



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

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

CASE NO.: NEPR-MI-2020-0012

SUBJECT: Renewable Energy Generation and Energy Storage Resource Procurement Plan – First Tranche Projects for Phase III Contract Negotiation and Final Interconnection Plan Approvals

**RESOLUTION AND ORDER**

On August 24, 2020 the Energy Bureau of the Puerto Rico Public Service Regulatory Board (“Energy Bureau”) issued its Final Resolution and Order (“IRP Order”), under Case No. CEPR-AP-2018-0001, with respect to the Integrated Resource Plan (“IRP”) of the Puerto Rico Electric Power Authority (“PREPA”). The IRP Order approved a Modified Preferred Resource Plan that included a plan for six (6) tranches of procurement of renewable energy and battery storage resources.

On November 8, 2021 the Energy Bureau issued a Resolution and Order (“November 8 Order”) ordering PREPA to (i) on or before November 12, 2021, submit the results of Selection of Proposals for Phase III with the pricing evaluation per technology group required by the Energy Bureau together with copies of any communications to proponents selected to proceed to Phase III; and (ii) on or before December 1, 2021, complete Phase III and submit to the Energy Bureau for its evaluation and approval the corresponding draft Power Purchase and Operation Agreements.

On November 9, 2021, PREPA submitted a document titled *Motion Submitting Pricing Information Per Technology Group Regarding the Tranche 1 RFP and Request to Lift Imposition of Sanctions* (“November 9 Motion”). The November 9 Motion included a Sargent and Lundy (S&L) report entitled *Renewable Energy Generation and Energy Storage RFP Tranche 1, Phase II: Qualitative and pricing Evaluation* (“S&L Report”)¹.

On November 18, 2021, PREPA filed a document titled *Motion Requesting Limited Extension of Time of Seven (7) Days to Finalize Phase III of the Tranche I Renewables RFP* (“November 18 Request”). Through the November 18 Request, PREPA requests the Energy Bureau an extension of seven (7) days of the December 1, 2021 deadline. PREPA requested the Energy Bureau to grant until December 8, 2021 to complete Phase III and submit to the Energy Bureau for its evaluation and approval, the corresponding draft Power Purchase and Operation Agreements required by the November 8.

Upon review of the S&L Report on the Qualitative and Pricing Evaluation of renewable energy and energy storage offerors’ response to the Tranche 1 RFP, the Energy Bureau **ORDERS** PREPA to revise the formulations it uses to report on Tranche 1 respondent resource costs to be in line with the cost parameterization methods used in the IRP.

Those methods utilized the U.S. National Renewable Energy Laboratory (NREL) approach to computing levelized cost of energy (LCOE) for solar PV, and simpler formulations of battery energy storage costs. The S&L Report provided by PREPA did not explain why it used a formulation that discounted the energy term in the denominator of the LCOE formula, and

¹ PREPA requested confidential treatment to the S&L Report.

in the denominator of the levelized cost of storage (LCOS) formula. The NREL approach does not discount the energy term in the denominator of the formula for levelized cost of energy.<sup>2</sup>

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For all solar PV projects, the Energy Bureau **ORDERS** PREPA to include actual respondents' costs and estimated resource output and develop a levelized cost of energy (LCOE) metric consistent across all respondents and consistent with the formulation used to estimate LCOE as presented in the IRP.<sup>3</sup> The Energy Bureau further **ORDERS** PREPA to not discount the energy term used in the denominator of the LCOE equation.

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The cost for battery energy storage resources was presented in the IRP in Capital and Operating cost assumptions.<sup>4</sup> The Energy Bureau **ORDERS** PREPA to prepare battery energy storage cost summaries for respondents' offers so it allows for meaningful comparison to the battery cost assumptions used in the IRP. While the Energy Bureau does not explicitly require PREPA to compute a levelized cost of storage (LCOS), PREPA must present cost information that allows for direct comparison to the assumptions used in the IRP. If PREPA elects to compute a LCOS, the Energy Bureau further **ORDERS** PREPA to not discount the energy term used in the denominator of the LCOS equation.

The Energy Bureau requires the Tranche 1 respondent cost information with the updated computation of LCOE (for solar PV) and updated battery cost metrics to determine which price proposals are just and reasonable for PREPA to finalize Phase III negotiations.

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The Energy Bureau **ORDERS** PREPA's to submit the updated price proposal information containing the LCOE and battery cost metrics described herein **on or before December 8, 2021**.

The Energy Bureau **EXTENDS** the December 1, 2021 deadline required by the November 8 Order, and **ORDERS** PREPA to complete Phase III and submit to the Energy Bureau for its evaluation and approval, the corresponding draft Power Purchase and Operation Agreements **on or before December 17, 2021 by 1:00 p.m.**

The Energy Bureau **WARNS** PREPA that, noncompliance with any provision of this Resolution and Order, may result in the imposition of fines under Act 57-2014<sup>5</sup> and applicable Energy Bureau's regulations and any other appropriate administrative sanctions, as deemed appropriate by the Energy Bureau.

Be it hereby notified and published.



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<sup>2</sup> NREL's description of its LCOE formulation approach is publicly available here <https://www.nrel.gov/analysis/tech-lcoe-documentation.html>. Visited December 2, 2021.

<sup>3</sup> PREPA IRP, Exhibit 6-34, Levelized Cost of Energy of Solar PV – Base Case. Page 6-25. June 2019.

<sup>4</sup> PREPA IRP, Exhibit 6-38 and 6-39, 4-hour Li-Ion Battery System Capital Cost Forecasts, and Li-Ion Battery System Capital Cost and Operating Cost Assumptions – Base Case (respectively). Page 6-31. June 2019.

<sup>5</sup> *The Puerto Rico Energy Transformation and RELIEF Act*, as amended.

  
Edison Aviles Deliz  
Chairman

  
Ángel R. Rivera de la Cruz  
Associate Commissioner

  
Lillian Mateo Santos  
Associate Commissioner

  
Ferdinand A. Ramos Soegaard  
Associate Commissioner

  
Sylvia B. Ugarte Araujo  
Associate Commissioner

### CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on December 3, 2021. I also certify that on December 3, 2021 a copy of this Resolution and Order was notified by electronic mail to the following: laura.rozas@us.dlapiper.com; margarita.mercado@us.dlapiper.com, kbolanos@diazvaz.law; mvazquez@diazvaz.law. I also certify that today, December 3, 2021, I have proceeded with the filing of the Resolution and Order issued by the Puerto Rico Energy Bureau.

For the record, I sign this in San Juan, Puerto Rico, today December 3, 2021.

  
Wanda I. Cordero Morales  
Interim Clerk

