

Community Microgrid Assistance Partnership (C-MAP)

Supporting Microgrid Development in Underserved and
Indigenous Communities / Nov. 11, 2024



Housekeeping

Q&A

Submit questions using the **Q&A** panel.

The **Chat** is for directions and discussion.

Technical issues? Message the host using the **Chat** panel.



AUDIO

Everyone is muted.

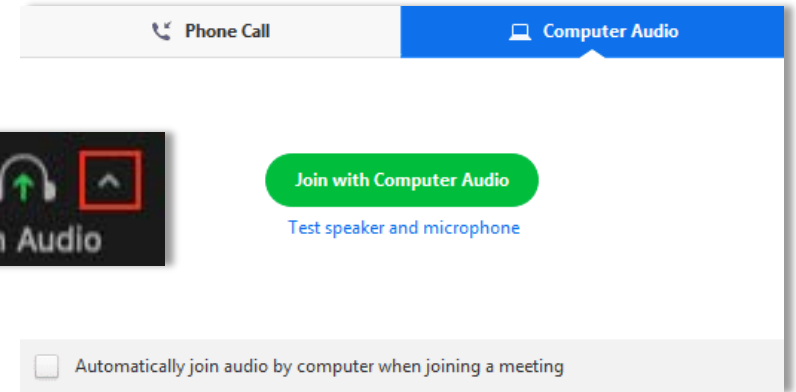
There are two options for audio:

1. Listen through your computer:

- Click the “Audio” button in the bottom left corner and join with computer audio.
- If you can’t hear anything, turn up your speakers, click “Test speaker and microphone” and follow instructions.

2. Listen by phone:

- Click the “Audio” button in the bottom left corner.
- Click “Phone Call” tab and follow instructions.





WELCOME & INTRODUCTION

Dan Ton

Project Manager – Microgrids

U.S. Department of Energy – Office of Electricity

DIESEL-POWERED MICROGRIDS REMAIN THE MOST COMMON MODE OF SUPPLYING ENERGY TO ISOLATED COMMUNITIES.

- Prices are high (up to \$1/kilowatt-hour of electricity).
- Energy reliability and resilience are below modern national standards.
- Imports depend on long and tenuous supply chains.

Unique conditions make transitioning to new energy solutions complicated, time-consuming, and difficult to sustain.



PIECEMEAL DEPLOYMENT OF MICROGRID TECHNOLOGY HAS HINDERED THE PACE OF INNOVATION.

- Isolated communities often have limited resources and lack experience in applying for federal funds.
- Knowledge sharing and data collection are not coordinated.
- There is a lack of funding for regional infrastructure development approaches and for communities to plan and design new systems and operate, improve, or expand existing systems.
- Projects do not focus on increasing renewable energy contribution or supporting wider electrification.



OFFICE OF ELECTRICITY MICROGRID PROGRAM PRIORITIES

1. Promote microgrids as a core solution for increasing the resilience and reliability of the electricity delivery system.
2. Ensure that microgrids serve as drivers of decarbonization for the U.S. electricity delivery system.
3. Decrease microgrid capital costs while reducing project development, construction, and commissioning times.





THE COMMUNITY MICROGRID ASSISTANCE PARTNERSHIP

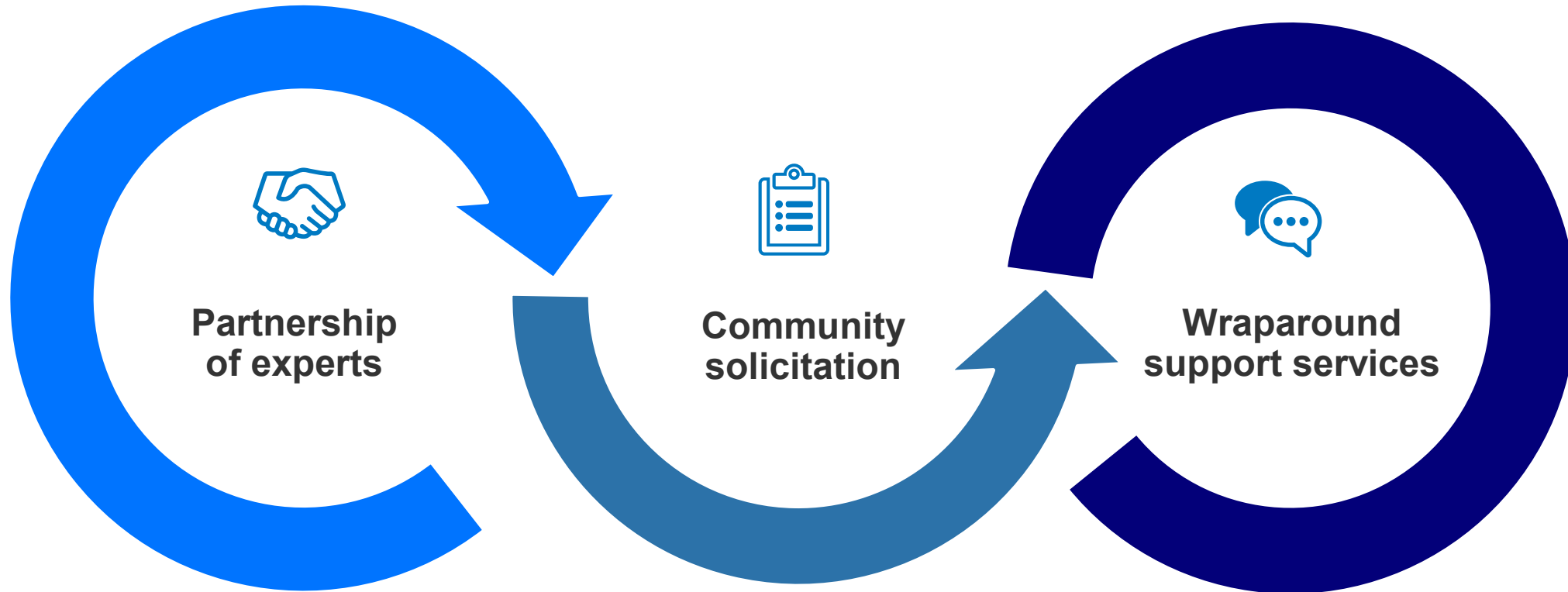
Ian Baring-Gould
Senior Researcher and Project Lead
National Renewable Energy Laboratory

COMMUNITY MICROGRID ASSISTANCE PARTNERSHIP

C-MAP will bring together many of the organizations that are working to understand, improve, and implement advanced microgrid energy systems in underserved and Indigenous communities in remote areas, facilitating a new forum for engagement and collaboration.



PARTNERSHIP OVERVIEW



COMMUNITIES NEED RESOURCES TO DEVELOP AND INNOVATE.

Communities selected through competitive solicitation for C-MAP will receive funding, technical support, and development resources to implement innovative microgrid technologies and deployment approaches suited for remote underserved and/or Indigenous communities.



FUNDING TO UNDERSERVED AND INDIGENOUS COMMUNITIES

C-MAP provides direct funding to state or local governments, Tribal organizations, and nonprofits to support microgrid development efforts.

Awards in Four Streams

1. Regional Microgrid Community Operations Assistance
2. Regional Microgrid Community Development Assistance
3. Microgrid Development
4. Microgrid Transformation

Key Principles for the Funding Opportunity

- ❑ Regional organizations staged to assist in proposal development
- ❑ Competitive but simplified application process
- ❑ Explicit community commitments with specific goals
- ❑ Proposals demonstrate how resulting efforts could be a model for others

FUNDING RECIPIENTS

Target recipients are community governments overseeing energy systems, local power companies and independent energy suppliers, and community support organizations (such as Tribal governments) that provide energy services to remote underserved and/or Indigenous communities.

Recipients will typically be organizations that have:

- High impact: Direct influence on the operation and funding of energy services in communities.
- High need: Limited resources to support the assessment or development of advanced microgrids.
- Demonstrated motivation: Completed some level of external technical support but need more resources to further develop projects locally.
- Need for continued support: Need some level of ongoing technical support to overcome knowledge gaps in specific aspects of microgrid development.



WRAPAROUND SERVICES ENSURE SUCCESSFUL ENGAGEMENT WITH UNDERSERVED COMMUNITIES.

- Directed technical assistance in proposal process.
- Annual workshop for connecting with partners and other communities.
- Learning programs led by the educational partners.
- An annual technical status and recommendations document on microgrid technology and deployment experience.
- An assessment of current microgrid systems.
- Structured cross-sector support for projects or programs found to be critical for sustainability (i.e., workforce training, business model development).



COMMUNITY SUPPORT

C-MAP is designed to provide technical assistance and fill knowledge gaps not met by other programs, with a focus on community-based microgrid energy systems.

Department of Energy:
C-MAP oversight and
coordination



Community-based
Organizations and
State Government

Educational
Partners

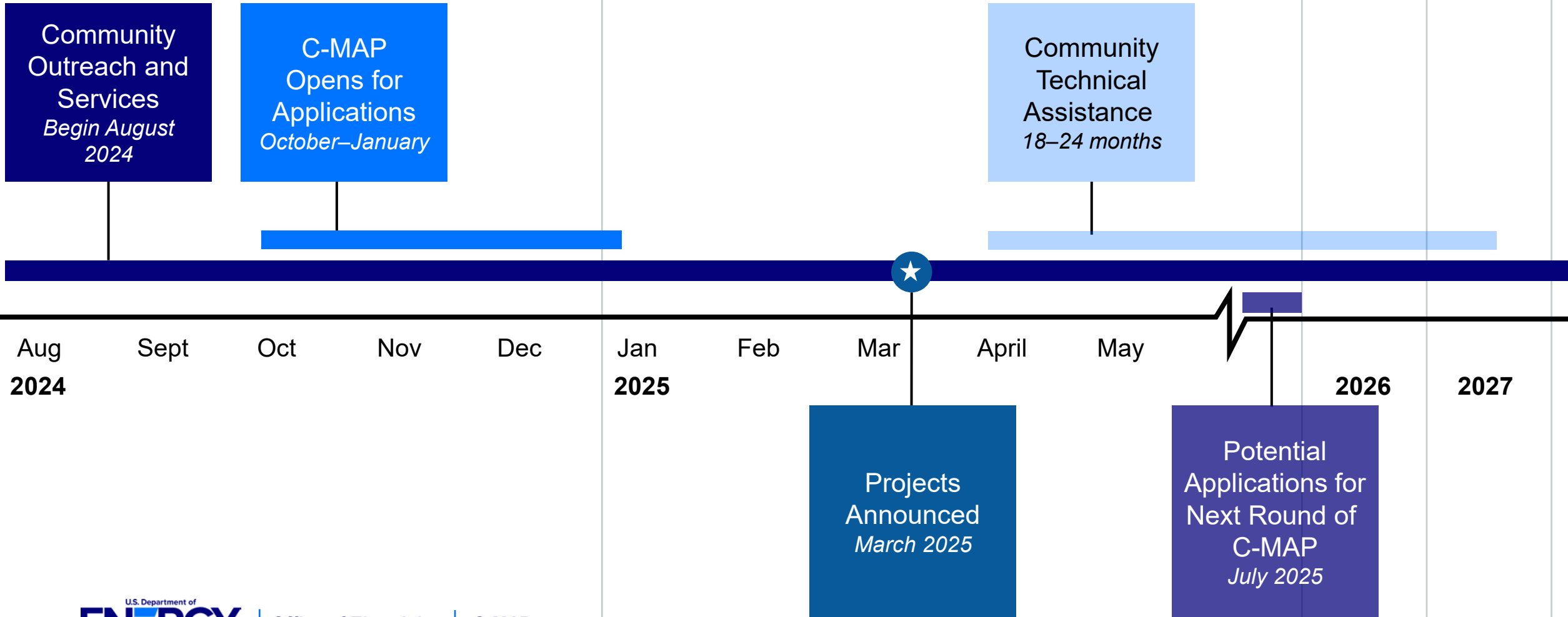
National
Laboratories

- Community outreach and engagement, proposal development, and wraparound services
- Proposal development, technical support, and wraparound services
- Funding, contract monitoring, technical support, and project outreach



Communities and
Community
Representatives

TIMELINE



BENEFITS FOR COMMUNITY PARTICIPANTS

Energy benefits include:

- Stronger operation of microgrids.
- Improved capacity to apply for private or public infrastructure funding.
- Funding-ready proposals for new microgrids.
- Relationships between communities and technical support organizations.
- Lower or stabilized energy costs from using locally available resources.

Nonenergy benefits include:

- Matured community-based project management.
- Richer collaboration between communities and local development organizations.
- Reduction in greenhouse gas production and improved air quality.



BENEFITS BEYOND COMMUNITY PARTICIPANTS

Energy benefits (direct, indirect) include:

- Learning opportunities for communities with isolated energy systems
- Proof-testing of microgrid technologies in supported deployments, informing technology innovation.
- Real experiences of isolated, community-based microgrids.
- Collaboration network of underserved and Indigenous communities using microgrid energy systems.
- Communication between microgrid researchers, industry, users, and national laboratories, leading to more focused research and development.

Nonenergy benefits (direct, indirect), include:

- Matured community-based project management.
- Richer collaboration between communities and local development organizations.
- Reduction in greenhouse gas production and improved air quality.





C-MAP SOLICITATION

Sean Esterly

Senior Researcher and Project Lead
National Renewable Energy Laboratory

C-MAP SOLICITATION

SOLICITATION TECHNICAL FOCUS

Community-based microgrid energy systems designed to operate independently of the grid or isolate for prolonged periods of time.

For collaborations between three to five communities

For one specific community

FOUR TOPIC AREAS

Topic Areas	Maximum Award Amount	Expected Period of Performance
Regional Microgrid Community Operations Assistance	\$200,000 base, \$75,000 per community with maximum award of \$650,000	24 months
Regional Microgrid Community Development Assistance	\$300,000 plus \$50,000 per community with maximum award of \$550,000	24 months
Microgrid Development	Maximum \$300,000	22 months
Microgrid Transformation	Maximum \$400,000	18 months

To be eligible for this solicitation, the microgrid, if primarily designed to be grid-connected, is expected to operate independently of an external grid for long periods of time.

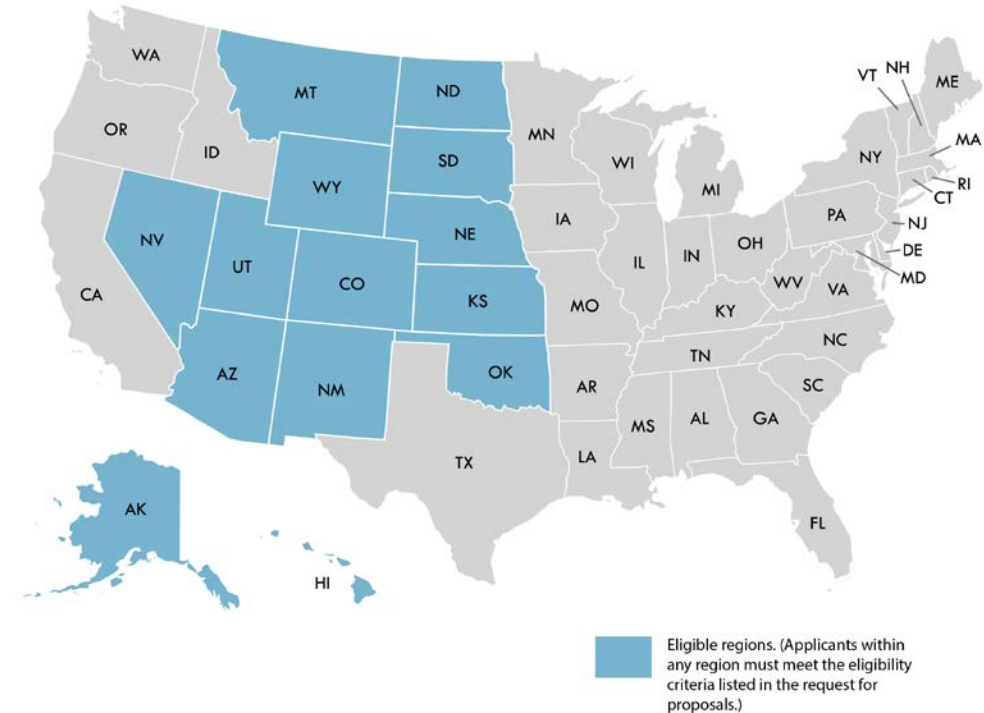
SOLICITATION ELIGIBILITY

Eligible Organizations

- Nonprofit entities, including energy cooperatives.
- State and local governmental entities.
- Any federally recognized American Indian and Alaska Native Tribes and Villages, inclusive of any Alaska Native Village or regional corporation as defined in or established pursuant to the Alaska Native Settlement Act.

Applicants Must

- Be from or directly representing specific underserved and Indigenous communities in remote, rural, and islanded regions of Alaska, Hawai'i, and Tribal lands in the West and Midwest.
- Identify at least one area in the United States with a population of not more than 10,000 (using the 2020 Census Bureau figures) that will benefit from the proposal. The identified area must be either: (a) a city, town or other unincorporated municipality or (b) a Census Designated Place (CDP) or similarly discreet and identifiable community that is not located within an incorporated municipality.





PROCUREMENT AND CONTRACTING

Kyndall Jackson

Subcontract Administrator - Acquisition Services
National Renewable Energy Laboratory

REQUEST FOR PROPOSALS

- The RFP was released October 2, with applications due December 20th, 2024.
- The request for proposals (RFP) is posted on SAM.gov (Notice ID: RFX-2024-10032).
- Instructions for submittal (subcontract information, requirements, due date, etc.) are identified in the RFP.
- Awardees will be selected in March, with the goal to complete negotiations by summer.

RFP Questions

- Questions can be submitted to CMAP@NREL.gov. Answers will be provided through amendment(s) posted to sam.gov and referenced on the C-MAP website.

Proposal Review and Selection

- Best value selection (qualitative merit and price).
- Evaluation on merit criteria (weighted).
- Evaluation process, including:
 1. Initial evaluation for acceptability (clarifications).
 2. Proposal evaluation against statement of work and merit criteria (discussions).
 3. Successful and unsuccessful offerors notified (negotiations).
 4. Award(s).

SOLICITATION TECHNICAL FOCUS

Allowable Costs

Allowable costs are reasonable and allocable under the terms of the Federal Acquisition Regulations and Department of Energy Acquisitions Regulations (FAR Part 31.201-2).

Price Participation Criteria

There is no required cost participation/cost share.

Property/Equipment Purchases Within Proposal

- Defined as anything that has a useful life/value after the completion of the effort.
- Ownership is determined based on who is paying for the item (NREL or included in price participation).

Specifying Proprietary/Restricted Data

Acceptance

Provide acceptance of the statement of work and NREL's terms and conditions (general and intellectual property) or request exceptions.

SOLICITATION TECHNICAL FOCUS

Forms Required Through the Solicitation include:

- Price Cost Proposal.
- Organizational Conflict of Interest (OCI) forms (Representation OR Disclosure).
- New Vendors (W-9, ACH Banking Information).
- Representations and Certifications.
- SAM.gov registration (System for Award Management).

Sample Payment Schedule (Firm fixed price with participation)
See Attachment No. 4 - Sample Deliverable Schedule.

Invoicing (Postaward)

- Invoicing is based on prenegotiated values in payment schedule.
- Invoices will be paid upon submission of approved deliverables.
- Invoices will be submitted to Accounts Payable (instructions are detailed in subcontract award).



THANK YOU

For more information on C-MAP, contact
cmap@nrel.gov or visit us online

NREL/PR-5C00-92056



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