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March 31, 2019

Government of Puerto Rico
Public Service Regulatory Board
Puerto Rico Energy Bureau
World Plaza Building
268 Muñoz Rivera Ave., Suite 202
San Juan, PR 00918

Re: Regulation on Wheeling – Request for Public Comments – Case No.: CEPR-MI-2018-0010

Dear Puerto Rico Energy Bureau,

Please find below my comments regarding the proposed Regulation on Wheeling case No.: CEPR-MI-2018-0010.

I. Identification

My name is Neil Watlington-Armstrong and I have been involved either directly or indirectly in Puerto Rico's energy industry for twenty five years. I was a vice president of development for AES during the initial development and operations of both AES Puerto Rico, LP and AES Ilumina, LLC, the first coal and solar energy facilities on the island, respectively, and for the last six years as an Executive Director of NextEra Energy, a potential investor with responsibilities in Puerto Rico, the mainland U.S. and Canada. On different occasions I also served as Director of U.S. operations for the Puerto Rico Industrial Development Company out of New York, and the Governor's citizen representative in the original wheeling regulation committee under Governors Acevedo Vilá and Fortuño. I am currently an independent developer/advisor working out of Bethesda, Maryland. The comments below are my own and not in representation of any company or private interest.

II. General Comments

First of all, I would like to congratulate the Puerto Rico Energy Bureau team (the "Bureau") for the thorough and comprehensive draft wheeling regulation it has proposed. Had Puerto Rico enacted and enforced regulations such as the ones proposed more than a decade ago, when the legislation to promote wheeling was initially approved, the current operational and financial crisis of the electric industry on the island could have been avoided and instead become an engine of economic development, as it should be. We should heed the lessons of the past in favor of a timely approval and effective enforcement of the proposed regulations.

To that effect, my first general suggestion/comment is for the Bureau to take notice of the previous administrative proceedings regarding proposed wheeling regulation that took place in the 2010 timeframe, and make the most pertinent documents of that process available for public review. With the benefit of hindsight there are practical lessons there which could be useful in guiding a smoother path to the effective

implementation of wheeling regulations, as well as indicative benchmarks of the purported costs of unbundling, and the administrative process that accompanies the formulation and discovery of those.

Second, in light of the imminent signature into law of legislation establishing Puerto Rico's new energy policy I respectfully suggest that the Bureau provide some additional time for comments in order to review the final text of the legislation as signed into law and cross check for compatibility of terminology and concepts. Notwithstanding that it is a random coincidence of the legislation making its way into law at the same time that the Bureau seeks comments on the proposed wheeling regulation, it would not likely bode well in a Judicial Review that the public comment period ended just before the policy legislation that would prospectively drive the regulation was signed into law and made available in final form to the public. Reviewing the proposed regulation with the benefit of the final text of the signed new law should result in a more complete final product as well as strengthening the administrative record of the public participation process.

Third, if the Bureau used a model for the draft regulations of an existing operational framework, could it make that information known to the public in order to research the functional history of that system, and derive potential best practices as well as pitfalls?

Finally, as a preface to the responses detailed below it's important to layout the driving philosophy for my comments. I believe Puerto Rico's electricity market should be operated by an independent system operator that is responsible for coordinating the balance of the electrical system generation and load as well as being the clearinghouse for market settlement and operations. Under this scenario, there would be an unbundling of system components, as proposed in the draft regulations, and importantly, a marginal cost of electricity would be available for market players to clear against. This marginal cost of energy is of critical importance for the creation of a wholesale electrical market and the formation of a private market in bilateral contracts, which would benefit from wheeling the most. This private market, in turn, would be a blessing for the financially distressed system as it would shift the offtaker financial credit from PREPA to presumably higher rated credits making projects feasible for commercial financing without the need for government backing. This framework would also help finance needed electrical infrastructure as identified upgrades would need to be built as part of the project development interconnection process. It also would have the added benefit of segregating the operations of the electrical system from the utility's financial situation. Moreover, within a certain size, local investors and entrepreneurs who are more comfortable with local credit profiles than external investors would be important participants and beneficiaries of this new market. However, as with all markets, faith and trust in the system is paramount, and must be earned. The independence of the operator goes a long way to reassuring market participants of a fair playing field.

II. Questions

1. *Are the proposed rules adequate to support non-discriminatory open access to the transmission network in support of wheeling transactions?*

The proposed rules are thorough and comprehensive in a conceptual sense and in that way are generally adequate to support non-discriminatory open access to the transmission network. However, there are practical aspects that may or may not be beyond the scope of the Bureau and these regulations that will have an impact on the actual success or failure of a competitive regulatory framework. Some of these aspects need to be analyzed in parallel to the final wording of the soon to approved Puerto Rico Energy Policy Law. For example, how will the physical rights to interconnection be decided? Can a proponent propose an interconnection point anywhere along a line? Would they have access and rights to use the existing electrical right of ways or will it be at the DSP's discretion? Will the interconnection technical standards and related operational fees apply the same to the incumbent's generation resources as to competitive generators? These are

just a few of critical questions that will have a practical negative or positive effect on the feasibility of projects.

2. *Please comment on the overall industry structure outlined in Article 3 of the proposed rules. Are there key entities or elements missing? Are the roles and responsibilities of the proposed entities appropriate?*

In general, the overall structure seems conceptually adequate, but note that I have a bias toward a structure that includes an independent system operator, which I believe is critical for Puerto Rico, and as such will find weaknesses in any transactional mechanisms that require incumbent discretion. Below are some observations:

- Section 3.01 – the last sentence, “*The Default Service Provider shall enter into an Operating Agreement with each Energy Service Company...*” should be deleted. The guarantees that the public interest is seeking with this sentence can be better addressed through a market rule that applies uniformly to all participants, not individual agreements that are subject to the DSP’s discretion. By applying a uniform market (or regulatory) rule, transactions and related enforcement are facilitated. Segregating and standardizing the technical/economic operations of the market from the private financial obligations between the parties as much as possible will result in more efficient grid operations, transparent procedures, and liquid private arrangements. In contrast, forcing direct or case by case agreements between the DSP and the ESP will create greater bureaucracy and murkiness in the transactions.
- Section 3.02 – no comment.
- Section 3.03 (H) – This is probably the single most important section in the proposed regulation to the extent that the system operator will be the conductor of the orchestra. A mediocre one and you’ll be sorry you bought tickets to the Opera. An excellent one, and your life may change for the better. Puerto Rico will be better off if this function is performed independent of the DSP. How can there truly be any de-bundling if the SO is integrated into the DSP and controls market and technical operations? This only invites continuous litigation and increased agency costs and works against the best interests of the final consumer.
- Section 3.04 – No comment.
- Section 3.05 – No comment.
- Section 3.06 – No comment.

3. *Is it appropriate that PREPA (or its successor(s)) continue to operate as the Default Service Provider? What responsibility should the Default Service Provider have to serve load in the event that an Energy Service Provider defaults?*

Yes, it makes sense that the incumbent utility, or whoever has the obligation to manage the T&D system continue to operate as the DSP, and to serve load in the event that an ESP defaults. The daily technical/economic operations of the grid should stand on their own regardless of the private (bilateral) contractual and financial obligations of private parties. The grid must guarantee its service and operations by establishing reasonable technical rules for interconnection and operation, quality of service, etc., including requirements of bonding guarantees to cover shortfalls or defaults. Bilateral (private) contracts should be purely financial instruments that assume perfect compliance with grid operations. In the event of non-compliance they would be on the hook for the shortfall, thus the importance of transparency and uniformity in market rules, and independence in their enforcement.

4. *What changes need to be made to the current transmission of information between PREPA and generators to support the SO's functions?*

PREPA already has an embedded System Operator of sorts in the Monacillos control facility. This already existing organizational structure could be morphed into an independent system operator by creating transparency of the relevant operational rules and formalizing the additional market mechanisms necessary to become operational. This can be done with relatively modest additional expense and with existing personnel.

5. *Prior to the development of an independent monitor and monitoring plan, what specific actions or oversight activities should the Energy Bureau undertake to ensure the reasonableness of the market structure to be set up under the SO protocols?*

Facilitate the development of an initial wheeling project to break the ice.

6. *What additional customer protection measures should be included in the proposed rules?*

No comment

7. *The Energy Bureau envisions integrated resource planning to evolve focus on both wholesale-level resources as well as distribution-level distributed energy resources. This would occur through a collaborative effort between the TDP and SO, as described in Article 7.05 of the proposed regulations. Are there any good examples of this process from other jurisdictions that Puerto Rico should consider?*

Any of the U.S. based ISO markets CAISO, MISO, PJM, ERCOT, ISO-NE, etc. have robust websites with tons of information that would be helpful. However, these markets are highly complex. Maybe smaller market like the El Salvador UT (Unidad de Transacciones), which is a pared down version of the Chilean model, the Dominican Republic and Panamá could offer useful comparisons. I would also look into the Canadian provincial models of Alberta's AESO and Ontario's IESO, which have been well managed and incorporate public private partnerships models for renewable generation within a competitive market framework. In most, if not all of these, the independence of the balancing function and market settlement for industry participants is key.

8. *It is possible that in the near-term, the SO will not be completely independent from other system components. This is especially true during the time that the SO is still embedded in PREPA, where it will have some affiliation with generation assets. Please comment on how the proposed rules address this issue.*

A transitionary period is inevitable. However, this should not be an obstacle to the immediate and strong enforcement of the regulatory rules once approved. It will behoove the Bureau and other agencies with oversight to support the nascent market in its most fragile early stages with strong and determined enforcement. The lessons of the past have taught us that, "time kills all projects", and bureaucratic delay can be used as a weapon for the entrenched establishment. The rules (with the suggested comments) seem robust enough to offer the right tools for interested parties to exert their rights in the market framework, but they will be no match for an entrenched and unwilling incumbent if there is no effective enforcement.

9. *If the SO and TDP are the same entity, the proposed rules would require corporate or functional separation between the SO and any other part of the organization that has an interest in any generation facility of other resource on the grid. Please comment on how the proposed rules address this issue.*

Reiterate a preference for independence of the System Operator as mentioned in other responses.

10. *The proposed rules require PREPA to file an embedded cost of service study, a marginal cost of service study, and a total system long-run incremental cost (TSLRIC) study. The purpose of the embedded cost of service study is to ensure that historical costs are allocated across classes in an equitable manner. The purpose of the marginal cost of service study is to ensure that rate designs provide efficient price signals. The purpose of the TSLRIC study is to ensure that services are prices competitively. Please comment on this proposal and the associated provisions of the proposed rules.*

This is very important, as the marginal cost pricing is the foundation for price formation for market clearing, and the base price for settlement of private (bilateral) transactions in a wholesale market. The study is important, but more so will be the daily, maybe hourly marginal prices at which energy settles. This is of critical importance for developer/investors to analyze the market and come up with creative solutions (more competitive alternatives) to the existing landscape. This is also where competition bears fruit for the consumer.

11. *Are the proposed sections regarding Terms and Conditions for Transmission Service and Initiating Transmission Service reasonable and comprehensive?*

No comment

12. *Should the generation sources related to wheeling be limited to renewable sources?*

Limiting the generation sources within the wheeling regulation defeats in part the objective of wheeling regulation, which is to facilitate a market of willing and independent buyers and sellers. Creating preferences for renewable generation is best addressed somewhere else in the electric landscape either through subsidies, procurement obligations, externality taxes, or most preferably consumer choice (changes in behavior). Ideally, wheeling regulation executed by an independent system operator should merely be part of a regulatory framework that facilitates market forces to serve consumers in the most cost effective manner. Puerto Rico contrasts with many jurisdictions in that its energy policy is shaped more by what it cannot do than what it can, further limiting choices only hinders the competitive landscape.

I sincerely hope that these comments are constructive and helpful in your quest for more competitive and reliable electricity industry in Puerto Rico.

Respectfully,


Neil Watlington-Armstrong

nwatlington - comments to Regulation on Wheeling - Case No. CEPR-MI-2018-0010

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Please find attached my comments to Regulation on Wheeling.

Thanks,
Neil

 nwatlington - Comments on Regulation on Wheeling - Case No. CEPR-MI-2018-0010.pdf
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