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COMMONWEALTH OF PUERTO RICO
PUERTO RICO ENERGY COMMISSION

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IN RE:

INTEGRATED RESOURCE PLAN
FOR THE PUERTO RICO
ELECTRIC POWER AUTHORITY

NO. CEPR-AP-2015-0002

SUBJECT: PREPA'S COMPLIANCE
FILING FOR ITEMS DUE BY JULY 30,
2017

**PREPA'S COMPLIANCE FILING
FOR ITEMS DUE BY JULY 30, 2017**

TO THE HONORABLE PUERTO RICO ENERGY COMMISSION:

COMES NOW the Puerto Rico Electric Power Authority ("PREPA") and respectfully submits to the honorable Puerto Rico Energy Commission (the "Commission") PREPA's Compliance Filing for items due by July 30, 2017. This Compliance Filing is submitted: (1) under the Commission's Final Resolution and Order case issued in this Integrated Resource Plan ("IRP") on September 23, 2016 ("IRP Final Order"), (2) as clarified and/or modified by (a) the Commission's Resolution on the Verified Motion for Reconsideration of the Puerto Rico Electric Power Authority issued on February 10, 2017, (b) the Commission's clarification Resolution of April 5, 2017, and (c) the Commission's Resolution and Order issued on June 9, 2017, in the Aguirre Site Economic Analysis case, Case No. CEPR-AP-2017-0001. This Compliance Filing consists of information provided in the body of this document below plus the Attachment and its three Appendices hereto.

I. BACKGROUND

1. On September 23, 2016, the Commission issued its IRP Final Order, in which the Commission established a Modified IRP for PREPA, subject to further steps regarding certain subjects, including but not limited to PREPA's proposal to construct the Aguirre Offshore

Gasport (“AOGP”) and to conduct associated natural gas conversions of certain units at the Aguirre site. The IRP Final Order also set forth extensive requirements with which PREPA must comply, both in the short- and long-term. Some of those requirements have been clarified and/or modified in some respects by the Commission under the February 10th, April 5th, and June 9th orders referenced above.

2. Prior to today, PREPA has submitted four Compliance Filings under the IRP Final Order, as clarified and modified. More specifically, PREPA has submitted Compliance Filings on December 22, and December 30, 2016; March 31, 2017; and June 30, 2017.¹

3. PREPA would have had five compliance items (broadly speaking) due by June 30, 2017, but the Commission extended the due dates for all but two of those items to July 30, 2017, in the June 9th order referenced above.

4. As a result, on June 30, 2017, PREPA submitted the following two compliance items.

- a. An update regarding the status of permitting of AOGP and the associated conversions (since the status report of March 31, 2017). *See* IRP Final Order, pp. 84-85, and subsequent orders.
- b. An updated environmental report (since the status report of March 31, 2017). *See* IRP Final Order at pp. 17, 86, 88, 89, as modified by IRP Rehearing Order at pp. 2, 29-30. In brief, the report covered:
(i) environmental compliance litigation relating to PREPA’s power facilities and (ii) settlement negotiations discussions between PREPA and

¹ Please note that the June 30, 2017, Compliance Filing had a typographical error in the case number. The case number mistakenly was listed as CEPR-AP-2015-0001, instead of CEPR-AP-2015-0002. However, PREPA’s understanding is that the Commission placed the filing in the correct case number.

the United States Environmental Protection Agency ("US EPA") / Department of Justice ("US DOJ") on Clean Air Act Mercury and Air Toxics Standards ("MATS") compliance; provided that the report is subject to legal limits on information sharing.

II. UPDATES TO THE JUNE 30, 2017, COMPLIANCE ITEMS

5. With respect to the first of the June 30th items, please note that, on July 17, 2017, the Supreme Court of Puerto Rico declined the petition of Comité Dialogo Ambiental, Inc., relating to the Commonwealth permits relating to AOGP.

6. With respect to the second of the June 30th items, please note that, in the course of re-reviewing which compliance items are due on July 30, 2017, PREPA has identified that the Commission likely intended that the June 30th environmental report also should have included information regarding the status of: (1) retirements of Palo Seco units 1 and 2, Costa Sur units 3 and 4, and San Juan units 7 and 8; and (2) a limited use designation of San Juan units 9 and 10. Because of the needs of its system and its customers, plus the many ongoing activities and uncertainties relating to PREPA, including but not limited to the pendency of the Aguirre Site Economic Analysis case, at this time PREPA has not taken steps toward retiring the foregoing six units or retiring the other two units mentioned above. Please also note that, while the IRP Final Order gave deadlines of December 31, 2020, for the six retirements, and some directives relating to the limited use designations, the February 10th order gave PREPA more flexibility regarding the timing, in recognition of concerns for the system and customers and ongoing activities and uncertainties.

III. JULY 30, 2017, COMPLIANCE ITEMS

7. The first of the July 30, 2017, compliance items, in brief, is a first report on the status of steps taken by PREPA, if any, regarding the alternative of constructing a new Aguirre combined cycle ("CC") plant that would burn light diesel oil as fuel and of repowering of existing CC units at Aguirre. The April 5th Resolution added this item as a compliance item beginning June 30, 2017, with its first due date being re-set to July 30, 2017, by the June 9, 2017, Aguirre case order. The April 5th Resolution, on this subject, called for information regarding permits, permit applications, and permits needed, and for copies of permits granted and of permit applications. PREPA's report is as follows:

- a. PREPA previously has explained that it cannot simultaneously seek inconsistent permits, and that this means it cannot seek permits for this alternative while still pursuing permits for AOGP and the associated conversions. *See, e.g.*, PREPA's Verified Motion for Reconsideration of Provisions of the Final Resolution and Order, October 13, 2016, at Section II.
- b. At this time, in light of the orders and circumstances referenced above, including the pendency of the Aguirre site economic analysis case on this exact subject, PREPA has not taken steps regarding seeking permits for those alternatives.
- c. In the Aguirre case, PREPA has performed the analytical steps required by the Commission regarding this alternative, and PREPA also has given testimony and discovery responses on this subject, as the Commission is aware.

8. The second of the July 30th compliance items is a report on certain topics relating to renewables PPOAs. The IRP Final Order directed an independent audit of renewables contracts that are not currently operational, but the February 10th order removed that requirement, as was confirmed by the April 5th Resolution. The April 5th Resolution substituted an expanded reporting requirement, as a compliance item relating to this subject, beginning June 30, 2017, with its first due date being re-set to July 30, 2017, by the June 9, 2017, Aguirre case order. The April 5th Resolution includes a list of specific information called for regarding each of PREPA's existing renewables PPOAs.² In addition, the April 5th Resolution also directed that, as to each PPOA relating to a non-operational project, PREPA should provide a description of the negotiation efforts it has undertaken to date regarding the contract's status as directed in Paragraph 299 of the IRP Final Order.

a. PREPA's report is included as Attachment 1 – Informe Status PPOAs a CEPR, with its associated three Appendices:

- Appendix 1 PPOAs in Commercial Operation,
- Appendix 2 PPOAs under renegotiation, and
- Appendix 3 PPOAs not renegotiated.

² The April 5th Resolution (at pp. 3-4) calls for:

- A clear designation of each contract as pertaining to either an operational or a non-operational project;
- The counterparties of the project;
- Project location;
- Project capacity;
- Anticipated generation or capacity factor;
- Actual average annual generation or capacity factor for operational projects;
- Anticipated online date as documented in the contract;
- Actual online date for operational projects and currently anticipated online date for non-operational projects;
- For all projects, whose on-line dates were or are delayed by at least three years, PREPA's best understanding of the cause(s) of the delay; and
- Contract prices for energy, RECs, and any other services.

- b. PREPA's current 58 renewables PPOAs (the PPOAs) and the current amendments thereto (as applicable) may be found, respectively, on the following pages of PREPA's web site:

i. The PPOAs:

<http://aeepr.com/Documentos/Ley57/CONTRATOS/EnergiaRenovable1.htm>

ii. Current amendments:

<http://aeepr.com/Documentos/Ley57/ENMIENDAS/EnergiaRenovableEnmiendas1.htm>

- c. Please note that, in the Rate Review, PREPA also answered many ROIs relating to the subject of renewables PPOAs. For example: ROI response CEPR-RS-01-06 discussed who at PREPA is involved in reviewing and approving PPOAs and their respective responsibilities. ROI response CEPR-JF-01-21 included a table with detailed information similar to the information in the attachments to this Compliance Filing. ROI response CEPR-AH-03-02 also provided a table, for Fiscal Years 2014 through 2020, of facilities that have provided or are expected to provide energy to PREPA under a renewables PPOA. The table includes Facility name, Capacity, Contractual energy cost in \$/MWh, Contractual REC cost in \$/MWh, First year operational or expected operational year, Expected annual generation or capacity factor, Historical annual generation for each year the project has been operational, and Whether the facility is currently a Qualifying Facility under PURPA. The ROI response also provided information on the amounts of renewables PPOAs energy represented by

the costs on the applicable lines of PREPA Rate Review Schedule A-6 Rev., in MWh per month, for FY 2014 through 2017, and the expected amounts for FY 2018 through FY 2020. The response also noted that the PPOAs do not include contractual minimum annual generation or capacity factors.

- d. PREPA also has supplied information regarding the PPOAs in the Aguirre case. For example, in its April 25, 2017, Report in the Aguirre case, PREPA provided, among other things, Table 4-5 regarding the PPOAs considered in PREPA's April 2016 Supplemental IRP in the IRP case.

9. The third and final July 30th compliance item is a plan relating to certain data. The Commission, in the February 10th order, and as confirmed in the April 5th Resolution, previously granted PREPA waivers for collection of three categories of data: (1) hourly consumption per customer class, (2) monthly peak demand per customer class, and (3) customer classes affected by feeder interruptions. The April 5th Resolution (at p. 3) nonetheless also directed PREPA to file "a plan with a description of the necessary processes and resources that it will need to collect such data." The Resolution further stated that the plan must include, for each class of data for which PREPA seeks a waiver: (1) Staff requirements to collect the data (number of full time employee equivalents, (2) non-staff equipment and budget requirements to collect the data, and (3) PREPA's most current expectations for (a) the earliest possible date on which it could commence collecting data (assuming all budgetary and staff requirements are met) and (b) the earliest year on which it could provide a full year of processed data to the Commission (assuming all budgetary and staff requirements are met). The April 5th Resolution called for this

item beginning June 30, 2017, but the first due date was re-set to July 30, 2017, by the June 9, 2017, Aguirre case order. PREPA's response and plan are as follows:

- a. PREPA supplies these values as preliminary estimates of the necessary resources to begin a Load Research program. All values and assumptions are subject to change, and depend on the availability of resources and corporate and government priorities. As the Commission knows, PREPA, and practically all of the Government of Puerto Rico, is under PROMESA's Title III provisions, plus all the related fiscal control laws. The information requested in items 1 and 2, hourly consumption per customer class, and monthly peak demand per customer class, could be estimated using a fully operational load research program. In order to setup such a program, PREPA estimates six full time employees on this task. For item 3, identifying the customer classes affected by service interruptions, a reconfiguration of the way service interruptions are reported is necessary, and will require an estimation of the breakout of customer classes of the customer counts used today. PREPA is estimating how many resources would be necessary to perform this reconfiguration.
- b. PREPA estimates around \$2.7 million for software and hardware in order to perform items 1 and 2.
- c. PREPA estimates that 18 months after full MDM system implementation, with all necessary system upgrades, staffing, contracting, and support, data would be available.

WHEREFORE, the Puerto Rico Electric Power Authority respectfully requests that the Honorable Puerto Rico Energy Commission accept this Compliance Filing, including its attachments.

RESPECTFULLY SUBMITTED,

IN SAN JUAN, PUERTO RICO, THIS 28th DAY OF JULY, 2017

PUERTO RICO ELECTRIC POWER AUTHORITY

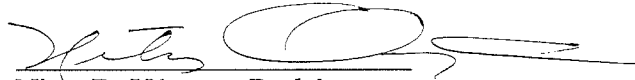


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CERTIFICATION OF FILING AND SERVICE

I hereby certify that on July 28, 2017, I have sent the above Compliance Filing, including its attachments, to the Puerto Rico Energy Commission through its Clerk via secretaria@energia.pr.gov and mcintron@energia.pr.gov; to the office of the Commission's General Counsel via tnegron@energia.pr.gov, afigueroa@energia.pr.gov, and legal@energia.pr.gov; and to: acasellas@amgprlaw.com; agraitfe@agraitlawpr.com; agraitfe@gmail.com; agraitfe@caribe.net; ana.rodriguez@oneillborges.com; carlos.reyes@ecoelectrica.com; carlos.valldejuly@oneillborges.com; ccf@tcmsrlaw.com; cfl@mcvpr.com; codiot@oipc.pr.gov; dortiz@elpuente.us; dperez@cabprlaw.com; edwin.quinones@aae.pr.gov; energiaverdepr@gmail.com; epo@amgprlaw.com; felipelozada1949@gmail.com; fermin.fontanes@oneillborges.com; fviejo@amgprlaw.com; hburgos@cabprlaw.com; icv@mcvpr.com; jose.maeso@aae.pr.gov; jperez@oipc.pr.gov; lga@elpuente.us; lionel.orama@upr.edu; lmateo@ferraiuoli.com; mgrpcorp@gmail.com; mrhernandez@fgrlaw.com; mgrpcorp@gmail.com; pnieves@fgrlaw.com; rstgo2@gmail.com; valvarados@gmail.com; victorluisgonzalez@yahoo.com.



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CEPR-AP-2015-0002

Update on the Status of Renewable Energy Contracts

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 June 2017, 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 the electric system in Puerto Rico. 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	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	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. 15 PPOAs under renegotiation – 14 of the 18 PPOAs renegotiated in 2013-14, and Energy Answers (not renegotiated in 2015 because its generation more closely resembles base load generating units).
- 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 June of 2017, 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 June 2017

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	Lóiza	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 June 2017

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.

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: 15 PPOAs under renegotiation (14 PPOAs renegotiated in 2014 and not yet built, plus the Energy Answers Arecibo, LLC PPOA) and 32 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 milestones 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.
- 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, 2019².

The draft amendments with these new terms have been completed and are scheduled to be submitted to the companies shortly. These modifications to the terms of the PPOAs will also be renegotiated with Energy Answers Arecibo, LLC, to include them in an amendment to its PPOA.

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.

² 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.

Appendix 1 - PPOAs Under Commercial Operation or in Pre-Operation

PPOAs Under Commercial Operation as of June 2017

Name / Contract No.	Contract No.	Capacity (MW)	Technology	Location	Contractual Energy Cost (c/kWh) First Year/Current ⁽¹⁾	Energy Cost Annual Escalator	Contractual REC Cost (c/kWh)	REC Annual Escalator	Annual Capacity Factor ⁽²⁾	Average Annual Generation (MWh) ⁽³⁾	Commercial Operation Date
AES Ilumina, LLC	2010-P00050	20	Solar PV	Guayama	15,000 / 16,2365	2%; 20 year term	3.5	N/A	0.221	38,727.47	28-Nov-12
Pattern Santa Isabel, LLC	2010-P00047	95 ⁽⁴⁾	Wind	Santa Isabel	12,500 / 13,267	1.50%; 20 (+10) year term	2.5 / 2.653 current	1.50%	0.191	151,049.61	5-Dec-12
Punta Lima Wind Farm, LLC	2010-AI0001	26	Wind	Naguabo	12.50 / 13.267	1.5%; 20 year term	2.5	N/A	0.230	52,301.10	17-Dec-12
Windmar Renewable Energy, Inc. (Cantera Martiño/La Rita)	2010-P00052	2.1	Solar PV	Ponce	15.00 / 16.60	2%; 20 year term	3.5	N/A	0.258	4,748.34	7-Sep-11
San Fermín Solar Farm, LLC	2011-P00050	20	Solar PV	Loiza	15.3	2%; 20 year term	3.5	N/A	0.204	29,960.81	16-Dec-15
Horizon Energy, LLC	2011-P00034	10	Solar PV	Salinas	14.59	2%; years 21-25 energy cost fixed @ \$208.3	3.5	N/A	0.259	22,654.99	18-Aug-15
Landfill Gas Technologies of Fajardo, LLC (Fajardo Landfill)	2013-P00046	2.4	Landfill Gas	Fajardo	10	0%; 20 year term	0; granted to PREPA	N/A	0.378	7,222.71	1-Oct-16
Oriana Energy, LLC (Yarotek)	2011-P00048	45	Solar PV	Isabela	15	2%; 20 year term	3	N/A	0.239	84,742.00	20-Dec-16
Total Capacity		220.5									

PPOAs Under Pre-Operation as of June 2017

Name / Contract No.	Contract No.	Capacity (MW)	Technology	Location	Contractual Energy Cost (\$/MWh) First Year/Current ⁽¹⁾	Energy Cost Annual Escalator	Contractual REC Cost (\$/MWh)	REC Annual Escalator	Expected Annual Capacity Factor ⁽²⁾	Expected Annual Generation (MWh) ⁽³⁾	Initial Interconnection Date
Coto Laurel Solar Farm, LLC (Windmar Vista Alegre)	2012-P00052	10	Solar PV	Ponce	15	2%; 20 year term	35	N/A	0.220	19,272.00	17-Nov-16
Humacao Solar Project, LLC (Fonroche Energy America)	2012-P00031	40 ⁽⁵⁾	Solar PV	Humacao	15	1%; 25 year term	25	N/A	0.220	77,088.00	16-Dec-16
Landfill Gas Technologies of Fajardo, LLC (Toa Baja Landfill)	2013-P00073	2.4	Landfill Gas	Toa Baja	10	0%; 20 year term	0; granted to PREPA	N/A	0.378	7,947.07	15-Feb-17
Total Capacity		52.4									

Notes:

- 1 PPOAs establish an initial energy price and annual escalator, usually a fixed value. The column shows first year price and in cases where the project is in service and the price has escalated, the energy price as of June 2017.
- 2 The average annual capacity factor was calculated using the average of the monthly capacity factors since the facility commenced commercial operation, excluding periods in which the facility was in testing or shut down/curtailed. For those projects still undergoing testing, the expected capacity factor given is the average capacity factor for similar facilities.
- 3 The average annual generation was calculated using historical data, except for the Oriana project, which was estimated based on the data since the project entered commercial operation in December 2016. The expected annual generation was calculated using the expected capacity factor.
- 4 Pattern Santa Isabel - Capacity limited to 75 MW; Capacity can increase to 95 MW during certain months (february to september) but PREPA has not allowed increased until Pattern shows it can meet its Technical Requirements.
- 5 Humacao Solar Project, LLC - The facility was developed in two phases: phase 1 (20 MW) is under testing and phase 2 (20 MW) is under construction as of June 2017.

Appendix 2 - PPOAs Not Operational as of June 2017 - 15 PPOAs Under Renegotiation

Company	Contract No.	Location	Capacity (MW)	Technology	Expected Capacity Factor ⁽¹⁾	Expected Annual Generation (MWh) ⁽¹⁾	First Year Energy Purchase Price (¢/kWh)	Annual Escalator	REC Purchase Price (¢/kWh)	Commercial Operation Date Under Contract	Estimated ⁽²⁾
1 Desarrollos del Norte, Inc. (Atenas Solar Farm)	2013-P00070	Manatí	20	Photovoltaic	0.22	38,544	14.5	2% ; years 21 - 25 energy cost fixed @ yr 20 price	1.5	28-Dec-15	1-Jul-19
2 Blue Beetle III, LLC	2012-P00037	Barceloneta	20	Photovoltaic	0.22	38,544	14.25	2% ; years 21-25 energy cost fixed @ \$16.0	2	5-Dec-16	1-Jul-19
3 CIRO One Salinas, LLC	2011-P00043	Salinas	57	Photovoltaic	0.22	109,850	13.65	2% ; years 21-25 energy cost fixed @ \$15.0	3.5 years 1-20; 2.0 years 21-25	5-Dec-16	1-Jul-19
4 Guayama Solar Energy, LLC (GCL)	2011-P00042	Guayama	17.8	Photovoltaic	0.22	34,304	14.1	2% ; years 21-25 energy cost fixed @ \$15.0	3.0 years 1-20; 2.0 years 21-25	30-Sep-15	1-Jul-19
5 Xzerta-Tec Solar I, LLC (Grupotec USA)	2013-P00042	Hatillo	20	Photovoltaic	0.22	38,544	15	1% ; years 21-25 energy cost fixed @ \$18.12	1.5	5-Dec-16	1-Jul-19
6 Morovis Solar Farm, LLC (Irradia Energy)	2012-P00053	Morovis	33.5	Photovoltaic	0.22	64,561	14.4	2% ; years 21-25 energy cost fixed @ \$20.978	2.25	5-Dec-16	1-Jul-19
7 Moca Solar Farm, LLC	2013-P00003	Moca	20	Photovoltaic	0.22	38,544	14	2% ; years 21-25 energy cost fixed @ \$15.00	1.75	5-Dec-16	1-Jul-19
8 North Coast Solar, LLC	2013-P00041	Quebradillas	20	Photovoltaic	0.22	38,544	14	2% ; years 21-25 energy cost fixed @ \$15.00	1.75	5-Dec-16	1-Jul-19
9 Renewable Energy Authority, LLC (Vega Serena)	2012-P00045	Vega Baja	20	Photovoltaic	0.22	38,544	14.5	2% ; years 21-25 energy cost fixed @ \$14.50	2.25	21-Dec-15	1-Jul-19
10 ReSun (Barceloneta), LLC	2012-P00061	Barceloneta	20	Photovoltaic	0.22	38,544	14.5	1.75% ; years 21-25 energy cost fixed @ \$20.16	2.5	5-Dec-16	1-Jul-19
11 Solaner Puerto Rico One, LLC	2012-P00146	San German	25	Photovoltaic	0.22	48,180	14.75	1.5% ; 25 year term	1.5	5-Dec-16	1-Jul-19
12 SolarBlue Bermoga, LLC	2013-P00052	Dorado	20	Photovoltaic	0.22	38,544	13.75	2% ; years 21-25 energy cost fixed @ \$17.00	2	5-Dec-16	1-Jul-19
13 Windmar Renewable Energy, Inc. (Santa Rosa)	2012-P00080	Yauco-Guayanilla	20	Photovoltaic	0.22	38,544	13	2% ; years 13-25 energy cost fixed @ \$16.160	3.5 years 1-20; 0 years 21-25	5-Dec-16	1-Jul-19
14 YFN Yabucoa Solar, LLC	2013-P00049	Yabucoa	20	Photovoltaic	0.22	38,544	13	2% ; years 21-25 energy cost fixed @ \$18.940	2	17-Oct-15	1-Jul-19
15 Energy Answers Arecibo, LLC	2010-AI0018	Arecibo	79	Waste to Energy	0.8	553,632	11.27 ⁽³⁾	based on US CP ⁽³⁾	See Note (4)	3-Jun-21	3-Jun-21

Notes:

- The expected capacity factor is estimated to be approximately the same as the average capacity factor of similar facilities in operation. The expected annual generation was calculated using the expected capacity factor.
- The estimated Commercial Operation Date is assumed to be the date included in the current draft amendments prepared by PREPA except for the Energy Answers Arecibo PPOA, in which case the date given is as established in the first amendment to the contract.
- Energy Answers Contractual Energy Cost, Escalator and REC Cost - Energy Answers' PPOA establishes that the Energy Cost escalates annually, from the Effective Date of the PPOA, (December 4, 2009) based on a formula that considers the US Consumer Price Index (US CPI) and the energy index reflected in the US CPI (Energy CPI), with a 4% annual cap to the escalator. The price listed is that calculated for 2016.
- Energy Answers RECs - RECs are property of Energy Answers, and if it sells the RECs, it must pay PREPA 1/3 of the net revenues derived from the sale of the RECs, provided that PREPA can use the RECs to meet a local RPS, in which case PREPA must pay Energy Answers for 2/3 of the lesser of (a) the price for equivalent RECs paid by PREPA, or (b) the charges payable by PREPA, corresponding to the RECs produced by Energy Answers) in case it fails to meet the RPS.

Appendix 3 - PPOAs Not Operational as of June 2017 - 32 PPOAs not Renegotiated

	Company	Contract No.	Location	Capacity (MW)	Technology	Expected Capacity Factor ⁽¹⁾	Expected Annual Generation (MWh) ⁽¹⁾	First Year Energy Purchase Price (¢/kWh)	Annual Escalator	REC Purchase Price (¢/kWh)	Commercial Operation Date Under Contract	Estimated
1	Aspenall Energies Santa Isabel, LLC	2012-P00089	Santa Isabel	10	Wind	0.22	19,272	12.5	1.50%	2.5	13-Dec-14	TBD
2	Lajas Solar Project, LLC (Fonroche Energy America, Inc.)	2013-P00046	Lajas	10	Photovoltaic	0.22	19,272	15 (2013) 15 (2014) 14 (2015)	2.00%	N/A	10-Oct-15	TBD
3	Solar Project Ponce, LLC (Fonroche Energy America, Inc.)	2013-P00045	Naguabo	30	Photovoltaic	0.22	57,816	15 (2013) 15 (2014) 14 (2015)	2.00%	N/A	10-Oct-15	TBD
4	Solar Project San Juan, LLC (Fonroche Energy America, Inc.)	2013-P00048	San Lorenzo	15	Photovoltaic	0.22	28,908	15 (2013) 15 (2014) 14 (2015)	2.00%	N/A	10-Oct-15	TBD
5	Fonroche Energy America, Inc.)	2013-P00047	Cabo Rojo	30	Photovoltaic	0.22	57,816	15 (2013) 15 (2014) 14 (2015)	2.00%	N/A	10-Oct-15	TBD
6	Vega Baja Solar Project, LLC (Fonroche Energy America, Inc.)	2013-P00050	Naguabo	15	Photovoltaic	0.22	28,908	15 (2013) 15 (2014) 14 (2015)	2.00%	N/A	10-Oct-15	TBD
7	GG Alternative Energy Corporation	2013-P00077	Fajardo	20	Photovoltaic	0.22	38,544	15	2.00%	1.5	26-Dec-15	TBD
8	GG Alternative Energy Corporation	2013-P00071	Fajardo	10	Wind	0.22	19,272	12.5	1.50%	N/A	28-Mar-17	TBD
9	Hatillo Solar, LLC	2013-P00074	Hatillo	30	Photovoltaic	0.22	57,816	15	2.00%	N/A	13-Dec-15	TBD
10	HSEA PR Isla Solar, LLC	2013-P00057	Carolina	40	Photovoltaic	0.22	77,088	15	2.00%	1.5	13-Dec-15	TBD
11	Jonas Solar Energy, LLC	2012-P00140	Guayanilla	40	Photovoltaic	0.22	77,088	15	2.00%	3.5	9-May-15	TBD
12	Juncos Solar Energy, LLC	2012-P00138	Juncos	20	Photovoltaic	0.22	38,544	15	2.00%	2	15-May-15	TBD
13	Luquillo Solar Plant, LLC (Renewable Energy Authority/REA Energy, LLC)	2013-P00051	Rio Grande	20	Photovoltaic	0.22	38,544	15 (2013) 15 (2014) 14 (2015)	2.00%	2	10-Oct-15	TBD
14	M Solar Generating, LLC	2012-P00142	Manatí	50	Photovoltaic	0.22	96,360	15	2.00%	N/A	9-May-15 (suspended by mutual accord until DNER site determination is final)	TBD
15	REA Energy Ceiba Solar Plant, LLC (Renewable Energy Authority/REA Energy, LLC)	2013-P00076	Ceiba	20	Photovoltaic	0.22	38,544	15 (2013) 15 (2014) 14 (2015)	2.00%	2	28-Dec-15	TBD
16	REA Energy Hatillo Solar Plant, LLC (Renewable Energy Authority/REA Energy, LLC)	2013-P00075	Hatillo	20	Photovoltaic	0.22	38,544	15 (2013) 15 (2014) 14 (2015)	2.00%	2	28-Dec-15	TBD
17	Renewable Power Group, Inc.	2012-P00010	Canóvanas	2	Bio-digester	0.8	14,016	9.2	Based on US CPI	N/A	1-Nov-15	TBD
18	Renewable Power Group, Inc.	2012-P0009	Moca	1.5	Landfill Gas	0.8	10,512	9.2	Based on US CPI	N/A	1-Nov-15	TBD
19	Cabo Solar Farm, LLC (Roma Solar, LLC)	2013-P00069	Cabo Rojo	20	Photovoltaic	0.22	38,544	15 (2013) 15 (2014) 14 (2015)	2.00%	2	17-Dec-15	TBD