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Microgrid Regulations in Puerto Rico

Clean Energy Ministerial and Clean Energy Solutions

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About RAP – US

- RAP provides technical and policy support at the federal, state and regional levels, advising utility and air regulators and their staffs, legislators, governors, other officials and national organizations.
- We help states achieve ambitious energy efficiency and renewable energy targets and we provide tailored analysis and recommendations on topics such as ratemaking, smart grid, decoupling and clean energy resources. RAP publishes papers on emerging regulatory issues and we conduct state-by-state research that tracks policy implementation.

About Your Presenter – Janine Migden-Ostrander

- Janine L. Migden-Ostrander advises regulators and advocates on energy efficiency, renewable energy, demand response, distributed generation, and integrated resource planning. Recent projects include working closely with the Arkansas Public Service Commission on energy efficiency as part of the Clean Energy Ministerial for the U.S. Department of Energy (DOE), facilitating the Mid-Atlantic Distributed Resources Initiative (MADRI), and providing workshops on energy efficiency policies as part of the SEE Action initiative for DOE. Her projects are predominantly in the U.S., but also overseas.
- Ms. Migden-Ostrander has worked in public utility law for approximately 35 years, most recently as the Ohio Consumers' Counsel, where she oversaw the state agency that represents the interests of Ohio's 4.5 million residential households with their investor-owned electric, natural gas, telephone, and water companies.

Context

- First ever comprehensive rules
- Rapid Commission response to ongoing emergency in PR:
 - Large area of the population without power for many months – many in remote areas
 - Widespread destruction of PREPA's T&D system





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Overview of Microgrid Rules

- Focus is on islanded microgrids
- Uses standard similar to PURPA
 - 75% renewable energy
 - CHP
- Based on Act 133 in Puerto Rico
- Rules for interconnection were drafted by the Energy Bureau and are being released for comment
- Proposed Performance Incentive Metrics may address cooperation with microgrid operators

Microgrid Rules: Article 1

General Provisions

- Section 1.01 - Title
- Section 1.02 - Legal Basis
- Section 1.03 - Purpose and Executive Summary
- Section 1.04 - Application
- Section 1.05 - Interpretation
- Section 1.06 - Provisions of Other Regulations
- Section 1.07 - Unforeseen Proceedings

Article 1 – continued

- Section 1.08 - Definitions
- Section 1.09 - Controlling Version
- Section 1.10 - Severability
- Section 1.11 - Forms
- Section 1.12 - Mode of Submission
- Section 1.13 - Effect of Submission
- Section 1.14 - Confidential Information
- Section 1.15 - Validity
- Section 1.16 - Penalties

Article 2 – Microgrid Categories

- Section 2.01 - Microgrid Classification



Article 2 - Continued

- Microgrids shall be classified by operational structure, size, and whether or not they engage in off-system sales of energy and/or other grid services to entities other than PREPA.



Article 2 - Continued

Microgrids shall be classified according to whether they operated by:

- One or two natural persons;
- A customer-owned cooperative of at least three or more Cooperative Members;
- A non-profit or for-profit legal entity, such as a corporation, limited liability company, or partnership;
- A single municipality, a group of municipalities or any other administrative division of the Commonwealth, or PREPA; or
- Other arrangements that are submitted to the Bureau for review.

Article 2 - Continued

Microgrids are classified based on size according to the following:

- Individual-sized microgrids - one or two customers or customer-owners and operated by at least one of the customers;
- Small microgrids – between 3 and 10 customers (or Cooperative Members) and no more than 250 kW; and
- Large microgrids - more than 10 customers (or Cooperative Members) or generating capacity over 250 kW.



Article 3 – Microgrid Technical Requirements

- Section 3.01 - Microgrid Composition - generation assets, loads and Distribution Infrastructure.
- Section 3.02 - Renewable Microgrids - 75% of the energy output must be renewable energy.
- Section 3.02 - Combined Heat-and-Power – specifies annual useful thermal energy output and the fuel input.
- Section 3.02 - Hybrid Microgrids – must meet RE and CHP standards above and explain how it will operate.
- Section 3.03 – Forms of Demonstrating Compliance
- Section 3.05 - Codes and Standards

Article 4 – Requirements for Cooperative Microgrids

- Section 4.01 - Ownership and Sales Restrictions
- Section 4.02 - Registration
- Section 4.03 - Rate for Service
- Section 4.04 - Fee for Use of PREPA Infrastructure
- Section 4.05.- Additional Requirements Applicable to Large Cooperatives

Article 5 – Requirements for Third-Party Microgrids

- Section 5.01 - Ownership and Sales Restrictions - may sell Energy and Grid Services to Customers and PREPA.
- Section 5.02 – Certification – compliance with Reg. 8701 for aggregated loads greater than 1 MW
- Section 5.03 – Registration – in addition to certification
- Section 5.04 – Rate Structure – nondiscriminatory, cost based, kWh basis
- Section 5.05 - Deposits
- Section 5.06 - Billing - regular intervals, 30 day payment

Article 5 - continued

- Section 5.07 - Bill Objections and Suspension of Service – Reg. 8863
- Section 5.08 - Complaint Procedure – internal and available. Customer can file complaint at PREB if not satisfied, Reg. 8543.
- Section 5.09 - Standard Contract
- Section 5.10 - Non-Discrimination
- Section 5.11 - Contract Length and Exit Requirements
- Section 5.12 - Fee for Use of PREPA Infrastructure
- Section 5.13 - Reporting
- Section 5.14 - Rate Review – At customer's request

Article 6 – Registration Process

- Section 6.01 - Registration Form
- Section 6.02 - Commission Review
- Section 6.03 - Filing Fee

Article 7 – Exemptions

- Any Microgrid Operator may file a request for exemption or modification of any of the requirements under these regulations. Any request for exemption shall describe the provision from which the applicant seeks exemption or for which the applicant requests a modification and shall include a clear justification of the applicant's request. This opportunity to file for an exemption may occur at the time of seeking approval or at a later date such as when the microgrid is already in operation due to a change in circumstances. In ruling on such motions, the Commission shall consider the reasonableness of the request; the cost impact on the project and the customers of the microgrid project including the prudence of incurred or anticipated costs, if applicable; whether the exemption is in the public interest and any other relevant factors pertaining to the requested waiver.

Article 8 – Reconsideration and Judicial Review

- Section 8.01 - Request for Reconsideration
- Section 8.02 - Judicial Review

About RAP

The Regulatory Assistance Project (RAP)[®] is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org



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