Community Microgrid Program: Request for Expressions of Interest
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Website:
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Community Microgrid Program Goals

- **Reduce** greenhouse gas emissions
- **Increase** resiliency of critical facilities and infrastructure
- **Reduce** energy costs for Massachusetts customers
What is a Community Microgrid?

- Multi-user microgrids
- Provide electrical and/or thermal energy to multiple site owners
- Have broad support from the local community, relevant utility(ies), and building or site owners.
Program Overview

• EOI Issued May 5th
• 3-5 EOIs will be selected
• Feasibility studies valued at approximately $75,000
• First round will be awarded in Q3 of 2017
• Successful feasibility studies may be eligible for additional technical assistance or grants for later stages of project development
Pathways for Participation

Team Consultant
- Part of applicant team
- Can be any entity with ability to perform a technical assessment

MassCEC Consultant
- Must elect in application
- MassCEC Pre-selected and approved
Who Should Participate?

- Municipalities
- Public Works Departments
- Electric distribution companies
- Municipal light plants
- Emergency service departments
- Owners of critical infrastructure
- Groups of commercial building owners
- Other entities that own viable property or represent relevant stakeholders
Eligibility & Selection Criteria

- Community/multi-user microgrids
- Located in Massachusetts
- Integrate renewable energy
- Encompass a public or private critical facility
- Have active and engaged support of the local utility
- Attract third party investment
- Highlight Massachusetts-based clean energy/microgrid technology
- Support the distribution system
Step 1: Respond to Request for Expressions of Interest
MassCEC released a Request for Expressions of Interest (EOIs) to select 3-5 projects for feasibility assessments valued at $75,000. Responses due June 23, 2017.

Step 2: EOI Review and Preliminary Selection
MassCEC will review EOIs and identify select respondents to participate in the next evaluation step.

Step 3: Project Viability Assessment and Interview Process
Selected respondents will complete a project viability assessment questionnaire and interview with MassCEC to provide more details on the project.

Step 4: Notification of Selected Projects
Projects that meet MassCEC’s criteria will be selected to receive Assessments through the Program
## Expression of Interest Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>May 5, 2017</td>
<td>• Release Request for EOIs</td>
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<tr>
<td>June 1, 2017</td>
<td>• Informational Webinar</td>
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<td>June 16, 2017</td>
<td>• Questions due to MassCEC</td>
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<td>June 23, 2017</td>
<td>• EOIs due to MassCEC</td>
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<tr>
<td>July - September 2017</td>
<td>• Viability Assessments and Respondent Interviews</td>
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<td>September - October 2017</td>
<td>• Notification of Selected Projects</td>
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Case Example – City of Hartford, CT

Development Partners: Constellation, City of Hartford, CT Light & Power, Bloom
Components: 800 kW fuel cell
Location: Parkville Neighborhood

Facilities and Operations
• Blue-Sky Operation:
  - Elementary School
  - Library, Senior Center
  - Health Center
• Grid Outage:
  - The above facilities, and
  - Grocery store
  - Gas station

Ownership & Financing
• Public-private partnership
• 15 year PPA with the City
• DEEP Microgrid Grant Program
• Low-Emission RECs Program

Project Drivers
This partnership aimed at creating greater natural disaster resiliency in Hartford in response to Hurricane Irene and other recent strong storms.
Case Example – City of Rutland, VT

**Development Partners:** Green Mountain Power, Dynapower, groSolar

**Components:** 2.5 MW Solar PV, 3.4 MWh Battery Storage

**Location:** Capped landfill - Rutland, VT

**Facilities and Operations**
- **Blue-Sky Operation:**
  - Provides Frequency regulation
  - Reduces grid peak demand
- **Grid Outage:**
  - Rutland High School serves as a emergency shelter

**Ownership & Financing**
- The City receives lease payments
- Reduces GMP capacity payments to NE-ISO

**Project Drivers**
This project allowed GMP to meet state Renewable Energy Standards, provided income to the City, lowered ratepayer costs, and boosted local economic development.
## Success Factors

### Conduct stakeholder mapping exercise
- Who needs to be at the table?
- How many stakeholders can your team successfully engage through this process?
- What are anchor loads or critical facilities within my community?

### Consider the business case
- Business case informs design
- Economics can also influence governance structure

### Identify or Leverage Existing Infrastructure
- Repurposed steam networks
- Utilize existing business improvement districts or associations

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Based on interview with New York City’s Mayor’s Office of Recovery and Resiliency (ORR), May 2017
MassCEC Efforts on Microgrids & Resilience

MassCEC Programs & Initiatives
- Community Microgrids Program – Feasibility Assessments
- Advancing Commonwealth Energy Storage (ACES) Program
- Resilient Service Stations Challenge
- USDN Microgrid Planning Workshops
- Microgrids 101 Workshop

Studies & Research
- Microgrids Study
- State of Charge – Energy Storage Study
- Boston Community Energy Study

Related Programs & Activities
- Community Clean Energy Resilience Initiative (CCERI)
- Energy Storage Initiative
- Grid Modernization
Stakeholders and Other Resources

- MassCEC Microgrid Stakeholder List
- Department of Energy (DOE) Combined Heat and Power Technical Assistance Partnership (CHP TAP) Northeast
- Utility Contacts
  National Grid
  - Babak Enayati
    Lead Engineer
    Babak.Enayati@nationalgrid.com
  - Tom Chorman
    Senior Engineer
    Thomas.Chorman@nationalgrid.com
- Meister Consulting Group – Technical Assistance through DOE SolSmart
- Regional Planning Agencies
- NYSERDA NY Prize Stage 1 Feasibility Studies
Questions?
Thank You!

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