

Received:

Aug 2, 2019

11:02 AM

**COMMONWEALTH OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU**

IN RE:**INTEGRATED RESOURCE PLAN FOR THE
PUERTO RICO ELECTRIC POWER
AUTHORITY****CASE NO.: CEPR-AP-2018-0001****SUBJECT: PETITION OF PROGRESSION
ENERGY TO INTERVENE**

PETITION OF PROGRESSION ENERGY TO INTERVENE

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW Progression Energy ("PE") and respectfully submits the following Petition of Progression Energy to Intervene, pursuant to Section 3.03 of Regulation No. 9021, known as the Regulation on Integrated Resource Plan ("IRP") for the Puerto Rico Electric Power Authority ("PREPA"), and Section 5.05 of Regulation 8543, known as the Regulation on Adjudicative, Notice of Noncompliance, Rate Review and Investigation Procedures.

Section 3.03 of Regulation No. 9021 references Section 3.5 of Act 38-2017, as amended, known as the *Uniform Administrative Procedures Act of the Government of Puerto Rico*, which evaluates a petition to intervene on the following grounds:

- 1) Whether the petitioner's interests may be adversely affected by the proceeding;
- 2) Whether there are no other means in law for the petitioner to adequately protect its interest;
- 3) Whether the petitioner's interest is already adequately represented by the parties to the proceeding;
- 4) Whether the petitioner's participation can reasonably assist in preparing a more complete record of the procedure;
- 5) Whether the petitioner's participation may extend or excessively delay the procedure;

- 6) Whether the petitioner represents or is a spokesperson for other groups or entities of the community; and,
- 7) Whether the petitioner may provide information, expertise, or technical advice that would not otherwise be available in the proceeding.

I. Introduction

PE is a Portland, Oregon based diversified energy company that develops, finances, constructs and operates renewable energy projects with floating offshore wind as its primary technology. PE comprises a team of energy and finance experts with an average of 20 years of experience in the renewable energy industry. Together, the team has successfully developed and installed over 2.5GWs of renewable technologies across the US and international markets. PE is presently developing the largest and most advanced floating offshore wind generating facility in the world offshore of Oahu, Hawaii. This 400 MW project, when completed, will be able to meet approximately 25% of Oahu's peak demand and will be a significant contributor to enabling the state of Hawaii to meet its 100% renewable goal by 2045. PE is also developing offshore wind projects in the northeast US and multiple projects in Japan. The key to PE's success in the development of floating offshore wind is the strong relationship with Principle Power, Inc. ("PPI") its most important technology partner. PE formed a strategic relationship with PPI, who's WindFloat is currently the only floating technology to achieve bank financing. PPI's proven technology, the WindFloat - a floating wind turbine foundation which reduces cost and risks for the installation and operations of offshore wind turbines and allows projects to be sited in strong wind resource areas regardless of water depth. PPI is presently under contract, working with partners, to deliver approximately 100 MW of floating offshore wind projects throughout Europe by the end of 2021 and with PE alone, has over 2 GW in development to be delivered by 2025. These projects demonstrate the economic viability of the WindFloat and offshore wind across different jurisdictions.

Since Puerto Rico is surrounded by water, it is a very attractive market for offshore wind due to the strong wind resource that is available across the island with average wind speeds between 9 and 10 meters per second. Initial estimates suggest that these average wind speeds could deliver capacity factors of around 50% for offshore wind installations. PE, using PPI's WindFloat technology will be able to site a project where the wind resource is best while avoiding use conflicts and visual concerns. Also, avoiding the issue of reduced availability of properly zoned land resources in Puerto Rico, which must comply with the complex Puerto Rico's Land Use Plan and all limited zoning classifications for renewable energy projects. Because the WindFloat does not require a fixed-bottom foundation, PE can also site the project away from sensitive natural resources like coral reefs while still delivering clean, reliable, locally generated and competitively priced energy.

II. Whether the Petitioner's Interests may be Adversely Affected by the Proceeding and Whether There are No Other Means in Law for the Petitioner to Adequately Protect its Interest.

PE's interests will be adversely affected by this proceeding due to the determination in PREPA'S IRP, "Section 6.8 – Considerations for Offshore Wind", which states that "Offshore Wind was considered but [its] not included since it is expected to have cost[s] higher than the equivalent Solar PV project." This determination is based on a single 2015 study¹, which preliminarily assessed the cost of Offshore Wind Energy in Puerto Rico. The referenced study concluded that the expected levelized cost of energy ("LCOE") at the time of the study (year 2015) could be a range as low as \$0.20/kWh and as high as \$0.36/kWh and that the expected end cost of energy due to offshore wind energy production in Puerto Rico could reach similar to the current cost (year 2015) of energy in the

¹ Rodríguez, Carbajal and Romero, *Preliminary Cost Assessment for Offshore Wind Energy in Puerto Rico*, Univ. Turabo de Puerto Rico (2015), hereinafter referred as "2015 study".

Island. However, the study also established that due to the efforts to develop an offshore wind industry in the U.S., the technology was capable to achieve 10GW of offshore wind energy at a cost of energy of \$0.10/kWh by the year 2020 and over 50GW at a cost of energy of \$0.07kWh by the year 2030. At this juncture, it is important to highlight that PREPA's IRP is being developed in late 2019, closer to the 2020 reduced cost benchmark indicated in the study relied upon and away from the 2015 reality presented in the study. Consequently, any proposal in those terms and rates must be evaluated.

By its participation in the IRP process, PE will bring to the process updated information, expertise and technical advice to demonstrate that precisely the study was correct in concluding that new technology would allow for lower cost of energy by 2020, year in which the IRP will probably be finalized.

PE will demonstrate that the LCOE for offshore wind has declined dramatically over the last five years to the point where large projects in Europe can deliver LCOEs below \$60/MWh (\$0.06/kWh) and in US, specifically Massachusetts, contracts for 800 MW of offshore wind in the Vineyard Wind project has been awarded at an average price of \$70/MWh (\$0.07/kWh). Furthermore, Massachusetts law mandates the procurement of 1.6 GW of offshore wind capacity by 2027². The law also requires that future offshore wind procurement under the regime to produce an LCOE below the PPA contract price awarded to Vineyard Wind, indicating further price reductions are anticipated. Clearly, these rates are even lower than those projected in the 2015 study.

The data to be brought to the process by PE clearly suggest that offshore wind is a viable cost-effective option that diversifies the generation mix and improves resiliency to PREPA and

² Other states in the region have even more robust offshore wind requirements with New York recently awarding 1.7GW of offshore wind contracts to two projects. In total, NE states are targeting 14.6GW of offshore wind by 2035 (<https://acadiacenter.org/offshore-wind-makes-big-moves-across-the-northeast-region/>).

Puerto Rican grid. These benefits are further enhanced by the fact that offshore wind is a local resource that is not subjected to fluctuations in global commodity prices. This rapid decline in cost is partially due to ongoing technical innovations, the dramatic increase in the size of turbines (nameplate capacities increasing from between 1.5 – 3.5 MW to 8.5 – 12.0 MW) and the adaptation of successful technologies from other established industries like offshore oil and gas. The cost curve of offshore wind is expected to continue its downward trajectory as technology advancements and globally transferable experience and track record drive risks out of offshore wind projects and allow the industry to attract more efficient capital.

Since Offshore Wind was not included in PREPA's IRP, which pursuant to Section 2.01(A) of Regulation No. 9021, considers a planning period of twenty (20) years, there are no other means in Law for PE to adequately protect its interest. Section 2.03(F) of Regulation No. 9021 provides that "[w]hile PREPA may designate specific options as not feasible for future development, such designations must be accompanied by a clear and comprehensive explanation that justifies PREPA's determination on the basis of cost, resource availability, or engineering feasibility". PE participation in the PREPA 's IRP process will clearly demonstrate that PREPA's determination with regards to Offshore Wind was not justified in a clear and comprehensive way on the basis of current cost, resource availability, or engineering feasibility.

III. Whether the Petitioner's Interest is Already Adequately Represented by the Parties to the Proceeding and Whether the Petitioner Represents or is a Spokesperson for Other Groups or Entities of the Community.

As stated in the preceding discussion, PE's interest is not adequately represented by any party to the PREPA's IRP proceeding since Offshore Wind technology was expressly excluded from the IRP as per "*Section 6.8 – Considerations for Offshore Wind*". PE's intention is to bring actual experience and technical expertise to represent its interest and the potential interest of other future

players to include Offshore Wind as a current viable technology and possibility for Puerto Rico, by its inclusion into PREPA's IRP.

IV. Whether the Petitioner's Participation Can Reasonably Assist in Preparing a More Complete Record of the Procedure.

PE's participation will assist in completing and advancing technical considerations and updating the information and premises upon which Offshore Wind was excluded from PREPA's IRP as described in Section 6.8. of the IRP. PE will bring to the process real and current project's experience, as described in Part I above, to achieve a more complete record of the procedure. In conclusion, PE will strengthen the record to prove that Offshore Wind is viable, practical and is cost-competitive with other types of generation resources, justifying its inclusion in PREPA's IRP.

V. Whether the Petitioner's Participation May Extend or Excessively Delay the Procedure.

Granting PE's intervention will not lengthen or delay this IRP proceeding. The revised IRP was filed by PREPA on June 7, 2019. PE is filing this petition to intervene in a timely manner within the August 2, 2019 deadline for submitting Petitions for Intervention. The Bureau's IRP revision process is at its early stages and PE will participate and present comments on PREPA's IRP within the scheduled process timeline. Therefore, PE reiterates that it has no intention to lengthen or delay the Bureau's review of PREPA's IRP.

VI. Whether the petitioner may provide information, expertise, or technical advice that would not otherwise be available in the proceeding.

The information and expertise that PE supplies in this proceeding will contribute to the full development and just and equitable resolution of the facts in relation to the current situation of Offshore Wind technology. As also expressed in Part I of this Petition, this will be achieved through

PE's experience in the development, financing, construction and operation of renewable energy projects with its primary technology in floating offshore wind. As provided before in this Petition, PE comprises a team of energy and finance experts with an average of 20 years of experience in the renewable energy industry and which has successfully developed and installed over 2.5GWs of renewable technologies across the US and international markets. It will also bring the alternative of new technology, through its technology partner PPI, which provides a floating wind turbine foundation which reduces cost and risks for the installation and operations of offshore wind turbines and allows projects to be sited in strong wind resource areas regardless of water depth. This represents a significant improvement from technologies evaluated in the 2015 study relied upon by PREPA to exclude Offshore Wind, which were limited to locations in Puerto Rico where water depth was 30 meters or less, limiting the location of projects mainly to the Eastern and Southeastern part of the island where resiliency could be less effective due to hurricane exposure.

WHEREFORE, Progression Energy respectfully requests that the Bureau grant this petition to intervene.

RESPECTFULLY SUBMITTED,

IN SAN JUAN, PUERTO RICO, THIS 2ND DAY OF AUGUST 2019.

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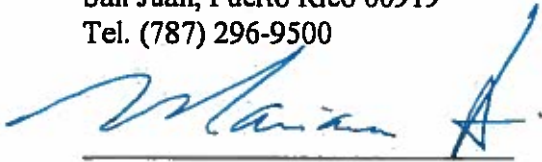


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CERTIFICATION OF FILING AND SERVICE

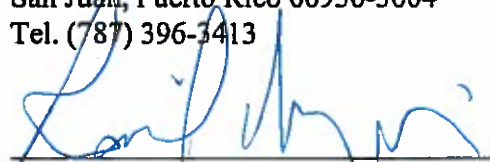
I hereby CERTIFY that on August 2, 2019, I have sent the above Petition to Intervene to the Puerto Rico Energy Bureau through its electronic filing tool at <https://radicacion.energia.pr.gov>. A copy of this Petition to Intervene was also notified by electronic e-mail to the Puerto Rico Energy Bureau's Clerk to secretaria@energia.pr.gov and wcordova@energia.pr.gov; the Bureau's Office of Legal Affairs to legal@energia.pr.gov and sugarte@energia.pr.gov and to the Puerto Rico Electric Power Authority to the following: Nitza D. Vázquez Rodríguez n-vazquez@acepr.com; Astrid I. Rodríguez Cruz astrid.rodriguez@prepa.com; and to Jorge R. Ruíz Pabón Jorge.ruiz@prepa.com; and to Environmental Defense Fund, Austin F. Carbó Lugo acarbo@edf.org

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