# Resilient Microgrids for Critical Services Phase 1: Feasibility Studies Program Guidance Document

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#### Introduction

The Rhode Island Office of Energy Resources (OER) is a state agency dedicated to the mission of leading Rhode Island to a clean, reliable, affordable, and equitable energy future. RI Commerce's Renewable Energy Fund (REF) exists to help expand the role of renewable energy throughout Rhode Island, so the state and its citizens can reap the full benefits of cost-effective renewable energy from diverse sources. Together OER and REF are promoting microgrid development for critical infrastructure and key resources across the state through the new Resilient Microgrids for Critical Services Program.

The Resilient Microgrids for Critical Services Program is a two phased program. Phase 1: Feasibility Studies aims to encourage microgrid development by offering technical assistance to develop microgrid feasibility studies tailored for critical infrastructure and key resources for municipalities, school districts, and fire districts. The purpose of Phase 1 is to solicit proposals from municipalities, school, and fire districts for potential microgrids that would support critical facilities during times of electricity grid outages. Feasibility studies consider all options for a microgrids components, they evaluate potential revenue streams available, as well as the cost and time investment required. These feasibility studies will be used to determine which projects are technically feasible and eligible to participate in Phase 2: Microgrid Construction.

This program was developed in response to multi-day power outages caused by severe weather and other utility system events in recent years. Incentivizing the adoption of microgrids plays a vital role in Rhode Island's efforts to ensure reliable and sustainable systems to ensure vital critical facilities – including, but not limited to, hospitals, police and fire stations, schools, and community shelters – remain available, uninterrupted, to meet the needs of our communities and most vulnerable citizens.

The Resilient Microgrids for Critical Services study program offers numerous benefits for municipalities, school districts, fire districts, and their respective residents and users. These benefits include:

- Increased Electric Reliability: Microgrids keep the power on by disconnecting, or islanding from the main utility grid when it fails. The microgrid can then generate power and serve the microgrid customers until the power is restored to the central grid.
- Enhanced Resilience: Microgrids reduce the likelihood of power outages and increases a system's ability to recover quickly if they do experience an outage.
- Lower Energy Costs: Microgrids can reduce the cost of energy and create a revenue stream for their customers. They reduce energy costs when it is less costly to produce energy on-site than purchasing energy from the utility. They can generate additional revenue by selling energy and services back to the central grid.
- **Promotes Renewable Energy:** Microgrids in this program will have renewable energy requirements. Microgrids will employ renewable energy technologies such as solar, and energy storage technologies.

Feasibility studies will be available to municipalities, school districts, and fire districts. Applications will be accepted from eligible entities on a first-come, first-serve basis. Applications will be reviewed in the order in which they are received. The application portal will close based on funding availability. OER and REF reserve the right to extend, modify, or terminate this project based on funding availability and/or other factors.

For detailed information on feasibility studies, eligibility criteria, and application instructions, please refer to this Program Guidance Document. The document may be periodically updated to clarify program

requirements and improve effectiveness. Updates will also be posted on the program website at <u>https://commerceri.com/financing/renewable-energy-fund/</u>.

### Applicant Eligibility

Applicants must meet the following requirements to be eligible to participate:

1. Is a Rhode Island municipality, or a Rhode Island school district, or a Rhode Island fire district.

## Project Eligibility

To be eligible to receive a feasibility study under this program, microgrid projects must meet the following eligibility requirements:

- 1. Is located in a Resilient Rhody Municipality, as determined by the Municipal Resilience Program.
- 2. Serves at least one critical infrastructure.
- 3. Provides a public benefit.
- 4. Integrates renewable energy technology.
  - Projects may include conventional generation sources, in addition to the renewable energy technology, to ensure that the microgrid remains operational during periods of extended storm conditions. However, if a microgrid project moves to Phase 2, no Resilient Microgrids for Critical Services funds may be used for conventional generation construction.
- 5. Establishes a contractual relationship between public and private entities if applicable
- 6. All projects must be in accordance with the <u>Rules and Regulations for the Renewable Energy Fund</u> <u>Development Program</u>.

#### **Application Process**

REF will issue a <u>Request for Applications</u> (RFA). The RFA has all application details and requirements. The RFA will remain open as applications will be accepted on a rolling basis and while funds are available. The RFA, the Interest Form, and a letter of support template will be posted on the REF website <u>here</u>.

Applicants must provide:

- 1. A project narrative no longer than five single-spaced pages.
- 2. A completed Interest Form.
- 3. A letter of support from a city, town, or other local government official.
  - A second letter of support from the utility company is encouraged.

It is the applicant's responsibility to check all program related emails for status updates and requests for additional information or documents required to complete the application.

If approved, OER and REF will provide a technical consultant to perform a feasibility study. The feasibility study will take a up to twelve months to complete.

## Program Definitions

The following definitions are key terms used to define the program. The terms mentioned above in the eligibility criteria must meet the definitions below.

*Critical infrastructure* includes those assets, systems, networks, and functions – physical or virtual – so vital to Rhode Island that their incapacitation or destruction would have a debilitating impact on security, economic activity, public health or safety, or any combination of those matters. Examples include but are not limited to any hospital, police station, fire station, water treatment plant, sewage treatment plant, public shelter or correctional facility, any commercial area of a municipality, a municipal center, as identified by the chief elected official of any municipality, or any other facility or area identified by Rhode Island Emergency Management Agency (RIEMA) as critical.

*Microgrid* is a group of interconnected loads and distributed energy resources within clearly defined electrical boundaries that acts as a single controllable entity with respect to the grid. A microgrid can connect and disconnect from the grid to enable it to operate in both grid-connected or island-mode.

- Level 1 or single customer: a single or multiple Distributed Energy Resources (DER) serving one customer through one meter. Example: a single facility (such as a hospital) using an on-site microgrid to provide backup power.
- Level 2 or campus setting (partial feeder microgrid): a single DER or multiple DERs serving multiple facilities, controlled by one meter at the interconnection point (also known as Point of Common Coupling or PCC). Example: a microgrid sited on a university campus connected to multiple buildings.
- Level 3 or multiple customers (advanced or full feeder microgrid): a single DER or multiple DERs serving multiple facilities or customers on multiple meters. The DER(s) may be located on a different site from the facilities or customers. While the advanced microgrid has one PCC, the individual facilities, or customers within the advanced microgrid may have their own individual connections to the distribution grid.

A *public benefit* is an identifiable benefit that can be accessed by members of the public during times of emergency.

Examples of public benefits include but are not limited to availability of emergency shelters, backup power during a power outage, and availability of fuel or other critical resources. Benefits that can only be accessed by private entities such as private businesses, are not considered public benefits. However, private facilities that allow for public access during an emergency would qualify i.e., a private school gym that functions as a shelter during an emergency.

*Environmental justice* refers to the fair treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, disability, or English language proficiency, with respect to the development, implementation, and enforcement of environmental laws. This ensures that:

1. Individuals are fully protected from disproportionate and adverse human health and environmental effects, including risks and hazards related to climate change, cumulative

environmental and other burdens, and the legacy of racism or other structural or systemic barriers.

2. Everyone has equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

**Energy Justice** refers to the goal of achieving equity in the social and economic participation in the energy system, while also remediating social, economic, and health burdens on communities historically harmed by the energy system. Energy justice explicitly centers the concerns of marginalized communities and aims to make energy more accessible, affordable, clean, and democratically managed for all communities.

An *environmental justice community* is defined as an area where people experience disproportionate burden of environmental hazards and/or experiences a significantly reduced quality of life relative to surrounding or comparative areas. A community qualifies as an environmental justice community if it is identified on any of the following maps:

- RI DEM Environmental Justice Map
- Climate and Economic Justice Screening Tool (<u>CEJST</u>)
- EPA's Environmental Justice Screening and Mapping Tool (EJScreen)

#### Commitment to Serving Environmental Justice Communities

The Resilient Microgrids for Critical Services commits to directing 40% of the overall benefits of this program flow to environmental justice communities.

#### **Funding Overview**

This program will be funded through the State Energy Plan-Infrastructure and Investment Jobs Act. The program will be administered in partnership with OER and the REF.

#### Additional Information:

- Rebates will be issued on a first-come, first-served basis, pending available funds.
- Limit of two feasibility studies per eligible entity.
- The OER is not liable for any damages or costs associated with the feasibility study.
- The OER reserves the right to modify or terminate this technical assistance program at any time. Funding is limited.
- Applicants are responsible for checking all related emails for status updates and requests for additional information or documents required to complete the application.