NEPR

GOVERNMENT OF PUERTO RICO PUBLIC SERVICE REGULATORY BOARD PUERTO RICO ENERGY BUREAU

Received:

Dec 22, 2020

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IN RE: IMPLEMENTATION OF THE
PUERTO RICO ELECTRIC POWER
AUTHORITY INTEGRATED RESOURCE
PLAN AND MODIFIED ACTION PLAN

CASE NO.: NEPR-MI-2020-0012

SUBJECT: Draft Procurement Plan

MOTION IN COMPLIANCE WITH ORDER SUBMITTING FINAL PROCUREMENT PLAN AND ASSOCIATED REQUEST FOR PROPOSAL

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

COMES NOW the Puerto Rico Electric Power Authority through the undersigned legal representation and respectfully submits and requests as follows:

On December 8, 2020, the Energy Bureau entered a Resolution and Order (the "Order").

requesting that PREPA revise its Draft Procurement Plan in compliance with and taking into

consideration the findings and instructions in the Order.

Further, the Energy Bureau ordered PREPA to file the Final Procurement Plan, associated

RFP and responses to technical questions set forth in Part I of Appendix B of the Order by

December 22, 2020. Order, p.12.

In compliance with the Order PREPA submits to the Energy Bureau the following documents:

1. 01 Procurement Plan_05 (PREB Submission Version)

2. 02 Procurement Plan Appendix B_22Dec2020

3. 03 RE RFP_02B (PREB Submittal Version II)
a. 03 RE RFP_Appednix H_MTRs
b. 03 RE RFP_Appendix C_Proposal Data Forms
c. 03 RE RFP_Appendix I_Interconnection_BESS
d. 03 RE RFP_Appendix I_Interconnection_Solar
e. 03 RE RFP_Appendix I_Interconnection_Wind
f. 03 RE RFP_Appendix_J_Preferred Location of Energy Resources

g. 03 Appendix F_Form of Energy Storage Services Agreement - Appendix F_Form of Energy Storage Services Agreement
h. 03 Solar PPOA_RE RFP_02 - Appendix E_Form of Solar PPOA

4. 04 SL Renewable Integration Study of Puerto Rico 22Dec2020_Final

5. 05 Utility Scale Interconnections Preferred Locations

6. 06 Utility Scale RE and BESS Preferential Locations Maps

WHEREFORE, PREPA requests the Energy Bureau to FIND PREPA in compliance with

Order entered on December 8, 2020 regarding submittal of Final Procurement Plan and RFP and

responses to technical questions set forth in Part I of Appendix B of the Order.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 22nd day of December 2020.

<u>/s Maralíz Vázquez-Marrero</u> Maralíz Vázquez-Marrero <u>mvazquez@diazvaz.law</u> TSPR 16,187

<u>/s Katiuska Bolaños-Lugo</u> Katiuska Bolaños-Lugo <u>kbolanos@diazvaz.law</u> TSPR 18,888

DÍAZ & VÁZQUEZ LAW FIRM, P.S.C. 290 Jesús T. Piñero Ave. Oriental Tower, Suite 1105 San Juan, PR 00918 Tel.: (787) 395-7133 Fax. (787) 497-9664 01 Procurement Plan_05 (PREB Submission Version)

RENEWABLE ENERGY GENERATION AND BATTERY ENERGY STORAGE RESOURCE PROCUREMENT PLAN

Submission to the Puerto Rico Energy Bureau

Date Issued: December 22, 2020



Electric Power Authority

CONTENTS

Sec	tion	<u>Page</u>	
Exe	cutive Summary	1	
1.	Procurement Plan Description	4	
	 1.1 PREPA Vision Statement	6 7 9 14 16 17	
2.	Counter-Party Risk	17	
3.	Request for Proposals (RFP) Template	18	
	3.1 Purpose of RFP 3.2 IRP	18 19	
4.	Contract Terms & Conditions	26	
	 4.1 General	26 27 28 28 28	
5.	Procurement Flexibility	28	
6.	Planned Installation Timeline	29	
7.	RFP Schedule	29	
8.	Adjustments to Procurement Plan to Reflect Distributed Generation (DG)	29	
9.	9. Evaluation Parameters		
	 9.1A General 9.1B Minimum Requirements of RFP Responsel 9.2 Phase I Quality Control Review 9.3 Phase II Project Committee Review and Recommendation 	30 30 34 34	
10.	Other Considerations	39	

APPENDICES

1.	RFP Draft Template	
2.	PPOA Draft Template	
3.	ESSA Draft Template	
4.	Joint Regulations 8815	

Executive Summary

Following the devastation caused by Hurricanes Irma and Maria, the Puerto Rico Energy Bureau ("Energy Bureau") issued a Resolution and Order on March 15, 2018 that directed the Puerto Rico Electric Power Authority ("PREPA") to file an updated Integrated Resource Plan ("IRP"). The impacts that the hurricanes had on Puerto Rico and PREPA led to an IRP that sought the supply and delivery of infrastructure improvements to ensure that the utility was much better prepared for future weather events. As a result of these disasters, PREPA has focused on the need to increase the resilience and survivability of its systems, with due consideration to system hardening, distributed generation, decreased dependence on fuel oil, and increased reliance on renewable energy resources.

As directed by the Energy Bureau, and as required under Puerto Rico Act 57 of May 27, 2014 (Act 57-2014), PREPA prepared an IRP intended to consider all reasonable resources to satisfy the demand for electrical services over a twenty (20) year planning horizon. On February 13, 2019, PREPA filed its IRP along with supporting workpapers and other documentation with the Energy Bureau. PREPA subsequently amended and refiled this IRP on June 7, 2019.

On August 24, 2020, the Energy Bureau issued a "*Final Resolution and Order on the Puerto Rico Electric Power Authority's Integrated Resource Plan*" (hereinafter "**Final Order**") that approved, in part, and rejected, in part, PREPA's proposed IRP. The Final Order modified PREPA's Action Plan and ordered that PREPA adopt and implement a Modified Action Plan. In the Final Order, the Energy Bureau found that:

- a. increased deployment of solar photovoltaic (PV) and battery resources should be pursued if the results of procurement processes produce costs that reflect the parameters associated with Scenario S3S2 (for all loading levels under that scenario) and if those resources are available for faster installation than was assumed for PREPA's ESM Plan; and
- b. a Modified Preferred Resource Plan for the purpose of initial procurement planning includes the solar PV and battery energy storage quantities contained in Scenario S3S2B for the first five years of the Action Plan period.

The Final Order's Modified Action Plan contains specific directives and requirements, which included the formulation of a Renewable Resource and Battery Energy Storage Resource Procurement Plan (the "**Procurement Plan**"). As summarized in Section A3 of the Final Order, the Energy Bureau ordered:

- a. *PREPA to develop, with the Energy Bureau's guidance and approval, a detailed procurement plan for renewable resources and battery energy storage to achieve compliance with the renewable portfolio standard ("RPS");*
- b. *PREPA to issue a series of RFPs for the provision of (a) renewable energy in support of Act* 82's RPS goals, and (b) battery energy storage in support of (i) capacity requirements needed to meet PREPA's peak load requirements and (ii) requirements for integration of renewable energy generation;

- c. that competitive procurements to obtain Power Purchase and Operating Agreements (PPOA) for these resources must be open to all forms of renewable energy, including, but not limited to wind, hydro, solar PV, Virtual Power Plant (VPP), and storage ... that PREPA should not unnecessarily limit the level of overall procurement to 250 MW blocks, but rather needs to pursue a strategy that attempts to procure the amount of resources required under S3S2B; and
- d. *PREPA to submit to the Energy Bureau a draft renewable resource and battery energy storage resource procurement plan (Procurement Plan) on or before sixty (60) days from the notification date of the Final Resolution and Order.*

PREPA filed a Status Report on the development of its draft Procurement Plan with the Energy Bureau on September 23, 2020. The Energy Bureau opened a new docket for the consideration of PREPA's Procurement Plan on October 6, 2020, designating the new docket as Case No. NEPR-MI-2020-0012. On October 9, 2020, at PREPA's request, the Energy Bureau convened a Technical Conference to address PREPA's Procurement Plan status report. PREPA submitted its draft Procurement Plan by Motion dated October 23, 2020. PREPA subsequently sought a further Technical Conference, and reiterated this request on three occasions in November and December.

On December 8, 2020, in Case No. NEPR-MI-2020-0012, the Energy Bureau issued a Resolution and Order (the "**Procurement Plan Resolution**") which specifies changes to PREPA's draft Procurement Plan and directs PREPA to make corresponding changes to the draft Request for Proposals ("**RFP**") document that accompanied that draft Procurement Plan. Finding that these changes will align the Final Procurement Plan and associated RFPs with its Final Order, applicable regulations and laws, the Energy Bureau approved some of the core elements of PREPA's draft Procurement Plan, modified others and directed certain questions relating to technical issues to PREPA. The Energy Bureau ordered PREPA to carry out the terms of the Procurement Plan as modified by the Procurement Plan Resolution and as specified in the included Technical Appendices.

This Procurement Plan is intended to (i) position PREPA to satisfy the requirements of the Final Order and the Procurement Plan Resolution, and (ii) provide a thoughtful approach to building out future renewable resources in accordance with the requirements of Act 82. This Procurement Plan follows the format indirectly specified in Section IV, Subsection D(4)(b) of the Final Order, as follows:

- **(Procurement Plan Description)** This introductory section provides a detailed description of the entire Procurement Plan.
- (Counter-Party Risk) This section discusses the manner in which the Procurement Plan is structured to minimize counter-party risk and thus potentially incentivize bidders to offer lower prices, given PREPA's current financial status and prospects for its improvement over time.
- (Request for Proposals (RFP) Template) Section 3 discusses the template which PREPA has developed for the RFPs to be issued under this Procurement Plan, and Appendix 1 includes the RFP document being issued in RFP Tranche 1. PREPA will enter into a Renewable PPOA with RFP respondents (each, a "Proponent") which propose selected renewable energy resources, and an Energy Storage Services Agreement ("ESSA") with Proponents of selected energy

storage resources. Appendices 2 and 3 of this Plan set forth a template Renewable PPOA and template ESSA (each, a "**Contract**"). In referring to "**Battery Energy Storage Systems**" or "**BESS**," PREPA acknowledges that technologies, other than batteries, may become viable storage options for PREPA. Therefore, references to BESS systems are intended to include other energy storage technologies.

- (Contract Templates) Forms of a Renewable PPOA and an ESSA are included in Appendices 2 and 3.
- (Procurement Flexibility) This Procurement Plan provides PREPA with the flexibility in RFP Tranche 1 to select an aggregate of at least 1,000 MW of solar PV or energy-equivalent other renewable resources and 500 MW of battery energy storage, 4-hour duration equivalent, with consideration for 2-hour and 6-hour storage if either or both are cost-effective and if their installation is feasible.
- (Planned Installation Timeline) This Procurement Plan describes the planned timeline for selection of resources through project completion. In accordance with the Energy Bureau's directive (see Procurement Plan Resolution at Part IV.A.3.a (p. 8)), the RFP specifies that commencement of commercial operation of selected resources should not exceed twenty-four (24) months from Contract signing. The RFP provides that PREPA may give consideration to proposals that contemplate commercial operation commencement not to exceed thirty (30) months from Contract signing, albeit with preference to be given to proposals specifying shorter periods between signing and commercial operation. PREPA will perform a Feasibility Study for short-listed candidate projects to assess order-of-magnitude interconnection and required Transmission and Distribution System ("T&D System") upgrade costs. Proponents will be allowed to adjust their proposed pricing to reflect the results of this study, and these results and any associated cost impacts will be taken into account in initial project selection. For those projects that are selected for further analysis in Phase II (described below), PREPA will require a System Impact Study, followed by a Facilities Study, the costs of which will be borne by Proponents. Proponents will be responsible for the procurement and installation of all equipment necessary to interconnect the proposed facility to the T&D System. PREPA will not execute a Contract before the results of the Feasibility Study, System Impact Study and Facilities Study are available and the Proponent has adjusted its proposal to reflect those results and incorporated any additional interconnection or transmission facilities that may be required.
- (RFP Schedule) The RFPs to be issued under this Procurement Plan are expected to be released every six (6) months, over the next three (3) years, for a total of six (6) tranches of RFP releases. The procurement of resources may be front-loaded within the five-year Action Plan period in order to allow time for construction, interconnections, and commissioning within the five-year Action Plan period. This section summarizes the schedule of minimum RFP quantities, which is laid out in the Final Order and the Procurement Plan Resolution.
- (Adjustments to Procurement Plan to Reflect Distributed Generation) PREPA may adjust quantities requested in individual RFP Tranches subsequent to the first two (2) tranches as necessary to account for installations of distributed generation ("DG") that contribute to

meeting overall quantities in the Modified Preferred Resource Plan, and for resources that PREPA identifies and contracts with in excess of the minimum amounts required in each of the earlier RFPs.

- **(Evaluation Parameters)** This section provides a listing of proposal evaluation parameters as discussed in the Final Order and the Procurement Plan Resolution.
- (Other Considerations) Considerations specific to combined or individual bids for renewable generation, BESS, or combinations of renewable generation and battery resources, and to resource proposals that aggregate smaller installations (that is, Virtual Power Plants ("VPPs"), are discussed in this section. This section also discusses the renewable generation integration study that PREPA has commissioned in order to assess the current capability of T&D System to accommodate increased levels of renewable generation capacity. This study will identify, at a high level, preferred interconnection locations on T&D System based on the current capacity of the system and needed electrical system upgrades, in addition to providing a modeling basis for transmission Feasibility, System Impact, and Facility Studies. Findings from the renewable generation integration study will be shared through the RFP process to assist Proponents with their proposals. In accordance with Energy Bureau directives, the RFP will include an attachment that lists those substations where interconnection is considered preferable for utility scale installations. In addition, the RFP will identify those locations at which interconnection of required energy and storage resources will enhance T&D System reliability and can be accomplished quickly. This section addresses other requirements identified in the Procurement Plan Resolution.

1. Procurement Plan Description

The Energy Bureau has endorsed PREPA's plan to use RFPs to solicit new generation and energy storage resources and to engage selected Proponents through the negotiation and execution of Contracts covering these resources. The Procurement Plan envisions the issuance of a series of RFPs, spaced over a three-year timeline, in order to secure the following benefits:

- a. PREPA will have an opportunity to model the renewable integration and the T&D System to determine any needed system upgrades and the preferred interconnection locations to which projects can be connected (minimizing system impacts). These locations will likely evolve, over time, as PREPA improves the T&D System.
- b. This approach allows PREPA and LUMA Energy, LLC, the future T&D System operator, to plan for system improvements that support large-scale renewable energy and BESS integration.
- c. PREPA will be able to spread procurement commitments associated with each Contract over time and take advantage of future technological gains as well as reduced capacity and energy pricing.

d. This approach buys additional time for PREPA to improve its credit position as it navigates the Title III process. PREPA expects that renewable resource capacity and energy pricing will improve as its credit position improves.

The Final Order has provided guidance on minimum renewable energy quantities, referred to as RFP Tranches, and the associated timing of RFPs. The following table summarizes the Final Order's guidance.

		Solar PV or e energy	quivalent other v, MW	4-hr. Batte equivale	ery Storage nt, MW ¹
RFP Target Release Date	Procurement Tranche	Minimum	Cumulative	Minimum	Cumulative
Dec-20	1	1000	1000	500	500
Jun-21	2	500	1500	250	750
Dec-21	3	500	2000	250	1000
Jun-22	4	500	2500	250	1250
Dec-22	5	500	3000	125	1375
Jun-23	6	750	3750	125	1500

Table 1-1 - Guidance for Sola	r PV/Renewables and B	Battery Energy Storag	e RFP Tranches

1) Other storage durations (i.e. 2-hour and 6-hour) will be considered.

PREPA must file an updated Procurement Plan reflecting the specific plans for Tranche 2 on or before May 1, 2021. This updated Plan is to incorporate both the lessons learned from RFP Tranche 1 and any requirements that originate from the planned Optimization Proceeding or any other intervening Resolutions or Orders from the Energy Bureau.

PREPA has engaged the services of Sargent & Lundy to evaluate system impacts associated with the addition of new renewable energy resources, identify needed system upgrades, determine an approximate capacity value that results in minimal system impacts, and provide an initial screening for preferred interconnection locations. Through the work Sargent & Lundy continues to perform, PREPA will identify the scale and scope of the system improvements required to accommodate the addition of both renewable generation and battery energy storage resources procured under the RFP. PREPA will prioritize the procurement of complementary battery storage installations and "no regrets" necessary T&D System improvements that will support both near-term and longer-term increases in the interconnection of new renewable energy supplies.

As the Procurement Plan Resolution requires, PREPA will develop, maintain, update and file with the Energy Bureau every six months, commencing no later than June 1, 2021, a timeline for anticipated installation of battery energy storage and renewable energy resources. In addition, PREPA will attempt to streamline its interconnection analyses and allow for installations of the required renewable and storage resources and T&D System improvements as rapidly as possible.

The following provides a discussion of PREPA's Vision Statement, key regulatory drivers, the procurement process, acceptable renewable energy resources, the status of the development of an RFP and the Contracts, and uncertainties and unknowns.

1.1 PREPA Vision Statement

Noting the need for an efficient and resilient system, on February 1, 2018, the PREPA Governing Board released its vision statement to guide the future of the utility.



Figure 1-2 – PREPA's Five Pillars

The Governing Board's vision addresses the reliability and resilience of the system, the transition to a system that is sustainable both financially and environmentally, and its importance in acting as an economic growth engine for Puerto Rico. These elements were noted and factored into the structuring of the IRP submissions. The resulting Procurement Plan takes a positive step towards realizing this vision through the procurement of renewable energy and storage resources, designed for reliability and resilience, which will reduce PREPA's dependence upon fossil fuel resources. The following table presents the Vision Statement:

Table 1-3 – 2018 Governing Board Vision Statement

Pillar	Summary
System is Customer- Centric	The system serves the customer with affordable, reliable power, with transparent metrics for quality of service and with equitable consideration across all customers. Quality/Reliability can be differentiated for customers in a manner that serves their total cost and risk objectives. Customers are engaged by innovative products and value-added services that provide choice among rate plan and risk management options and provide access to wholesale contracting options for large customers. Customers are empowered with behind-the-meter alternatives for energy efficiency, demand management, and distributed generation, with the ability to become prosumers if they so choose.
System Promotes	The system is premised on positive economics on both sides of the meter. Rates are reasonable and create value for the customer, while pricing is sufficient to cover costs. Rate and market design create incentives to purchase, consume or

Pillar	Summary
Financial Viability	produce energy in a manner that benefits the entire system. Subsidies are minimized, and those that remain have a non-distortionary impact. Operational excellence and sound long-term planning reduce the cost to serve. Rates are affordable within a model that allows the utility to earn a reasonable rate of return and service its debt. The business model is robust to changes such as outmigration and reduction in energy demand and does not create disincentives for adoption of cheaper energy resources, either at the grid level or at the customer premises.
System is Reliable and Resilient	The grid is thoughtfully planned, well maintained and safely operated to achieve defined reliability and resiliency goals. There is visibility into the system at all levels, and control where appropriate. Standards for recoverability create a measure for resilience. The choice of architecture (distributed vs. regionalized vs. centralized) is intentionally made to balance reliability/resilience and cost objectives while also taking advantage of advancements in technology and innovation.
System is a Model of Sustainability	There is a progressive focus on diversifying energy resources and reducing the carbon intensity of the power sector, in both primary generation and backup generation. Power generation is efficient and minimizes emissions. Customers have incentives to use energy wisely and to generate their own clean energy. The grid and grid systems are designed to take maximum advantage of increasingly cost-effective renewable power generation alternatives and to integrate emerging technologies.
System serves as an Economic Growth Engine for Puerto Rico	The quality, reliability, and cost of power attracts new commercial and industrial development to Puerto Rico and encourages existing commercial and industrial customers to expand their operations. Transformation and reinvestment in the power system creates new jobs. Innovation in the generation and delivery of power creates a local ecosystem of businesses that provide for evolving needs for equipment, technology and services in Puerto Rico and beyond.

1.2 Key Regulatory Drivers

The Final Order provided a summary of Puerto Rico's laws and regulations as they apply to the IRP and the Modified Action Plan. This section restates these "regulatory drivers," in part to reinforce the importance of these legislative initiatives. The Energy Bureau structured the Modified Action Plan to support compliance with these laws and regulations, and PREPA has developed this Procurement Plan in accordance with the Modified Action Plan.

a. Act 82-2010: Act 82-2010, as amended ("Act 82"), known as the Puerto Rico Energy Diversification Policy through Sustainable and Alternative Renewable Energy Act, established the first renewable energy portfolio standard in Puerto Rico and required that a retail energy provider procure twelve percent (12%) of its power needs through renewable energy by 2015,

fifteen percent (15%) by 2020 with a goal of reaching twenty percent (20%) by 2035. Act 82 was amended in 2019 to, among other things, establish new RPS milestones: twenty percent (20%) by 2022, forty percent (40%) by 2025, sixty percent (60%) by 2040 and one hundred percent (100%) by 2050. Act 82 created Renewable Energy Certificates (RECs) that encompassed all the environmental and social attributes of one megawatt- hour (MWh) of electricity and that could be traded beyond the borders of Puerto Rico.

- b. Act 83-2010: Act 83-2010, as amended ("Act 83"), known as the Puerto Rico Green Energy Incentives Act, was established to among other things: achieve the diversification of energy sources; reduce the dependency on fossil fuels; reduce and stabilize energy costs; reduce the flight of capital caused by the import of fossil fuels; and preserve and improve the environment. Act 83 also created a Green Energy Fund to fund the development of sustainable energy systems that further energy use savings and efficiency. The legislation also contained Green Energy Initiatives and tax benefits to encourage consumers and businesses to use renewable energy.
- c. Act 120-2018: Act 120-2018, as amended ("Act 120"), known as the Puerto Rico Electric Power System Transformation Act, created the legal framework required for the sale, disposition, and/or transfer of the assets, operations, functions, and services of PREPA. Under Act 120, any contract related to a PREPA Transaction has to obtain an Energy Compliance Certificate from the Energy Bureau. Moreover, the legislation grants PREPA and the Public Private Partnership Authority (P3) the authority to sell PREPA assets related to electric power generation and to transfer or delegate any of PREPA's operations, functions, or services. The legislation also notes, however, that the regulatory framework must be consistent with the new realities in Puerto Rico and the energy industry; it must therefore, among other things, allow for the use of DG, microgrids, and more renewable energy. The Legislature also notes that the electric system must be resilient to weather events and the effects of climate change on the Island. Act 120- 2018 also points out "…the importance of regulating the energy industry and the need to have an independent regulatory entity that carries out its duties firmly and resolutely."
- d. Act 17-2019: Act 17-2019 ("Act 17") known as the Puerto Rico Energy Public Policy Act, built upon the foundation created for integrated resource planning in Act 57 and sharpened the focus on accelerated renewable energy provision, energy conservation and efficiency, DR, and DG. In so doing, Act 17 increased the renewable portfolio to a minimum of twenty percent (20%) by 2022, forty percent (40%) by 2025, sixty percent (60%) by 2040 and one hundred percent (100%) by 2050 and created an energy efficiency target of thirty percent (30%) by 2040. Act 17 also emphasizes the role of "prosumer" generation, and envisions an enhanced role for microgrids. Further, Act 17 reinforces the authority of the Energy Bureau to conduct IRP proceedings. Act 17 also states that the IRP will be prepared by the electric power company responsible for the operations of the electrical system and shall be approved by the Energy Bureau. Allowance for preparation by an entity other than PREPA acknowledges the changes contemplated under future IRPs as a result of the implementation of Act 120. The legislation also set forth more detail than that contained within Act 57 on the content of the IRP, but the content requirements are consistent with the Energy Bureau's IRP requirements contained in

Regulation 9021. A central point throughout the legislation is that actions taken regarding generation and related matters must conform to the approved IRP, thereby highlighting the importance of the IRP as a central planning tool. Any changes or amendments to the IRP shall be approved by the Energy Bureau.

1.3 Procurement Process

The Final Order addressed the Procurement Process by referencing Regulation 8815, attached to this document for ease of reference as Appendix 4. As stated in the Final Order, "*PREPA or the T&D Operator, with oversight by the Energy Bureau under the processes of Regulation 8815, shall run all competitive auctions in accordance with this Modified Action Plan.*" Regulation 8815, also known as the Joint Regulation for the Procurement, Evaluation, Selection, Negotiation, and Award of Contracts for the Purchase of Energy and for the Procurement, Evaluation, Selection, Negotiation, and Award Process for the Modernization of the Generation Fleet ("Joint Regulation 8815"), governs the processes for contracting with third parties for the purchase of energy. The following flowchart represents a high-level summary of the procurement process required by Joint Regulation 8815.



Figure 1-4 – Summary Procurement Process - Joint Regulations 8815

PREPA and the Puerto Rico Energy Commission (the Energy Bureau's predecessor) developed and promulgated Joint Regulation 8815 in 2016. This regulation addresses the formation of a Project Committee, the Process to Issue RFQs/RFPs, the Evaluation and Selection Process, Selection of Proponents, Contract Award, and Reconsideration and Review. A high-level summary of the key components of Joint Regulation 8815 as it applies to this Procurement Plan follows.

a. (Project Committee) A Project Committee with at least five (5) members, appointed by the Executive Director and approved by PREPA's Governing Board, manages the Procurement Plan. The Project Committee oversees the preparation of Requests for Qualifications ("RFQ") and RFPs, the evaluation and selection of Proponents, and the finalization of the terms of each Contract.

- b. **(RFP Issuance)** The Procurement Plan Resolution directs PREPA to consolidate the RFQ and the RFP process to expedite the procurement process. Thus, as part of each RFP, PREPA will include the consideration of each Proponent's qualifications as one of the criteria for evaluation in determining the winning Proponents. For the issuance of an RFP, the Project Committee shall advertise the RFP by means of a public notice in one newspaper of general circulation, the internet sites for PREPA and the Energy Bureau, and, at the discretion of the Project Committee, in one or more national or international journals. The RFP shall include the following provisions:
 - i. A description of the Project and its importance based on the IRP;
 - ii. A description of the proposed schedule for the procurement process;
 - iii. A due date, time, and method for submission of requests for clarification(s) and proposals (and the place for submission of proposals);
 - iv. Instructions as to the format of proposals and the information required for a proposal to be considered complete;
 - v. Any options or alternative proposals allowed;
 - vi. Applicable proponent eligibility requirements, scoring criteria, and minimum resource size;
 - vii. Applicable proposal evaluation criteria that will be used to evaluate proposals and proponents;
 - viii. Applicable proposal security;
 - ix. A statement regarding funding contingencies or other conditions, contingencies, approvals, authorizations, or certifications which are required to award a Contract;
 - x. A draft of the proposed Contract or summaries of key terms and conditions;
 - xi. Parameters approved by the Energy Bureau in connection with profit margins and pricing escalators;
 - xii. PREPA's authorized representative for RFP communications;
 - xiii. Policy statements encouraging local participation; and
 - xiv. Other applicable terms and conditions as determined by the Governing Board.

Proposals received on or before the due date set forth in the RFP will be stamped (date and time of receipt) and will be kept in the custody of PREPA. PREPA will not disclose the proposals publicly and only members of the Project Committee, the Energy Bureau and other

members designated by the Governing Board or Executive Director shall have access to the proposals during the selection and evaluation period.

- c. (Evaluation and Selection Process) Joint Regulation 8815 establishes a three-phase selection process: (i) quality control review, (ii) project committee review and recommendation, and (iii) negotiation. The quality control review phase allows to determine which proposals satisfy the minimum requirements outlined in the RFP. PREPA will notify each Proponent whether such Proponent's proposal passed the quality control review and whether it will advance to phase two. During phase two, the Project Committee will review and evaluate each proposal in accordance with the selection criteria. The Project Committee may select one or more proposals to advance to phase three (Contract negotiation). For the Procurement Plan, the Project Committee will likely select more than one Proponent. Therefore, the Project Committee will make recommendations to the Executive Director and the Governing Board to carry out discussions and negotiations with more than one Proponent at the same time for proposals that fall within a competitive range as defined in the regulation. Assuming negotiations will proceed with more than one Proponent, during phase three, each Proponent will receive written notification containing the details and describing the following procedures:
 - i. No statement or action shall bind PREPA. Only the Contract, when effective in accordance with its terms, will bind PREPA.
 - ii. The Project Committee may invite each Proponent to one or more meetings to discuss and answer questions.
 - iii. The content and scope of each meeting will be determined by the Project Committee.
 - iv. If any meetings are held with a Proponent who falls within the competitive range, then all Proponents that fall within the competitive range will be given an opportunity to discuss and review their proposals with the authorized representative.
 - v. The Project Committee shall establish procedures and schedules to control meetings, advise proponents on deficiencies and allow an opportunity to cure, resolve uncertainties or otherwise clarify the terms and conditions of the proposal, address any suspected mistakes, provide an opportunity to modify economic terms, technical aspects, or other aspects which may result from the discussions, and keep a record of the date, time, place, and attendees of the meetings.
 - vi. The Project Committee may require Proponents to submit, in writing, confirmation of any clarification of a proposal.
 - vii. Authorized Representatives of the Project Committee may carry out negotiations in whole or in part through written or telephone communications, at the discretion of the Project Committee.
 - viii. The Project Committee may request "Best and Final Offers" or proceed to negotiations with one (or more) proponents within the competitive range.

ix. Additional negotiations may follow receipt of Best and Final Offers.

Subject to PREPA's right to reject any or all proposals, PREPA shall select the proposal(s) considered most advantageous to PREPA, PREPA's customers, and Puerto Rico. By "most advantageous," PREPA means that the proposal(s) meets minimum requirements and demonstrates economic benefits, reliability, and resiliency. In accordance with the Energy Bureau's directive (*see Procurement Plan Resolution, Appendix A, Part III.2*), the RFP evaluation process will last no more than forty-five (45) days unless circumstances require that the Project Committee extend such process. The Project Committee will evaluate proposals, based on price/cost and relevant estimated system upgrade costs as well as non-price terms such as construction and operational experience, risks and risk mitigation measures, and other pertinent criteria. The RFP will clearly define the scoring system and all evaluation criteria.

- d. **(Selection of Proponents)** Joint Regulation 8815 prohibits the Project Committee from selecting Proponents that have been convicted of any of the offenses set forth in Act 458-2000. Other grounds for disqualification include when a Proponent:
 - i. is insolvent or bankrupt;
 - ii. makes a formal, public announcement that it is unable or intends not to pay its debts and obligations;
 - iii. has been convicted of any of the criminal offenses set forth in Act 428-2004;
 - iv. has not fulfilled its obligations relating to the payment of taxes under the laws of the Commonwealth or the relevant jurisdiction in which it maintains its principal operations;
 - v. has engaged in collusive acts or is guilty of serious misrepresentations;
 - vi. has experienced material changes its business;
 - vii. fails to comply with substantive requirements of the RFP; or
 - viii. is otherwise in material breach of Joint Regulation 8815.

When assessing the financial condition of a Proponent, PREPA may consider bank statements, financial statements (three (3) fiscal years), or other information that would allow the Project Committee to assess the financial condition of the Proponent. The Project Committee shall specify in the RFP the financial information which the Proponent must provide to comply with the applicable minimum standards of financial condition.

e. **(Approval of Contract(s))** Upon completion of the negotiation of the Contract(s) with a Proponent, the Project Committee shall prepare a report which shall include the reasons for entering into such Contract(s), the reasons for selecting the Proponent(s), a description of the procedures followed, and other information pertinent to the procedures followed and the

evaluations conducted. The Project Committee shall oversee the report and proposed Contract(s) to the Executive Director and the Governing Board within thirty (30) days for approval. The Governing Board shall have the right to reject, accept, or return the proposed Contract for renegotiation. If the Governing Board approves the report and Contract(s), PREPA shall provide a copy of the report and the Contract(s) to the Energy Bureau for its evaluation and approval. If the Energy Bureau approves the Contract(s), the Project Committee will notify Proponents of the RFP results. Once approved by the Energy Bureau, PREPA shall have no right to modify the Contract(s) or scope of the project in any material way without the approval of the Energy Bureau. Subject to completion of the required Feasibility, System Impact and Facilities Studies, approval by the Governing Board and the Energy Bureau, and to review and approval by the Financial Oversight and Management Board for Puerto Rico ("FOMB"), PREPA and the Proponent may execute the Contract(s).

f. (Reconsideration and Review) Proponents may request PREPA to reconsider its determination of the final awarding of a contract in accordance with applicable Administrative Law. PREPA shall describe such reconsideration and judicial review rights in the notifications it sends to proponents.

1.4 Forms of Renewable Resources

In the Final Order, the Energy Bureau ruled that PREPA must undertake competitive procurements to obtain Contracts for renewable energy and energy storage resources which must be open to all forms of renewable energy including, but not limited to, wind, hydro, solar PV, VPPs, and energy storage. The Final Order requires that PREPA not unnecessarily limit the level of overall procurement to 250 MW blocks, but rather directs PREPA to pursue a strategy that attempts to procure the resource capacity required under scenario S3S2B evaluated in the IRP. To meet these thresholds, PREPA must consider both stand-alone and co-located renewable energy and battery storage projects. If "shovel ready" utility scale renewable projects are available for expedited installation under agreements previously executed by PREPA, PREPA shall procure stand-alone battery storage projects with multiple hour duration and roughly one-half of the projected capacity of these "shovel ready" projects to be expedited for installation, either at utility scale or at distributed scale as a VPP, as part of RFP Tranche 1 selections.

PREPA will seek proposals from Proponents interested in designing, constructing, installing, operating and maintaining renewable energy and BESS projects for installation at one or more sites across Puerto Rico. In accordance with the Final Order and the Procurement Plan Resolution, PREPA affirmatively states that the RFP will be open to all forms of renewable energy including solar photovoltaic, wind, energy storage, hydro, VPPs, or any combination of these mentioned technologies.

Projects must comply with the appropriate PREPA Minimum Technical Requirements ("MTRs"), as adjusted for site-level MTRs as the grid evolves, and with PREPA's current Interconnection Standards and Requirements. A Proponent's ability to comply with MTRs and interconnection requirements will form part of the RFP selection criteria.

For all projects except VPPs, PREPA will request the submission of all-inclusive turnkey proposals. Utility scale renewable energy projects (PV solar and wind) shall have a minimum of 20 MW of renewable generation capacity for installation at one or more sites within the main island of Puerto Rico, paired and integrated with battery energy storage at a capacity and hours of storage compliant with the relevant MTR. PREPA will also consider options for additional storage (in excess of MTR requirements) from utility scale renewable projects. For the standalone energy storage, such offerings will be required to have a minimum nominal rating of 20 MW and 4-hours of storage. Alternatives offering 2-hours and 6-hours of storage will also be considered. Proposals for hydro generation resources will not require BESS support.

PREPA will apply the same criteria used for the selection of utility scale renewable energy resources for VPPs, except with a minimum capacity requirement of 5 MWs, which the Proponent may spread across multiple sites to meet such capacity requirement. A Proponent may source energy and capacity for VPPs from existing facilities that do not currently sell such energy and capacity to PREPA. Proponents of VPPs will be responsible for all metering, SCADA, and other forms of telemetry to create the VPP. VPPs will comply with applicable MTRs and interconnection standards. Other considerations applicable to VPPs include:

- a. The VPP must use existing proven technology.
- b. PREPA shall give preference to VPPs whose resources are located within a relatively compact geographical area.
- c. The performance characteristics of the VPPs must be the same as those required from other utility scale renewable energy resources, as applicable.
- d. VPP projects will be responsible for all required changes/additions to the distribution and transmission system required by the project.
- e. PREPA will value and consider resiliency benefits provided by VPPs in its evaluation of individual VPP project proposals by accounting for potentially avoided transmission expenditures and transmission and distribution system loss savings.
- f. PREPA shall use the process of capturing the VPP resources in its initial RFP Tranche to inform its subsequent pursuit of VPP resources. It plans to use data gathered and lessons learned through this initial RFP Tranche to (a) set realistic performance requirements (e.g., commercial terms); (b) assess the value (e.g., grid services) that VPPs can provide; and (c) better gauge and potentially shorten the timeline for deployment and operation of VPPs based on best practices.

For each project, the Proponent shall enter into a Contract and an Interconnection Agreement under which the Proponent would sell, and PREPA would purchase: (a) for renewable generation, the net electric output, subject to specific energy delivery guarantees; (b) for BESS resources, energy storage capacity subject to specific energy delivery and operating guarantees; and (c) associated rights, benefits and credits of the Project, including environmental attributes (or "**RECs**"). The Renewable Generation and BESS facilities may be co-located and integrated on a single project site.

1.5 **Procurement Schedule**

As specified in Final Order, the Procurement Plan communicates the expected timeline for the release by PREPA of subsequent RFPs in sequence (i.e., every six (6) months, over the next three (3) years for a total of six (6) tranches of RFP releases). PREPA will issue a series of RFPs (RFP Tranches) for the provision of renewable energy to meet Act 82's RPS goals, and for the provision of battery energy storage in support of capacity needed to meet PREPA's peak load requirements and in support of renewable energy generation integration requirements.

The schedule of minimum RFP quantities, in conformance with quantities targeted in the Modified Preferred Resource Plan, is as follows:

- a. **1st Tranche**: at least 1,000 MW solar PV (or energy-equivalent other renewable), at least 500 MW (2,000 MWh or equivalent) battery energy storage.
- b. **2nd Tranche**: at least 500 MW solar PV (or energy-equivalent other renewable), at least 250 MW (1,000 MWh or equivalent) battery energy storage.
- c. **3rd Tranche**: at least 500 MW solar PV (or energy-equivalent other renewable), 250 MW (1,000 MWh or equivalent) battery energy storage.
- d. **4th Tranche**: at least 500 MW solar PV (or energy-equivalent other renewable), 250 MW (1,000 MWh or equivalent) battery energy storage.
- e. **5th Tranche**: 500 MW solar PV (or energy-equivalent other renewable), 125 MW (500 MWh or equivalent) battery energy storage.
- f. **6th Tranche**: 750 MW solar PV (or energy-equivalent other renewable), 125 MW (500 MWh or equivalent) battery energy storage.

Table	1-5 -	Guidance f	for Sola	r PV/R	enewables	, and Ba	ttery Energy	v Storage F	RFP Tranches
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		Solar PV or e energy	quivalent other /, MW	4-hr. Batte equivale	ery Storage ent, MW ¹
RFP Target Release Date	Procurement Tranche	Minimum	Cumulative	Minimum	Cumulative
Dec-20	1	1000	1000	500	500
Jun-21	2	500	1500	250	750
Dec-21	3	500	2000	250	1000
Jun-22	4	500	2500	250	1250
Dec-22	5	500	3000	125	1375
Jun-23	6	750	3750	125	1500

1) Other storage durations (i.e. 2-hour and 6-hour) will be considered.

The RFP for Tranche 1 will be issued as early in 2021 as possible, once the Energy Bureau approves the RFP for issuance. The expected timeline of the release of subsequent RFPs will be six (6) month

intervals to be issued in sequence (i.e., every six (6) months, over the next three (3) years, for a total of six (6) tranches of RFP releases). The procurement of resources may be front-loaded within the five-year period in order to allow time for construction, interconnections, and commissioning within the five-year Action Plan.

1.6 Uncertainties and Unknowns

As part of a competitive procurement plan, PREPA must describe internal or external staffing resources, constraints, and potential solutions to any constraints, as required, in order to meet the renewable energy and battery storage resource levels specified in the Modified Preferred Resource Plan.

PREPA does not currently have the internal capability and staff to evaluate project feasibility, system impacts or facility requirements. PREPA intends to rely on external staffing resources until PREPA has hired or otherwise secured alternate capabilities. As part of PREPA's transformation process, the P3 Authority has selected LUMA to manage the operations and maintenance of the T&D system. PREPA has commenced consultations with LUMA about its capacity to provide support for the required study and modeling activities.

PREPA anticipates that integration of some proposed projects will require substantial T&D System upgrades. In evaluating such proposals, PREPA will attempt to identify synergies and the timing of (a) new battery storage resources; (b) staged transmission reinforcements whose initial components can be completed in advance of an entire transmission project; (c) complementary retirement of existing older thermal resources; and (d) operational guidance that can allow a project to proceed in stages, or with operational limitations based on system needs, subject to curtailment under certain conditions. PREPA will consider ways in which combinations of new storage resources and phased T&D System improvements may help mitigate constraints that may otherwise limit renewable energy deployments, and will consider the assumptions used in interconnection analyses that account for these factors.

2. Counter-Party Risk

PREPA's current credit rating of CA, a non-investment grade rating reflecting PREPA's Title III status, presents a significant factor in the determination of Contract prices. A lower credit rating indicates a higher counter-party risk, which developers will factor into their cost of capital calculations. This results in higher cost of capital and a higher levelized cost of energy ("LCOE") in generating and energy storage resource proposals than would be appropriate if PREPA had a better credit rating, all else held equal. Developers will usually determine contract price based on LCOE. As the credit rating improves, particularly as PREPA reaches an investment grade rating, PREPA expects that its cost of capital will decrease, its riskiness as a contract counter-party will decline, and the LCOE would decrease as well, all else being equal. PREPA expects its credit rating to improve upon emergence from the ongoing PROMESA Title III proceeding. As PREPA desires to minimize the impact of counter-party risk on Contract prices, PREPA will consider the timing of the RFP Tranches to reflect that Contracts signed after PREPA's emergence from Title III should reflect better pricing, all else held equal. For earlier Tranches, which may be entered into prior to emergence from its Title III

proceedings, PREPA will give preference in its evaluation to Proponents that accept an automatic stepdown in Contract price upon such emergence.

3. Request for Proposals (RFP) Template

PREPA will request combined Statements of Qualifications ("**SOQ**s") and responses to the RFP from companies and consortia interested in designing, constructing, installing, operating and maintaining renewable energy and BESS projects, to be installed at one or more sites across Puerto Rico. The renewable energy projects may include but are not limited to solar PV, wind, energy storage, hydro, VPPs, or any combination of these technologies. The utility-scale renewable energy projects for solar PV and wind generation will have a minimum nominal rating of 20 MW. VPP projects will have a minimum nominal rating of 20 MW and 4-hours storage. Storage alternatives offerings will have a minimum nominal rating of 20 MW and 4-hours storage. Storage alternatives offering 2-hours and 6-hours of storage will also be considered. All technologies will be required to comply with respective PREPA MTRs which shall be included in the RFP. In the event that the utility-scale solar PV or wind generation projects offer to provide energy storage in excess of requirements of the relevant MTRs, the additional energy storage for these projects will be considered as an option (i.e., combination of renewable generation and energy storage). Appendix 1 sets forth the RFP template for renewable energy and BESS resources.

3.1 Purpose of RFP

PREPA plans to solicit proposals for the design, permitting, construction, operation, and maintenance of renewable energy and BESS resources, to achieve the following objectives for PREPA's generation system:

- a. increase the availability of renewable energy resources as part of PREPA's generation system;
- b. reduce energy prices to levels consistent with the 2020 Certified Fiscal Plan projections; and
- c. increase PREPA's grid resiliency as required by the recently approved IRP.

This RFP is intended to identify Proponents that meet the minimum requirements necessary to carry out the development of renewable energy and/or BESS resources in compliance with Act 120, the PPP Act and other applicable laws. Proponents should demonstrate:

- a. capability and experience developing, constructing, installing, testing, and operating renewable energy resources;
- b. capability and experience managing renewable energy and energy storage technology;
- c. financial strength and capital resources engaged for project funding;
- d. strong technical expertise, with a track record of high-quality operations; and
- e. experience complying with regulatory and permitting approvals in Puerto Rico.

PREPA encourages Proponents to review the following documents, which provide further technical background:

- a. **PREPA Integrated Resource Plan**: <u>https://aeepr.com/es-</u> pr/QuienesSomos/Paginas/ley57/Plan-Integrado-de-Recursos.aspx
- b. Energy Bureau Final Order on the PREPA IRP: <u>https://energia.pr.gov/wp-content/uploads/2020/08/AP20180001-IRP-Final-Resolution-and-Order.pdf</u>
- c. Energy Bureau Procurement Plan Resolution: https://energia.pr.gov/en/dockets/?docket=nepr-mi-2020-0012

The RFP will encourage Proponents to review the following additional documents, which are available for download at http://www.p3.pr.gov or at https://energia.pr.gov/en/laws/, for further background and the legal framework:

- a. PREPA Organic Act, Act No. 83-1941, as amended;
- b. Public-Private Partnership Authority Act, Act No. 29-2009, as amended (the "**PPP Act**");
- c. Regulation for the Procurement, Evaluation, Selection, Negotiation and Award of Participatory Public-Private Partnerships Contracts under Act No. 29-2009, as amended (the "**PPP Regulation**");
- d. Puerto Rico Energy Transformation and RELIEF Act, Act No. 57-2014, as amended;
- e. PREPA Revitalization Act, Act No. 4-2016, as amended;
- f. Law for Diversification through Sustainable and Alternative Energy in Puerto Rico, Act No. 82-2010, as amended ("Act 82");
- g. Act 83-2010, as amended ("Act 83"), known as the Puerto Rico Green Energy Incentives Act;
- h. Act 17-2019 ("Act 17"), known as the Puerto Rico Energy Public Policy Act; and
- i. Puerto Rico Electric System Transformation Act, Act No. 120-2018, as amended ("Act 120").

3.2 IRP

The Energy Bureau issued its Final Order on August 24, 2020. Through that Order and the subsequent Procurement Plan Resolution, the Energy Bureau established the manner in which PREPA shall procure new renewable generation and energy storage resources, take advantage of energy efficiency and plan for the retirement of most of its fossil-fueled generating units. With the RFP process described in this Procurement Plan, PREPA seeks to comply with the requirements of the IRP and the Energy Bureau's Final Order and Procurement Plan Resolution. PREPA will contract with renewable energy and battery energy storage resources procured under this Plan on a competitive basis and will

evaluate and select resource proposals in accordance with the process set forth in this Procurement Plan and the RFP.

- a. (Renewable Procurement Implementation Timeline) Act 82, as amended by Act 120, requires PREPA to procure renewable energy resources sin the following quantities by the end of specified years: 20% by 2022, 40% by 2025, 60% by 2040, and 100% by 2050. In order to comply with these targets, PREPA will solicit proposals to develop renewable generation and energy storage resources that can achieve commercial operation within twenty-four (24) months from the relevant Contract's execution date. This timeline, the Energy Bureau has concluded, should provide the Proponent with enough time to finalize all its arrangements required to proceed, which are expected to include:
 - i. Site Control
 - ii. Transmission Interconnect
 - iii. Permitting and Licensing
 - iv. Environmental Assessment
 - v. Engineer, Procure, & Construct (EPC) contract
 - vi. Financial Closure

and with enough time to execute the work required to install the project to achieve commercial operation, which will include:

- i. Final engineering and design
- ii. Equipment procurement, fabrication and delivery
- iii. Construction
- iv. Startup and commissioning.

Proposals should demonstrate the Proponent's ability to achieve commercial operation in a timeframe not to exceed twenty-four (24) months from the signing of the Contract. PREPA may also give consideration to proposals with commercial operation dates not to exceed thirty (30) months from signing of the Contract, but projects proposing a shorter timeline will be preferred, and shorter development times will be given a higher score in the RFP evaluation process.

b. (**Proposal Submission Requirements**) PREPA asks Proponents of utility scale renewable energy and BESS projects to provide a project description, which shall cover the following, as relevant to the proposal:

- i. Basic project description, including (a) project name; (b) site location (including map and site layout); (c) technology; (d) generating or storage capacity; (e) MTR compliance strategy; (f) grid connection point and electrical one-line diagrams; (g) ancillary service capabilities; (h) commercial operation date; and (i) ownership structure.
- ii. Site ownership, usage, and development status.
- iii. Current permitting and licensing status, including water rights.
- iv. Environmental permitting plan addressing all potentially applicable environmental permits (federal and local) including the following, as applicable:
 - List of potentially applicable permits evaluated or to be evaluated;
 - Result of applicability analysis for each potentially applicable permit or status of evaluation; and
 - Planned approach to obtain applicable permits including the following:
 - A. List of key activities necessary to obtain each applicable permit(s) and associated timing;
 - B. Identification of key individuals or consultants; and
 - C. Experience of those individuals in specific jurisdictions of project.
- v. Transmission upgrade plans including:
 - status of interconnection or transmission service requests, and status of related transmission agreements and approvals.
 - A detailed description and drawings of transmission and substation facilities associated with the resource, and descriptions of any special protection schemes associated with the resource and their use.
 - A demonstration that a new project offers PREPA operational flexibility. Proponents shall be required to provide a detailed description of the scheduling or dispatch process, ramp rates, automatic generation control, existing or planned Inter-Control Center Protocol ties to PREPA and any energy magnitude and duration limitations. Proponents shall also describe the capability, if any, of the new project to provide reactive support ancillary service and dynamic reactive reserve.
- vi. Proponents' design and development experience with the proposed technology.

- vii. Proponents' operating experience with the proposed technology.
- viii. Financing plan, including (a) sources of debt and equity; (b) equity percentage by sponsor; (c) financing rates and other terms; (d) level of commitment by potential lenders for construction financing and permanent financing; and (e) tax credit qualifications
- ix. Proponents' management team and key individuals responsible for project permitting, financing, design, construction, and operation.
- x. Major milestone schedule, including provisions for (a) site acquisition, control, and development; (b) permitting and licensing; (c) transmission upgrades and interconnection, if applicable and as relevant to the project location; (d) financing; (e) engineering, procurement, and construction; and (f) testing.
- xi. For each of the above categories, Proponents shall provide references to any supporting documents or attachments. Proponents' design and development experience and operating experience with the proposed technology shall include a list with the following information:
 - facility name,
 - facility location,
 - technology configuration and capacity,
 - major equipment manufacturers,
 - engineering, procurement, and construction contractor, and
 - commercial operation year.
- xii. Pricing terms which convey the essence of the proposed resource cost.
- xiii. For renewable energy generation proposals, Proponents may opt to break down pricing terms into three components:
 - MTR-Compliant Renewable Energy: This shall be the cost of energy generated by the MTR-compliant energy generation resource, not including interconnection costs and the costs associated with any additional energy storage.
 - Additional Energy Storage: This shall be the cost for any energy storage colocated with a renewable generation resource in excess of the MTR requirements.

- Project Interconnection Costs: This shall be an estimate of the cost for transmission infrastructure necessary to deliver energy to the PREPA T&D System. This may include transmission facilities and network upgrade costs required to integrate the project into the T&D System.
- xiv. The pricing proposal shall indicate:
 - Construction Start Date
 - Suppy term
 - MTR-Compliant Renewable Energy
 - A. Indexed Payments: Energy payments (\$/MWh, first year value, and escalation index)
 - B. Non-Indexed Payments: Energy payments (\$/MWh, specified by Proponent for each year)
 - Additional or Stand-Alone Energy Storage
 - A. Indexed Payments: Capacity payments (\$/kW/year, first year value, and escalation index)
 - B. Non-Indexed Payments: Capacity payments (\$/kW/year, specified by Proponent for each year)
 - For stand-alone BESS projects, Proponents should propose either:
 - A. Indexed Payments: Capacity payments (\$/kW/year, first year value, and escalation index)
 - B. Non-Indexed Payments: Capacity payments (\$/kW/year, specified by Proponent for each year)
- xv. For all projects, Proponents shall estimate Project Interconnection Costs.
- xvi. For all projects, Proponents shall specify performance:
 - For renewable energy generation proposals, the Energy Production Forecast shall indicate the forecasted P10, P50, and P90 annual energy forecast in MWh for each day and hour (8,760 entries). The forecasted values shall account for long-term performance degradation.
 - For stand-alone BESS and optional combination renewable generation and energy storage proposals, the guaranteed performance shall indicate:

- A. Guaranteed Capacity (MW / MWh)
- B. Peak Charging Time (hours)
- C. Peak Discharging Time (hours)
- D. AC-AC Round Trip Efficiency (%)
- E. Equivalent Availability Factor (%)

The guaranteed values shall account for long-term performance degradation.

- Virtual Power Plants: As specified in the Final Order, quantities sought in Tranches c. subsequent to the first two RFP Tranches may be adjusted as necessary to account for installations of distributed generation that contribute to meeting overall quantities in the Modified Preferred Resource Plan. To that end, PREPA will support the deployment of DG resources under existing programs. In addition, each RFP will be structured such that all resources and storage amounts can be aggregates of smaller installations (also known as VPPs). As specified in the Final Order and in the Procurement Plan Resolution, VPPs are explicitly allowed and must be able to compete on fair terms. The RFP will allow Proponents of VPPs to submit responses, with the assumption that the characteristics of the VPPs including pricing and reliability, will be comparable to those provided on a utility scale. VPPs will be subject to the same selection criteria as other utility scale renewable energy resources except that the minimum capacity requirement will be reduced to 5 MWs, which may be spread across multiple sites for installations to meet the minimum capacity requirement. Energy and Capacity for VPPs may be sourced from existing facilities that do not currently sell such Energy and Capacity to PREPA. Proponents of VPPs will be responsible for all metering, SCADA, and other forms of telemetry to create the VPP. VPPs will be required to comply with applicable MTRs and interconnection standards, which will reflect the distributed nature of VPP generating and storage resources, their location on the T&D System (typically on distribution-level circuits) and their limited ability to provide certain services (e.g., voltage regulation). Other considerations applicable to VPPs include:
 - i. The VPP must use existing, proven technology.
 - ii. Preference may be given to VPPs whose resources are located within a relatively close geographical area.
 - iii. The performance characteristics of the VPPs must be the same as those required from other utility scale renewable energy resources, as applicable, taking into account the distributed nature of the resource and its location on the T&D System.
 - iv. VPP projects will be responsible for the cost of all upgrades and additions to the T&D System required to accommodate the project.

PREPA will use the process of capturing VPP resources in the initial RFP Tranche to inform how it pursues VPP resources in subsequent Tranches. PREPA will use data and insights obtained and lessons learned in procuring VPP resources to (a) set realistic performance requirements (e.g., commercial terms); (b) assess the value that VPPs can provide (e.g., grid services); and (c) gauge and potentially shorten the timeline for deployment and operation of VPPs based on its procurement experience and best practices.

PREPA will only consider proposals for VPPs having the following characteristics:

- i. The VPP PPOA term must be a minimum of ten (10) years. VPP Proponents may propose Contract terms of up to twenty-five (25) years.
- ii. The generation and storage facilities aggregated into the VPP must be complete, commercially operable, and available to commence operation under the VPP PPOA within a maximum of twenty-four (24) months from Contract signing.
- iii. The facilities aggregated into the VPP must use existing, proven technology.
- iv. VPP Proponents shall provide:
 - a description of the aggregation of the program participants, and expected generating capacity and load drop values (MW), equipment, and technology;
 - a description of the Proponents' plans for recruiting, engaging, and maintaining program participants; and
 - the experience, qualifications, and financial strength of the Proponent and other key contributors. Responses should indicate whether the Proponent has ever been assessed a performance penalty in association with a VPP resource and, if so, when any penalties were assessed.
- v. For Curtailment Events initiated by PREPA the Proponent shall agree to meet, and be capable of meeting throughout the entire term of the PPOA, the capacity response/load reduction capability within the response time indicated by the Proponent in its response.
- vi. PREPA prefers resources that can provide a more rapid response and/or ramp up or down in response to specific control signals. VPP Proponents will be urged to detail the full, demonstrated response and ramping capabilities of the proposed resource.
- vii. The Proponent shall be responsible for managing capacity dispatch and load reductions, including all notices, resource participation registrations and deregistration, communications, controls, equipment, or other processes required. Communication terms shall be at the discretion of PREPA.
- viii. Costs of any property and local taxes and tax abatements shall be identified and included.

- ix. The financing plan shall include either the Proponent's or its guarantors' senior unsecured debt and/or corporate issuer ratings documentation from Fitch, Moody's and Standard & Poor's showing the name of the rating agency, the type of rating, and the rating of the Proponent or guarantor.
- x. Any material actions, suits, claims, or proceedings (threatened or pending) against the Proponent shall be identified.
- xi. Performance guarantees indicated in the proposal shall be subject to performance tests and remedies such as liquidated damages to be negotiated with PREPA.

4. Contract Terms & Conditions

4.1 General

PREPA will seek proposals for turn-key systems that will be fully operational upon testing and commissioning. Proponents shall procure, install, and operate all transmission facilities that will be part of the Proponent's facilities, such as the interconnection line and breakers, that are necessary to interconnect the Proponent's project to the T&D System. Proponents will also be responsible for all necessary upgrades to transmission facilities required to accommodate the interconnection of the project. Equipment and real property required to support such upgrades shall be transferred to PREPA upon commissioning. PREPA intends to enter into Contracts with Proponents under which Proponents will provide operation, maintenance, and monitoring services for the renewable generation and BESS resources.

PREPA will only consider proposals for renewable energy generation and storage facilities with the following characteristics:

- a. The Contract term must be a minimum of fifteen (15) and up to twenty-five (25) years and a minimum of ten (10) years for VPPs.
- b. Proposals must be site-specific.
- c. The energy resource must qualify as a renewable energy resource.
- d. The utility scale generation resource (PV solar, wind and hydro) must have a minimum nominal capacity of 20 MW. The VPP generation resource must have a minimum nominal capacity of 5 MW. Standalone BESS must have a minimum nominal capacity of 20 MW and 4 hours storage. Please note that PREPA may consider BESS proposals that offer different storage durations (2, 4, 6 hours, etc.), if such alternatives are deemed to be advantageous.
- e. The facility will comply with PREPA MTRs applicable to the technology.
- f. Specific point(s) of interconnection shall be identified.
- g. Costs of any property and local taxes and tax abatements shall be identified and included.

- h. The facility and the facility site shall be owned (or leased pursuant to a Sale Leaseback Financing; a Substitution of Leasehold Property; or any other lease arrangement meeting the Site Control requirements and otherwise acceptable to PREPA) by Proponent during all periods of the PPOA Term from and after the Construction Commencement Milestone.
- i. The facility must be complete, commercially operable, and available for commercial operation within a maximum term of twenty-four (24) months from Contract signing. Proposals identifying a period from Contract signing to commercial operation of as long as thirty (30) months will be considered, but will be scored lower than those proposing a twenty-four (24) month signing-to-commercial operation timeframe.
- j. The asset must use an existing proven technology.
- k. Any identified environmental liabilities (e.g., potential site remediation requirements) shall be explained.
- 1. Any material actions, suits, claims, or proceedings (threatened or pending) against the Proponent shall be identified.
- m. The Contract pricing shall include all costs associated with constructing and operating a completed facility for which full output will be accredited to the delivery point.
- n. The financing plan shall include either the Proponent's or guarantors' senior unsecured debt and/or corporate issuer ratings documentation from Fitch, Moody's and Standard & Poor's showing the name of the rating agency, the type of rating, and the rating of the Proponent or guarantor.
- o. Production forecasts for renewable energy facilities and performance guarantees shall be subject to performance tests and remedies such as liquidated damages to be negotiated with PREPA. Supporting energy production reports (PVsyst, wind resource assessment, hydro assessment, etc.) documenting assumptions used in the production forecasts must be provided.

The RFP will include draft Contract templates for a Renewable PPOA and an ESSA.

4.2 Contract Exceptions

Following its delivery of a Notice of Intent to Respond, each responding Proponent should (i) review the preliminary template version of the Renewable PPOA or the ESSA set forth in the Appendices of the RFP, and (ii) submit to PREPA a version of such form of Contract that shows all of the material changes such Proponent proposes to be made to the relevant Contract template, in blackline form together with a brief explanation of the rationale for each such change as a comment linked to the relevant provision containing such change (the "**Contract Exceptions**"). Proponents are encouraged to make minimal changes to the Contract template. The Contract Exceptions need not include changes related to the contextualization of the Contract for such Proponent's specific project proposal(s), which PREPA will allow during the final negotiation of a Contract with the Proponents of selected proposals.

4.3 Final Proposal Version of Contracts

Upon its receipt of Proponents' Contract Exceptions, PREPA will review and assess all such proposed exceptions, and prepare and issue to all Proponents either a final form Renewable PPOA or a final form revised ESSA, in each case that takes into account the Contract Exceptions but only to the extent that PREPA deems this necessary in its sole discretion (each, a "Final Proposal Version of Contract"). Each Proponent should submit their proposals to PREPA on the assumption that the relevant Final Proposal Version of Contract shall govern the terms and conditions under which such Proponent will design, construct, install, own, operate and maintain its proposed project as well as make available renewable energy and/or energy storage capacity and related services (as applicable) for sale to PREPA.

4.4 Interconnection Studies; Interconnection Agreement Negotiations

During the proposal evaluation, PREPA will independently model interconnection and system upgrade costs. This modeling will be conducted as follows:

- a. PREPA will perform a Feasibility Study for short-listed candidate projects to assess order-ofmagnitude interconnection and T&D System upgrade costs.
- b. Proponents will be allowed to adjust pricing to reflect Feasibility Study results.
- c. Feasibility Study results will influence the selection of a final short-list of projects, and may be iterative.
- d. PREPA will require a System Impact Study followed by a Facilities Study for short-listed projects.

PREPA's study costs shall be borne by the Proponent. Additionally, the Proponent will be responsible for the procurement and installation of all equipment shown by these studies to be necessary to interconnect the proposed facility to the T&D System. PREPA and the Proponent shall execute an Interconnection Agreement that reflects the study results in coordination with the execution of the Contract. PREPA expects to use a *pro forma* interconnection agreement, wherein the primary points of negotiation will be related to the physical interconnection requirements.

4.5 Effectiveness of Contracts

Subject to Joint Regulation 8815 and relevant directives of the FOMB, each Contract executed by PREPA shall only enter into full force and effect upon approval from PREPA's Executive Director, PREPA's Governing Board, the Energy Bureau and the FOMB.

5. **Procurement Flexibility**

The Final Order requires flexibility in the award of renewable energy contracts. As stated in the Final Order, "The Procurement Plan must allow for PREPA to choose to select resources for PPOAs in excess of the 1,000 MW minimum (solar PV or energy- equivalent other renewable) or 500 MW

minimum (battery energy storage, 4-hour duration equivalent) for either or both renewable energy and battery storage capacity if cost-effective economically and if installation feasibility allows. The Procurement Plan may contemplate contracting a lower quantity of resources than the minimum solicitation amount, depending on the responses received."

PREPA will strive to contract for the minimum quantities of renewable and BESS resources identified in the Final Order, and if circumstances warrant, will present opportunities to the Governing Board and the Energy Bureau, in accordance with Regulation 8815, to exceed the specified minimum quantities. Further, if PREPA's transmission studies indicate that significant system upgrades are required to support the Tranche 1 and 2 RFPs, these costs and upgrades will be communicated to the Energy Bureau.

6. **Planned Installation Timeline**

As the Energy Bureau has directed and as described in Section 3.2a, PREPA will be seeking project proposals that can reach commercial operation within twenty-four (24) months of the Contract's execution date. PREPA may consider proposals with commercial operation commencement dates not to exceed thirty (30) months from Contract signing, but such proposals will be disfavored; shorter development times will be given a higher score in the RFP evaluation process.

7. **RFP Schedule**

As described in Section 1.5, PREPA is developing, with the Energy Bureau's guidance and approval, a series of RFPs to comply with the Modified Action Plan for renewable generation resources and BESS to achieve compliance with the RPS. In accordance with Energy Bureau directives, PREPA plans to issue a series of RFPs (RFP Tranches) for the provision of renewable energy in support of attainment of Act 82's RPS goals, and for the provision of battery energy storage capacity in quantities needed to meet PREPA's peak load requirements and to satisfy requirements for the integration of renewable energy generation.

The RFP for Tranche 1 will be issued as early as possible in 2021. The expected timeline of the release of subsequent RFPs will be six (6) month intervals to be issued in sequence (i.e., every six (6) months, over the next three (3) years for a total of six (6) tranches of RFP releases). The procurement of resources may be front-loaded within the five-year period in order to allow time for construction, interconnections, and commissioning within the five-year Action Plan.

8. Adjustments to Procurement Plan to Reflect Distributed Generation (DG)

As specified in the Final Order, quantities of resources sought subsequent to the first two RFP Tranches may be adjusted if or as necessary to account for installations of DG that contribute to meeting overall quantities specified in the Modified Preferred Resource Plan, and for resources that PREPA identifies and contracts with in excess of the minimum amounts required in each of the earlier RFPs. For purposes of the Procurement Plan, DG resources are resources added to the system outside of the RFP process.

PREPA will support the deployment of distributed generation resources under existing programs (i.e. net metering). In addition, the RFPs issued under this Procurement Plan will be structured such that all resources and storage amounts can be aggregates of smaller installations (that is, VPPs are explicitly allowed and will be able to compete on fair terms). As long as PREPA has visibility into the VPP, and the characteristics of the distributed resource, including pricing and reliability, are comparable to those provided on a utility scale, there is no reason VPPs cannot compete with utility-scale resources for provision of energy and storage capacity. Proponents of such resources may respond to the RFP.

9. Evaluation Parameters

9.1A General

The Final Order and the Procurement Plan Resolution specified certain evaluation parameters to be employed in evaluating responses to the RFP. Proposals made in response to each RFP issued under this Procurement Plan shall indicate the proposed RFP Tranche, and shall address at least the following evaluation parameters:

- a. Least-cost, energy basis (measured on the basis of levelized cost of energy).
- b. Least-cost, capacity basis. The proposal should specifically describe the manner in which the project will provide ancillary services (frequency response, operating reserve, reactive support) in addition to capacity to meet peak load.
- c. Recognition of T&D System loss benefits associated with the selection of VPP and DG bids.
- d. Recognition of the potential that proposed resources will provide additional resiliency benefits, and/or will permit avoidance of incremental T&D System costs.
- e. Estimated timeline for completing installation of resources, with faster installation timelines to be accorded preference.
- f. Technical superiority of location for interconnection purposes.
- g. Adherence to locational preferences closer to load.
- h. Community impacts and acceptance of proposed resource.
- i. Locational diversity around the Islands of Puerto Rico in proportion to load, within each MiniGrid region, and especially in MiniGrid regions exhibiting relatively less existing capacity in proportion to existing peak load.

9.1B Minimum Requirements of RFP Responsel

a. **(General)** As a minimum, proposals will be expected to identify clearly their pricing structure, estimate the project's connection costs and impacts upon the existing T&D System, and provide a timeline for completing installation as described herein.

- b. **(Technical and Operational Capabilities Minimum Criteria)** Proponents must be able to demonstrate the following:
 - i. Ownership / establishment by Proponent (or, for a Proponent consortium, at least one member of such consortium) of one (1) or more existing renewable energy and/or BESS, including VPPs, (each, a "**Reference Project**"), with each Reference Project satisfying the following requirements:
 - For renewable energy and/or BESS other than VPPs:
 - A. experience developing, financing, constructing and operating such project;
 - B. compliance with the initial development timeline for such project;
 - C. utilization of cost-effective technology;
 - D. installed capacity of at least 20 MW;
 - E. utilization of technology similar to that which the Proponent intends to submit in its proposal under this RFP; and
 - F. direct or indirect ownership by the Proponent or its Affiliate of at least thirty-five percent (35%) of the legal entity which directly owns such Reference Project.
 - For BESS, experience developing and assembling the proposed system for such resource in at least one (1) commercial (non-demonstration) grid-connected installation;
 - For VPPs:
 - A. experience aggregating multiple generation and/or storage resources; and
 - B. installed VPP capacity either (i) currently in commercial operation, supplying capacity and energy to one (1) or more purchasers, or (ii) contractually committed to supply capacity and energy prior to the second anniversary of the issuance of this RFP;
 - ii. For each existing energy and/or BESS designated as a Reference Project, a certification confirming no material or sustained violation of Applicable Law, relating to any environmental matter involving the development, construction or operation of such project during the past three (3) years;

- iii. For each Reference Project, a certification confirming such project's compliance with energy-related policies, practices, and regulations and all other Applicable Law during the past three (3) years; and
- iv. For each Reference Project, a certification confirming no record of Unsatisfactory Performance.

Proponents shall also comply with each of the specific requirements set forth in Section 3.2 of the RFP.

- c. (Interconnection Requirements) A Proponent's T&D System interconnection plan will be a crucial factor in evaluating the delivery risk associated with each proposal submitted as part of the RFP. PREPA intends to indicate to Proponents, to the best of its ability, the extent to which any transmission or distribution locational limitations could affect the cost and feasibility of interconnecting utility scale renewable or BESS projects at various points on the T&D System. It will also, insofar as is practicable, identify limitations that could limit the location or geographic dispersion of resources to be aggregated as VPPs. Proponents must consider the following factors in any proposal submitted pursuant to this RFP:
 - i. The physical limitations on the delivery of energy to the PREPA transmission system.
 - Utility-scale projects can interconnect to either the PREPA 38 kV system or the 115 kV system.
 - Individual projects connecting to the 38 kV system cannot exceed 25 MW.
 - Distributed scale projects (such as distributed resources aggregated into VPPs and distributed battery energy storage resources) may interconnect to the PREPA distribution system at voltages below 38 kV, with preference to be given to distributed resources that connect to 13.2 kV feeders.
 - ii. Projected system upgrade costs required by the additional energy injected onto the grid by the proposed resource.
 - iii. Rights-of-way necessary to be able to construct the transmission lines and interconnection facilities needed to connect the proposed resource to the PREPA transmission or distribution system, as the case may be.

Proponents should provide a detailed transmission system or distribution system interconnection plan with their proposals. Proponents must ensure that all requirements of the applicable PREPA MTRs are met when developing this plan. Proponents should use their best efforts to provide an accurate estimate of the transmission or distribution system interconnection and network upgrade costs.

Individual projects that will form part of a VPP and will be interconnected at distribution voltage levels cannot exceed 1 MW, and shall comply with the corresponding interconnection

regulations. Preference will be given to projects interconnected at 13.2 kV feeders, as this is the highest distribution voltage on the island and is better able to handle DG/DER resources. In addition to this, PREPA's plans call for the eventual conversion of most of the distribution circuits to this voltage level. Proponents must include a detailed interconnection plan with their proposals.

During the proposal evaluation period, PREPA will independently model interconnection and system upgrade costs, where possible analyzing clusters of potential projects, based on an initial selection of RFP responses that PREPA ranks high on its list of projects eligible for contracting in the first and subsequent RFP Tranches. In addition, PREPA will evaluate the extent to which multiple projects have proposed or can be made to share the same interconnecting facility, if reasonable and applicable for any given set of proposals. PREPA will give priority to proposals that provides resource installations at or technically close to the indicated priority locations. PREPA will evaluate the impact of the proposals will require additional network upgrades. The Proponents' offer should be inclusive of all estimated interconnection and network upgrade costs.

In its evaluation of short-listed candidate projects:

- i. PREPA will perform a Feasibility Study to assess order-of-magnitude interconnection and system upgrade costs. PREPA will cluster successful respondents to the Tranche 1 RFP which do not yet have completed interconnection agreements for interconnection studies. In such studies PREPA will analyze the impacts of integrating a group or cluster of renewable energy and/or BESS projects at specific locations when ranking or selecting potential projects for installation, especially in regard to assessing any required network upgrades or the potential to utilize shared interconnecting facilities across multiple projects.
- ii. Proponents will be allowed to adjust pricing to reflect the Feasibility Study results.
- iii. The Feasibility Study results will influence the selection of a final short list of projects and may be iterative.
- iv. PREPA will require a System Impact Study followed by a Facilities Study for final short-listed projects.

PREPA's study costs shall be borne by the Proponent. Additionally, the Proponent will be responsible for the procurement and installation of all equipment necessary to interconnect the proposed facility to PREPA's transmission system. PREPA will assist the Proponent, as appropriate, in reviewing necessary rights-of-way. PREPA and the Proponent shall execute an Interconnection Agreement that reflects study results in coordination with the execution of the relevant Contract. PREPA will not execute a Contract before the results of the Feasibility Study, System Impact Study and Facilities Study are available and the Proponent has adjusted

its proposal to reflect those results and incorporated any additional interconnection or transmission facilities that may be required.

- d. (Minimum Specific Interconnection Requirements for Projects) PREPA will prepare MTRs describing minimum technical requirements required for transmission interconnection of each alternate technology and include the MTRs in the RFP for:
 - i. Utility-Scale Solar
 - ii. Wind
 - iii. Virtual Power Plants (VPPs)
 - iv. BESS

e. (Financial Minimum Criteria)

- i. Financial Capacity of Team: Proponent must demonstrate adequate financial wherewithal to complete the development of its proposed project.
- ii. Financial Capability of Team: Proponent must demonstrate adequate financial wherewithal to fulfill the terms of the Contract and Interconnection Agreements.
- iii. The purpose of the quality control review is to determine which proposals satisfy the minimum requirements outlined in the RFP. Each Proponent shall be notified whether its proposal passed the quality control review and whether it will be advanced to Phase II.

9.2 Phase I Quality Control Review

As described in Section 1.3c, Joint Regulation 8815 establishes a three-phase selection process: (i) quality control review, (ii) Project Committee review and recommendation, and (iii) Contract negotiation. The purpose of the quality control review is to determine which proposals satisfy the minimum requirements outlined in the RFP. Each Proponent shall be notified whether its proposal passed the quality control review and whether it will be advanced to Phase II.

9.3 Phase II Project Committee Review and Recommendation

As described in Section 1.3c, during Phase II, the PREPA Project Committee will review and evaluate each proposal in accordance with the selection criteria. The Project Committee may select one or more proposals to advance to Phase III. For the Procurement Plan, it is anticipated that the Project Committee will select more than one proponent. Phase II will be divided into a qualitative evaluation and a pricing evaluation. PREPA will assign weights for each of the price-related and qualitative criteria.

- a. (Phase II Qualitative Evaluation) PREPA's Project Committee will perform the initial screening and shortlisting of proposals in Phase II according to a qualitative evaluation. The evaluation will consist of the following steps:
 - i. Verify that the Proponent has provided all information listed in the Proposal Completeness Checklist.
 - ii. Organize the proposals into groups according to (a) the proposed technology, and (b) groups that will allow for distributed generation benefits to be recognized, for resiliency and for avoided T&D System cost assessment purposes.
 - iii. Review the information supplied by the Proponent in the proposal data forms.
 - iv. Assure compliance with the MTRs applicable to the proposed technology, as well as the suitability, feasibility and cost of the proposed interconnect.
 - v. Develop an initial qualitative score according to the information supplied by the Proponent for the proposed technology. The qualitative score will be based on technical viability, development status, developer experience, and financing plan and qualifications. PREPA will prefer projects with faster installation timelines, and those with better technical locations for interconnection purposes.
 - vi. Determine the composite Phase II score from the weighted qualitative score
 - vii. Develop a list of preferred proposals from the highest scoring proposals within each technology category

The Phase II qualitative evaluation will also consider the following criteria:

Item	Category/Criteria
А	Technical Viability
В	Development and Schedule Risk
C	Permitting Risk
D	Environmental Impacts
Е	Contractor Experience
F	Financing Plan and Qualifications
G	T&D System Integration
Н	Site Control
Ι	Community Impacts and Acceptance

Table 9-1 — Phase II Qualitative Criteria

Item	Category/Criteria
J	Operations and Maintenance Plan
K	Exceptions to Agreements

The Phase II qualitative evaluation will use the information supplied by the Proponent in the proposal data forms and templates contained in the RFP Appendices, considering the following criteria:

- i. **(Technical Viability)** The evaluation team will review each proposal for conformance to the technical requirements in the RFP including compliance with appropriate PREPA MTRs.
- ii. **(Development and Schedule Risk)** The evaluation team will assess the completeness and feasibility of the proposed project implementation and evaluate **the** likelihood of meeting the milestone dates and expected performance.
- iii. (Permitting Risk) The evaluation team will examine the Proponent's permitting plan and schedule and the likelihood that the Proponent can obtain required **permits**. This examination will consider whether the Proponent has identified the relevant permits and approvals necessary for construction and operation of the proposed project.
- iv. (Environmental Impacts) The evaluation team will assess the project's overall impact on the environment, whether the project will likely result in potentially significant environmental impacts, and the degree to which potential impacts can be satisfactorily mitigated. This will include an examination of any known sensitive environmental features on or adjacent to the site such as waterways, wetlands, floodplains, archaeology and architectural resources, historic properties, degraded ambient air quality, contamination, ongoing hazardous materials remediation, threatened and endangered species, airports, residences or other sensitive noise receptors, and a discussion of storm-resistant features and other reliability features to determine the suitability of the project at the proposed site location.
- v. (Contractor Experience) The evaluation team will evaluate the Proponent's experience and success in developing projects of a design and size similar to the proposed project.
- vi. (Financing Plan and Qualifications) The evaluation team will evaluate the Proponent's proposed financing plan and experience in successfully financing projects of a similar size and complexity. The evaluation will also determine if the Proponent has any financing commitment for the project that will be provided by a creditworthy entity that is likely to be acceptable in form and substance to PREPA.

- vii. **(T&D System Integration)** The project's technical characteristics will be evaluated to identify those projects that address PREPA's system needs as defined in the RFP and PREPA's IRP. The evaluation team will evaluate risks to reliability (voltage control, reactive capability, protection coordination, frequency response, etc.) and deliverability to the PREPA T&D System, as well as the potential for avoidance of T&D System costs and enhancement of system resiliency associated with particular project locations or configurations.
- viii. (Site Control) Issues to be considered with respect to the project site will include whether the site is owned or leased (and for what term) by the Proponent or, if not, whether the Proponent has executed an option to lease/purchase, a Memorandum of Understanding or a Letter Of Intent for the project site; and whether there are any significant issues that could prevent the Proponent from obtaining timely site control or beginning construction on the proposed site.
- ix. (Community Impacts and Acceptance) The evaluation team will review the proposal for potential socioeconomic benefits and harm to the community. The committee will assess known community support for or opposition to a Proponent's project, including the Proponent's plan to manage community relations.
- x. **(Operations and Maintenance Plan)** Proponents are asked in Appendix C of the RFP to provide information about their operations and maintenance plan, as applicable, including contract term, scope, experience, and pricing.
- xi. (Exceptions to Agreements): Proponents are asked to review PREPA's draft Contract templates and (when available) form of Interconnection Agreement and identify any proposed exceptions as well as proposed alternative contract language. Proponents are encouraged to make minimal changes to the Contract template and Interconnection Agreement form. The evaluation team will review the proposed changes and alternative contract language to assess the number and extent of exceptions, the benefits and risks such exceptions impose on PREPA and the likelihood that PREPA would be able to negotiate an acceptable agreement with the Proponent.

During the screening process, the Project Committee may request additional information or clarifications from the Proponents. These requests, and any communications with a Proponent during the evaluation process, shall not be construed as contract negotiations. Requests made by the Project Committee for additional information or clarifications will be in writing via email. Proposals with outstanding requests beyond the response period may be removed from consideration and further evaluation.

At the conclusion of the Phase II qualitative evaluation, Proponents will be notified as to whether their proposals were shortlisted for further evaluation of pricing proposals.

- b. **(Phase II Final Pricing Evaluation)** The Phase II pricing evaluation will consider the allin costs that each proposal is expected to impose on PREPA's customers, to the extent that the evaluation team is able to quantify such costs. These will include:
 - i. Contract charges, including pass through costs;
 - ii. Costs for required transmission reinforcements;
 - iii. Costs for required distribution reinforcements;
 - iv. System impacts including, but not limited to, impact on transmission transfer capability, and PREPA capacity requirements and deliverability; and
 - v. LCOE or, in the case of BESS proposals, LCOS.

The LCOE or LCOS, as applicable, is defined as the present value of the estimated annual costs of a proposal or cost component of a proposal over the evaluation period (i.e., the proposed Contract term) divided by the equivalent present value of the energy (or capacity) that resource is estimated to produce over the same period. Levelized cost is expressed in \$/MWh or \$/kW-year.

Other pricing-related factors to be considered in the final pricing evaluation are set forth in [Section 5.2.2] of the RFP Template.

The Phase II pricing evaluation will determine the cost effectiveness of the shortlisted proposals. The Phase II detailed pricing evaluation will include and reflect information received in response to any clarifying questions, interviews, site visits, and other due diligence. PREPA will give preference in its evaluation to Proponents whose pricing proposals consider the future emergence of PREPA from protection under PROMESA and contain a price adjustment mechanism that would reflect PREPA's improved credit quality at such time. PREPA anticipates that Puerto Rico's emergence from Title III bankruptcy will make PREPA a more attractive contract counter-party, that project developers will factor this into their cost of capital calculations and that they will incorporate the results in their project's LCOE or LCOS. PREPA invites Proponents to identify any information they believe they will need from PREPA in order to conduct a pricing sensitivity analysis around Puerto Rico's pre- and post-emergence from Title III bankruptcy.

Following completion of the Phase II pricing evaluations, the Project Committee will recommend proposals to proceed with Phase III contract negotiations as described in Section 1.3c. Selection of a proposal for contract negotiations shall not be construed as a commitment by PREPA to execute an agreement. During the period between PREPA's selection of proposals that shall proceed with contract negotiations and the date of execution of any Contract, PREPA will conduct additional due diligence on the proposals. This may include, but not be limited to, onsite visits, management interviews, environmental, legal and regulatory due diligence, detailed engineering assessments, and facility dispatch modeling.

10. Other Considerations

PREPA will seek to procure more than 1000 MW of renewable energy or 500 MW of battery storage capacity resources in response to the initial RFP Tranches if such resources are shown to be cost-effective, and if the installation pace is feasible, thus accelerating the level of installations that would otherwise arise from subsequent RFPs. Battery energy storage bids can include MW and MWh from existing resources currently not contracted to PREPA, if they meet technical requirements for visibility, control, or other related technical needs.

All resources and storage amounts can be aggregates of smaller installations (that is, VPPs are explicitly allowed). Combined or individual bids for renewable generation, BESS, or combinations of renewable generation and battery resources are permitted. Options for additional energy storage beyond requirements of MTRs will be considered for combinations of renewable generation and battery resources.

This Procurement Plan treats DG renewable resources as resources built and operated by PREPA's customers which offset consumption and, for the most part, benefit from PREPA's net-metering programs. VPPs may aggregate DG renewable resources and battery energy storage resources such that the VPP behaves, from the utility's perspective, as a single renewable energy resource. Proponents may submit VPP resource proposals that aggregate smaller installations, including existing facilities. VPP Proponents may participate in PREPA's net-metering programs to the extent that they elect this option, in accordance with the discussion of this subject set forth in Appendix A to the Procurement Plan Resolution, at item VII. 2.

PREPA will use the process of capturing VPP resources in its initial RFP to inform how it pursues VPP resources in subsequent RFP Tranches. In keeping with the Energy Bureau's directive in this regard, PREPA anticipates that it will use data, insights and lessons learned from its conduct of the initial RFP to (a) set realistic performance requirements (e.g., commercial terms); (b) assess the value that VPPs can provide (e.g., grid services); and (c) better gauge and potentially shorten the timeline for deployment and operation of VPPs based on its experience and best practices.

PREPA has commissioned a renewable generation integration study that will assess the current capability of PREPA's power grid to accommodate increased levels of renewable generation capacity. This study addresses the penetration of the maximum PV generation and energy storage system required to comply with the RPS guidelines of 40% renewable energy penetration by 2025 and includes both electrical and production cost/economic dispatch analyses. It also identifies, at a high level, preferred interconnection locations on PREPA's T&D System based on the current capacity of the system and needed electrical system upgrades, in addition to providing a modeling basis for transmission Feasibility, System Impact, and Facility Studies. The relevant findings from the renewable generation integration study will be made available to assist Proponents with their proposals. Thus far, the ongoing renewable generation integration analysis indicates that for the existing grid, the maximum acceptable penetration of renewable generation, given the current topology of the power grid without any additional electrical support, would be around 650 MW (existing plus new projects) before major system upgrades must be undertaken.

The RFP will include an attachment that lists those substations where interconnection is considered preferable for utility scale installations, where it is technically feasible to do so. The list will furnish (a) explanatory caveats where uncertainties exist as to the range of potential interconnection capacity, and (b) the maximum quantities of renewable energy or battery storage system capacity that can be connected at each of these locations, for the purpose of indicating to developers where the best locations are. PREPA is not bound by this information to accommodate any given MW amount at any given connection point, and it should not be construed as a limitation on the maximum amount of renewable energy or battery storage system MWs that can be connected to the grid.

Priority locations to be identified in the RFP and accompanying materials will include locations for utility scale and distributed generation renewable energy projects with energy storage. PREPA will strive to identify those locations at which interconnection of required energy and storage resources will enhance reliability and can be accomplished quickly.

PREPA will reflect in its procurement process explicit performance incentive metrics related to the timeliness and effectiveness of PREPA's procurement and interconnection of resources consistent with metrics reporting requirements being developed under Case No. NEPR-MI-2019-0007.

Appendix 1.RFP Draft Template

Appendix 2. PPOA Draft Template

Appendix 3. ESSA Draft Template

Appendix 4. Joint Regulations 8815

02 Procurement Plan Appendix B_22Dec2020

03 RE RFP_02B (PREB Submittal Version II)

a. 03 RE RFP_Appednix H_MTRs

b. 03 RE RFP_Appendix C_Proposal Data Forms

c. 03 RE RFP_Appendix I_Interconnection_BESS

d. 03 RE RFP_Appendix I_Interconnection_Solar

e. 03 RE RFP_Appendix I_Interconnection_Wind

f. 03 RE RFP_Appendix_J_Preferred Location of Energy Resources

g. 03 Appendix F_Form of Energy Storage Services Agreement - Appendix F_Form of Energy Storage Services Agreement

h. 03 Solar PPOA_RE RFP_02 - Appendix E_Form of Solar PPOA

04 SL Renewable Integration Study of Puerto Rico 22Dec2020_Final

05 Utility Scale Interconnections Preferred Locations

06 Utility Scale RE and BESS Preferential Locations Maps