agreement with Distribution Provider per Rule 21. Producer may or may not own or operate the Generating Facility, but is responsible for the rights and obligations related to the Generator Interconnection Agreement.

**Project Implementation Plan:** Document mutually agreed upon by utility and applicant that details how the Community Microgrid will be safely developed and operated. Includes detailed description of milestones including tasks, schedule and dependencies for design, construction and testing for the Community Microgrid.

GLOSSARY



**Project Resource:** A Generating Facility, storage technology or load management technology that the Community Microgrid Aggregator has control over and are used to support a Community Microgrid. At least one Project Resource must have a plant controller and grid-forming capability sufficient to allow acceptable frequency and voltage during Island Mode operation. Project Resources are interconnected to the Distribution System within the Microgrid Boundary either directly as IFOM Project Resources or indirectly as BTM Project Resources pursuant to the <WDAT/WDT> or Electric Rule 21. Project Resources may or may not be owned by the MIP Awardee but are subject to the operating provisions specified in the MOA.

**Resource Controller (also known as a Plant Controller):** A system, distinct from the utility’s Microgrid Controller, that controls the operation of the Project Resources.

**Rural Area:** Locations defined by U.S. Health and Human Services Administration as Rural.

**System Change:** A change in Project Resources, Non-Project Resources or customer loads within the Microgrid Boundary that was not anticipated at the time the MIS was performed, or other Affected Systems outside the Microgrid Boundary and which PG&E determines may have a material impact on the ability of a Community Microgrid to safely and reliably function in Island Mode.

**Tribal Government:** Federally or non-federally recognized California Native American Tribes, as defined in Public Resources Code (PRC) Section 21073. PRC Section 21073 defines a California Native American Tribe as a Native American Tribe located in California that is on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004.

**Wholesale Distribution Access Tariff (WDAT):** The terms under which the utility provides open access to its Distribution System to wholesale customers seeking to:

- Interconnect generation facilities to the utility’s Distribution System and deliver energy and capacity services to the California Independent System Operator (CAISO) controlled grid (using the utility’s Distribution System), or
- Deliver energy or capacity services from the CAISO controlled grid (using the utility’s Distribution System) to their customers.

<b>AC</b> Alternative Current	<b>HFTD</b> High Fire-Threat District
<b>AFN</b> Access and Functional Needs	<b>IFOM</b> In Front-of-the-Meter
<b>AIR</b> Application Incentive Request	<b>IOD</b> Islanding Operation Date
<b>BTM</b> Behind-the-Meter	<b>MBL</b> Medical Baseline
<b>CAISO</b> California Independent System Operator	<b>MIP</b> Microgrid Incentive Program
<b>CARE</b> California Alternative Rates for Energy Program	<b>MIPIP</b> Microgrid Incentive Program Implementation Plan
<b>CBO</b> Community-Based Organization	<b>MIS</b> Microgrid Islanding Study
<b>DSO</b> Distribution System Operator	<b>MOA</b> Microgrid Operating Agreement
<b>IOD</b> Islanding Operation Date	<b>NDA</b> Non-Disclosure Agreement
<b>IOU</b> Investor Owned Utility	<b>PIP</b> Project Implementation Plan
<b>IS</b> Interconnection Study	<b>PTI</b> Permission to Island
<b>CPUC</b> California Public Utilities Commission	<b>SCADA</b> Supervisory Control and Data Acquisition
<b>CMEP</b> Community Microgrid Enablement Program (PG&E)	<b>SFA</b> Rule 2 Special Facilities Agreement
<b>DA</b> Direct Access	<b>PSPS</b> Public Safety Power Shutoff
<b>DER</b> Distributed Energy Resource	<b>R21</b> Rule 21
<b>DVC</b> Disadvantaged Vulnerable Community	<b>WDAT or WDT</b> Wholesale Distribution Access Tariff or Wholesale Distribution Tariff
<b>FERA</b> Family Electric Rate Assistance Program	
<b>GHG</b> Greenhouse Gas	

GLOSSARY



# Endnotes

Endnotes are listed in the order they appear in the document

1.

Under certain design configurations, a brief break in service may be experienced. [BACK](#)
2.

Any new MIP-funded project resource must comply with the emissions standards adopted by the State Air Resources Board pursuant to the distributed generation certification program requirements of Section 94203 of Title 17 of the California Code of Regulations, or any successor regulation, consistent with the requirements for community microgrids in SB 1339.16 Non-compliant emergency/standby generation are not allowed to be used as Project Resources. [BACK](#)
3.

Existing DERs can be included in the microgrid; however, they are not eligible for the MIP subsidy. [BACK](#)
4.

As identified by the U.S. Health and Human Services Administration [Federal Office of Rural Health Policy \(FORHP\) Data Files | HRSA](#). [BACK](#)
5.

Incentive funds may not be used to pay for BTM resources. Incentive funds may be used to pay for the cost of In-Front-of-the-Meter (IFOM) resources and reconfiguring certain BTM facilities. [BACK](#)
6.

A final determination on eligibility will be made during the application phase. [BACK](#)
7.

Note that a standard non-disclosure agreement (NDA) and customer consent is required at this step to protect private customer information and ensure security of the energy system. [BACK](#)
8.

See PG&E’s MIP website [www.pge.com/mip](#) for pro forma MOA. [BACK](#)
9.

Ensure compliance with customer privacy protection and aggregation restrictions regarding the disclosure of information related to customers and/or facilities. [BACK](#)
10.

“When operating in Island Mode, the aggregate emissions from Project Resources and non-Project Resources must be no greater than equivalent grid power. Energy storage that is charged with grid power will be deemed to have the emissions equivalent of the average system emissions for the Utility.” Commission-approved Joint IOU Microgrid Incentive Program Implementation Plan, p. 20. [BACK](#)
11.

Do not include interconnection facilities and distribution upgrade costs with the MIP eligible costs in the AIR. PG&E will provide an interconnection allowance of up to \$1 million for eligible Interconnection Studies, distribution upgrades, interconnection facilities costs, and a microgrid Special Facilities allowance of up to \$3 million for an eligible Microgrid Islanding Study and other islanding costs. Note, the total amount of the AIR cannot exceed the incentive award cap (\$14 million). [BACK](#)
12.

If possible, also include information on whether the Applicant’s microgrid can provide distribution service while in Island Mode beyond 24 hours. MIP application will receive additional resilience benefit points for every six hours it can provide distribution service beyond 24 hours. During the Technical Consultation, PG&E will assist Applicant in identifying the expected impact of non-Project Resources on the ability to provide continuous operation of the microgrid during Island Mode operation. [BACK](#)
13.

Individual customers eligible for both programs are counted only once. [BACK](#)
14.

Customers available for multiple programs are only counted once. [BACK](#)
15.

See the [CWSP Critical Facility Customer Fact Sheet](#). [BACK](#)
16.

The Commission-approved Microgrid Incentive Program Implementation Plan (MIPIP) caps the Island Duration Resilience Benefit points at four consecutive days. MIPIP, p. 31. [BACK](#)
17.

The MIP is intended to support the community’s development of a microgrid, not to support the community’s ongoing costs of maintaining microgrid capability once the microgrid has entered islanding operation. However, PG&E may in its sole discretion, and to the extent funds are available, allow the use of any unused Interconnection Allowance funds up to the \$1M cap after IOD. [BACK](#)
18.

This allowance is provided through PG&E’s Community Microgrid Enablement Program. [BACK](#)
19.

The MIP is intended to support the community’s development of a microgrid, not to support the community’s ongoing costs of maintaining microgrid capability once the microgrid has entered islanding operation. However, PG&E may in its sole discretion, and to the extent funds are available, allow the use of any unused Microgrid Special Facilities Allowance funds up to the \$3M cap after IOD. [BACK](#)
20.

Possible exception exists for projects which sell to PG&E under PURPA, which can interconnect under Electric Rule 21. [BACK](#)



# Version History

PAGE	DESCRIPTION OF CHANGE
Every Page	Update month at bottom of every page from "October 2023" to "May 2024"; create new tab on right "Version History."
Side Tabs and Page 2 and 50	Update "Footnotes" to "Endnotes."
16	Fix broken link: Community Microgrid Technical Best Practices Guide.
17	Simplify Request for Technical Consultation (remove "List of customers to be served by microgrid, including Account IDs if known").
18	Change "CMG Aggregator" to "Applicant."
20	Preparing your application: modify 60% design to 30% design.
22	Clarify "same area" in last bullet to "Proposed projects may not have overlapping boundaries."
24	Fix broken link: PG&E's Annual Electric Reliability Reports; modify the language under number of vulnerable customers and define scoring parameter/criteria and validation method for AFN/MBL/Life Support customers within MIP Project.
26	Add asterisk for "Prior PSPS Events."
33	Fix broken link: PG&E's Getting Started Guide for Electric Generator Interconnections.
45	Fix broken link: Rulemaking R.18-12-005 (Under Critical Facility definition); improved language around "pursuant to the CPUC's Decisions D.21-01-018 and D.23-04-034"; expand Local Government definition.
49	Remove Track 2 Decision definition; add definition for Tribal Government.
50	Fix broken link: Item #15: CWSP Critical Facility Customer Fact Sheet.
51	Create new page for "Version History."