BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Microgrids Pursuant to Senate Bill 1339 and Resiliency Strategies.	Rulemaking 19-09-009

CALIFORNIA ALLIANCE FOR COMMUNITY ENERGY, CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE, GRID ALTERNATIVES, SIERRA CLUB, THE CLIMATE CENTER, AND VOTE SOLAR COMMENTS ON PROPOSED MICROGRID INCENTIVE PROGRAM IMPLEMENTATION PLAN

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The California Alliance for Community Energy, California Environmental Justice Alliance ("CEJA"), GRID Alternatives, Sierra Club, The Climate Center, and Vote Solar (collectively referred to as the "Microgrid Equity Coalition" or "MEC")[1] respectfully submit these comments in response to the Proposed Microgrid Incentive Program ("MIP") Implementation Plan of San Diego Gas & Electric Company (U 902-E), Pacific Gas & Electric Company (U 39-E), and Southern California Edison Company (U 338-E) ("Implementation Plan"). These comments are timely filed.[2]

I. Summary

The Microgrid Equity Coalition participated throughout the summer workshops leading up to the Implementation Plan and provided detailed input to the investor-owned utilities ("IOUs") with the goal of ensuring that the MIP Implementation Plan would provide a full and fair opportunity for frontline and disadvantaged communities to participate in the MIP. Specifically, the MEC provided two sets of written feedback to the IOUs and Energy Division staff to be clear about its specific recommendations: the MEC Summary of MIP Implementation Recommendations (Oct. 20, 2021), and the MEC Response to Oct. 26 MIP Presentation (Nov.

[1] Reclaim Our Power: Utility Justice Campaign contributed extensively to MEC recommendations throughout the past year but was unable to review and join these comments due to resource constraints.
[2] The Assigned Commissioner's Amended Scoping Memo and Ruling Resetting Track 4 (issued Dec. 17, 2021) designated January 14, 2022, as the updated deadline for opening comments on the Implementation Plan.

22, 2021). Those documents are included as Attachments 1 and 2, respectively, and are referenced throughout these comments.

We appreciate the thoughtful development of the proposed MIP Implementation Plan (hereafter referred to as the "Implementation Plan") and the inclusion of multiple details that reflect MEC stakeholder input. However, the Implementation Plan is unacceptable as is, and the California Public Utilities Commission ("CPUC" or "Commission") should not approve it without adopting the MEC recommendations made throughout these comments. Among the MEC's recommendations, two critical changes require priority:

1. MIP application development grants need to be provided to disadvantaged vulnerable communities ("DVCs") at the beginning of the process in order to get applications submitted, and

2. The scoring needs to be changed to ensure projects from communities with limited financial resources are not disadvantaged.

As currently written, the Implementation Plan would require DVCs to self-fund their applications through the submittal stage, creating a financial barrier and rendering the application development grants unhelpful at this critical stage. It also envisions a scoring system where projects that require fewer incentive dollars end up with a high project score, while projects that require assistance are penalized. This approach reinforces historical barriers that have discriminated against communities without means and reinforces institutionalized racism. The Commission needs to reject the Implementation Plan unless these issues are rectified.

II. Background: Main Elements of the MEC's Proposal

MEC generated its detailed proposal with the goal of achieving the MIP objective "to develop a microgrid incentive program to fund clean energy microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages."[3] MEC's proposal consisted of the following major elements:

1. Allow communities themselves to identify the most essential services they need to be powered by the microgrids, rather than restricting proposals to a predetermined list of eligible facilities.

[3] D. 21-01-018 at 60.

2. An application process that is accessible to frontline and disadvantaged communities, consisting of:
    a. A one-stop information source that clearly describes the MIP application process and provides relevant information
    b. A pre-application process for potential applicants to submit a project concept and receive prompt technical feedback from the IOU to help the community submit a successful application
    c. Availability of grants to enable a community to procure technical support for completing a MIP application
    d. At least two successive application windows so that communities who already have identified shovel-ready projects can proceed quickly while reserving significant MIP funds for communities that need more time.
3. A process for evaluating MIP proposals that minimizes fixed eligibility requirements and emphasizes scoring criteria that will elevate projects serving vulnerable populations and under-resourced communities, that demonstrate community support, utilize carbon-free energy resources and minimize emissions, provide resilient emergency services, and serve frontline groups with necessary services rather than relying on traditional cost-effectiveness criteria.
4. Involving the existing Disadvantaged Communities Advisory Group ("DACAG) to review scoring of project applications and selection of winning projects.
5. A detailed MIP review and evaluation process at various stages and at the end to assess the level of participation from frontline communities, the selection of projects for MIP funding, and the successful implementation of MIP projects.

III. Comparing the Implementation Plan to the MEC Proposal

For each element proposed by the MEC, we address whether and how the Implementation Plan matched the MEC's recommendations.

1. **Allow communities themselves to identify the most essential services they need to be powered by the microgrids, rather than restricting proposals to a predetermined list of eligible facilities.**

Proposed change: Allow an attestation from a community-benefit organization to a project's ability to provide critical community services as a method to establish project eligibility under Category C.

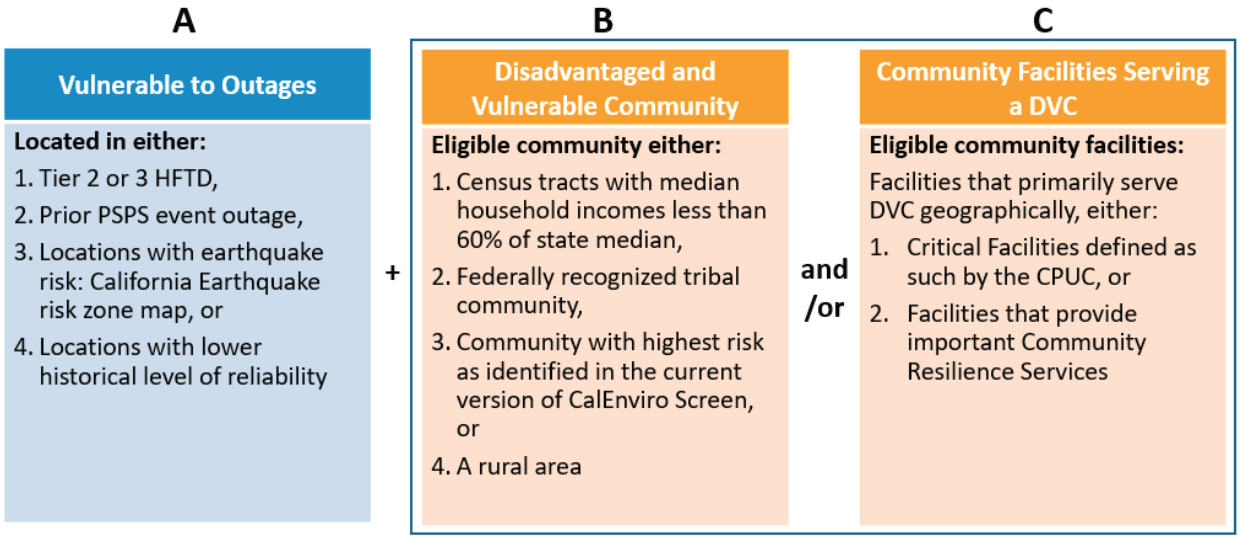
At the MIP workshops, the MEC had asked that communities be able to identify the "critical community services" to ensure that microgrids obtaining funding are tailored to the community rather than determining eligibility based on a pre-set list of emergency services. Determining which services are critical to the community requires some flexibility because different communities will have different needs and circumstances. To make sure that MIP projects actually benefit the vulnerable populations within their communities, the MEC recommended that the MIP implementation plan incorporate a list of generally accepted critical community services, including provision of emergency shelter, emergency cooling or heating, emergency medical support, food and/or water distribution or services (i.e., food banks, or prepared foods); emergency coordination services; general electricity availability, etc. In addition to this, the MEC recommended that the Implementation Plan should allow project applications to explain any additional emergency services not described in the predefined list, and the IOUs should use common sense to determine whether the claimed emergency service is reasonable. To maintain accountability, the MEC recommended that the IOUs should publicly disclose MIP grant recipients and the critical community services that each project will provide.

The Implementation Plan seems to have incorporated this feedback in large part, as the eligibility requirements do not strictly require that projects provide specified "critical community services." Rather, a project is eligible if it fits any one of six different showings based on either location in a DVC or by showing that the project would serve a DVC.[4] The Implementation Plan says projects can show Community Eligibility by showing A) vulnerability to outages, and some combination of B) serving a disadvantaged, vulnerable community and/or C) Community

[4] 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), (Dec. 3, 2021) (hereinafter referred to as "Implementation Plan") at 16-17.

facility.[5] Category C defines eligible community facilities as those that primarily serve a DVC geographically, either:

1. Critical Facilities defined by the CPUC, or
2. Facilities that provide important Community Resiliency Services as attested by the Local Government or Local Authority having jurisdiction over the area.[6]



In other words, the Implementation Plan provides some flexibility for MIP applicants to define the critical community services as long as the local government or authority will attest that the project would provide such services in order to be eligible for consideration. While the defined eligibility criteria are somewhat more complicated and varied than proposed by the MEC, the Implementation Plan does appear to bend somewhat to the MEC recommendation to allow communities themselves to identify the most essential services they need to be powered by microgrids.

However, community-based organizations are fully able to determine essential services without the intervention of a government authority, and we are cognizant of the implications of historic or structural disenfranchisement and limited representation in government for significant sectors of society. We therefore recommend that an attestation from a community-based organization to a project's ability to provide critical community services be an acceptable way to establish eligibility.

[5] Implementation Plan at 16-17.
[6] *Id.* at 17.

2. An application process that is accessible to frontline and disadvantaged communities

The MEC requested that the application process be accessible to frontline and disadvantaged communities with a series of elements. We discuss each in turn.

a. A one-stop information source that clearly describes the MIP application process and provides relevant information.

Proposed change: Create a single website for all the utilities to serve as a one-stop information source online for potential applicants.

At the MIP workshops, the MEC repeatedly advocated for a one-stop information source—generally envisioning a straightforward website with clear descriptions of the process and application requirements—that describes the MIP application process.

The Implementation Plan notes that the Joint Utilities will develop a comprehensive handbook ("MIP Handbook") that will "be a resource to inform community members and leaders in greater detail about the MIP and Community Microgrids."[7] It also describes planned marketing, education, and outreach efforts and notes that "[i]nformation about the program and how it works will be made available on a publicly available website for each Utility."[8]

In this respect, the Implementation Plan does create a one-stop information source through the MIP Handbook. We recommend that the MIP Handbook be available in an electronic format via the website. However, we also recommend that there be a single website for all the utilities. There is no reason why this work should be different across utilities when there is no apparent reason for variation between the IOUs. To the extent that each utility may publish its own webpage, we strongly encourage consistency in both content and format as much as is practical, such that the same terminology is used and comparable information, links, and forms are similarly organized. This will aid community organizations, providers, and others who provide assistance across areas served by more than one utility. In such a case, we also recommend that the CPUC maintain a website providing direct links for applicants to navigate to all information. The Implementation Plan only partially addresses this request from the MEC to create a one-stop information source for the MIP application process.

[7] *Id.* at 14.
[8] *Id.*

b. A pre-application process for potential applicants to submit a project concept and receive prompt technical feedback from the IOU to help the community submit a successful application

Proposed change: Ensure that technical assistance grants are available at the beginning of the process to produce fruitful Microgrid Technical Consultations**.**

The MEC had recommended at the MIP workshops and in direct discussions with the IOUs that applicants be permitted a pre-application process with a low entry burden to submit a conceptual proposal and obtain early feedback and technical support for developing a full proposal. This would help applicants determine whether their project concept is viable and to identify high-value opportunities. The MEC also recommended that applicants be able to use the pre-application process to apply for MIP funding to engage a third-party technical expert to prepare the full application.[9]

In response to these and other suggestions, the Implementation Plan defines a procedural step termed "Microgrid Technical Consultation" wherein the Utility will support the MIP Applicant and any technical/engineering partner to "review technical aspects of a potential Community Microgrid project with the Utility."[10] It continues that this 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."[11] With this step, the Implementation Plan fully addresses the MEC recommendation that the utilities provide prompt technical feedback to help submit a successful application.

However, the information required from the project applicant to request a Microgrid Technical Consultation is somewhat more detailed than a "project concept." The Implementation Plan notes that

> 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

[9] Attachment 1: Microgrid Equity Coalition Proposal for CPUC Microgrid Incentive Program (MIP) Implementation Process (Oct. 20, 2021) (hereinafter referred to as "Attach. 1") at 6.
[10] Implementation Plan at 21.
[11] *Id.*

    - 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.[12]

Most of these details—such as the proposed site map, list of customers, and elements only required "if known"—are appropriately broad and closer to "concept" than a detailed plan. However, the "Technical Representation" and the final three bulleted items may be problematic because it requires retaining technical expertise before the technical assistance grants are available.

The Implementation Plan clearly envisions that a project applicant would have retained technical representation at this stage in order to detail the broad outlines of the project.[13] DVCs in particular may face a hardship in meeting this requirement at this stage in the process, particularly if funding for technical assistance is only available later in the process. This poses a significant challenge and would require revision to work for the vulnerable communities set to benefit from the MIP, in direct relation to the next section. Due to this issue, the Implementation Plan fails to address this MEC recommendation.

c. Availability of grants to enable a community to procure additional technical support for completing the full application

Proposed Change: Provide MIP applicants with funding at the beginning of the process to prevent the need for self-funding technical assistance**.**

At the workshops and in direct discussions with the IOUs, the MEC recommended that the Implementation Plan incorporate technical assistance for applicants as needed, both from the utility and in the form of grant funding to offset application development costs.[14] The MEC

[12] *Id.*
[13] We discuss in the next section the need for technical assistance grants to be available to applicants earlier in the process.
[14] Attach. 1 at 17.

recommended that applicants from DVCs be able to request MIP funding to pay for technical expertise to help develop project applications.[15] The MEC proposed a block grant for projects that meet the DVC criteria to hire third-party technical assistance of their choice in completing a project application.[16] The MEC also suggested that a low cap (e.g., 5%) on such funding as a percentage of total MIP funding may be appropriate.[17]

On this topic, the Implementation Plan noted MEC's recommendations[18] and both promised IOU commitment "to providing consultative support early in the process to help a community discern which resilience approach may best meet the community's specific needs" as well as providing MIP application development grants up to $25,000 to eligible DVCs "to engage third-party technical assistance in the development of a full Application."[19] The direct IOU-provided assistance is reflected in the "Microgrid Technical Consultation" wherein the Utility will support the MIP Applicant and any technical/engineering partner to "review technical aspects of a potential Community Microgrid project with the Utility."[20] The block grant for technical assistance would 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").[21] The Grants, if requested, will be paid to the requesting DVC-eligible MIP Applicants following confirmation of eligibility, meaning that applicants will need to self-fund the Grant amount until receipt of the Grant.[22]

The MEC supports the IOU commitment to consult with applicants early in the process and to review project aspects directly with project applicants and any technical representatives. This collaboration has considerable potential to be constructive. The MEC also strongly supports the application development grant. As noted in the second element of the MEC's proposal,

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[15] Attachment 2: MEC Response to Oct. 26 MIP Presentation (Nov. 22, 2021) (hereinafter referred to as "Attach. 2) at 4 ("Applicants from disadvantaged and vulnerable communities should be able to request MIP funding to pay for technical expertise to help develop project applications. We propose a block grant for projects that meet the DVC criteria to hire third-party technical assistance of their choice in completing a project application.").
[16] *Id.*
[17] *Id.*
[18] Implementation Plan at 2.
[19] *Id.* at 3.
[20] *Id.* at 21.
[21] *Id.* at 20.
[22] *Id.*

providing these grants allows for an application process that is more accessible to frontline and disadvantaged communities.

However, the timing of funding as proposed in the draft Implementation Plan poses a significant challenge because most, if not all, DVCs will likely not be able to self-fund the application process. In order to be workable, the grants should be available at the initial phase of the process so that DVCs can obtain the funding in time to retain technical representation. It is unclear why the Plan currently requires interested applicants to submit a request for a grant at Step 2, undergo technical consultations and application development in Steps 3 through 5, and then receive funding to develop their application at Step 6, after the application has already been submitted. Instead, the MEC recommends that eligible applicants receive a grant at the beginning of the process—indeed, for the purpose of funding application development.

The MEC recommends a simple process by which applicants can demonstrate that they meet a set of criteria that would qualify them for receipt of the Grant prior to application submission. Any applicant that can meet the eligibility requirements should automatically receive an Application Development Grant.

Eligibility for receipt of an initial $25K grant could be self-certified by applicants providing one page of information stating basic project summary information such as sponsor contact information, geographic location (e.g., census tract), and explanation regarding how the proposed project complies with MIP eligibility criteria. As a matter of related State policy precedent, it is worth recalling that the California Governor's Office of Emergency Services ("CalOES") allocated approximately $125M to California local governments for energy resilience enhancements in the wake of PSPS events. The CalOES application was one page, requiring that applicants simply provide the following information: applicant name, address, and contact information; population of the incorporated entity applying for the funds; the amount of funds sought; and very brief explanatory text answering the following two questions: "Briefly explain the number of hours spent year to date in PSPS," and "Briefly explain how the Applicant will use the funds to prepare for and respond to PSPS events."[23] The simplicity of this

[23] *See* California Governor's Office of Emergency Services (CalOES) Public Safety Power Shutoff (PSPS) Resiliency Allocation to Cities Application Form, available at https://www.caloes.ca.gov/GrantsManagementSite/Documents/PSPS%20RFP%20Cities%20(Extended%20Due%20Date).pdf.

application form should be a model for an application required to receive an initial $25K grant to start the process of preparing a MIP application.

Due to this issue, the Implementation Plan only partly addresses this recommendation from the MEC and will fail to provide meaningful assistance for application completion unless the grant allocation timing is changed to make the technical assistance grant available earlier in the application process.

d. At least two successive application windows so that communities who have already identified shovel-ready projects can proceed quickly while reserving significant MIP funds for communities that need more time.

Proposed Change: Require PG&E and SCE to have at least two application windows.

The MEC proposed a window-based approach to accepting and funding applications so as to compare projects.[24] The MEC proposed two windows with a limited portion of the total funds available in the first window for early applicants that have projects that are ready quickly, reserving remaining funds for those that require more time.[25] The second window would open a few months after the first window. In addition, the MEC recommended that if funds are not fully subscribed following the second window, any remaining funds may be released on a first-come, first-serve basis to eligible projects.[26]

The IOUs acknowledged this recommendation and noted 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."[27] Accordingly, the Implementation Plan says that the utility process "may have" multiple Application Intake Windows with funding allocated to each window.[28] It noted that "SCE and PG&E anticipate up to three Application Intake Windows," whereas SDG&E anticipates only one Application Intake Window due to the comparatively small amount of money expected to be allocated to SDG&E.

Given the very small portion of MIP funds available to SDG&E territory, a single application intake window is acceptable to the MEC. With respect to PG&E and SCE, the

[24] *See* Attach. 1 at 5-6.
[25] *Id.*
[26] *Id.* at 5.
[27] Implementation Plan at 24.
[28] *Id.*

Implementation Plan could be improved by affirming that PG&E and SCE "commit to" or "confirm" that they will have at least two Application Intake Windows rather than retaining the non-committal, "may have" phrasing. As long as SCE and PG&E do have multiple Application Intake Windows, the Implementation Plan fully addresses this MEC recommendation.

3. A process for evaluating MIP proposals that minimizes fixed eligibility requirements and emphasizes scoring criteria that will elevate projects serving vulnerable populations and under-resourced communities, that demonstrate community support, utilize carbon-free energy resources and minimize emissions, provide resilient emergency services, and serve frontline groups with necessary services rather than relying on traditional cost-effectiveness criteria.

a. Eligibility

Proposed changes:

- Incorporate MEC's earlier recommended eligibility requirements, including requiring projects to establish the following:
  - The project will make emergency services generally available
  - Demonstration of community support
  - Project beneficiaries include at least one vulnerable population
  - Pay workers a prevailing wage
- Define the "locations with lower levels of reliability" as the worst 2% of circuits as evaluated over the past 5 years

With respect to eligibility, the MEC noted multiple MIP objectives and specifically recommended that the Implementation Plan allow as much flexibility as possible in eligibility requirements to not to be too restrictive at the front end and to encourage a broad range of project applications.[29] In addition, the MEC recommended that the utilities use a scoring system that ensures incentives go to projects that deliver community benefits where they are most needed.[30] Specifically, the MEC recommended the following eligibility requirements:

- Project makes emergency services generally available;
- Demonstration of community support;
- Project beneficiaries include at least one vulnerable population (as defined below)

[29] Attach. 1 at 6.
[30] *Id.*

- Enhanced resilience, meaning it provides at least one type of emergency service, very broadly defined;
- Multi-customer (per D.21-01-018);
- Air emissions lower than equivalent grid power; and
- Pay workers a prevailing wage.[31]

The Implementation Plan includes only some of these ideas by defining eligibility criteria in two categories: Community Eligibility and Technical Eligibility, which include the following:

- Community Eligibility[32] requires a showing of vulnerability to outages as well as either
  - Locating the project in a DVC, or
  - Being a community that serves a DVC, meaning either a critical facility defined by the PUC or facilities that provide important community resilience services.
- Technical Eligibility[33] including the following, in addition to other requirements
  - Project must be a Community Microgrid, meaning serving multiple customers
  - When operating in Island mode, the aggregate emissions from Project Resources and non-Project Resources must be no greater than equivalent grid power.

In comparing these lists, it appears that the Implementation Plan adequately incorporates the MEC's multi-customer and air emissions requirements, as these are clearly laid out in Decision 21-01-018. However, the Implementation Plan does not incorporate the other MEC recommendations.

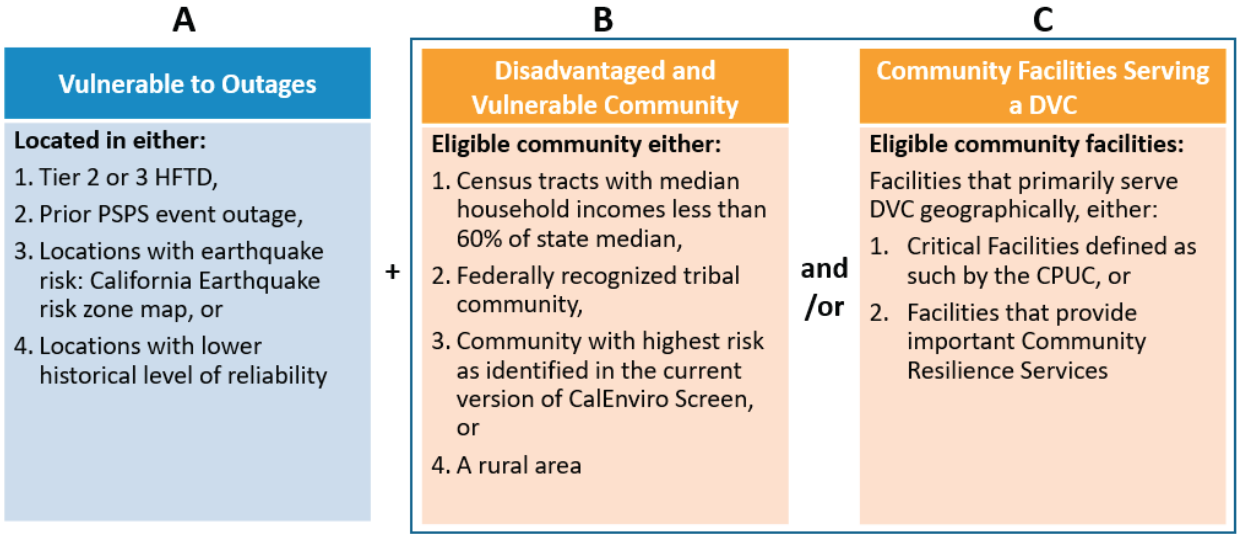
For the remaining MEC recommendations, three of the four eligibility requirements proposed by the MEC are not addressed in the Implementation Plan at all, including: requiring that the project make emergency services generally available; demonstration of community support; project beneficiaries must include at least one vulnerable population; and pay workers a prevailing wage. For each of these recommendations, MEC provided written support for each of these recommendations,[34] but these were not included in the Implementation Plan. MEC therefore continues to recommend that these eligibility criteria be added to the Implementation

[31] *Id.* at 7.
[32] Implementation Plan at 18.
[33] *Id.* at 19-20.
[34] Attach. 1 at 7-9 (detailing proposed eligibility requirements and the rationale for including them).

Plan. The fourth eligibility requirement proposed by the MEC and one additional eligibility detail are addressed below.

i. Project Beneficiaries to Include at Least One Vulnerable Population

The Implementation Plan does not strictly require, but partially incorporates the MEC recommendations to require projects to *benefit* at least one vulnerable population or provide at least one type of emergency service, broadly defined.[35] This is because the Implementation Plan proposes a relatively complicated B or C option for meeting community eligibility.[36]



By allowing projects to show eligibility through either of these categories, the Implementation Plan would allow problematic projects to be deemed eligible if they are located in a DVC but provide no actual Community Resilience Services (even broadly defined as including those attested to by local officials) to the public. Similarly, it is hard to envision how Category C would function; if these facilities are not located in DVCs, it would seemingly be hard to prove that they "primarily serve DVCs" despite the distance. The eligibility criteria described in the Implementation Plan does not address this MEC recommendation.

ii. Vulnerable populations: locations with lower historical level of reliability

Criteria A-4 "Locations with lower historical level of reliability" is proposed to be defined as the worst 1% performing circuits designation based on two previous years.[37] This is

[35] *Id.* at 7.
[36] Implementation Plan at 16-17.
[37] Implementation Plan at 17.

too small a time period because performance and outages vary greatly year to year due to regular but infrequent localized weather events, such as may occur during El Niño years, wildfires, or winter storms.

We recommend evaluating circuit performance from the past two to five years in order to provide a more comprehensive view of circuit performance. However, circuits which have received upgrades during this period and which have demonstrated improved reliability such that these circuits would no longer meet the criteria in the years after the upgrade should be excluded from eligibility.

We also recommend expanding this to the worst 2% of circuits as these circuits clearly reflect need for improvement, especially where they serve important Community Resilience Services.

b. Scoring

Proposed change: Remove the denominator (Application Incentive Request) of the Project Score and incorporate holistic ratepayer cost-effectiveness criteria into the Benefit Score.

With respect to scoring criteria, the MEC provided a highly specific set of scoring criteria and weights[38] that reflect the Decision's MIP objectives by heavily favoring microgrid projects that:

- Provide benefits to vulnerable communities,
- Are located in underserved communities, and
- Are clean (producing no GHG or pollutant emissions).[39]

As an overview, the MEC recommended a set of scoring criteria and weights that evaluated the following (approximate weights are designated in parentheses):

1. Project Beneficiaries (30%) — Which vulnerable communities will use the project in the event of an outage? (Require a threshold %, score boost for higher percentages)
2. Project Location (30%) — What does the neighboring community look like? Consider outages, grid (un)reliability, disadvantages, low-income.

[38] Attach. 1 at 9-13.
[39] *Id.* at 9.

3. Project Facility/Customer (10%) — Is the customer of the microgrid a provider of critical community services? Is there existing backup generation?
4. Emergency Services (25%) — In the event of an outage/emergency, what emergency services will the facilities powered by the project provide?
5. Ratepayer Cost Effectiveness (5%) — Standard cost-effectiveness test with boosters to reflect additional community value, replicability value, upgrades to aging/failing infrastructure.[40]

For each of these categories, the MEC presented specific criteria and multipliers or points to evaluate each project.[41] We provide detailed comments here, describing some of the more problematic elements of the Implementation Plan's proposed scoring system.

i. Project Score Formula

In contrast to the MEC's multiplier approach,[42] the Implementation Plan detailed "a scoring prioritization system to rank eligible MIP Projects considering their project benefits in relation to requested project costs in the AIR [Application Incentive Request]."[43] The Project Prioritization Score is determined with the following formula.[44] This formula amplifies the importance of the cost-effectiveness of any particular project, in contrast to the MEC recommendations.

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

The MEC is concerned that the Project Prioritization Score has the AIR as its denominator, as this calculation disadvantages projects from communities with fewer resources. The Plan notes that the other funding sources that an MIP applicant receives will "indirectly improve the prioritization ranking . . . 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."[45] In practice, this problematic formula judges the cost-effectiveness of a project not

[40] *Id.* at 10.
[41] Attach. 1 at 10-13 (providing specific scoring tables for each category, complete with individual criteria and multipliers).
[42] *Id.* at 10.
[43] Implementation Plan at 27.
[44] *Id.* at 28.
[45] Implementation Plan at 33.

based on its benefits to the targeted disadvantaged and vulnerable communities, but based on the resources of the applicant. Those applicants who require little or no incentive dollars end up with a high project score, while those who require assistance are penalized.

This reality *completely contravenes the purpose of the Microgrid Incentive Program*, which seeks to "advance system benefits of microgrids equitably to disadvantaged vulnerable populations" and to "alleviate the potential that existing inequities would worsen for counties hardest hit by climate and de-energization impacts."[46]

This approach also reinforces the historical barriers that have discriminated against communities without means. A recent University of California, Berkeley study found that grid limits reduce access to solar photovoltaics to less than half of households served by PG&E and SCE, and then connected their results to demographic characteristics.[47] They found "that grid limits also exacerbate existing inequities: households in increasingly Black-identifying and disadvantaged census block groups have disproportionately less access to new solar photovoltaic capacity based on circuit hosting capacity."[48]

The MIP is specifically supposed to overcome such barriers. Instead of incentivizing microgrid development in disadvantaged and vulnerable communities, this formula does the exact opposite. In short, the Implementation Plan rejects the meaningful community scoring criteria and weights recommended by MEC and replaces them with a business-as-usual approach that reinforces institutionalized racism.

Basing the priority of a microgrid project on how much funding a community needs is not equitable, nor does it aid the counties hardest hit by our climate crisis. The more resources a community has, the more likely it is to have other avenues for funding its microgrid project, reducing the denominator of its Project Score. Likewise, the more vulnerable and under-resourced a community is, the more likely it is to need to make a larger Application Incentive Request, thereby increasing the denominator of its Project Score and lowering its project priority rank. As noted in the Plan, the Project Score could decrease "indirectly" if a community is able

[46] *Id.* at 1.
[47] Brockway, A.M., Conde, J. & Callaway, D. Inequitable access to distributed energy resources due to grid infrastructure limits in California. *Nature Energy* **6,** 892–903, 892 (2021), available at https://doi.org/10.1038/s41560-021-00887-6.
[48] *Id.*

to procure other sources of funding.[49] However, the Project Score could also decrease due to "direct" causes if a project were simply more expensive, as might be the case for an impactful project in a vulnerable community that lacks other supportive infrastructure. In short, it is entirely possible that the *most* vulnerable communities—those that are least likely to have their own financial resources to put toward a project, the capacity to apply for other grants or even be aware of them, or other supportive infrastructure and services relevant to the project—are the ones who will be de-prioritized by this project prioritization scoring structure.

To alleviate this misalignment between the program's aim to equitably serve disadvantaged communities and the inequitable implications of the project scoring calculation, the MEC recommends a simple solution: remove the denominator. The Benefit Score is a carefully constructed score that incorporates the many issues that stakeholders have raised in MIP workshops, including clean energy, community vulnerability, and critical community services. If the Benefit Score is exceptionally high, indicating, for example, that the project would serve a disadvantaged community by providing critical community services to many community members through clean energy production, then the project should receive high priority. In fact, the most impactful projects may very well be the most expensive. But as of now, a low-impact, low-cost project could essentially receive the same—or even higher—prioritization score as a more high-impact, more needed project. It is unclear why such a system would be desirable for a program that aims to invest in climate resilience benefits for the state's most vulnerable and historically disenfranchised community members.

The MEC recognizes that in the Track 2 Decision, the Commission adopted a project cost-effectiveness criterion that would "include, but not be limited to, the ability of a project to reduce ratepayer costs by serving as a substitute for replacing traditional infrastructure."[50] The Commission directed further discussion of these cost-effectiveness requirements to upcoming workshops.[51]

In response, at Workshop #4, the MEC recommended a scoring category for Ratepayer Cost-Effectiveness, which would consider whether the project provided: (1) special value to the

[49] Implementation Plan at 33.
[50] D.21-01-018 at 67.
[51] *Id.*

community that was not captured by the emergency services, (2) special replicability value, and, as a bonus, (3) an upgrade to aging or failing infrastructure.[52] These scoring factors thoughtfully consider the added *value* of a project, not merely its upfront costs. Including cost-effectiveness as a scoring category also addresses the question of how to prioritize projects that are otherwise similarly situated and similarly impactful, but entail very different costs. The MEC continues to advocate for criteria that consider ratepayer cost-effectiveness in this holistic way, rather than a blunt instrument that demotes worthwhile projects requiring greater resource expenditures in the very communities that this program aims to invest more resources. Indeed, if an application for a prohibitively costly project were to arise, the $14 million cap per project provides assurance that such a project would not receive an unrestricted amount of funding from the MIP.

Given the above, the MEC recommends that the Application Incentive Request of a project be removed from the project prioritization score, leaving the Benefit Score as the overall project prioritization score, and that ratepayer cost-effectiveness criteria be incorporated holistically into the overall Benefit Score, as in the MEC's recommended scoring criteria and weights.

ii. Scoring Criteria & Weights

Proposed change: Adopt MEC's complete recommendations on scoring criteria.

While the Implementation Plan refers to the general framework presented by the MEC, it incorrectly notes that the MEC framework was "adapted here with changes made to improve practical implementation, improve transparency for MIP Applicants, and minimize, to the extent possible, subjective scoring."[53] It includes the following categories and weights:

1. Customer and Community Benefits (50%)
2. Resilience and Additional Benefits (30%)
3. Environmental Benefits (20%)[54]

In fact, the Implementation Plan rejects the MEC framework both in the above project score formula and in the scoring categories. These categories do not track to the MEC recommendations. For example, the Resilience and Additional Benefits category includes criteria

[52] Attach. 1 at 13.
[53] Implementation Plan at 28.
[54] Implementation Plan at 28-30.

related to the locational risks of outages and the project's Island Mode duration capability, which track to criteria in both the MEC's Project Location and the Project Facility/Customer categories.

In addition, there are several problematic discrepancies worth mentioning.

First, the Implementation Plan sets point caps for various criteria whereas the MEC recommended a multiplier system without point caps. The point cap system therefore sets limits on projects with distinct, significant benefits whereas the MEC system provides additional flexibility. MEC's multiplier approach provides no such point cap, affording more flexibility to capture high value projects.

Second, the Implementation Plan provides far more points to critical facilities (setting a point cap of 30) compared to Community Resilience Service facilities (point cap of 2). The MEC proposal included far more flexibility to award points for a wider range of services and *required* that projects demonstrate specific services. The Implementation Plan does not include such a requirement.

Third, the Resilience and Additional Benefits category sets a higher point cap for projects in areas affected by PSPS events (up to 14 points) that is seven times higher than the 1% worst performing circuits (up to 2 points).[55] This effectively prioritizes projects in areas impacted by the recently adopted utility PSPS tactic over areas that have the worst outages overall. This prioritization has equity implications because circuits facing consistently poor performance, potentially due to persistent infrastructure neglect and historic disenfranchisement, have little hope for relief through this program. In contrast, PSPS was proposed as an interim ignition risk mitigation measure and not as a permanent operational strategy. Outages should be weighted equally based on frequency, duration, and forecast likelihood of change reflecting planned utility investments, including investments targeting reduced use of PSPS.

Last, the Environmental Benefits category reflects up to 17 points for projects with 100% capacity from clean energy,[56] and then includes gradual point decreases for projects with less clean energy capacity.[57] The MEC does not include such partial credit for partially clean

[55] To be clear, the MEC recommends providing additional points to projects located in communities served by the worst performing 2% of circuits, not 1%.
[56] The Implementation Plan does not define "clean energy" but we interpret this term to mean zero-emissions resources.
[57] Implementation Plan at 31.

projects. Instead, we propose a sizable point boost for zero-emissions projects, and no point boost for projects that include resources that emit greenhouse gases or criteria pollutants.

In sum, while MEC appreciates that its scoring criteria was the starting point for the Implementation Plan, the Implementation Plan needs significant revision to meet the stated MIP objectives. The Implementation Plan does not incorporate MEC recommendations on scoring criteria.

4. Involving the existing DAC Advisory Group to review scoring of project applications and selection of winning projects.

Proposed change: None

The MEC recommended that the Implementation Plan involve the existing DAC Advisory Group ("DAC-AG") to review scoring of project applications and selection of winning projects. The Implementation Plan fully incorporates this recommendation, stating that each utility will present preliminary results to the DAC-AG, in an advisory capacity, for review and feedback.[58]

5. A detailed MIP review and evaluation process at various stages and at the end to assess the level of participation from frontline communities, the selection of projects for MIP funding, and the successful implementation of MIP projects.

Proposed change: Adopt MEC's recommended evaluation elements in working with the Energy Division and third-party evaluators to provide meaningful evaluation.

The MEC recommended that multiple aspects of the MIP should be carefully evaluated, from the initial outreach to potential applicants up to the completion and placing in service of the MIP microgrid projects and an overall evaluation of the program as a whole.[59] The following elements should be part of the evaluation:

1. Outreach and Application Process;
2. Benefits of Projects Approved for Funding;
3. Project Implementation Tracking;
4. Post-COD Microgrid Performance;
5. Post-COD Measures of Benefits;

[58] *Id.* at 28.
[59] Attach. 1 at 17.

6. Replicability of Project Designs;

7. Replicability of the Program; and

8. Timing of Evaluations.[60]

The MEC provided detailed recommendations for specific data points for collection on each of these topics in its written summary of recommendations, included as Attachment 1 to this document.[61] MEC structured its recommendations to ensure that the utilities and any third-party evaluator can track criteria relevant to the implementation, selection of projects, and impact of the MIP. In particular, these recommendations are tailored to identify whether and how well the program engages and delivers benefits to frontline, low-income, and disadvantaged communities throughout this process.

The Implementation Plan, however, does not discuss the specific information needs, instead simply committing to "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."[62] Due to this general statement and no additional detail, the Implementation Plan does not incorporate this recommendation from the MEC.

MEC recommends that the Implementation Plan incorporate the detailed evaluation elements created by the MEC.

IV. Other Issues

In addition to the core elements of the MEC proposal, we identify remaining proposed changes in the Implementation Plan in the following categories.

1. Emissions Calculations

Proposed changes:

- Retain the requirement that aggregate emissions from Project and non-Project Resources must be no greater than equivalent grid emissions, but also ensure that a

[60] *Id*. at 17-18.
[61] *Id*. at 17-20 (detailing proposed evaluation criteria to evaluate the MIP).
[62] Implementation Plan at 52.

project's Blue Sky Mode must not produce more emissions than when in Islanded Mode.

- Determine system emissions based on the lower of either the IOU service territory or CAISO territory.

MEC recommended that emissions requirements be set on both Islanded Mode and Blue Sky Mode in order to meet the MIP's stated purpose of deploying clean energy microgrids to disadvantaged and vulnerable communities.[63] This recommendation was conveyed in writing following the Joint IOU's October 26th MIP presentation, and that writing is appended to this document as Attachment 2.[64]

The Implementation Plan would set emissions requirements based on Islanded Mode.[65] This is far preferable to identifying a project's emissions based on Blue Sky Mode, as some project applicants might envision including intensely emitting backup generators in Islanded Mode. MEC also supports the Implementation Plan's specificity that "when operating in Island Mode, the aggregate emissions from Project Resources and non-Project Resources must be no greater than equivalent grid power.[66] This protects against the possibility of MIP projects being fueled by emissions-heavy backup resources when operating in Islanded Mode.

However, it is also important that the projects do not produce excessive emissions when operating in Blue Sky Mode (in parallel operation to the grid). MEC therefore recommends that a project's Blue Sky Mode must not be allowed to be higher than in Islanded Mode.

The Implementation Plan does not define how to identify the system emissions. MEC recommends defining "equivalent grid power" by using the *lower* of either the IOU service territory or CAISO territory, excluding generic imports with unknown emission characteristics. The microgrid should conform to the most recent available data as grid power emissions are reduced over time, and not be permanently based on the emissions associated with the period in which operation commenced. It is also important to note that neither GHG nor criteria pollutant emissions may exceed those of equivalent grid power.

2. Project Duration in Islanded Mode

[63] Attach. 2 at 1-2.
[64] *Id*.
[65] Implementation Plan at 20.
[66] *Id*.

Proposed Changes: None

The Implementation Plan set a requirement of a minimum 24-hour operation capability in Islanded Mode. This is reasonable.

We note that solar resources refresh daily and support ongoing operation at variable daily capacity levels. As such, projects should be recognized for both the planned full capacity rating (e.g., 24 hours), and for forecast average capacity in days beyond their full capacity capability (e.g., 96+ hours).

3. Eligible Resources

Proposed changes:

- Clearly and unequivocally reject the use of MIP funding for emitting Project Resources that may be used outside of emergency conditions.
- For emitting Project Resources for use during emergency conditions, require Best Available Technology emissions standards and require the project to use Loading Order dispatch priorities.

The Implementation Plan states "Project resources must comply with emissions standards adopted by the Air Resources Board pursuant to the distributed generation certification program requirements of Section 94203 of Title 17 of the California Code of Regulations."[67] Diesel generators could still qualify under this provision, fossil fueled generation is permitted under Section 94203. These emission standards have not been updated since 2007 and do not reflect subsequent advances in our understanding of emission risks or emission reduction technology.

MEC is strongly opposed to the MIP funding emitting resources that may be operated outside of emergency conditions. Where emitting resources are proposed to supplement emergency capacity, we recommend that these be required to reflect Best Available Technology emission standards in addition to any other applicable emission limits, and that operation of these resources comply with Loading Order dispatch priority policies of individual resources within the microgrid to minimize emissions.

4. Emergency/standby generation that is already in place

[67] Implementation Plan at 19.

Proposed change: Provide additional points to projects that displace emitting emergency/standby generation.

The MIP implementation rules prohibit the use of existing emergency/standby generation in a microgrid project funded by the MIP unless it complies with PUC Section 8371(d).[68] While the Implementation Plan would require emergency/standby generation to be isolated from the microgrid, the scoring criteria should provide extra points for multi-customer microgrids that demonstrate that existing single-facility emergency/standby generation would be used less frequently or no longer be needed. Further consideration should be given to microgrids that displace emitting emergency/standby generation.

5. Administrative Costs

Proposed change: Clarify the costs included in the proposed "Administrative Costs" category, and apply Application Development Technical Assistance grants to that category.

The Utilities propose to allocate the total program budget, less a 10% reserve for administrative costs. Ten percent of the MIP budget would amount to $20,000,000. This level of spending for "administration" seems excessive, unless most of this is dedicated to technical support and funding for 3rd party assistance in project design and proposal development (see Appendix A, Section VI, Subsection B).

MEC requests clarification on which costs are included in this "administrative cost" category. MEC also recommends that this 10% reserve include funding the Application Development Technical Assistance grants of $25,000. Ten percent of the MIP budget is $20M, and just one quarter of this proposed administrative budget would cover up to 200 grants for Application Development Technical Assistance.

V. Conclusion

[68] Implementation Plan, p. 19 FN 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.").

The MEC wants to see the Microgrid Incentive Program succeed in its goal to fund microgrid projects that benefit the most vulnerable disadvantaged communities, and we appreciate the opportunity to provide input on how this Implementation Plan can be improved to accomplish that goal. Thank you for your consideration of these comments.

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Respectfully submitted,

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ATTACHMENT 1

Microgrid Equity Coalition
Proposal for
CPUC Microgrid Incentive Program (MIP) Implementation Process

Introduction and Summary

The Microgrid Equity Coalition (MEC) is a collaborative group comprised of several participants in the CPUC's Microgrid Proceeding (R.19-09-009), formed for the purpose of developing and advancing environmental justice and equity outcomes in this proceeding that address the needs of vulnerable and marginalized people and communities.

MEC members are: California Alliance for Community Energy; California Environmental Justice Alliance; GRID Alternatives; Reclaim Our Power: Utility Justice Campaign; Sierra Club; The Climate Center; and Vote Solar.

MEC members presented proposals in the MIP workshops that were held from July 7 through August 11 as ordered by the CPUC to advise the IOUs in the formulation of their proposed MIP implementation plan to be submitted to the CPUC on October 4.

This document provides the MEC's comprehensive proposal to the IOUs and the CPUC for implementing the MIP, combining the proposals MEC members presented in the workshops with some clarifications based on the workshop discussions.

The CPUC's MIP Statement of intent

The following is quoted from the CPUC's Track 2 decision authorizing the MIP (D.21-01-018):

"To develop a microgrid incentive program to fund clean energy microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages."

"Benefits to include, but not limited to:

- Increased reliability and resilience for critical public facilities in communities that are at higher risk of electrical outages;

- Priority for serving communities with higher proportions of low-income residents, access and functional needs residents, and electricity dependents;
- Enabling communities with lower ability to fund development of backup generation to maintain critical services during grid outages; and
- Providing an opportunity for testing new technologies or regulatory approaches to inform future action to the benefit of all ratepayers."

Reclaim Our Power's Principles for Microgrid Development

MEC supports the following principles originally articulated by Reclaim Our Power: Utility Justice Campaign, a member of the MEC, articulated the following principles in its January 11, 2021 letter to the Commission in response to the Track 2 Proposed Decision:

- Invest in disadvantaged communities. Ensure that the MIP funds explicitly serve disadvantaged and vulnerable communities; historic disinvestment in these communities has made it challenging to access financing to develop microgrids and other energy projects.
- Critical facilities should be defined by the public. Frontline communities know which buildings are critical to protect against power shutoffs. Use definitions that will include the type most urgently needed by our communities: customer-side microgrids at hospitals, community centers, nursing homes, schools, churches, foodbanks, and other facilities for essential services.
- Encourage community development with a new microgrid tariff. A differentiated tariff structure is needed to address historical inequities that have impeded microgrid development in our communities. We need standards that would facilitate community development of microgrids.
- Clean microgrids, not dirty. Do not authorize continued diesel generation that will be paid for by ratepayers beyond the 2021 fire season. We remind the CPUC of its repeated assurances that diesel was to be a short-term solution to be followed by a transition to clean generation.
- Provide opportunities for community ownership. The Commission should empower communities to invest in their own energy futures — to pursue microgrid development that meets community needs.

Main Elements of the MEC's Proposal

To achieve the objectives stated above the MEC's proposal consists of these major elements, which are described in greater detail below in the sections for the workshops in which MEC members presented them.

1. Ability for communities themselves to identify the most essential services they need to be powered by the microgrids, rather than restricting proposals to a predetermined list of eligible facilities
2. An application process that's accessible to frontline and disadvantaged communities, consisting of:

- A one-stop information source that clearly describes the MIP application process and provides relevant information
- A pre-application process for potential applicants to submit a project concept and receive prompt technical feedback from the IOU to help the community submit a successful application
- Availability of grants to enable a community to procure additional technical support for completing the full application
- At least two successive application windows so that communities who already have identified shovel-ready projects can proceed quickly while reserving significant MIP funds for communities that need more time.

3. A process for evaluating MIP proposals that minimizes fixed eligibility requirements and emphasizes scoring criteria that will elevate projects serving vulnerable populations and under-resourced communities, that demonstrate community support, utilize carbon-free energy resources and minimize emissions, provide resilient emergency services, and serve larger frontline groups with more services rather than relying on traditional cost-effectiveness criteria.
4. Involving the existing DAC Advisory Group to review scoring of project applications and selection of winning projects.
5. A detailed MIP review and evaluation process at various stages and at the end to assess the level of participation from frontline communities, the selection of projects for MIP funding, and the successful implementation of MIP projects.

Workshop #1. Laying the Foundation

- Microgrids are important for frontline communities as part of a broader resilience strategy because the stakes are high with fires and shutoffs that threaten people's lives and their abilities to keep life-giving machines on.
- The Reclaim Our Power letter on microgrids outlined priorities so that frontline communities can benefit from them. We emphasize that critical facilities be defined by the public because they'll know which facilities the community trusts, including who runs them so that people (youth, immigrants etc.) feel safe to go there. We caution against having government define critical facilities because most aren't aligned with the needs of frontline Black, Indigenous, People of Color communities. We also recommend that these microgrids be owned by the community, not corporate IOUs.
- The MIP has to provide a community benefit and meet the needs of frontline communities toward their resiliency. Disadvantaged and vulnerable communities are historically underinvested, so many community groups will not immediately have shovel-ready projects, nor be quite ready to fill out the application. You need to recognize that in order to get microgrids built in disadvantaged communities, you need to design the program to advantage them. We support the proposal to have a 2-step application process, plus technical assistance for the community planning phase of a microgrid project.

Workshop #2. Program Design

What DER ownership/contracting models are appropriate for the MIP?

- Many models should be allowed to accommodate varied needs and circumstances, if they are supported by the communities served
- Community ownership is an appropriate model for the MIP, with multiple options
- Utility ownership of all microgrid resources is not appropriate, particularly generation and storage
- There are some models where it might be appropriate for utility operation, when the project sponsors agree.

There are two different versions of multi-property microgrids when islanded:

1. Where the microgrid is connected via utility wires, it may be appropriate for the utility to operate the microgrid in island mode. (Redwood Coast Airport Microgrid example)
2. Where connected by private or 3d party lines, with a single point of connection to the utility distribution system; and may offer full community control.

When type 1 is not islanded, existing operating rules apply to each facility or resource.

How to align incentives (awarding grants) with MIP objectives?

- The MEC has developed scoring criteria that heavily prioritizes projects that serve frontline communities and populations (see Workshop #4 section). These projects should be prioritized.
- Within those high-scoring projects, cost-effectiveness could be a secondary criterion that selects the most cost-effective projects (see subsection on cost effectiveness in the Workshop #4 section).
- IOUs should make information readily available that helps identify high value opportunities and to maximize benefits relative to costs.

What should the incentive dollars pay for?

- Grid upgrades, if any are needed to accommodate the MIP project, should be covered by the utilities (CPUC has already authorized using CMEP model to pay for islanding/reconnection facilities out of a separate utility ratepayer funding account.)
- MIP dollars should go primarily to microgrid energy facilities (e.g., solar PV, storage) and related equipment. MIP funding should also contribute to behind the meter (BTM) solar + storage in microgrid designs where it is more cost effective to include BTM Distributed Energy Resources (DERs) in the microgrid control system than to build additional front of the meter (FOM) DERs. (This was a topic of significant discussion in the working groups; MEC provides some analysis to support its recommendations on this question in the context of Workshop #4 below.)
- MIP dollars should fund qualified technical support for communities to submit effective applications. MEC recommends establishing a pre-application process whereby potential

applicants can submit conceptual projects to obtain early feedback and technical support prior to submitting a full proposal. At this time the applicant should be able to include a request for funding to cover technical expertise to help develop the full proposal, and MIP funds should be available for such assistance (see Workshop #5).

- Project scoring based on complete applications should be the primary basis for funding decisions (see detailed scoring proposal in Workshop #4)

How are incentives to be calculated?

- Project scoring should be the primary basis for calculating funding; the MEC proposes detailed scoring criteria in Workshop #4.
- Calculated relative to the persons served and multiplied by the scoring bonus applied to each type of service and % of higher need population.
- Also applied to early incentive funding for the application development.
- Then consider a "need based" approach of MIP funding required for the project to be financially viable for the applicant. (This would support the most efficient use of funding for the largest number of high scoring projects.)

What form should the incentive take?

1. Upfront grants

Grants may be disbursed as incremental project milestones are reached in order to ease up front funding burdens and carrying costs.

2. Power Purchase Agreement bonus rates

Attractive Power Purchase Agreement (PPA) rates would draw interest and support from developers and provide an ongoing source of revenue at a set rate and set term. MIP funding for PPAs or energy services agreements should be additional to market value (a bonus on top of available market value) in order to incent and support projects serving more disadvantaged and vulnerable communities (high MIP scoring).

Program Timing: Should there be a fixed opportunity window or a rolling application period until the funding is exhausted?

MEC proposes a window-based approach to accepting and funding applications so as to compare projects. We propose two windows with a limited portion of the total funds available in the first window for early applicants that have projects that are ready quickly, reserving remaining funds for those that require more time. The second window would open a few months after the first window.

If funds are not fully subscribed following the second window, any remaining funds may be released on a first-come, first-served to eligible projects.

Note that the 24-month commercial operation date (COD) deadline needs to be changed to start from the date of the MIP award.

- The Commission should establish deadlines for program implementation by the IOUs as part of its ruling on the Implementation Plan. Early activities by the IOUs would include

the publication of supporting information and process details including application window dates.

- Utility schedules for program implementation, application evaluation, interconnection approval or utility construction should not result in the loss of award to successful applicants.

In addition, because good applications take time, expertise and investment, we propose a two-step application process:

1. The Pre-application would have a fairly low entry burden so that community applicants could submit a conceptual proposal and obtain early feedback and technical support for developing a full proposal. This would help applicants determine whether their project concept is viable and to identify high-value opportunities. At this time the applicant could apply for some MIP funding to engage 3rd party technical expertise to prepare the full report.
2. The Application would include all the relevant design details needed to perform the scoring described in Workshop #4.

When and how should MIP funding be dispersed?

IOUs should use administrative funding early to provide information and needed financial support for pre-application and application development.

Winning projects might need additional technical support to get to project completion.

- CPUC DAC Advisory Group review of IOU scoring of submitted applications and IOU proposed decisions on which projects to award
- Grants should be disbursed as incremental project milestones are reached
- Allow project sponsors to use awards as collateral to support project financing from lenders
- Final release of remaining funds when development has completed operational and safety inspections, even if COD is delayed by incomplete utility construction of islanding facilities or other grid upgrades.

Workshop #3. Eligibility

The MIP can drive outcomes through a combination of eligibility requirements and scoring. Eligibility requirements would apply to the full application at time of submission to determine whether the project is acceptable for the scoring process. If it meets eligibility requirements, then the application should proceed to scoring.

To meet the multiple objectives of this program, it's important to:

- Allow as much flexibility as possible in eligibility requirements, not to be too restrictive at the front end; and
- Use a scoring system that ensures incentives go to projects that deliver community benefits where they are most needed.

The MEC proposes a set of scoring criteria (Workshop #4) that heavily favor projects that serve underserved communities. For many criteria, we propose score multipliers rather than eligibility requirements.

Proposed Eligibility Requirements

- Project makes emergency services generally available
- Demonstration of community support
- Project beneficiaries include at least one vulnerable population (as defined below)
- Enhanced resilience, meaning it provides at least one type of emergency service
- Multi-customer (per D.21-01-018)
- Air emissions lower than equivalent grid power
- Pay workers a prevailing wage

1. **Require project to include at least one Critical Community Service**

"Develop an incentive program to fund clean community microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages" (Administrative Law Judge's Ruling, July 23, 2020, Attachment 1 – Staff Proposal at 18-20.)

The Staff Proposal states that the program will "fund development of backup generation to maintain critical community services during grid outages" (Staff Proposal at 19.) and then states that "critical facilities" are defined in Appendix A of D.19-05-042.

There is a clear disconnect between "critical community services" and "critical facilities" because some facilities that do not fit the list in D.19-05-042 provide critical community services. The MEC supports a definition of "critical community services" that can be met by a non-exhaustive list of important facilities common to most communities, including the critical facilities found in D.19-05-042, as well as schools, food banks, community centers, community non-profit facilities that provide essential services, libraries, homeless shelters, and others.

2. **Require a showing of Community Support**

"Clean community microgrids that support **the critical needs** of vulnerable populations most likely to be impacted by grid outages" Facilities need to be trusted for communities to make use of the emergency services. Proving community support would indicate that the project is meeting the critical community needs.

Require a showing of community support through any of the following:

- 1. Letter of support from local government
- 2. Petition of support from community w/ 1% of signatures from census tract
- 3. Letters of support from 2 or more community-based organizations

3. **Require the project to include at least one vulnerable population as project beneficiaries**

"Clean community microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages"

Staff Proposal "Community Criteria:"

- Proportion of low-income residents, as measured by CARE and FERA participation or eligibility.
- Top 25% score using CalEnviroScreen 3.0 criteria
- Proportion of people with "Access and Functional Needs" as defined by D.19-05-042.
- Proportion of Medical baseline or electricity-dependent Medicare patients.
- "Disadvantaged Vulnerable Communities" definition from D.20-08-46 adds:
    - Top 5% of pollution burden but no overall CalEnviroScreen score
    - Census tracts with median household incomes less than 60% of state median income

MEC recommends that the definition of "vulnerable population" include all of the above as well as including two additional populations included in the Environmental and Social Justice Action Plan's definition of Environmental and Social Justice Communities. Those additional populations include tribal communities and low-income census tracts. The ESJ Action Plan defineds low-income communities as census tracts with median household income at or below 80% of the statewide median income. AB 1550 defined priority populations for allocating Greenhouse Gas reduction funds for climate investments in communities that need it most. CARB maintains a dataset showing which census tracts qualify as low-income in its Priority Populations Map.

The scoring criteria (Workshop #4) propose to boost the scores of projects that serve multiple vulnerable populations, located in vulnerable communities, or both.

Data Sources

Use CARB's Priority Populations Map to identify the 25% highest scoring census tracts in CalEnviroScreen and top 5% pollution burden, as well as low-Income communities. Defer to the CPUC Tribal Liaison regarding Tribal Lands.

4. **Enhanced Resilience**

A project needs to show **at least one type of emergency service**. A non-exhaustive list of emergency services includes:

- Emergency shelter, including cooling
- Emergency medical support
- Food and/or water distribution or services (i.e., food banks, prepared foods)
- Emergency coordination services
- General electricity availability
- Other emergency services not described

Emergency services need to be available to all, regardless of citizenship/documentation status.

5. Multi-customer microgrids only

D.21-01-018 is clear that single-customer microgrids are excluded from this program. This is an eligibility requirement.

Characteristics that are more appropriate as a scoring criterion rather than an eligibility requirement.

6. Pollutant emissions cleaner than equivalent grid power

This program should support clean community microgrids. The Staff Proposal requires criteria pollutant and GHG emissions cannot be worse than the equivalent grid power. (p.19.)

- Require air emissions that are cleaner than grid power during both grid connected and islanded emergency operation

To define emissions for "equivalent grid power," we suggest looking to:

- Power Content Labels of the default LSE(s) serving the microgrid customers
- CARB's emissions tracking
- Projected grid emissions for each future year of microgrid operation

Projects must, at a minimum, continue to achieve emissions no greater than average annual grid power in each year as emissions improve in future years, and not continue to pollute at the historic level of grid power when operation commenced.

- Projects demonstrating lower emissions than grid power should be recognized in scoring results, with a clear and substantial boost for the scores of projects with no emissions

7. Pay workers the prevailing wage

Criteria Not Appropriate for an Eligibility Requirement

Past Outages: Past outages are an imperfect predictor of future outages, so a project should not be required to show evidence of a prior outage. Rather, history of multiple past outages should be a scoring criterion, not an eligibility requirement.

96 Hour Duration:D.21-01-018 notes that MIP projects would ideally be 96 hours, but "this is an ideal and should come as close as reasonably practicable." (p.68) Duration should not be an eligibility requirement, but should be a scoring criterion, based on the weighted likelihood of outage duration and the level of ability to support services.

Workshop #4. Project Evaluation

Scoring Considerations

The Microgrid Equity Coalition recommends that the MIP project selection criteria heavily favor microgrid projects that:

- Provide benefits to vulnerable communities
- Are located in underserved communities
- Are clean; do not produce GHG or pollutant emissions

Scoring needs to:

- Be easy to understand and transparent
- Prioritize vulnerable communities

Scoring Categories and Weights

These are the categories of information that should be determining the scores for any given project. Between these categories, the score should truly prioritize vulnerable communities, increase reliability and resilience, and enable communities that currently can't develop backup generation to maintain critical community services.

The Total Project Score will equal the weighted sum of the individual category scores, using the weighting factors indicated. Category scores are determined using the scoring tables shown below.

1. Project Beneficiaries (30%) — Which vulnerable communities will use the project in the event of an outage? (Require a threshold %, score boost for higher percentages)

2. Project Location (30%) — What does the neighboring community look like? Consider outages, grid (un)reliability, disadvantages, low-income.

3. Project Facility/Customer (10%) — Is the customer of the microgrid a provider of critical community services? Is there existing backup generation?

4. Emergency Services (25%) — In the event of an outage/emergency, what emergency services will the facilities powered by the project provide?

5. Ratepayer Cost Effectiveness (5%) — Standard cost-effectiveness test with boosters to reflect additional community value, replicability value, upgrades to aging/failing infrastructure.

Additional quantitative criterion: Person-Services Provided

Scoring Tables

Category 1, Project Beneficiaries (30%): Who is served by this project in the event of an outage?

One workshop question asked how vulnerable customers should be prioritized relative to other customers in microgrids. This category and the scoring here is one way to ensure that the scoring criteria prioritize vulnerable customers. This category asks project applicants to explain each of the identified vulnerabilities of the population that the microgrid would serve. It is possible for a project to serve a population with multiple, overlapping vulnerabilities, and this category requires a project sponsor to identify those and receive a score boost for each vulnerability. The project applicant would need to identify approximately what share of the population served each of these vulnerabilities, then a multiplier would be applied to each percentage to produce a total point score.

Project Beneficiaries	% of total pop.	Multiplier	Points
Individuals or households who are located in a disadvantaged community		5	

People served who have access and/or functional needs		15	
Disabled customers, Medical Baseline customers, or customers dependent on electricity for survival		15	
Low Income Individuals (At or below 80 percent of the statewide median income or median household designated as low income by the Dept. of Housing and Community Development's list of state income limits)		5	
Individuals experiencing homelessness		15	
Elderly individuals		5	
Children		5	

Category 2, Project Location (30%): What does the neighboring community look like? Is it vulnerable?

This category requires project sponsors to provide information about the community where the microgrid will be located. Because a large set of this information is based on census tracts or location, these different, competing criteria made sense to put in one category.

The first two entries in this category illustrate local reliability and outages: the first entry covers outages or PSPS events, and the second entry is focused on the worst performing circuits. These criteria aim to address how the duration and number of outages might be factored into the scoring of a project.

With this category, we also aim to capture information about the vulnerabilities of the community at large, particularly whether it is a designated disadvantaged or low income community, consistent with the ESJ Action Plan as referenced in Workshop 3, section 3 above.

Because our proposal includes a point multiplier system, this category aims to ensure that stacked disadvantages within any given community are each given credit. Where a microgrid would provide services in a community with multiple vulnerabilities, those projects would receive a bigger score boost.

Project Location	**Yes (1) / No (0)**	**Multiplier**	**Points**
Project has experienced three or more outages lasting more than 2 hours, or PSPS events		5	
Project is one of the top 1% worst performing circuits		10	
Project serves a disadvantaged community (i.e., census tract with a 25% percentile in the CalEnviroScreen tool or the top 5% CalEnviroScreen for environmental burden)		25	
Located in a AB 1550 Low-Income Community (i.e., census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by the Dept. of		10	

Housing and Community Development's list of state income limits)			
Located in school district that serves free or reduced lunch to at least 65% or a majority of students		10	

Category 3, Project Facility (10%): Do any of the microgrid customers provide critical community services?

This category aims to capture which emergency services the microgrid will be able to provide in the event of an outage or PSPS event. These entries list many of the readily recognized emergency services, but additional entries may be appropriate.

The last two entries incorporate a way to provide a score boost for projects that have very clean profiles, meaning few, if any hazardous air pollutants. Accordingly, projects will receive a significant point boost when they emit no criteria air pollutants and/or no greenhouse gas pollutants.

Project Facility	**Yes (1) / No (0)**	**Multiplier**	**Points**
Project serves a facility that qualifies as a critical facility as defined by D.19-05-042 or critical community infrastructure (meaning 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; and places of worship.)		4	
Project serves a facility that does not currently have any backup generation		2	
Project serves a facility that currently has diesel backup generation, which would be replaced/retired by the microgrid		4	
Project will have no criteria air pollutants		10	
Project will produce no greenhouse gas pollutants		10	

Category 4, Facility Emergency Service: What emergency services will the microgrid facilities provide?

Project Emergency Services	**Yes (1) / No (0)**	**Multiplier**	**Points**
Does the facility provide emergency shelter?		25	
Does the facility provide emergency medical support?		20	
Does the facility provide food and/or water distribution or services (i.e., food bank, prepared foods)?		20	

Does the facility provide emergency coordination services?		10	
Does the facility provide general electricity availability (people can charge phones, etc.)?		5	
Does this project provide additional emergency services not listed above? Please describe		5	

Category 5, Ratepayer Cost-Effectiveness: Standard cost-effectiveness test with boosters

Ratepayer Cost-effectiveness Factor	Yes (1) / No (0)	Multiplier	Points
Does this project offer a special value to the community that is not captured by the emergency services?		5	
Does this project offer special replicability value? In other words, could this project be copied and deployed widely in other places?		5	
(Bonus) Does this project result in an upgrade to aging/failing infrastructure?		2	

Additional quantitative criterion: Total Person-Services: How many services will this microgrid be able to provide?

	No. of Persons	Multiplier (Service Points)	Person-Service Points
How many persons can the facility simultaneously provide emergency medical support to?		1	
How many persons can the facility simultaneously provide food and/or water distribution or services for?		2	
How many persons can the facility simultaneously provide emergency coordination services for?		0.1	
How many persons can the facility simultaneously provide generally available electricity for?		0.05	
How many persons can the facility simultaneously provide with any emergency services not mentioned above (corresponding to any additional services described in the Facility Emergency Services section of the application)?		0.5	

Cost-effective Use of MIP Funds for Both Front of Meter (FOM) and Behind the Meter (BTM) Microgrid Resources

During some of the workshop meetings there was discussion of whether MIP funds could be used to offset costs of DERs located on customer premises and connected electrically "behind-the-meter." Some parties argued that such DERs could not receive MIP funds and based this position on Finding of Fact 27 from D.21-01-018:

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.

The MEC believes, and argued in the workshops, that Finding of Fact 27 should not be read to definitively exclude use of MIP funds to offset costs of BTM DERs, for four reasons.

- First, in some circumstances BTM DERs that are controllable by the microgrid control system could lead to a more cost-effective resource mix to support islanded operation than relying entirely on front-of-meter (FOM) DERs for islanded operation (see examples below).
- Second, in microgrids that use some BTM DERs in their control systems for islanded operation, those DERs provide services to the community microgrid that should be fairly compensated, comparable to the use of MIP funds for FOM DERs. MIP funding might be used to pay/contract for islanded services from resource owners within the microgrid, in which case it would be inappropriate to discriminate between BTM and FOM resources. Equal pay for equal work is a fundamental equity principle. This would encourage customers with PV and storage to share their resources in a microgrid (and install more) instead of separating off into their own private islanded nano-grid.
- Third, use of MIP funds to offset a portion of BTM DER costs would not be redundant in instances where existing BTM generation program funding is exhausted or not available. The existing SGIP incentives for BTM batteries are limited to 20% of cost, the amount decreases with battery size down to zero beyond a 6-hour battery, and SGIP funds may no longer be available by the time projects are being designed on the MIP schedule; in fact non-residential storage equity funds already closed/waitlisted.
- Fourth, communities applying for MIP funds will start from unequal initial conditions; some of them may have several customers with controllable BTM DERs that can support islanded operation while others may not have any. A community that already has BTM DERs that can participate in the microgrid control system would appear more cost effective than a similar community whose proposal offers the same benefits but has no pre-existing resources to support the microgrid.

The MEC believes that this question involves both ratepayer cost-effectiveness and equity issues. Islanded operation of a microgrid is managed by a microgrid control system that uses whatever controllable resources are available for "grid forming" to maintain all the technical conditions, such as frequency, voltage and dynamic supply-demand balance, required for continuous reliable operation of the microgrid as a self-contained electrical network. In some situations the most cost-effective set of resources to support islanded operation of a microgrid could include both BTM and FOM controllable resources. The MIP implementation plan should seek to identify the most cost-effective mix of resources to support islanded operation, including pre-existing BTM and FOM resources where they exist. the MIP should not definitively exclude the possibility of allowing BTM resources to be eligible for MIP funding when they participate in the microgrid control system for islanded operation, as that would impose an unnecessary constraint that could reduce ratepayer cost effectiveness. The MEC believes this can be done

so as to avoid compensation that duplicates other programs, to respect the Commission's concern expressed in Finding of Fact 27.

Consider the following examples.

SCENARIO 1. The proposed microgrid footprint includes a pre-existing solar canopy over a parking lot, which is adjacent to a school and a residential assisted living complex. If sufficient storage added, the pre-existing PV would be sufficient to provide the total daily energy needs for the microgrid in islanded mode. The project designers determine that $2M investment in battery storage is needed.

- **Option 1**: Invest in $2M BTM battery located at the assisted living complex
    - Blue sky use use of the storage allows TOU load shifting that covers 90% of the cost of the batteries leaving A $200K funding gap
    - Low-cost non-export interconnection for the batteries, no grid upgrades needed
    - Customer use of the batteries reduces peak load on the grid, increasing available grid capacity without upgrades
- **Option 2**: Invest in $2M FOM battery
    - Blue sky use allows CAISO market participation that covers 60% of the cost, leaving an **$800K funding gap**
    - High-cost export interconnection adds $200K for upgrades to accommodate the grid impacts of CAISO market dispatch, increasing the funding **gap**
    - **Total ratepayer cost will be $1M or more**

In this scenario the amount of MIP funding needed and ratepayer cost can be much higher by adding FOM resources to create a microgrid.

SCENARIO 2. As in Scenario 1, the proposed microgrid footprint includes a pre-existing solar canopy over a parking lot adjacent to a school and a residential assisted living complex. In this case there also exists BTM battery storage at the assisted living complex which in combination with the solar array is sufficient to meet total microgrid energy needs for critical loads.

The need is to invest in islanding facilities. A potential complication is that the PV array on the parking lot and the assisted living complex with the battery storage are on distinct distribution circuits, although the properties are adjacent.

- **Option 1**: Install grid disconnect switches and new microgrid line to directly connect the adjacent properties during islanded operation only
    - Customers cover 50% of cost based on value of resilience, leaving a $100K funding gap
- **Option 2**: Install grid isolation and reconfiguration switches to connect line sections on separate utility circuits or branches as needed to create the microgrid island
    - May include additional customers between the critical loads and resources, resulting in higher total load and need for additional resources, resulting in Total ratepayer cost of $1M or more

Clearly the above examples are illustrative only. The point is that the MIP should consider all practical designs that can meet the microgrid performance objectives and, where using BTM resources can result in a more cost-effective microgrid project, should allow MIP funding to fill the gap between actual capital costs and the existing BTM incentives and customer value.

Excluding BTM resources is a debilitating flaw because most vulnerable communities are not going to be able to propose projects with only new FOM resources. DACs have fewer existing resources, and cost analysis is likely to bias against applications with higher costs driven by having to use only FOM resources.

Workshop #5. Application and Review Process

Process Considerations

The Microgrid Equity Coalition recommends that the MIP application process

- Be accessible to motivated communities and community-based organizations
- Incorporate technical support
- Include DAC-AG in the approval process
- Include multiple application/selection windows

Process Steps

1. Step Zero: MIP Information Availability
2. Step One: Pre-Application *[optional for the applicant]*
3. Step Two: Application
4. Selection Process

Step Zero: MIP Information Availability

The utilities should provide a one-stop shop for MIP project applicants to find information on project attributes and locations that would be feasible and desirable in accordance with MIP selection criteria. This should include a map with multiple overlays:

1. Disadvantaged communities
2. Low-income communities
3. Outage data (showing areas facing multiple outages or PSPS events)
4. Worst performing circuits (top 1%)
5. High Fire Threat District

Step One: Pre-Application *[optional for applicant]*

Pre-Application enables a community to get early indication from the utility of a project proposal's viability before investing in a full Application. The pre-application form would require:

1. Project location
2. Project beneficiaries: customers to be served, services the project will provide
3. Technologies planned, microgrid performance attributes
4. Interconnection details: resource types, sizes, locations, project diagram
5. Utility response to Pre-Application should identify any issues the applicant should address or improve

Step Two: Application

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.

Selection Process

1. Projects should be selected based on how well they fit program objectives, using Scoring proposal presented by MEC/Sierra Club at workshop #4.
2. Allow for multiple application windows
3. DAC-AG oversight, including review of scoring of all applications and IOU proposals for which projects to fund.

Workshop #6. Program Evaluation

The proposals in this section assume the Commission has adopted a process having two application windows, each with a pre-application opportunity for the applicant to get early feedback and support prior to submitting a full application. See the Workshop #3 sections for more on these elements.

The MEC believes that multiple aspects of the MIP should be carefully evaluated, from the initial outreach to potential applicants up to the completion and placing in service of the MIP microgrid projects and an overall evaluation of the program as a whole. The following elements should be part of the evaluation:

1. Outreach and Application Process
2. Benefits of Projects Approved for Funding
3. Project Implementation Tracking
4. Post-COD Microgrid Performance
5. Post-COD Measures of Benefits
6. Replicability of Project Designs

7. Replicability of the Program
8. Timing of Evaluations

1. Outreach and Application Process

Evaluation should answer the question: How effective is MIP in eliciting participation by target communities, including disadvantaged and vulnerable communities (as defined consistent with Workshop 3, section 3 above)?

a. Number of pre-applications received (unique inquiries)
b. Number of pre-applicants requesting & receiving support for application development
c. Number of applications received, either with/without going through pre-application
d. Number & causal analysis of pre-applications that don't submit applications
e. Estimate of potential beneficiary population size: How many communities in IOU areas meet the criteria of the MIP goal and don't have backup power for times of grid outages, or only have fossil BUGs, for essential services? In

2. Benefits of Projects Approved for Funding

Statistics on total benefits based on approved applications (at time of MIP award, prior to microgrid (MG) implementation):

a. Numbers of target-group individuals, including low-income customers, to be served directly by the MG, as well as demographic data for the community that has access to MG services during outages (see Workshop #4 discussion of "person-services" scores)
b. Numbers & types of critical/essential facilities served
c. Number of local fossil BUGs to be retired or avoided & estimate of avoided emissions
d. Description of MG sponsorship & ownership models
e. Sources & estimates of expected revenue streams from MG assets

3. Project Implementation Tracking

How well are approved projects proceeding to meet COD deadlines?

a. Define a few key milestones between MIP award and in-service date; e.g., engineering design; DER interconnection agreements; permits; islanding study; financing; key resources coming on-line
b. Track and report projects' attainment of milestones and identify any red flags and mitigations

4. Actual In-service Microgrid Performance

Test & verify MG islanding, islanded performance (loads served, duration of islanding), re-connection

5. Actual In-service Measures of Benefits

Compare electric service reliability & resilience, and validate customers served by the MG when completed and in service compared to the same measures at time of project approval for MIP funding.

a. As a baseline, provide pre-MG outage statistics due to all causes (including standard distribution utility measures (SAIDI, SAIFI) as well as PSPS history) for customers served by the MG
b. Estimate post-MG improvements to SAIDI & SAIFI, if any, for the same customers, including contribution of distribution upgrades if any associated with the project
c. Successful demonstration of MG performance (item 4 above) should provide evidence of resilient electricity supply in case of any upstream grid outages (e.g., PSPS)
d. Elimination or reduced use of fossil BUGs and associated emissions reductions
e. Compare numbers of populations actually served and services offered by the MG to numbers in approved proposals

6. Replicability of MG Project Designs

How broadly applicable is the project design & implementation? Develop a public library of MG designs based on approved MIP projects, including

a. Technical details: resources, loads, control system, MG topology; use of commercially available elements; use of BTM/FOM DERs by MG controller
b. Required distribution system upgrades if any
c. Populations & essential community functions served
d. Financing structure and sources (shares of MIP; other state programs; community investment; developer funding, etc.)
e. Estimate number of communities for which a similar project would be a good fit

7. Replicability of the Program

Without assuming what the source of funding could be for an extension of the MIP to reach more communities beyond what the Commission has already approved, consider whether the MIP should be replicated as it was implemented or should be revised or modified.

a. What is the remaining need? Estimate how many vulnerable communities still do not have clean resilient electricity
b. How can participation (applications) be improved? What barriers or challenges need to be addressed? Were any of the allocated funds left over?
c. Assess causal factors of approved projects that missed target COD or failed
d. Compare final project benefits vs targeted in application & identify factors in any improvements or deficiencies

8. Timing of Evaluations

This section suggests when the various evaluation items above should be performed, in order to evaluate the entire MIP process from outreach to potentially eligible communities to completion & performance of the approved MIP projects

a. Is MIP getting the desired participation? Evaluate the front end through project approval (elements 1-2). MEC recommends the program administrators (IOUs) file publicly-available reports to CPUC for each award window.

b. Are approved projects reaching COD and performing as designed? If not, why? (elements 3-5). MEC recommends that project applicants/developers report to utility administrators, who file publicly-available reports to CPUC on a quarterly basis from the tine of MIP awards until projects are in service. This should be followed by a performance assessment of the MIP projects approximately one year after all projects are completed.

c. Are MIP & MG projects providing models & processes that can reach additional vulnerable communities? (elements 6-7) How to improve? In view of the continual worsening of climate-related disruptions and the potential for significant federal and state funding to become available for resilience measures, MEC recommends that the IOUs file a preliminary evaluation of the entire program and lessons learned for improvement roughly halfway between making all the MIP awards and the in-service target dates, and then a final evaluation report approximately one year after all projects are completed.

ATTACHMENT 2

The Microgrid Equity Coalition (MEC) advocated for a stakeholder workshop before the investor-owned utilities (IOUs) submitted their Implementation Plan for the Microgrid Incentive Program (MIP), and we appreciated the presentation and discussion at the October 26, 2021 workshop. At the workshop, the IOUs presented an overview of their thinking to date and incorporated a number of high-level recommendations from the MEC. However, a large number of critical details are currently in development, including eligibility requirements, specific scoring criteria, etc. The success of the MIP depends on these details, and the MEC looks forward to reviewing these details in the final Implementation Plan.

At the workshop, the IOUs listed three open items to stakeholders. In response, the MEC provides the following responses as well as a recommended clarification on the proposed technical assistance for completing a project application.

1. **Clean Energy Requirement**

The first open item relates to the Staff Proposal's requirement that criteria pollutant and greenhouse gas (GHG) emissions cannot be worse than the equivalent grid power. The IOUs asked whether the clean energy requirement should hold only during Islanding Mode or also during Blue Sky operations.

In response, the MEC recommends that the implementation plan should require air emissions that are cleaner than grid power during each mode, as measured annually: Blue Sky or grid connected operation, and Islanded (i.e., emergency) operation. The clean energy requirement should hold for each mode of operation because both modes are directly relevant to the purpose of the MIP. The purpose of the MIP is to deploy clean energy microgrids to disadvantaged and vulnerable communities. Microgrid generation resources that emit more criteria or GHG emissions during islanded mode would intensify air pollutant emissions in communities that are already overburdened by environmental pollution, and therefore cannot reasonably be incentivized by the MIP. In particular, it is critical that projects not be allowed to aggregate non-fuel technologies to dilute the impact of fossil generation to meet the emission standards. In other words, a gas or diesel facility should be evaluated based on the emissions associated with the total MWhs of generation it produces (as measured annually), and be subject to applicable local air quality regulations regarding back-up generation or other allowable operation. Co-locating gas or diesel generation facilities with zero emission facilities should in no way reduce the actual emissions per MWh from the operation of those emitting facilities.

Likewise, air emissions during Blue Sky conditions should also be required to meet the requirement that emissions be cleaner than grid power because microgrid resources will, in many cases, be operated year-round in order to generate revenues to cover the project's capital costs. In order to fully account for the air emissions generated by these projects, the "cleaner than equivalent grid power" requirement should also hold during normal or everyday operations.

In addition, it is important to note that California's grid power is becoming cleaner each year as additional non-emitting resources are deployed in order to meet the state's 2030 climate goals and emitting resources are operated less frequently. MIP projects should therefore, at a minimum, be required to continue to achieve emissions no greater than average annual grid power in each year as emissions improve throughout the projected life of the project, and not be allowed to pollute above the emissions levels of equivalent grid power when operation begins.

The authorizing decision's requirement for "cleaner than equivalent grid power" is necessarily an eligibility requirement for all MIP projects. In addition, MEC recommends that projects demonstrating lower emissions than grid power should be recognized in scoring results,

with a clear and substantial boost for the scores of projects with no emissions. Further, we recommend defining emissions of "equivalent grid power" as the average emissions associated with the portfolio of power resources providing the energy supply to other customers of the same Load Serving Entity or the same utility Service Territory, whichever is less, as this is the power source that is being displaced by operation of the microgrid facilities.

2. Islanding Duration

The second open item relates to the duration that a MIP project can island and maintain continuous power. The IOUs asked two questions: Should duration be rewarded in scoring? Should there be a minimum and/or maximum duration of islanding capability?

In response, the MEC strongly recommends that duration should be a scoring criteria rather than an eligibility requirement. The authorizing decision notes that MIP projects would ideally be capable of 96 hours of continuous operation, but "this is an ideal and should come as close as reasonably practicable." The decision includes no set eligibility criteria for islanding duration, though there is clear preference for projects capable of meeting critical loads for multiple days. This could be a scoring criteria that increases the score of an application for a longer duration microgrid or for microgrids that have plans to shed discretionary load to preserve continuous operation for critical load, given that the Commission's "ideal" is 96 hours.

However, setting a high minimum duration requirement could restrict MIP funding to combustion-reliant microgrids and reduce the opportunity for innovative solutions that include both load management and microgrid operation. The MIP's objective is to support clean energy microgrids--an objective in stark contrast to burdening underserved communities with more local pollutants from diesel or gas resources. In order to address that trade off, the Microgrid Equity Coalition suggests that the microgrid duration should be a scoring issue rather than an eligibility issue. Any scoring boost for long-duration islanding capability should be coupled with a larger scoring boost for zero-emissions resources in order to ensure that the MIP does not incent the development of fossil-based microgrid projects.

Further, it is reasonable to recognize that there is diminishing marginal value for added duration, because the probability of continued need decreases over time. For each location, there is an historical record that can be used to estimate the frequency and duration of outages, including a projection of the total number of outage hours per year. A facility should be evaluated relative to its ability to mitigate projected outages. Capacity in excess of the estimated need will therefore have limited value.

Likewise, priority should be given to the ability to meet critical loads, with less weight given to the ability to continuously serve discretionary loads that could reasonably be reduced if needed. For example, appropriately-sized solar plus battery systems are able to fully or largely recharge the battery daily. An efficiently sized system may only be able to assure output sufficient to meet critical loads under unfavorable conditions that might occur just a few days per year, but this system could meet most demand for the vast majority of the year. As such, the capacity of a project should be considered reliable when capable of meeting critical loads while offering a high level of probability of meeting discretionary demand for most days of a year. Microgrid sponsors should be capable of estimating the probability of an outage occuring during the days of the year when renewable charging capacity is lower.

Similarly, there is no compelling need for setting a maximum duration of islanding capability. It is unclear why the Commission would limit funding through the MIP to a project that could operate indefinitely. Indeed, this is the type of microgrid envisioned to provide true

resiliency to local critical loads. It is possible to design a paired renewable and storage microgrid that could generate sufficient electricity to meet local critical loads and charge the on-site storage to maintain power indefinitely. For this reason, the MEC strongly opposes any maximum duration limit.

3. Defining Critical Community Service

The third open item posed by the IOU presentation was how to define "Important Community Service"? What documentation should be required to demonstrate compliance with this definition?

In response, the MEC recommends that the implementation plan: (1) refer to "critical community services" of the target community, and (2) incorporate a broad list of recognized critical services with some flexibility that is guided by common sense.

In both the authorizing decision and the underlying Staff Proposal, the stated purpose of the MIP is "to develop a microgrid incentive program to fund clean energy microgrids that support the critical needs of vulnerable populations most likely to be impacted by grid outages." The Staff Proposal explained the MIP would "fund development of backup generation to maintain critical community services during grid outages."

The Decision did not address whether projects need to be located at critical facilities, but did note that benefits to this program "may include, but are not limited to increasing electrical reliability and resiliency for critical public facilities in communities that are at higher risk of electrical outages." Ordering paragraph 24 in the Decision adds "A clean energy microgrid incentive program for each large investor-owned utility may increase electricity reliability for critical public facilities in communities that are at higher risk of electrical outages in the next five-years." Based on the ambiguity on exactly what facilities qualify, the MEC suggests that the implementation focus on meeting the "critical needs" and the "critical community services" rather than project facility or location type.

Determining which services are critical to the community requires some flexibility because different communities will have different needs and circumstances. In order to make sure that MIP projects actually benefit the vulnerable populations within their communities, we recommend that the MIP implementation plan incorporate a list of generally accepted critical community services, including provision of emergency shelter, emergency cooling or heating, emergency medical support, food and/or water distribution or services (i.e., food banks, or prepared foods); emergency coordination services; general electricity availability, etc. In addition to this, the Implementation Plan should allow project applications to explain any additional emergency services not described in the predefined list, and the IOUs should use common sense to determine whether the claimed emergency service is reasonable. To maintain accountability, the IOUs should publicly disclose MIP grant recipients and the critical community services that each project will provide.

4. Clarifying Technical Assistance

The IOU presentation noted that the IOUs heard stakeholders request for grants to enable a community to procure additional technical support needed for completing a full application, and in response that "The IOUs will also share relevant information to support communities' efforts to develop microgrid project proposals" and "For communities which meet specific Disadvantaged Vulnerable Community (DVC) criteria, additional support will be made available for third-party assistance in the development of a full MIP application."

The MEC supports this response and considers it critical to ensuring that the most disadvantaged vulnerable communities are able to submit complete and competitive project applications. To be specific, the MEC recommends that the Implementation Plan incorporate technical assistance for applicants as needed, both from the utility and in the form of grant funding to offset application development costs. Applicants from disadvantaged and vulnerable communities should be able to request MIP funding to pay for technical expertise to help develop project applications. We propose a block grant for projects that meet the DVC criteria to hire third-party technical assistance of their choice in completing a project application. A low cap (e.g., 5%) on such funding as a percentage of total MIP funding may be appropriate.

We also support the proposal for IOUs to provide assistance in addition to making third-party technical assistance funding available to communities that meet DVC criteria. However, we recommend that this assistance not be debited from MIP funds. Rather, any associated expenses should be tracked and paid for separately.

Thank you for the opportunity to exchange ideas and information prior to the submittal of the MIP Implementation Plan. We appreciate the open dialogue fostered throughout this process, and look forward to ensuring the success of this program.