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From: Alexandro Pedraza, 112 Paseo del Sol, Urb. Sol y Mar, Isabela, PR 00662

To: Negociado de Energía de Puerto Rico

Subject: Revision of the regulation on Micro grid Development

Esteemed members of the Negociado de Energía de Puerto Rico,

1. The following are comments and proposals for revising the regulation on Micro grid development. Micro grids based on renewable energy generation and storage systems hold the promise of increased resiliency, economic development, democratized infrastructure development, community human capital development, environmental and public health improvements, and pave the way for sustainable economic development in the 21st century. With those points in mind, I recommend the following be taken into account:

2. **Section 1.05:** This language is critical and should be sustained and buttressed. It can be fortified with some additional language *“The regulation shall be interpreted in a such a manner that facilitates reaching the full spectrum of residents of Puerto Rico; maximizing Puerto Rican residents’ desire to actively participate in and benefit from Micro grid applications”*.

3. **Section 1.09:** Understanding that English dominates the technical-financial sphere in Puerto Rican central government and U.S. Federal level, this specific regulation should make clear reference to the primacy of the Spanish language version for primary reference. If we are discussing community micro grids, and especially cooperative models, we should make sure the term of reference is in the language that the critical mass of potential users is dominant in. This would increase confidence in the NEPR by the citizenry and provide a solid foundation for more widespread participation and interest in micro grid solutions, which is critical to meet both Puerto Rico’s net zero public policy goals as well as increase Puerto Rico’s economic and infrastructure resilience in the face of climate change. It is a small but meaningfully symbolic action that the NEPR can take to increase literacy and trust in micro grid development.

4. **Section 2.02 C.** Apparent misspelling: *“sale”* appears to mean sell. For micro grid developers, it would also be helpful to specify here what types of information needs to be collected and a mention of timeline/deadlines for responding to the NEPR.

5. **Section 3.06.** Regarding interconnection, we should be aggressively leveraging our skilled trades in a more effective manner. Interconnection for smaller micro grids should be certified by a licensed, current member of the Colegio de Peritos Electricistas or electrical engineer, not just engineers. If we are trying to ramp up development and are not leveraging skilled trades, people who are present in their communities, we are not going to meet our collective goals. If we are questioning why these technologies and solutions do not have better penetration, we need to analyze the human component. There are limited licensed electrical engineers for the scale of increase in renewable generation and storage we need in Puerto Rico. In addition, most of those engineers are logically clustered in urban areas. All certification, to include interconnection, of micro grids in rural areas and smaller municipalities should be done by a PE. A potential compromise that would improve the current pipeline of micro grids could be allow Perito Electricistas to approve interconnection of up to certain sizes of micro grid. I would strongly propose interconnection of all micro grids under 1MW be interconnection certified by the Peritos Electricistas and larger project interconnection could be the domain of our licensed and current electrical engineers. This aligns well with popular Community Solar sizes at both the Puerto Rico and U.S. federal level. It also increases the democracy component and facilitates the possibility of more aggressive efforts to increase the number of micro grids. Finally, it fortifies human capital trends in the 21st century by supporting skilled trade inclusion in the electrification challenge.

6. **Section 4.02.** The size categories are too restrictive for potential smaller cooperative models. The Small category should be under 500 KwH, Medium should exist 500-1 MW, large over 1 MW. These sizes align well with Community Solar concepts and create more spaces for diverse solutions throughout Puerto Rico- essentially improving the laboratory for Puerto Rico's problem solvers.

7. **Section 4.03.D.** Recommend adding agricultural businesses as a specific cooperative category.


8. **Section 4.05.** The reporting requirements are quite onerous for new, smaller projects and represent a high barrier to entry for these entities. Recommend striking the annual requirement to provide details on new or departing cooperative members and just require a tally of total number of users in the annual report. The effects for central regulators are similar and this avoids forcing both the cooperative and the NEPR to go down data rabbit holes that are bound to appear when collecting such information. One option could be to require more detailed collection after a certain size/number of users has been reached or at a certain level of operating expense or certain size (such as the proposed "Large") is reached.

The yearly report also mentions “Any other information the NEPR requires”. This is too broad for a standardized yearly report. It doesn’t allow for a cooperative or other smaller company to reliably collect needed info in an organized way and sets conditions for a yearly scramble to answer “any other information” in a reactive manner. This is prejudicial to smaller cooperatives and community solar project with less robust compliance capacity. For many small projects, this will likely be an additional duty or a contracted service. Recommend the yearly report be very clear, avoid open ended “any other information”, and instead suggest the NEPR will provide strong feedback and/or sanction to those entities who submit annual reports. Another option could be to tier this reporting and demand “any other information” from projects of the proposed “Large” size with larger compliance capability.

The NEPR can always request “any other information” at any time necessary. Such requests should be separate from any standard yearly reporting requirement. These additional requests for information (RFI) should come with their own unique, associated timeline in accordance with the complexity of the RFI subject matter. This will support the NEPR’s regulatory charter because the yearly report can be standardized and submitted in a quality manner, while specific questions for a given company can occur on timelines that are more appropriate to the NEPR’s mission and the company’s compliance capacity.

9. I appreciate the opportunity the NEPR provided to the people of Puerto Rico to engage this issue. I thank you for your service in strengthening the NEPR as it leads Puerto Rico and perhaps even the world in confronting the challenges of energy at this critical period for humankind. Yours is important work!

10. Point of contact for this memo is the undersigned, Alexandro Pedraza, pedrazaa711pr@gmail.com or 347-200-3792.


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