

In re: Reglamento Sobre el Desarrollo de Microredes
Docket CEPR-MI-2018-0001

SECRETARIA
COMISION DE ENERGIA DE
PUERTO RICO

February 2, 2018

'18 FEB -2 P5:00

Comision de Energia de Puerto Rico
World Plaza Building
268 Munoz Rivera Ave.
San Juan, PR 00918

Attention: Jose H. Roman Morales, Interim President
Angel R. Rivera de la Cruz

Re: Comments on Proposed Microgrid Rules

Dear Commissioners,

National Public Finance Guarantee Corporation ("National") and Assured Guaranty Corporation and Assured Guaranty Municipal Corporation (collectively, "Assured," and together with National, the "Creditors") submit this letter in response to the Puerto Rico Energy Commission's (the "Commission") January 3, 2018, request for comment on its proposed microgrid rules. The Creditors collectively hold or insure approximately 27% of the outstanding bonds issued by PREPA and have a significant stake in the introduction of microgrids into Puerto Rico's energy market and the effect it will have on PREPA's customers and Puerto Rico's residents at large.

The Creditors commend the Commission's effort in taking the lead in this important piece of transformation of the Puerto Rico electric sector and recognize the important role the Commission plays for the future fiscal health of PREPA and the Commonwealth at large. This letter is intended to aid the Commission in its efforts by providing comments and concerns the Creditors have about the proposed microgrid rules.

This letter is divided into two parts. The first part presents general comments relating to the procedure for developing the microgrid proposal and the proposed rules, as well as the rules' overall structure and effect. The second part presents specific comments directed to particular sections of the rules.

I. General Comments

As an initial matter, the microgrid proposal and the Commission's proposed rules do not present an adequate plan for integration of microgrids with PREPA's current grid. To achieve smooth and effective integration, the Commission should conduct robust studies and analysis of demand for microgrids, potential for alternatives, proper fee structures for proposed microgrids, and the broader impact the introduction of microgrids will have on PREPA, its customers, and its creditors. In addition, the Commission should commence an investigation into the proper compensation to PREPA for its potential stranded costs resulting from the adoption of any microgrid rules as well as for the ongoing costs to PREPA for any service obligation it would continue to retain for customers served by microgrids. Without this foundation, integration of

the microgrids will be haphazard and ineffective. Moreover, it is difficult to fully assess the proposed rules without the proper backdrop of economic and financial analysis. The Creditors urge the Commission to complete this investigation prior to the finalization of any microgrid rules.

A. Studies of the Impact on PREPA and its Customers

The Commission has not presented studies on the effect the microgrid proposals and proposed rules would have on PREPA, PREPA's customers, and PREPA's creditors. The introduction of microgrids into Puerto Rico's energy market will likely cause fundamental changes to the market. PREPA will be impacted in the form of depreciation of assets, decreased revenues, and smaller revenue base. For instance, it is likely that under the proposed rules, some of PREPA's assets will be "stranded" such that PREPA will not be able to recover the fixed costs of assets no longer used and useful, but that continue to have economic life after microgrids are introduced in Puerto Rico. These stranded costs, depending upon the degree of microgrid adoption, could be significant, especially those arising from the implementation of large microgrid systems on the island.

To stem this decline in asset value and revenue base, PREPA will likely have to raise rates on its remaining customers. The demographic that will be most negatively affected by these changes are low-income consumers that will be unable to afford installation of microgrid systems in their communities, or other PREPA customers, who based upon their location or other factors, are not able to participate in microgrids. The Commission articulated in Section 1.05 of its proposed rules that one of its goals was to protect the interest of residents of Puerto Rico. Ratepayers of PREPA are citizens of Puerto Rico and in turn among the population the Commission seeks to protect. In their current form, the proposed microgrid rules will most likely benefit one set of citizens to the harm of another—a divisive outcome where microgrid benefits are only realized by a subset of citizens to the economic detriment of another.

PREPA's decreased revenues resulting from an inadequate level of compensation to PREPA will also likely affect future determinations of PREPA's revenue requirements under the PREPA bonds Trust Agreement. Under the Trust Agreement, PREPA is required to maintain rates sufficient to meet its debt obligations. Introduction of competition from microgrids will likely decrease PREPA's revenues and require PREPA to raise rates well above what it would otherwise require should it retain its current revenue base. This circumstance would directly harm PREPA ratepayers.

The Commission has not indicated that it has considered which demographics will likely be affected by the introduction of microgrids, nor what the impact these changes will have on PREPA and its creditors. Before proceeding with this proposal, the Creditors urge the Commission to conduct studies on these points and tailor the rules to avoid harm to PREPA and its customers.

B. Market Study to Identify Demand for Microgrids

The Commission has not presented market studies or economic analysis it performed to determine whether the development of microgrids is necessary or advisable for Puerto Rico at

this time. Likewise, the Commission has not indicated that it considered the potential for other alternatives to microgrids. The Creditors are concerned that the microgrid rules were proposed without sufficient study of their need and suitability relative to other options for addressing current energy market needs in Puerto Rico.

Before finalizing the microgrid proposal, the Commission should study the Puerto Rico energy market to determine whether microgrids are the right step to take to enhance Puerto Rico's energy distribution and whether they are an option that will address needs at a reasonable cost level relative to other options.

C. Information Supporting the Proposed Rules

The Commission has not presented studies or economic analysis underlying the development of the rules. The Commission states in section 1.03 of its proposed rules that the rules are intended to achieve the purpose of providing "a stable and predictable regulatory framework, capable of fostering innovation and economic growth." To achieve these goals, thorough studies of the effects of the rules on the economy and potential investment in microgrids are necessary to evaluate whether the proposed rules will achieve the outcome the Commission seeks.

Similarly, the Commission has not supplied financial analysis or economic data to support the reasonableness of proposed fees for use of PREPA's infrastructure. The issue of compensation to PREPA for use of its grid raises many questions that are discussed in detail in Part II of this letter. Expert financial analysis is needed to set rates that will adequately compensate PREPA for potential costs or losses it incurs as a result of the Commission's implementation of the rules on microgrids, and for ongoing costs related to any continuing service obligation PREPA will maintain for microgrids and their customers.

Before approving the microgrid rules, The Creditors urge the Commission to conduct financial and cost analysis and gather the necessary information to determine what rules will further its goals. For example, to establish proper rates for compensation to PREPA, the Commission should conduct financial analysis of the current grid, projections of PREPA's losses, and the value of the future services that PREPA will perform for the microgrids. Proper economic and financial analysis will lead to more comprehensive and robust rules, as well as rules that are equitable to PREPA.

II. Specific Comments

A. Stranded Cost Recovery

The rules as proposed do not include a "stranded cost" recovery for PREPA, meaning costs and/or assets that are no longer used and useful, but still have economic life. These costs may not be recoverable in the rate-recovery formulas that have been proposed within the rule set. The fees established in the proposed rules only require microgrids to pay for use of PREPA infrastructure; there is no specific allowance for stranded cost recovery.

PREPA must receive stranded cost recovery in order to avoid placing additional financial burden upon its customer base as a result of the rules. The level of stranded cost recovery is

typically determined by a separate proceeding in which experts conduct a comprehensive cost analysis that identifies the fixed assets that will likely be stranded. The remaining economic life of the assets are then evaluated and associated fees or rate levels that are reasonable for PREPA to impose upon microgrids to recover these costs are established, such that existing ratepayers are not harmed.

The Creditors do not propose a specific amount or process for determining a proper stranded cost recovery, however a limited or cursory review will not be adequate. The absence of a stranded cost recovery is a serious deficiency in the proposed rules.

B. Exit Fee or Stranded Cost Charge

The rules as proposed do not include an exit fee or other charge to recover stranded costs that would be paid to PREPA separate and apart from the price for an asset purchase or lease. Typically, energy providers are paid an exit fee or stranded cost charge when a customer exits its contract with the provider. These fees are intended to compensate the energy provider for fixed system costs that were incurred to provide service to the customers. These costs can relate to assets such as transformers, conductors, or fixed contractual supply obligations. The exit fee is imposed to prevent customers from avoiding payment for system costs after the customer has left the system.

Currently, the rules do not provide for such a fee or charge. Without an exit fee or stranded cost charge, it is likely that PREPA will lose revenues from migration to microgrids and in turn, remaining customers will need to absorb the rate increases to cover the losses absent any contribution from PREPA.

Exit fees typically result from a rate design proceeding such as the one proposed above. Although the Creditors do not propose an appropriate amount for an exit fee, the Commission should undertake the proper diligence and proceedings to develop an exit fee and incorporate it into the rules. The lack of an exit fee in the rules is a serious deficiency.

C. Rates (Section 6.05 and 6.12)

Section 6.05 of the proposed rules sets the highest rate a small or large municipal system or a third-party system may charge its customers at 20.22 cents per kilowatt-hour. As the Commission explained in section III of its resolution accompanying the rules, the purpose of this rate is to guarantee that microgrids do not charge more than PREPA currently charges for electricity.

The 20.22 cents rate is not current because it fails to take into account the 3.10 cents charge (the "Transition Charge") that PREPA was required to charge its customers above the base rate, and which assumed the consummation of the Restructuring Support Agreement ("RSA") between PREPA and its creditors. Although the RSA was not consummated, PREPA petitioned the Commission to approve the all-in rate and the Commission issued a Restructuring Order to that effect on June 21, 2016, which approved the Transition Charge.

The fees for use of PREPA Infrastructure outlined in Section 6.12 lack cost and financial support. As outlined above, the Creditors urge the Commission to initiate a thorough investigation as to the level of potential PREPA stranded costs as well as those costs related to its ongoing service obligations to microgrids and their customers. These costs and charges should be non-bypassable by the microgrids. The proposed rules' lack of supportable non-bypassable fees and charges seems inconsistent with the Commission's previous findings in its Restructuring Order related to the applicability of certain non-bypassable charges. In its Restructuring Order, the Commission found that net-metering customers were required to pay the Transition Charge for all electricity inflows because it would be unjust to shift the cost of restructuring PREPA's debt to non-net-metering customers when net-metering customers benefited—and continue to benefit—from the legacy debt that PREPA incurred through the use of PREPA's infrastructure. The Commission recognized that, if net-metering customers bypass the transition charge, it would shift the burden of paying for PREPA's legacy debt to lower-income customers who could not afford to install renewable energy and take advantage of net-metering.

Likewise, if microgrid customers can bypass the same fees that are charged to customers who do not have access to microgrids, the burden of restructuring PREPA's legacy debt would shift to PREPA customers who cannot afford to install microgrids. This is an unjust result because microgrid owners benefited from PREPA's grid in the past and will continue to benefit from the grid to the extent they rely on it to provide primary or backup power.

The rules do not address these concerns. Before finalizing the rules, the Commission should ensure that microgrids are required to compensate PREPA for non-bypassable charges. Likewise, the maximum rate microgrids can charge should be adjusted to reflect the rates that PREPA is required to bill customers under the Commission's most recent rate order.

D. Islanded vs. Interconnected (Sections 4.05, 5.07, 6.15)

The rules are vague as to whether the microgrids will be islanded or interconnected. In section 1.03, the rules provide that the "microgrids can operate in 'islanded' mode." Other sections indicate that the microgrids will remain interconnected with PREPA's larger grid. For example, sections 4.05, 5.07, and 6.15 of the proposed rules permit interconnection with PREPA's system. The rules should be clarified as to whether microgrids will be islanded or interconnected.

Additionally, the parameters of an interconnected microgrid are not clearly defined. Beyond allowing for interconnection, sections 4.05, 5.07, and 6.15 do not provide guidance on how PREPA is compensated and how responsibility for maintenance of PREPA's grid is allocated between PREPA and the microgrid owners. This raises multiple questions:

- **How is PREPA compensated for grid reliability, load following, and balancing?** PREPA's grid will have to be maintained and the microgrids will benefit from this maintenance. There is no structure under the rules in place to provide for whether and to what extent the microgrids must maintain PREPA's grid and whether microgrids must compensate PREPA for maintenance it conducts.

- **What is PREPA's role for back-up power and what is the pricing of backup power?** An interconnected microgrid would presumably rely on PREPA for backup power in the event the microgrid fails or demand exceeds the microgrid's capacity. The rules do not delineate PREPA's role in providing backup power and how PREPA would be compensated for providing this service. For example, is PREPA required to maintain sufficient distribution capacity to be able to provide standby service up to the microgrids maximum anticipated demand? If so, what is the rate PREPA should charge for that service?
- **Who is responsible for integrating intermittency of the microgrid supply?** If a microgrid (presumably relying on renewable generation assets) is connected with PREPA's grid and PREPA is intermittently required to provide backup power and related services, there must be a system in place to monitor when PREPA is providing backup power and how much power it is providing. This may be a difficult task because the microgrids and PREPA's grid will be functioning simultaneously. The rules do not provide who is responsible for this integration and how it may take place. If PREPA is responsible, the rules should provide compensation for this added cost to PREPA.
- **Who bears the cost and responsibility of PREPA's system redesign in the event a microgrid assumes assets of PREPA?** An islanded microgrid would likely assume operations of some of PREPA's assets as part of its connection to PREPA's grid. This may result in PREPA having to redesign its system, as parts of the system will effectively be removed from it due to the islanding. The rules provide for a cost structure for the purchase or lease of PREPA's assets, but they do not provide how the cost and responsibility of redesigning PREPA's grid will be allocated.
- **Who bears responsibility for repairs and code enforcement?** Section 3.05 provides that microgrids must comply with relevant laws and regulations. It is not clear who bears responsibility for code enforcement on parts of PREPA's grid that are interconnected with microgrids. Likewise, in the event of damage to PREPA's grid, the rules do not provide who bears the cost of repair on sections of the grid that are interconnected with microgrids.

E. PREPA's Compensation (Section 4.04, Article 6, Appendices)

The Commission has not explained how the rates of compensation to PREPA for use of infrastructure, leases, and purchases were established. Some of the rates do not seem correlated to economic realities. For example, section 4.05 provides that small cooperative microgrids are required to pay PREPA \$25 per month per customer, up to an aggregate of \$250 per month, for use of PREPA's infrastructure. It does not seem in line with the economics to charge a minimum flat fee and cap the potential fees at a specific amount. Payment to energy providers typically reflects use by individual customers and is calculated based on underlying data. Simply stated, the fee levels articulated in the rules for microgrid use or purchase of PREPA assets are without factual cost basis; and, therefore potentially place existing PREPA ratepayers at significant financial risk.

Additionally, small municipal systems are granted different treatment than large municipal systems under Article 6. For example, small municipal systems are required to pay PREPA the same monthly rates as small cooperative microgrids for use of PREPA's infrastructure, while large municipal systems are required to pay fees based on rates in Appendix A. The rules do not define what characterizes small and large municipal systems. It is therefore challenging to assess whether the difference in treatment is justified.

Under section 6.12.C, large municipal systems are required to pay PREPA rates defined in Appendix A for purchases or leases of PREPA's infrastructure. The rules do not provide the cost basis on which the rates in Appendix A were set. This raises multiple questions:

- **Do the rates in Appendix A reflect replacement cost or historic cost?** Many of PREPA's assets that will be utilized by microgrids will be brand new, having been replaced after Hurricanes Irma and Maria. A higher rate should be charged for use of newer assets. The Commission should establish rates that reflect the current value of the assets the microgrids are purchasing or leasing.
- **What financial analysis was conducted to determine the rates in Appendix A?** The rates do not comport with energy industry realities. For example, under Appendix A, the cost to purchase overhead conductors and devices is \$4.81/foot, while the rate to purchase underground conduits, conductors, and devices is \$5.60/foot. In the industry, underground lines are far more expensive to install than overhead lines. Typically, underground lines cost a multiple of overhead lines. The cost difference in Appendix A does not reflect this reality and suggests that the Appendix A rates are not supported by up-to-date data.

III. Conclusion

The Creditors urge the Commission to supplement the microgrid proposal with financial information, including appropriate studies, to fully assess the impact of microgrids on PREPA, its customers, and its creditors. The Commission should incorporate its findings and studies into the rules to ensure that the rules are informed by realities in the energy industry and treat PREPA and its customers fairly.

Submitted by:

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