

Update on the Status of Renewable Energy Contracts

December 2018 Update

As required under Section VII.B.i of the Final Resolution on the Integrated Resource Plan of the Puerto Rico Electric Power Authority, further clarified in the Resolution of April 5, 2017.

I. Overview

Between 2008 and 2012 the Puerto Rico Electric Power Authority (PREPA) signed 68 renewable power purchase and operating agreements (PPOAs). By January of 2013, 62 contracts remained in effect, with four (4) facilities under commercial operation: AES Ilumina (20 MW in Guayama), Pattern Santa Isabel (95 MW in Santa Isabel), Punta Lima Wind Farm (26 MW in Naguabo) and Windmar Renewable Energy Cantera Martínó/La Rita (2.1 MW in Ponce). As of December 2018, 58 PPOAs remain in effect, totaling 1480.6 MW.

In 2013 PREPA commissioned a Renewable Energy Generation Integration Study, with the goal of establishing how much intermittent renewable energy capacity could be integrated to Puerto Rico's electric system. The study¹, carried out by Siemens, determined that up to 580 MW of utility scale projects could be safely and reliably interconnected to the grid, considering 100% compliance with PREPA's technical requirements, a system peak demand of 3,300 MW, curtailment levels of 2.26% and 64 MW of net metering projects.

Considering the results of the Siemens study, between 2013 and 2014 PREPA renegotiated and successfully carried out amendments to the terms of 18 PPOAs. The PPOAs that were renegotiated were those in an advanced stage of the permitting process as informed by the Puerto Rico Planning Board and the Puerto Rico Management Permits Office (OGPe). These PPOAs, together with those already under operation or in construction, would meet the capacity identified by the Siemens study. Table 1 lists the PPOAs renegotiated in 2013-14.

¹ Copy of the study can be downloaded at <https://www2.aeepr.com/Docs/Siemens%20PTI%20Final%20Report%20-%20PREPA%20Renewable%20-%20final-11.pdf>

Table 1. PPOAs Renegotiated in 2013-14

Name	Contract No.	Capacity (MW)
Desarrollos del Norte, Inc. (d/b/a Atenas Solar Farm)	2013-P00070	20
Blue Beetle III, LLC	2012-P00037	20
CIRO One Salinas, LLC	2011-P00043	57
Humacao Solar Project, LLC (Fonroche Energy)	2012-P00031	40
Guayama Solar Energy, LLC (GCL)	2011-P00042	17.8
Horizon Energy, LLC	2011-P00034	10
Xzerta-Tec Solar I, LLC (Grupotec)	2013-P00042	20
Irradia Morovis, LLC	2012-P00053	33.5
Moca Solar Farm, LLC	2013-P00003	20
North Coast Solar, LLC	2013-P00041	20
Oriana Energy, LLC (Yarotek)	2011-P00048	50
Renewable Energy Authority (Vega Serena), LLC	2012-P00045	20
ReSun Barceloneta, LLC	2012-P00061	20
Solaner Puerto Rico One, LLC	2012-P00146	25
SolarBlue Bemoga, LLC	2013-P00052	20
Coto Laurel Solar Farm, Inc. (Windmar Vista Alegre)	2012-P00052	10
Windmar Renewable Energy, Inc. (Santa Rosa)	2012-P00080	20
YFN Yabucoa Solar, LLC	2013-P00049	20

As of today, 58 PPOAs remain in effect. These can be categorized as in Commercial Operation (8) or Pre-Operation (3 undergoing tests), and those that have not commenced construction (47). The PPOAs that have not commenced construction can be further categorized as follows:

- a. Under renegotiation – 14 of the 18 PPOAs renegotiated in 2013-14.
- b. 32 PPOAs not renegotiated – projects that were not renegotiated in 2013-14.

Further detail is given in the following sections

II. Renewable PPOAs in Operation

As of December of 2018, 11 PPOAs are in either commercial operation or in pre-operation (energized, under testing, and selling energy and renewable energy credits to PREPA). These projects represent 272.9 MW of capacity, distributed as follows:

- a. Photovoltaic - 147.1 MW
- b. Wind – 121 MW
- c. Landfill Gas – 4.8 MW

Table 2 lists the PPOAs in Commercial Operation and Table 3 lists the PPOAs in Pre-Operation

Table 2. PPOAs in Commercial Operation as of December 2018

Name	Contract No.	Location	Technology	Capacity (MW)
AES Ilumina, LLC	2010-P00050	Guayama	Photovoltaic	20
Horizon Energy, Inc. (Salinas Solar Farm)	2011-P00034	Salinas	Photovoltaic	10
Landfill Gas Technologies of Fajardo, LLC	2013-P00044	Fajardo	Landfill Gas	2.4
Oriana Energy, LLC (Yarotek, LLC)	2011-P00048	Aguadilla	Photovoltaic	45
Pattern Santa Isabel, LLC	2010-P00047	Santa Isabel	Wind	95
Punta Lima Wind Farm, LLC (Go Green PR)	2010-AI0001	Naguabo	Wind	26
San Fermín Solar Farm, LLC (Coquí Power, LLC)	2011-P00050	Loíza	Photovoltaic	20
Windmar Renewable Energy, Inc. (Cantera Martínó/La Rita)	2012-P00015	Ponce	Photovoltaic	2.1
Total Capacity				220.5 MW

Table 3. PPOAs in Pre-Operation as of December 2018

Name	Contract No.	Location	Technology	Capacity
Humacao Solar Project, LLC (Fonroche Energy America)	2012-P00031	Humacao	Photovoltaic	40
Coto Laurel Solar Farm, LLC (Windmar Renewable Energy, Inc./Vista Alegre)	2012-P00052	Ponce	Photovoltaic	10
Landfill Gas Technologies of Fajardo, LLC (Toa Baja)	2013-P00073	Toa Baja	Landfill Gas	2.4
Total Capacity				52.4 MW

Note that of the 18 PPOAs renegotiated in 2013-14, 2 have achieved commercial operation (Horizon Energy and Oriana Energy) and 2 are undergoing testing (Coto Laurel Solar Farm and Humacao Solar Project).

Appendix 1 includes more detailed information on the PPOAs that are in Commercial Operation or in Pre-Operation.

On September of 2017 Puerto Rico was hit by hurricanes Irma and María, and some of the renewable energy facilities were affected. The Punta Lima Wind Farm in Naguabo was extensively damaged and will require reconstruction. The Humacao Solar Farm facility suffered extensive damage to its second

phase (20 MW) which was in construction when the hurricanes hit, and is currently being rebuilt. Other facilities were affected to a lesser degree, and are slowly coming back online. Presently, the following facilities are operating with partial or full capacity:

1. AES Ilumina – Full Capacity
2. Landfill Gas Technologies of Fajardo (Toa Baja Site) – Full Capacity
3. Landfill Gas Technologies of Fajardo (Fajardo Site) – Full Capacity
4. Pattern Santa Isabel – Full Capacity
5. Windmar Renewable Energy - Cantera Martínó – Full Capacity
6. Coto Laurel Solar Farm – Partial Capacity
7. Horizon Energy – Partial Capacity
8. Humacao Solar Project – Partial Capacity
9. Oriana Energy – Partial Capacity
10. San Fermin Solar Farm – Partial Capacity

Punta Lima Wind Farm expects to bring the facility back to operational status by 2019.

III. Renewable PPOAs not in Operation

Of the 58 renewable PPOAs that are still in effect, 47 have not begun construction. These PPOAs can be divided in two groups: 14 PPOAs under renegotiation (renegotiated in 2014 and not yet built) and 33 PPOAs not renegotiated.

A. PPOAs Under Renegotiation

Of the 18 PPOAs successfully renegotiated and amended in 2013-14, 14 have not begun construction. Between 2015 and 2016, most of these companies requested additional extensions to the commencement of construction and commercial operation dates established in their PPOAs. Most of the requests were related to the difficulties alleged by the companies in securing financing for their projects due to the financial situation of the Government of Puerto Rico and PREPA. Some companies also requested extensions to finalize with PREPA certain pending technical elements of their projects or to complete the permitting process. After considering the claims made by the companies, on June of 2016 PREPA's Governing Board approved an extension of the contract milestones² conditioned to the renegotiation of certain terms of the contracts, as applicable:

- a. Modify the dispute resolution clause to replace the arbitration process with the requirement that any dispute that cannot be resolved by the parties would be taken to a court with jurisdiction in Puerto Rico.

² The commercial operation date was to be extended by 18 months beginning on the date on which PREPA would issue the titulization bonds.

- b. Modify the clause that requires PREPA to reimburse the company for any post effective date tax or environmental cost payable by the company (taxes or fees imposed on the companies after the effective date of their contract).
- c. Modify the force majeure definition and related articles.
- d. Modify the terms to complete the Agreed Operating Procedures and eliminate the requirement to enter into an interconnection agreement (some contracts require this, but in practice it has proved to be burdensome and may delay the completion of the project).
- e. The parties were to renounce any allegation of breach of contract previous to the amendment.
- f. Establish that this would be the final extension granted to the contracts.

These extensions and related amendments were approved for 12 of the 14 remaining renegotiated PPOAs: Blue Beetle III, LLC; CIRO One Salinas, LLC; Guayama Solar Energy, LLC; Irradia Morovis, LLC; Moca Solar Farm, LLC; North Coast Solar, LLC; Renewable Energy Authority, LLC; ReSun (Barceloneta), LLC; Solaner Puerto Rico One, LLC; SolarBlue Bemoga, LLC; YFN Yabucoa Solar, LLC; and Xzerta-Tec Solar I, LLC. . Two PPOAs – Windmar Renewable Energy, Inc.(Santa Rosa Solar Farm) and Desarrollos del Norte, Inc. (d/b/a Atenas Solar Farm) had not shown significant development in the past year, and the Governing Board instructed PREPA to further evaluate these cases.

During the second half of 2016 PREPA engaged these companies in an effort to renegotiate their contracts in compliance with the terms approved by its Governing Board. Comments were received and evaluated, and modifications to certain terms are under evaluation by PREPA, significantly:

- a. Standardize the clause that requires PREPA to reimburse the company for any post effective date tax or environmental cost payable by the company, by establishing that PREPA would cover the same during the first 18 years of commercial operation, and afterwards it would retain 50 percent of the monthly payment for net electrical output to recover the payments, plus interest, made to the companies related to post-effective date taxes and environmental costs.
- b. Modify the dispute resolution clause to require that any dispute that cannot be resolved by the parties be taken to the Puerto Rico Energy Commission, as required under Act 57-2014, as amended.
- c. Modify the milestones so that the projects achieve Commercial Operation, tentatively no later than July 1, 2019³.

³ PREPA estimates, based on its experience with those projects already in operation, that this timeframe is adequate for the projects to finalize any technical or permitting issues, achieve financial closing, construct and commission the facilities.

The draft amendments with these new terms were completed. However, filing of protection under Title III of PROMESA temporarily halted the renegotiations with the companies.

Appendix 2 gives information on the terms and status of these projects.

B. PPOAs Not Renegotiated

PREPA is evaluating the course of action to follow with the PPOAs which were not renegotiated, which will depend, among other things, on the renegotiated PPOAs that will finally enter operation.

Appendix 3 gives information on the terms and status of these projects.