



August 27, 2018

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

Re: Regulation on Retail Wheeling, Case Number CEPR-MI-2018-0010
Submitted via email to comentarios@energia.pr.gov

Dear Chairman Avilés and Commissioners Rivera, Mateo Santos, and Ramos:

Thank you for the opportunity to submit these comments on behalf of the Institute for Energy Economics and Financial Analysis, CAMBIO PR, El Puente, Enlace Latino de Acción Climática and Sierra Club de Puerto Rico in response to your wheeling order of August 7, 2018.

General Comments:

The Bureau's questions contemplate a range of possible market and regulatory frameworks, including open access to transmission, an independent system operator, wholesale electricity markets, retail choice, and community choice aggregation. The questions imply that the path forward for the energy system of Puerto Rico may be to follow the 1990s-era model of some U.S. states, which required utility divestment of generation to integrate new resources, including renewables, and merchant investment in generation. In this model, the utilities were left as distribution and transmission operators, and generation moved from vertical integration to a more competitive market, both at the wholesale level and in some cases at the retail level. Stranded costs were recovered in large part from ratepayers, or sometimes by write-offs by investor-owned utilities. Fundamentally, this 1990s-era utility restructuring framework remained based on a model of large-scale centralized generation. It facilitated the development of new centralized generation, primarily fueled by natural gas.

Many of the U.S. and European jurisdictions that restructured their electrical systems in the late 1990s and early 2000s are now trying to manage a transition to distributed energy resources, lower-priced renewable supply, and demand management, all enabled by information technology. These markets include California, New York, and the United Kingdom.¹ This new direction aims to allow local communities and customers greater

¹ The California Public Utilities Commission, for example, is still asking questions similar to Puerto Rico, such as "Can California provide investment and operational certainty to address reliability and resiliency, especially in the face of catastrophic events that impact the electric sector?" (See: *California Customer Choice: An Evaluation of Regulatory Framework Options for an Evolving Electricity Market – Draft Green*

control over their energy system and the ability to “island” from the central grid when circumstances require (for example, in cases of storms, floods, or grid outages). New market models are just now being developed to adapt to the entry of behind-the-meter technologies (net metering/rooftop solar), community choice aggregation at unforeseen levels, and the rapid growth of all forms of distributed energy resources.

Today, Puerto Rico has an opportunity to bypass large-scale investment in central generation from fossil fuel plants, and to move directly to a more flexible, nimble, and resilient system based on renewables and distributed energy resources, thereby avoiding investment in more costs that are likely to end up stranded. Low prices for distributed renewable resources, including demand response, energy efficiency, and storage are rapidly stranding legacy investments in fossil fuels.

Adapting any of the tools referenced in the Bureau’s questions to Puerto Rico’s context requires clarity around the end goals the Bureau seeks to achieve in the transformation of the electrical system, as well as a clear analysis of whether these regulatory tools are compatible with the current reality of Puerto Rico’s electrical system.²

There is an urgent need to transform Puerto Rico’s electrical system into one that is affordable and reliable. The Financial Oversight and Management Board has set a goal of rates below 20 cents per kWh.³ This requires phasing out expensive, fossil fuel-based generation and investing in local sources of renewable energy, as well as investing in carrying out deferred maintenance of PREPA’s assets in order to integrate those renewable resources. It also requires reform of the electrical system’s governance; the administration of PREPA has become driven by short-term political considerations, plagued by expensive contracting scandals, and largely unaccountable to the public it serves. The development of decentralized energy technologies, which did not exist as economical options during most of PREPA’s history, provides a new opportunity not only to construct a resilient electrical system with electricity generated close to where it is used, but also for PREPA’s customers to take on more active roles as producers of electricity, creating new possibilities for governance of the electrical system.

The Bureau’s scoping questions cover a range of possible market structures. Based on experience in the mainland U.S., we do not believe that these structures are all conducive to achieving the end goals of an electrical system that is affordable for all and that supports a high penetration of distributed energy resources.

In particular, the attached briefing paper released by IEEFA last week reviews the experience of New York and other states with retail choice (Attachment 1). The paper explains that retail choice in those states has failed to provide savings to residential

Book (May 2018). And the New York Department of Public Service initiated the Reforming the Energy Vision proceeding after hurricane Sandy to explore new models and market frameworks for distributed generation.

² In the Commission’s own words, “the development of a balanced market structure, which encourages investment and economic development, guarantees quality services at just and reasonable prices, ensures equitable access to energy services and promotes innovation in the energy services industry requires a process of introspection to define our expectations and frame our energy aspirations.” (Commission order of October 27, 2017 in Case No. CEPR-IN-2017-0002)

³ PREPA Fiscal Plan, August 1, 2018, p. 2.

electricity customers. The paper concluded, “With the turmoil in Puerto Rico’s physical electrical system as well as the many regulatory, ownership, and policy changes coming or likely to be coming, we are highly skeptical that Puerto Rico can avoid the missteps that have befallen other states that implemented retail choice. Indeed, we think it is highly unlikely that retail choice, even if implemented perfectly, would do much to address high residential rates.”

We also believe that the question of whether to implement wholesale electricity markets in Puerto Rico, addressed in some of the Bureau’s questions, is premature. One of the advantages of establishing wholesale electricity markets in the mainland United States was the ability to integrate multiple utility balancing authorities and economically dispatch resources over a broader geographic region in order to lower costs, an advantage that is obviously not available to an island such as Puerto Rico. Indeed, Puerto Rico’s electrical system is about one-seventh of the size of the smallest wholesale electricity market in the mainland United States, and it is difficult to envision such a market being very liquid or involving a wide range of players, at least in the near term.⁴ PREPA attempts to dispatch its units economically now, but because of the poor condition of Puerto Rico’s generation and transmission systems and lack of demand management, PREPA has several expensive units that effectively operate as “reliability must run” (including units at San Juan, Palo Seco, and Aguirre) and, as simple cycle boilers, PREPA tries to keep these units running for at least a month once they are operating.⁵ This constrains the ability to undertake economic dispatch, a situation which would not immediately change under the implementation of a wholesale market.

Additionally, wholesale market structures in the mainland United States were not established with the goal of driving the development of distributed energy resources. If it is a priority for Puerto Rico to develop distributed resources in order to improve reliability and resilience in the face of extreme weather events, a wholesale electricity market alone is unlikely to advance this goal. Indeed, the prioritization of resiliency goals appears to be driving a revised IRP for PREPA that calls for splitting the grid into eight island-able mini-grids. If new generation is planned to provide for localized mini-grid self-supply during an outage based on this IRP, then the location of new generation will largely be determined by transmission constraints and resource availability, without need for a market construct, and the grid operator (under normal operating conditions) would be able to operate the island-wide system according to economic dispatch.

One of the possible theoretical advantages of a wholesale electric market in Puerto Rico would be the fact that, under such a construct, the risk of overbuilding the generation system would be borne by private wholesale generators, not Puerto Rico electric customers. (That is, merchant generators, and not Puerto Rico electric customers, would bear the risk of not being able to sell their power). However, because of Puerto Rico’s ongoing fiscal crisis and the current trend of rapidly declining electrical sales, we are

⁴ In FY 2017, PREPA’s sales were 17 TWh and peak demand on the system was 3.1 GW. ISO-New England, the smallest wholesale electricity market on the mainland served a load of 121 TWh with a peak load of 23.7 GW. (Sources: [PREPA June 2017 Monthly Report to the Governing Board](#); and ISO-New England, “[Net Energy and Peak Load Report](#),” August 14, 2018.

⁵ PREC Technical Conference August 14, 2018 in Case No. CEPR-AP-2018-0001. See [the recording of the hearing](#) at 35-37 minutes.

skeptical investors would be interested in developing generation projects in Puerto Rico without long-term contracts for power sales or other taxpayer-backed guarantees.

In short, we do not see how the implementation of a wholesale electricity market at the current time would offer advantages in achieving the goals of an affordable, renewable, and reliable electrical system. Additionally, Puerto Rico electric customers would bear the administrative costs of set-up and ongoing operation of such a market.⁶

In the context of this wheeling proceeding, we believe that wheeling regulations could provide an opportunity to facilitate more active participation by consumers (“prosumers”) in the electrical system and drive down costs by providing open access to the transmission system. We recognize that there is interest on the part of some municipalities and industrial customers in supplying their own power, as well as interest in forming energy cooperatives. With open access, large customers, including organized groups of commercial and residential customers, could negotiate on an equal footing with suppliers. (Note that this is distinct from retail choice in which, as described above, individual residential customers have a choice between retail suppliers but no ability to negotiate terms). We recommend that the Bureau establish rules for access to the transmission system for those local entities interested in contracting for alternative sources of power generation, including industrial customers, energy cooperatives (if legally authorized to form in Puerto Rico), and municipalities. This would empower these entities to pursue multiple options for their power supply, including self-supply at the local level, contracts with PREPA, and/or contracts with nearby independent generators who are able to wheel power across PREPA’s transmission system. We emphasize that this should be done within the context of the IRP, which appears to support a more decentralized system of island-able mini-grids. For reasons of grid resiliency, we do not advocate the use of wheeling to support greater reliance on long-distance transmission.

If the Bureau implements a wheeling policy, the Bureau would need to take steps to minimize the risk of stranded costs and to allocate such costs in a just and reasonable manner. A robust and regularly updated planning process would be necessary in order to plan for entities defecting from PREPA’s system to self-supply.

Puerto Rico has an opportunity to skip over the markets of the past and create a more flexible system. It has resources that have been considered liabilities, but if seen with a modern perspective, could be strengths. These resources include: (1) a utility which is already state-owned and, with strengthened reform and regulation, should be more amenable to doing what is best for ratepayers than a privately-held company would be; (2) the valuable availability of solar energy in all parts of the island, at ever-decreasing prices; and (3) the island’s geography, which ensures that distributed generation will enhance resiliency and reduce the need for long-distance transmission— in other words,

⁶ The start-up cost for ISO-New England in 1998 was \$55 million (\$85 million in current dollars), and start-up costs for the 6-7 times larger PJM market were \$220 million in current dollars. (Source: Henwood Energy Service, “[Study of costs, benefits and alternatives to Grid West](#),” October 15, 2004. Costs translated into 2018 dollars.) Ongoing administrative costs for PJM amount to 1% of the overall customer bill. (Source: Monitoring Analytics, “2017 State of the Market Report for PJM: Introduction”, March 8, 2018, p. 17 of Volume 1).

the ability to go straight to a 21st century system without installing more 20th century technology.

Answers to Bureau Questions

1.1 Should PREPA continue to own generation, or should PREPA divest all of its generation assets?

The goal of achieving an affordable, reliable electrical system based on distributed, renewable energy could in theory be achieved regardless of whether or not PREPA owns generation.

Divestiture of generation assets poses risks to consumers. As contemplated by Act 120, PREPA would procure electricity from privately-owned generators under long-term contracts. If such contracts are structured with PREPA's existing oil-fired units, it will create a structure in which those plants are maintained and compensated for their output regardless of their economic value to the system. Additionally, Puerto Rico will very likely find itself with stranded costs if new merchant natural gas plants are built, as the falling cost of renewable generation and energy storage make natural gas less and less economical. And finally, there is a significant risk, given PREPA's contracting history,⁷ that contracts will not be structured to promote the welfare of Puerto Rico electric customers. There is an urgent need to reform PREPA's contract process to be fair and transparent and to ensure that contracts align with an integrated resource plan developed through a transparent public process and approved by the Bureau.

If divestiture of generation assets moves forward, however, sale of a small portion of assets to qualified buyers could serve as a demonstration project to test certain assumptions about the value of adding merchant generation at strategic points in the system, and even the availability and interest of qualified buyers. But such sales would have to be made transparently: with public access to the terms and conditions, with thorough review by the Bureau, and under conditions that bring benefit to ratepayers rather than just being structured so that bidders will want to respond. In addition, sale of local transmission and distribution assets to communities or cooperatives for the purpose of installing renewable distributed generation facilities could help build local generation capacity.

⁷ Past contracting scandals include: renewable energy contracts that the Puerto Rico Energy Commission has found inordinately profited developers (Puerto Rico Energy Commission Case No. CEPR-AP-2015-0002, Commission Order, September 23, 2016, p. 59-60); a contracting structure for financial consultants on a bond deal whereby the consultants themselves were entrusted with determining the reasonableness of their own fees (Puerto Rico Energy Commission Case No. CEPR-AP-2016-0001, Commission Order, June 21, 2016, paragraph 271); a multi-decade oil scandal that was the subject of multiple audits by the Puerto Rico Comptroller and a 2016 investigation by the Puerto Rico Senate (see Puerto Rico Senate, "Special Commission for the Study of the Standards and Procedures Related to the Purchase and Use of Oil by the Puerto Rico Electric Power Authority and of Government Integrity", Final Report, December 5, 2016); and the notorious Whitefish contract scandal for the rebuild of infrastructure after Hurricane Maria, of which no audit has been made public despite the initial promises of Governor Rosselló.

Another model available is to require structural separation of PREPA into a generation subsidiary and a transmission and distribution subsidiary. With strict separation rules, the T&D subsidiary would be required to maintain open access to all other generation, while continued ownership of some generation would contribute to the utility's revenue.

1.2 How should supply be procured? Should it be procured through bilateral contracts, or through a centrally dispatched wholesale market?

If PREPA retains some generation and serves as the T&D provider, procurement would not differ structurally from today's market. However, additional measures are imperative to ensure that new generation supply is primarily renewable, and that natural gas resources are either phased out if non-strategic, or limited in scale to the minimum system requirements. This could be accomplished with a loading order policy for new generation. An example is California's policy: 1) cost-effective energy efficiency and demand response; 2) renewable sources of power and distributed generation; and 3) clean and efficient fossil generation.⁸

The question assumes that the government policy will be to maintain a centrally coordinated energy market. However, there are other models available, including encouraging the development of locally-owned energy systems, at the microgrid, community, or municipal level. Financing may come through a large user— a university, a consortium of schools, a retail mall— in concert with community organizations, cooperatives, or municipalities. This model allows communities to own and control their own renewable generation, and to save on prices over the long term. These communities may choose to rely on the grid for stand-by service or to be self-sufficient.

1.3 Given that wheeling would allow more buyers of electricity than PREPA, should there be an independent system operator to ensure reliability and administer financial transactions?

An ISO can be a useful platform for management of dispatch and setting prices on a day-ahead or spot market, when the market is highly centralized. However, that function is only necessary in an established market with numerous participants, where the generation system can be centralized into one grid. Moreover, establishing a trusted entity to manage energy markets and give investors the assurance that their investments will be treated equally with those of the incumbent is a major task. As discussed in the introduction, we do not believe that conditions in Puerto Rico warrant establishing a wholesale electricity market at this time.

1.4 How would you recommend that the Commission ensure non-discriminatory open access to the grid?

Whether PREPA remains the provider of generation, or takes on the role of neutral distribution and transmission provider, regulations are necessary to ensure non-

⁸ California Public Utilities Commission, Long-Term Procurement Plans: <http://www.cpuc.ca.gov/General.aspx?id=4789>

discriminatory access to the grid. These regulations should include: publicly tariffed and standardized costs and processes for interconnection; as well as standardized prices for distribution and transmission services regardless of the source of the generation. No special rates, preferences, more timely service, or quality of interconnection can give generation owned by PREPA preferred treatment to that owned by any other entity.⁹ On the assumption that other generators have entered the market but that PREPA still owns generation and is providing transmission and distribution into local grids, PREPA would have to adhere to a set of rules that provide equal access to distribution and transmission on the identical terms that these services are provided to PREPA-owned generation.

1.5 Should the wheeling mechanism include PREPA (or any successor entity) as a default supplier for retail services? Or should all customers be required to choose a supplier?

We do not recommend that PREPA implement retail choice for the reasons described in the attached briefing note (Attachment 1). States' experiences with retail suppliers of electricity to residential customers overwhelmingly demonstrate that many energy service companies engage in predatory pricing, misleading offers, and inadequate protections, especially when marketing to low-income customers. Analysis in New York showed that residential customers were consistently overcharged by many ESCOs. There is also a record of these retailers transferring customers to themselves without informed consent.

1.6 Should there be reporting requirements to enable customers to have accurate comparisons between other suppliers and PREPA?

See answer to 1.5. We do not envision a system in which individual residential customers are choosing between suppliers, but rather one in which some may be served by a local energy cooperative, municipality, or microgrid.

1.7 Should the same consumer protection requirements for PRPEA apply to suppliers/Energy Service Companies? What new consumer protections should be implemented for Energy Service Companies?

See answer to 1.5.

1.8 Should there be collars on contract lengths?

No comment.

1.9 Should suppliers have a limit on market share?

Not necessarily. If PREPA retains some share of the generation market, as well as the responsibility of provider of last resort and other customer service obligations, its market share should remain substantial. If the goal is to empower the growth of decentralized generation owned by different actors including industrial users, municipalities,

⁹ An example of standardized terms for transmission services is the ISO-New England Open Access Transmission Tariff (OATT), at <https://www.iso-ne.com/participate/rules-procedures/tariff/oatt>.

cooperatives, and microgrid customers, then market domination by a single supplier is unlikely to be a concern.

1.10 Should community choice aggregation be permitted?

In most U.S. jurisdictions that permit community choice aggregation, it is structured to allow communities to aggregate their electricity purchases through a retail service provider. Because we recommend against adoption of retail choice, this would preclude community choice aggregation.¹⁰

1.11 Does integrated resource planning (IRP) continue to occur after wheeling is implemented? If so, what is the best way to ensure a meaningful IRP in the context of retail competition? What parties, if any, should have responsibility for “procuring” resources identified in the IRP? What happens if the resources identified in the IRP are not being procured? What parties should be responsible for procuring energy efficiency resources and demand response resources?

Yes, integrated resource planning is essential regardless of whether or not wheeling is implemented. The commonwealth cannot evade its responsibility to assure implementation of its energy strategy, and is the ultimate guarantor of affordability, reliability, resilience, and renewable resources.

As discussed in the introduction, we believe that it would be appropriate to implement open access to transmission and a wheeling tariff to give customers or groups of customers greater flexibility to procure power at the transmission level and to wheel it to where it is used. Again, we emphasize that this should be allowed within the context of a more decentralized vision for the electrical system, and that we do not advocate the use of wheeling to support greater reliance on long-distance transmission across the island.

If such a proposal were adopted, it would be critical to maintain an integrated resource planning process, either for PREPA or, ideally, for the island’s electrical system as a whole. The plan should be updated every 2-3 years. PREPA would need to plan around the load defection caused by industrial, cooperative, municipal, or other entities procuring power from non-PREPA suppliers at the wholesale level. If the IRP were island-wide, then all entities seeking to build generation on the island would need to show compliance with the IRP when applying for a certificate of need from the Bureau. (So, for example, if the IRP called for a rapid phase-out of oil generation, a proposed new diesel power plant should not be able to obtain a certificate of need, even if it were planning to sell its power to an entity other than PREPA).

New entrants serving load, such as municipalities or cooperatives, should also have responsibility to meet state goals. For example, California requires annual certification by all energy providers that they have met and will fulfill their power supply commitments to ensure reliability. The California Public Utility Commission reviews these

¹⁰ *California Customer Choice: An Evaluation of Regulatory Framework Options for an Evolving Electricity Market – Draft Green Book* (May 2018), p. 10.

certifications annually. If resources are not procured, the Commission may have compliance powers with respect to the utility.

As for procurement of energy efficiency and demand response, that responsibility should be PREPA's at this stage. In the future, responsibility for these programs could devolve to other load-serving entities as well.

1.12 What are the best ways to level the playing field for distributed energy resources to compete with traditional generation resources?

PREPA's IRP should include distribution system modeling that optimizes the buildout of distributed energy resources, and PREPA should streamline its interconnection process and offer incentives so that those resources are built.

Also, in the near-term, the largest source of money coming into Puerto Rico's electrical system will likely be federal money, not private capital.¹¹ Therefore, the question is more about the public policy priorities for using this federal money. A program using Community Development Block Grant money to incentivize distributed solar and storage systems, for example, could greatly increase the penetration of distributed energy resources on the island.

1.13 Who should be responsible for stranded assets, if any?

See response to question 2.3, below.

1.14 Are there any particular considerations regarding microgrids that should be considered in the development of wheeling regulations?

Microgrids can be a very useful component of the future Puerto Rican energy system, as recognized by the Bureau in its microgrid regulations, Regulation 9028. The development of microgrids at the distribution level should not affect wheeling over the transmission system.

1.15 How will the implementation of wheeling impact the plans to privatize PREPA? What are some of the factors the Commission should take into consideration in drafting wheeling regulations?

The implementation of wheeling could lead to industrial customers, energy cooperatives (if authorized by legislation), and municipalities choosing to procure power from non-PREPA entities and to wheel it using PREPA's transmission system. This would reduce the load on PREPA's system and reduce the amount of new generation that PREPA might need to build (or contract for) to supply the remainder of its load. If accurate forecasts of grid defection from wheeling are not incorporated into regularly updated integrated resource plans, this will result in overbuilding generation.

¹¹ PREPA Fiscal Plan, August 1, 2018, p. 48.

1.16 How should the Commission address the issue of a supplier default? Who should be responsible to serve the customers of a defaulting supplier? Should customers be allocated to remaining suppliers or should PREPA or its successor entity be responsible?

Regulations are necessary to govern the event of default. If an electricity cooperative or municipal electric company is approaching default, it should give ample advance notice to the regulator and its customers in order to allow an orderly transition. The provider of last resort (PREPA or successor) would become responsible for serving the load, but should also inherit the generation owned or contracted by the defaulting supplier.

1.17 How should the Commission address firm point-to-point wheeling in the event that the transmission system cannot accommodate this without further upgrades? Will the reconstruction of new transmission post-Hurricane Maria allow for firm service?

Although upgrades to the current transmission system are necessary, moving to greater dependence on distributed energy resources should save costs and even require less investment in transmission. In addition, communities investing in distributed energy resources may well be able to depend on neighboring distributed resources for back-up or to ensure reliable service. That said, customers choosing to rely on firm point-to-point wheeling may have to bear the additional cost of upgrades required to ensure this transmission capacity.

1.18 What financial or credit requirements should be in place for suppliers / Energy Service Companies?

No comment.

2.1 What regulations and mechanisms need to be in place to ensure viable revenue and business models for the owner/operator of the transmission and distribution network?

The owner/operator of the T&D network should be incentivized (or penalized) according to its performance in achieving (or not achieving) goals proscribed by the Bureau. Benchmarks could be related, for example, to standard reliability indices, improving interconnection times, and the amount of distributed energy resources interconnected to the distribution system.

2.2 Should debt service (e.g. collected through a specific charge) for outstanding PREPA debt be a non-bypassable charge, paid by all customers who engage in wheeling? If so, do you have a recommendation as to how such charge should be structured?

The latest restructuring agreement (published by the Financial Oversight and Management Board on July 30, 2018) contemplates a transition charge to be collected by PREPA and paid to the PREPA Revitalization Corporation, according to the process established under Act 4-2016. The per kWh charge detailed in the agreement would increase the cost of electricity by approximately 10%, acting as a permanent counterweight to other efficiencies and cost savings being planned.

All attempts should be made to eliminate the legacy debt from the balance sheet of PREPA, its successors or any future contracting arrangement. This goal can be achieved through substantial reductions in the current bond principal that is finally refinanced by PREPA or the Commonwealth. Bondholders may be able to achieve substantial repayment pursuant to claims against parties involved in the bond transactions similar to those discussed in the FOMB's recently released independent investigation into the island's indebtedness,¹² as well as through full repayment by bond insurers of the face value of the bond insurance policies PREPA contracted for and through additional federal supports used to rebuild the system.

No transition charge or other fee should be imposed on PREPA ratepayers for the "legacy" debt for at least five years, and the fee should only be adopted by PREPA and the Commission after it is determined that its imposition not push rates beyond a competitiveness threshold. Right now the FOMB has set that threshold at 20 cents per kwh.

2.3 Should there be an "exit fee" to enable PREPA or its successor to recover any potential stranded generation costs resulting from the loss of customers to competition? If so, do you have a recommendation as to how it should be structured? What other mechanisms should be implemented to prevent shifting of costs to customers who do not choose a competitive supplier?

This should be determined on a case-by-case basis. Currently there is very little value remaining in PREPA's generation assets and so it does not appear that significant stranded costs would result from entities (industrial customers, municipalities, communities, cooperatives, etc) choosing to self-supply their own generation. We do not recommend that PREPA make substantial new investments in centralized fossil fuel infrastructure.

If PREPA makes a substantial investment in new centralized generation infrastructure in the coming years, any future determination of exit fees by the Bureau should take into account the prudence of PREPA's investment decisions. In general, the Bureau should ensure that locally owned electrical systems are not penalized for seeking to self-supply their own power and improve affordability and reliability in their community.

2.4 How is the revenue requirement for the owner/operator of the transmission and distribution network best determined? Should there be a supply and delivery component to the rates?

Generally, there is a delivery component to all retail rates, which provides the core revenue to the T&D networks. Owner/operators of the T&D network have also historically been able to earn revenues for providing services such as renewable procurement, underwriting energy efficiency investment, demand response, and low-income programs.

¹² Kobre & Kim, "Final Investigative Report," prepared for the Financial Oversight and Management Board, August 20, 2018.

2.5 How should the transmission costs to connect new generation to the grid be treated? Should the cost be socialized among all customers and included in the transmission rate or should it be allocated to the generator? What should be done with respect to network investments/upgrades that cannot be attributed to one particular generator or end-user, and should these be allocated?

In many states, transmission costs are separated by state- and federal-jurisdictions. State costs for transmission developed by merchant owners is generally the responsibility of the generators that use that facility, for transport and associated services transmission operators provide. When transmission is constructed by regulated utilities, however, state jurisdictional costs are sometimes allocated to all ratepayers, on the assumption that additional transmission benefits the system as a whole by relieving constraints.

We recommend that transmission costs incurred by PREPA to interconnect new generation built under contract to supply a non-PREPA customer via wheeling should be borne by that customer. Network investments that cannot be attributed to a particular end-user should be allocated to all entities connected to PREPA's system.

We appreciate the opportunity to submit comments.

Sincerely,

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Retail Choice Will Not Bring Down Puerto Rico's High Electricity Rates

By Chelsea Hotaling, Anna Sommer and William D. Yates

August 2018

Summary

In the wake of the devastation Hurricane Maria caused Puerto Rico's electrical system, a plethora of policy and regulatory changes have been proposed to rebuild and provide resiliency for the electrical grid. Among the more recent proposals is the suggestion that Puerto Rico move to a model of "retail choice," where individual electricity customers select their providers. Puerto Ricans currently get their electricity from a monopoly utility, the Puerto Rico Electric Power Authority (PREPA).

The impetus for this proposal seems to be that it would reduce the high price of electricity in Puerto Rico, where residential customers paid an average of 20.2 cents per kilowatt hour in 2017, well above the average price for the United States of 12.90 cents per kilowatt hour.^{1,2}

José Ortiz, the new executive director of PREPA, is a proponent of retail choice. In an August 20 interview with *El Nuevo Día*,³ he referred to it as a "second step" in plans to transform the electricity system where "retailers would come on the scene to negotiate kilowatt sales packages" which customers would purchase.

About one-third of U.S. states have adopted some version of retail choice over the past two decades, and their experience indicates how retail choice would affect electricity rates in Puerto Rico. Rather than proving to be a boon for customers, retail choice has instead cost residential customers billions in excess charges in several states, and some providers have harmed customers by using predatory and deceptive sales practices.

With the turmoil in Puerto Rico's physical electrical system as well as the many regulatory, ownership, and policy changes coming or likely to be coming, we are highly skeptical that Puerto Rico can avoid the missteps that have befallen other states that implemented retail choice. Indeed, we think it is highly unlikely that retail choice, even if implemented perfectly, would do much to address high residential rates.

What is Retail Choice?

In the 1990s, a number of states adopted an alternative to the traditional electricity utility model, in which one utility owns and operates all aspects of the system from the power plants that generate electricity to the wires and poles that make up the transmission and distribution system used to deliver electricity to consumers and thus has a monopoly on the provision of electric service to customers in its service territory. The alternative to this model, known as "restructuring," mandates that these "vertically integrated" utilities sell off their generation assets, so that generation and distribution assets were held by different companies (though, in practice, many were simply spun off to affiliates of the same holding company.) Generation

¹ June 2017 Puerto Rico Electric Power Authority Operations Report. August 18, 2017. See fiscal year 2017 rate, p. 8.

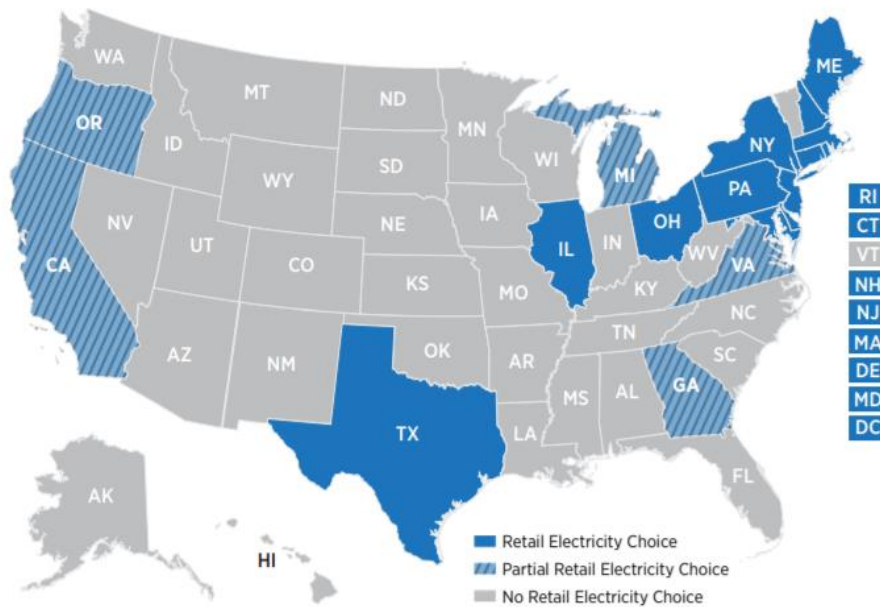
² U.S. Energy Information Administration (EIA). [EIA electricity sales data for Puerto Rico show rate of recovery since hurricanes](#). August 6, 2018.

³ *El Nuevo Día*. [Los clientes de la AEE no podrán escoger el proveedor de servicio eléctrico](#). August 20, 2018.

owners would then sell electricity into a wholesale market facilitated by the introduction of regional transmission organizations (RTOs) and independent system operators (ISOs).

This opened the door for the introducing retail choice for customers in the states that decided to pursue restructuring. Retail choice allows customers to decide if they want to purchase electricity from the electricity utility that had previously provided service in their area (also known as the default service provider), or from a different retail supplier. Figure 1 shows which states have chosen to implement retail electric choice.⁴

Figure 1: States with Retail Electricity Choice



Source: State public utility commissions (2017).

The retail choice itself refers in most cases to the source of generation. Customers who choose to purchase from a competitive supplier pay whatever that supplier's rate for electricity might be. The remainder of the bill, typically known as the distribution charge, is not subject to retail choice and remains the same for all residential customers. All customers, regardless of whether they purchase electricity from the utility or an alternative supplier, will still be charged a cost for using the distribution system to deliver electricity to their household. Typically, in states with retail electricity choice, ownership of the distribution system has remained with the legacy electric utility.

Proponents of retail choice have argued that it would achieve the following goals: lowering electricity prices through access to competitive wholesale markets where competition is based on price and performance; improving service and options for customers; creating innovative product and service offerings for customers (such as green power products)⁵ and making environmental improvements through the displacement of power plants that generate more pollution.⁶

Despite these goals, residential customers in a number of the states that have chosen to adopt retail choice have not seen lower electricity prices.⁷ and thousands of customers have been victims of abusive

⁴ Taken from Zhou, S. (2017). *An Introduction to Retail Electricity Choice in the United States* (No. NREL/BR-6A50-68993). National Renewable Energy Lab.(NREL), Golden, CO (United States). Retrieved [here](#).

⁵ Green power products offer a bundling of renewable electricity and renewable electricity credits (RECs).

⁶ Federal Energy Regulatory Commission. (2006). Report to Congress on competition in the wholesale and retail markets for electric energy. *The Electric Energy Market Competition Task Force*. Washington, DC.

⁷ NCSL Energy Policy Forum. *Electricity Market Restructuring: Where Are We Now?* Presentation by Johannes Pfeifenberger. December 6, 2016.

and predatory marketing practices.

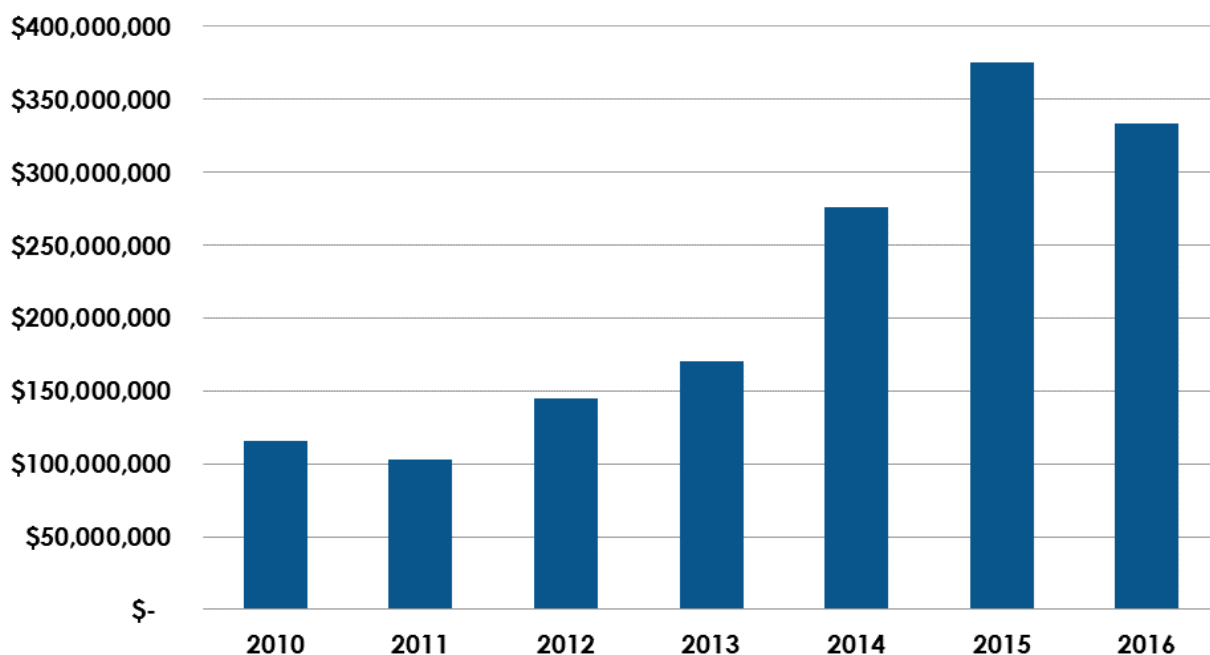
Retail Choice in New York State Has Cost Customers Over \$1 Billion

Implementation of retail choice in New York State has harmed rather than helped consumers and has sparked thousands of complaints to the state's Public Service Commission.

An audit into charges by energy service companies, known in New York as ESCOs, found that low-income residents in New York paid \$96 million more to these companies in just the thirty months ending June 30, 2016 than they would have paid to a utility for electricity and gas charges.⁸ In July 2016, New York Governor Andrew Cuomo announced a moratorium on ESCOs selling electricity and natural gas to low-income customers, in part because some ESCOS confirmed "they were not likely to provide a guaranteed savings to low-income customers."⁹

More recently, the Public Utility Law Project of New York (PULP) analyzed Energy Information Administration (EIA) data¹⁰ from 2000 to 2016 to determine how much more customers of ESCO service providers paid versus those served by the default provider. PULP found that between 2000 and 2016 ESCO overcharged residential ratepayers \$1.8 billion, with \$1.5 billion of these overcharges occurring between 2010 and 2016. Figure 2 shows the annual excess charges to residential customers served by ESCOs between 2010 and 2016.¹¹

Figure 2: ESCO Electricity Extra Cost to Residential Customers in New York



Source: U.S. Energy Information Administration (EIA).

⁸ New York Public Service Commission Press Release. [ESCOs Banned From Selling to Low-Income Customers in New York](#), December 15, 2016.

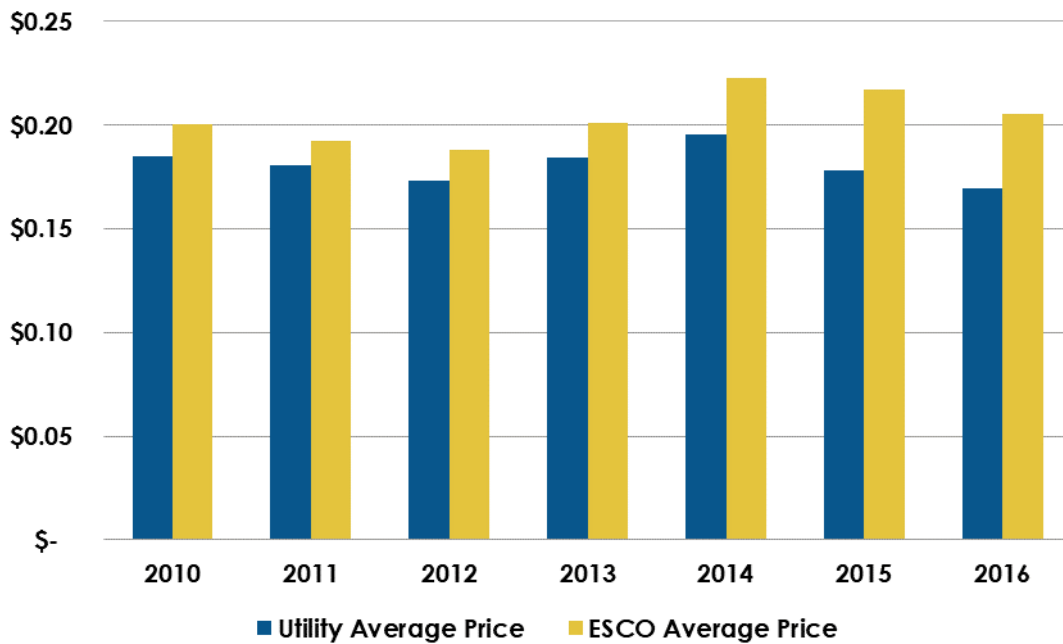
⁹ New York State Office of the Governor Press Release. [Governor Cuomo Announces Moratorium on Competitive Energy Service Company Sales to Low-Income Customers](#), July 15, 2016.

¹⁰ U.S. Energy Information Administration (EIA). [Average price of residential electricity supplied by ESCOs versus incumbent utilities for 2000 to 2016 derived from EIA dataset Average Price \(Cents/kilowatt hour\) by State by Provider](#). Extra cost (overcharges) to New York State residential electric customers supplied by ESCOS versus what they would have been charged if they received their electric supply from their utility from EIA-861 Sales to Ultimate Customers (MWh).

¹¹ Testimony of William Yates in New York Public Service Commission Case No. 15-M-0127, filed October 13, 2017, with 2016 data added on.

Figure 3 shows the difference between the average prices charged to residential customers by electric utilities and those charged by ESCOs. Every year, ESCOs had a higher average price than the default provider.

Figure 3: Average Price¹² of Electricity for Utility vs. ESCOs in New York



Source: U.S. Energy Information Administration (EIA).

Retail Choice Led to Higher Rates and Deceptive Marketing Practices in Several Other States

In addition to the well-documented problems in New York, investigations in several other states show that customers have been harmed by the practices of companies in retail choice markets. These include:

Customers Paid Well Over Market Price for Electricity in Massachusetts, Connecticut, and Illinois

Following an influx of complaints received about energy supply companies, the Massachusetts Attorney General's Office commissioned a report to investigate whether residential customers benefit from purchasing their electricity from an energy supply company versus the default electric service provider. Susan Baldwin, the report's author, found that between July 2015 and June 2017, customers participating in the competitive supply market paid \$176.8 million more¹³ than they would have paid if they had purchased from their default provider. Additionally, Baldwin found that low-income households in Massachusetts participated in the competitive supply market at twice the rate as non-low-income households, amounting to an average annual loss of \$252 for low-income households.

Data analyzed by the Office of Consumer Counsel in Connecticut found that for June 2016 through May 2017, residential customers in Connecticut who purchased electricity from competitive energy suppliers paid \$66,736,598 more than they would have paid if they purchased from their default service provider.¹⁴

¹² The average price for the utility is derived by taking the total of the full service, which includes delivery and the supply price of electricity for the utility. The ESCO average price represents the total of the utility delivery price and the ESCO supply price of electricity.

¹³ Baldwin, S. *Are Consumers Benefiting from Competition? An Analysis of the Individual Residential Electric Supply Market in Massachusetts*. March 2018.

¹⁴ Bosco, J. *Competing to Overcharge Consumers: The Competitive Electric Supplier Market in Massachusetts*. National Consumer Law Center. April 2018.

The Illinois Commerce Commission found similar results— residential customers purchasing from competitive energy suppliers spent \$115,204,320 more from June 2014 to May 2015; \$73,439,971 more between June 2015 and May 2016; and \$152,108,081 from June 2016 to May 2017.¹⁵

Deceptive Marketing Practices Have Harmed Customers

Enforcement agencies in New Jersey, Pennsylvania, Illinois, and Massachusetts have levied fines against retail choice service providers for deceptive and misleading behavior.^{16, 17, 18, 19}

These states found that some energy service companies used deceptive door-to-door and telemarketing strategies to persuade customers to switch to their service, including misleading customers about contract terms, (offering a low introductory price that quickly spikes with a high variable rate) and trapping customers in contracts through high cancellation fees. Consumers also complained about energy service companies engaging in an illegal practice known as “slamming,” whereby they switch customers to the energy service company without their knowledge. Many of these malicious practices employed by energy service companies have targeted low-income households, minorities and those who do not speak English. In Massachusetts, complaints against energy service companies included members of a sales team misrepresenting themselves as National Grid employees in order to access a locked apartment building and then convincing a customer to switch to their gas service, while also switching her electrical service without her knowledge.²⁰

Retail Choice is the Wrong Model for Puerto Rico

Based on these experiences, there is significant reason to believe that retail choice will harm rather than help residential electricity customers in Puerto Rico. Low-income residents on the island, where the poverty rate is 43.5%,²¹ may be particularly vulnerable to the misleading and predatory tactics some energy service companies have used elsewhere.

The introduction of retail choice would further burden a weakened electric regulator and allow predatory suppliers to take advantage of Puerto Ricans seeking relief from high electric prices.

Puerto Rico recently enacted a new law consolidating the Puerto Rico Energy Commission under the umbrella of the Public Service Regulation Board, while cutting the commission's budget. In addition, Puerto Rico appears to be²² moving toward a sale of all, or many, of PREPA's assets to third parties, a system that could cause further chaos.

Retail choice does nothing to address the fundamental challenges that have caused Puerto Rico's electricity prices to rise to unsustainable levels, including: PREPA's high level of debt; disinvestment in transmission, generation and distribution infrastructure; and extreme reliance on oil-fired generation. These problems have only been exacerbated by the utility's high level of unpaid customer bills, management corruption, and need to rebuild its system following Hurricane Maria. Retail choice would offer no escape from these realities: indeed, it would likely raise the very high rates that already burden PREPA's residential customers.

¹⁵ *Ibid.*

¹⁶ *Ibid.* Just Energy entered into an Assurance of Discontinuance and restitution for consumers in the amount of \$3.8 million for misleading marketing practices and customer overcharges.

¹⁷ [Retail Energy Providers in New Jersey settled for \\$2.1 million for malicious marketing.](#)

¹⁸ [Respond Power settled a case in Pennsylvania where they paid \\$5.2 million for deceptive marketing.](#)

¹⁹ [A case against Major Energy was filed in Illinois for their deceptive sales pitches.](#)

²⁰ *Ibid.*

²¹ United States Census Bureau. [Population Estimates, July 1, 2017, Puerto Rico.](#)

²² [Associated Press. Puerto Rico gov. signs bill to privatize PREPA utility assets.](#) June 21, 2018.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) conducts research and analyses on financial and economic issues related to energy and the environment. IEEFA's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

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