

Pacific Gas and Electric Company

Microgrid Incentive Program

October 24, 2023



Safety

Preparedness Tips

Always be prepared in case of a natural disaster or an emergency

Build a disaster supply kit for you, your family or your business

Be sure to include food, water, medication, flashlights, first aid kits, a list of emergency contacts and more

Visit safetyactioncenter.pge.com to help prepare for an emergency



Topics For Discussion

- 1** What is a Community Microgrid

- 2** Microgrid Incentive Program (MIP)

- 3** MIP Application Process

- 4** MIP Handbook

- 5** Stage 1: Consultation

- 6** Next Steps

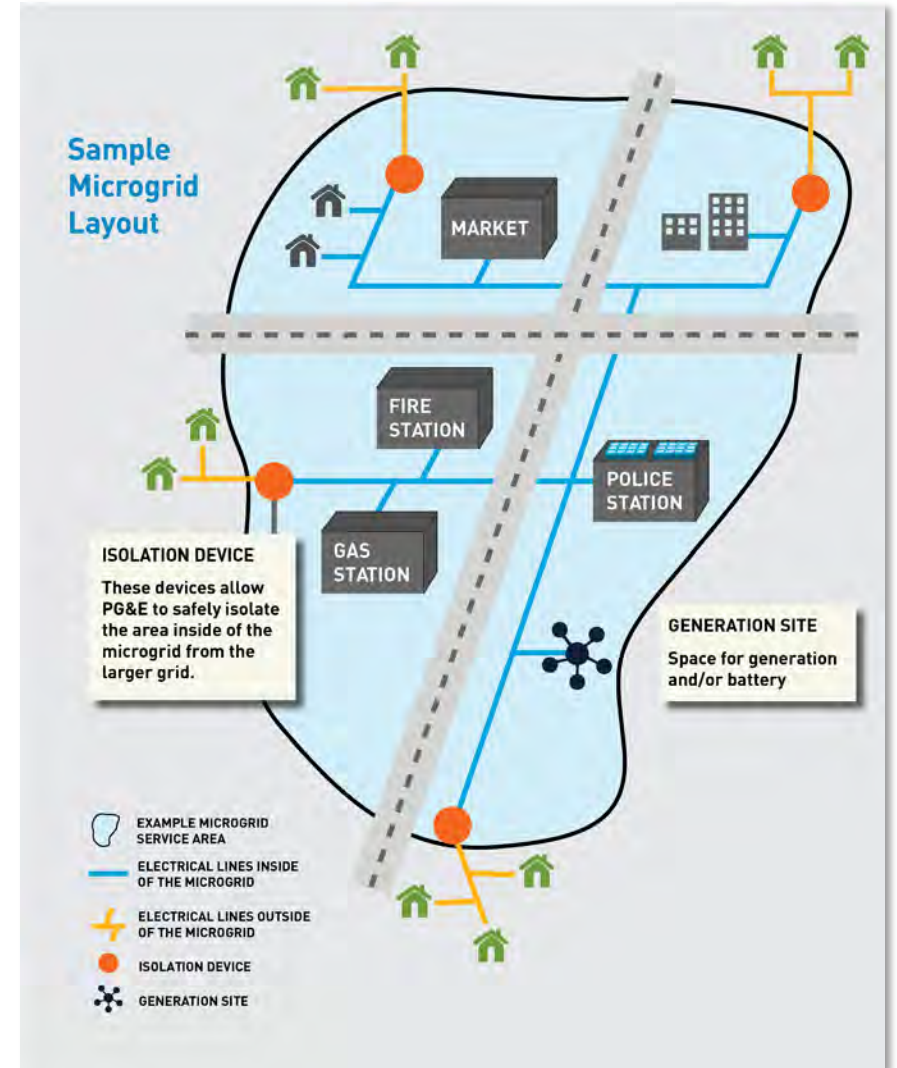


What is a Community Microgrid?

A microgrid consists of a group of interconnected customers and distributed energy resource(s) that can disconnect from and reconnect to the grid to stay energized during an outage.

Community microgrids are typically designed to serve community resources, such as:

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



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

Microgrid Incentive Program Goals

The MIP is designed to fund clean community microgrids that support the critical needs of vulnerable populations most likely to be impacted by outages.

The goals of this program are to:



Increase reliability and resiliency for critical public facilities in communities that are at higher risk of electrical outages



Prioritize communities with higher portions of low-income, access and functional needs, and electricity-dependent residents



Enable communities with lower ability to fund development of backup generation to maintain critical loads during outages



Provide opportunity for testing new technologies or regulatory approaches to inform future action to the benefit of all ratepayers





Up to \$18M in Community Microgrid Incentives Per Award

Individual projects will receive up to **\$15M*** in funding through MIP for engineering and development costs.



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 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

Projects will receive additional funding through PG&E's Community Microgrid Enablement Program



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



For more information visit pge.com/mip

* Up to \$14M for incentive request plus \$1M interconnection allowance for front-of-meter project resources, such as battery or solar pv. Eligibility does not guarantee funding

MIP Provides Support to Communities for Application Development



The development of a MIP Technical Application can be costly. MIP will reimburse the costs of an eligible MIP application, up to \$25,000, whether the Applicant is awarded MIP funding or not.

- Additional project design and application development funding is available for projects that are awarded MIP funding.
- Applicants must detail the technical support costs associated with the grant request in their application.



Who Can Apply for the Microgrid Incentive Program?

Representatives of tribes, governments and community-based organizations in eligible communities are encouraged to apply.

MIP-funded microgrids must serve communities that are considered both:

Susceptible to Frequent Outages

Microgrid is located in any of the following:

1. Tier 2 or 3 High Fire-Threat District
2. Area that experienced prior PSPS outage
3. Elevated earthquake risk zone
4. Locations with lower historical level of reliability

OR: is attested as such by a letter from local government and/or tribal jurisdiction that identifies and justifies forms of outage vulnerability

Disadvantaged and Vulnerable

Eligible community meets any of the following criteria:

1. Census tracts with median household incomes less than 60% of state median
2. California Native American tribal community
3. Community with highest risk as identified in the current version of CalEnviro Screen
4. A rural area

OR: microgrid powers a critical community facility that primarily serves one of these communities

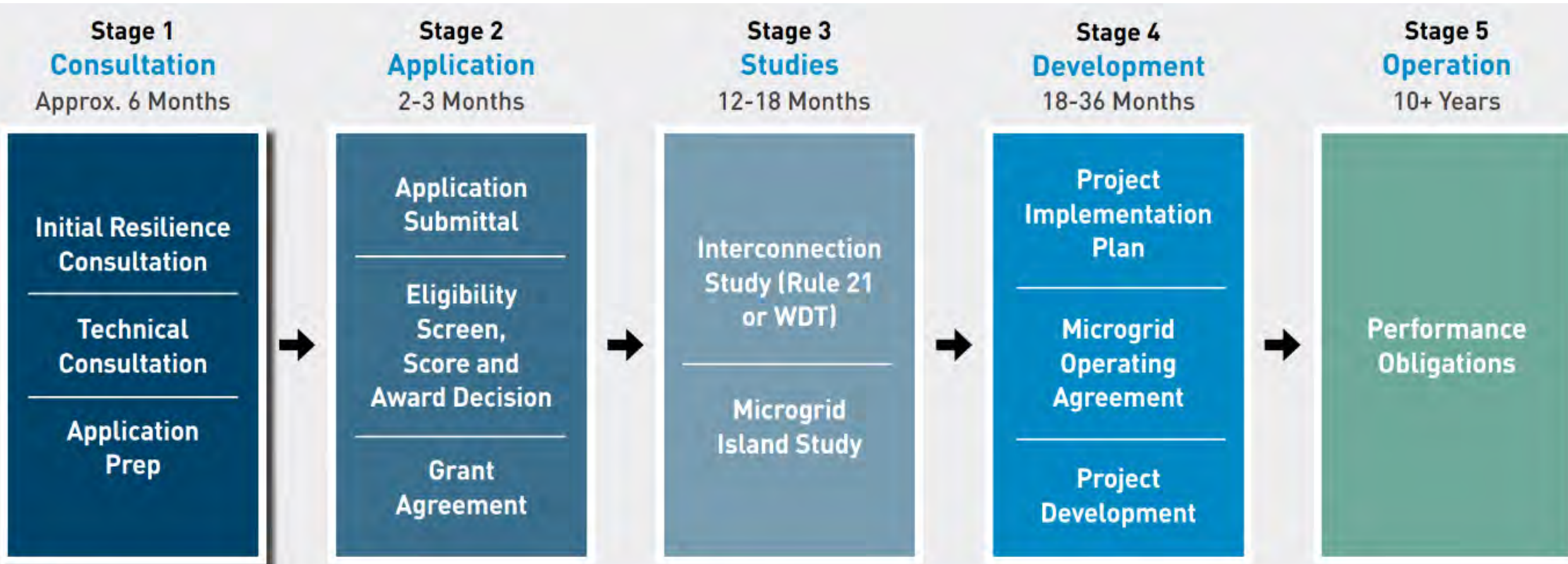
Prioritizing Projects: The MIP Scoring Framework

MIP will prioritize projects that maximize the benefits based on the funding requested through a Project Score*.



*Additional scoring information is provided in the MIP Handbook

Applicant Process, Step-By-Step



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

A comprehensive MIP Handbook is available at pge.com/mip.*

It guides potential applicants through each stage of the MIP process, from application to development.



The image shows the cover page of the Microgrid Incentive Program (MIP) Handbook. The page has a blue background with a grid pattern and a blurred image of a building. The title "Microgrid Incentive Program (MIP) Handbook" is prominently displayed in white text. Below the title, it says "A guide for developing a multi-customer Community Microgrid". The word "DRAFT" is in the top left corner. A "Before You Open This PDF" warning box is in the top right. A table of contents is on the right side, listing sections like Overview, Funding, Eligibility, and Glossary. The PG&E logo and date "September 2023" are in the bottom left. A "Main Menu" button and a "NEXT" arrow are in the bottom right.

DRAFT

Before You Open This PDF

Microgrid Incentive Program (MIP) Handbook

A guide for developing a multi-customer Community Microgrid

September 2023

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Main Menu

NEXT

- TABLE OF CONTENTS
- OVERVIEW
- MICROGRIDS: THE BASICS
- FUNDING
- ELIGIBILITY
- MIP PROJECT LIFECYCLE STAGES
- GLOSSARY
- FOOTNOTES

*Additional information is provided in the MIP Handbook

Stage 1: Consultation – Goals



Identify

resiliency needs within the community



Discuss

potential solutions to meet community's needs



Review

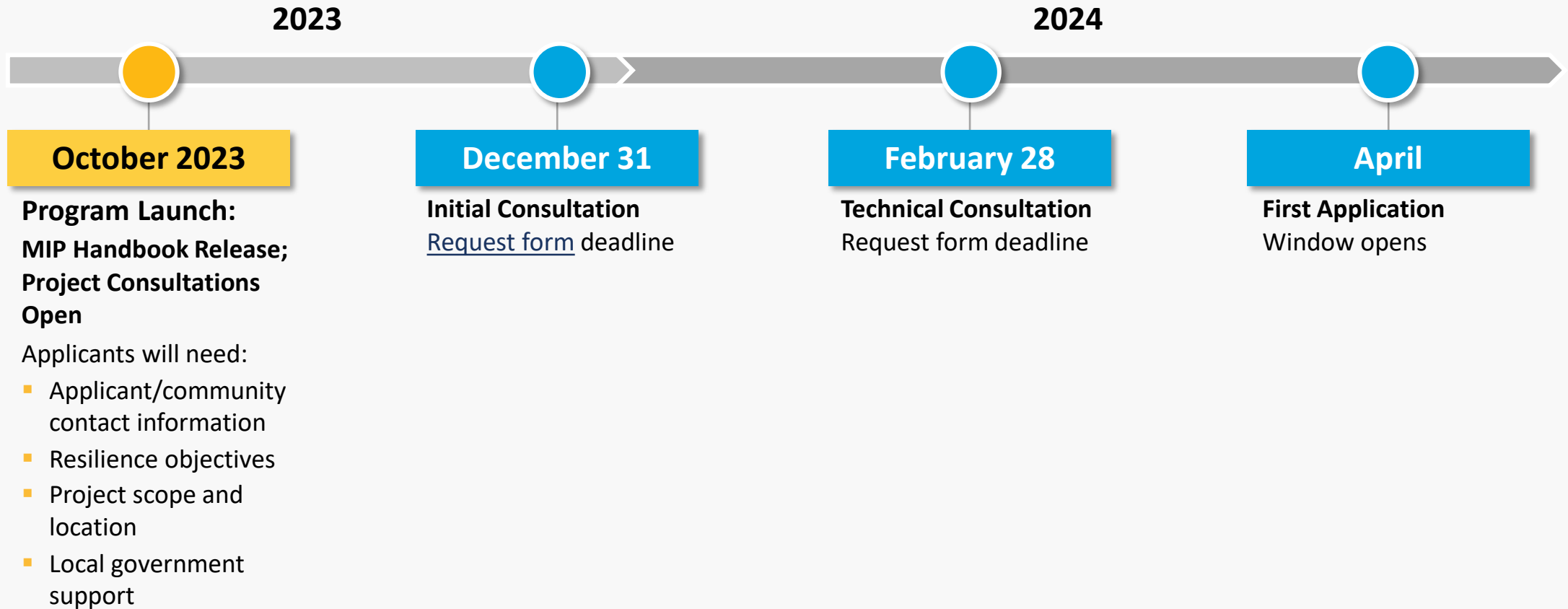
the eligibility requirements for MIP funding



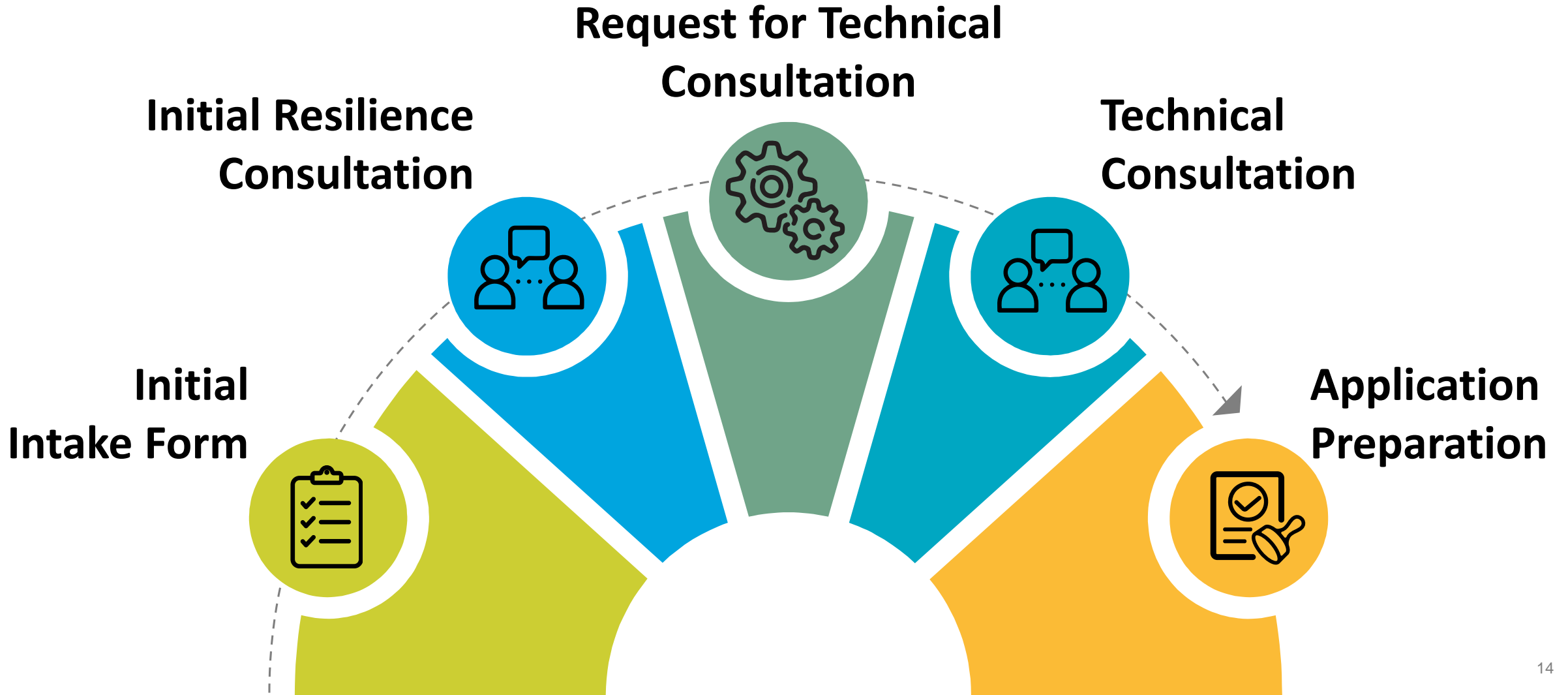
Prepare

application and address any design challenges

Key Upcoming Dates

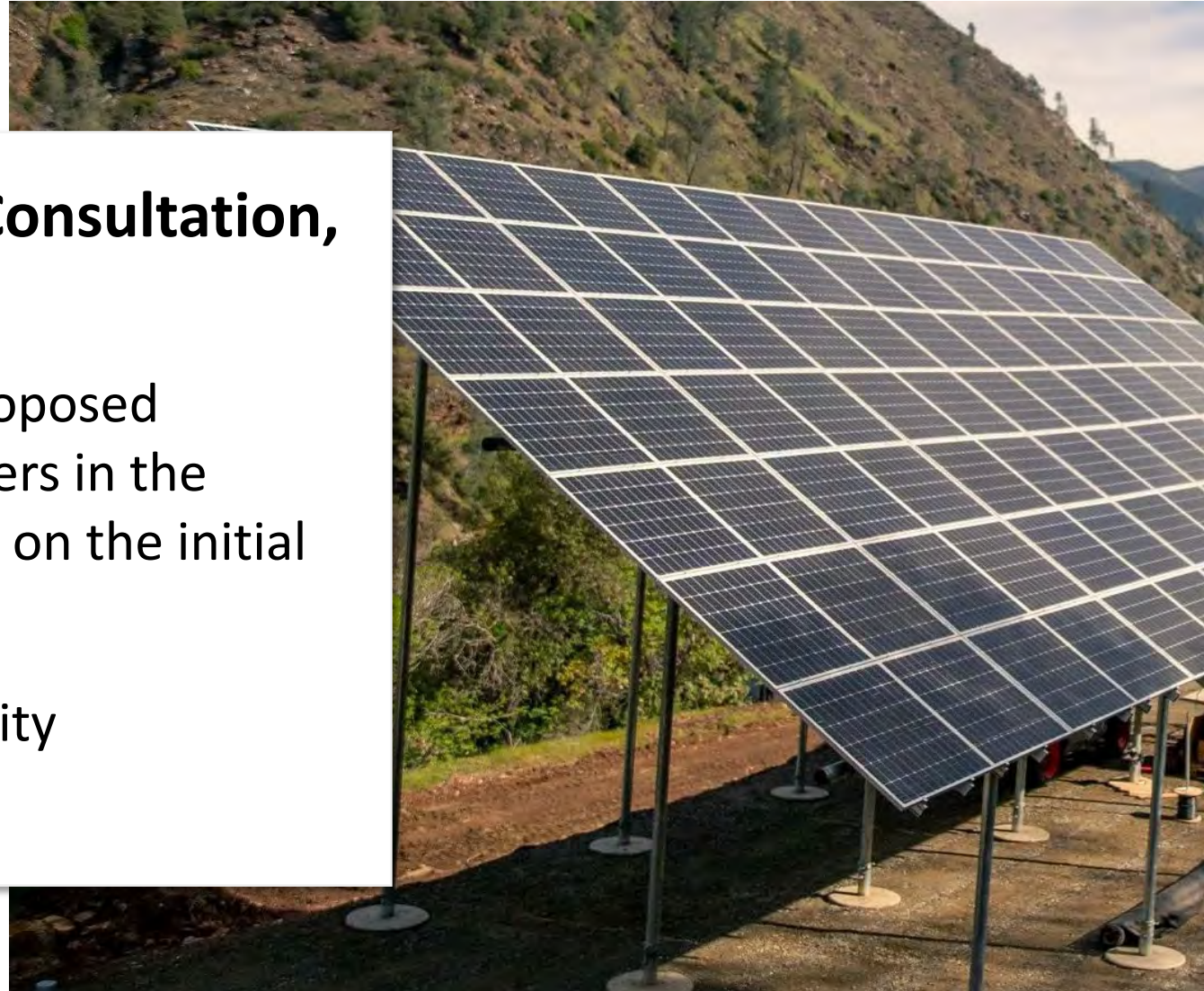


**Additional information is provided in the MIP Handbook*



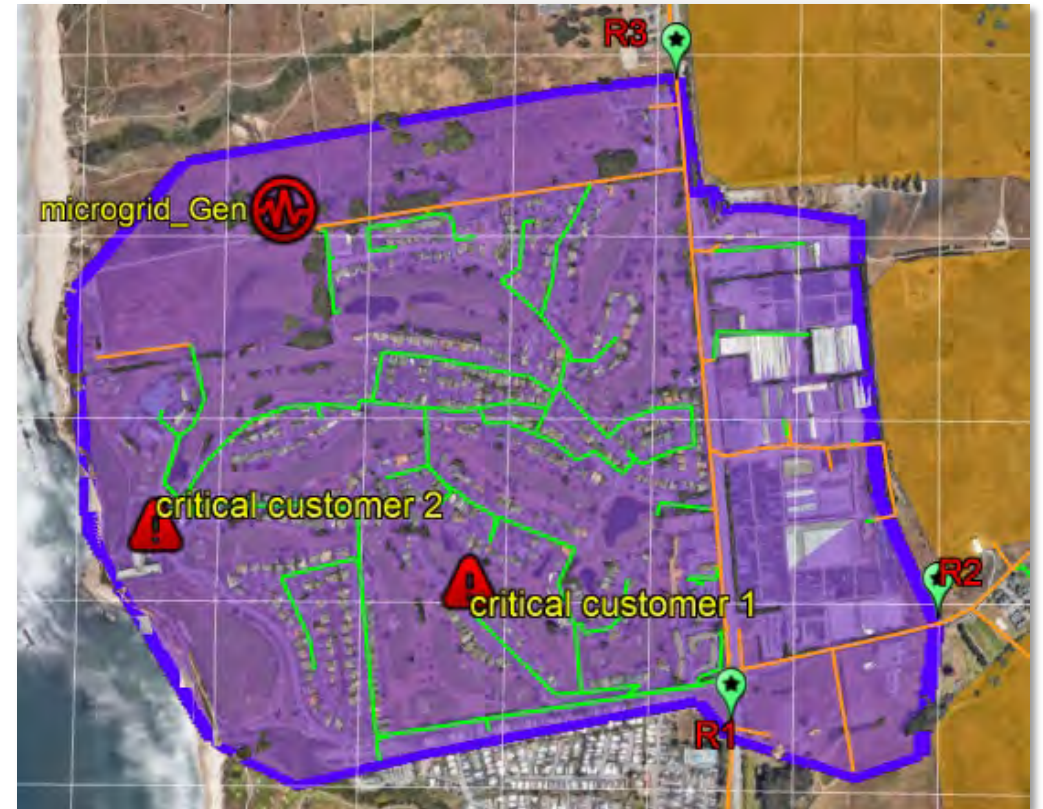
During the Initial Resilience Consultation, a PG&E grid engineer will:

- 1 Review the location of the proposed microgrid and critical customers in the microgrid region as identified on the initial intake form.
- 2 Review the existing PG&E utility infrastructure.



1 Review the location of the proposed microgrid and critical customers in the microgrid region as identified on the initial intake form.

- Map the microgrid site on Google Earth and create a polygon representing the microgrid region.
- Discuss potential locations of the energy resources.
- Review the location of critical customers in the microgrid region from the initial intake form.

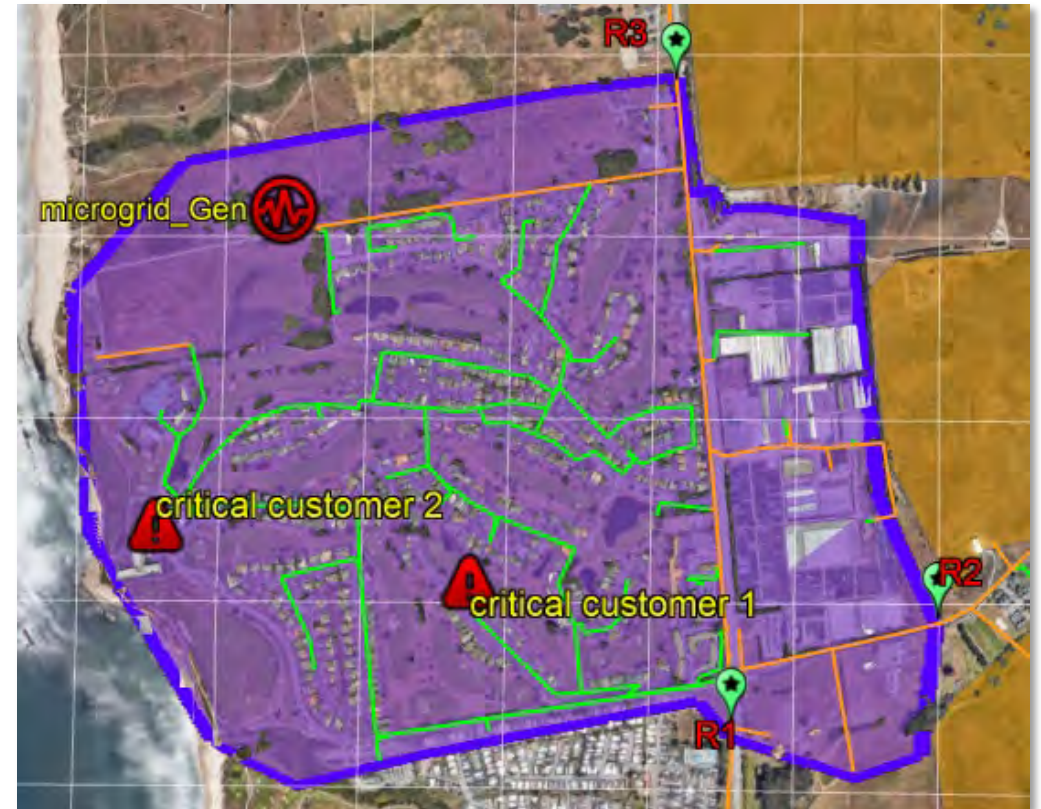


Illustrative microgrid site with identified islanding points and the locations of resources and critical customers

2

Review existing PG&E grid infrastructure

- **Identify microgrid islanding points:**
 - End of the line microgrid (single microgrid islanding point)
 - Mid-feeder microgrid (multiple microgrid islanding points)
- **Review PG&E utility infrastructure** in high fire-threat areas and historical weather patterns that may impact the microgrid
- **Provide a high-level overview of the distribution grid** inside the microgrid boundary, and discuss potential upgrades (e.g., isolation devices or other infrastructure) that may be necessary to support microgrid development



Illustrative microgrid site with identified islanding points and the locations of resources and critical customers



Requirement to Request for Microgrid Technical Consultation

- Non-Disclosure Agreement**
- Proposed Single Line Diagram (30% design)**
- Proposed Site Map**
- List of customers to be served by microgrid,**
including account IDs, if known
- Proposed new generation type and size**
(i.e., Energy Storage – 1MW/2MWh) and manufacturer, if known
- When in Island Mode, the desired minimum
number of consecutive hours of service**
- Technical Representation**
- Community Support**



Proposed Site Map must include:

- 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



Technical Representation must include:

- 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 must include:

A letter of support from the authority with jurisdiction over the area where the microgrid is contemplated if requester is not a local or tribal government

Prior to the Microgrid Technical Consultation, we advise you to familiarize yourself with:

- [Community Microgrid Technical Best Practices Guide](#)
- [MIP handbook](#)

Additional interconnection design resources:

- [PG&E Distribution Interconnection Handbook \(pge.com\)](#)
- [Electric Generation Interconnection and Rule 21 applications \(pge.com\)](#)
- [PG&E's Integration Capacity Analysis \(ICA\) Maps](#)



Technical Consultation – Load Profile Data for sizing microgrid

As possible and available for the area under consideration, and subject to all applicable customer data privacy rules, PG&E will provide:



**5-year historical
load data** for the
microgrid region



**Calculated 24-
hour energy
usage data** for
past five years



**Forecasted
load growth**

Discuss any design challenges, and coordinate on possible solutions

- Review historical outage data and quantify the impact on the microgrid.
- High-level overview of operation and microgrid transitions to and from an island mode.
- Existing PG&E utility infrastructure and necessary PG&E utility upgrades for microgrid development.
- Existing or planned PG&E mitigation activities in the region.





The consultation stage will support your team so that you are better prepared to submit a high-quality MIP application.



If your community is selected for a MIP award, PG&E will partner with your technical team from design to operation.



Questions?

communitymicrogrids@pge.com

**Microgrid Incentive
Program – Initial
Consultation Request**

