

COMISIÓN DE ENERGÍA DE PUERTO RICO	
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**GOVERNMENT OF PUERTO RICO  
PUBLIC SERVICE REGULATORY BOARD  
PUERTO RICO ENERGY BUREAU**

**IN RE: Renewable Energy Certificates  
Market Regulation**

**CASE NO.: NEPR-MI-2019-0010  
SUBJECT: Stakeholder's Workshop**

**To the Honorable Energy Bureau:**

Comes now Sunrun, to submit post-workshop comments regarding the above captioned matter.

**Introduction**

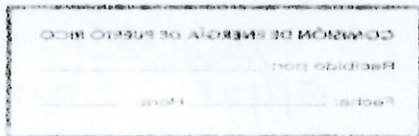
Sunrun is the leading residential solar, storage, and distributed energy services company in the United States with more than 230,000 customers in 22 states, the District of Columbia and the Commonwealth of Puerto Rico.

This Honorable Energy Bureau (hereinafter "PREB") has held two very productive Stakeholders Workshops, on June 14<sup>th</sup> and June 28<sup>st</sup> on a new "Renewables Energy Certificates (REC) Market Regulation".

Initially pursuant to Act 82-2010, as amended, known as the *Public Policy on Energy Diversification by Means of Sustainable and Alternative Renewable Energy in Puerto Rico*, and now also under Act 17-2019, known as the *Puerto Rico Energy Public Policy Act*, PREB has the duty of creating, through regulation, a market system for Renewable Energy Certificates ("REC"). Said regulation shall include mechanisms to ensure the compliance of the Puerto Rico Electric Power Authority or its successor, the transmission and distribution concessionaire and the retail energy providers, with the Renewable Portfolio Standard, originally established by Act 82-2010 and now expanded in its call for 100% renewables by Act 17-2019.

PREPA has been historically quite resistant to not only paying for, but to even acknowledging the legal existence of RECs for non-utility-scale DG systems. Current leadership, however, did not oppose the clarifications brought forth regarding this matter by Act 17-2019, and has displayed willingness to correct course and engage in good faith with our solar and storage industry. This is a very positive thing. However, in order to achieve sustainable, predictable, stable compliance with Act 82-2010 and Act 17-2019's





legislated mandatory norms, PREB's strict and firm exercise of its ample quasi-legislative and quasi-judicial powers is and will be fundamental.

Sunrun congratulates PREB for this historical undertaking which demonstrates PREB's clear will and leadership to guarantee that Puerto Rico statutory policy, as embodied in Act 17, 2019 and other statutes, is faithfully carried out and implemented, without delay.

Sunrun is proud and grateful to be allowed to be heard and to contribute in these critical efforts.

### Comments

Accelerated deployment of solar and storage is the law in Puerto Rico, as per Act 17 of 2019. Puerto Rico can be proud that its pro-renewables policy, as legislated, is among the most advanced in the nation and the world. What is really needed is strict compliance by PREPA of Act 17's mandates, including REC purchases for RPS compliance, via strong PREB enforcement. This was thoroughly discussed in the stakeholders' meetings.

We must keep in mind that in Puerto Rico renewables policy is closely tied to environmental enhancement and climate change mitigation ends. This is corollary to our island geography and our susceptibility to extreme weather events and sea-level rise. The increase in cyclone intensity and the frequency of events such as Irma and Maria is the result of various factors, including the increase in sea surface temperature, which is tied to greenhouse effects.<sup>1</sup> Puerto Rico thus suffers the direct effects of greenhouse gas emissions derived from high dependence on fossil fuels for energy, including our own: **98.1% of Puerto Rico's electricity is still generated from fossil fuels and gross greenhouse gas emissions were increasing at a higher rate than in the United States in general, with an 80% increase from 1990 to 2005 compared to national emissions which increased by 16% during that same period.** (See Act 33/2019, Statement of Motives, Climate Change Policy Act).

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<sup>1</sup> Damage from extreme weather events from 1980 to October 6, 2017 is dominated by hurricanes, which have caused the most damage (\$583.5 billion) and also have the highest average event cost (\$16.7 billion per event). And this average cost does not yet include the costs for hurricanes Harvey, Irma, and Maria. Hurricanes are also responsible for the highest number of deaths. See, NOAA National Centers for Environmental Information (NCEI), U.S. Billion Dollar Weather and Climate Disasters (2017). <https://www.ncdc.noaa.gov/billions>.



According to data published by this Honorable Energy Bureau on the basis of information provided by PREPA, progress in energy generation through local sources such as solar and wind was minuscule, below 2%, and far removed from the 12.0% mandatory minimum renewable generation required in the **prior** and less aggressive RPS under Act 82-2010, for current year 2019. *See*: “Percentile Distribution of Power Generation by Types”. No substantial progress has been made since. <http://energia.pr.gov/datos/distribucion-porcentual-de-la-generacion-de-energia-por-tipo/>.

Puerto Rico has had good energy policies on the books to combat these climate change impacts since at least 2010. As per Act 82-2010 our Legislature established in Puerto Rico a Renewable Portfolio Standard (RPS) as a “mandatory percentage of sustainable renewable energy or alternate energy required from each retail provider of energy [...]” PREPA is the only retail energy provider, as per Act 82, Article 1.4 (29). Pursuant to Article 2.3 of Act 82, “the compulsory amount” of alternate or sustainable renewable energy required from each retail provider was: 12% between 2015 and 2019, and 15% between 2020 and 2027. Subsequent to these dates, a “progressive plan” was required that would establish the annual percentages for the years between 2028 and 2035, and would attain 20% by 2035.

Today, under Act 17, 2019 and posterior amendments per Act 33 of May 22<sup>nd</sup>, 2019, the Puerto Rico RPS is as follows: Twenty percent (20%) energy generation from renewable sources by 2022; forty percent (40%) from 2023 to 2025; sixty percent (60%) from 2026 to 2040; and one hundred percent (100%) from 2041 to 2050.

It is worth noting that provisions of Act 82, including everything related to the Renewable Energy Portfolio and compliance therewith, were designed to be self-executing “since the absence of any regulation contemplated in this Act shall not prevent the application thereof.” Article 3.3, Act 82-2010. However, Sunrun notes that it is a truly positive development that given the resistance that PREPA has in the past shown in this respect, this Honorable Energy Bureau is stepping in to enforce the legislative will, as expressed in Puerto Rico statutes in force.

As per current law, PREPA may comply with the RPS a) by generating its own renewable energy; b) by purchasing renewable energy wholesale from other producers; c) by acquiring RECs from renewable energy producers. One REC represents the equivalent of one (1) megawatt hour (MWh) of electricity generated by a source of sustainable



renewable energy or alternate renewable energy and, in turn, includes all environmental and social attributes” of said energy. Article 1.4 (8), Act 82.

This Honorable Energy Bureau is both guardian and protagonist in this effort to protect the public interest, our ecological self-preservation, and our economy, and the enforcer of the Renewable Portfolio Standard, by ensuring all RECs are paid, whether utility scale or for residential systems under 25KW. Act 17-2019 is clear that “[a]ll RECs including distributed renewable energy and those of net metering customers, may be acquired by a retail electricity supplier for purposes of complying with the Renewable Portfolio Standard, or by other buyers for any legal purpose.” Section 4.1, Act 17-2019.

In our view, the word “may” should be read as “must”. By denying energy producers, large and small, of the economic and financial value each REC represents, PREPA effectively neutralized the RECs’ function to incentivize and promote the renewable energy industry in the island and the Legislator’s sustainable development and climate change abatement goals. In fact, investments made by producers at all scales to install distributed generators were and are made with the reasonable expectation that Act 82-2010 and now Act 17-2019 will be complied with.

In this sense, a clear norm by this Honorable Bureau establishing the compulsory purchase/payment of RECs, in our case distributed generation Solar RECs (sRECS) could lower the costs of financing and acquisition of photovoltaic systems for Puerto Rico consumers. In fact, a norm from this Honorable Bureau requiring PREPA to acquire/pay for all the RECs generated by distributed renewable energy producers would be virtuous in multiple ways: it would finally set PREPA on the path towards compliance with the RPS; it would help reduce the environmental impacts of fossil fuel dependence; it would incentivize the growth of the entire renewables industry, and specifically distributed rooftop solar (which is an environmental good in itself)<sup>2</sup>, and it said growth would increase the amount of RECs available in the market for further compliance with the RPS.

By incentivizing distributed solar (and, at the same time, de-incentivizing the generation of polluting fossil fuels), this Bureau would quickly and positively impact our

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<sup>2</sup> PV generation does not emit pollutants into the atmosphere and can actually cause to avoid and/or offset emission of pollution and greenhouse gases from fossil burning plants. And small scale solar (below 25Kw) does not impact any “greenfields” as panels are naturally, easily and usually placed in previously impacted or constructed areas: rooftops and parking lots, etc. Rooftop PVs are virtually invisible.



environmental quality and at the same time pump that same oxygen into our local economy, as solar creates more jobs per watt than any other energy source, It is worth noting that the 2017 Department of Energy U.S. Energy and Employment Report (USEER), based on past performance, estimated a roughly five percent energy related employment growth for 2017, employing approximately 6.4 million Americans; 300,000 net new jobs, roughly 14% of all those created in the US. But USEER found that the solar workforce alone, however, had increased by 25% in 2016. And in 2016, 54.7%, over half of the solar workers in the United States, were spending most of their time working on residential solar projects.<sup>3</sup>

**Also incentivizing DG deployment via RECs will positively impact the grid:** data shows that distributed generation, including solar plus storage, can create valuable services to PREPA's grid as it allows for energy to be produced and distributed locally, avoiding the costs and power losses that characterize Puerto Rico's antiquated centralized electricity paradigm (where most of the power is generated far from the consumer, causing important losses during transmission). Locally produced distributed energy also aids PREPA during peak consumption hours, as customers are supplying their own energy and any surplus is distributed by PREPA close-by.

Below find other key takeaways from the workshops that must be emphasized and clearly spelled out by PREB in any future REC Regulation. Correct Act 17 implementing regulation is PREB's, not the utility's role. In order for PREPA to avoid substantial fines, achieve Act 17 compliance, PREB should ensure that:

- PREB, or an outsourced entity under PREB could act as the coordinator of the whole REC reporting/cancellation cycle, as a local aid to national registry processes.
- This Energy Bureau is certainly empowered today to levy monetary fines and sanctions on PREPA for its non-compliance with the RPS. Of course, said sanction should steepen the cost of complying with the RPS via DG sRECs purchases. But a fine by itself would not carry any beneficial environmental nor positive economic development impacts of guaranteed RECs purchases. That will only be achieved by PREB enforced PREPA purchasing of the sRECs of producers at all scales.

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<sup>3</sup> <<https://www.energy.gov/downloads/2017-us-energy-and-employment-report>>.



- Specific payment mechanisms discussed at the workshops were multiple, but one aspect seemed salient: the notion of back and forth paper documents and actual “cutting of checks” for sREC payments seemed quite inefficient. Stakeholders, including ourselves, mentioned ideas such as optional crediting of sRECs in customer bills (similar to NEM credits). This PREPA billing operation would be quite simple and would not require any actual money disbursement, which is difficult, particularly for a utility under a restructuring proceeding. Also, this type of solution constitutes correct grid policy: it would incentivize interconnection and disincentivize grid defection, as it would be a form of “payment” only available to interconnected folks.
- Great discussion centered on the actual value of RECs in Puerto Rico. It was quite clear that no upper value/cost limit should exist, but perhaps a minimum mandatory value based on what PREPA has already agreed for utility scale PPA-based RECs (\$35 per REC), could be a fair starting point.
- It was clear that sRECs should not lose their value or have a “shelf-life” that is dependent on PREPA’s, or its successors’ unwillingness to purchase these RECs. Such a norm has created and will continue to create sinister incentives for inaction on PREPA’s side, by destroying RECs simply by refusing to purchase, or simply sitting on them.
- Instead of actual smart meters measuring REC creation, RECs could be created based on assumptions / algorithms tied to PV system size and minimum expected production. This type of estimation is the preferred method in many mainland markets such as California and other major states. Also inverters can report production and thus there is no need for an additional production meter. If this route is not followed, the wait for actual smart meter deployment could gravely harm a nascent Puerto Rico REC market.
- Some questions on the table: could REC environmental attributes be used in Puerto Rico as a way to aid polluting companies comply with environmental/permitting obligations, such as those before the Environmental Quality Board? In other words, allow these polluting companies to buy RECs and then use them to aid their compliance processes before local environmental agencies. That would create new buyers and new value for RECs.



Again, our thanks to PREB for this valuable opportunity to comment.

Respectfully submitted,

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