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RENEWABLE ENERGY WORLD

Puerto Rico Gives Green Light to Microgrid Developers; Could Become a “Model of Sustainability”

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By [Jennifer Runyon](#) [Chief Editor]



Javier Rodriguez Galarza, San Juan, PR via Wikipedia

Last week, the body that governs Puerto Rico’s energy sector, the Puerto Rico Energy Commission (PREC), issued final rules regarding microgrid development on the island.

According to a fact sheet issued by the [Smart Electric Power Alliance \(SEPA\)](#), the rules define microgrid owners and operators and divide microgrids into three classes. Owners purchase, lease, or receive third-party financing for microgrid equipment; operators oversee the system and deliver electricity services to customers. The classes are as follows:

- **Personal Microgrids** provide power to one or two consumers. The owners can apply to PREC for permission to provide excess energy and/or grid services to neighboring customers in the event of incidental excess.
- **Cooperative Microgrids** will provide power to three or more cooperative members. This class has two subcategories, small co-op microgrids of less than 250 kW or large co-op microgrids of more than 250 kW. As with personal microgrids, co-ops can use incidental excess energy to provide power and/or grid services to others, if approved by PREC.
- **Third-Party Microgrids** will allow an owner/operator to sell energy services to customers. Rates for any energy or services must be approved by PREC and will be project-specific and cost-based, with a “reasonable rate of return” for the owners for the first three years of operation. Rates must be consistent within each customer class (residential and nonresidential). As of September 2017, residential electricity rates in Puerto Rico were about US 19.3 cents per kWh and commercial were 22.48 cents per kWh.



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PREC also defined rules for components of a [microgrid](#). A renewable microgrid must use at least 75 percent renewable generation, including solar, wind, hydropower, geothermal, and **biomass**; a Combined Heat and Power (CHP) microgrid must produce at least half of its total energy output from the useful thermal energy captured from the plant; and a hybrid microgrid may incorporate CHP and renewable systems, but the non-CHP system must generate 75 percent of its energy output from renewable generation.

Municipalities are allowed to contract with a third-party developer to install a microgrid and may also develop one themselves. The Puerto Rico Electric Power Authority (PREPA) may also develop microgrids itself.

It's important to note that until PREPA develops interconnection rules, microgrids will only be allowed to function in islanded modes, that is, they will not be connected to a larger grid. PREPA has four months to come up with interconnection rules.

Tanuj Deora, Executive Vice President and Chief Content Officer of the Smart Electric Power Alliance (SEPA), said in a statement that SEPA applauds PREC for its work developing these regulations, given the urgency of the upcoming hurricane season.

Deora explained that in other jurisdictions in the U.S., microgrids are regulated the same way as other distributed energy resources — that is, with a focus on interconnection and market participation rules. He said that Puerto Rico's new regulations have gone beyond this to lay out specific performance requirements, ownership structures, and business models.

“We appreciate the commission’s leadership in tackling this important topic and having the foresight to have a tight scope on the microgrid rules,” he said, adding that the rules “set the groundwork for Puerto Rico to become a model of sustainability.”

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