

COMMONWEALTH OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION

SECRETARIA
COMISION DE ENERGIA DE
PUERTO RICO

IN RE:	18 FEB -5 P3:0
MICROGRID REGULATION	CASE NO. CEPR-MI-20180-0001 MICRO GRID RULES AND REGULATIONS

INSTITUTO DE COMPETITIVIDAD Y SOSTENIBILIDAD ECONOMICA DE PUERTO
RICO (ICSE) COMMENTS TO PUERTO RICO ENERGY COMMISSION (PREC)
PROPOSED MICROGRID RULES AND REGULATIONS

TO THE COMMISSION:

COMES NOW INSTITUTO DE COMPETITIVIDAD Y SOSTENIBILIDAD
ECONOMICA DE PUERTO RICO (ICSE), represented by appearing counsel and
respectfully presents its comments to the microgrid Regulations:

I. CONCEPTUAL COMMENTS:

As ICSE stated on its submittal of November 20, 2017 in case No. CEPR-IN-2017-
0002 the conceptual frame work for micro grid Regulations should be:

1. PREC should opt for the least regulatory intervention possible, limited to
guaranteeing fair access to the grid, facilitating interconnection, implementing wheeling and
eliminating roadblocks to the establishment of micro grids, opening up to as varied
experimentation as possible of economic and organizational microgrid models.

2. There should not be a single model for microgrids. Neither should the
microgrid models limit the individual capacity of Municipalities, Coops, solar communities,
NGO's, private industrial, residential, commercial entities or individuals, to build and
operate their own microgrids.

3. Financing for micro-grids can come from the public sector, both federal and state; from the private sector, from NGO's and communities, from developers and installers of micro-grids.

4. Micro-grids, when connected to the main grid, can serve as important providers of resiliency and support to the main grid when it falters.

5. Interconnection to the grid should be as smooth as possible, with technical standards limited to the minimum that is required, based on real proven experiences of interconnection standards in other jurisdictions.

6. The PREC should correct its interpretation and eliminate behind the meter charges to renewable production.

7. PREC should learn from, and approach the issues raised in this Request for Comments, from the experiences and perspectives of the Telecommunications Regulatory Model.

II. GENERAL COMMENTS

1. The regulations should not establish cap for prices as stated in Article 6, rather it should consider other means for price regulation, limited to **when the micro-grid is the sole option for the ratepayer or the group of ratepayers for energy security, quality or reliability.**

Microgrid development presume an open system and a diversified market that serve varying customer need and choice, the opposite of the centralized monopolistic energy provider model, governed by party politics resistant to strong independent regulation in existence in Puerto Rico today. As such "fixing" a price

will limit the capacity of potential microgrid developers- public, private, for profit, not for profit, that offer services and costs tailored to customer needs.

As a matter of fact, as of today, the PREC does not have the information of which microgrid models will be established, what would be the operational costs, the financing costs, nor what would be the specific or additional services to be provided in the microgrid.

Why shouldn't a consumer, commercial, industrial, or residential, pay a higher price if it receives additional services? For example, Hospitals, Industry and Commerce, and even residential users might prefer to pay higher prices if there is guaranty of services, resiliency and stability. This would not be possible on a predetermined cap as it is now proposed.

Premium services and quality have a cost and it affects the price.

Also, the PREC does not have any information today of the potential developer's costs and risks. How can it pre determine a cap price?

The experience in Puerto Rico with price control is not good. Such was Daco's and the PRTC's case.

2. The regulation does not take into account the benefits that connectable microgrids provide to the Central Grid System. Sustainability, resiliency, capacity for demand control, reduced need for additional load, among other benefits, reduce the costs to the Central Grid and should be part of any equation to establish fees for microgrids to use the main grid.

3. The microgrids should be incentivized to be connected to the Central Grid, but not penalized if it does not connect, as long as it is connectable. This way the Central Grid and Central producer of energy could call upon the micro-grid when needed for load and resiliency.

4. The regulation should be very specific in terms of PREPA's technical requirements to connect to the Grid. PREPA's past and ongoing practices demonstrate that it can raise roadblocks to microgrids connection. It can, as it has done, failed to comply with specific legislation and regulation mandates, for example with renewable generation mandates, wheeling tariff regulation, and ongoing non-compliance with net-meter renewable generation contracts residential and commercial regulations. The PREC must take the role of breaking PREPA's roadblocks including regulatory ability of the customer to develop microgrids with existing and new net-metered agreements with compliant meters and installations certified by state licensed engineers or electricians.

5. The regulation should not limit the number or forms of private and governmental organizational structure that microgrids can have. Corporations, Coops, Associations of residents, business groups, for profit, not for profit, LLC's, Municipalities and "Barrios" can all organize to establish microgrids.

6. The key is open market, consumer choice, transparency in the billing process and the elimination of monopolies and monopolistic practices.

7. The PREC should guarantee "universal access" and nondiscrimination. The microgrid cannot become a place in which the "haves" benefit at the cost of those who "don't have". It is for PREC to monitor and guarantee, that, just as many years ago electricity went to each person in Puerto Rico, each person today will have access to microgrid options.

III. SPECIFIC COMMENTS

“Section 6.12 of the Micro-grid Regulation establishes the obligation of the microgrid to pay for the use of PREPA’s infrastructure, when applicable. It is normally reasonable that any operator that wishes to interconnect to another, such as PREPA, pay reasonable fees for use of specific infrastructure, or grid services. However, in this sense, the proposed regulation do not consider the benefits of the microgram to the Central Grid. The equation does not factor in all the goods and services provided to the Central Grid (PREPA) nor the resiliency of essential public services and the general economy when faced with a future natural disaster by the Microgrid and by distributed generation itself. Examples abound; without being exclusive, we can point to: a) grid stability b) lower PREPA fuel, environmental/RPS compliance, and maintenance costs due to cleaner and more efficient generation and distribution, and lower central grid energy security hardening costs, . As a whole, all these costs and benefits can be viewed as bilateral and even symbiotic, to the point of nearly or fully compensating each other. PREC should therefore, at least in the short and medium-term forbear from requiring microgrid operators to pay PREPA for services. This policy would be in line with PREC’s microgrid deployment incentivization intent, as expressed in the Resolution.”

“Section 5.07. In ICSE’s view, it is correct policy to design microgrids to be interconnected with the Central Grid. . However, the section’s predicate to the effect that such interconnection must be “in accordance with applicable regulations adopted by PREPA”. This must not be understood as a source of PREPA discretion to capriciously deny interconnection, or establish norms to hinder such interconnection. It is PREC’s ministerial duty per Law 57 to oversee PREPA conduct in this respect, and safeguard microgrid interconnection rights if and when a microgrid opts to interconnect. PREC must envision itself as the only proper forum; the only real specialized appellate body, where those that fight PREPA’s recurrent arbitrariness and caprice can go for redress and justice.” In other words, under regular conditions Micro-grids should be interconnected to the Central Grid. **However, current conditions where the micro-grid would become hostage of PREPA’s ambiguity and over-requirements, do not provide for or incentivize micro-grids to be interconnected to the Main Grid. Furthermore, given PREPA’s historic inability to manage change and its actual operational inability to comply with existing interconnection rules, PREC must actively seek technical expertise and as needed collaborate with the Fiscal and Oversight Management Board (FOMB) when added funding is required to develop said regulatory expertise, maintain ongoing regulatory proceedings that discover proven interconnection technologies and implement interconnection rules and standards that can be certified by private proffessionals when PREPA is not available or capable.**

“Section 2D, must be rephrased in order to allow quick creation of new microgrids. As it stands now, it would for example limit the benefit of the microgrid by forbidding the defined “self-supply” entity to sell excess of reliable baseload power produced through photovoltaics, to a neighbor that is not PREPA. There is no public policy imperative that rationally justifies such a prohibition, and less so in light of the stated objectives of the Microgrid Regulation. If sharing your solar power with a neighbor can save its life, its family or its industry, why would PREC oppose such solutions? In ICSE’s view, upon prior registration at PREC, these types of microgrids should be incentivized and particularly sponsored, as they could be very quickly deployed.”

“PREC, as well as all energy sector stakeholders, are keenly aware that one of the main obstacles to innovation in Puerto Rico’s electric sector has been the myriad ways in which PREPA has historically negated and hindered said goal. In the microgrid and distributed generation context, said PREPA modus operandi will surely manifest itself in several ways, including ‘technical reasons’ or Ownership structures. The microgrid Regulation must be clarified to permit corporate governance models and structures. A reading of the regulation as *numerus clauses*, could lead to incorrect interpretations to the effect that **“corporations”** are somehow specifically excluded from the ownership possibilities set out in **Section 2.01**. Said section, in its pertinent part includes: “1. Individuals, 2. Partnerships, [...] 6. Single [...] for profit entities [...] (also “third parties”), [...] and 8. “Other ownership arrangements”. Confusing language that can be interpreted as excluding well known and tested ownership vehicles, where it to become binding law, would greatly deter Microgrid investment and deployment, at great societal cost.”

“Furthermore, similar to the cooperative models described in Articles 4 and 5, **corporations** that intent form a micro-grid should be allowed to stablish their own pricing structure either within a cooperative arrangement or in a contract agreement basis”.

“Section 7.02. The “Commission Review” options described therein are not the only possible actions PREC can undertake upon the filing of a microgrid application. For example, in the telecom sector, an application filed by party that will provide telecom services “shall be considered granted upon passage of 30 days” (Art. 5.2, PRTRB Certifications Regulation, translation supplied). There could also be a conditional PREC “permission”, grating the applicant flexibility to move, whilst gathering the information requested by PREC. As PREC intends to incentivize microgrid deployment, permit denial should be reserved and limited to clearly derisory applications only.”

“Other comments. **Section 1.05:** Substitute “proceedings” with “deployment of microgrids”. **Section 1.07:** Redraft as follows: “When as specific situation has not been foreseen by this Regulation, the Commission may attend to it in any way consistent with Act 57-2014”. **Section 1.08(B)(2):**

Correct typo; substitute “mean” with “means”. **Section 1.08(B)(7)**: This section expresses that in “Community Solar” “members may or may not own the system itself”; however this seems to contradict **Section 4.01(B)**, which expresses that a “Cooperative-owned” microgrid “may not sell energy or grid services to customers [...] who have no ownership stake in the system”. Also clarify if the concepts “customer” and “member” in a “Cooperative-owned” micro-grid are distinct concepts.”

IV. FINAL COMMENTS

Pursuant to Act No. 82 of 2010, as amended and by Act No. 133 of 2016, micro-grid projects in Puerto Rico do not require prior regulation by the PREC in order to be implemented. This is so because the provisions of Law 82, as amended, are self-executing and directly binding without the need for regulation: “[...] [t]he absence of any regulation contemplated under this Act shall not impair the application thereof.” [Art. 3.3]. Reiterating this point, the Legislator ordered that Act 82, as amended, be “construed liberally, in order to achieve the implementation of the public policy set forth [...] and guarantee compliance [...]” [Art. 1.3].

Act 82, as amended, establishes the legal basis for the creation and deployment of micro-grids in the island. According to the law, a 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 PREPA’s grid. The goal of microgrids is to reduce energy consumption based on fossil fuels through local renewable energy generation and strategies to reduce energy consumption. A microgrid can connect and disconnect from PREPA’s grid to enable it to operate in both grid-connected or off the grid.”

It is relevant to mention that Law 82, as amended, distinguishes between “community solar” type projects, which limits to residential contexts, while it does not qualify or restrict other micro-grids, leaving that field free to experimentation in commercial and

industrial contexts: "[c]ommunity solar projects are considered distributed renewable energy at residential level and their maximum capacity shall be determined by the Puerto Rico Energy Commission with the advice of the Electric Power Authority. [...]" Act 82, as amended, Art. 1.4 (14).

This legislative distinction that points to solar communities as those that will be the subject of specific quasi-legislative regulation, is a matter explained in depth in the Statement of Motives of Act 133/2016, the statute that amended Act 82/2010: this Act places solar communities on one side (announcing that the Commonwealth Energy Public Policy Office "shall identify best practices" pertaining to community solar and CEPR will "regulate" these), while on the other hand "authoriz[es] [...] the operation of microgrids [...]" in Puerto Rico [Emphasis provided.]¹ There, the Legislator also expresses its view that what fundamentally distinguishes a true micro-grid is not its business or ownership model, but

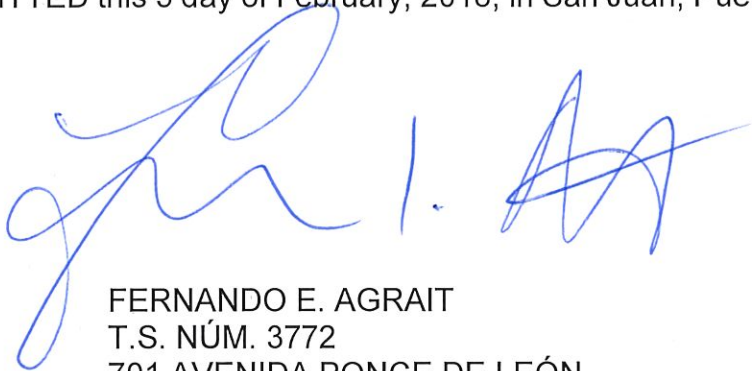
¹ Statement of Motives Act 133-2016:

"Community solar projects have become an alternative to have access to renewable energy. In addition to community solar, there are other terms used such as shared solar or solar gardens to describe the different ways whereby a group of people can have access to renewable energy. In Puerto Rico, community solar projects have a great potential to broaden the people's access to solar energy. The public policy to further community solar projects in Puerto Rico must be flexible and allow for the different modalities and nuances, whether known or to be developed in the future, that comply with the energy public policy as well as meet economic and processing requirements that are beneficial for the community. For instance, whether it consists of a project built in a land within the community or a group of individual systems installed on the rooftops of houses, either of these can be considered a community solar project. The community itself, the Electric Power Authority, the municipality or a third-party may be the owner of the community solar project equipment. The Commonwealth Energy Public Policy Office shall identify the best practices for community solar projects, and the Puerto Rico Energy Commission shall regulate the same. Community solar projects shall constitute a milestone in the transformation of the electric power sector of Puerto Rico. Authorizing the operation of microgrids in Puerto Rico is an additional step towards planning, building, and updating distribution systems in order to guarantee the use of local resources to the fullest (as established in Act No. 57-2014). A 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 a grid. A microgrid can connect and disconnect from the grid to enable it to operate with flexibility (as defined by the Microgrid Exchange Group). Community solar projects may become microgrids should they have a base (constant) generation or sufficient storage capacity to be able separate from the grid if necessary."

whether it includes " base (constant) generation or sufficient storage capacity to be able separate from the grid if necessary." *Id.*

WHEREFORE, ICSE respectfully request that the Commission receive this motion and act accordingly.

RESPECTFULLY SUBMITTED this 5 day of February, 2018, in San Juan, Puerto Rico.



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