

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking Regarding
Microgrids Pursuant to Senate Bill 1339 and
Resiliency Strategies.

R.19-09-009
(Filed September 12, 2019)

**PROPOSED MICROGRID INCENTIVE PROGRAM
IMPLEMENTATION PLAN OF SAN DIEGO GAS & ELECTRIC
COMPANY (U 902-E), PACIFIC GAS AND ELECTRIC
COMPANY (U 39-E), AND SOUTHERN CALIFORNIA EDISON
COMPANY (U 338-E)**

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December 3, 2021

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COMPANY (U 338-E)**

Pursuant to Ordering Paragraph (“OP”) of Commission Decision (“D.”) 21-01-018, *Decision Adopting Rates, Tariffs, and Rules Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies* (“Decision”), issued January 21, 2021, Pacific Gas and Electric Company (“PG&E”), San Diego Gas & Electric Company (“SDG&E”), and Southern California Edison Company (“SCE”) (collectively, “Joint Utilities,” and individually, “Utility”) propose the Microgrid Incentive Program Implementation Plan (the “Implementation Plan”) as Appendix A.¹

I. DISCUSSION

A. This Implementation Plan Contains All of the Required Information

The Track 4 Scoping Memo and Ruling² allows opportunity for parties to comment and for the Commission to issue a comprehensive decision on the Implementation Plan. As outlined

¹ D.21-02-002, *Order Correcting Error*, modified OP 6 to require the Joint Utilities to file an implementation plan within 120 days of approval of the Tier 1 advice letter (required by OP 5) that comprehensively discusses the implementation details of the Microgrid Incentive Program, pursuant to Section 3.4.3 of the Decision. By letter dated September 23, 2021, the Commission’s Executive Director granted the Joint Utilities’ request to file the Implementation Plan on December 3, 2021.

² R.19-09-009, *Email Ruling Modifying Phase 2 Schedule of Track 4*, issued October 8, 2021, modified the schedule in the Track 4 Scoping Memo and Ruling.

below and detailed in Appendix A, the Implementation Plan meets the minimum requirements established in the Decision's Section 3.4.3 and OP 6, which requires that the Joint Utilities' Implementation Plan include eight elements. Each of these elements is described below and references the location in the Implementation Plan where the element is addressed.

1. *Description of the program administrator's reporting requirements and timeline, such as program status reports, project status reports, and quarterly budget status reports*

Discussion of the program administrator's reporting requirements and timeline can be found in Appendix A, Section VI, Subsection A.

2. *Discussion of the approach for allocating program funding amongst the individual investor-owned utilities*

The Utilities propose to allocate the total program budget, less a 10% reserve for administrative costs, based on each utility's forecast 2022 energy sales by Transmission Access Charge area for CPUC-jurisdictional entities, as derived from the California Energy Commission's 2020 Integrated Energy Policy Report. Further discussion can be found in Appendix A, Section VI, Subsection B.

3. *Discussion of the accounting treatment and ratemaking, such as specification that the program may only recover costs once expenditures have been incurred and may not be proactively collected*

Discussion of the accounting treatment and ratemaking can be found in Appendix A, Section VI, Subsection B. Specifically, the Joint Utilities request that the Commission authorize the following:

- For each Utility, create a new subaccount in the Microgrids Balancing Account ("MGBA") for PG&E and SDG&E and the Microgrid One-Way Balancing Account ("MOWBA") for SCE to record the actual costs of the program, up to each Utility's share of the program budget cap.

- For each Utility, create a new subaccount in the MGBA/MOWBA to record the actual costs of the Matching Funds (the “Microgrid Special Facilities Allowance”) used to offset the costs of the Microgrid Islanding Study and the Microgrid Special Facilities. Microgrid projects that receive an Incentive Award are eligible to receive the Microgrid Special Facilities Allowance up to a \$3 million per-project cap.
- Upon approval of the implementation plan, authorize PG&E to prospectively record the revenue requirement for Community Microgrid Enablement Program (“CMEP”) capital costs to the new subaccount of the MGBA.
- For each Utility, record a regulatory asset for customer-side infrastructure (*i.e.*, physical plant) in which the Utility will act as a pass-through entity.
- For each Utility, transfer all Microgrid Incentive Plan development and implementation costs recorded in the Microgrids Memorandum Account pursuant to OP 7 of the Decision, to the Utility’s two-way balancing account for recovery through distribution rates.
- For each Utility, recover the actual costs incurred, grossed up for Franchise Fees and Uncollectibles (Revenue Fees and Uncollectibles for PG&E), annually from all customers in distribution rates as ordered by the Decision through each Utility’s annual electric true-up advice letter process.

4. *Discussion of the method used to control program administrative expenses, such as implementing a cap on overhead of not more than 10% of the total project cost*

The Decision suggests a cap for administrative costs of not more than 10 percent of the program budget cap. The Utilities propose an administrative expense cap of 10% or \$20,000,000, allocated among the Joint Utilities as follows: 40% each for PG&E and SCE and

20% for SDG&E. These costs would be tracked separately through internal orders and subject to separate accounting procedure as specified in the preliminary statement. Further discussion can be found in Appendix A, Section VI, Subsection B.

5. *Development of a program delivery plan handbook as a resource for potential participants*

After approval of the Joint Utilities' MIP Implementation Plan, each Utility will develop a comprehensive handbook based on the Commission-approved design of the MIP. This handbook will be a resource to inform community members and leaders in greater detail about the MIP and Community Microgrids. See Appendix A, Section V, Subsection B, for further discussion.

6. *Description of approach for program evaluation*

The Utilities' implementation plan, including the lifecycle process described therein, is designed to collect the information required to enable MIP program level evaluation as outlined in the Commission staff proposal. The Utilities will work with Commission Energy Division and its third-party evaluator to determine the specific information needed and timing, based on availability of information throughout the MIP lifecycle, to support their program evaluation. Further discussion can be found in Appendix A, Section VI, Subsection C.

7. *SCE and SDG&E customers shall have access to a one-time matching funds payment to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid*

Discussion of a one-time matching funds payment to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid can be found Appendix A, Section VI, Subsection B.

8. *Description of the public workshops that were convened, including but not limited to the number and type of participants, and their inputs in the discussions*

Discussion of the public workshops convened can be found in Attachments 1 and 2, and in Appendix A, Section IV.

9. *Description of the PG&E's proposal to change CMEP to integrate it more fully with MIP*

Discussion of PG&E's proposal to change CMEP to integrate it more fully with MIP can be found in Appendix A, Section VI, Subsection D.

B. The Commission Should Modify the Commercial Operation Deadline

The Decision establishes that the individual projects supported by this microgrid incentive program shall reach commercial operation within 24 months of the Commission's adoption of an Implementation Plan. The Joint Utilities discussed this duration within the stakeholder workshops. The Joint Utilities and most, if not all, stakeholders believe this duration is too short for microgrid projects that are not already far along in development. The Joint Utilities propose that the Commission modify this element of the program design. The Implementation Plan provided in Appendix A reflects modifications of this program design element. The Joint Utilities propose this definition in Appendix A, Section III, Subsection A:

Development Term. The Development Term is the period commencing on the Effective Date of the Microgrid Operating Agreement and shall remain in effect until the MIP Project Islanding Operation Date, no later than 24 months from the Effective Date unless modified by mutually agreed-to extensions with a total term not to exceed 36 months from the MOA Effective Date.

During the workshop sessions, there was general consensus regarding the need for flexibility in terms of development timeline. Community microgrid projects are complex and it is unlikely that projects will have reached a development stage at the time the Commission adopts the Joint Utilities' Implementation Plan that would allow commercialization within the

next 24 months.³ Parties agreed that the deadline of 24 months from Commission decision was prohibitively strict and could render projects infeasible for several reasons. First, these projects are more complex than single-property, single-customer microgrid projects. Second, the timeline for program commencement, project development, application and evaluation, interconnection approval, and construction requires more time and flexibility. Finally, an applicant for an Incentive Award may not have the financial resources necessary to support early development of a Community Microgrid project prior to receiving confirmation of an Incentive Award, *i.e.*, the 24-month duration may not be feasible for many prospective Applicants.

Therefore, the Joint Utilities propose that the 24-month commercial operation deadline requirement commence with the execution of the Microgrid Operating Agreement, rather than from the Commission's decision on the Implementation Plan.

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³ Both SDG&E and PG&E have experience developing community microgrids. Based on this experience, the Utilities believe the 24-month duration is infeasible for projects that are largely conceptual at the time the Commission adopts the Utilities' Implementation Plan.

II. CONCLUSION

The Joint Utilities request that the Commission approve the Implementation Plan, as described in Appendix A.

Respectfully submitted on behalf of the Joint Utilities,⁴

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December 3, 2021

⁴ Pursuant to Rule 1.8(d), PG&E and SCE have authorized SDG&E to submit this filing.

APPENDIX A

Microgrid Incentive Program Implementation Plan of the Joint Investor-Owned Utilities



December 3, 2021

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Attachment 1 – Stakeholder Input

Attachment 2 – Workshop Summaries

Purpose

Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric (SDG&E), and Southern California Edison (SCE), collectively the Utilities, hereby submit this Microgrid Incentive Program (MIP) implementation plan in compliance with the California Public Utilities Commission (CPUC) Decision (D.) 21-01-018 (Track 2 Decision) Section 3.4.3 and Ordering Paragraph (OP) 6, corrected by D.21-02-002. This program implementation plan describes implementation details regarding program scope, project applicability and eligibility criteria including, but not limited to the content included in Section 3.4.3 and all the requirements listed in the Track 2 Decision.

I. Background

In September 2019, the CPUC initiated a rulemaking to develop a policy framework facilitating the commercialization of microgrids and related resiliency strategies in furtherance of Senate Bill (SB) 1339 (Stern, 2018). SB 1339 required the Commission, in consultation with the California Energy Commission (CEC), and the California Independent System Operator (CAISO), to take specific actions, without shifting costs between ratepayers, to facilitate the commercialization of microgrids for distribution customers of large electrical corporations by December 1, 2020.

Track 1 of Rulemaking 19-09-009 was initiated through a December 2019 Energy Division workshop focused on short-term actions related to microgrids and other resiliency strategies targeted toward Summer 2020 implementation.

Track 2 focused on the continued implementation of SB 1339, as reflected in the Scoping Memo and Ruling issued on July 3, 2020. On July 23, 2020, the assigned Administrative Law Judge issued a ruling containing a proposal prepared by the Energy Division titled, *Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339* (Staff Proposal). In the Track 2 Decision, the Commission adopted Staff Proposal 4, with modification, to develop a microgrid incentive program to fund clean community microgrids that support the critical energy needs of vulnerable populations most likely to be impacted by grid outages.

As defined in the Track 2 Decision, the Microgrid Incentive Program seeks to:

- Advance microgrid technology for climate response resiliency;
- Advance system benefits of microgrids equitably to disadvantaged vulnerable populations, for the purpose of public health, safety, and welfare;
- Alleviate the potential that existing inequities would worsen for counties hardest hit by climate and de-energization impacts with already vulnerable populations and too few ratepayers; and
- Inform future regulatory action to the benefit of all customers.

Additionally, per Section 3.4.3 of the Track 2 Decision, the proposed joint implementation plan “shall comprehensively discuss the implementation details of this microgrid pilot incentive program” and include the following information at a minimum:¹

- Description of the program administrator’s reporting requirements and timeline, such as program status reports, project status reports, and quarterly budget status reports;
- Discussion of the approach for allocating program funding amongst the individual IOUs;
- Discussion of the accounting treatment and ratemaking, such as specification that the program may only recover costs once expenditures have been incurred and may not be proactively collected;
- Discussion of the method used to control program administrative expenses, such as implementing a cap on overhead of not more than 10% of the total project cost;
- Development of a program delivery plan handbook as a resource for potential participants;
- Description of approach for program evaluation;
- Description of the public workshops that were convened, including but not limited to the number and type of participants, and their inputs in the discussions; and
- Authorize PG&E to propose changes to its Community Microgrid Enablement Program that may be necessary to integrate that Program more fully with the Microgrid Incentive Program.

II. Definitions and Acronyms

A. Definitions

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 Utility under the MIP, including an Application Incentive Request and a MIP Project Proposal along with other required information.

Application Incentive Request. The Application Incentive Request (AIR) is 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 submit an Application under the MIP. Each Utility will determine the number of Application Intake Windows needed, the timing, and the allocation of MIP Incentive funds for each Application Intake Window.

¹ Track 2 Decision, at p. 61.

Behind the Meter (BTM). Electrical infrastructure, including resources, on the 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.

CAISO. The California Independent System Operator Corporation or any successor entity performing similar functions.

Community-Based Organization (CBO). A public or private nonprofit 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 using Project Resources, connected to the Distribution System (directly as in front-of-the-meter (IFOM) Project Resources and/or indirectly as a behind-the-meter (BTM) Project Resources), to supply electricity across a segment of a Distribution System to multiple customers during Island Mode. A Community Microgrid may also include non-Project Resources such as rooftop solar photovoltaic.

Community Resilience Service. 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 California licensed engineering firm, EPC Contractor or other consulting organization with microgrid engineering-economic qualifications that is contracted by the potential MIP Applicant.

Track 2 Decision. CPUC Decision D.21.01.018 in Track 2 of Rulemaking 19-09-009.

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.18-12-005.²

Development Term. The Development Term is the period commencing on the Effective Date of the Microgrid Operating Agreement (MOA) and shall remain in effect until the MIP Project Islanding Operation Date (IOD), no later than 24 months from the Effective Date unless modified by mutually agreed-to extensions 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 facilities used to provide Distribution Service to the customers within the Microgrid Boundary.

² OIR to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions.

Distribution Service. The transporting of electric power over and through various facilities owned by the Distribution Provider for delivery to a Distribution Customer.

Distribution System. A Distribution Provider's distribution system broadly consists 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. Date specified in the MOA upon which both Parties have agreed the provisions of the MOA are in effect.

Engineering, Procurement, and Construction (EPC) Contractor. Contractor or such Person performing these functions 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 Producer for the purpose of producing electric power, including storage. May also be referred to as a "project resource."

High Fire Threat District (HFTD). An area where there is an elevated risk for power line fires igniting and spreading rapidly as identified in the CPUC Fire-Threat Map, Tiers 2 and 3, as may be amended.

Incentive Award. An Incentive Award is the portion of an MIP Applicant's AIR that is authorized for payment to the MIP Applicant.

Interconnection Agreement. An interconnection agreement under Wholesale Distribution Access Tariff (WDAT or WDT) or Rule 21 for applicable MIP Project Resources.

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; to cover the interconnection studies, Interconnection Facilities Upgrades, and Distribution Upgrades identified per the applicable interconnection tariff for approved projects.

Interconnection Facilities. The electrical wires, switches and related equipment that are required in addition to the facilities required to provide electric Distribution Service to a Customer to allow Interconnection. Interconnection Facilities may be located on either side of the Point of Common Coupling as appropriate to their purpose and design. Interconnection Facilities may be integral to a Generating Facility or provided separately. Interconnection Facilities may be owned by either Producer or 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 (parallel mode) is disconnected from the remainder of the Distribution System at the Microgrid Point of Common Coupling. The Distribution Provider will operate the Microgrid in Island Mode by (i) direct dispatch of Project Resources within the MIP Project Microgrid Boundary, and/or (ii) by authorizing 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 Microgrid Project has successfully demonstrated, through the testing and commissioning process that it can successfully transition from Blue Sky Mode to Island Mode, and back, and safely operate in Island Mode pursuant to the Microgrid Operating Agreement 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. City and county governments, and the governing bodies of federally recognized Tribes.

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 beyond a Microgrid Point of Common Coupling on the Distribution System 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 coordinates 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 Track 2 Decision.

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

Microgrid Islanding Study Agreement (MIS Agreement). A contractual agreement entered into by the Utility and the MIP Applicant to conduct a Microgrid Islanding study.

Microgrid Point of Common Coupling (MPCC). The point(s) on a Distribution System that allows the Microgrid to separate from and reconnect to the rest of the Distribution System

Microgrid Operating Agreement (MOA). An agreement between the Distribution Provider and the MIP Applicant that governs MIP Project 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 is capable of maintaining voltage, frequency and power quality within the Distribution Provider's control parameters in accordance with Rule 2.³

Microgrid Special Facilities Agreement (SFA). The agreement that describes the upgrades on the Distribution System, and at the Project Site to be installed under the terms and conditions regarding Special Facilities (or Added Facilities) on file with the Commission, pursuant to Electric Rule 2, and incorporated in the MOA.

Microgrid Special Facilities Allowance. An amount funded by utility ratepayers to cover Microgrid Special Facilities cost and the MIS in addition to the MIP Incentive Award, the MIP Application Development Grant, and the Interconnection Allowance.

Milestones. Key development activities and the agreed upon completion dates required for the development and operation of the MIP Project as set forth in the MOA.

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

MIP Application Development Grant. A one-time, optional, limited, MIP-funded grant to disadvantaged community (DVC) MIP Applicants who submit an eligible MIP application and request such reimbursement.

MIP Awardee. The entity in whose name an Application is submitted and which becomes the Distribution Provider's counterparty to the MOA and Microgrid Special Facilities Agreement. A MIP Applicant becomes an MIP Awardee upon execution of the MOA.

MIP Handbook. A customer/community facing document that summarizes the program's policies, rules, and guidelines, including instructions on how to apply for MIP funding and a description of the processes involved.

³ SCE's Rule 2 refers to these as Added Facilities.

MIP Project. Facilities and equipment needed to create and operate a Community Microgrid, including the MIP Project Resources and MIP Project Balance of System.

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

MIP Project Commissioning Criteria. A set of requirements (criteria) developed by the Utility and incorporated in the MOA that must be satisfied by the MIP Awardee before the MIP Project can achieve Islanding Operation Date.

MIP Project Commissioning Test. A test that demonstrates that the MIP Project can successfully meet the MIP Project Commissioning Criteria.

MIP Project Performance Test. A biennial (every other year) test of the MIP Project to demonstrate that the MIP Project and project personnel can successfully meet the operating performance requirements per the MOA.

MIP Project Proposal. A detailed description of a Community Microgrid project prepared by the MIP Applicant that is submitted as part of the Application. The MIP Project Proposal identifies the proposed Microgrid Boundary, Project Resources, and known Balance of System elements, supporting engineering analysis and cost estimates. The MIP Project Proposal also includes a proposed implementation schedule and status of all required permits.

MIP Project Technical Evaluation. Conducted by the Utility and consisting of performing resource Interconnection Study and the Microgrid Islanding Study.

Operating Term. The Operating Term is the 10-year initial period commencing on the MIP Project Islanding Operation Date and automatically renewed annually for 1-year terms until termination of the MOA or expiration of an MIP Project Resource Interconnection Agreement.

Permission to Island (PTI). Distribution Provider's express written permission before a MIP Project may operate in Island Mode.

Permission to Operate (PTO). Distribution Provider's express written permission required before a MIP Project Resource or non-Project Resource may parallel with the Distribution System, pursuant to applicable tariffs (Rule 21 or WDAT).

Producer: Per Rule 21: The entity that executes a Generator Interconnection Agreement with Distribution Provider. 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 (PIP). A detailed description of tasks, schedule, and dependencies for design, construction, and testing for an MIP Project.

Project Resource. A Generating Facility, Storage, or Load Management Technology, consistent with SB 1339, used to support Utility-operated microgrids. Project Resources are interconnected to the Distribution System within the Microgrid Boundary (either directly as IFOM Project

Microgrid Incentive Program Implementation Plan

Resources or indirectly as BTM Project Resources) pursuant to the Wholesale Distribution Access Tariff or Electric Rule 21. In order to be deemed a Project Resource, the MIP Applicant must have control over the resource, including any demand-side management resources, consistent with relevant provisions in the Utility's Microgrid Operating Agreement to enable the MIP Project to operate in Island Mode.

Project Site(s). The real property or properties on which one or more Project Resources or Balance of System comprising the MIP Project is located, as identified in the MOA and as may be updated from time to time.

Resource Controller. A System, distinct from the Microgrid Controller, that controls the operation of the MIP Project Resources.

Rural Area. Locations within a Utility service area identified by the U.S. Health and Human Services Administration (HSA) as rural.

System Change. A planned change in Project Resources, non-Project Resources, or customer loads within the Microgrid Boundary, or other Affected Systems outside the Microgrid Boundary that may have a material impact on the ability of an MIP Project to function in Island Mode.

Utility or Utilities: San Diego Gas and Electric (SDG&E), Southern California Edison (SCE), Pacific Gas and Electric (PG&E).

B. Acronyms

BTM	Behind-the-Meter
CAISO	California Independent System Operator
CBO	Community-Based Organization
IOD	Islanding Operation Date
CPUC	California Public Utilities Commission
CMEP	Community Microgrid Enablement Program (PG&E)
DACAG	Disadvantaged Communities Advisory Group
DVC	Disadvantaged Vulnerable Community
FEMA	Federal Energy Management Agency
IFOM	In Front-of-the-Meter
MIP	Microgrid Incentive Program
MIS	Microgrid Islanding Study

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MOA	Microgrid Operating Agreement
NEM	Net Energy Metering
NWA	Non-Wires Alternative
PIP	Project Implementation Plan
PTI	Permission to Island
SFA	Rule 2 Special Facilities Agreement
PSPS	Public Safety Power Shutoff
R21	Rule 21
WDAT or WDT	Wholesale Distribution Access Tariff or Wholesale Distribution Tariff

III. Stakeholder Engagement

The Utilities appreciate the contributions that stakeholders provided in the workshops and subsequent meetings as described below. A summary of how stakeholder input informed this implementation plan design is presented in Attachment 1, which includes discussion of the impact on the MIP design.

Per the Track 2 Decision,⁴ the Utilities developed a stakeholder workshop plan⁵ to convene stakeholder meetings to solicit a range of positions to inform the MIP. In July and August 2021, the Utilities held a series of six interactive stakeholder workshops to inform program design. The topics for the workshops were:

- Workshop 1, July 7: Laying the Foundation
- Workshop 2, July 14: Program Design
- Workshop 3, July 21: Eligibility Criteria
- Workshop 4, July 28: Project Evaluation & Selection
- Workshop 5, August 4: Application & Review Process
- Workshop 6, August 11: Program Evaluation

The workshop format encouraged stakeholder engagement and participation and sought stakeholder input in the form of robust dialogue, written comments, or stakeholder presentations. The Utilities contracted with the Smart Electric Power Alliance (SEPA) to provide independent facilitation and documentation of the six workshop discussions.

⁴ Track 2 Decision, at p. 114.

⁵ See PG&E Advice Letter 6098-E-A et al, effective May 12, 2021.

SEPA used a combination of stakeholder and Utility presentations, facilitated discussion, and targeted questions to elicit relevant feedback from stakeholders. Prior to each workshop, stakeholders were encouraged to collaborate and provide proposals for discussion during the workshop on relevant topics that may help identify program elements and support program implementation. These presentations provided the basis for a rich discussion of the range of program elements identified by the CPUC. After the sessions, the facilitator followed up with an email to provide participants with an additional opportunity for program feedback after having had an opportunity to reflect on the information provided.

SEPA's documentation can be found in Attachment 2. These summaries documented meeting agendas, background information, salient points across workshop sessions, key points raised in each workshop, synopses of participants' points of view, areas of agreement among participants, open items to address in subsequent workshops or in the MIP Filing, and references for further engagement. The stakeholder presentations and SEPA documentation provided the input considered in the development of this implementation plan.

Per stakeholder request, the CPUC convened a Draft Implementation Plan Workshop on October 26, 2021, to allow the Utilities to share the preliminary dimensions of their implementation plan, including how stakeholder input shaped key elements. The Utilities highlighted the impact of stakeholder input on educating and empowering community MIP Applicants, the MIP process, financial and technical support available for Application development, multiple Application Intake Windows, detailed eligibility criteria, and preliminary scoring criteria. The Utilities noted open areas relating to the clean energy requirement, the treatment of islanding capability duration in scoring and evaluation, and how "Important Community Service" should be defined and what documentation should be required to demonstrate compliance with this definition. Stakeholders were encouraged to reach out to the Utilities to provide input on these open items and other areas of interest.

In addition to the seven stakeholder workshops, the Utilities met with environmental justice groups and other groups who advocate on behalf of disadvantaged, low-income, and vulnerable populations, as shown in Attachment 1. The Utilities considered the feedback from these meetings in designing the program.

IV. Program Implementation Plan

A. MIP Design Principles

The Utilities have designed this plan to address the Track 2 Decision to develop a microgrid incentive program aimed at funding multi-customer clean energy microgrids that support the critical needs of vulnerable populations impacted by grid outages. This includes specifically addressing the following objectives:

- Advance microgrid technology for climate response resiliency;
- Advance system benefits of microgrids equitably to disadvantaged vulnerable populations, for the purpose of public health, safety, and welfare;

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- Alleviate the potential that existing inequities would worsen for counties hardest hit by climate and de-energization impacts with already vulnerable populations and too few ratepayers; and
- Inform future regulatory action to the benefit of all ratepayers.

The MIP is intended for complex projects with longer islanding duration that serve multiple customers and is targeted toward addressing the needs of disadvantaged vulnerable communities (DVCs). The total program budget was set at \$200 million.

Given these parameters and thoughtful input from Stakeholders, the Utilities developed the following set of principles to guide the development of this implementation plan.

- **Enable DVCs to assess their resilience needs while balancing the interests of the broader customers who are funding the MIP.**

The Application evaluation, project development, and ongoing operations processes are intended to equitably balance DVC resilience needs and ratepayers' interest in funding viable projects that serve eligible DVC populations in need. In this context, it is recognized that communities have unique resilience needs that should be assessed and identified by the community itself within the parameters of the Track 2 Decision.

- **Provide consultative technical support to DVCs in development of Applications.**

The Utilities will provide Community Microgrid Technical Consultations to a) help the community discern what resiliency approach may best meet the community's specific needs; and b) support the community and its technical/engineering partner(s) in planning and designing a robust Community Microgrid.

- **Address the different starting points for communities' efforts to develop microgrids.**

Where possible, application intake will consist of one or more Application Intake Windows for each Utility to facilitate Application submittal by MIP Applicants that are in different stages of proposal development.

- **Provide clear, objective eligibility requirements, prioritization scoring, and Incentive Award decision processes.**

Application requirements for eligibility, scoring, and Incentive Award criteria and processes are intended to address transparency, objectivity, and process simplification as much as possible. The eligibility criteria and processes used to assess project applications will consider Application content, publicly available information, and information made available by the Utilities during the pre-Application consultations.

- **Address a potential lengthy MIP Project Technical Evaluation process and any Incentive Award decision uncertainty.**

Conduct Application Eligibility and prioritization scoring to enable Incentive Award Decisions prior to MIP Project Technical Evaluation (e.g., Interconnection Study and MIS) results so that

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MIP Applicants know the amount of their authorized Incentive Award before the technical studies commence.

- **Address the need for program flexibility given the uniqueness of the MIP and Community Microgrid development in general.**

This implementation plan aims to maximize the available funding for eligible projects whose benefits are high in proportion to the requested Incentive Award. This will require some program flexibility. For example, the Utilities propose allowing eligible Applications that do not receive Incentive Awards in a current Application Intake Window to move to the next Application Intake Window, where possible. Also, if an awarded project does not proceed through all of the MIP Project development Milestones, the Utilities propose to allow reassignment of the unpaid portions of the Incentive Award to other prioritized MIP Applicant(s).

- **Protecting the Public Interest by Avoiding Unintended Outcomes**

The MIP is a new program intended to support construction of resilience solutions, namely, community microgrids. Since the program is new, and since a community microgrid is a relatively new concept, the MIP Implementation Plan may not have contemplated all potential issues that may arise. The Joint IOUs have endeavored to develop an implementation plan that will deliver on the primary goals of the program. It is possible that there may be aspects to implementing the program that lead to outcomes inconsistent with the primary goals of the program. The Joint IOUs request that the CPUC decision approving the MIP implementation plan allow the Joint IOUs to rectify any program aspects that lead to outcomes inconsistent with the primary goals of the program. The requested process for doing so is as follows. The Joint IOUs, or an individual IOU, shall file a Tier 1 advice letter identifying any such material issue, the implications of the issue, and the resultant program modifications. The Joint IOUs believe that Commission allowance of such a process will provide a critical protection against unforeseen circumstances that could harm ratepayers or undermine the primary goals of the program.

B. Program Lifecycle Process

The Utilities have developed a five-stage lifecycle process for the MIP starting with Community Outreach and ending with Community Microgrid operations.

Stage 1: MIP Community Outreach involves an organized, multi-pronged approach to increasing MIP awareness and education.

Stage 2: Consultation and Application involves a 2-part process to support DVCs in identifying: 1) resilience options and MIP Eligibility requirements; and 2) community microgrid technical considerations in support of potential Application submission.

Stage 3: Application Evaluation, Scoring, Incentive Award Decision and Studies, involves determining Application Eligibility, project scoring and prioritization, MIP Incentive Awards, and identifying upgrades for Project Resource interconnection and safe Microgrid operation.

Stage 4: Contracting, Project Development, and Incentive Award Payments involves the execution of a Microgrid Operating Agreement (MOA) and other required agreements along with

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the actual project development leading to commercial operation. MIP Project development Milestones will inform Incentive Award progress payments.

Stage 5: MIP Project Operations involves operation of the MIP Project in accordance with Utility safety and operational requirements.

The MIP process is represented in a series of flow diagrams beginning with a depiction of the overall lifecycle below in Figure 1.

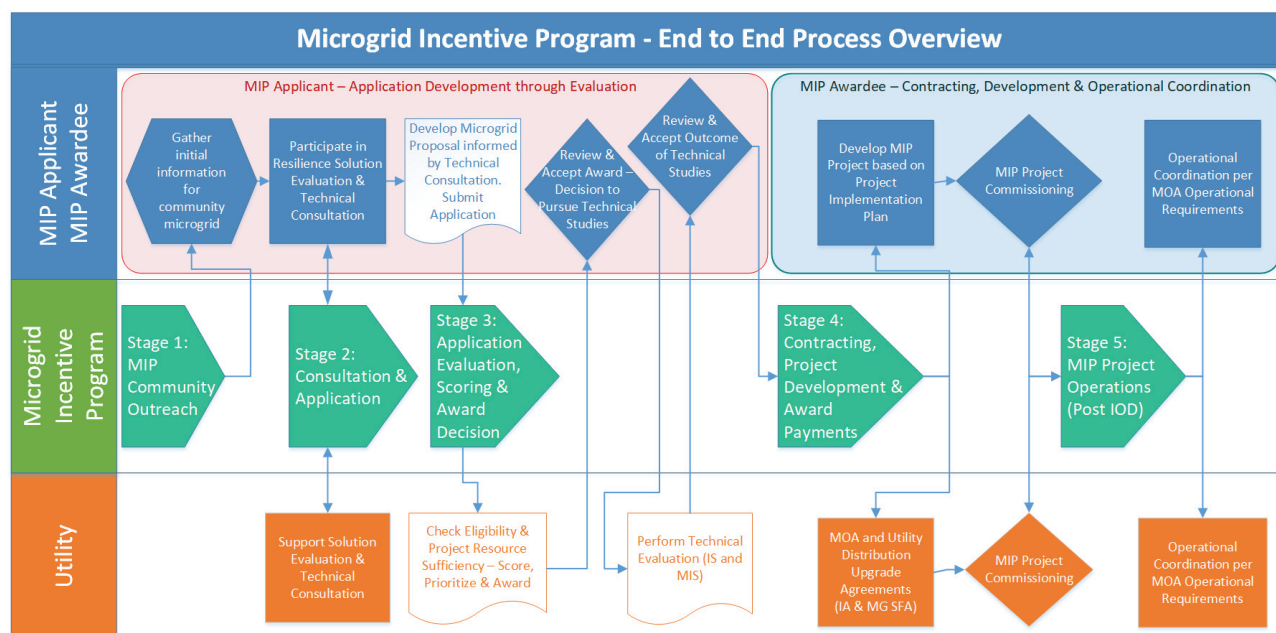


Figure 1: End to End Process Overview

Each stage and the respective program steps in green are described below in more detail with the associated stage level flow diagram above. The flow diagrams, as in Figure 1, employ swim lanes to highlight the central program stages and associated steps identified in green, with the respective key responsibilities for MIP Applicant/Awardee in blue and the Utility in orange.

1. MIP Community Outreach Stage

The objective of Stage 1 is to increase awareness and understanding of the MIP opportunity for DVCs. The Utilities recognize that DVCs may not have the resources available to prioritize exploration of resiliency solutions, and thus may not be aware of the existence of the MIP. Concerted efforts need to be undertaken to ensure DVCs are aware of the program and know how to engage with it.

As such, the Utilities plan to use a multi-pronged approach to community outreach involving direct engagement as well as partnership with community stakeholders, including community-based organizations (CBOs), local and tribal governments, and smaller local community organizations. The primary forum will be to leverage the standing semiannual workshops for local governments and tribes, as established in D.20-06-017. Moreover, the IOUs have unique, individual relationships with their local CBOs and will develop pathways for engagement. The

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level of interest, needs, expertise, and resources vary across the state and across each IOU's service territory; as such, outreach must be flexible and customized. The aim of this approach is to enable community stakeholders to bring to bear both their networks and their status as trusted community advocates to help drive creative collaboration in development of Community Microgrids.

The goal of the marketing, education, and outreach efforts will be to inform DVCs of the existence of the program, how it works, and how to engage with the Utilities to participate in the program. The outreach will make clear the types of support available for communities, including existence of an optional MIP Application Development Grant, as well as the technical support available from the Utilities throughout the process. Information about the program and how it works will be made available on a publicly available website for each Utility.

MIP Handbook

After approval of the Joint IOU MIP Implementation Plan, the Utilities will develop a comprehensive handbook (MIP Handbook) based on the CPUC-approved design of the MIP. This handbook will be a resource to inform community members and leaders in greater detail about the MIP and Community Microgrids. The MIP Handbook will be made publicly available within 180 days of a final CPUC decision approving this MIP Implementation Plan. The MIP Handbook will include:

- An overview of how the program works
- Information on Community Microgrid implementations, including key project design considerations
- MIP Application Development Grant information
- Application Intake Window(s) information
- Eligibility, scoring, and prioritization protocols
- Timeline and instructions on moving through each step in the MIP lifecycle process
- Special considerations for tribal governments

Additionally, either the MIP Handbook, or the MIP program website, will include information to assist communities in assessing initial project eligibility, viability, and siting considerations. This includes centralized technical resources, applicable standards, and guidance to help local and tribal governments navigate the Utility service planning and interconnection processes.

In summary, success for Stage 1 is to engage interested communities, make them aware of the program and the related resources available, and help guide them, where appropriate, into the Stage 2, Consultation and Application process.

2. Consultation and Application Stage

The objective of Stage 2 is to enable MIP Applicants, whether they be a Local Government, one or more Community-Based Organizations, or a project developer, to a) help discern what resilience approach may best meet the community's specific needs, and b) shape Applications to meet MIP eligibility requirements and discuss known technical issues related to resource interconnection and microgrid configuration. Stage 2 involves a 2-part process to support DVCs

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in 1) identifying resilience options and MIP eligibility requirements, and 2) community microgrid technical considerations in support of potential Application submission. For those communities in need, MIP Application Development Grants will be available to assist DVCs' ability to develop MIP Project Proposals.

At the conclusion of Stage 2, the MIP Applicant will be able to submit an Application, including a detailed MIP Project Proposal during an open Application Intake Window. The various steps within Stage 2 are illustrated in Figure 2 and described further below.

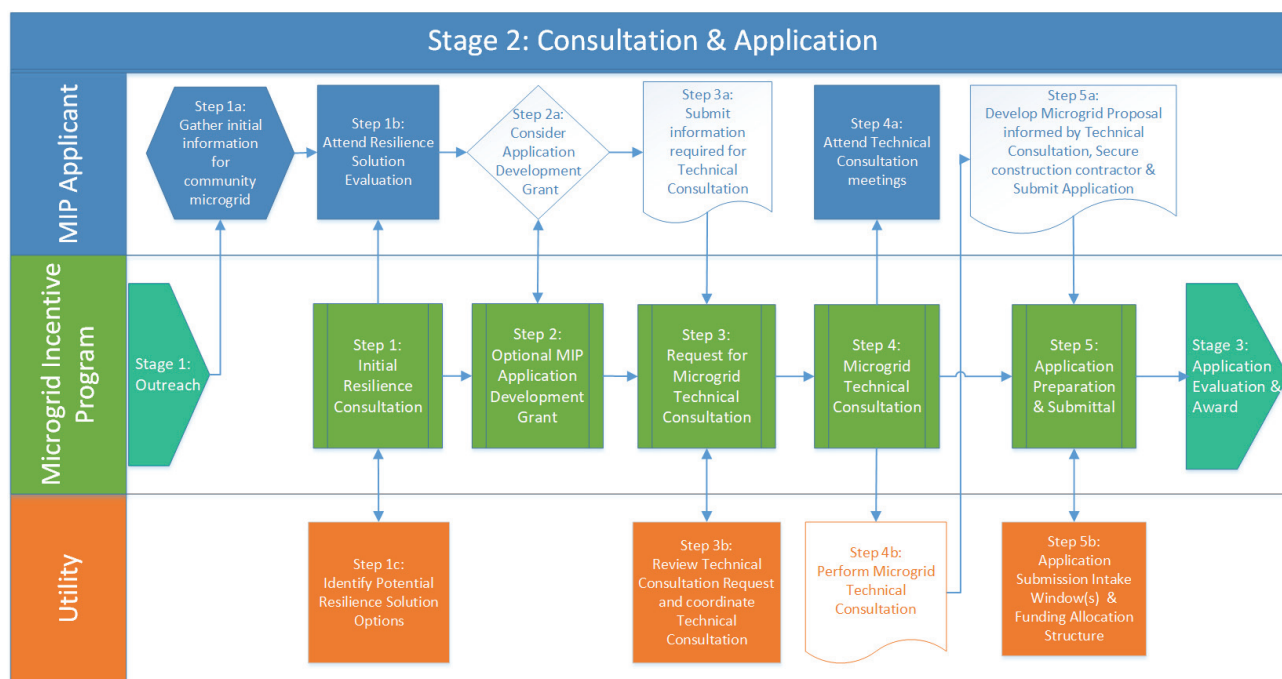


Figure 2: Stage 2. Consultation & Application

a. Initial Resilience Consultation (Step 1)

During Step 1, the potential MIP Applicant consults with the Utility regarding resilience needs and potential options. Resilience options that may address DVC needs include existing Utility investment plans, single customer microgrids, or onsite back-up resources in lieu of or in addition to a Community Microgrid. In Step 1a, the potential MIP Applicant gathers initial information for the Initial Resilience Consultation. Basic information needed at this stage includes:

- Name of the potential MIP Applicant
- Primary contact (name/phone/email)
- DVC resilience objectives or needs
- Estimated number of DVC customers and/or community facilities
- Local Government support, if any
- Potential anticipated funding source(s) in addition to: (i) potential Incentive Award; (ii) the MIP Application Development Grant if requested; (iii) the Interconnection Allowance, and (iv) the Microgrid Special Facilities Allowance, if any

- Name of potential MIP Applicant's technical consultant or engineer, if any

In Step 1, the Utility will engage in conversations with the potential MIP Applicant (including representative(s) that the potential MIP Applicant may designate) that may include the following:

- Overview of transmission and distribution system characteristics in the area;
- Providing known information about circuit available capacity in proposed project location;
- Information on the Utility's planned public safety power shutoffs (PSPS) mitigation activities, as appropriate;
- Offering possible conceptual solutions to address the Applicant's resiliency goals and needs; and
- Community Microgrid related information, including potential grid isolation points.
- All parties to these technical conversations must agree to adhere to confidentiality provisions to the extent required to protect sensitive information.

Should the potential MIP Applicant be a tribal government, the Utility will ensure that the tribe is aware of the issues surrounding contract enforceability early in the process, and the likely need for a limited waiver of sovereign immunity. See Stage 4: Contracting and MIP Project Development for further information.

During the Initial Resilience Consultation, the eligibility requirements will also be discussed with the potential MIP Applicant to ensure they have an understanding of the intended DVC focus and preliminary technical considerations for development of a Community Microgrid.

The MIP is aimed at enabling the deployment of Community Microgrids to address the resilience needs of critical public facilities in DVCs, as defined below, that are at higher risk of electrical outages. The eligibility criteria described below aligns with the Track 2 Decision and has been shaped by stakeholder input. The criteria are also designed to be objective, transparent, and practical.

Submitted Applications are reviewed for eligibility upon submittal, based on "yes or no" criteria. Eligibility is a precondition for the acceptance of an Application and separate from the prioritization scoring and Award Decision steps described in Stage 3.

Eligibility involves two dimensions: 1) Community Eligibility and 2) Technical Eligibility.

i. Community Eligibility

For a MIP Applicant to be deemed eligible for an Incentive Award, the Project must be A) vulnerable to outages, and some combination of B) serving a DVC and/or C) Community facility (*i.e.*, AB; AC; or ABC). The Eligibility structure is illustrated below in Figure 3.

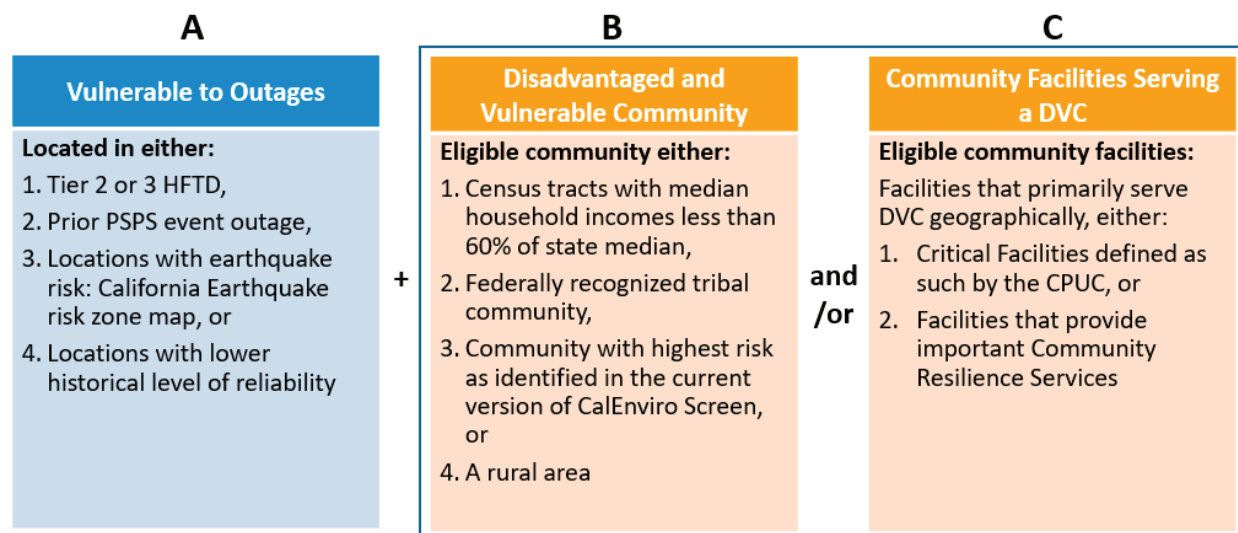


Figure 3: Eligibility Structure

A: Vulnerable to Outages

A portion of an eligible Community Microgrid is required to be geographically located in an area at a higher risk of electrical outages⁶, either:

- Tier 2 or 3 High Fire Threat District; 7
- Prior public safety power shutoff (PSPS) event;
- Locations prone to strong, damaging earthquakes;8 or
- A location with lower historical level of reliability, as defined as one of the top 1% worst performing circuits on the Utility's system in either of the prior 2 years' public Utility Annual Electric Reliability Report.

B: Disadvantaged Vulnerable Community

The Utilities incorporate the definition of a DVC for purposes of MIP Eligibility from the CPUC's *OIR to Consider Strategies and Guidance for Climate Change Adaptation* (Climate Adaptation Proceeding).⁹ This proceeding addresses the definition of a DVC in the context of climate adaptation, which is relevant to the resilience needs driving microgrids. In addition, the Utilities

⁶ Track 2 Decision, at p. 62.

⁷ See California Public Utilities Commission High Fire Threat District Map, available at: <https://www.arcgis.com/apps/webappviewer/index.html?id=5bdb921d747a46929d9f00dbdb6d0fa2>.

⁸ Per the US Geological Survey 2018 United States (Lower 48) Seismic Hazard Long-term Model or subsequently adopted Model <https://www.usgs.gov/natural-hazards/earthquake-hazards/science/2018-united-states-lower-48-seismic-hazard-long-term>.

⁹ Eligibility for a community at need should be consistent with the definition of DVCs. See D.20-08-046, *Decision on Energy Utility Climate Change Vulnerability Assessments and Climate Adaptation in Disadvantaged Communities (Phase 1, Topics 4 and 5)*, issued August 27, 2020, at p. 6.

note that rural areas have a high propensity for overlap with outage risk due to High Fire Threat Districts, and thus propose their inclusion for purposes of this program as well. In summary, for the purpose of MIP Eligibility, the proposed project must meet at least one of the following criteria:

- Census tracts with median household incomes less than 60% of the state median income;¹⁰
- Federally recognized tribal community;¹¹
- Community in the top 25% most disadvantaged census tracts as identified in the current version of CalEnviroScreen at the time of the application submission; or
- Rural Areas identified by the U.S. Health and Human Services Administration (HHS) ¹²

C: Community Facilities

Community facilities are those whose primary purpose is to serve a geographic DVC, as attested by the Local Government or tribal community, as applicable, with jurisdiction over the area.¹³

Eligible facilities include either:

- Critical Facilities defined as such by the CPUC,¹⁴ or
- Facilities that provide important Community Resilience Services as attested by the Local Government or Local Authority having jurisdiction over the area.

¹⁰ *Id.*, at p. 13.

¹¹ *Id.* See also, Workshop #3 MIP Eligibility – Background, available at: https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/workshop3-eligibility.pdf

¹² See, U.S. Health Resources and Services Administration’s complete list of rural areas available at <https://www.hrsa.gov/rural-health/about-us/definition/datafiles.html>.

¹³ See Workshop #3 MIP Eligibility, Presentation by Communities for a Better Environment (CBE) and California Environmental Justice Alliance (CEJA), Community Engagement and Empowerment, slide 8: “Communities shape all stages of the project for the greatest project success and participant benefit;” “Unlocking their own expertise through TA;” “Implementing their vision and proposals throughout,” available at:

https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/workshop3-eligibility.pdf.

¹⁴ See current list of critical facilities, available at: https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/CWSP-Critical-Facility-Customer-Fact-Sheet.pdf for PG&E, <https://www.sce.com/wildfire/critical-facilities-infrastructure> for SCE; <https://www.sdge.com/psps-critical-facilities>, <https://www.sce.com/wildfire/critical-facilities-infrastructure> for SDG&E.

ii. Technical Eligibility

Proposed MIP Projects must meet certain technical eligibility requirements, in addition to the Community Eligibility criteria above.

- MIP Project must be a Community Microgrid,¹⁵
- Project Resources must receive interconnection permission to operate on a distribution line that is operated at 50 kV or below.
- Project Resources 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.¹⁷ (Note: Consistent with the Track 2 Decision, where only those Project Resources directly connected to the Distribution System (IFOM) are eligible for an Incentive Award),
- Project Resources must be sized and operated to serve a minimum of 24 consecutive hours of energy in Island Mode as determined by a typical load profile within the Microgrid Boundary (Note: Communities are responsible for determining the level of any resilience need beyond the 24-hour minimum requirement¹⁸), and

¹⁵ A Community Microgrid is a Microgrid using Project Resources, connected to the Distribution System (directly as in front-of-the-meter Project Resources and/or indirectly as a behind-the-meter Project Resources) to supply electricity across a segment of a Distribution System to multiple customers during Island Mode.

¹⁶ PUC Section 8370 and Section 94203 of Title 17 of the California Code of Regulations.

¹⁷ Emergency/Standby Generation, whether existing or new diesel or other fuel resources that do not comply with PUC Section 8371(d) are not allowed as Project Resources. Emergency/standby generation associated with any of the facilities within the Microgrid Boundary: 1) may not be electrically connected within the Microgrid Boundary of the microgrid, 2) may not be used as a load-modifying resource (similar to demand response) within the proposed microgrid electrical boundary when in Island Mode. However, an emergency/standby generation may be used according to applicable rules and tariffs to serve dedicated emergency loads within a facility during Island Mode if the emergency/standby generator is electrically isolated from the Microgrid through an Isolation Device during Island Mode.

¹⁸ The importance of the applicant community itself determining and attesting to the resilience need was a theme of the third stakeholder workshop. See Workshop #3 MIP Eligibility, Presentation by Communities for a Better Environment (CBE) and California Environmental Justice Alliance (CEJA), Community Engagement and Empowerment, slide 8: "Communities shape all stages of the project for the greatest project success and participant benefit;" "Unlocking their own expertise through TA;" "Implementing their vision and proposals throughout," available at:

https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/workshop3-eligibility.pdf.

- When operating in Island Mode, the aggregate emissions from Project Resources and non-Project Resources must be no greater than equivalent grid power.¹⁹ Energy storage that is charged with grid power will be deemed to have the emissions equivalent of the average system emissions for the Utility.

After the Initial Resilience Consultation, the MIP Applicant should have an understanding of potential resilience options to meet the DVC's needs: whether (A) a multi-customer microgrid involving (i) IFOM resources, (ii) BTM resources, or (iii) a combination of both, (B) single-customer microgrids using behind-the-meter solutions, or (C) Utility grid solutions. The MIP Applicant should also have a better understanding of the local grid topology and grid constraints, for example, those identified on the Utility's Integration Capacity Analysis (ICA) map. Utilities will provide information to the extent data privacy and system security allow.²⁰

If the MIP Applicant wishes to pursue a multi-customer Community Microgrid that will meet the eligibility criteria described above, the MIP Applicant may elect to continue to the Microgrid Technical Consultation in Step 4.

b. Optional Request for MIP Application Development Grant (Step 2)

The Utilities recognize that certain DVC community organizations and DVC local and tribal governments may require funding to engage technical support to more fully explore resilience needs and to develop a complete MIP application. During Workshop #2 stakeholders emphasized the importance of the Utilities providing technical support for application development. For example, the Microgrid Equity Coalition suggested that the Utilities release MIP funding early in the process to provide information and limited financial support during the pre-application period, and during development of the Application itself. See Attachment 2.

In response to this need, the Utilities propose making available a one-time, MIP-funded Application Development Grant (Grant), up to \$25,000 per MIP Applicant. The Grant will be provided to eligible DVC MIP Applicants who submit a MIP Application that meets the eligibility requirements and request a Grant along with their Application Incentive Request (AIR).

The Grants, if requested, will be paid to the requesting DVC-eligible MIP Applicants following confirmation of eligibility (refer to Step 6). This means the MIP Applicant will need to self-fund the Grant amount until receipt of the Grant.

In the MIP Application, the MIP Applicant must include the technical support costs associated with the Grant request, along with an explanation of how the funds were used. Finally, to be

¹⁹ See, R.19-09-009, *Administrative Law Judge's Ruling Requesting Comment on the Track 2 Microgrid and Resiliency Strategies Staff Proposal, Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339* (July 23, 2020), Attachment 1 Staff Proposal, at p. 19: "Project Criteria...Criteria air pollutant and greenhouse gas emissions cannot be worse than the equivalent grid power."

²⁰ *Id.*, Attachment 2 Staff Concept Paper, at p. 46.

clear, while the MIP application must meet the program's eligibility criteria, it does not need to be awarded a full MIP incentive award in order to receive the Application Development Grant.

c. Request for Microgrid Technical Consultation (Step 3)

Applicants can Request a Microgrid Technical Consultation during Step 3. The MIP Applicant must submit the information required for the Microgrid Technical Consultation, and the Utility will review the Microgrid Technical Consultation Request and coordinate the Microgrid Technical Consultation. The Utility will provide the full list of the information required from the MIP Applicant in the MIP Handbook. Required information may include:

- Proposed Single Line Diagram
- Proposed Site Map including:
 - Planned Project Resources
 - Proposed Microgrid Electrical Boundary
 - Proposed Point of Interconnection for planned Project Resources
 - Proposed Microgrid Point of Common Coupling
 - Location of Controls and Networking Rack, if known
- List of customers to be served by microgrid including their account ID
- 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 Distribution 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

Note that a standard non-disclosure agreement (NDA) and customer consent may be required at this step of the process to protect private customer information and/or to ensure the security of the energy system.

d. Microgrid Technical Consultation (Step 4)

The objective of the Microgrid Technical Consultation is to support the DVC and its partners in planning and designing a robust multi-customer community microgrid. In the Microgrid Technical Consultation, the MIP Applicant and their technical/engineering partner(s) will review technical aspects of a potential Community Microgrid project with the Utility. The initial Microgrid Technical Consultation is designed to share key information about the electrical conditions of the distribution system at the proposed location and initial engineering design requirements for Community Microgrids.

Providing technical support during the pre-application period aligns with feedback received during the stakeholder workshops. According to Green Power Institute: “The goal of the pre-application process is to encourage community-driven projects and to direct technical expertise and early funding to eligible projects. It will also significantly reduce the risk of expending significant funds and time on applications that are unlikely to succeed.”²¹ During stakeholder workshop #5, the Microgrid Equity Coalition also underscored the importance of technical support, envisioning that during the application development period, “The community and developer add increased detail to complete the Application, with technical assistance as needed, either from the utility and/or in the form of grant funding to offset application development costs.”²²

At the end of the Microgrid Technical Consultation, the MIP Applicant will have the information needed to develop a MIP Project Proposal as a required part of the MIP Application. The MIP Applicant will also be provided with a pro forma MOA and Microgrid Special Facilities Agreement. Information on the generator interconnection process will be provided to the extent similar information would be provided to any other entity seeking to interconnect generation.²³ The intent of sharing the information at this stage is to appropriately set the MIP Applicant’s expectations of the contractual conditions and process.

e. Application Preparation and Submittal (Step 5)

Step 5 involves both the MIP Applicant’s preparation of a complete Application and submission to the Utility during an open window for MIP consideration.

i. Application Preparation (Step 5a)

The Application, developed by an MIP Applicant, is based on the two-step consultative approach involving the Resilience Solution Evaluation in Step 1 and the Microgrid Technical Consultation in Step 4, as discussed earlier. These sequential steps provide the foundation for an MIP Applicant to develop an eligible project that reflects the technical considerations of the electric grid and unique engineering requirements of community microgrids.

The MIP Application preparation starts with an MIP Project Proposal informed by the Resilience Solution Evaluation and Microgrid Technical Consultation steps. The MIP Project Proposal should provide a single-line diagram of the proposed project identifying the proposed Microgrid Point of Common Coupling, Microgrid Boundary, Participating Customer load, Project Resources and Balance of System, and associated engineering analysis regarding resource sufficiency to support

²¹ See Workshop #5 Application and Review Process by GPI - GPI’s proposed preapplication process, slide 8, available at: https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/workshop5-application-and-review-process.pdf.

²² *Id.* at slides 7 and 8.

²³ Utilities may not extend preferential treatment for any entity seeking to interconnect generation.

the requested resiliency (consecutive hours of Distribution Service during Island Mode operation). Additionally, for planned resources that will support microgrid operation, the MIP Project Proposal will identify the proposed Project Site locations and status of Project Site control and any required permits for the new resources. The MIP Project Proposal is required to include detailed project information developed by the MIP Applicant and their technical/engineering partner(s) to submit a complete Application.

The MIP Project Proposal will inform the preparation of an AIR document that identifies the MIP Applicant's requested Incentive Award for eligible MIP Project engineering and development costs through Islanding Operation Date (IOD), that is, when the microgrid can safely transition to Island Mode. The MIP Applicant must delineate the portion of the total MIP Project costs to be funded by the MIP Applicant, the MIP eligible costs that the MIP Applicant expects to be funded through its Incentive Award (as represented in the AIR), any MIP Application Development Grant requests, and the costs that the MIP Applicant anticipates will be funded from other sources (e.g., an EPIC grant or Federal grant). Note that the Utility will provide the MIP Awardee with a ratepayer-funded allowance for the actual costs of Interconnection Facilities and Distribution Upgrades, subject to applicable cost cap,²⁴ and the actual costs of Microgrid Special Facilities, subject to applicable cost cap.²⁵ These allowances are described more fully in Stage 3, Step 9. Accordingly, the MIP Applicant may not include these costs in the Applicant Incentive Request budget that is required as part of the Application. The MIP Applicant is responsible for any actual costs that exceed the respective caps and may not include in its Applicant Incentive Request an estimate of any amounts above the caps.

The Application will include three main sections and required attachments as illustrated in Figure 4:

1. The MIP Applicant Information section identifies the entity responsible for the Application, including organizational and contact information. Additionally, any Local Government support is identified with supporting documentation included in the attachments.
2. The Project Description section includes information necessary to confirm eligibility regarding proposed participating customers and/or facilities, communities' resilience needs, the technical description of the MIP Project Proposal (which is a detailed representation of the Microgrid project and is attached to the Application), a total Project cost estimate and a budget showing how the MIP Applicant arrived at its AIR.
3. The Participating Load and Project Generation Resource section provides details from the MIP Project Proposal, including the hourly aggregate non-coincident load profile of the participating customers subject to customer privacy and

²⁴ Defined herein as the "Interconnection Allowance."

²⁵ Defined herein as the "Microgrid Special Facilities Allowance."

aggregation restrictions, if applicable. Also, the technical information for proposed MIP Project Resources to support the level of resilience is required.

The MIP Project Proposal, AIR, supporting engineering analysis, and attestations are incorporated as attachments to the Application. The final Application structure and information required will be detailed in the forthcoming MIP Handbook.

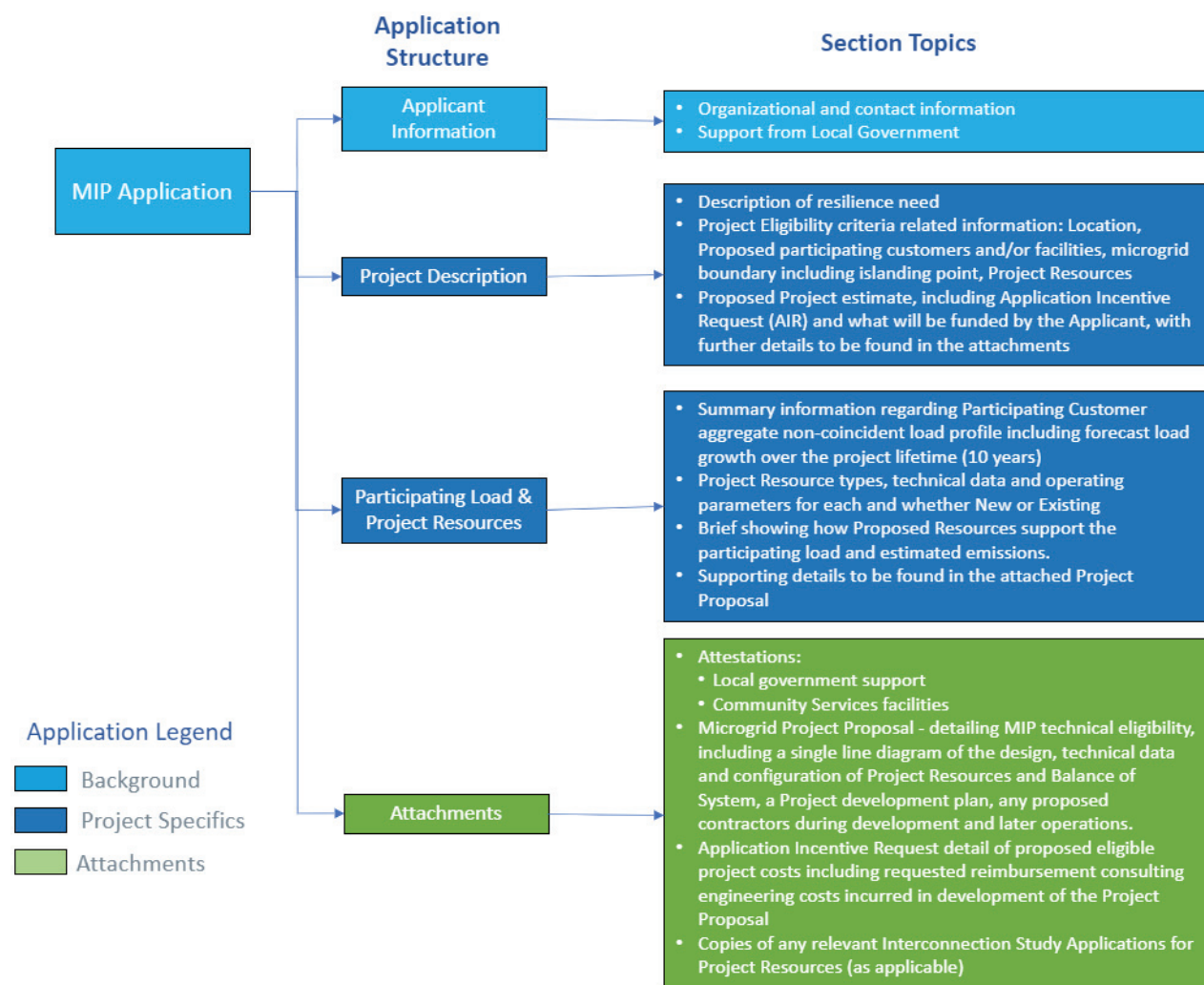


Figure 4: Application Structure

It is important to note that the Project Resource interconnection process is a separate process from Stage 2 and Stage 3 of the MIP Process. If the MIP Project Resources envisioned for the proposed microgrid are not already interconnected to the distribution grid, the MIP Applicant will need to file an Interconnection Application for MIP Project Resources no later than 30 business days after MIP Award notification. The Utility representatives will guide the MIP Applicant to the necessary resources for the generator interconnection process, as needed.

ii. Application Submittal (Step 5b)

In response to stakeholder comments, the Utilities acknowledge that communities interested in developing a Microgrid under the MIP will likely be in various stages of readiness and development when the MIP is authorized by the Commission. Eligible communities may just be learning about this opportunity and may need additional time, and technical support (as described earlier in Step 2), to consider and then prepare an Application. In balancing the policy objective of implementing the MIP quickly with the likelihood of interested DVCs being in varying stages of readiness, the Utilities' Application Intake process may have multiple Application Intake Windows with MIP incentive funding allocated to each intake window. SCE and PG&E anticipate up to three Application Intake Windows. Given the comparatively small amount of money that is expected to be allocated for the SDG&E distribution service area, SDG&E anticipates conducting a single Application Intake Window. In the case where no qualifying project is identified in the single intake window, SDG&E may conduct a second window.

The interest and readiness of potential MIP Applicants will be unique for each of the Utilities and may largely be unknown until the MIP is authorized and the Stage 1 outreach process has started. The Utilities have developed and applied the following principles to design the Application Intake process:

1. The Utilities will use an Application Intake Window. Applications received within the application window will be accepted on an equal basis, applying no preference or priority to applications received earlier or later within the window.
2. Each Utility will determine the timing and the number of MIP Application Intake Windows that best suits the level of interest and development needs of their communities.
3. Each Utility will determine the allocation of MIP incentive funds for each Application Intake Window, based on the level of interest demonstrated in Stage 1, and will assure that funds are equitably allocated if more than one window is used; for example, to accommodate MIP Applicants that are ready early and can move quickly, and another later window for others that have eligible projects but may need more time to develop the Application and MIP Project Proposal.
4. Each Utility will review Applications submitted for completeness as they are received and provide confirmation to the MIP Applicant that: i) the application was received; ii) the Application was reviewed and found to be complete; and iii) if the Application is not complete, then the Utility will specify what aspects of the Application are incomplete or deficient.
5. The Utility will provide an MIP Applicant a cure period from the date the Utility notifies the MIP Applicant of an incomplete or otherwise deficient Application. The MIP Applicant can correct the deficiency and resubmit within the cure period, or elect to resubmit the corrected Application during the next Application Intake Window.

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6. MIP Applicants with eligible Applications, but who do not receive an Incentive Award, may resubmit those Applications to be evaluated in a subsequent window, as may be available.
7. Each Utility will provide additional Utility-specific details on process and requirements in an MIP handbook which will be developed after the MIP is approved by the Commission.

At the end of Stage 2, submitted Applications are expected to meet eligibility requirements and will have been informed by the prioritization scoring method and Distribution System considerations, so that proposed MIP Projects will best represent their constituents' interests and have potential for successful implementation.

3. Application Evaluation, Scoring, Incentive Award Decision and Studies

The objective of Stage 3 is for the Utility to efficiently and transparently evaluate Applications received in an intake window to determine eligibility, which MIP Applicants will receive an Incentive Award and the amount, and what Distribution Upgrades, Interconnection Facilities and Microgrid Upgrades may be required so they may then decide whether to move forward with their MIP Project. The application evaluation and Incentive Award decision and studies process is shown in Figure 5 and described in more detail below.

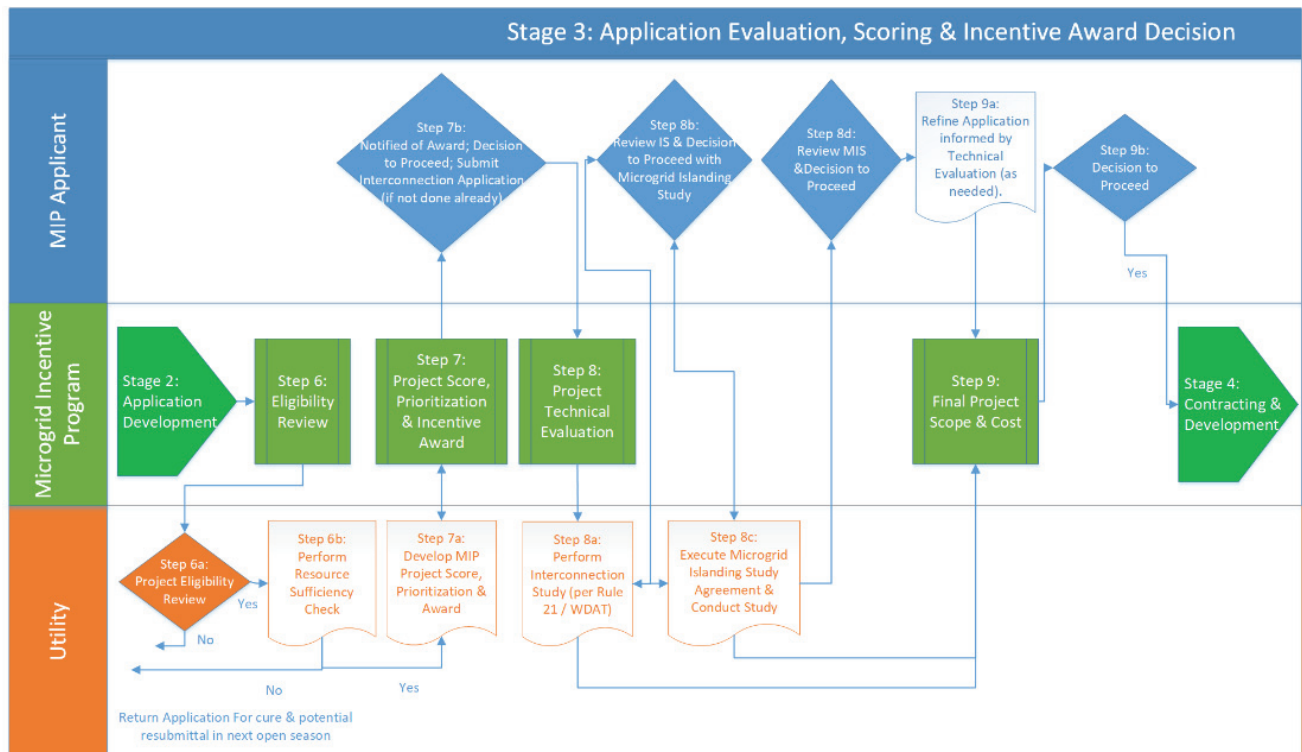


Figure 5: Stage 3. Application Evaluation, Scoring, Incentive Award Decision and Studies

a. Eligibility Review (Step 6)

In Step 6 of Stage 3, the Utility will provide a detailed review of MIP Project eligibility based on the information provided by the MIP Applicant in the submitted Application. This review includes checking Applications for completeness of required information, determining eligibility, and performing a reasonableness review of the resource sufficiency to support the proposed level of resiliency.

Step 6a involves an objective review of a project's eligibility based on the information in a submitted Application. Please see the description of eligibility requirements in Stage 2, Step 1 for further detail on eligibility criteria.

A resource sufficiency check is performed in Step 6b by the Utility. The Utility will first determine if the engineering analysis provided in the MIP Project Proposal is complete, conforms to the requirements specified in the MIP Handbook, and contains no obvious errors or omissions. The resource sufficiency check involves a reasonableness review of the engineering analysis which Utilities anticipate will be developed by a technical partner hired by the MIP Applicant. The MIP Applicant's required engineering analysis must demonstrate that the Project Resources are capable of serving the participating customer loads for a minimum of 24 consecutive hours in Island Mode and longer, if proposed in the Application. The Utility is not required to perform an independent analysis or detailed engineering review of the MIP Project Proposal, prior to Incentive Award decision.

In the MIP Project Proposal, the MIP Applicant is responsible for providing a detailed description of the Project Resources, participating customer loads to be served during islanding operation, proposed islanding operation duration, and other details as described earlier in Stage 2, Step 5.

If an Application is found to be deficient, the Utility will notify the MIP Applicant of the deficiency and provide an opportunity to revise. MIP Applicants will have a cure period to address the deficiency and resubmit the Application within the current intake window. If an MIP Applicant is not able to cure the deficiency within the cure period, the MIP Applicant may resubmit the Application during the next Intake Window for consideration if one is available.

When the Application is found to be eligible, the DVC MIP Applicant will receive the MIP Application Development Grant if requested in the Application.

b. Development of MIP Project Score, Prioritization, and Incentive Award (Step 7)

After the requisite reviews of all the Applications received during an Application Intake Window, the Utility will develop a specific benefit score and project prioritization score based on the information provided in the Application, including the required MIP Project Proposal and AIR. It is important to note that this scoring method is not an eligibility screen; all projects that proceed to Step 7 are eligible for an Incentive Award, subject to MIP funding availability for the respective AIRs. Therefore, the purpose of this scoring method is to prioritize eligible Applications for MIP Incentive Awards to the extent that there are insufficient MIP funds available to support all eligible MIP Applicant requests.

The Utilities developed a scoring prioritization system to rank eligible MIP Projects considering their project benefits in relation to requested project costs in the AIR. MIP Project costs used for prioritization

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do not include any requested MIP Application Development Grant or Allowance²⁶. The project prioritization score will be calculated as below:

$$\text{Project Score} = \frac{\text{Benefit Score (points)}}{\text{Application Incentive Request (\$)}}$$

Based on the results of the Project Score, the Utility will develop a prioritized list of Applications. Based on the funding available in a specific window, the Applications receiving the highest points per dollar of AIR will receive their requested AIR amount (*i.e.*, Incentive Awards). The Utilities acknowledge that unusual outcomes or scoring anomalies may arise given the uncertainty and variation with potential projects. Decisions will be reached within the boundaries of the spirit of the Decision and general guidelines as put forth in this plan. Utility will present preliminary results to CPUC's Disadvantaged Communities Advisory Group (DACAG), in an advisory capacity, for review and feedback. The Utility, as the program administrator, retains discretion regarding Incentive Awards, MIP Application Development Grants, Microgrid Special Facilities Allowances and Interconnection Allowances considering ratepayers' interests.

Those Applications that do not receive an award will be placed into the prioritization list for next available window, if applicable. If the remaining MIP funding is insufficient to meet the full AIR of the next highest ranked Application, the Utility will offer that MIP Applicant the remaining MIP funds. The process repeats so long as there are funds available in that window. Any remaining funds that are not awarded may be rolled over into subsequent Application Intake Windows. The benefit scoring and project score methodologies are described below.

i. Benefit Score

The benefit scoring methodology is aligned with the Track 2 Decision²⁷ and incorporates and adapts stakeholder input from the workshops. In particular, the general framework presented by Sierra Club and MEC²⁸ has been adapted here with changes made to improve practical implementation, improve transparency for MIP Applicants, and minimize, to the extent possible, subjective scoring. Additionally, the scoring methodology is based on the MIP Applicant's representations of their resilience need. The three benefit categories and related subcategories employed to prioritize eligible projects are discussed in detail below.

Customer and Community benefits (50%)

Customer and Community benefits points are based on the benefits to eligible DVC customers, communities, and the facilities that serve these DVCs. The customer and community benefit points

²⁶ The term "Allowance" here refers to the Interconnection Allowance and/or the Microgrid Special Facilities Allowance.

²⁷ See Track 2 Decision, at p. 65: "The scoring criteria shall be developed through a stakeholder process during the working groups and/or public workshops that PG&E, SCE, and SDGE convenes."

²⁸ See Workshop #4: Project Evaluation and Selection, Presentation by the Sierra Club and Microgrid Equity Coalition – Scoring (July 28, 2020), slides 6-14, available at:

https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/workshop4-project-evaluation.pdf.

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available represent 50% of the total available benefit points.

- Low Income Customers – Points are given for the number of California Alternate Rates for Energy Program (CARE) and/or Family Electric Rate Assistance Program (FERA) customers within the proposed Microgrid Boundary based on Utility customer service records.
- Vulnerable Customers – Points are given for the number of Access and Functional Needs (AFN), Medical Baseline, or Life Support customers within the proposed Microgrid Boundary based on Local Government attestation²⁹ and Utility customer service records, as applicable.
- Critical Facilities (CF) – Points are given based on the number of Critical Facilities, as defined by CPUC and identified in Utility records, based on location per the Eligibility requirement.
- Community Resilience Services – Points are given based on at least one Community Resilience Services facility, as attested through a letter of support by the governing body of the Local Government, within the proposed Microgrid Boundary.

Resilience and Additional benefits (30%)

Resilience and additional benefit points are based on 1) locational risks of outages and Island Mode duration capability, and 2) additional benefits associated with projects that can be completed sooner and those that can demonstrate via a contract with the utility for distribution deferral services that they are deferring traditional infrastructure. The resilience and additional benefit points available represent 30% of the total available benefit points.

Resilience points are given for locations with greater outage exposure, and for MIP Projects with longer duration Island Mode capability. Note that while earthquake zones meet eligibility requirements, they do not receive priority points. Projects can earn resilience points for the aspects below:

- High Fire Threat Districts – Points are given for Proposed Projects located on circuits passing through CPUC HFTD 2 or 3 as determined on applicable CPUC HFTD maps and Utility circuit maps.
- Worst Reliability Circuits – Points are given for Proposed Projects located on a Utility Top 1% Worst Performing Circuit as identified in an annual Utility Electric Reliability Report in either of the last 2 years, in either the duration or frequency indices.
- Impacted by public safety power shutoff (PSPS) event – Points are given to projects in areas that have been impacted by a prior PSPS outage as determined by each Utility in their MIP Handbook.³⁰ Projects located in areas that have been excluded from all reasonably anticipated potential future outage events due to other resilience mitigation

²⁹ Local government attestation to be evidenced by a letter adopted formally by a governing body of the local government.

³⁰ Given differences in each Utility's PSPS related data, there may be differences in how each utility counts eligible PSPS events.

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activities will not be awarded points.

- **Island Duration** - Points are given for each subsequent 6-hour period of operation beyond the minimum 24-hour islanding capability. Such subsequent operation is determined by the typical load profile of the microgrid electrical boundary and Project Resources within the microgrid electrical boundary.

Environmental benefits (20%)

Environmental benefits are based on a Project's use of clean energy and potential displacement of fossil fueled emergency/standby generation. The environmental benefit points available represent 20% of the total available benefit points.

- **Clean Energy** – Points are given for the percentage of installed IFOM clean energy resource capacity in relation to the total installed IFOM resource capacity within the microgrid boundary, where such percentage exceeds 80 percent. Installed capacity for resources using inverters will be based on the Alternative Current (AC) output capability. Resources within the microgrid boundary that will not operate during Island Mode are excluded.
- **Fossil Fuel Displacement** – Single point given for displacing an existing fossil fuel emergency/standby generator as the primary back-up source of power for at least one Critical Facility – using the MIP Project as the primary back-up source instead. It is not a requirement to remove these generators from the site.

The Benefit Scoring methodology and point system are summarized in Table 1 below.

Table 1. Benefit Scoring Methodology

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	Attestation from Authority having Jurisdiction	0.2	10	
	Critical Facilities (CF)	Number of Critical Facilities within MIP Project Boundary	CPUC Definition	5	30	
		Number of Critical Facilities within MIP Project	CPUC Definition	10		

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Benefit Scoring Category	Subcategory	Scoring Parameter / Criteria	Validation	Points	Points Cap	Max Points
		Boundary Serving DVC				
	Community Services	Community Resilience Service facilities within MIP Project (min. of 1)	Attestation from Authority having 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 24hrs min. requirement	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	17	17	20
		95-99%		12		

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Benefit Scoring Category	Subcategory	Scoring Parameter / Criteria	Validation	Points	Points Cap	Max Points
		90-94%	resources using inverters will be based on the Alternative Current (AC) output capability.	7		
		80-89%		2		
		<79%		0		
	Fossil Fuel Displacement	Fossil Fuel Emergency/Backup Gen Displacement as primary back-up (min. of 1)	Applicant Attestation	3	3	

ii. AIR Eligible Costs

The MIP Applicant's AIR is the scope of project costs considered for an Incentive Award. An MIP Applicant's request for potential Incentive Award may include eligible costs in these categories consistent with the CPUC Staff report and adopted by the CPUC up to a cap of \$14 million per project, which is the \$15 million cap less the \$1 million in Interconnection Allowance:³¹

- IFOM grid forming and grid following inverters and generation resources that have not yet executed an Interconnection Agreement as of the close of the Application Window for that tranche.
- IFOM Resource Controller, protection and communications equipment
- Costs incurred prior to IOD of the microgrid to obtain required permits and licenses.
- Behind-the-Meter reconfiguration of electric service equipment to isolate and serve specific loads while the MIP Project is in Island Mode
- Project management, including engineering, system integration, and construction activities for site preparation, civil, electrical and mechanical work
- Purchase of property or present value of property lease needed for the MIP Project
- Community outreach activities
- Engineering costs for development of a MIP Project Proposal including engineering analysis³²

³¹ See, R.19-09-009, *Administrative Law Judge's Ruling Requesting Comment on the Track 2 Microgrid and Resiliency Strategies Staff Proposal, Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339* (July 23, 2020), Attachment 1 Staff Proposal, at p. 19: "Eligible technology costs should include generation technology and/or storage technology, microgrid controllers, customer outreach, community costs, reconfiguration of electric service equipment on customer side of meters (for example to isolate and serve certain loads) and/or on utility side of meter."

³² To the extent not covered in the optional MIP Application Development Grant.

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- Preparation of the Microgrid Project Proposal and Application development³³

As discussed above, the Interconnection Allowance and the Microgrid Special Facilities Allowance are not included in the denominator of the scoring calculation as these cost estimates will not be known until the generation interconnection studies and Microgrid Islanding Study are complete. These studies can take considerable time to complete and are unique to each proposed project. As a result, incorporating the resulting Distribution Upgrade costs, Interconnection Facilities costs and Microgrid Special Facilities costs in the project score calculation would not allow a timely concurrent prioritization of all the Applications received in an Intake Window. A key objective of Stage 3 is to evaluate Applications and promptly notify MIP Applicants if they will receive an Incentive Award and the amount of that Award.

Therefore, the Utilities propose to account for the Distribution Upgrade costs, Interconnection Facilities costs and Microgrid Special Facilities costs by making allowances available to each MIP Project that receives an Incentive Award, subject to cost caps. These allowances are not part of the Incentive Award and are described in more detail in Stage 3, Step 9. These are summarized in Table 2 below.

Table 2. Available Ratepayer Funding for Eligible MIP Projects

Cost Category	Ratepayer Funds
MIP Application Development	MIP Application Development Grant (capped at \$25,000)
MIP Project (<i>i.e.</i> , eligible Project Resources and other eligible costs)	Incentive Award (capped at \$14 million)
Interconnection Related Costs (<i>i.e.</i> , eligible Interconnection studies, Distribution Upgrades and Interconnection Facilities)	Interconnection Allowance (capped at \$1 million)
Microgrid Special Facilities (<i>i.e.</i> , eligible MIS and islanding costs)	Microgrid Special Facilities Allowance (capped at \$3 million)

A MIP Applicant is required to disclose in their Application any anticipated federal, state (including CEC EPIC), Local Government or other grants or sources of Project Funding in their application to enable project development through IOD. Note that these funding sources will indirectly improve the prioritization ranking under this method because they will reduce the amount of incentive funds that the MIP Applicant will need to request and thereby decrease the denominator of the scoring calculation.

MIP Applicants whose MIP Applications are selected for an award are notified in Step 7. Note that a MIP Applicant may be offered a partial Incentive Award (an amount less than the AIR), in the event that insufficient funds are available in that Application Window to support a full award. These MIP Applicants then inform the Utility whether they wish to move forward with the Project Technical Evaluation, Step 8. If a MIP Applicant declines to move forward with their project, the funds will be offered to the next highest ranked MIP Applicant, and the MIP Applicant decision process is repeated.

³³ *Ibid.*

c. Project Technical Evaluation (Step 8)

Step 8 begins when: 1) the MIP Applicant has been notified that the Proposed Microgrid Project has met the eligibility requirements; 2) an Incentive Award has been determined; and 3) the MIP Applicant has agreed to proceed with the detailed Project Technical Evaluation which consists of a Microgrid Islanding Study (MIS) and, likely, a generator Interconnection Application. The Interconnection Study and the MIS will be performed in parallel to the extent possible. The estimated Distribution Upgrade costs and Interconnection Facilities costs will be made known to the MIP Applicant. The Interconnection Study will inform the MIS and when the MIS is complete, it will identify what changes to the Interconnection Study results, if any, may be necessary to safely enable the proposed microgrid, such as changes in protection requirements and relay settings. If the Interconnection Study has already been performed, or in the case of existing Project Resources, then those existing Interconnection Studies will be revised and updated as necessary pursuant to the requirements identified in the MIS.

i. Interconnection Study (Step 8a)

The MIP Applicant is responsible for preparing an application for an Interconnection Study (IS) for a MIP Project's proposed Project Resources pursuant to the Utility's WDAT or Electric Rule 21, as applicable for each of the Generating Facilities participating as Project Resources. There is no constraint on an MIP Applicant developing and submitting an application for an IS earlier in the MIP Process (*e.g.*, Stage 2, after the Microgrid Technical Consultations or after preparation of the Application and MIP Project Proposal). However, any payment of IS costs on behalf of an MIP Awardee is only available for those projects which have been granted an MIP award. The process, procedures, and requirements for preparing an Interconnection Application will be addressed in the forthcoming MIP Handbook.

The Interconnection Application process proceeds on a defined timeline separate from the MIP process timeline and the MIP Applicant will incur Utility study fees and costs dictated by that process. If not already complete, the MIP Applicant prepares an Application for an Interconnection Study as described above. In Step 8a, the Utility is responsible for performing the IS pursuant to Utility's WDT or Electric Rule 21. The Utility will review the IS application, determine if the application is complete, and assign a queue position.

The Utility is then responsible for performing the IS which will identify any Distribution Upgrades and Interconnection Facilities (note: in some cases, a transmission reliability network upgrade as may be necessary) required to facilitate safe and reliable interconnection of MIP Project Resources. The IS will provide an estimated construction timeline and prepare a non-binding cost estimate for the required upgrades, which will be reflected in the Interconnection Agreement. The Interconnection Agreement will be executed before or concurrent with the MIP Applicant executing the Microgrid Operating Agreement discussed further in Stage 4.³⁴

ii. Microgrid Islanding Study (Step 8c)

When requested by the MIP Applicant in Step 8b, the Utility and MIS Awardee will enter into a MIS Agreement. The Utility will work with the MIP applicant to conduct a Microgrid Islanding Study (MIS)

³⁴ Note that for generator interconnection requests made under the WDT, the CAISO will be involved in the interconnection study process in the event the Applicant is seeking deliverability for purposes of obtaining Resource Adequacy counting rights.

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pursuant to this agreement. The MIS builds on the Microgrid Technical Consultation conducted by the Utility in Stage 2. The costs to conduct the MIS will be paid for out of the Microgrid Special Facilities Allowance. The MIS will determine or confirm items such as:

- Proposed Microgrid Boundary,
- Required Microgrid Special Facilities, and any reconfiguration of utility facilities, to establish the proposed MIP Project Microgrid Boundary,
- Non-binding preliminary estimated costs and an estimated construction timeline and completion date for the Microgrid Special Facilities required to enable the Proposed Microgrid Project, and
- Evaluate existing and planned resources, any load management technologies that are part of the proposed Microgrid project, and the proposed Microgrid configuration, to confirm that the forecast load can be reliably served.

Once the MIS is complete, MIP Applicants will have the opportunity to discuss the results with the Utility. The results of the MIS will be used to produce a Microgrid Special Facilities Agreement, pursuant to Electric Rule 2, that will be executed before or concurrent with the MIP Applicant executing the Microgrid Operating Agreement discussed further in Stage 4.

d. Final MIP Project Scope and Cost (Step 9)

In Step 9, the MIP Applicant will decide if they want to proceed to Stage 4, Contracting and Development. This decision may be based on the MIP Applicant's out-of-pocket costs in relation to the total estimated costs to implement the MIP Project after subtracting the amount of the MIP Application Development Grant, Incentive Award, Interconnection Allowance, and Microgrid Special Facilities Allowance.

i. Interconnection Allowance

As mentioned earlier in Step 7, the Utilities propose to provide an allowance to offset the costs of the Distribution Upgrades and Interconnection Facilities that the MIP Awardee is responsible for under the WDAT or Rule 21. The Utilities will provide an allowance of up to \$1 million per MIP Project to support interconnection of IFOM Project Resources. The MIP Awardee is responsible for costs over this cap. The costs that may be included in the Interconnection Allowance include:

- Utility's Interconnection Study costs 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

The Interconnection Allowance does not include Network Reliability Upgrades.

ii. Microgrid Special Facilities Allowance

In addition, the Utilities propose an allowance of up to \$3 million per MIP Project³⁵ to offset Microgrid Special Facility costs identified in the MIS that are the responsibility of the MIP Awardee under existing rules and tariffs. This allowance is in addition to the maximum \$14 million per Incentive Award provided from MIP funds.³⁶ The MIP Awardee is responsible for costs over this cap. Costs that are eligible for the Microgrid Special Facilities Allowance include:

- The Utility's MIS study fees and charges
- The Utility's Microgrid Special Facilities, which may include:
 - Upgrades required to support the islanding function (e.g., fault interrupting SCADA switches, reclosers, line hardening, under-grounding)
 - Switches, relays, and communication/infrastructure connecting SCADA switches and microgrid controller to control center, as necessary to disconnect and reconnect the microgrid to the larger grid
 - Reconfiguration of utility's electric service equipment (e.g., undergrounding distribution to allow microgrid to operate during high winds)
 - Utility's Networking Equipment (e.g., routers, security gateway, firewalls)
 - Utility Communication costs (e.g., towers, fiber optics, leases)
 - Utility Network Project Management and Equipment Installation
 - Utility Microgrid Controller (hardware, software & acceptance testing); and
 - Applicable cost of ownership for these facilities

A detailed listing of eligible costs for Interconnection Facilities, Distribution Upgrades, and Microgrid Special Facilities to be covered by the Interconnection Allowance and Microgrid Special Facilities Allowance will be provided in each Utility's forthcoming MIP Handbook.

If the MIP Applicant decides not to proceed to development, the Incentive Award will be returned to the Utility MIP Incentive Award fund and made available to either (i) Applicants in the next Application Intake Window, or (ii) the next highest scoring MIP Applicant if there are no future windows available. If the MIP Applicant decides to move forward with developing the MIP Project, the Utility and the MIP Applicant (which is now an MIP Awardee) will begin the process to formalize the development and commissioning of the MIP Project as described further in Stage 4.

At the end of Stage 3, MIP Applicants are fully informed of the Incentive Award, Distribution Upgrade costs, Interconnection Facilities costs and Microgrid Special Facilities costs, as well as timeframes for interconnecting MIP Project Resources. At this point in the process, the MIP Applicant will be positioned to make an informed decision as to whether to move forward with the MIP Project.

³⁵ See Track 2 Decision, at p. 62: "We direct SCE and SDG&E to ensure their customers have access to a one-time matching funds payment to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid."

³⁶ For PG&E, this will be funded through the Community Microgrid Enablement Program.

4. Contracting and MIP Project Development (Stage 4)

The objective in Stage 4 is for the Utility and the MIP Awardee to formally establish a detailed Project Implementation Plan (PIP) for the construction, commissioning, and operational coordination of the MIP Project, through development and execution of a Microgrid Operating Agreement (MOA). The MOA then governs the safe construction, testing and commissioning of the MIP Project and the dispersal of Incentive Award funding, based on achieving development Milestones mutually agreed-to in the MOA. The costs for Interconnection Facilities, Distribution Upgrades and Microgrid Special Facilities as described in Stage 3 will be funded pursuant to the payment schedules in the respective Interconnection and Special Facilities Agreements subject to the applicable Interconnection Allowance and Microgrid Special Facilities Allowance limits. The MIP Awardee will be responsible for all MIP Project costs not covered under the provisions of the: i) MIP Application Development Grant; ii) Incentive Award; and iii) the Interconnection and Microgrid Special Facilities Allowances.

The key process steps in Stage 4 are shown in Figure 6 and described in more detail below.

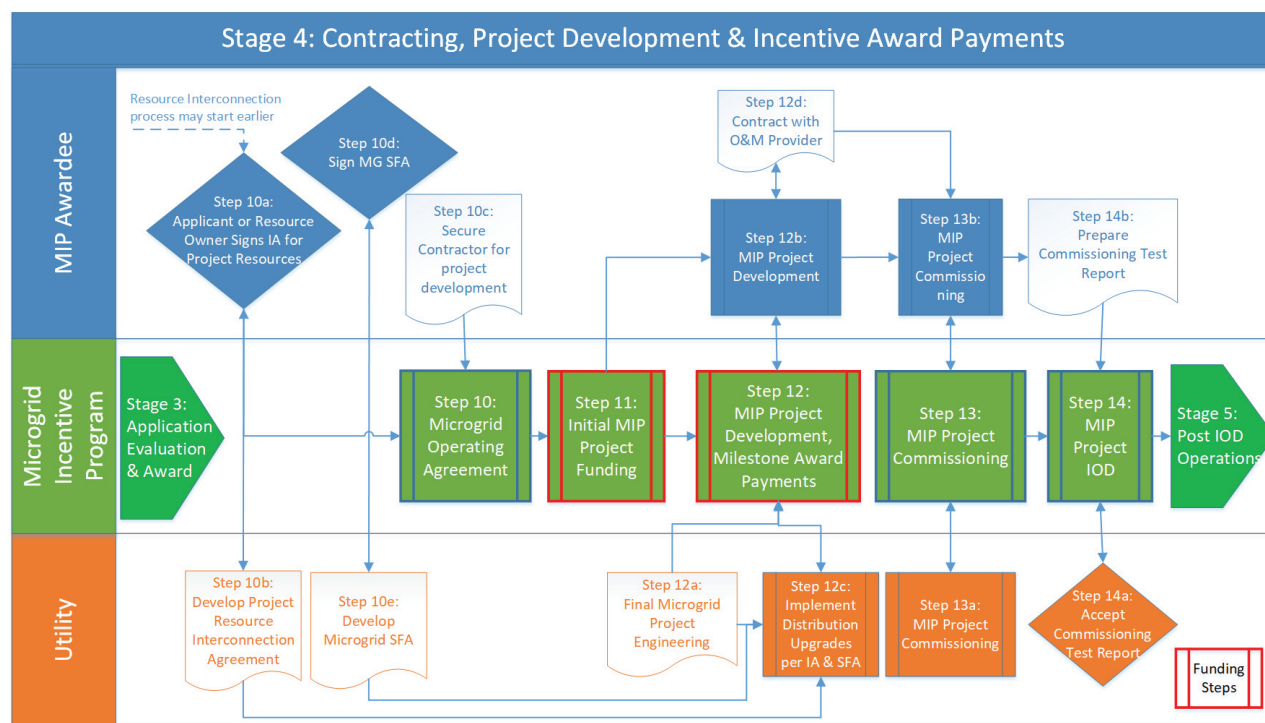


Figure 6: Stage 4. Contracting, Project Development & Incentive Award Payments

a. Microgrid Operating Agreement (Step 10)

The MOA defines and documents the roles and responsibilities of the Utility and the MIP Awardee for the development and commissioning of the MIP Project, and for the safe and reliable operation of the MIP Microgrid. The MOA covers three main topics:

- MIP Project Development
- MIP Project Operations

Microgrid Incentive Program Implementation Plan

- Contract Terms and Conditions

The draft MOA Structure is shown in Figure 7.

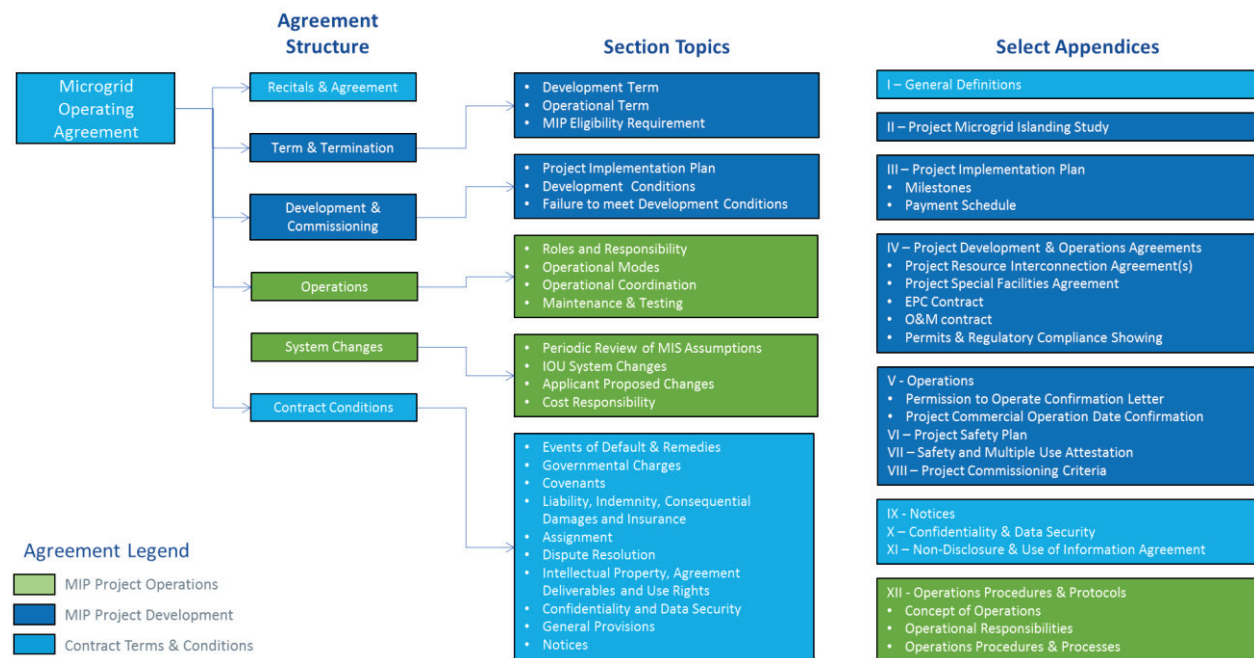


Figure 7: Microgrid Operating Agreement Structure

The MOA is an umbrella agreement which incorporates by reference and addendum all other contracts and agreements that are required to develop and operate the MIP Project. These agreements may include:

- Interconnection Agreement(s) for Project Resources that will be part of the MIP Project
- Microgrid Special Facilities Agreement covering the cost of any Microgrid Special Facilities necessary to implement the MIP Project
- The MIP Awardee’s contract(s) with the firms that will be designing, procuring, and constructing the non-utility components of the MIP Project during the Development Term, and operating/maintaining the non-utility components of the MIP Project during the Operating Term.

The MOA will not supersede these agreements – it is an additional agreement. The MOA will incorporate any Milestones, performance requirements, or other provisions contained in those agreements in establishing the overall MIP Project development requirements and Milestones and associated Incentive Award payments.

The MOA should be enforceable and subject to the oversight jurisdiction of the CPUC. For contracts with tribal governments, this may necessitate a limited waiver of sovereign immunity. The Utilities will discuss this issue early in the process with tribal applicants, in order to ensure that all parties are aware of the issues from the outset. The Utilities will include this information as well in the forthcoming MIP Handbook.

Microgrid Incentive Program Implementation Plan

The MOA will define and establish two contractual terms:

- The MIP Project Development Term, which begins on the MOA Effective Date and is completed on the MIP Project IOD and has a duration of 24 months. There will be provision to extend the Development Term upon mutual agreement between Utility and the MIP Awardee.
- The MIP Project Operating Term, which begins on the IOD and has a duration of 10 years, with annual extensions beyond ten years by mutual agreement between the MIP Awardee and the Utility. The MIP Project Operating Term is consistent with the term and conditions of the Project Resource interconnection agreements.

The MOA will also include provisions for suspension or termination of the MOA, by mutual agreement, for cause, by termination of Project Resource Interconnection Agreement(s), by regulatory authority, or by event of default. Each Utility will determine rights and remedies in the event of termination, defined in the handbook and included in the MOA. For example, Awardee may be required to provide performance guarantees as is customary in agreements between Utilities and third parties.

A key part of developing the MOA will be the identification of Milestones within the Project Implementation Plan. Milestones are meant to be measurable, quantifiable, critical path accomplishments that advance the development of the MIP Project. Specific project Milestones will necessarily be unique to each MIP Project, but will generally fall into these categories:

- Completion and approval of the Project Implementation Plan
- Final engineering design, siting, permits and local approvals
- Construction stages (mobilization, equipment procurement and delivery, including Interconnection and Special Facilities pursuant to timeframes governed by those Agreements)
- Development and approval of required plans and procedures such as safety, operational protocols and procedures, commissioning criteria, commissioning test plan
- Commissioning (e.g., permission to operate, in-service date, commission testing, IOD & supporting attestation(s))

Some Milestones will be associated with progress payments against the Incentive Award granted to the MIP Project. The specific amount (as a percentage of the Incentive Award) will be determined and associated with specific Milestones identified during the development of the MOA.

The Utilities intend to submit a pro forma MOA to the CPUC via Tier 1 Advice Letter within 180 days of final approval of the MIP, concurrent with the public release of the program handbook.

b. Initial MIP Project Funding (Step 11)

Upon signing of the MOA and mobilization as described in Step 10, a portion of the Incentive Award in an amount established during the development of the MOA will be paid to the MIP Awardee. This

Microgrid Incentive Program Implementation Plan

payment is designed to cover eligible costs incurred by the MIP Awardee for the MIP Project Proposal and MIP Project Development mobilization costs.

c. Project Development and Milestone Award Payments (Step 12)

The MIP Awardee will be responsible for developing the Project Implementation Plan (PIP) which will be reviewed and approved by the Utility and included in the MOA. The MIP Awardee will be responsible for then executing the engineering, construction and commissioning of the non-utility portions of the MIP Project, and achieving those Milestones identified in the PIP that are applicable to the MIP Awardee.

The Utility will be responsible for developing the final engineering that will support the Utility's construction of the Interconnection Special Facilities, Distribution Upgrades, and Microgrid Special Facilities as prescribed in the Interconnection Agreement(s) and Microgrid Special Facilities Agreement and inform the final safety and protection requirements for the MIP Microgrid. The Utility is responsible for constructing all utility-owned Interconnection Facilities, Distribution Upgrades, and Microgrid Special Facilities associated with the MIP Project in a manner that supports the PIP and related Milestones defined in the MOA and shown as Step 12 in Figure 6. The Utility will also be responsible for evaluating project development progress against the PIP for Incentive Award payments to the MIP Awardee.

During the Development Term, the Utility will provide cost offsets for Distribution Upgrade and Interconnection Facility costs and Microgrid Special Facility costs, up to the respective caps, pursuant to the schedules set out in the Interconnection and Microgrid Special Facilities Agreements. Rather than actual payments from the Utility, cost offsets will be provided from the applicable Allowance. The MIP Awardee will be responsible for any Interconnection Facilities, Distribution Upgrade or Microgrid Special Facilities costs exceeding the respective amounts provided in the Interconnection Allowance and the Microgrid Special Facilities Allowance, and must make payment of those amounts to the utility in accordance with the payment schedules set forth in the respective Interconnection Agreement(s) and Microgrid Special Facilities Agreement. Payments will be made to the Utility in excess of the cap.

The MIP Awardee will receive the Incentive Award for eligible costs in accordance with the MOA Milestone Payment schedule described earlier. Not all Milestones will have awards. Incentive Award payments will be structured so as to not hinder progress on project development and be generally tied to Milestones that represent material cost responsibility by the MIP Awardee, such as final design engineering and mobilization, capital equipment procurement and delivery, ongoing construction and successful project completion and commissioning.

The MIP Awardee is responsible for attesting to successfully achieving Milestones for any Incentive Award progress payment. The Utility is responsible for evaluating Milestone achievement and attestations and making any prescribed Milestone payments. The Utility may require, as a condition for issuing Incentive Award progress payments, that the MIP Awardee provide documentation materially substantiating that the MIP Awardee is incurring costs that the progress payments will offset.

d. Project Commissioning (Step 13)

The process for achieving Permission to Operate (PTO) of Project Resources for grid connected operations will follow the standard interconnection process governed by the relevant tariff (*e.g.*, Rule 21 or WDT).

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At the completion of construction and subsystem testing, and following receipt of PTO for all IFOM and BTM Project Resources within the Microgrid Boundary, the MIP Awardee will coordinate with the Utility to schedule the MIP Project Commissioning Test.

The Utility will be responsible for development of the MIP Project Commissioning Criteria. The MIP Awardee will be responsible for development of the Applicant's portion of the MIP Project Commissioning Test Plan that fully addresses the Commissioning Criteria. The MIP Project Commissioning Test plan will be reviewed and approved by the Utility no later than the applicable Milestone presented in the MOA. The completion of the Commissioning Criteria and Test Plan Milestone will require the Utility's approval. The Commissioning Criteria and Test Plan Milestone will be set at a minimum of sixty (60) business days prior to the Permission to Island (PTI) date established in the Project Implementation Plan. Upon approval of the Commissioning Criteria and Test Plan the plan will be appended to the MOA.

The Utility and the MIP Awardee will work together to perform the Commissioning Test to demonstrate that the MIP Project and project personnel can successfully meet the operating requirements and required performance per the MOA. The Utility will be allowed to be present at any MIP Project Resource location during the commissioning test.

e. MIP Project Islanding Operation Date (Step 14)

The Commissioning Test results will be documented in a commissioning test report prepared by the MIP Awardee as shown in Step 14b in Figure 6. The Utility is responsible for review and approval of the commissioning test report.

Upon Utility approval of the Commissioning Test Report, the Utility will issue a Permission to Island (PTI) to the MIP Awardee and the MIP Awardee will submit an MIP Project IOD confirmation notice to the Utility, which serves to document the Parties' further agreement that the Commissioning Test results are accepted and that the MIP Awardee has met the development conditions specified in the MOA.

With the submittal of the MIP Project IOD confirmation notice to the Utility, the MIP Project will be considered fully operational, will have achieved the final PIP Milestone and will be eligible to receive any final Incentive Award payment tied to that final Milestone.

At the end of Stage 4, MIP Awardees and the Utility will have developed the MIP Project pursuant to the Project Implementation Plan and the other relevant provisions of the MOA, will have successfully demonstrated that the MIP Project can operate safely and will have established the necessary operating procedures and protocols to facilitate operational coordination between the Utility and the MIP Awardee as prescribed in the MOA and discussed further in Stage 5.

5. Stage 5. MIP Project Operations (Post Islanding Operation Date)

The objective of Stage 5 is to ensure that the ongoing coordinated operations and related safety and functional testing between the MIP Awardee and the Utility result in safe MIP Project operation, in accordance with provisions in the MOA throughout the Operating Term. Several key steps, as shown in Figure 7, along with roles and responsibilities are highlighted below.

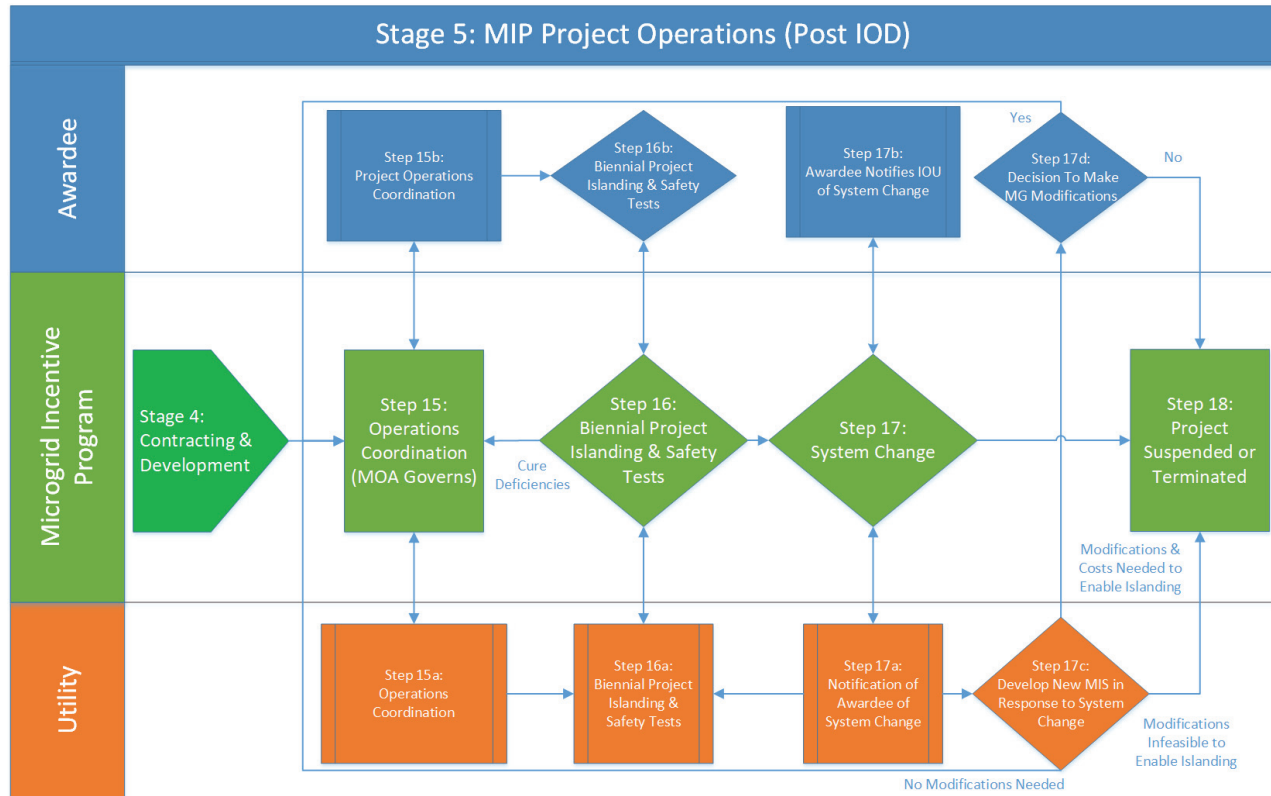


Figure 7: Stage 5. MIP Project Operations (Post IOD)

a. Step 15: Operational Coordination

In Step 15, the MIP Project will be operational. Operation of the MIP Project is guided by the terms set forth in the MOA. The MIP Project will operate in Island Mode without adversely affecting the operations of the Utility's distribution facilities or electric service to Distribution Customers within the MIP Project Microgrid Boundary, and without presenting safety hazards to the public or to the Utility's or MIP Awardee's personnel. The respective operational roles and responsibilities are:

- The Utility is the Distribution Provider and, as utility distribution owner and operator, is responsible for providing Distribution Service under both Blue Sky and Island Modes pursuant to all applicable rules on file with the CPUC. The Utility will operate and maintain the Distribution System, including all utility-owned Distribution Upgrades, Interconnection Facilities and Microgrid Special Facilities.
- As directed by the Distribution System Operator, the MIP Awardee will be responsible for the operation of MIP Project Resources and any demand-side management resources consistent with relevant provisions of applicable rules and standards including Electric Rule 2, the Wholesale Distribution Access Tariff, and Electric Rule 21. These rules and standards specify frequency and voltage and other power quality requirements as operationalized through Utility-

established control parameters and Operating Procedures and Protocols. These Operating Procedures and Protocols will be detailed in the MOA and will enable the MIP Project to operate in Island Mode.

- During the Operating Term, the MIP Awardee will bear all costs related to ownership, operation, scheduling, and maintenance of the MIP Project Resources and Balance of System.
- The Utility will notify the MIP Awardee of a planned transition from Blue Sky Mode to Island Mode, and from Island Mode to Blue Sky Mode, in accordance with the MIP Project Operating Procedures and Protocols set forth in the MOA.

b. Step 16: Biennial Project Islanding & Safety Test

In Step 16, the MIP Awardee and the Utility will conduct a biennial (at least every other year, or as determined necessary by the Utility) safety and capability demonstration test of the MIP Project. During the Operating Term, the Utility and the MIP Awardee will develop and perform a biennial MIP Project Performance Test to demonstrate that the MIP Project and project personnel can successfully meet the operating performance requirements per the MOA. The MIP Project Performance test reports shall be prepared by the MIP Awardee and reviewed and approved by the Utility to confirm compliance with the requirements established in the MOA.

If the MIP Project fails to satisfy all of the operating performance requirements as defined in the MOA within a time frame mutually agreed between the Utility and the MIP Applicant, then the MIP Applicant may be required to develop a plan for cure per the terms in the MOA. If the operating performance requirements are not met, and if not cured, the MIP Project may be terminated in accordance with the terms of the MOA.

c. Step 17 – System Change

The Distribution System is dynamic and changes over time. The MIP Awardee and/or the Utility are required to notify the other party, when they become aware, of any System Change. A System Change will require re-study of the changes to determine how the System Change impacts the operation of the Microgrid. The implementation of System Changes and associated cost responsibilities will be described in the Utility MIP Handbooks.

d. Step 18 – Project Termination

The MIP Project Operating Term under the MOA is 10 years after IOD with automatic 1-year renewals thereafter, unless terminated earlier by mutual agreement or by the MIP Awardee and/or Utility in the event of a) a System Change rendering the MIP Project infeasible per a new Microgrid Islanding Study, b) termination of any existing executed MIP Project Resource Interconnection Agreement(s) for resources required for the MIP Project, or c) failure of the MIP Project to satisfy any of the operating performance requirements as defined in the MOA.

V. Additional MIP Joint Implementation Plan Filing Requirements

A. Program Administrator's Reporting Requirements and Timeline

Each Utility will prepare the following reports and submit quarterly to the CPUC, beginning the quarter after the first application window opens and ending for each Utility when funding for MIP is exhausted.

1. Program Status Reports

Forecast

The Utility will prepare and maintain a forecast of monthly expenditures, Incentive Award payments, MIP Application Development Grant payments, and Interconnection and Microgrid Special Facilities Allowances based on the volume of projects that are in the review process and/or pending completion.

Accruals

The Utility will prepare accruals for incentive payments and/or other program expenditures for work that has been completed but not yet invoiced and paid.

Commitments

The Utility will prepare and maintain a report showing the status of outstanding contractual obligations identified for work not yet completed.

2. Project Status Reports

Each Utility will prepare and publish, on a quarterly basis, a status report, which will include a summary of all MIP-awarded projects and their progress toward completion. The report shall incorporate the following:

Program Impacts and Key Performance Indicators

- Description of efforts and # of projects (as applicable) by status stage:
 - Stage 1: Community Outreach
 - Stage 2: Consultation and Application
 - Stage 3: Application Evaluation, Scoring, Incentive Award Decision and Studies
 - Stage 4: Contracting, Project Development, and Award Payments
 - Stage 5: Project Operations Post IOD
- # of projects by status
- # of customers served by the Microgrids developed under the MIP
- # of Disadvantaged Vulnerable Customers served by Microgrids
- # of Critical Facilities served by Microgrids

Financial Reports

- Program Costs – costs reported on a cumulative basis since inception
- Cost Allocation – an allocation of spent funding based on the cost categories below:
 - Administrative Costs, including Marketing/Outreach Costs
 - Incentive Award Costs
 - MIP Application Development Grant Costs
 - Interconnection Allowance
 - Microgrid Special Facilities Allowance (i.e., funding source is “Matching Funds”)
 - Amount and percentage of program budget spent, and amount committed (incentive, grant)
 - Amount of Microgrid Special Facilities Allowance spent and committed (Matching Funds)
 - Amount of Interconnection Allowance spent and committed

3. Quarterly Budget Status Reports

Each Utility will be responsible for managing its respective allocation of the statewide program budget and completing a monthly review to validate all program expenditures in accordance with CPUC guidance. A reconciliation and analysis will be conducted to verify all expenditures are valid, allowable costs, and accurately charged to the Program’s Internal Order(s) and appropriate Cost Center(s). If adjustments are needed, Journal Entry(ies) will be processed to correct activity. Each Utility’s program lead will prepare a monthly confirmation statement acknowledging review of activity and confirming expenditures are valid and accurately recorded. Such review will provide reasonable level of assurance expenditures are recorded in compliance with CPUC Decision authorizing the Program. The report will be used in quarterly reports to the CPUC.

B. Budget Allocation, Cost Recovery and Ratemaking

1. Summary of Recommendations

As required by Ordering Paragraph (OP) 6 of the Microgrid OIR Track 2 Decision, this section proposes an approach for allocation of the adopted \$200 million program budget amongst the Utilities and recovery for all costs associated with the Microgrid Incentive Program, including a ratemaking proposal. The Utilities propose the following:

- a) As authorized by Track 2 Decision, reserve 10% of the total program budget for administrative costs, which would be allocated amongst the Utilities, tracked separately through internal orders, and subject to a separate accounting procedure as specified in the preliminary statement;
- b) Program budget allocation (except for administrative costs) be based on each Utility’s forecast 2022 Transmission Access Charge (TAC)-area energy sales for CPUC-jurisdictional entities as provided in the California Energy Commission’s (CEC) 2020 Integrated Energy Policy Report;

- c) Create a new subaccount in the Microgrids Balancing Account (MGBA) for PG&E and SDG&E and the Microgrid One-Way Balancing Account (MOWBA) for SCE to record the actual costs of the program, up to each Utility's pro-rata program budget cap;
- d) Create a new subaccount in the MGBA for PG&E and SDG&E and the MOWBA for SCE to record the actual costs of the Matching Funds for the Microgrid Special Facilities cost and the MIS to enable safe microgrid islanding capabilities, not to exceed a \$3 million cap per project as proposed in the implementation plan;
- e) Upon approval of the implementation plan, authorize PG&E to prospectively record the revenue requirement for CMEP capital costs to this new subaccount of the MGBA;
- f) Record a regulatory asset for customer-side infrastructure (a/k/a physical plant) in which the Utility will act as a pass-through entity;
- g) Transfer all MIP development and implementation costs recorded in the Microgrids Memorandum Account pursuant to OP 7 of Track 2 Decision to the Utilities' respective two-way balancing accounts for recovery through distribution rates ; and
- h) Recover the actual costs incurred, grossed up for Franchise Fees and Uncollectibles (Revenue Fees and Uncollectibles for PG&E), on an annual basis from all customers in distribution rates as ordered by Track 2 Decision through each Utility's respective annual electric true-up advice letter (AET) process.

2. Allocation of Program Fund

The Track 2 Decision adopted a total program budget of \$200 million for the Microgrid Incentive Program.³⁷ OP 6 directs the Utilities to include in their implementation plan "the approach for allocating program funding amongst the individual investor-owned utilities." The total budget (*i.e.*, program budget plus administrative budget) for each Utility is shown in Table 3.

Utility	Total Budget
PG&E	\$87,200,000
SCE	\$91,340,000
SDG&E	\$21,460,000
Total	\$200,000,000

Table 3 – Total Budget Allocation

Additionally, the Track 2 Decision suggests a cap for administrative costs of not more than 10 percent of the total project cost.³⁸ The Utilities propose to allocate 10 percent or \$20,000,000 as calculated in Table 4. This methodology is appropriate because each Utility, irrespective of size, will have certain fixed overhead costs such as creating a new project management office (PMO) with dedicated staff to support communities and stakeholders with developing community

³⁷ Track 2 Decision, at p. 66.

³⁸ Track 2 Decision, at OP 6.

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microgrids under this program until the program budget is depleted for each Utility individually. At the same time, the proposed allocation does take into consideration that a Utility with fewer customers, attributable energy sales, and smaller overall geographic footprint will likely have fewer potential MIP Projects to support and thus not need as much additional staff to support administration of the program.

Utility	Percentage Allocation	Administrative Budget
PG&E	40%	\$8,000,000
SCE	40%	\$8,000,000
SDG&E	20%	\$4,000,000
Total	100%	\$20,000,000

Table 4 – Administrative Budget Allocation

The Utilities propose to allocate the total program budget, less the 10% reserve for administrative costs, on the basis of each Utility's forecast 2022 energy sales by TAC-area for CPUC-jurisdictional entities as derived from the CEC's 2020 IEPR.³⁹ Table 5 below provides the proposed allocation of program funds, less administrative costs.

Utility	Forecasted 2022 TAC-Area Energy Sales for CPUC-Jurisdictional Entities (GWh)	Percentage Allocation (Rounded)	Program Budget
PG&E	75,494.89	44%	\$79,200,000
SCE	79,396.76	46.3%	\$83,340,000
SDG&E	16,719.05	9.7%	\$17,460,000
Total	171,610.70	100%	\$180,000,000

Table 5 – Program Budget Allocation

This methodology is appropriate because it provides for a fair and equitable allocation to each Utility's customer base since Utility Distribution Customers (i.e., bundled and unbundled) will be eligible to participate and funding of the program will be via distribution rates. The proposal to use the year 2022 forecast is based on the Utilities' expectation that the Commission will approve the implementation plan next year and that the utilities will begin incurring costs to assist DVCs with identifying opportunities and designing microgrids.

In addition, the Utilities propose that if a Utility does not incur costs up to its administrative budget cap at the completion of the program, it be allowed to submit a Tier 2 Advice Letter seeking Commission approval to re-apportion funds from its administrative budget to the

³⁹ See CEC's 2020 IEPR Mid-Demand Forecast, available at: <https://efiling.energy.ca.gov/getdocument.aspx?tn=237319>.

program budget to provide additional funds for the development of microgrids which serve DVCs. In the instance that a Utility has depleted its program budget up to its cap but has funds remaining to use in its administrative budget, the Utilities propose a similar process by which a Utility is allowed to submit a Tier 2 Advice Letter seeking approval to re-apportion funds from its administrative budget to the program budget. This proposal will enable, to the extent possible, that the entirety of the \$200 million authorized by the Commission for the program be used to support the deployment of clean energy microgrids for vulnerable communities impacted by grid outages. Additionally, the Utilities propose that in the event the program budget of a Utility is not depleted within a reasonable timeframe (*e.g.*, an adopted sunset date for the program) and the Utility needs to continue maintaining a PMO to support the development of microgrids in DVCs but has exhausted its administrative budget, it be allowed to submit a Tier 2 Advice Letter to seek approval of additional funds to be dedicated to of providing continuing technical support to DVCs. Cost recovery of these additional funds would be via the Utility's Microgrids Balancing Account.

3. Cost Recovery

The Utilities propose to create a new subaccount, the Microgrids Incentive Program Subaccount, in their existing Microgrids Balancing Account (MGBA) for PG&E and SDG&E and the Microgrid One-Way Balancing Account (MOWBA) for SCE, which is a one-way balancing account that tracks and records incremental expenses and capital related costs associated with several programs/elements approved by the Commission in Track 2 Decision. As such, the use of this balancing account is appropriate and reasonable. A separate subaccount is necessary to separately track costs in order to effectively manage the program and provide transparency. Upon approval of the Utilities' Implementation Plan, each Utility would file a Tier 1 Advice Letter to add this new subaccount to the MGBA/MOWBA preliminary statement. The Utilities would record the actual incurred costs of the program in their respective new subaccount of the MGBA/MOWBA, up to each Utility's pro-rata budget cap as established by the Commission and as illustrated in Table 4 and Table 5.

This one-way balancing account treatment is in accordance with the adopted cost recovery approach described in Track 2 Decision. Costs recorded to the new MGBA/MOWBA subaccount would be incremental and would not include costs recorded in other balancing accounts or that have previously been requested in prior General Rate Cases, or other funding approved by the Commission. The Utilities anticipate that the types of costs recorded to the Microgrids Incentive Program Subaccount of the MGBA/MOWBA would be: (1) actual expenses incurred; (2) the capital revenue requirement associated with actual capital expenditures; and (3) the amortization of the regulatory asset revenue requirement as described below.

The types of expense costs the Utilities anticipate will be incurred for the MIP, separate from the Administrative Expenses capped at 10%, include, but are not limited to, applicant acquisition of project management support, preparation of the Microgrid Project Proposal and Application development, and community outreach activities, etc. Additionally, the administrative costs would be tracked separately from all other program costs through internal orders and subject to a separate accounting procedure as described in each utility's MGBA/MOWBA preliminary

statement to ensure that these costs do not exceed 10% of the overall budget as calculated in Table 4 above. Administrative expenses will include incremental Utility program-related expenses such as for program/process development, program outreach, and related activities, as well as Utility project support that is not allocated to the Application Incentive Request, Interconnection or Microgrid Special Facilities Allowances. For example, the cost of Utility project support prior to granting of an Incentive Award would fall in this category.

The types of capital expenditures are detailed in Step 9, Final MIP Project Scope and Cost, above. The individual Utility's accounting policies will be applied to the costs recorded to the Microgrids Incentive Program Subaccount of the MGBA/MOWBA to determine expense or capitalization treatment. The capital-related revenue requirement associated with actual capital expenditures include depreciation expense, return on investment, federal and state income taxes, and property taxes associated with the costs of installed equipment.

As described above, in *Step 7, Development of MIP Project Score, Prioritization & Incentive Award*, the Utilities will provide funding to selected MIP Awardees for certain costs up to a cap. These costs constitute customer-side infrastructure paid for by Utility customers that if acquired by the Utility would be capitalized due to the types of cost, *i.e.*, property, plant, and equipment; their materiality; and their life span. The Utilities will serve as the pass-through entity, providing funds to MIP Awardees for infrastructure that typically is financed through a mix of equity and debt instruments given the expected lifespan of the physical assets. This pass-through role is based on customers' promise to repay the Utility. In this instance, the ratemaking obligation, more accurately, constitutes a regulatory asset, appropriate for recovery from customers in rates over time. As such, the Utilities propose that these costs be recorded as a regulatory asset and amortized over 10 years, with a return on investment at a rate equivalent to each Utility's current authorized return on rate base. The longer period for recovery benefits customers, specifically to lessen the impact on rates, which might otherwise spike if these costs were expensed and recovered over the course of just one year. The regulatory asset revenue requirement would include amortization expense, return on investment, and taxes over a 10-year period.

A similar cost recovery approach has been approved in three recent Commission decisions. D.12-06-040 approved recovery, as a regulatory asset, of California Water Company's investment in the San Clemente Dam removal project. D.14-03-021 approved recovery, as a regulatory asset, of "beyond the meter" construction funds for the voluntary conversion of electric and natural gas master-metered service to direct service at mobile home parks and manufactured housing communities. D.20-04-004 continued the recovery approved in D.14-03-021. These three recent Commission decisions provide examples of where the Commission has previously determined that customer financing should support broad public purposes intertwined with utility service.

In addition, Track 2 Decision directed SCE and SDG&E to "ensure their customers have access to a one-time matching funds payment to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid"⁴⁰ and further established that the one-time matching funds "are in addition to the total [microgrid incentive]

⁴⁰ D.21-01-018, p. 62.

program's budget for eligible costs.”⁴¹ D.20-06-017 had previously given PG&E similar treatment by adopting its CMEP and permitted PG&E to appropriate one-time matching funds to offset some portion of distribution infrastructure upgrade costs associated with implementing an islanding function. In response to Track 2 Decision, SCE and SDG&E propose to create a new two-way subaccount, the Microgrid Utility Infrastructure Upgrades Subaccount,⁴² in their existing MGBA/MOWBA, to track actual incurred costs of the Matching Funds payment for utility infrastructure upgrades necessary to enable MIP projects.

Similar to PG&E's CMEP, SCE and SDG&E propose the Matching Funds payment for Microgrid Special Facilities (i.e., electric distribution infrastructure upgrades necessary to enable safe operations in Island Mode) and Microgrid Islanding Study have a cap of \$3 million per project. The Utilities anticipate that the types of costs recorded to the Microgrid Utility Infrastructure Upgrades Subaccount of the MGBA would be: (1) actual expenses incurred for implementation and administration of the Matching Funds, as well as any enhanced utility technical support and development of planning tools; and (2) the capital revenue requirement associated with actual capital expenditures for Microgrid Special Facilities.

Given the request for one-time matching funds by SCE and SDG&E described above, and to align cost recovery of PG&E's CMEP with the other utilities, PG&E proposes that the unspent CMEP matching funds previously approved for recording to its Microgrids Memorandum Account (MGMA) be tracked in a new one-way subaccount in its MGBA, the Microgrid Utility Infrastructure Upgrades Subaccount. The recording of CMEP matching funds to the MGBA would be on a prospective basis beginning upon approval of the implementation plan. Costs recorded to this new MGBA subaccount would be incremental and would not include costs recorded in other balancing accounts or that have previously been requested in prior General Rate Cases, or other funding approved by the Commission. PG&E would seek recovery of any costs recorded to the CMEP Subaccount of the MGMA prior to the approval of the implementation plan through a separate application or in a future General Rate Case, pursuant to D.20-06-017.

Lastly, OP 7 of D. 21-01-018 authorized the Utilities to create two new subaccounts in the Microgrids Memorandum Account (MGMA or MMA) “to track: (a) the costs incurred to develop the Microgrid Incentive Program pursuant to Section 3.4.3 of this decision prior to approval of the program implementation details; and (b) the other implementation requirements for fulfilling Section 3.4.3 of this decision.” The Utilities propose that upon approval of the implementation plan, each Utility submit a Tier 2 advice letter to seek approval (i) of all costs recorded as of that approval date in these two MGMA/MMA subaccounts, (ii) to transfer these costs to their respective existing two-way distribution revenue balancing accounts, and (iii) to recover these costs from customers in distribution rates through each Utility's respective annual electric true-up advice letter process. As such, recovery of these costs would utilize the same cost recovery methodology as costs incurred after the implementation plan is approved, which is further

⁴¹ *Ibid.*

⁴² The Utilities reserve the right to establish a different naming convention for the subaccount in their respective MGBA preliminary statements.

detailed in the Ratemaking section below. The costs recorded to the two subaccounts in the MGMA/MMA and proposed for transfer to respective balancing accounts are incremental and, as such, would not be subject to each Utility's pro-rata budget cap as established by the Commission and as illustrated in Table 4 and Table 5. Costs incurred after the implementation plan is approved would be recorded directly to the MIP Subaccount of the MGBA/MOWBA as described above and would be subject to each Utility's pro-rata budget cap.

4. Ratemaking

OP 6 of D. 21-01-018 specifies that Microgrid Incentive Program costs may only be recovered once expenditures have been incurred and may not be proactively collected. Additionally, the decision states that the costs "shall be allocated to all distribution customers of the relevant IOU."⁴³ Similar to the ratemaking adopted for Microgrid Incentive Program costs in Track 2 Decision, the Utilities propose the one-time matching funds for distribution infrastructure offsets be allocated to all distribution customers of the relevant Utility, especially since these are distribution assets and both CCA and Direct Access customers are eligible to participate in the program. As such, the Utilities propose that the actual costs incurred as described in the Cost Recovery section, grossed up for Franchise Fees and Uncollectibles (FF&U) (Revenue Fees and Uncollectibles (RF&U) for PG&E)⁴⁴, be recovered on an annual basis from all customers in distribution rates through each Utility's respective annual electric true-up advice letter.⁴⁵

In summary, the Utilities request that the Commission approve the budget allocation, cost recovery, and ratemaking proposals presented in this section. Specifically, the Utilities request that the Commission act as follows:

- a) Approve the proposed program budget allocation, with the specific percentages and amounts shown in Table Tables 3-5 above;
- b) Approve a reserve of 10% of the total program budget for administrative costs, which would be allocated amongst the Utilities as presented in **Error! Reference source not found.**, tracked separately through separate internal orders, and subject to a separate accounting procedure as specified in the preliminary statement;
- c) Authorize the creation of a new subaccount in the MGBA/MOWBA to record the actual costs of the program, up to each Utility's pro-rata budget cap;
- d) Authorize the creation of a new subaccount in the MGBA/MOWBA to record the actual costs of the Matching Funds for the Microgrid Special Facilities cost and the Microgrid

⁴³ D. 21-01-018, pp. 63-64.

⁴⁴ PG&E and SDG&E's RF&U factor is determined through their respective General Rate Case (GRC) and updated on an annual basis through an advice letter filing. SCE's RF&U amount is adopted through their respective GRC.

⁴⁵ PG&E files the Annual Electric True-up Advice Letter. SCE and SDG&E file separately the Annual Consolidated Rate Change Advice Filing.

Microgrid Incentive Program Implementation Plan

Islanding Study to enable safe microgrid islanding capabilities, not to exceed a \$3 million cap per project as proposed in the implementation plan;

- e) Authorize PG&E, upon approval of the implementation plan, to prospectively record CMEP costs to a new subaccount of the MGBA;
- f) Authorize the Utilities to record a regulatory asset for customer-side infrastructure paid for by customers, in which the Utility acts as a pass-through entity;
- g) Upon approval of the implementation plan, authorize the Utilities to submit Tier 2 advice letters to seek approval to transfer Microgrid Incentive Program development and implementation costs recorded in the MGMA/MMA pursuant to OP 7 of Track 2 Decision through the approval date to each Utility's respective two-way distribution revenue balancing accounts for recovery in distribution rates; and
- h) Authorize the Utilities to recover the actual costs incurred, grossed up for Revenue/Franchise Fees and Uncollectibles, on an annual basis from all customers in distribution rates through each IOU's respective annual electric true-up advice letter.

C. Program Evaluation Approach

The Track 2 Decision "directs the Energy Division to hire a neutral, third-party program evaluator to review and evaluate the microgrid tariff, rates, rules, incentive programs, and pilot studies to help the Commission determine whether any changes to the adopted policies would be in the public interest." The Utilities' implementation plan, including the lifecycle process described herein, is designed to collect the information required to enable MIP program level evaluation as outlined in the CPUC staff proposal.⁴⁶ Specifically, the staff proposal recommended evaluation of the following program aspects:

- Costs and benefits to customers who directly participate in a microgrid;
- Costs and benefits to other customers;
- Progress towards achieving the objectives of SB 1339, including microgrid commercialization;
- Extent of incremental contribution to achieving related state and CPUC policy goals and objectives;
- Effectiveness of appropriate coordination with related programs and policies, such as the Self Generation Incentive Program;
- Impact of activities on resiliency;
- Whether any temporary activities, programs, or rate schedules should be extended.

The Utilities will work with the CPUC Energy Division and its third-party evaluator to determine the specific information needed and timing, based on the availability of such information throughout the MIP lifecycle, to support their program evaluation. The Utilities anticipate that

⁴⁶ See, R.19-09-009, *Administrative Law Judge's Ruling Requesting Comment on the Track 2 Microgrid and Resiliency Strategies Staff Proposal, Facilitating the Commercialization of Microgrids Pursuant to Senate Bill 1339* (July 23, 2020), Attachment 1 Staff Proposal, at p. 39.

the MIP reporting discussed earlier will satisfy most of the information needed for the Energy Division's program evaluation.

Note that several of the items above may require the Energy Division or its third-party evaluator to develop additional information not available directly from the Utilities' MIP process. The Utilities contemplate that the agreements between the Utilities and the MIP Awardee will include the requirement that the MIP Awardee provide information required by regulatory authorities.

Also, the Track 2 Decision directed the cost-effectiveness of individual MIP Applications to be considered as part of the prioritization scoring, as proposed by the Utilities in Stage 3 of this implementation plan. However, the Utilities believe an overall program cost-effectiveness evaluation should be conducted by the CPUC. Program cost-effectiveness should inform the CPUC's consideration of whether ratepayer funds should continue to be used in any extension of the MIP and/or creating other potential microgrid programs as part of the last item on the staff list above.

D. Proposed Changes to the PG&E Community Microgrid Enablement Program

PG&E proposed the Community Microgrid Enablement Program (CMEP) in 2020 as a way to incent the development of multi-customer community-initiated microgrids. The program, approved for the years 2020-2022 by the Commission in June 2020⁴⁷ and launched in April 2021, provides technical and financial support to communities seeking resilience solutions in the form of a microgrid, including the provision of cost offsets to pay for the cost of distribution system equipment necessary to enable the safe islanding of a community microgrid.

As PG&E considers how to reconcile CMEP with the MIP proposal described in this document, PG&E's primary objective is to ensure that communities continue to have access to the type of technical support and cost offsets which CMEP provides, while expanding support to include the new benefits which MIP provides, without confusion or undue complication for communities.

With this in mind, PG&E proposes to keep most aspects of CMEP the same, while strategically modifying certain elements to ensure seamless alignment with MIP. Below, PG&E first discusses elements of CMEP that would not change following implementation of the MIP. Next, PG&E discusses elements of CMEP that it proposes to modify in order to better harmonize CMEP and MIP. Finally, PG&E addresses how these changes and the introduction of MIP may impact the Community Microgrid Enablement Tariff (CMET) and the associated form CMEP Microgrid Operating Agreement (MOA), including a proposed process for updating those forms following approval of the MIP Implementation Plan.

⁴⁷ See D.20-06-017, at OP 16, approving CMEP and ordering PG&E to submit implementation details via an advice filing. See also Resolution E-5127, approving CMEP implementation details.

Microgrid Incentive Program Implementation Plan

Any CPUC decision or order approving this Implementation Plan, unless it states otherwise, will be deemed to authorize PG&E to modify its CMEP as described below without requiring further CPUC action or review.

The following CMEP Elements do not need to change with the introduction of MIP:

- *Separate Program, Same Processes for Customers Seeking Only Cost Offsets for Islanding:* CMEP will largely remain a separate program with its existing processes. For communities solely seeking cost offsets for distribution system equipment to enable the safe islanding of a multi-customer community microgrid, CMEP will remain a valuable program. Communities may fall in this category for several reasons. For example, they may already have funding sources identified for the other elements of a microgrid, including its generation resources, or they may have existing generation resources for which they are only seeking equipment to island such resources. In either case, CMEP cost offsets may be the only funding that is needed, and in that event, the CMEP process, including provision of necessary technical support for applicants, will remain in place.

PG&E described a 3-stage process for CMEP participation in Advice Letter 5918-E, which was approved with modification by the CPUC in Resolution E-5127. Those stages are:

- Stage 1 – Project Vetting
- Stage 2 – Solution Assessment
- Stage 3 – Solution Execution

The CMEP processes remain the same for communities only seeking access to CMEP cost offsets and related technical support.⁴⁸ For communities which seek access to MIP funding in addition to CMEP funding, the communities will follow the MIP processes described in this document. Although applicants seeking MIP funding will need to proceed through all the MIP steps described in this document, the initial MIP steps 1-5, from initial contact through to project application, are nearly identical between CMEP and MIP. Thus, PG&E expects that an applicant who has begun engagement with the CMEP will not find it difficult to transition to the MIP process.

- *Cost Offsets with a \$3M per Project Cap:* The cost offsets with a cap of \$3M per project for Microgrid Special Facilities and the MIS to enable the safe islanding of a community microgrid remains the same. To be clear, this funding is available both to applicants seeking only these cost offsets via the CMEP program, as well as MIP applicants who may seek access to the \$3M per project cost offsets for the same purpose, in addition to MIP funds.

⁴⁸ See www.pge.com/cmep for further description of CMEP processes.

1. Duration and Capital Funding of CMEP Extended to 2026

In the Track 1 Decision of the Microgrids and Resiliency OIR (R.19-09-009), the CPUC approved PG&E's CMEP from 2020-2022, including up to \$3M per year in expense funding, and up to the following amounts of capital funding:⁴⁹

- \$6.75M in capital costs for 2020
- \$27M in capital costs for 2021
- \$27M in capital costs for 2022

Due to a variety of factors including the length of time involved in project development, only approximately \$300,000 in CMEP capital costs are anticipated to be incurred by the end of 2021. PG&E forecasts that the \$15M per project available via MIP will drive increased interest in community microgrids, which will continue to have a positive influence on interest in CMEP cost offsets.

In the Track 2 Decision, the CPUC authorized PG&E to propose, as part of this MIP Implementation Plan, changes to its CMEP that may be necessary to integrate the program more fully with the MIP.⁵⁰ Due to the expected MIP-driven increase in community microgrid interest, PG&E requests that the CMEP be extended through 2026 and that the previously authorized capital funding for CMEP in 2020-2022 be allowed to be committed to qualifying projects that have submitted applications through 2026. To be clear, PG&E is not proposing incremental funding, but rather is seeking authorization to use the existing CMEP capital budget through 2026, rather than only during the 2020-2022 period. While the CPUC did not put a sunset date on the MIP program, this timing may roughly align with that of MIP, and also aligns with the end date of PG&E's 2023 General Rate Case (GRC) cycle (2023-2026), allowing any further request for CMEP capital funding to be included in PG&E's 2027 GRC. PG&E notes that it did not include an incremental capital forecast for CMEP in its 2023 GRC given its intent to seek to use the existing capital budget as part of revising CMEP to fit with MIP.

2. Temporary Access to MIP Administrative Expense Funding

The Commission previously approved PG&E's forecast of \$3 million per year (\$9 million total) for CMEP expense costs from 2020-2022 and directed PG&E to record actual CMEP costs associated with internal labor and other expenses to the Microgrids Memorandum Account. PG&E's 2023 General Rate Case (GRC) Application seeks \$5 million per year in expense funding for CMEP beginning in 2023 to provide technical support and other resources to enable the growth of multi-customer microgrids, including those driven by the yet-to-be-determined MIP. Depending

⁴⁹ See D.20-06-017, at OP 16, approving PG&E's CMEP. See also PG&E Track 1 Proposal, Exh. PG&E-1, filed in R.19-09-009 on January 21, 2020, at pp. 5-7, Table 6-1 (proposing capital and expense budgets for CMEP).

⁵⁰ Track 2 Decision, at p. 70.

on timing of the CPUC's Decision on PG&E's 2023 GRC Application, temporary access to MIP administrative expense funding may be necessary to support CMEP projects beyond 2022.

PG&E has no way to know exactly when the CPUC will rule on PG&E's 2023 GRC Application. In the event that a Decision is not reached on that Application prior to December 31, 2022, when approved funding for CMEP is set to expire, PG&E proposes that it be authorized to use its portion of the MIP administrative expense funding to support the same type of activities (e.g. technical support and other resources) for CMEP as were described in PG&E's GRC Application, unless and until such funding is separately authorized through the GRC for those purposes. This is in line with the spirit of the use of this funding to support administrative expenses for microgrid development.

3. Eligibility Criteria

CMEP's eligibility criteria are described in Advice Letter 5918-E and have many similarities with the eligibility criteria for MIP proposed in this Implementation Plan. For example, both programs require projects to serve multiple customers, to be located in areas vulnerable to outages, and both programs seek to prioritize DVC. However, the specifics of many of the criteria differ between the programs. In the interest of simplification for communities seeking both CMEP cost offsets for distribution system equipment to enable the safe islanding of a microgrid, and MIP funding for other microgrid equipment such as generation resources, PG&E proposes to align the eligibility criteria for both programs to those of the MIP program described herein.

Despite the similarities between the existing CMEP and proposed MIP eligibility criteria, there may be communities that have begun engagement with CMEP with the expectation of certain eligibility criteria and whose projects may not qualify under the proposed MIP criteria. PG&E proposes to offer "vested" status to any project which has reached at least Step 4 ("Community Microgrid Technical Consultation") in the CMEP process at the time of MIP launch. These are projects for which the community has begun investment of significant time in consultation with PG&E engineers and others towards development of a community microgrid. PG&E proposes to determine that these projects are eligible for CMEP funding if they meet either: (1) the former CMEP eligibility criteria; or (2) the new MIP eligibility criteria. However, in all cases, to be eligible for MIP funding, the project must go through all the MIP process steps described herein.

4. CMEP Microgrid Operating Agreement (MOA)

In the interest of streamlining agreements to minimize confusion and redundancy, PG&E anticipates that it will be able to largely align the existing CMEP MOA with the new MIP MOA, once the CPUC approves this implementation plan. Certain elements and provisions of the MOA would only apply to MIP applicants, while other portions would apply to CMEP-only applicants. PG&E also recognizes that certain terminology may need to be updated to conform CMEP with MIP. For example, the CMEP MOA references the Community Microgrid Aggregator ("CMG Aggregator"), while the MIP utilizes "MIP Applicant" and "MIP Awardee" for a similar role. Similarly, the Project Special Facilities Agreement (an attachment to the MOA) will likely need to be updated to reflect the unique requirements of a MIP project. Each utility may have a different

MOA due to operational differences within each utility. PG&E will seek to harmonize and expand its CMEP MOA with the MIP-specific modifications upon approval of the MIP implementation plan. PG&E proposes to submit the resulting pro forma MOA for both programs via a Tier 1 Advice Letter within 180 days of the final and non-appealable date of any CPUC decision approving this MIP Implementation Plan.

5. Community Microgrid Enablement Tariff (CMET)

At this time, Track 4, Phase 2, of the Microgrids and Resiliency OIR is expected to consider a multi-customer microgrid tariff. Until such time as a new multi-customer tariff is adopted by the CPUC, the Community Microgrid Enablement Tariff remains a useful vehicle to enable third-party owned DERs to operate on PG&E's distribution grid, including for awardees of the MIP.

Similar to the MOA, certain updates may be necessary to the CMET to conform it with MIP, once the MIP implementation plan is approved. At a minimum, certain terminology will likely need to be updated and aligned with that of MIP. PG&E will update its CMET to incorporate such necessary changes once the MIP implementation plan is approved. PG&E proposes to submit the revised CMET via a Tier 1 Advice Letter within 180 days of the final and non-appealable date of any CPUC decision approving this MIP Implementation Plan.

ATTACHMENT 1

Microgrid Incentive Program

Input Summary and Related Program Design Implication

I. Stakeholder Workshops

A. Program Design

1. Stakeholder Input

The MIP should adopt principles for microgrid development¹, including:

- Invest in disadvantaged communities, with funds explicitly serving DVCs. The Commission should empower communities to invest in their own energy futures — to pursue microgrid development that meets community needs.²
- Critical facilities should be defined by the public.
- Support for clean microgrids.
- Encourage and articulate standards that would facilitate community development of microgrids.

2. Program Design Implication

The Utilities plan to use a proactive multi-pronged approach to DVC outreach as discussed in Stage 1.

The utilities will also offer support for the development of MIP applications in Stage 2. The Eligibility criteria described in Stage 2 incorporates a focus on DVCs and their self-identified resilience needs. The application intake in Stage 3 utilizes scoring criteria which rewards clean energy projects and considers flexibility needed to facilitate application submittal by Applicants that are in different stages of considering and developing proposals. The design of the MIP addresses the need for program flexibility given the uniqueness of the program and community microgrid development in general.

¹ See Reclaim Our Power: Utility Justice Campaign January 11, 2021, letter to the Commission in response to the Track 2 Proposed Decision.

² Stakeholders reinforced the focus on communities with higher proportions of low-income residents, access and functional needs residents, and electricity dependent customers, as outlined in CPUC Decision 21-01-018. See Workshop #3 MIP Eligibility, Presentation by the Sierra Club – Eligibility, slide 8 (citing CPUC Decision D.20-08-046 for definition of “vulnerable”) and Workshop #4 Project Evaluation and Selection by CBE and CEJA – Prioritization of Disadvantaged and Vulnerable Communities, slide 5. Additionally, stakeholders including CBE, CEJA, MEC, and NorCal Resilience Network underscored the importance of building trust with communities, working with trusted community leaders and organizations, and reflecting community support for microgrid solutions that address the critical needs of those communities. See Workshop #3 Eligibility Criteria by CEJA and CBE – Community Engagement & Empowerment; Workshop #3 Eligibility Criteria by MEC – Eligibility; and Workshop #3 Eligibility Criteria by NorCal Resilience Network – How should viable projects be identified?

B. Educating and Empowering Community Applications

1. Stakeholder Input

The IOUs should make program details accessible and understandable so that communities are empowered to engage. Stakeholders emphasized the importance of increasing trust to maximize participation of communities most in need and those most often left behind.

2. Program Design Implication

The IOUs will conduct proactive community engagement and build relationships with local governments and community leaders in Stage 1 to identify in-need residents and potential project opportunities. The IOUs will make program information publicly available on the web to ensure transparency and awareness of the MIP.

C. Incentive Funding Allocation Structure

1. Stakeholder Input

MIP funding should be available to fill the gap between actual capital costs and the existing BTM incentives and customer value. BTM that provide benefits to the customer sites where they are located will likely have a smaller gap that needs MIP funding.

2. Program Design Implication

Per the CPUC Microgrid OIR Track 2 Decision, Incentive Awards may only be used for IFOM technologies and eligible costs (see Steps 2c and 5). There are existing IOU rates and programs that offer incentives for BTM technologies, including NEM and SGIP.

D. Technical & Financial Support for MIP Application Development

1. Stakeholder Input

Pre-application technical support is needed to support the DVC and its partners in planning and designing a robust a multi-customer community microgrid. Stakeholders noted the need to provide technical support during the pre-application period.³ Request for grants to enable a community to procure additional technical support for completing a full application.⁴

³ See MIP Workshop #5 Application and Review Process by GPI - GPI's proposed preapplication process, slide 8. See Workshop #5 Application and Review Process by MEC – Process, slides 7 and 8. MEC also underscored the importance of technical support, envisioning that during the application development period, “the community and developer add increased detail to complete the MIP application, with technical assistance as needed, either from the utility and/or in the form of grant funding to offset application development costs.”

⁴ Stakeholders including the MEC noted the MIP application process should provide grants to enable a community to procure additional technical support for completing the full application. See Workshop #5 Application and Review Process by MEC – Process.

2. Program Design Implication

The IOUs are committed to providing consultative support early in the process to help a community discern which resilience approach may best meet the community's specific needs (see Stage 1).

To support eligible DVCs, MIP application development grants, up to \$25,000, will be available to DVC applicants to engage third-party technical assistance in the development of a full Application (see Stage 2, Step 2).

At the end of the Technical Consultation process in Stage 2, the Applicant will have the information needed to submit a high-quality interconnection application, have a firm understanding of the IOU's general design requirements for community microgrids such as Project Resource parameters, as well as constraints and requirements specific to the proposed project.

E. Eligibility

1. Stakeholder Input

Support the ability for the communities themselves to identify the most essential services they need to be powered by a microgrid, rather than restricting proposals to a predetermined list of eligible facilities.⁵ Develop a collaborative approach to regional energy resilience in defining critical facilities that might need a microgrid,⁶ and include the critical needs of vulnerable populations and critical infrastructure as an Eligibility criterion.⁷

⁵ See Workshop #3 MIP Eligibility, Presentation by the Sierra Club – Eligibility and Reclaim Our Power: Utility Justice Campaign January 11, 2021, letter to the Commission in response to the Track 2 Proposed Decision.

⁶ See Workshop #3 MIP Eligibility, GPI, slide 8. The Energy Resilient Communities Act focuses on infrastructure that is necessary to providing vital community and individual functions, including but not limited to: schools; town halls; public safety facilities; hospitals; health clinics; community centers; community nonprofit facilities providing essential services; libraries; grocery stores; emergency management facilities; water systems; homeless shelters; senior housing; public or affordable housing; food banks; parks and recreation sites; and places of worship.

⁷ MEC recommended requiring projects to include at least one vulnerable population as project beneficiaries (boosting scores of projects that serve multiple vulnerable populations, located in vulnerable areas). See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #3: Eligibility Criteria, Meeting Summarization. MEC presented a scoring framework proposal with a focus on showings of community support reflecting the "critical needs of vulnerable populations most likely to be impacted by grid outages." See Workshop #3 Eligibility Criteria by Sierra Club (on behalf of MEC) – Eligibility.

2. Program Design Implication

The proposed Eligibility requirements described in Stage 2 have been designed in an inclusive manner to address stakeholder input consistent with the CPUC Microgrid OIR Track 2 Decision.

F. Prioritization Scoring Method

1. Stakeholder Input

Develop general scoring criteria with weightings that reflect an assessment of project beneficiaries and benefits to vulnerable communities; locational aspects, including locations in underserved communities and outage reduction benefits; focus on clean energy; and other dimensions.⁸

The system should consider history of multiple past outages (both planned and unplanned) within the scoring criteria, not as an Eligibility requirement,⁹ reflect the need for resilience benefits,¹⁰ consider island mode duration as a scoring criterion, not an Eligibility requirement,¹¹

⁸ Stakeholders discussed scoring criteria proposed by Sierra Club, which included assessment of project beneficiaries, outage reduction benefits and location aspects, and considerations around emergency services and impacted individuals served by proposed microgrid projects, among other dimensions. For further information regarding the detailed scoring criteria, see Workshop #3 Eligibility Criteria by Sierra Club – Scoring and Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #4: Project Evaluation and Selection, Meeting Summarization.

⁹ See Workshop #3 Eligibility Criteria by Sierra Club (on behalf of MEC) – Eligibility, slide 11.

¹⁰ See Workshop #4 Project Evaluation and Selection by stem – A Valuation Methodology for Resilience.

¹¹ Throughout the workshop, there was general agreement that the microgrid should not be required to go 96 hours in duration. Additional discussion suggested duration should be scoring criteria, not an eligibility requirement. See Smart Electric Power Alliance (SEPA) on behalf of the Joint IOUs, Microgrid Incentive Program (MIP) Workshop Meeting #3: Eligibility Criteria, Meeting Summarization. Sierra Club / MEC suggested duration as scoring criteria, not an eligibility requirement. See Workshop #3 Eligibility Criteria by Sierra Club (on behalf of MEC) – Eligibility, slide 11.

and require air emissions that are cleaner than grid power during emergency operations with score boosts for projects with no emissions.¹²

2. Program Design Implication

The prioritization scoring method proposed in Stage 3, incorporates the general framework suggested by stakeholders to identify eligible MIP Applications that provide relatively higher ratepayer value in terms of benefits to requested incentive funding. Note, that prioritization is a means to allocate MIP awards when there are more requests than funding available.

The benefit scoring method is focused on: 1) community served; 2) resilience benefits; 3 environmental benefits and additional benefits. The subcategories and points methodology was adapted from stakeholder input to create an objective, practical approach that could be applied consistently by each Utility that is understandable for Applicants.

¹² During the workshop discussions, Sierra Club proposed requiring air emissions that are cleaner than grid power during emergency operations as an eligibility requirement, with score boosts for projects with no emissions. See Workshop #3 Eligibility Criteria by Sierra Club (on behalf of MEC) – Eligibility, slide 11. Clean Coalition stated a solar and storage Community Microgrid can sustain the most important critical loads throughout the duration of an outage. See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #3: Eligibility Criteria, Meeting Summarization. Sierra Club/MEC noted CPUC Decision language regarding funding for clean energy microgrids, underscored the importance of clean attributes for community support and vulnerable populations, and proposed pollutant emissions as an eligibility requirement. See Workshop #3 Eligibility Criteria by Sierra Club (on behalf of MEC) – Eligibility, slides 3, 6, 7, 8, and 12.

G. Application Process

1. Stakeholder Input

Consider a two-step application process – one for Eligibility and one for scoring.^{13, 14}

Create application windows and extensions for applicants who need more time and support to develop projects.¹⁵

2. Program Design Implications

Stage 2. Consultation and Application is based on such a two-step consultative approach. These sequential steps in Stage 2 provide the foundational opportunity for an Applicant to develop an eligible project that reflects the technical considerations of the electric grid and unique engineering requirements of community microgrids.

The MIP Application intake process in Stage 2 will use open window(s) to submit completed Applications scheduled with consideration of MIP Applicants' needs. Note that the number of application intake windows are subject to available MIP funding for each Utility.

¹³ See Workshop #2 Project Evaluation and Selection by MEC – Program Design & Timing and Workshop #5 Application and Review Process by MEC – Process and Workshop #5 Application and Review Process by GPI - GPI's proposed preapplication process.

¹⁴ GPI recommended a two-step process for program selection, one for eligibility and one for scoring. They also propose projects located in areas subject to specific vulnerabilities should receive higher scoring and that each community should be allowed to make the case that the proposed microgrid is serving their community's critical needs based on a non-exhaustive list of critical needs facilities from CEJA. See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #3: Eligibility Criteria, Meeting Summarization. This position was echoed by MEC during Workshop 2; see Workshop #2 Project Evaluation and Selection by MEC – Program Design & Timing, slide 12. Also, see Microgrid Equity Coalition Proposal for CPUC Microgrid Incentive Program (MIP) Implementation summary notes. At a September 2021 meeting with the Utilities, stakeholders including MEC, Reclaim Our Power, and CEJA reiterated the benefit of a 2-stage application process leading into multiple application windows. This construct would include opportunities for utility collaboration on technical details within a pre-application process to strengthen subsequent applications.

¹⁵ Stakeholders noted the need for flexibility in terms of development timeline given that these projects are complex and it's likely that more time would be needed. See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #2: Program Design, Meeting Summarization, Workshop #2 Project Evaluation and Selection by MEC – Program Design & Timing, and Workshop #3 Eligibility Criteria by Local Government Sustainable Energy Coalition – Workshop 3 – Eligibility Criteria.

H. Project Timeline Requirements

1. Stakeholder Input

Operational Date: The time to develop a Community Microgrid from application development to operational date for these complex projects will exceed the 24 months identified in the CPUC Microgrid OIR Track 2 Decision.^{16, 17}

Construction Period: Allow extensions for MIP Project implementation due to the complexity and inexperience with development of these types of Community Microgrids.

2. Program Design Requirements

Operational Date: The Utilities have proposed in this MIP process to use 24 months as the MIP Project implementation period starting with the execution of the MOA through Island Operation Date (Stage 4).

Construction Period: The MIP Microgrid project development duration of 24 months and includes the potential for mutually agreed extensions up to a maximum overall duration of 36 months.

II. Other Stakeholder Meetings

A. Public Advocates Office

The IOUs met with the Public Advocates Office on August 23, 2021. Parties discussed possible approaches for emissions standards in the MIP. Parties examined Eligibility requirements which would restrict the operation of fossil-fuel based Project Resources during non-islanding events; scorecard metrics reflecting the upstream emissions associated with the fuel(s) utilized during

¹⁶ During the workshop sessions, there was general agreement regarding the need for flexibility in terms of development timeline given that these projects are complex, and therefore more time may be needed, and that the 24-month COD deadline should be changed to the start of the date of award with the possibility of deadline extensions. Sierra Club, GPI, and MEC all agree with this timeline given that these projects are more complex than normal and it's likely that more time would be needed, and that delayed utility schedules for program implementation, application evaluation, interconnection approval or utility construction should not result in the loss of award to successful applicants. See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #2: Program Design, Meeting Summarization and Workshop #2 Project Evaluation and Selection by MEC – Program Design & Timing.

¹⁷ Stakeholders noted the need for flexibility in terms of development timeline given that these projects are complex and it's likely that more time would be needed. See Smart Electric Power Alliance (SEPA) on behalf of the Utilities, Microgrid Incentive Program (MIP) Workshop Meeting #2: Program Design, Meeting Summarization, Workshop #2 Project Evaluation and Selection by MEC – Program Design & Timing, and Workshop #3 Eligibility Criteria by Local Government Sustainable Energy Coalition – Workshop 3 – Eligibility Criteria.

blue sky and island operations; or providing a performance-based incentive for Project Resources meeting the Commission determined criteria.¹⁸

B. Microgrid Equity Coalition

The IOUs met with the Microgrid Equity Coalition on September 16, 2021. Parties supported providing flexible ways to demonstrate community support for a proposed MIP Project, including through letters of support from Local Government(s) and CBOs. Discussion reiterated support for a 2-step application process providing pre-application technical support and multiple intake windows to yield the most complete applications possible. Parties highlighted the potential for funding support for pre-application technical reviews and Eligibility checks to ensure timely application review and scoring.

¹⁸ “Criteria air pollutant and greenhouse gas emissions cannot be worse than the equivalent grid power.” See CPUC Energy Division, Microgrids and Resiliency Staff Concept Paper(July 22, 2020), p. 19.

ATTACHMENT 2

Microgrid Incentive Program Stakeholder Workshop Summaries



Microgrid Incentive Program Workshop Meeting #1: Laying the Foundation Meeting Summary

Date and Time

- July 7, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Objectives and Goals**
 - Identify the overarching objectives established in the Staff Proposal and Track 2 Decision.
- **Guiding Principles**
 - Review Guiding Principles as set forth in the Staff Proposal.
 - These principles should inform and motivate subsequent discussions.
- **Community Benefit**
 - What public good requirements should be placed upon projects?
 - What data regarding project costs, performance, etc. should be required to be made available to the CPUC, the Joint IOUs or the general public?

Background

- On January 21, 2021, the CPUC issued Decision D.21-01-018, which among other items, approved \$200 million statewide for a new Microgrid Incentive Program (MIP) intended to fund clean energy microgrids to support the critical needs of vulnerable populations impacted by a grid outage.
- MIP objectives:
 - Fund clean community microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages
 - Promote environmental justice
 - Need to define what is most important and judge how projects should be scored
 - Deploying microgrids where they deliver the greatest value
 - Prioritize locations with higher proportions of low-income
 - Make sure resiliency is equitable
 - Interest in new proposals needs to be balanced with what has the greatest opportunity of success
- MIP guiding principles:
 - Protect public interest served by existing rules, policies, and regulations
 - Feasible from a technical, financial, and market perspective
 - Avoid shifting costs between ratepayers
 - Align with but avoid duplicating applicable and related CPUC policies
 - Support State of California's goals and policies

Key Points Raised

- Microgrids are one piece to the puzzle about what frontline communities need for resilience
- Effectively engaging communities and targeting the MIP
- Prioritizing vulnerable populations

- Building trust and collaboration between the IOUs and communities
- Engaging and valuing community leaders who carry out informal resource mapping, to better respond to evacuation plans and resourcing needs
- Identifying potential microgrid sites that are trusted facilities within the community
- Maximizing the public good through data collection
- Ownership model of microgrids
- Trade-offs between duration of back-up, how clean the microgrid is, and cost
- Defining the difference between resilience and back-up generation
- Providing technical assistance and application support for vulnerable communities
- Simplifying and visualizing the application process and ensuring approval timeline is appropriate
- Setting up the program to maximize and enable resiliency
- Matching funds and eligibility of incentive funds were raised and will be addressed in upcoming workshops.
- Two-stage application process where the first stage involves utility providing technical support/advice
- Divide incentive dollars between sequential award phases

Participants' Points of View

- *Willdan Group* suggests that the IOUs structure the benefit recipients within the program design, including a definition of what is most important to who. They also suggest the program follows a similar structure to the Small Business Innovation Research (SBIR) model: Phase 0 (Screening and Application Development Support), Phase 1 (Feasibility), Phase 2 (Design and Implementation), and Phase 3 (Commercialization). They suggest that program development, stakeholder engagement, technical assistance, and application development and submission all be solution components eligible to receive funding from MIP.
- *Reclaim our Power (ROP)* stated that microgrids are a piece of the puzzle about what frontline communities need but not the only solution. ROP sees the MIP as an opportunity to collaborate with the IOUs more fruitfully around frontline community needs. ROP also shared the five priorities of the [Utility Justice Campaign Letter](#)
 - Invest in disadvantaged communities
 - Critical facilities should be defined by the public
 - Encourage community development with a new microgrid tariff
 - Clean microgrids not dirty
 - Provide opportunities for community ownership
- *California Foundation for Independent Living Centers* supports the MIP objectives and mentioned that they partnered with PG&E to do a battery back-up program for individuals with disabilities who rely on power.
- *North Bay Organizing Project* provided suggestions to the IOUs to build trust with the communities. This included ongoing outreach to communities and extending engagement beyond microgrids. This also included sharing more information about the MIP with communities and leaders so they are able to engage in the process. They also provided suggestions on how to best identify critical infrastructure within disadvantaged communities, including suggestions to tap formal and informal networks and to get in touch with on-the-ground organizations that have been responding to PSPS events.
- *The Community of Topanga* mentioned that rural and unincorporated areas, like Topanga, need technical assistance and grant support.

- *ROP* believes that the communities should be able to own all of the assets, including the wires, in the microgrid projects in MIP.
- *GRID Alternatives* mentioned the importance of educating participants on the fact that community microgrid ownership is not always best due to expensive maintenance and new technology. Suggested keeping applications simple so small CBO's/Tribe don't have to hire out grant writers.
- *ROP* suggested that the IOUs provide funding for community planning and technical assistance to groups that don't have the grant writers or technical ability to fill out the applications.
- *Sierra Club* stated that if the IOUs provided technical assistance or technical assistance funding during the application process, it would level the playing field for this program by allowing communities and community-based organizations to complete an application for consideration.
- *Morongo Band of Mission Indians* asked the IOUs if they have engaged with California Tribes and mentioned that Tribal Communities are continually left out of these conversations and also have been dealing with power outages. They mentioned that the tribes pay into tariffs but get very little benefit. The IOUs confirmed that if a tribe is served by one of the California IOUs, then they are targeted for this program.
- *Scotts Valley Band of Pomo Indians* agrees with the need for the MIP to assist historically disadvantaged communities in accessing the resources and information unnecessary to participate, particularly Tribal Governments who are dependent upon utility companies but have an obligation to provide services to their members.
- *Willdan Group* believes that target projects should be prioritized by higher pollution levels, less permitting, design and implementation risks and challenges, and opportunities for infrastructure upgrade deferral.
- *Willdan Group* suggests that MIP should assist in funding community resilience assessments, working groups, and energy resilience leads and/or program managers.
- *Enchanted Rock* asked if *ROP* would support microgrid fueled by renewable fuels or low carbon fuels. *ROP* doesn't support any microgrids fueled by renewable fuels or low carbon fuels.
- *Crestline Village Water District* stated that pushing only green microgrids' will prevent the program from getting off of the ground. They suggested that Tier 4 Diesel can still be less impactful to the environment than some solar projects requiring vast space. They believe if the program limits it from the start, adoption and effective use will suffer.
- *Sierra Club* reminded workshop participants that the CPUC Decision does not allow primarily fossil field microgrids and clarified that diesel may be added at extra costs as a back-up resource.
- *Vote Solar* pointed out that with a two-step application process, it will be critical to educate communities on how they can apply and help them understand any constraints that they face.
- *Sierra Club* believes that interconnection studies can be a major barrier to participation. They mentioned that as multi-customer microgrids are a new area, it would make sense for the IOUs to invest in microgrid operating studies as a research/learning opportunity rather than having (final) applicants burdened with this cost.
- *Willdan Group* suggests that resiliency is equitable across all critical infrastructure sectors defined by D.19-05-042, Appendix A, and CISA Critical Infrastructure Sector Definition and Categorization.

Areas of agreement

- There is general concern surrounding the CPUC approval of the 24 month implementation plan timeline. Several participants noted the importance of community consultation in project design and thorough technical considerations, like resource interconnection, when considering the feasibility of the 24 month deadline for COD.
 - *GPI, Vote Solar, SDG&E, ROP, Sierra Club and PG&E* shared their concern and agreed that if the 24 month timeline is determined to be a "fatal flaw", it should be revisited by the CPUC.
- There is general agreement on keeping applications simple so that smaller organizations and communities with less resources can participate.
- There is general agreement that data is essential to the entire program and upfront data for initial projects is critical for projects to get off the ground.
 - *ROP* stated that data on PSPS events could be helpful to see what areas are being prioritized within MIP.
 - *Vote Solar* stated that grid topography is important to identify serious constraints on a portion of the grid.
 - *ROP* stated that mapping from the IOUs could be helpful to see which areas they might be prioritizing and agreed that making data public on PSPS events would be helpful.
 - *Willdan Group* mentioned the need to look at specific communities and cities to ensure what is recommended ensures resilience of all critical infrastructure beyond energy resilience.
 - Other participants who stated agreement on this topic were *North Bay Organizing Project, Community of Topanga, PG&E, and Sierra Club*.
- There is general agreement that trust between the utilities and communities is important for the MIP.
 - *California Institute for Energy & Environment, UC Berkeley* stated the importance of employing strategies for increasing trust to get participation of communities most in need.
 - *ROP* mentioned that the ways to improve trust in communities is about relationships.
- There is general agreement that vulnerable populations should be a key focus of this program and should be prioritized.
 - Participants who stated agreement on this topic were *ROP, North Bay Organizing Project, and Willdan Group*.
- Multiple stakeholders agree on creating phases around how the grants are allocated so that all \$200 million are not distributed before frontline communities have the opportunity to submit a proposal.
 - *ROP and Microgrid Equity Coalition* suggested that the application process include phases and windows, as well as offer funding assistance for technical and application support. They suggest the application process be divided up into four different phases and to sequence the funds by time.
 - Several other participants agreed with the view that the application process should have phases so that all of the \$200M in grants aren't given out early before some organizations have the opportunity to apply.

Open Items to Address

- Matching funds
 - PG&E's CMEP cost offsets cover the costs of utility infrastructure (cyber and physical) and upgrades associated with the islanding feature of the microgrid. These cost offsets are funded through charges to all of PG&E's ratepayers. Similarly, SDGE and SCE will provide matching funds to offset the portion of utility infrastructure upgrade costs associated with the islanding feature of the microgrid. One-time matching funds are intended to reimburse microgrid customers for necessary utility distribution upgrades to enable islanding to occur (e.g., costs that may be charged to customers pursuant to Rule 2). The amount of matching funds to be provided by SDG&E and SCE is still TBD.
 - *The City of San Diego* asked if it was true that funding incentives for the SDG&E territory are exhausted. The IOUs mentioned that no incentives have been dispersed at this time given that the program has not been filed or approved yet by the Commission.
 - *Lorenzo Kristov* asked if the availability of CMEP funds to support MIP projects in the PG&E service area mean that the MIP projects will have to comply with all elements of the CMEP. PG&E's objective is to find a way where CMEP can be a compliment to the MIP program. The details regarding how the two programs will complement each other will likely be addressed in one of the future workshops.
- Eligible costs for incentive funds
 - *The Climate Center* asked if community costs for developing a proposal were eligible for incentive funds. What is or isn't eligible for incentive funds is still TBD.
 - *Siemens* asked if the incentive intended to cover the cost of a microgrid in its entirety, or are customers expected to cover a portion? (e.g. % of project cost). This will be addressed in Workshop #2.
- Ownership model of microgrids
 - *Local Clean Energy Alliance* asked about the ownership model of microgrids.
 - *ROP* stated preference of community ownership of microgrids and are not aware of what parts they can own vs. the IOUs.
 - *GRID Alternatives* shared their experience partnering on microgrid projects in tribal lands with the IOUs and stated that community microgrid ownership is not always best due to expensive maintenance and new technology.
 - The more information that is understood about the microgrid business model the better they can provide programs, tariffs, and rates that efficiently support the proliferation of microgrids.
 - The IOUs provided examples in PG&E and SDG&E service territory where the utilities have a partnership model where a customer owns the assets during blue-sky mode and the IOUs operate the microgrid, and control or direct the operation of balancing resources, during islanding mode.
 - This will be addressed in Workshop #5
- Focus on vulnerable populations
 - There was general agreement that prioritizing vulnerable populations is key, but the level of this focus is still TBD.
- Access to data
 - There was participant discussion around the requirements of data sharing for public good to reduce future microgrid costs and make it more accessible to

- other communities in the future. Sharing data from successful and unsuccessful projects will help improve things going forward.
- *Vote Solar* asked about data on grid topography.
 - *ROP* mentioned that their microgrid cohort group has started to map trusted facilities in Environmental Justice communities in Northern California that are good examples for project candidates: youth centers, affordable housing buildings, community health clinics, food banks, local schools, and community markets and farms. *ROP* mentioned that some communities don't trust police stations, government buildings that people have negative experiences in, or large entities that don't have community relationships.
 - This will be addressed further in Workshop #2 and 5.
 - Program application process
 - Several participants voiced concern about the 24 month approval process, which will be addressed in Workshop #5
 - *GPI* asked when the pre-application process will be discussed, which will occur during Workshop #5.
 - Program timing
 - *ROP* suggested that there be a phased approach to the program timing, which will be addressed in Workshop #2.
 - Interconnection studies
 - *AESC, Inc.* asked how interconnection studies under MIP will be accounted for and funded.
 - *Sierra Club* suggested that NEM flat rate interconnection fees should be applicable in MIP.
 - The terms of the MIP related to interconnection studies will be addressed in upcoming workshops.
 - Outside of MIP scope
 - *Reimagine Power* reiterated that genuine relationships and community capacity is very important to a successful MIP. However, they asked if *ROP* believes that the MIP is the best way to meet their resilience needs or if a more widely available program for communities/public agencies would better serve their needs.
 - *Morongo Band of Mission Indians* asked what other clean energies are there besides solar, wind and water. They mentioned that solar, wind, and water deplete important resources such as wildlife, plants, and water.

References

- [Track II Staff Proposal Workshop](#) - Staff Proposal #4 on Developing a Microgrid Pilot Program (Slide 44)
- [ROP Letter RE: Frontline Community Priorities for Proposed Decision on Track 2 of the Commercialization of Microgrids \(SB 1339\)](#)
- [Decision 21-01-018](#)



Microgrid Incentive Program Workshop Meeting #2: Program Design Meeting Summary

Date and Time

- July 14, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Program Structure**
 - What distributed energy resource (DER) ownership/contracting models are appropriate for the MIP?
 - How do the Joint Investor-Owned Utilities (IOUs) best, and most cost-effectively, incentivize microgrids that are aligned with the program objectives?
 - What should the incentive dollars pay for?
 - Should a project have to be cost-effective to be funded? How are incentives to be calculated?
 - What form should the incentive take (e.g., upfront grant or loan, ongoing power purchasing agreement (PPA), etc.)?
- **Program Timing**
 - Should there be an opportunity window like other grant programs, where applications must be transmitted by a deadline, or should it be a rolling application period until the funding is exhausted?
 - When and how should program funding be dispersed?

Program Guiding Considerations

- Each element of the MIP structure is tied to a guiding principle.
- Microgrid project funding is capped at \$15 million per project – this does not necessarily mean projects will be awarded the full amount. The overall MIP program cost is capped at \$200 million across the three IOUs.
- Project must satisfy cost-effectiveness criterion
- Incentive funding will be rate-recoverable from all distribution customers, but projects can seek other sources of local funding to help increase cost-effectiveness.
- Line items/technology that are subject to existing incentive programs are not eligible for compensation in the MIP.
- Single-customer projects are not eligible
- Utility infrastructure costs are outside of scope for the incentive program. However, SCE and SDG&E will provide access to a one-time matching funds payment to offset some portion of the utility infrastructure upgrade costs associated with implementing the islanding function of the microgrid.

Key Points Raised

- Simplifying the application process
- Prioritizing and recognizing a higher value for impacts on, and the services provided to, environmental and social justice (ESJ) communities
- Aligning the project deadline with the date the project was awarded
- Providing IOU technical support for application development

- Clarifying intended use of MIP funding towards microgrids that include behind-the-meter (BTM) and in-front-of-the-meter (FTM) resources.
- Understanding and differentiating the Self Generation Incentive Program (SGIP) vs. MIP.
- Identifying all factors for MIP scoring and selection criteria.
- Utility visibility into project revenue.
- Applicant visibility into grid needs (e.g., maps)
- Providing extensions to the 24 months to project on-line timeline

Participants' Points of View

- General
 - *Sierra Club* believes that multi-customer microgrids would generally include all contiguous customers on a circuit but doesn't need to include all customers.
 - *Disability Action Center (DAC) and Northern Valley Housing Trust (NVHT)* provided the following general input for the IOUs to consider for program design for disadvantaged communities:
 - Some tribes will show higher incomes and have access to federal and state funding; others may have commercial operations but much less income for individual members.
 - Energy independence is a high priority and energy costs are a huge burden
 - Incentive programs should accommodate smaller scale builds.
 - Longer term funding mechanisms are helpful because fundraising is steady; however, difficult to do all at once upfront
 - *Asian Pacific Environmental Network (APEN)* proposes the following resilience services as potential microgrids: WiFi, phone charging stations, water/food, personal protection equipment, supportive staff, and outdoor and indoor activities.
 - *Clean Coalition* suggests that a map of prior public safety power shutoff (PSPS) events to identify potential projects does not guarantee reduced ratepayer costs by serving as a substitute for replacing traditional infrastructure and proposes more data be available for applicants.
 - *The Community of Topanga* suggests that the IOUs aid applicants in coordinating MIP incentives with SGIP incentives.
- Scoring Criteria
 - *California Public Advocates Office* believes that evaluating the cost-effectiveness of microgrid project can best be done through a scorecard system and by using geographic data to assist in determining where to best target the incentive money; Ideal projects will meet several criteria.
 - *Trane Technologies* supports the development of a scoring criteria to help allow the best projects to float to the top. They believe that an emphasis should be on an equitable scoring system.
 - *The Energy Coalition* believes that the MIP program should adopt a commonly accepted definition of critical facilities.
 - *Trane Technologies* suggests that the IOUs should start with the specific listing of critical facilities in the SGIP proceeding.
 - *Crestline Village Water District* agrees that critical facilities and fire threats are important factors but believes that there are more factors to base scoring upon, such as solar potential, terrain limitations, and wind/hydro potential.

- *The Community of Topanga* believes there should be a final human review panel after scoring is complete, noting the challenges of developing a one size fits all scorecard.
- *Green Power Institute (GPI)* suggests that the IOUs develop a scorecard metric that bases contributions on a project's benefits. They believe that using "need-based" funding as a secondary layer of incentive determination is impossible due to privacy concerns on the side of the developer and the unavailability of data ahead of time.
- *Microgrid Equity Coalition (MEC)* recommends that project scoring be the primary basis for calculating funding and plans to propose a detailed scoring criteria that is calculated relative to the number of persons served multiplied by the scoring bonus applied to each type of service and the percentage of higher need population. *MEC* also recommends project scoring be used to award incentive funds for application development.
- *Sierra Club* believes the MIP program should be state funded to help subsidize distribution customers, not ratepayer funded.
- *GRID Alternatives* suggests that the IOUs incorporate the Societal Cost Test (SCT) results to help determine which potential microgrids would provide the most benefit to Environmental and Social Justice (ESJ) communities. They also believe that application of strict cost-causation principles can create inequity.
- Project Revenue
 - *GPI* believes the IOUs should not have access to project revenue and other private financial viability data, stating the challenges around projecting revenue ahead of time for generation and storage as their reason.
 - *AESC, Inc.* suggested that future revenues should not be included in the calculation of the incentive amount. *AESC* believes the incentive amount should be focused primarily on offsetting installation costs.
 - *GPI* suggests that the MIP program should be more similar to SGIP; i.e., using a \$/kWh incentive to provide certainty.
- Program Structure
 - *DAC and NVHT* propose the IOUs include the following in the MIP program:
 - Dedicated technical and administrative assistance for those areas who request it
 - Must partner with housing developments
 - Having a MIP Outreach Czar could supplement the outreach that is done to communities with limited resources
 - *California Public Advocate's Office* believes that MIP should focus on microgrids that have renewable generation sources, serve vulnerable communities, power critical facilities, include multi-properties and customers, and are capable of long-duration islanding.
 - *California Public Advocate's Office* believes that incentive disbursement amounts should primarily rely on the scorecard metrics that prioritize microgrids that power one or more critical facilities that provide services, microgrids that serve communities in high-fire threat districts, and microgrids that utilize renewable generation resources. They also state that critical facilities could be scored higher than others depending on importance.
 - *MEC* recommends that projects that serve frontline communities and populations be prioritized. Within those high-scoring projects, cost-effectiveness could be a

secondary criterion that selects the most cost-efficient projects. IOUs should make information readily available that helps identify high value opportunities and to maximize benefits relative to costs.

- *MEC* recommends that the eligible incentive dollars used for grid upgrades should be covered by the utilities. Incentive dollars should go to microgrid facilities and equipment, and to support effective applications: as needed to support target goals and weighted by project score.
- *MEC* recommends that the incentives should take the following forms:
 - Upfront grants that may be disbursed as incremental project milestones are reached in order to ease up front funding burdens and carrying costs.
 - Power Purchase Agreements (PPAs) with bonus rates draw interest and support from developers and provide an ongoing source of revenue at a set rate for a set term.
 - The bonus rate would be on top of available market value to support projects that scored high in the scorecard. MIP funding incentives should be applied only where needed.
- Program Timing
 - *DAC and NVHT* provide the following recommendations around program timing for the IOUs to consider:
 - Flexible requirements for tribal entities
 - Window of time that matching funds are available for draw-down, so that fundraising can be ongoing instead of all upfront
 - *MEC* proposes that IOUs should use administrative funding early to provide information and limited financial support for pre-application and application development. *MEC* also proposes that California Energy Commission (CEC) disadvantaged communities (DAC) Advisory Group review recommended awards before incentive funds are released. Grants should be disbursed as incremental project milestones are reached. Final funds are released when development has completed operational and safety inspections, even if commercial operation date (COD) is delayed by incomplete utility construction.
- Utility involvement with communities
 - *The Local Clean Energy Alliance (LCEA)* proposes that the IOUs can support in maintaining the equipment and providing technical support for community-owned microgrids. They also believe that the IOUs should not be incentivized to provide this support.
 - *The Energy Coalition* suggests the IOUs develop prototype design schematics that can be made available for reference to understand what is counted as an eligible project.
 - *Senator Henry Stern's Office* asked if IOUs could use incentive funds to either directly develop an application with a community or to identify a suitable partner that would be able to develop that application at no cost to the community.

Areas of agreement

- There is general agreement and understanding that matching funds from the IOUs will be utilized to offset the distribution infrastructure upgrade costs.
- There is general agreement that microgrids may host a mix of BTM and FTM resources. MIP funding should be focused on FTM resources that are providing a resiliency benefit, administration, microgrid controller costs, etc.

- There is general agreement that in order to construct an islandable microgrid that serves multiple separate customers, all of the customers will need to be on the same utility distribution circuit or sub-circuit and would not require customers to have stand-alone energy systems installed at their individual sites.
- Several participants agreed that it would be realistic for a community to partner with their local IOU to develop an application to MIP with minimal third-party project planning involvement.
 - *Senator Henry Stern's Office* suggested that the communities leverage the utility's experience.
- There is general agreement that the 24-month COD deadline should be changed to the start of the date of award with the possibility of deadline extensions.
 - *Sierra Club, GPI, and MEC* all agree with this timeline given that these projects are more complex than normal and it's likely that more time would be needed.
 - *Sierra Club, GPI, and MEC* also believe that delayed utility schedules for program implementation, application evaluation, interconnection approval or utility construction should not result in the loss of award to successful applicants.
- There is general agreement that the MIP should support provision of critical services from public and private entities as determined by the communities.
- There is general agreement that weighing microgrids that service multiple critical facilities vs. one would need to be made on a project specific basis.
 - *Trane Technologies, DAC, and California Public Advocate's Office* all agree that this should be the first layer of criteria to be considered for development.
 - *DAC* notes that it is important to consider how the weighing of microgrids affects sparse communities.
- There is general agreement that a scoring criterion needs to account for multiple factors that help projects and provide the most value to be considered. *MEC, Sierra Club, and Trane Technologies* supported this suggestion.
- There is general agreement from *APEN, Community of Topanga, and Sierra Club* for the IOUs to have transparent processes and communication to ensure everybody understands the landscape of incentive programs and grants that can be leveraged. They agree that the MIP timeline should allow enough time for applicants to incorporate community input.
- There is general agreement that partnerships are critical to fill in the gaps where services aren't keeping pace for rural unincorporated areas with little or no leadership. *DAC, NVHT, and Community for Topanga* supported this suggestion.
- Communities have a foundational argument that there are communities that have no agency, no influence over capital investments, disadvantaged by societal structures and impacted by environmental justice (EJ) issues. The IOUs agree that these arguments are valid at their roots.

Open Items to Address

- Application process
 - *Senator Henry Stern's Office* asked if there was information on what kind of project planning is available from the IOUs to support community applications.
 - *The Community of Topanga* proposed that there should be different types of applications with different requirements and funding to allow for disadvantaged communities to take advantage of the program.

- *GPI and Sierra Club* agree that there should be a two-step application process with a pre-application that requires a low burden of basic information necessary to identify likely high value projects.
- *Local Government Sustainable Energy Coalition (LGSEC)* asked what happens if all of the dollars aren't allocated in time due to the tight time frame.
- This will be addressed in future workshops.
- Scoring criteria
 - *LO3 Energy* asked if scores were expected to be static or dynamic.
 - *Sierra Club* suggested that scoring be done upfront based on project design.
 - *MEC* will be presenting a proposed scoring criterion in future workshops.
 - Scoring criteria will be addressed in future workshops.
- Microgrid ownership and operation
 - *The Local Clean Energy Alliance (LCEA)* stated that communities need to own the generation, storage, and wires assets of the microgrids in order to sell the energy and get a good price. The reasons for full ownership would be to island their communities and to provide energy and cost savings.
 - *Trane Technologies* believes that the program should allow resources to operate as automated demand response (DR) resources and participate in CAISO to provide added revenues to projects.
 - Regarding appropriate DER ownership and contracting models, *MEC* recommends that DER ownership models should be allowed if they are supported by the communities served, but community ownership, rather than utility ownership, is most encouraged. *MEC* states that there are some models where it might be appropriate for utility operation, when the project sponsors agree.
 - *The Climate Center* and *GPI* believe that community ownership of grid and related assets could also be a career pathway creator for community-based organizations (CBOs) and their residents. They believe CBOs are better positioned to lend technical support than the IOUs.
 - Microgrid ownership and operation will be addressed in future workshops.

Outside of Scope

- Several participants asked about the applicability of MIP for BTM or single facility microgrids. The IOUs clarified that the goal of MIP is meant for multi-customer microgrids and to be separate from net energy metering (NEM), SGIP, virtual net energy metering (VNEM) and other incentive programs in the state. Single customers are typically defined at the meter and the spirit of the California Public Utilities Commission (CPUC) decision is that MIP shouldn't be providing dollars to resources that are already getting resources through other established utility programs.

References

- [SGIP Program Information](#) - BTM incentive program
- [California Net Energy Metering](#) - BTM incentive program
- [Microgrid Incentive Program Workshops Page](#) - Multi-customer microgrid
- Community Solar information
 - [PG&E](#)
 - [SCE](#)



- [SDG&E](#)
- New OIR to [Modernize the Electric Grid For a High Distributed Energy Resources Future](#)



Microgrid Incentive Program Workshop Meeting #3: Eligibility Criteria Meeting Summary

Date and Time

- July 21, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Eligibility Criteria**
 - What types of projects and communities should be eligible to participate?
 - What are the requirements to become a “sponsor” of a project, and how will community support/buy-in be demonstrated?
 - What technical criteria are appropriate?
 - How should viable projects be identified?
 - How do we strike a balance between leveraging communities with the resources and funding to build microgrids, while ensuring that disadvantaged communities have a fair opportunity?
- **Community Engagement**
 - How should the utility share information about where the resiliency needs presently exist, which areas in California are most prone to outages, what grid projects are already planned in those areas (if any), and where investments in microgrids could be advantageous?
 - What role does the utility play?

Key Points Raised

- Leveraging IOU expertise and create greater dialogue between utilities and local governments/tribes
- Balancing criteria to ensure that programs provide the most values to communities
- Balancing resilience with equity for eligibility and scoring criteria
- Balancing resilience with cost-effectiveness with air pollution criteria
- Expanding the definition of eligible critical facilities to include facilities that are trusted
- Considering equity as a scoring criteria versus a carve-out
- Considering duration as a scoring criteria versus an eligibility criteria
- Finding projects that benefit underserved communities within non-low-income communities
- Avoiding ratepayers funding projects that claim to benefit low-income households but are unable to substantiate the claim
- Sharing information on planned and unplanned PSPS vs. outage events
- Developing full partnerships between IOUs and community-based organizations
- Offering program timing extensions/flexibility
- Involving local governments, communities and tribal organizations in the formal process that are best suited to identify their critical energy resilience needs
- Differentiating between behind-the-meter (BTM) microgrid resources and front-of-the-meter (FTM) resources that are included in a multi-customer microgrid
 - From D.21-01-018. Findings of Fact 27: “Any new incentives provided to generation or storage resources that are included in a clean energy microgrid

incentive program should be limited to resources in front of customers' meters to avoid redundancy with existing behind-the-meter generation programs."

- Linking microgrid funding to local government and tribal resilience plans
- Ability for microgrid resources to be aggregated and participate in wholesale markets per CAISO rules

Participants' Points of View

- Eligibility criteria
 - General
 - The IOUs confirmed *AESC and Willdan Group's* question whether or not MIP funds will be eligible for controls equipment and automatic transfer switches that allow microgrids to island.
 - Vulnerable Communities/Critical Facilities
 - *California Environmental Justice Alliance (CEJA)* proposed a broader "critical infrastructure" definition that includes more of those types of stakeholders with closer community ties like grocery stores and markets; especially since the U.S. Department of Homeland Security (DHS) definition at the core of the California Public Utilities Commission's (CPUC) "critical facilities" definition already includes refineries and chemical manufacturers
 - *The Microgrid Equity Coalition (MEC)* proposes a set of scoring criteria that favors projects that serve underserved communities. For many criteria, they propose score multipliers rather than eligibility requirements. Set eligibility requirements as narrowly as possible and set the competing priorities to be figured out for scoring.
 - *MEC* recommends requiring projects to include at least one vulnerable population as project beneficiaries (boosting scores of projects that serve multiple vulnerable populations, located in vulnerable areas). *MEC* recommends using "80-15-50" for low-income communities because there is an existing dataset.
 - *GPI* suggests that there be a 25% carve out exclusively reserved for communities that meet the DAC criteria as defined by the *CalEnviroScreen 3.0* tool. *Sierra Club*, *Communities for a Better Environment (CBE)* and *CEJA* are hesitant, stating the carve-out as a barrier.
 - *CBE* suggests that there are resources for lower income communities to take advantage of the MIP.
 - *ILRC-Trico* suggests including specific language for people with disabilities access and functional needs
 - *CEJA* suggests consulting with the DAC Advisory Group
 - *CEJA* suggests funded community-based organization (CBO) engagement
 - *Sierra Club* suggests that the DAC-AG should see the list of MIP project applications and selected projects, with the opportunity to ask questions and make recommendations before the final selections are made.
 - *Synergistic Solutions* suggests using policy to incentivize industry to decarbonize and provide community resilience benefits.

- *GPI* recommends a two-step process for program selection, one for eligibility and one for scoring. They also propose projects located in areas subject to specific vulnerabilities should receive higher scoring and that each community should be allowed to make the case that the proposed microgrid is serving their community's critical needs based on a non-exhaustive list of critical needs facilities from *CEJA*.
- *The Local Government Sustainable Energy Coalition and the City of Santa Barbara (LGSEC/City of Santa Barbara)* propose a collaborative approach to regional energy resilience in defining critical facilities that might need a microgrid. The first step is getting on the same page about resilience and the definition of a critical facility. *LGSEC/City of Santa Barbara* also want MIP resources to reduce energy rates for the communities they are built in.
- *Trane Technologies* asks how the IOUs are matching funds for resources added onto the grid that limit the carrying capacity of the distribution grid. The IOUs state they have flexibility around the one-time matching funds to enable microgrid function to occur. If there is an instance where customers in a microgrid need to be served but upgrades need to be made then the utilities may make those upgrades.
- *Trane Technologies and MEC* acknowledge that the SGIP Equity Resilience criteria isn't a perfect overlay with high fire threat districts but the score boost for census tracts that have a high score in the CensusTract screen support districts with a high PSPS.
- Enhanced Resilience
 - *MEC* proposes projects need to show at least one type of emergency service (qualitative consideration) to be eligible.
 - *MEC* says the focus of the MIP is resiliency and islanding, and there shouldn't be a score boost for ramping and flexibility.
 - *STEM and the IOUs* believe microgrids can work as a virtual power plant to participate in CAISO and to save money for a variety of different consumers.
 - *Rural County Representatives of California* state that critical facilities evolve over time and should consider the reallocation of energy supply as an outage becomes more extended.
- Pollutant Emissions
 - *Sierra Club* proposes requiring air emissions that are cleaner than grid power during emergency operations with score boosts for projects with no emissions.
 - *Clean Coalition* states a solar+storage Community Microgrid can sustain the most important critical loads throughout the duration of an outage.
- Community engagement
 - General
 - *LGSEC/City of Santa Barbara* propose a waiver for 24-month operating requirements to be requested from the CPUC as needed and/or triggered by award date as proposed by *MEC*.
 - *CBE* proposes continuous evaluation & evolution
 - Targeting Communities
 - *LGSEC/City of Santa Barbara* proposes the following recommendations:

- Preference should be given to microgrids that replace the use of fossil fueled backup generators
- Local governments/Tribes should serve on the selection review panel and should not be considered a “single customer”, especially given their multiple accounts and departments.
- MIP should include diversity of communities and ownership models with coordination with community choice aggregators (CCAs) given the cross-cutting benefits for CCAs, IOUs, and local governments.
- MIP funding should be considered for providing local governments, Tribal organizations, and disadvantaged communities (DACs) to support pre-application grants for capacity building and resiliency planning.
- *NorCal Resilience* suggests that the program should focus on building a regional collaborative by working with community leaders and organizations and focusing on buildings and the spaces in the neighborhoods. They also recommend MIP should prioritize sites in frontline communities and focus on sites beyond energy resilience.
- *NorCal Resilience* suggest participants of MIP and the IOUs survey CBOs and local governments to identify benefits and potential critical services served by microgrids.
- *CBE* recommends that the MIP should tap into existing networks and connect with leaders on their vision for their communities and how microgrids fit in.
- *STEM* believes that we need to come up with a better understanding of the amount of capacity that needs to be built
- *Sierra Club* wants to ensure that ratepayers aren't funding projects that claim to benefit low-income households but can't substantiate that claim
- Working with the utility
 - *NorCal Resilience* suggests that the IOUs attend the community events to build the relationship. They haven't yet engaged with the IOUs, but would like to engage the utilities more directly as they build out their resilience hubs.
 - *The Community of Topanga and LGSEC/City of Santa Barbara* acknowledge the IOUs as a resource to provide comprehensive, flexible, and technical support related to the MIP program.
 - *NorCal Resilience Network* hasn't engaged with the local utility yet but would like to engage the utilities more directly.
 - *CBE* proposes incorporating IOU expertise.

Areas of agreement

- Several participants agreed that vehicle-to-grid (VGI) assets within microgrids should be included as microgrid options and eligible for funding.
- There is general agreement that the communities most disadvantaged by historical and existing social, economic, environmental, and zoning policy should be prioritized in the allocation and implementation of resilience resources.
- Several parties agreed with *MEC* that critical community services should be prioritized and that it should not be required for projects to be located at critical facilities.

- Several parties agreed that the definition of eligible facilities reflect the need for facilities that are trusted, particularly the proposed definitions by *CEJA*.
- There is general agreement around *MEC*'s proposal that the history of multiple past outages (both planned and unplanned) be made available as a scoring criterion, not an eligibility requirement (boost the score for projects that would improve reliability)
- Several participants agreed with *STEM*'s general approach to consider standardized resilience services level that can support the quantification of resilience benefits, backup loads, and usage durations (beyond monetary impacts) with fixed scores showing the immediate financial impact of an outage and variable scores showing the ongoing cost of an outage per minute/per hour.
- Several parties agreed with *LGSEC*'s proposal to have a Chief Resilience Officer to coordinate between SGIP and MIP.
- There is general agreement that the microgrid should not be required to go 96 hours in duration, and duration should be a scoring criterion, not an eligibility requirement.
- There is general consensus that combining funding is an extra step for CBOs.
- Several participants agreed that IOUs should provide technical assistance through community-based organizations.

Open Items to Address

- Case by case questions regarding project eligibility
 - IOUs are still determining specific eligibility requirements for the program. Each project will require utility involvement to evaluate the electric configuration and customers included within the microgrid.
- Data availability on historical outages and grid performance
 - Several participants are curious as to where grid outage data can be found and note how outage data can support the 96-hour criteria metric. Ability to provide more accessible data sources will be addressed at future workshops.
- How to handle microgrid islanded operations on critical circuits
 - *Synergistic Solutions* asked if a microgrid's islanded operations involved limiting site load to critical circuits such that the microgrid could operate indefinitely, would the load reduction be considered a demand response element.
 - IOUs will investigate how demand response could function with a grid outage even resulting in microgrid needs.
- Application review process
 - *GPI* introduced a two-step application process which will be discussed at future workshops.
- Project prioritization and scoring criteria
 - *STEM* and *GPI* introduced scoring criteria which will be discussed at future workshops.
- Project eligibility
 - *LGSEC/City of Santa Barbara* asks if CCA customers are eligible to apply for MIP funds.



Outside of Scope

- *Sierra Club* shares information about The Climate Center: SB 99, the Community Energy Resilience Act, which would create a new CEC program to support local governments in creating community energy resilience plans, prioritizing frontline communities
- BTM resources
 - Many participants (*Sierra Club, STEM, Community of Topanga, ROP, NorCal Resilience Network, CBE, CEJA, The Climate Center*) believe BTM resources should be reconsidered in the proposal for funding. *Trane Technologies* adds that when designing the needs of a community, some assets might be BTM to deliver the needs of the community.
 - *Synergistic Solutions* agrees that some BTM microgrids could participate as a dispatchable resource, but BTM resilience at some locations may be required to reduce upgrade costs.
 - *GPI* says it would be best to think of BTM microgrids and FOM microgrids as separate projects given that they're different animals from an economic and project development perspective.

References

- [STEM White Paper](#)
- Examples of VGI capability within microgrid designs
 - [Torrance School Bus Project](#)
 - [Ford-F150 Lightning VGI](#)
- Annual reliability reports for IOUs
 - [Pacific Gas & Electric](#)
 - [San Diego Gas & Electric](#)
 - [Southern California Edison](#)
- [SB99; SB 99, the Community Energy Resilience Act](#)



Microgrid Incentive Program Workshop Meeting #4: Project Evaluation and Selection Meeting Summary

Date and Time

- July 28, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Project Cost-Effectiveness**
 - How do we determine cost-effectiveness?
 - How should cost-effectiveness be scored?
 - How should match funding factor into cost effectiveness calculations?
- **Project Prioritization Criteria and Scoring Methodology**
 - Which of the eligibility criteria should also serve as prioritization criteria?
 - Are there additional attributes that should be considered for prioritization?
 - How should projects be scored?
 - Who should perform the scoring?
 - How should results be validated?

Program Background Overview

- *IOUs* provided an overview on utility incentive programs for BTM resources (NEM and SGIP), highlighting that the incentive program for FOM resources is intended to address funding gaps.
- *Sierra Club* argues that MIP addresses a funding gap for vulnerable communities where both types of BTM and FOM resources are needed on the grid.
- *MEC* states that the purpose is to create multi customer microgrids and make them most effective for communities and use the funding for the greatest good. *MEC* wants to incorporate a range of different resources that would be useful for the future. Funding should include BTM and FOM resources.
- *GPI* counters *MEC* and states that existing incentives for BTM are significant, decision is clear that the MIP is for FOM.
- *The Climate Center* suggests that participants of MIP design the microgrid to meet the community needs in the most cost-effective manner, then use MIP to fund whatever funding gaps the community has to fill. The more arbitrary constraints you add (e.g., FOM only) the more you reduce cost-effectiveness.
- *IOUs* note that BTM resources may be included in a microgrid proposal; however, incentive funds should not be used to pay for BTM resources. The most financially beneficial arrangement for a customer's BTM facility is to interconnect under NEM. *IOUs* state they disagree that the restriction against paying for BTM resources is a fatal flaw in the program; we shouldn't be relitigating Commission decisions. In general, a BTM community microgrid will be complicated to design, build, and operate. Reality is that if only BTM resources are used, communities are unlikely to have all of the tools necessary to design, build, and operate.
- *MEC* argues MIP funding and ratepayer cost can be much higher using FOM resources to create a microgrid. Does it make sense for MIP funding to be focused on a higher cost FOM project when it could focus on lower cost BTM resources? *MEC* also states

that if BTM resources provide microgrid services during islanded operation, ratepayer gap funding is actually a payment for services, not a subsidy to BTM DER owner, and no different than funding private FOM resources.

- *GPI* agrees with *The Climate Center* that there is an un-verified assumption that the existing programs like NEM and SGIP are sufficient to level the playing field for DACs compared to more affluent communities that have ample BTM resources to support the microgrids.
- *Reclaim our Power* agrees with Sierra Club's assertion that many communities face an additional hurdle in navigating the financials of wholesale participation in a FOM microgrid. In order to reach disadvantaged communities, the program should target those communities without any FOM resources
- *Sierra Club* agrees with *AESC*'s assertion that as of now, SGIP funds for BTM resources may not be available in significant amounts after this year, so adding BTM to the MIP would not be duplicative funding.

Key Points Raised

- Cost-effectiveness should be defined as Benefits divided by Ratepayer Costs
- Scoring prioritization factors
- General scoring methodology with weighting
- MIP focuses on closing gaps to make a project happen
- Project cost-effectiveness versus ratepayer cost-effectiveness
- MIP costs versus MIP targeted benefits
- MIP costs versus ratepayer benefits
- Owner costs versus owner benefits
- Financial benefits of existing utility programs for BTM resources
- Carve-outs versus favorable scoring for vulnerable and disadvantaged communities

Participants' Points of View

- **General**
 - *Powerflex* asks if the decision requires applicants and customers to be municipal customers. PG&E replies that the MIP is largely directed towards disadvantaged communities, not just municipal customers. No specific set of customers is in or out of scope.
 - *Community of Topanga* states that the potential coordination between SGIP and MIP is daunting
 - *CBE/CEJA* applauds *Trane*'s microgrid project examples and how they cover so many critical facilities that otherwise wouldn't meet the DHS "critical facility" definition and demonstrate community scale solar + storage microgrid projects that have been shot down as prohibitively expensive in other contexts.
- **Scoring Methodology (categories within this document are organized by the criteria proposed by MEC)**
 - Project Beneficiaries
 - *MEC* suggests weighting this criterion 30%
 - *CBE/CEJA* states that there is little overlap between DAC and areas of grid outage due to HFTD and PSPS in IOU service territories

- *CBE/CEJA* adds that “Disadvantaged” generally means the top 25% of census tracts in CalEnviroScreen, plus tribal lands. “Vulnerable” indicates those communities that have less adaptive capacity to respond to climate related weather events. Communities that are BOTH “vulnerable” AND “disadvantaged” should be most prioritized and be scored separately
- *CBE/CEJA* also states that a foundational component of a “resilience hub” is physical, emotional, and political safety
- *CBE/CEJA* mentions federal government is dedicating 40% of climate and clean energy investments to disadvantaged communities so that should be a minimum percentage for the MIP.
- *Trane* Suggests using the inverse of MIP cost to total cost as a multiplier to score and leverage for public/private partnerships.
- Regarding the potential overlap between project beneficiaries and project location categories, *MEC* responds that the two separate categories are meant to capture the difference between (i) people that benefit from a microgrid, and (ii) people who are physically located within the electric perimeter of the microgrid. If a project serves a disadvantaged community and is located within a disadvantaged community area, it should receive more favorable scoring.
- *MEC* adds that their scoring is intended to associate outage reduction benefits with the right beneficiaries and locations.
- Project Location
 - *MEC* suggests weighting this criterion 30%
 - *MEC*’s scoring proposal aims to show relative value of emergency services and how many individuals could be served. The application should require the applicant to state how many people could be provided each service during islanding mode, and then apply a multiplier value (2.5x) to show person-services. *MEC* adds the importance of evenly comparing large and small proposals.
 - *UCLA* suggests incorporating parcel attributes, infrastructure corridors, rooftop and parking lot surface models, CalEnviroScreen scores, local housing characteristics, annual residential electricity consumption and 15% distribution resource penetrations to look at distribution grid constraints when placing a microgrid.
 - *CBE/CEJA* states that trust is critical for a community and the critical facilities list based off a definition from the Department of Homeland Security should be referenced
 - *ILRC-Trico* suggest MIP include Food Banks and/or Meals on Wheels in these microgrid considerations.
 - *MEC* suggests that the regional boundaries or a project would be set by looking at how many people a facility can serve at once and how they value the service.
 - *MEC* states that their proposed threshold is set at projects that have experienced three or more outages lasting more than two hours because this seems like a reasonable starting point for which areas are subject to more frequent outages

- MEC explains that the multipliers for each population type were calculated on what the coalitions' different values are for different communities
- Project Facility
 - MEC proposed weighting this criteria 10%
 - MEC favors projects providing benefits to underserved communities and projects that are clean (lower emissions than grid power). Scoring needs to be understood to prioritize vulnerable communities.
 - MEC proposes score boosts for projects that don't produce any GHG/air pollutants
 - Trane suggests bonus points or a score multiplier for a project that provides additional functionalities for the community
 - Trane suggests that microgrids should be allowed to participate in CAISO so that MIP dollars can go further by increasing revenues that offset the costs of the project.
 - Trane suggest creating broader classifications (small, medium, large) for populations (considering actual headcount) would be relatively hard to administer
- Facility Energy Services
 - MEC proposed weighting this criterion 25%
 - MEC builds in flexibility for emergency services but is hesitant to add further flexibility when assessing the benefits of a specific microgrid project in helping other CA initiatives (like electrification) that might also benefit a specific community.
- Ratepayer Cost Effectiveness
 - MEC proposed weighting this criterion 5%
 - MEC believes the IOUs should identify a ratepayer cost-effectiveness score for each application and then apply additional multipliers or score boosts if the project can demonstrate any of the following:
 - Offering a special value to the community that isn't captured by any other criterion (multiplier of 5x)
 - Offering special replicability value (multiplier of 5x), and/or
 - Resulting in an upgrade to aging or failing infrastructure (multiplier of 2x)
 - MEC decided that there are important considerations within other categories that made ratepayer cost effectiveness only account for 5% in the scoring.
- Person-Services Provided
 - MEC proposes measures to compare microgrids that serve small communities vs large communities.
- Other Scoring Category
 - In terms of how to score end of useful life recycling/haz-mat, Trane suggests that fully recyclable materials receive no discount and hazardous waste material/disposal receive a discount for scoring
 - CBE/CEJA believes community control should be incorporated into scoring
 - Trane suggests one option for how to score expected useful life/cycles be to divide total MIP funds by anticipated lifetime of energy storage device.

This could be one factor that may generate a higher score for a project with a longer life span.

- *Sierra Club* responds to *Trane* and says lifecycle use and costs would already be reflected in the owner's net revenue requirement, and in the net MIP cost relative to MIP targeted services provided
- Cost Effectiveness
 - *MEC* proposes that MIP funds should go towards relevant costs and MIP dollars should be going towards the gap, not things that already have market support.
 - *STEM* proposes that benefits should go in the numerator/per dollar of MIP invested assuming enough MIP was included to bridge the gap
 - *Trane* adds that the other metric from a ratepayer benefit standpoint would be MIP costs compared to total lifetime kW
 - *STEM* responds and suggests that combining outage costs, outage risks, and the level of resilience a potential project will establish a base resilience value, which can be used to estimate the financial losses prevented by a microgrid. Similar to LBNL's ICE calculator, *STEM* also suggests including non-financial factors, such as: community support, disadvantaged population beneficiaries, blue sky advantages, and microgrid technology type. These factors could be incorporated into MIP with adjustments to numeric valuation to estimate cost-effectiveness and rankings for project selection
 - *Trane* states that market transformation should be scored as a bonus multiplier
 - *GPI* suggests that the *IOUs* include interconnection costs in cost effectiveness evaluation in the review process

Areas of agreement

- Disadvantage Communities and PSPS Areas
 - *Trane* agrees with *CBE/CEJA* that there is little overlap between DAC and areas of grid outage due to HFTD and PSPS in IOU service territories
 - *Trane* adds that only about 1/3 of 1% of all Census Tracts listed as top 25% in EnviroScreen are also in either HFTD 2 or HFTD 3. HFTD is where the vast majority of Past and future PSPS events will occur or have occurred.
- Scoring Criteria
 - *Community of Topanga* agrees with *MEC*'s proposal for an additional multiplier that would include a catch-all for other facility emergency services that are provided.
- Cost Effectiveness
 - *STEM* agrees with *Trane* that revenues that third-parties would receive from blue sky operation would be passed down to the customers, cutting down the cost of the microgrid so customers get the microgrid for cheaper and MIP funds go further.
 - *The Climate Center* reminds the participants that it is difficult to generically answer questions about revenue streams without thinking about different ownership models.
 - *Community of Topanga* agrees that it is important to help communities mitigate risk and *Trane* suggests that projects utilize blue sky operations to strengthen revenues thereby mitigating risk.

Open Items to Address

- Application and review process
- CMEP vs. MIP
- How to properly prioritize disadvantaged and vulnerable populations for all projects (e.g., carve outs versus scoring criteria)
 - *GPI* argues that prioritizing disadvantaged and vulnerable for all projects is a barrier. *GPI* suggests to utilize workshop 5 to address this issue.
 - *Sierra Club* and *CBE/CEJA* state that carving out a percentage of the program to disadvantaged and vulnerable communities is a barrier for those communities.
 - *Sierra Club* and *CBE/CEJA* also support the adoption of Cal Advocates' recommendation for a scoring system that targets projects for resiliency and equity.

Outside of Scope

- N/A

References

- Academic studies addressing estimation costs of different facilities
 - [NREL: Phase 1 Microgrid Cost Study](#)
 - [LBNL: Framework for the Evaluation of the Cost and Benefits of Microgrids](#)
 - [Institution of Engineering and Technology Journal; Measuring the value of microgrids](#)
 - [LBNL's Interruption Cost Estimate \(ICE\) Calculator](#)
- Critical facilities/customers definitions
 - [SCE's Essential Use Customer Classification](#)
 - [DHS Critical Infrastructure](#)
- [Redwood Coast Airport Microgrid; Only community microgrid in California that fits the contours of the program](#)
- Incorporating Data for scoring analysis
 - [Integration Capacity Analysis \(ICA\) User Guide](#): considers a number of factors, and is applicable to FOM and BTM in estimating the need for grid upgrades
 - [UCLA's County Community Solar/Microgrid Opportunity Map Tool](#)
 - [Google Sunroof](#) estimates solar capacity at the census tract level but would likely need building level estimates.



**Microgrid Incentive Program
Workshop Meeting #5: Application and Review Process
Meeting Summary**

Date and Time

- August 4, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Application Process**
 - Shall the application process be multi-stage? How many stages and how does the disbursement of funds relate to each stage?
 - Shall the program provide need-based feasibility and technical design support to entities considering an application? What are the key considerations?
- **Information Requirements**
 - What type of information should be required for the application?
 - What type of information would be valuable prior to application?
- **Project Sponsorship and Roles**
 - What type of information should be required for the application?
 - What type of information would be valuable prior to application?
- **Application Reviewers**
 - What type of information should be required for the application?
 - What type of information would be valuable prior to application?

Key Points Raised

- Availability of MIP funding for communities to develop grant applications as well as for constructing the microgrids
- Clarifying the difference between CMEP and MIP: MIP can provide funding for in-front-of-the-meter generation and storage components of microgrid projects, CMEP does not. CMEP can provide funding for special facilities (e.g., microgrid islanding/reconnection facilities) to supplement MIP project funding.
- Creating application windows and extensions for applicants who need more time and support
- Implementing a pre-application process to direct technical expertise and early funding to eligible projects
- Continuing to align CMEP with MIP will help communities leverage both in advance of MIP rollout to strengthen proposals
- Overlap between MEC and GPI proposals on application process, as well as with PG&E's CMEP application process
- Applying lessons learned from existing grant application processes to inform MIP application process
- Helpful for stakeholders to understand the landscape of what other funding opportunities are available
- Ease of sharing single customer data securely and privately for MIP application purposes

Participants' Points of View

● Funding for Feasibility Studies vs. Developing Microgrid Projects

- In response to how much feasibility studies cost, *Trane Technology* says that 30% of feasibility study cost is what they absorb. Full feasibility studies can cost a couple hundred thousand dollars. *Trane Technologies* also adds that the MIP should focus on developing and getting projects installed/constructed, not on feasibility studies like NY Prize. *Trane Technologies* also proposes that the Department of Commerce's Build Back Better Program, that has a two-step process with a pre-application process to receive funding, should be examined by the IOUs to inform the MIP application process. The IOUs should take a balanced approach at dedicating resources to support communities' development of proposals, as well as funding physical project resources.
- The Community of Topanga believes that a fully funded feasibility phase is helpful to challenged communities, even if it does not always result in success.
- In response to if/how feasibility is accounted in *MEC's* scoring criteria proposed in workshop #4, *MEC* states that their criteria are more focused on the goals of the MIP. They add that viability is a much more complex process that requires looking at design; projects need to get to the point of a full application first.
- *GPI* adds that they don't want to lengthen the process but want to give applicants more time with an optional extension if necessary.
- PG&E believes we should ensure that the community microgrids get built. They also note that the program's objective is to get as many community microgrids as possible out of the \$200 million. A critical part of this process will include professional 3rd parties involved in the project. A knowledgeable third party will be able to design and figure out the modeling and financing of the project.

● MEC Application Process Proposal

- *MEC* suggests that utilities should provide an accessible one-stop shop for MIP project applicants where they can find information to inform where microgrid projects would be feasible and desirable, with overlays for disadvantaged communities, low-income communities, outage data, worst performing circuits, and High Fire Threat Districts.
- *MEC* suggests that the MIP application process have multiple application/selection windows and include a final check from the Disadvantaged Communities Advisory Group (DAC-AG). In response, *Trane* suggests focusing on projects that are more likely to succeed.
- *Sierra Club* suggests creating a technical assistance checkbox on the pre-application for communities to receive block grant funding to offset hiring technical expertise to develop the full proposal.
- *MEC* suggests breaking the process into 4 steps;
 - **Step 0: MIP Information Availability** where utilities provide a one-stop shop for MIP project applicants; a process where applicants can find information to inform where microgrid projects would be feasible and desirable.
 - **Step 1: (Optional) MIP Pre-Application** is meant to provide early feedback to a community on a MIP project concept prior to developing a complete proposal, to minimize burden on the applicant and identify high value projects. *MEC* recommends implementing a pre-application form.

- **Step 2:** MEC suggests that the community and/or developer add increased detail to complete the MIP **application**, with technical assistance as needed. Technical assistance would be provided by the utility or by a developer where the developer's costs are offset by grant funding.
- **Step 3 (Selection Process):** MEC suggests projects should be selected based on how well they fit program objectives. The process should include multiple application windows and have DAC-AG oversight. While it would be a new role for the DAC-AG, they are willing and supportive of providing oversight. *Sierra Club* notes that the DAC-AG is important in project outreach and selection review but is not a "technical" advisory body. Technical support should be from a different source. *Sierra Club* also notes that several DAC/EJ communities would prefer to work with an independent organization for technical expertise rather than utility staff.
- **GPI Application Process Proposal**
 - GPI proposes a pre application process which would include a statewide CBO advisory board (third party nonprofit) to help all applicants submit applications. The CBO advisory board would document project location, project details (project size, technologies used, etc.), identify project beneficiaries (Which customers are served? What resources can they provide?), provide site layout and single-line diagrams (SLD). The costs of the statewide CBO advisory board would be covered by the program budget to reduce barriers to entry.
 - Rather than require a SLD, *Sierra Club* suggests a less technical resource that doesn't require engineering expertise, at least for a pre-application.
 - *CEJA* suggests utilizing CBOs to serve as a liaison between the utility and the community.
 - GPI suggests the CPUC appoint a special ombudsman for MIP interconnection info and disputes.
- **Overlap between MEC and GPI Proposals**
 - MEC and GPI agree that the 24-month deadline be reconsidered and possibly extended as an equity consideration.
 - Both GPI and MEC suggest a pre-application process to encourage community-driven projects and to direct technical expertise and early funding to eligible projects. A pre-application process will also significantly reduce the risk of expending significant funds and time on applications that are unlikely to succeed.
 - Both GPI and MEC agree that utilities should provide a MIP Pre-application Report that includes at the least:
 - A non-binding determination of whether the proposed project is likely to be an eligible project
 - A non-binding MIP scoring estimate
 - Interconnection Preapplication Report at no cost to MIP applicant (this estimates ability to interconnect the project without significant upgrades)
 - Explain whether an anti-islanding study is needed. (PG&E indicates that the aim is to prevent unintentional/accidental islanding.)
 - As a part of CMEP, PG&E provides tools and information on a publicly available website for customers to access:

- Comprehensive information on behind-the-meter (BTM) and community microgrid implementation.
- Technical resources, applicable PG&E standards, and guidance to help local and tribal governments navigate PG&E's service planning and interconnection processes.
- Tools to assist communities in assessing initial project viability and siting considerations, including relevant maps, studies, and reports pertaining to PG&E's transmission and distribution system.
- **PG&E CMEP Application Process**
 - CMEP Elements
 - Enhanced Tools & Information
 - *Community of Topanga* mentions that tools and info are not a replacement for a knowledgeable tech human resource
 - Enhanced Utility Technical Support
 - Community Microgrid Enablement Tariff
 - CMEP Cost Offsets
 - Some application elements contemplated under MIP are not considered in CMEP
 - Funding: Cost Offsets under the CMEP are limited to the costs of special facilities (Rule 2) needed for the microgrid. No offsets are provided for Project Resources or interconnection costs.
 - Project Resources: No assessment of project cost or sufficiency OTHER than safe for operations, and impact on Interconnection Agreement or outcomes of the Microgrid Technical Study.
 - Cost Effectiveness: No evaluation of how "cost effective" the proposed solution may be. Left to the Applicant to make that choice.
 - Microgrid Revenue Streams: No evaluation of potential revenue streams.
 - Performance Obligations: PG&E requires that resources meet power quality requirements, but there is no obligation for the resources to form a microgrid during an outage.
 - 3 stages split into 11 steps as follows;
 - Vetting: To help the community discern what resiliency approach may best meet their needs.
 - Community Resilience Project Intake
 - Resilience Solution Evaluation
 - Solution Assessment: To support the community and its technical partner(s) in planning and designing a robust multi-customer resilience solution
 - Request for Community microgrid Technical Consultation
 - Community Microgrid Technical Consultation
 - CMEP Application & CMEP Application Review
 - Execution: To ensure that the execution of the multi-customer microgrid is coordinated across all PG&E functions.
- **Lessons Learned from CMEP**
 - PG&E shares lessons learned from its CMEP application process.
 - Developers have an urgency to get to the interconnection phase, which puts a lot of the work on the front-end before the interconnection phase has started.

- A lot of technical questions need to be answered early. Focus on project maturity *before* submitting an interconnection project.
 - Identifying the communication pathways early is incredibly important.
 - Advanced inverters can perform all of the necessary frequency/voltage regulation functions.
 - There are a number of entities that are interested in community microgrids that don't necessarily fit the high fire risk criteria.
 - CMEP doesn't provide funding for generators within a microgrid so it's difficult to use the CMEP program as the basis for determining a successful MIP project.
 - PG&E has not had an application but is tracking 32 potential projects. Some of these projects likely won't convert to community microgrids because a simple behind the meter solution makes more sense, and utilities already have a planned solution for the specific area
- **Roles of Developers and Local Communities in Application Process**
 - MEC believes that communities should be able to get through the first step of the application process – assuming their pre-application would be a high value microgrid – without a developer on board. However, MEC believes it is critical to have utility and third-party support throughout the process for technical assistance.
 - *Community of Topanga* states that community support is essential to put forth an application, and if a developer puts forth an application without community support, it should be scored accordingly.
 - PG&E suggests organizing a “pitch day” workshop where various developers could present on the services they provide.
 - Trane suggests involving NAESCo (National Association of Energy Services Contracting firms) to support local communities with microgrid expertise.
 - Several participants believe publishing a list of companies and organizations who can provide microgrid expertise and resources would be valuable.
 - In terms of sharing data necessary to complete an application and evaluating a microgrid design, Trane suggests working with local community/government to organize confidential customer data in securely. The IOUs confirm that they use Green Button as a platform to securely share customer data with third parties.
 - PG&E has engaged dozens of customers/communities as a part of CMEP's initial steps. PG&E is making modifications to ensure CMEP is customer friendly, customers' needs will be met, and to reassure communities that are hesitant to incur costs before they have funding approval.

Areas of agreement

- There is general agreement from participants around the two-step application process that has elements of MEC and GPI's proposal, as well as from PG&E's CMEP application process.
- There is general agreement that technical assistance is necessary to complete an application and to adhere to the eligibility criteria.

- There is general agreement for a multi-step application similar to the steps used in NY Prize but parties would not like to see as cumbersome of a process for MIP¹. There is agreement that a breakdown of SGIP vs MIP vs Alternative funding would be a good idea, noting that SGIP funding may no longer be available.
- General agreement that community support should be an eligibility requirement
- General agreement that a vetting stage to help a community discern what resiliency approach may best meet their needs, is important

Open Items to Address

- The level of feasibility money available to applicants
- The amount of funding per applicant for technical assistance
- Whether the feasibility of a project should be included as a scoring criterion
- Whether an applicant representing a master-metered facility can submit an application under the theory that the microgrid would serve “multiple customers”.

Outside of Scope

- Applicable tariffs for MIP projects
- Revisiting BTM versus FOM resources of a microgrid projects
 - PG&E recognizes that there may be a gap but does not mean there should be ratepayer funding for additional BTM resources. The compelling argument of BTM/FOM is about the location of the resource: if located BTM, the resource has access to significant subsidies (e.g., SGIP, NEM); if located FOM subsidies are not currently available.
 - MEC notes that SGIP may not be available, and the ratepayer cost of gap funding per MW is likely to be substantially higher for FOM than BTM.
 - The Climate Center suggests that as a community microgrid needs to have the ability to island, BTM assets can provide value by participating in the microgrid control system algorithms and should receive funding.

References

- [Department of Commerce: Build Back Better](#) which provides a two step process with limited technical assistance.
- [NY Prize granted \\$100,000 each for feasibility studies](#) - this was the funding for the 80+ projects
 - Sierra Club; NY Prize was a highly competitive process to qualify for the \$100k detailed feasibility study, including highly specific study requirements - far more than envisioned for MIP proposals.
- [DAC - AG page](#)
 - [Additional DAC - AG CPUC Information](#)
- [CMEP Tools and Information](#)

¹ NY Prize had a multi-phase application with three steps: 1) feasibility studies, 2) engineering design and business plan, and 3) implementation. No projects were implemented.



Microgrid Incentive Program Workshop Meeting #6: Program Evaluation Meeting Summary

Date and Time

- August 11, 2021, 1 p.m. – 5 p.m. PT

Agenda Items and Description

- **Project Performance and Evaluation Requirements**
 - What performance requirements should be placed on projects?
 - What are the metrics for determining project success?
 - Who should be responsible for evaluating the performance?
 - What reporting requirements should there be for overall program performance?
- **Additional Program Evaluation Considerations**
 - How should the “increase” in reliability for critical public facilities be measured? What pre- and post-microgrid reliability metrics should be used?
 - How should the “increase” in resiliency provided by for critical facilities be measured? What pre- and post-microgrid resiliency metrics should be used?
 - What measures should be used to establish the degree to which communities with higher proportions of (i) low-income residents, (ii) access and functional needs residents, and (iii) electricity dependents were “prioritized” for purposes of receiving incentive funds?
 - What information should be considered in determining whether the microgrid enabled communities with “lower ability to fund development of backup generation” to maintain critical services during grid outages? How should such enablement be evaluated if there are no grid outages?
 - What performance requirements should be placed on projects?
 - What are the metrics for determining project effectiveness?
 - How long after microgrid project completion should program evaluation occur?
 - What reporting requirements should there be to support evaluation of MIP effectiveness? Which entities should report what information, and to whom should the reports be submitted?
 - What metrics should be used to determine whether the MIP provided an opportunity to test (i) new technologies, and (ii) regulatory approaches that will help achieve desired ratepayer benefits and outcomes in the future?

Key Points Raised

- The Commission’s decision directs the Energy Division to *perform* the program evaluation; the IOUs were only directed to *discuss* program evaluation in their implementation plan.
- IOUs will utilize information provided in workshops to advise and guide the implementation plan
- The October 4, 2021, implementation plan will not be an advice letter; the IOUs will simply file the implementation plan in the proceeding. Note that an Advice Letter is a more restrictive process; filing the implementation plan in the proceeding allows stakeholders and the commission to respond.

- Importance of keeping qualitative statistics that can measure quality of life in the evaluation of the projects.
- An early evaluation of replicability should be done with an additional longer ongoing assessment to ensure projects are actually able to be replicated in a timely manner
- There is value in having a workshop after October 4, 2021, to discuss what's in the proceeding and why. Parties can use the workshop to explain their thoughts
- Program evaluation should consider short- and long-term metrics
- Measuring resiliency improvements can be difficult and should be a long-term program evaluation measure (e.g., how many community members benefit from resiliency hub)
- Some metrics may be qualitative, and others may be quantitative, and both are important
- Measure of reliability and resiliency improvements, learning opportunities, Disadvantaged Community (DAC) prioritization, and timing should all be included in the program evaluation metrics

Participants' Points of View

General

- *Trane* understands the idea of wanting a microgrid to be community owned and operated but there are a lot of expertise siloes that you have to assemble to make projects work.
- *ROP* expressed the need for developers to work with community groups to create the projects that DACs need

Climate Center/MEC Program Evaluation Proposal

- **MIP outreach:**
 - *MEC* proposes evaluating the effectiveness of the MIP outreach in eliciting participation to DACs by looking at the number of pre-applications received; the number of pre-applicant requests receiving support; the number of applications received, with and without going through pre-application process; number and causal analysis of pre-applications that don't submit applications
 - *Community of Topanga* suggests looking at the number of communities that were eligible but didn't submit applications with a focus on communities that don't apply who are known to be High Fire Threat or DAC.
 - *The Climate Center* suggests that there should be a robust evaluation on the customers that are benefitting from the microgrid to identify whether tribal governments were determined to be prioritized.
- **Benefits of Projects Approved for Funding:**
 - *MEC* proposes identifying the benefits of projects approved for funding by looking at the number of target-group individuals, including low-income customers, served by a microgrid (i.e., "person-services" scores); the numbers & types of critical/essential facilities served; a description of microgrid sponsorship & ownership models; and identifying the sources and estimates of expected revenue streams from microgrid assets.
 - *Sierra Club* suggests that the displacement of fossil Back-Up Generators (BUGs) be included in the scoring criteria (not as an eligibility requirement) so there is an extra benefit to those projects.

- *The Climate Center* says that the fossil BUG doesn't need to go away and if parties can demonstrate through the design and performance that it reduces the need to use the fossil bug, that's a positive attribute.
- **Project Implementation Tracking:**
 - MEC proposes tracking project implementation by defining key milestones between MIP award and Commercial Operation Date (COD) (e.g., engineering design; DER interconnection agreements; permits; islanding study; financing; key resources coming on-line) and identifying any red flags and mitigations
- **Post COD Microgrid Performance:**
 - MEC proposes a post-COD microgrid performance review by testing islanding, islanded performance (loads served, duration of islanding), and re-connection
- **Post-COD Measures of Benefits:**
 - MEC proposes a post-COD measure of benefits by identifying pre-microgrid baseline statistics around distribution outages and evaluating the outages saved by the microgrid solution.
 - MEC also proposes identifying the resiliency that the microgrid solution provides in case of any upstream grid outages (e.g., PSPS), and comparing the populations served and services offered by the microgrid to numbers in approved proposals.
 - *The Climate Center* says that traditional SAIDI and SAIFI are quantitative measures that can identify whether a microgrid is resilient by looking at whether it goes down, but they don't want to diminish the value of qualitative statistics (quality of life is also critical)
 - *Sierra Club* suggests that the project sponsors self-report, but they wonder if there would be any other trusted evaluator to recap the services that were provided.
- **Replicability of Project Designs:**
 - MEC proposes the development of a public library of microgrid designs based on approved MIP projects, including technical details about the resources, loads, control system, microgrid topology, commercially available elements; use of behind-the-meter (BTM)/Front-of-the-meter (FOM) DERs by microgrid controller
 - MEC also proposes assessing how the required distribution system upgrades (if any), the populations and essential community functions served, the financing structure and sources (shares of MIP; other state programs; community investment; developer funding, etc.), and the estimate of the number of communities for which a similar project would be a good fit, would play into the replicability of the microgrid project
 - Community of *Topanga* and *ROP* state that it is critical to look at the number of buckets that projects need to dip into for funds. The more buckets a group needs to dip into, the more complicated the process is for those communities.
- **Replicability of the Program:**
 - MEC proposes replicating MIP to reach more communities by looking at how many vulnerable communities still do not have clean resilient electricity, identifying barriers or challenges to be addressed and if any of the allocated funds were left over, assessing causal factors of approved projects that missed target COD, and comparing final project benefits vs targeted in application to identify improvements or deficiencies.

- *The Climate Center* suggests the need for a comprehensive third-party report, which would come out shortly after the 24-month window.
- **Timing of Evaluations:**
 - *MEC* proposes evaluating the entire MIP process from outreach to target communities to completion and performance of microgrid projects. Look at the desired participation, evaluating the front end through project approval. Utility administrators should make public reports to CPUC for each award window.
 - *MEC* also suggests looking at models and processes that can reach additional vulnerable communities with a comprehensive IOU report at the end of the MIP. A report assessing project applicants and developers would be sent to utility administrators. The report would be provided to the CPUC and the public and would document why approved projects that reached COD did or did not perform as designed.

Discussion on Additional Workshop/Additional Input from Stakeholders before Implementation Plan filing

- *MEC* is interested in being able to dialogue with the IOUs before the legal process. Would like to see the advice letter to see what a good implementation plan looks like so there is less time and trouble during the implementation process.
- *ROP* wants to see which ideas were incorporated into the program draft. Until they see the draft, they won't know what made it into the IOUs proposal.
- *GPI, Clean Coalition, CEJA, and Topanga* agree with *Vote Solar's* suggestion to have another workshop that would allow additional input from stakeholders before the Implementation Plan is submitted to the Commission to discuss any issues informally before entering the formal CPUC approval procedure.
- *Sierra Club* believes a pre-filing workshop could be an opportunity for one last chance of dialogue to determine what will be incorporated into the filing.
- *Vote Solar* believes that even if the Implementation Plan is not final it still would be helpful to have a discussion of program design prior to submitting the Implementation Plan.
- *PG&E* doesn't think the timing is realistic to have another workshop before the implementation plan is submitted but believes there could be value in having a workshop after the submission to discuss what's in the implementation plan.² Parties could use the workshop to explain their thoughts
- *ROP* and *Community of Topanga* agree with *CEJA* that another benefit of a workshop is it would allow participants who are not formal parties to the proceeding to still comment.
- *Clean Coalition* asks if the Joint IOUs would consider a MIP amendment process (like the one included in the CMEP). *SDG&E* said that because this is not a proposed decision with a specified period of time for when comments must be filed, there is no set deadline but rather a judge will make a ruling in the near future to clarify timing.

² SCE and SDG&E agree with PG&E that there simply is not enough time to conduct another pre-filing workshop. The IOUs are considering the possibility of a post-filing workshop, but as of the date these comments are circulated for stakeholder review, have not made a commitment to do so.

Areas of agreement

- Inclusion of emission standards for the microgrid within the program in the evaluation considerations and as a program requirement
 - SDG&E agrees with CPUC, Public Advocates Office that it's reasonable to include emission standards for the microgrid within the program in the evaluation considerations and potentially as a program requirement
- Inclusion of energy delivery as a benefit stream to identify lifetime performance and program evaluation
 - SDG&E agrees with Trane that it makes sense to include kWh delivered as a benefit stream to identify lifetime performance as a good metric for the portfolio as a whole given that it is ratepayer funded
- Include an early-stage evaluation of replicability and a later stage evaluation as an additional ongoing assessment
 - GPI and Topanga agree with MEC's proposal that an early evaluation of replicability should be done with an additional longer ongoing assessment.
- Inclusion of customer satisfaction as a post-COD program evaluation measure of benefits
 - Climate Center agrees with GPI's suggestion that customer satisfaction be incorporated into the post-COD measure of benefits
- Inclusion of retiring or avoiding the use of local fossil back-up generators as a post-COD program evaluation measure of benefits
 - Community of Topanga agrees with MEC's proposal around the benefits from retiring or avoiding the use of local fossil BUGs. Topanga agrees with Trane's suggestion to not eliminate fossil BUGs entirely but use them as a back-up to the microgrid (backup to a backup) to diminish the use of the Fossil BUG
 - Community of Topanga and Reclaim Our Power (ROP) also believe that BUG backup to backup should only be incorporated in the extreme case of Hospitals/Blood Bank

Outside of Scope

- N/A

References

- [Workshop Webpage](#)
- [Microgrid OIR Track 2 D.21-01-018 \(1/14/2021\)](#)
- [SB 1339](#)
- [Staff proposal for facilitating the commercialization of microgrids pursuant to SB 1339 \(7/23/2020\)](#)
- [PUC Section 218](#)
[CPUC four different ways of providing comments without becoming a party](#)