Proposed Grant Program Criteria and Process:

Energy Resilience and Microgrid Development in Disadvantaged and Vulnerable Communities

By Microgrid Equity Coalition, March 10, 2022

Contents

Introduction

In 2021, the California legislature enacted a multi-year budget which included $3.7 billion for climate resilience allocated across various state agencies and programs, for which clean energy resilience could be an eligible project type.

This document provides the Microgrid Equity Coalition's comprehensive proposal regarding criteria and processes for energy resilience grant programs that are meant to serve disadvantaged and vulnerable communities.

The Microgrid Equity Coalition (MEC)[1] was formed as a collaborative group of several organizations for the purpose of advancing environmental justice and equity outcomes in the Microgrids Proceeding (R.19-09-009) of the California Public Utilities Commission (CPUC). However, the MEC's recommendations in that proceeding are relevant and generally applicable to other state energy resilience programs.

This MEC proposal provides those recommendations. It consists of background and framing regarding the relevant issues, followed by an executive summary of the main elements of the proposal. The document also includes four appendices to provide easy access to more detailed information:

- Appendix A: Principles for Microgrid Development

  Principles for microgrid development originally articulated by the Reclaim Our Power: Utility Justice Campaign (January 11, 2021)

- Appendix B: Details–Main Elements of the MEC Proposal

  In-depth and detailed treatment of the main elements of the MEC Proposal described in the executive summary of the proposal

- Appendix C: Engaging Environmental and Social Justice and Other Vulnerable Communities.

  Joint Reply Comments on meaningful participation of community-based organizations in CPUC proceedings submitted by MEC in the "High Distributed Energy Resources Future" proceeding, R 21-06-017 (October 7, 2021)

- Appendix D: Why Energy Resilience Ought to be a State Policy Priority

  Joint Comments submitted to the Office of Planning and Research in response to the State's Draft Climate Adaptation Strategy (November 17, 2021)

[1] MEC member organizations: California Alliance for Community Energy; California Environmental Justice Alliance; GRID Alternatives; Microgrid Resources Coalition; Reclaim Our Power: Utility Justice Campaign; Reimagine Power; Sierra Club; The Climate Center; and Vote Solar.

Background

Utility and climate-caused power shutoffs in California have increased in frequency in recent years.

These power shutoffs disproportionately impact disadvantaged and vulnerable communities since low-income households have fewer back-up resources in the event of an outage and are also less able to absorb financial losses. As noted by the CPUC in its Microgrids and Resiliency Staff Concept Paper,[2] "recent Public Safety Power Shutoff events have demonstrated that as a percentage of income lost due to economic disruption, low-income and disadvantaged communities are more highly impacted by disruptive energy events."

Energy reliability for these populations can be greatly enhanced using clean energy microgrids, which are capable of maintaining power while "islanded," that is, disconnected from the broader grid. A microgrid typically includes a local generation source (for example, photovoltaic array), an energy storage system (e.g., battery) and power control electronics equipment capable of maintaining local electric service while both connected and disconnected from the broader electric grid. Microgrids can serve a single home, a single facility (such as a hospital), a group of connected customers, or even an entire community served by a utility substation. Microgrids can also provide daily generation, load shifting, and grid resilience benefits, in addition to their value during grid outages.[3]

Based on a Department of Energy microgrid definition, California currently has fewer than 100 microgrids, among which there are very few microgrids serving frontline communities.[4] Hence the CPUC Microgrid Proceeding provided an opportunity to expand microgrid development to help meet the energy resilience needs of these communities.

MEC intervention in the proceeding was inspired by a strong statement of Principles for Microgrid Development articulated by the Reclaim Our Power: Utility Justice Campaign in a January 11, 2021 letter to the CPUC (see Appendix A). These principles called for the CPUC to invest in disadvantaged communities, enable communities to define what constitutes "critical facilities" in their communities, encourage community microgrid development with a new microgrid tariff, incentivize clean energy microgrids–not dirty ones, and provide opportunities for community ownership.

Within the Microgrid Proceeding, MEC advocated for creation of a program specifically targeted at enhancing energy resilience for frontline communities. This led to a CPUC Decision adopted in January of 2021 calling for creation of a new $200 million Microgrid Incentive Program. Over the course of 2021, representatives from the MEC participated in all the CPUC workshops regarding how the new $200 million program should be structured. This included recommending criteria and processes that would be needed for the Microgrid Incentive Program to effectively

[2] See https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M344/K038/344038386.PDF

[3] See https://votesolar.org/report-resilient-clean-energy-for-california/

[4] See DOE's searchable nationwide database of microgrids at https://doe.icfwebservices.com/state/microgrid/CA (defining microgrids as multi-building systems).

serve disadvantaged and vulnerable communities.[5] (The MEC also filed comments[6] and reply comments[7] regarding the Implementation Plan.)

In developing recommendations for this Microgrid Incentive Program, it became apparent to the MEC that these recommendations could be applicable to multiple related California grant programs aiming to advance energy resilience and microgrid development in disadvantaged and vulnerable communities.

This document provides MEC's proposed criteria and processes for energy resilience funding across all such state grant programs.

Priority: Clean Energy Microgrids

The aim of MEC is to further the deployment of clean energy microgrids to disadvantaged and vulnerable communities–microgrids that help improve resilience and improve, or at least do not contribute to increased, local emissions. Microgrid generation resources that emit more criteria or greenhouse gas emissions than the electric grid would intensify air pollutant emissions in communities that are already overburdened by disproportionate environmental burdens. Polluting resources such as gas or diesel generators should not be supported by ratepayer- or taxpayer-funded incentives because of the harmful public health impacts of the associated emissions.

Diesel backup generators have proliferated throughout California in recent years, particularly in areas subject to Public Safety Power Shutoffs and other grid outages. These polluting resources generate significant carcinogenic particulate matter with intense health impacts. In order to ensure taxpayer or ratepayer funding does not incentivize these intensely polluting resources, any scoring criteria should provide no funding for fossil-fired resources and prioritize projects that do not contribute to worsening air quality through air pollutant emissions.

General Framework of the MEC Proposal

The general framework of the MEC proposal includes the following considerations:

- Microgrids are important for frontline communities as part of a broader energy resilience strategy, where the stakes are especially high with fires and shutoffs that threaten people's lives and their abilities to keep life-sustaining machines on.
- The MEC proposal highlights priorities that enable frontline communities to benefit from microgrid development. MEC emphasizes that critical facilities be defined by communities because they know which facilities are trusted, including who runs them so that all people (including youth, immigrants, etc.) feel safe to go there. We caution

[5] Microgrid Equity Coalition, Proposal for CPUC Microgrid Incentive Program (MIP) Implementation Process, October 20, 2021, http://localcleanenergy.org/files/MEC%20Proposal%20on%20MIP%20Implementation%20FINAL.pdf

[6] See https://theclimatecenter.org/wp-content/uploads/2022/01/220114-Final-MEC-Comments-on-Proposed-MIP-Implementation-Plan.pdf

[7] See https://theclimatecenter.org/wp-content/uploads/2022/02/220128-MEC-Reply-Comments-on-Proposed-MIP-Implementation-Plan-2.pdf

against having the government define critical facilities, as many are not aligned with the needs of frontline Black, Indigenous, People of Color communities. We also recommend that these microgrids be owned by the community, not the investor-owned utilities (IOUs).

- The grant program should provide community benefits that meet the needs of frontline communities in strengthening their energy resilience. Disadvantaged and vulnerable communities are historically underinvested, so many community groups will not immediately have shovel-ready projects, nor be ready to fill out a project grant application To build microgrids in disadvantaged communities, the grant program must be designed to advantage these communities. This would include an application process that includes a pre-application step to assess project viability, plus technical assistance for the community planning and design phases of a microgrid project.

Summary: Main Elements of the MEC Proposal

In conforming to the principles cited earlier and the framework stated above, the MEC's proposed resilience grant program criteria and process consists of the following major elements, which are described in greater detail in the corresponding sections of Appendix B.

1. **Outreach and Community Participation:** Providing effective communication to disadvantaged and vulnerable communities and community-based organizations to inform them about the grant program, engage them in program design, and facilitate their participation in the program. Such efforts to maximize benefits would include:
    - Engage community-based organizations (CBOs) and community members upfront in the design of the program
    - Raise awareness of and provide information on the program that reaches target communities and connects them to other related programs for which they are eligible
    - Provide opportunities and resources for CBOs to engage with funding agencies to explore project ideas to meet community needs
    - Adequately compensate CBOs to conduct outreach and otherwise participate in program development and implementation
2. **Eligibility**: The MEC proposes the following requirements for a project to be eligible for consideration.
    - Project includes at least one critical community service, where communities themselves identify such services
    - Demonstration of community support
    - Project beneficiaries include at least one vulnerable population
    - Project enhances resilience, meaning the project provides at least one type of emergency service

3. **Application Process**: An application process that's accessible to frontline and disadvantaged communities, consisting of the following:
    - A one-stop information source that clearly describes the 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 granting agency to help the community submit a successful application
    - Availability of funding 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 program funds for communities that need more time
    - An application process review that involves the relevant existing advisory group, like the CPUC Disadvantaged Communities (DAC) Advisory Group, to review scoring of project applications and selection of winning projects
4. **Application Evaluation and Scoring**: If the grant program is competitive, then application evaluation and scoring should minimize fixed eligibility requirements and emphasize:
    - Scoring criteria that will be transparent and easy to understand
    - Prioritize projects serving vulnerable populations and under-resourced communities.

    Scoring should not rely on traditional cost-effectiveness criteria. MEC recommends that the following categories of information determine the scores for any given project, using weighting factors such as those indicated below as a general framework for prioritization and the detailed criteria suggested in the scoring tables found in Appendix B:
    - Project Beneficiaries (30%) — Which vulnerable communities will use the project in the event of an outage?
    - Project Location (30%) — What does the project's neighboring community look like? Consider outages, grid (un)reliability, disadvantages, and low income.
    - Project Facility/Customer (10%) — Is the microgrid facility a provider of critical community services? Is there existing backup generation?
    - Facility Emergency Services (25%) — In the event of an outage/emergency, what emergency services will the facilities powered by the project provide?
    - Ratepayer Cost Effectiveness (5%) — Standard cost-effectiveness test with boosters to reflect additional community value, replicability value, and upgrades to aging/failing infrastructure.
    - Additional quantitative criterion: Person-Services Provided.

5. **Availability of Funds**: The grant program should provide financial assistance during the application process to enable community-based organizations to successfully apply for grants, and once grants have been awarded, the grant program should maximize successful completion of projects. The MEC recommends:
    - Up-front financial support for the technical assistance needed to complete grant applications
    - Grant disbursement that maximizes successful completion of projects
6. **Grant Program Evaluation**: A detailed program 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 grant program funding, and the successful implementation of grant program projects.

    The MEC recommends that the following facets of the grant program should be carefully evaluated as part of an evaluation of the program as a whole:
    - Outreach and Application Process
    - Benefits of Projects Approved for Funding
    - Project Implementation Tracking
    - Post-COD Microgrid Performance
    - Post-COD Measures of Benefits
    - Replicability of Project Designs
    - Replicability of the Program
    - Timing of Evaluations

Appendix A:
Principles for Microgrid Development

The MEC adopts the following principles for microgrid development originally articulated by the Reclaim Our Power: Utility Justice Campaign:[8]

- Invest in disadvantaged communities. Ensure that the Microgrid Incentive Program (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.

[8] These principles were articulated in a January 11, 2021, letter to the Commission in response to the Microgrid Proceeding Track 2 Proposed Decision.

Appendix B:
Details–Main Elements of the MEC Proposal

This appendix provides a more in-depth and detailed treatment of the main elements of the MEC Proposal summarized in the body of the proposal. The six main elements are as follows:

#1. Outreach and Community Participation

#2. Eligibility

#3. Application Process

#4. Application Evaluation and Scoring

#5. Availability of Funds

#6. Grant Program Evaluation

#1. Outreach and Community Participation

The disadvantaged and vulnerable communities most in need of energy resilience projects and funding to implement them often face the greatest challenges in becoming aware of and meaningfully participating in funding opportunities. A program intended to benefit these communities must therefore include effective measures to maximize these benefits:

- Engage community-based organizations (CBOs) and community members upfront in the design of the program
- Raise awareness of and provide information on the program that reaches target communities and connects them to other related programs for which they are eligible
- Provide opportunities and resources for CBOs to engage with funding agencies to explore project ideas to meet community needs
- Adequately compensate CBOs to conduct outreach and otherwise participate in program development and implementation

It will also be important to target communications at a more granular level than that of the city or county government, as many city and county agencies have historically failed to represent the interests of underserved communities—a form of institutionalized discrimination against disadvantaged and vulnerable communities.

For a general overview of measures needed for meaningful participation of disadvantaged and vulnerable communities in energy resilience program development and implementation, see Appendix C.

Engage CBOs and community members upfront in the design of the program

Create authentic partnerships between program administrators and CBOs to help ensure meaningful community engagement. Meaningful community engagement entails collaboratively visioning and co-designing the program from the very initiation of program development.

CBOs earn trust by consistently advocating with communities and involving community members when a project can thoughtfully consider their needs, vision, and well-being. If program administrators aim to work with CBOs, they must demonstrate that they will collaborate

with CBOs to incorporate their feedback and implement their suggestions as they develop the program together, rather than expecting CBOs to publicize and participate in a program in which they had no input.

Raise awareness of and provide information on the program that reaches target communities

Hold well-publicized public workshops and informational sessions in numerous regions of the state or program jurisdiction. Ensure that workshops and informational sessions include spoken and written language access features for community members. Solicit and adequately compensate CBOs to participate. Use the workshops to learn about the specific needs of the target communities in each region and discuss the types of energy resilience projects that could meet their needs. To ensure benefits are maximized, provide information on other related programs for which these communities are eligible and provide technical assistance and guidance to support them in applying for such programs.

Provide opportunities and resources for CBOs to engage with funding agencies to explore project ideas to meet community needs

Designate specific staff within the funding agency who will serve as primary points of contact for target communities, CBOs, and sponsors/developers of local projects. Allocate adequate staff resources to provide ongoing support to these local projects.

Adequately compensate CBOs to conduct outreach and otherwise participate in program development and implementation

Provide adequate compensation for CBOs and trusted community spokespersons to remain engaged as program development, project grant applications, and subsequent project implementation activities proceed. The work that CBOs undertake requires not only the standard “billable time” and effort, but also the less-tangible resources that arise from years of trust- and relationship-building activities. CBOs should be justly compensated for their time providing the critical work that is required for successfully deploying community-based projects.

#2. Eligibility

The grant program 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 consideration. If it meets eligibility requirements and the grant program is competitive, the application should proceed to a scoring process.

To meet the equity objectives of energy resilience programs, it is important to:

- Allow as much flexibility as possible in eligibility requirements, so as 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 the following requirements for a project to be eligible for consideration:

- Project includes at least one critical community service
- Demonstration of community support
- Project beneficiaries include at least one vulnerable population (as defined below)
- Enhanced resilience, meaning the project provides at least one type of emergency service

These are explained in further detail in the sections that follow. We also include potential requirements that would not be appropriate for eligibility at the end of this section.

Require project to include at least one Critical Community Service

The project should be required to include at least one critical community service, 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. Communities should be given discretion in defining “critical community services.”

Require a showing of Community Support

Facilities need to be trusted for communities to make use of the emergency services they may offer. Proving community support would indicate that the project is meeting critical community needs.

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

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

We emphasize that communities are fully able to assess their needs without the intervention of a government authority, and that many communities have experienced limited representation, institutionalized racism, and historic disenfranchisement through their governments. Therefore, while a letter of support from the local government *may* qualify as showing community support for a project, attestations from community members and community-based organizations must also be an acceptable way to establish project eligibility.

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

We note that the specific beneficiaries of other energy resilience programs may be set in statute or separate agency rulemaking. MEC’s guiding principle in defining the vulnerable populations for energy resilience money is to set broad eligibility criteria with a scoring system that tilts heavily in favor of projects that benefit populations with multiple vulnerabilities.

Absent program-specific definitions of vulnerable populations, MEC proposes that projects should serve at least one of the following vulnerable populations as an eligibility threshold. In addition, MEC also proposes that any scoring criteria also boost the scores of projects that serve populations with multiple, overlapping vulnerabilities, including communities that are:

- In a census tract scoring in the top 25%of score using the CalEnviroScreen 4.0 criteria
- Top 5% of pollution burden but no overall CalEnviroScreen score[9]
- In 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 Department of Housing and Community Development's list of state income limits[10]
- All tribal communities
- High proportion of people with "Access and Functional Needs," meaning "individuals who have developmental or intellectual disabilities, physical disabilities, chronic conditions, injuries, limited English proficiency or who are non-English speaking, older adults, children, people living in institutionalized settings, or those who are low income, homeless, or transportation disadvantaged, including, but not limited to, those who are dependent on public transit or those who are pregnant."[11]
- High proportion of Medical baseline or electricity-dependent Medicare patients.

AB 1550 defined priority populations for allocating Greenhouse Gas reduction funds for climate investments in communities that need it most. MEC recommends using CARB's Priority Populations Map, which identifies the 25% highest scoring census tracts in CalEnviroScreen, census tracts with the top 5% pollution burden, and low-income communities.

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 must be available to all, regardless of citizenship or documentation status.

[9] *See* D.20-08-046 (defining "Disadvantaged Vulnerable Communities"). definition from D.20-08-46

[10] *See* AB 1550 definition of low-income community. *See also* California Public Utilities Commission Environmental and Social Justice Action Plan, p. 9, available at https://www.cpuc.ca.gov/news-and-updates/newsroom/environmental-and-social-justice-action-plan (defining low income communities).

[11] Cal. P.U.C. Decision 19-05-042, p. 78.

Requirements not appropriate as Eligibility Requirements

- 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. If using a scoring criterion, a history of past outages can be used. .
- Unreasonable Length of Duration: Duration should not be an eligibility requirement. Of particular concern is the possibility that a high minimum duration requirement could limit qualifying projects to combustion-reliant microgrids.

#3. Application Process

The MEC recommends a grant application process that is accessible to frontline and disadvantaged communities. It should have the following characteristics:

- Accessible to motivated communities and community-based organizations
- Include a two-step application process
- Incorporate technical support for completing a full application
- Include multiple application/selection windows
- Selection process be reviewed by an appropriate advisory committee

Accessible to community-based organizations

The granting agency should provide a one-stop shop for project applicants to find information on project attributes and locations that would be feasible and desirable in accordance with selection criteria in Element #3. This should include a map with multiple overlays:

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

Include a two-step application process

Because good applications take time, expertise, and investment, MEC recommends a two-step application process:

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

The pre-application would have a 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 grant program funding to engage third-party technical expertise to prepare the full report.

A pre-application enables a community to get early indication of a project proposal's viability before investing in a full application.

The pre-application form would require:

- Project location
- Project beneficiaries: customers to be served, services the project will provide
- Technologies planned, microgrid performance attributes
- Interconnection details: resource types, sizes, locations, project diagram

The program's response to the 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 application, including all the relevant design details needed to perform the scoring described in Element #3. Winning projects may need additional technical support to get to project completion.

Incorporate technical support

The grant program should use administrative funding early to provide information and needed financial support for pre-application and application development. This should include technical assistance as needed to offset application development costs.

Include multiple application/selection windows

MEC proposes a window-based approach to accepting and funding applications. 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 grant 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.

Selection process

- Projects should be selected based on how well they fit program objectives, using the scoring criteria described in Element #3.
- Advisory group oversight, including review of scoring of all applications and selection of projects to fund.

#4. Application Evaluation and Scoring

For grant programs in which awards are not made based exclusively on applications meeting fixed eligibility requirements, but in which awards are made on a competitive basis, MEC recommends the following evaluation and scoring criteria.

MEC proposes an evaluation approach that minimizes fixed eligibility requirements and emphasizes scoring criteria that will elevate projects serving vulnerable populations and under-resourced communities, rather than relying on traditional cost-effectiveness criteria. Scoring criteria must favor projects that demonstrate community support, utilize carbon-free energy resources and minimize emissions, provide resilient emergency services, and serve larger

frontline groups with more services. Among similarly high-scoring projects based on these criteria, more traditional measures of cost-effectiveness could be a secondary criterion for selecting certain cost-effective projects.

Scoring Considerations

The MEC recommends that the grant program's project selection criteria heavily favor microgrid projects that:

- Provide benefits to vulnerable communities
- Are located in underserved communities
- Are clean, that is, 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 determine the scores for any given project. Between these categories, the weighting should 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 weighting factors such as those recommended below.[12] Category scores are determined using the scoring tables shown on the following pages.

Category 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.)

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

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

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

Category 5. Ratepayer Cost Effectiveness (5%)[13] — Standard cost-effectiveness test with boosters to reflect additional community value, replicability value, and upgrades to aging/failing infrastructure.

Category 6. Additional quantitative criterion: Person-Services Provided.

[12] These weighting factors were specific to the Microgrid Incentive Program (MIP) in the CPUC's Microgrids Proceeding (R.19-09-009) but represent what MEC recommends more generally as priorities.

[13] The MIP in the Microgrid Proceeding required a cost-effectiveness criterion. In the absence of such a requirement, MEC would consider this criterion to be optional, as cost-effectiveness could deprioritize important, necessary projects that serve vulnerable populations and under-resourced communities.

Scoring Tables

Category 1, Project Beneficiaries (30%): Which vulnerable communities will use the project in the event of an outage?

One consideration is how vulnerable customers should be prioritized relative to other customers for developing microgrids. This category and the scoring here are 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?

This category requires project sponsors to provide information about the community surrounding the project will be located to understand who the expected beneficiaries would be. Because much of this information is based on census tracts or location, we have put these otherwise diverse criteria 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 CPUC's Environmental and Social Justice Action Plan.[14]

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

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

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 readily recognizable 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.

[14] See CPUC, Environmental and Social Justice Action Plan, Draft Version 2.0, October 26, 2021

Project Facility	Yes (1) / No (0)	Multiplier	Points
Project includes at least one critical community service, 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. Communities should be given discretion in defining "critical community services."		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 Services (25%): In the event of an outage/emergency, what emergency services will the facilities powered by the project 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 (5%): 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	

Category 6, 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	

#5. Availability of Funds

The grant program should provide financial assistance in a timely fashion to enable community-based organizations to successfully apply for grants, and once grants have been awarded, the grant program should maximize successful completion of projects.

Up-front financial support for the technical assistance needed to complete grant applications

One of the biggest barriers to community economic development is that community-based organizations often lack the resources and expertise needed to successfully win the grants available for building projects in their communities. In the case of energy resilience grants, even when a project concept is deemed viable and represents a high-value opportunity, technical

expertise is needed to prepare a full grant application. A community-based organization would need to engage a third-party expert. Most community-based organizations do not have the resources to engage such support, and even if they do, they are not in a position to gamble those resources on a grant application that might not be successful.

For this reason, the grant program must provide up-front financial assistance to enable community-based organizations to successfully apply for grants. Failing to do so simply reproduces the institutionalized racial and financial barriers to community empowerment and wealth that is endemic in our energy system.

In short, the grant program should use administrative funding early to provide information and needed financial support for pre-application and application development. This should include technical assistance as needed to offset application development costs.

Grant disbursement for that maximizes successful completion of projects

Once grants have been awarded, the grant program should maximize successful completion of projects.

- Grants should be disbursed as incremental project milestones are reached
- Allow project grantees 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 commercial operation date (COD) is delayed by incomplete utility construction of islanding facilities or other grid upgrades.
- Grant program schedules for program implementation or application evaluation and utility schedules for interconnection approval or utility construction should not result in the loss of award to successful applicants.

#6. Grant Program Evaluation

The recommendations in this section assume an application process with two application windows, each with a pre-application opportunity for the applicant to get early feedback and support prior to submitting a full application, as outlined in Element #3.

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

The following facets should be part of the evaluation:

i. Outreach and Application Process
ii. Benefits of Projects Approved for Funding
iii. Project Implementation Tracking
iv. Post-COD Microgrid Performance
v. Post-COD Measures of Benefits
vi. Replicability of Project Designs

vii. Replicability of the Program

viii. Timing of Evaluations

i. Outreach and Application Process

Determine the grant program's effectiveness in eliciting participation by target communities, including disadvantaged and vulnerable communities:

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 or 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 meet the criteria of the grant program goal and don't have backup power for times of grid outages, or only have fossil BUGs, for essential services?

ii. Benefits of Projects Approved for Funding

Record statistics on total benefits based on approved applications (at time of the grant program award, prior to microgrid implementation):

a. Numbers of target-group individuals, including low-income customers, to be served directly by the microgrid, as well as demographic data for the community that has access to microgrid services during outages

b. Numbers and types of critical facilities served

c. Number of local fossil back-up generators to be retired or avoided & estimate of associated emissions reductions

d. Description of microgrid sponsorship & ownership models

e. Sources & estimates of expected revenue streams from microgrid assets

iii. Project Implementation Tracking

Assess how well approved projects are proceeding to meet COD deadlines.

a. Define a few key milestones between the grant program award and in-service date, e.g., engineering design; DER interconnection agreements; permits; islanding study; financing; and key resources coming on-line

b. Track and report projects' attainment of milestones and identify any red flags and required mitigations

iv. Actual In-service Microgrid Performance

Test and verify microgrid islanding, islanded performance (loads served, duration of islanding), and re-connection.

v. Actual In-service Measures of Benefits

Compare electric service reliability and energy resilience, and validate customers served by the microgrid when completed and in service compared to the same measures at time of project approval for the grant program funding.

a. As a baseline, provide pre-microgrid outage statistics from all causes (including standard distribution utility measures: SAIDI, SAIFI, as well as utility power shutoff history) for customers served by the microgrid
b. Estimate post-microgrid 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 microgrid performance should provide evidence of resilient electricity supply in case of any upstream grid outages (for example, utility power shutoffs)
d. Elimination or reduced use of fossil BUGs and associated emissions reductions
e. Compare numbers of populations actually served and services offered by the microgrid to numbers in approved proposals

vi. Replicability of Microgrid Project Designs

Assess how broadly applicable the project design and implementation are. Develop a public library of microgrid designs based on approved grant program projects, including

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

vii. Replicability of the Program

Consider whether the program should be replicated as it was implemented or should be revised or modified. Evaluate the following:

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. What were the causal factors of approved projects that missed their target COD or failed?
d. How do final project benefits vs those targeted in the application compare, and what factors were important for any improvements or deficiencies?

viii. Timing of Evaluations

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

a. Is the grant program getting the desired participation? Evaluate the front end through project approval (facets i-ii). MEC recommends the program administrators file publicly-available reports to their respective agencies for each award window.

b. Are approved projects reaching COD and performing as designed? If not, why? (Facets iii-v). MEC recommends that project applicants and developers report to program administrators, who file publicly-available reports to their respective agencies on a quarterly basis from the time of award until projects are in service. This should be followed by a performance assessment of the program's projects approximately one year after all projects are completed.

c. Are the grant program and microgrid projects providing models and processes that can reach additional vulnerable communities? (Facets vi-vii) How could they be improved? In view of the continual worsening of climate-related disruptions and the potential for significant federal and state funding to become available for energy resilience measures, MEC recommends that the program administrators file a preliminary evaluation of the entire program and lessons learned for improvement roughly halfway between making all funding awards and the in-service target dates, and then a final evaluation report approximately one year after all projects are completed.

Appendix C:
Engaging Environmental and Social Justice and Other Vulnerable Communities.

The following Joint Comments filing was submitted in response to the Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future, R 21-06-017.

It includes the filing itself plus an attachment entitled, Community Engagement and Empowerment, which was a presentation to a Microgrid Incentive Program workshop on July 21, 2021 by Communities for a Better Environment (CBE) and the California Environmental Justice Alliance (CEJA)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future.	Rulemaking 21-06-017 (Filed June 24, 2021)

JOINT REPLY COMMENTS ON ENGAGING ENVIRONMENTAL AND SOCIAL JUSTICE AND OTHER VULNERABLE COMMUNITIES

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Dated: October 7, 2021

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Modernize the Electric Grid for a High Distributed Energy Resources Future.	Rulemaking 21-06-017 (Filed June 24, 2021)

JOINT REPLY COMMENTS ON ENGAGING ENVIRONMENTAL AND SOCIAL JUSTICE AND OTHER VULNERABLE COMMUNITIES

The Climate Center, Sierra Club, Vote Solar, 350 Bay Area, GRID Alternatives, Center for Biological Diversity, and Wild Tree Foundation (hereafter referred to as the "Joint Parties") respectfully submit these joint comments following the September 22, 2021 California Public Utilities Commission ("Commission") workshop, during which the following question was asked: How should vulnerable communities be included in the High Distributed Energy Resources ("DER") Future Proceeding? In response, we offer general community outreach recommendations made by other parties before the Commission, a short explanation of the importance of community engagement in this proceeding, and a list of community outreach recommendations specific to this proceeding.

I. COMMUNITY OUTREACH RECOMMENDATIONS GENERALLY

The Joint Parties suggest that the Commission first begin by reflecting on the Commission's own Environmental and Social Justice Action Plan ("ESJ Action Plan"). The ESJ Action Plan defines ESJ communities as including, but not limited to:

- Disadvantaged Communities located in the top 25% of communities identified by Cal EPA's CalEnviroScreen;
- All tribal lands;
- Low-income households (defined as households with incomes below 80% of the area median income); and
- Low-income census tracts (defined as census tracts with average household incomes less than 80 percent area or state median income).[1]

[1] CPUC, *Environmental and Social Justice Action Plan*, at 9-10 (Feb. 21, 2019), *available at* https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/news-and-outreach/documents/news-office/key-issues/esj/environmental-and-social-justice.pdf [hereinafter "ESJ Action Plan"].

Goal 5 in the ESJ Action Plan states that the Commission aims to enhance outreach and public participation opportunities for ESJ communities to meaningfully participate in the Commission's decision-making process and benefit from Commission programs.[2] The ESJ Action Plan specifically commits the Commission to a number of actions to achieve this goal, including creating early engagement opportunities for ESJ communities (Action 5.2) and creating a list of community groups in ESJ communities for outreach on Commission proceedings and programs (Action 5.7), among many other actions.[3] Each of these actions can advance the outreach needed in this proceeding.

Second and more importantly, the Joint Parties recommend that the Commission draw generally from related existing recommendations in other Commission proceedings that have been offered from environmental justice parties, like the California Environmental Justice Alliance ("CEJA"), Communities for a Better Environment ("CBE"), and Leadership Counsel for Justice and Accountability on how best to conduct community outreach. In particular, we recommend the following examples:

- CEJA and CBE presentation "Community Engagement and Empowerment" by Seamus Guerin and Roger Lin to the Microgrid Incentive Program implementation workshop (July 21, 2021), as part of the Microgrid Proceeding (R. 19-009-009) (slides included as Attachment A to this filing).
- Joint Opening Comments of CEJA and the Leadership Counsel for Justice and Accountability on Identifying and Prioritizing Actions to Address the Needs of Vulnerable and Disadvantaged Communities (July 12, 2019) as part of the Climate Adaptation proceeding (R. 18-04-019).
- The San Joaquin Valley Affordable Energy Proceeding (R.15-03-010) generally, as it contained examples of how trusted community benefit organizations were able to do meaningful community engagement.

These reference points provide outreach suggestions from Commission stakeholders with direct experience in developing deep community engagement on topics relevant to the Commission's work in this proceeding, and the Joint Parties recommend that those suggestions be reiterated here.

[2] *Id.* at 17.
[3] *Id.* at 33-34.

II. THE NEED FOR COMMUNITY ENGAGEMENT IN THIS PROCEEDING

In the High DER workshop on September 22, the staff slide presentation noted the need to align the proceeding with the Commission's Environmental and Social Justice (ESJ) goals, noting that lower income customers are less likely to invest in behind-the-meter solutions to lower their electric bills and that the Commission seeks alignment between its ESJ Action Plan and the High DER Future OIR scope.

Because this proceeding will address how to incorporate high levels of distributed energy resources, local community benefits—particularly resilience—will be a central potential benefit of high DER deployment to all communities, with particular impact to ESJ communities. Power shutoffs disproportionately impact ESJ communities. Loss of electricity exacerbates and amplifies existing inequities, such as homelessness, substandard housing, and inadequate access to healthcare. In fact, a study from the National Bureau of Economic Research found that had a nationwide moratorium on electricity and water shutoffs been implemented during COVID-19, such a moratorium would have prevented 14.8% of COVID-related deaths.[4] Disadvantaged communities are already disproportionately impacted by health burdens of fossil fuel electricity generation, while having the least resources to respond to a loss of power. It is vital that the Commission meaningfully engage environmental and social justice communities in the High DER Future proceeding: they have the most at stake.

III. COMMUNITY ENGAGEMENT RECOMMENDATIONS FOR THIS PROCEEDING

We urge the Commission to address key issues regarding meaningful engagement by ESJ communities in this proceeding. Organizations or individuals representing ESJ communities need to be authentic and trusted within their community. Organizations or individuals representing ESJ communities need to be resourced to participate. For many community based organizations ("CBO"), intervenor compensation is not a viable option due to their very limited and overextended resources

[4] Kay Jowers et al., *Housing Precarity & the Covid-19 Pandemic: Impacts of Utility Disconnection and Eviction Moratoria on Infections and Deaths Across U.S. Counties*, (Nat'l Bureau of Econ. Res., Working Paper No. 28394, Jan. 2021), *available at* https://www.nber.org/system/files/working_papers/w28394/w28394.pdf. *See also* Center for Biological Diversity and Bailout Watch, *Powerless in the Pandemic: After Bailouts, Electric Utilities Chose Profits Over People* (2021), *available at* https://bailout.cdn.prismic.io/bailout/6d3d3f34-8a75-4ed5-9d42-225446bd32a8_Powerless_Report_v6.pdf (documenting the 1 million electricity shutoffs documented from 27 states between February 2020-June 2021, comparing against the $1.25 billion in federal bailout money to top utilities).

and the long delay in intervenor claim payment. Presentations and contributions from organizations or individuals representing ESJ communities should be welcome at Commission workshops, and their representations at workshops should become part of the proceeding's official record. Relatedly, there are not currently any environmental justice organizations currently included as a party to the service list.

With these points in mind, we respectfully submit the following recommendations tailored to this proceeding, echoing similar recommendations from previous filings in other proceedings from CEJA and others:

- The Commission should start its community outreach early in the proceeding by holding widely publicized workshops inviting all interested EJ advocates, CBOs, and others to present their recommendations for how the Commission can get meaningful engagement from affected communities and to share a solid understanding of what the potential of a high DER grid can mean in terms of local needs and benefits for communities. The Commission should consider offering multiple workshops across the state, including the Central Valley, Inland Southern California, the East Bay, South Central Los Angeles, the San Gabriel Valley, etc. to capture regional barriers and opportunities with regards to high DER scenarios and to foster participation by a wide range of communities. Commission staff should provide a draft outline of a community engagement plan for comments during the workshop. The workshop should focus on listening, with Commission staff further refining the community engagement plan based on workshop findings.
- Following the workshops, the Commission should refine its plan to enhance community engagement in this proceeding, based on the learnings at the workshop, including specifying phases in the proceeding where additional community outreach would be appropriate on specific topics. The CPUC should designate specific staff to implement the plan and serve as points of contact with community representatives. The plan should describe how the goals and actions contained in the ESJ Action Plan will be incorporated into this proceeding.
- The Commission should consult the Disadvantaged Communities Advisory Group in developing the community engagement plan.
- The Commission should allocate financial resources in this proceeding to support participation in the proceeding by ESJ communities, funding community-based

organizations through a mechanism which is simpler and more accessible than CPUC intervenor compensation. This funding should be made available to compensate CBO participants in the initial workshop as recommended above as well as subsequent related proceeding participation. In particular, the Commission should pay qualified CBOs for participation on the Distribution Planning Advisory Groups for each utility in the Distribution Investment Deferral Framework process.

IV. CONCLUSION

The Joint Parties appreciate the Commission's interest in meaningful community engagement in this proceeding and look forward to ensuring robust and meaningful community engagement on the topics in this proceeding.

Dated: October 7, 2021

Respectfully submitted,

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Community Engagement & Empowerment

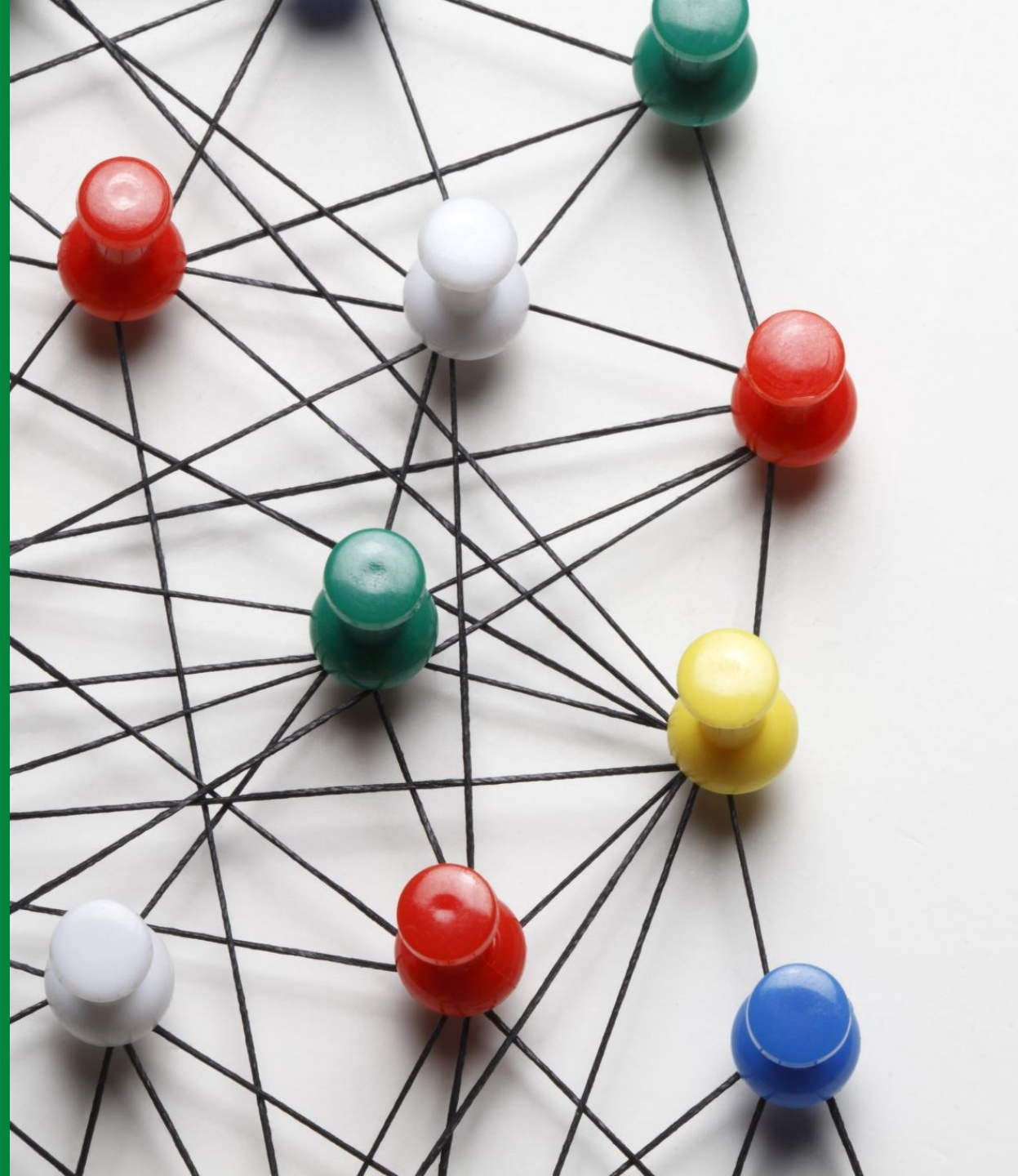
Microgrids Incentive Program

July 21, 2021

Seamus Guerin (*they/them*) CBE
Roger Lin (*he/him*) CEJA

COMMUNITIES FOR A BETTER ENVIRONMENT established 1978

CALIFORNIA ENVIRONMENTAL JUSTICE ALLIANCE



Presentation Goals – Community Engagement & Empowerment

IOU questions:

- How should the utility share information about:
  - where the resiliency needs presently exist,
  - which areas in California are most prone to outages,
  - what grid projects are already planned in those areas (if any),
  - and where investments in microgrids could be advantageous?
- What role does the utility play?

Additional questions:

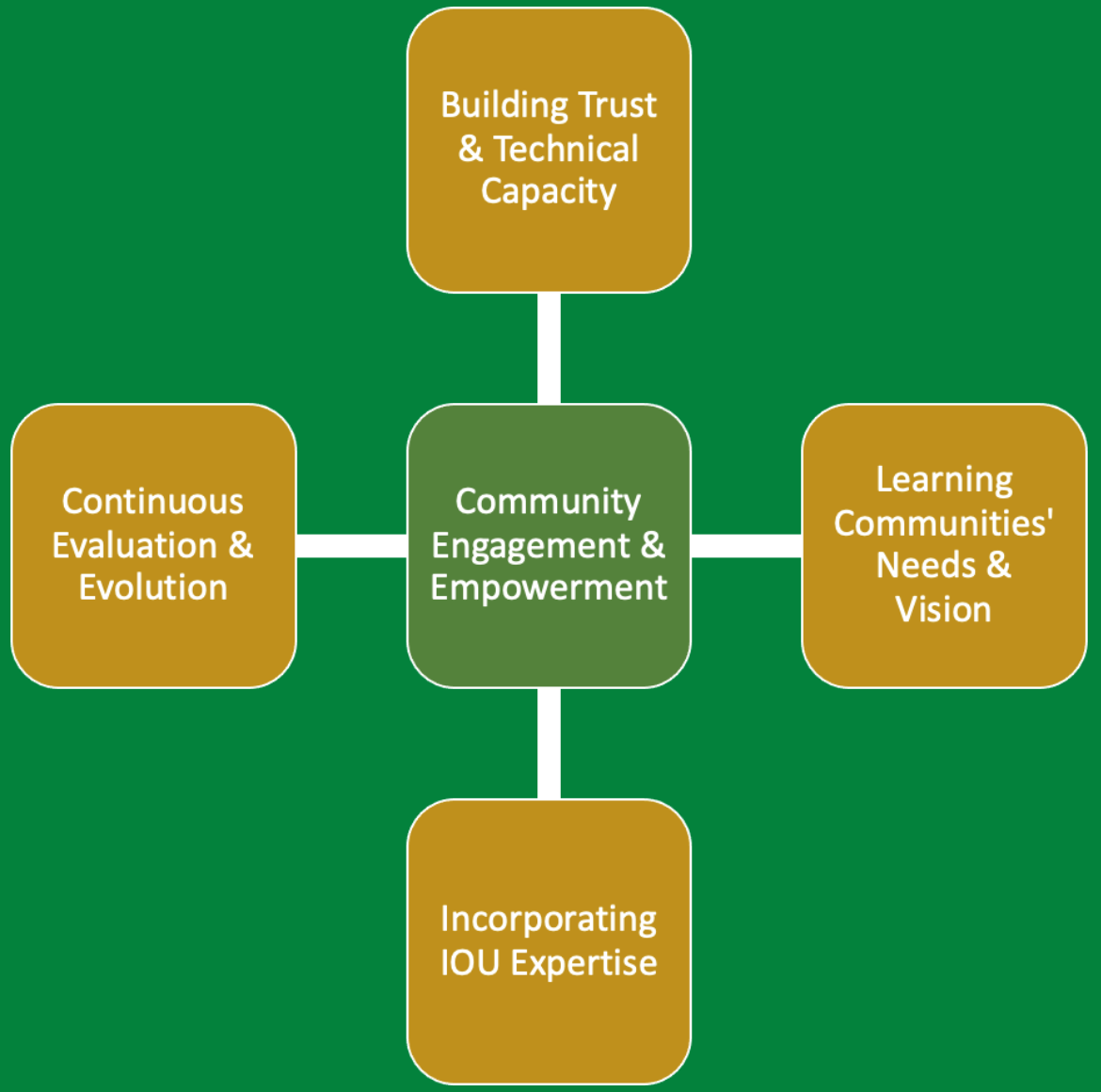
- What role do communities play?
  - During planning? Implementation? Evaluation?
  - How can communities be most empowered in their roles?
- What role do CBOs play?

Community Engagement & Empowerment

So you have a project idea...

→ Iterative

→ Intertwined



Building Trust & Technical Capacity

- → Target communities often left behind
  - → Histories of neglect, mistrust, false promises
  - → Possible initial technical expertise barriers
- → Technical Assistance Providers
  - → Relationships matter; look to CBOs
  - → Culturally competent partners
  - → Help communities help themselves
    - → Unlock their own expertise
- → Where are these communities?
  Where are these CBOs?

Allensworth residents and Abigail Solis of Self-Help Enterprises in the CPUC San Joaquin Valley Pilot Proceeding

Learning Communities' Needs & Vision

- → Tap into existing networks and connect with leaders
  - → What other insights and priorities do they have?
  - → E.g. personal and community experiences with outages
- → What is their vision for their community, and do microgrids fit in?
  - → Ex 1: "Critical facilities"
    - → Community centers, nursing homes, schools, churches, foodbanks, and clinics
  - → Ex 2: No diesel microgrids
  - → Ex 3: Community control of new and existing facilities
    - → Creative ownership and operation strategies

Allensworth Community Center

DO NOT PASS GO:
Does the community want this?

Incorporating IOU Expertise

- → IOUs' wealth of knowledge
  - → Outages & PSPS events – for location
    - → What communities are impacted by shutoffs
    - → Comparative data
  - → Energy usage in the aggregate – for sizing
  - → Costs and rates
- → Gaps in existing data
  - → Where vulnerable communities are
    - → And what their needs are
  - → Relationships to historic underinvestment and racist policies including redlining
- → What pilot projects are going to teach us the most?

Continuous Evaluation & Evolution

Evaluation opportunities	Formal	Informal – eyes open!
Community meetings	• Surveys • Feedback at meetings	• Where questions frequently come up • Where there are understanding gaps • Showing up early and staying late to meet residents
CBO engagement	• Reporting requirements • Check-in meetings	
Implementation	• Surveys • Feedback at meetings	• Frequently encountered problems in the field

→ Evolution

→ No project is perfectly designed from the start

→ Priority #1: Community support; relationship and trust repairing and building

Presentation Goals – Community Engagement & Empowerment

IOU questions:

- How should the utility share information?
  - Iteratively in a culturally competent manner, always on a 2-way street, through TA providers like CBOs
- What role does the utility play?
  - Technical expertise to "train the trainer" via TA providers
  - Energy outage and usage data, and systems information
  - Political and financial resources

Additional questions:

- What role do communities play?
  - During planning? Implementation? Evaluation?
    - Communities shape all stages of the project for the greatest project success and participant benefit
  - How can communities be most empowered in their roles?
    - Unlocking their own expertise through TA
    - Implementing their vision and proposals throughout
- What role do CBOs play?
  - Leverage existing relationships and knowledge
  - Technical assistance providers
  - Intermediary as trusted party by all, competent in "translating" across different forms of expertise

Tying it Together: Community Engagement & Eligibility Criteria

→ Consult with the DAC Advisory Group

→ Funded CBO engagement

→ Request for Proposals/D.18-12-015 criteria

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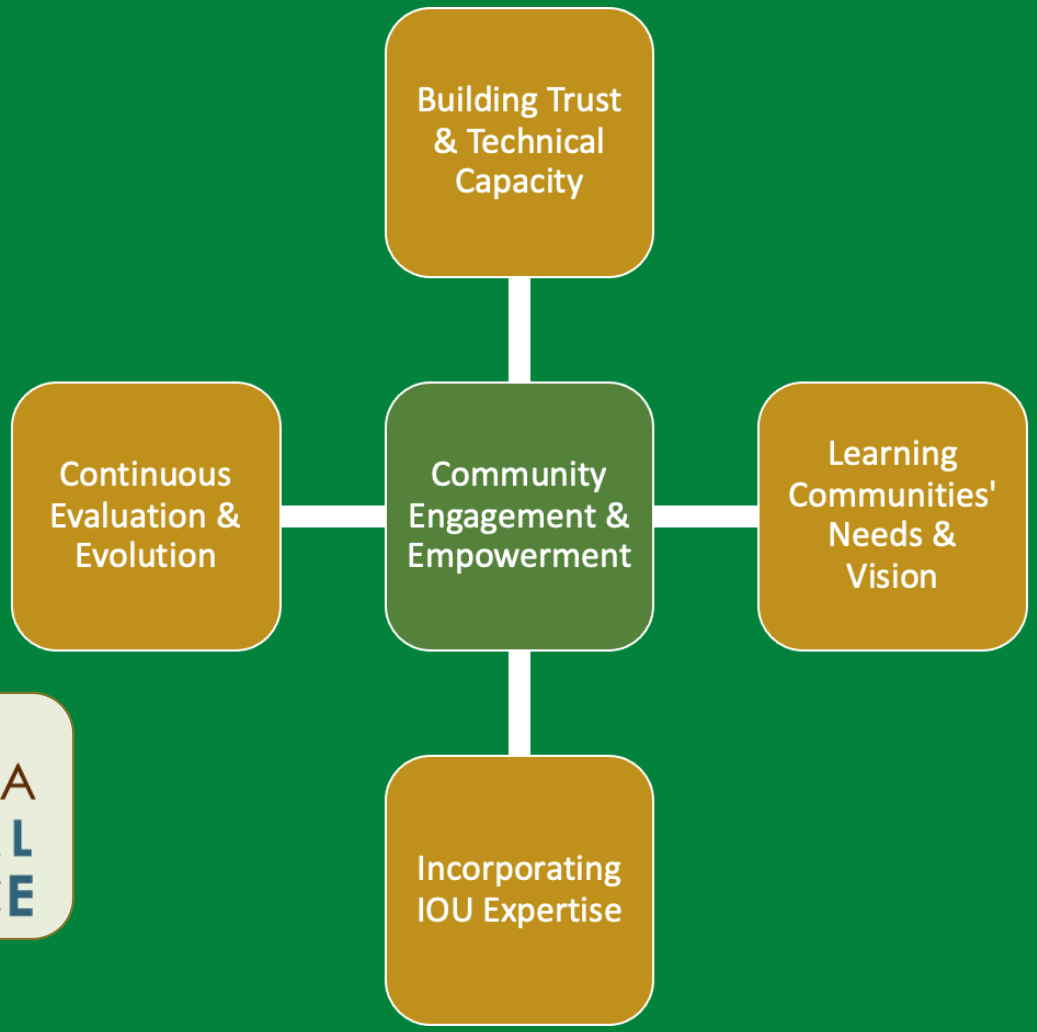
Community Engagement & Empowerment

Thank you!



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established 1978

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Appendix D:
Why Energy Resilience Ought to be a Policy Priority

The following Joint Comments filing was submitted to the Office of Planning and Research in response to the State's Draft Climate Adaptation Strategy. It includes the following points:

- Power outages are a problem, costing California billions.
- The default energy resilience strategy is diesel.
- There is a better strategy to enhance energy resilience: distributed clean energy.
- The California Climate Adaptation Plan should fund local governments in developing clean-energy-based community energy resilience plans.
- Community adaptation planning could link energy resilience goals with other public policy goals, including electric vehicle acceleration goals.
- New state adaptation efforts focused on community energy resilience can build on related existing state programs.
- Recent CPUC Decisions and a CEC Report have recognized that providing support for local governments is a critical prerequisite for achieving community energy resilience.
- Current state adaptation efforts do not account for the magnitude of the currently unmet need for local energy resilience.
- The California Climate Adaptation Plan should explicitly support accelerated development of distributed energy resources and microgrids because energy resilience can only be achieved by locating generation and storage resources near end-use locations.
- *New state efforts should prioritize energy resilience funding for vulnerable communities that suffer the most from air pollution and power outages.*

Joint Comments of The Climate Center, Vote Solar, Sierra Club California and California Alliance for Community Energy

Submitted to OPR
In response to the
Draft Climate Adaptation Plan
November 17, 2021

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Summary

The current draft California Climate Adaptation Strategy fails to mention a key climate change impact: power outages, which have increased in frequency because of increased wildfire risk due to the climate crisis. Power outages endanger vulnerable energy-dependent people and have cost Californians billions of dollars. Energy resilience is a key adaptation strategy, yet it is currently missing from the draft plan.

Responses to enhance energy resilience have favored rapid procurement of diesel-fueled back-up generators. These fossil back-up generators -- installed by homeowners, businesses, local governments, state agencies and utilities -- undermine California's greenhouse gas reduction and clean energy goals while imposing toxic emissions on local residents.

California climate adaptation planning and implementation funding should recognize and encourage the urgent need to deploy clean local energy resources that can provide electricity for essential functions when the grid is out of service, and should prioritize frontline communities and vulnerable households. Poor communities, already disproportionately exposed to air pollution, should not have to choose between the toxic emissions of diesel-powered generators and loss of power for essential functions. This crucial element of climate adaptation can leverage dramatic recent cost reductions for distributed clean energy, and build upon lessons learned from relevant state programs overseen by the California Energy Commission and the California Public Utilities Commission.

In the coming years other climate-related events in addition to wildfires, such as extreme storms and flooding, will likely cause power system outages. We urge the Natural Resources Agency and the Office of Planning and Research to add a section to the Climate Adaptation Strategy focused on the risks of climate-related power outages and offering specific strategies for mitigating their harm to California residents without relying on fossil-fuel solutions that produce toxic and environmentally harmful side effects.

Introduction

Power outages are a problem, costing California billions of dollars.

Because of climate change, wildfire risk has increased, leading to a dramatic recent increase in power outages. The CPUC reviewed Public Safety Power Shutoff events in 2019 and found that PG&E customers experienced power outages ranging from 14 to 55 hours, affecting nearly 2 million customers. Academics have estimated costs to California of billions of dollars.

The default energy resilience strategy is diesel.

Back-up diesel generators, one of the most polluting sources of electricity, are currently the default solution to maintain resilience across all customer classes in California. According to a recent study by M.Cubed, back-up generators -- 90% of which burn dirty diesel fuels -- have jumped in popularity, with the Bay Area seeing a 34% increase over the last 3 years. The generator fleets also grew significantly in southern California, with a 22% increase in cities and counties located within the South Coast Air Quality Management District. Pollutants from these generators harm disadvantaged communities with enormous health impacts. The M. Cubed study estimates that health costs attached to this increase in emissions in the Bay Area and South Coast are $31.8 and $103.9 million respectively every year. This increase in diesel generation has been funded by state government. Recent CalOES grants to local governments to enhance resilience ($125M over two fiscal years) primarily support procurement of new diesel generation.

There is a better strategy to enhance energy resilience: distributed clean energy.

As noted in a Vote Solar report, on-site solar plus storage is more cost effective than fossil fuel back-up generators when factoring in lifecycle cost, and can provide revenue and load shifting benefits on a daily basis, unlike diesel generators which only provide sporadic value during grid outages.

Recommendations

The California Climate Adaptation Plan should fund local governments in developing clean-energy-based community energy resilience plans.

California should create a new technical assistance and grant program to enable local governments to develop community energy resilience plans. Local governments are uniquely responsible for resilience. Under the federal Disaster Mitigation Act of 2000 (along with state legislation), local

governments have primary responsibility for fostering resilient communities, obligations that overlap with reliability-related energy services provided by load-serving entities. A few large local governments have capacity to address energy resilience, such as Los Angeles County. Most local governments, however, have little capacity and need state support.

Local governments, which have jurisdiction over local infrastructure, should determine how and where to site local energy resilience infrastructure in coordination with the local distribution utility, rather than having crucial local electrical resource investment decisions made solely by a utility disconnected from local priorities and needs. Investor-owned utilities have been seeking to enhance resilience through mechanisms available to them, including grid segmenting to reduce the number of locations and customers subject to PSPS events. Utilities, however, do not typically invest in community-level clean energy resilience resources like microgrids because they typically do not control local public facilities, e.g., roofs and parking lots of municipal facilities.

Installation of distributed energy resources (DERs) usually requires local permitting approval, including the siting of clean energy generation, storage, and EV charging infrastructure. Local governments, particularly in lower income communities, currently lack the staff capacity and funding needed for energy resilience planning. Absent state policy leadership and funding support, the wealthiest individuals, businesses and communities will achieve clean energy resilience, leaving poor communities with more exposure to diesel pollution or without electricity.

Community adaptation planning could link energy resilience goals with other public policy goals, including electric vehicle acceleration goals.

By addressing resilience needs using an integrated and collaborative approach, California can accelerate its progress on meeting transportation electrification, clean energy and emissions reduction goals. For example, increased market penetration by electric vehicles can provide a critical back-up power source for homes, businesses and local governments, if coordinated as part of an integrated plan. These mobile batteries represent assets already paid for by public and private entities and could be marshalled to support community resilience. They can be rolled into microgrids that can keep operating when the larger grid goes down. Those same batteries can be orchestrated by intelligent software to form virtual pools of resources that can also help fill in gaps in supply in wholesale markets, as occurred during power

outages of August of 2020. One recent study estimated the magnitude of CA's existing EV fleet at 40 GW, growing to 100 GW by 2025, a massive resource which is currently largely untapped to enhance grid resilience.

New state adaptation efforts focused on community energy resilience can build on related existing state programs.

New state funding should build upon and integrate previous related CEC and CPUC programs. A CPUC Decision issued in June of 2020 required investor-owned utilities to share information with and engage local governments in energy resilience planning, but the decision did not allocate resources to local governments to enable completion of energy resilience planning.

The CEC's Advanced Energy Communities program has been funding development of clean energy microgrids in low-income communities, including the Blue Lake Rancheria project, which is credited with helping to save lives of medically-dependent people during the 2019 power shutoffs. There are also related CEC transportation electrification programs.

Recent CPUC Decisions and a CEC Report have recognized that providing support for local governments is a critical prerequisite for achieving community energy resilience.

As noted above, in its June 2020 Decision issued in the microgrid proceeding pursuant to SB 1339, the CPUC directed investor-owned utilities to collaborate with local jurisdictions to support community resilience efforts and pre-PSPS event planning. In its January 2021 decision in the same proceeding, the CPUC allocated $200M to create a new microgrid incentive program to support development of microgrids in vulnerable communities. What is still missing from this process is the acknowledgement that local governments are currently ill-equipped in terms of staff capacity and technical knowledge to integrate energy resilience into local planning. The CEC's February 2021 "Public Safety Power Shutoff Workstream Report" noted as follows: "Creating standardized pathways for community energy and microgrid projects will enable more projects to be successful" and "Communities should design community-focused energy projects that address their core objectives and recognize their unique needs." This type of community planning will typically not occur absent new state support, particularly for local governments in California's most vulnerable communities.

Current state adaptation efforts do not account for the magnitude of the currently unmet need for local energy resilience.

Community energy resilience is related to multiple proceedings currently underway before the CPUC, including resource adequacy, the emergency reliability proceeding as well as the microgrid proceeding. However, none of these activities address the fact that most local governments, particularly those serving vulnerable communities, are currently ill-equipped to complete the project pre-development planning necessary to apply for funds expected to be made available. The commercialization of microgrids has been exceedingly slow. According to data available through the DOE database of microgrids, California currently has fewer than 100 microgrids. Among California's tens of thousands of critical facilities, most are currently served by diesel back-up or have no back-up generation.

The California Climate Adaptation Plan should explicitly support accelerated development of distributed energy resources and microgrids because energy resilience can only be achieved by locating generation and storage resources near end-use locations.

The reliable electric service Californians need to be prepared for extreme and unexpected climate disruptions cannot be achieved without deploying microgrids on critical facilities, including community shelters and resilience hubs, in all communities throughout the state. Depending entirely on the grid for resilient electric service in the coming years could prove fatal for customers and communities that do not have dependable alternatives. The varieties of severe climate-related disruptions in recent years -- most recently the extreme freeze that was fatal for many people in Texas -- clearly signal that people should not be entirely dependent on the grid for electricity service.

New state adaptation efforts should prioritize energy resilience funding for vulnerable communities that suffer the most from air pollution and power outages.

Power shutoffs disproportionately impact vulnerable communities since low-income households have fewer back-up resources in the event of an outage and are less able to absorb financial losses. Loss of electricity exacerbates and amplifies existing inequities, such as homelessness, substandard housing, and inadequate access to healthcare. A study from the National Bureau of Economic Research found that had a nationwide moratorium on electricity and water shutoffs been implemented during COVID-19, such a moratorium would have prevented 14.8% of COVID-related deaths. Disadvantaged communities are already disproportionately impacted by

health burdens of fossil fuel electricity generation, while having the least resources to respond to a loss of power.

As noted by the CPUC in its Microgrids and Resiliency Staff Concept Paper, "recent Public Safety Power Shutoff events have demonstrated that as a percentage of income lost due to economic disruption, low-income and disadvantaged communities are more highly impacted by disruptive energy events." As an example, a refrigerator full of food for a family of four, costing $500 represents a higher percentage of a low-income family's monthly income than a high-income family's monthly income."

Businesses closed during an extended outage can result in lost wages for employees and as shown during the current pandemic, school closures can leave families scrambling to find childcare with lost wages should parents be forced to stay home with their children. Medical care, including access to prescription drugs, can also be compromised. Transportation is compromised when public transport hubs or gas stations don't function for lack of power. Disadvantaged communities with high rates of respiratory problems are also especially vulnerable to adverse health impacts from high emissions when fossil-fuel backup generators are widely used during power outages.

Conclusion

Local governments need additional technical and financial resources in order to tackle adaptation strategies, including energy resilience. The draft California Climate Adaptation Plan fails to account for the electric grid reliability risks that worsening climate volatility has created. Every community should have provisions for resilient electric service that is not grid dependent.

Absent significant state leadership and investment in community energy resilience planning and implementation, public investment in energy resilience will likely continue to focus on new fossil fuel power generation – a short-sighted outcome which endangers public health and safety, particularly for the most vulnerable. State policy needs to harness dramatic technology advances in clean, scalable, cost-effective DER so that the DER deployment revolution leads to outcomes which are consistent with California's equity, decarbonization, air quality and energy resilience goals.

Without a statewide adaptation plan that enables all local governments to plan and implement clean energy resilience, many communities will be left without reliable energy, exacerbating energy and environmental inequities.

We respectfully urge the Natural Resources Agency and the Office of Planning and Research to add a section to the Climate Adaptation Strategy focused on the risks of climate-related power outages and offering specific strategies for mitigating their harm to California residents without relying on fossil-fuel solutions that produce toxic and environmentally harmful side effects.