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

IN RE: REVIEW OF THE PUERTO RICO ELECTRIC POWER AUTHORITY'S 10-YEAR INFRASTRUCTURE PLAN – DECEMBER 2020	**CASE NO.:** NEPR-MI-2021-0002 **SUBJECT:** Status of SOW for: "4 x 25 MW BESS Interconnections at LUMA 38kV System"

RESOLUTION AND ORDER

On March 26, 2021, the Energy Bureau of the Puerto Rico Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order ("March 26 Resolution") through which it ordered the Puerto Rico Electric Power Authority ("PREPA") to provide certain information related to the different projects under the categories of Transmission Line Projects, Transmission Substation Projects, and Distribution Substation Projects in the PREPA 10 - Year Infrastructure Plan. The Energy Bureau ordered PREPA to submit each specific capital investment project for approval to avoid potential noncompliance with the Approved Integrated Resource Plan ("IRP") and Modified Action Plan.[1]

On August 20, 2021, the Energy Bureau issued a Resolution and Order ("August 20 Resolution"),[2] through which it determined that the March 26 Resolution applies equally to LUMA[3].

On August 25, 2023, LUMA filed a document titled *Motion Submitting One Scope of Work, Request for Confidentiality and Supporting Memorandum of Law* ("August 25 Motion"), in which LUMA submits the scope of work ("SOW") for the following project: "4x25 MW BESS interconnections on LUMA System.[4] Such project is described in Exhibit 1 of the August 25 Motion.

Through the August 25 Motion, LUMA submitted SOW for: "4 x 25 MW BESS Interconnections at LUMA 38kV System" as Exhibit I.

The SOW of the "4 x 25 MW BESS Interconnections at LUMA 38kV System" includes the construction of the following infrastructure:[5]

- Four Energy Storage Systems ("ESS") are considered for this project. The ESS size is to be 25MW/100MWh for a 38kV interconnection.
- Each ESS shall have the Power Station (bi-directional inverters-PCS, step-up transformers, as needed, and AC switchgear) DC block (batteries and associated BMS), controls and monitoring system, protection systems (DC and AC levels), heating/cooling systems (thermal management), fire prevention, gas monitoring and protection systems, and communications systems.
- Thirty-six (36) new 38/.48kV 3MVA Dry Type Transformers.
- The fast frequency regulation (FRR) will be the primary use case that shall be considered in the ESS sizing calculation.
- The frequency regulation is based on a measurement from an accurate Power Quality Meter (PQM) at PCC location certified for precise measurements. The high-accuracy grid frequency measurements from PQM shall be used for driving the FFR application.

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[1] Final Resolution and Order on the Puerto Rico Electric Power Authority's Integrated Resource Plan, *In re: Review of the Integrated Resource Plan of the Puerto Rico Electric Power Authority*, Case No. CEPR-AP-2018-0001, August 24, 2020 ("IRP Order").

[2] August 20 Resolution, p. 3.

[3] LUMA Energy, LLC, and LUMA Energy ServCo, LLC (collectively referred as, "LUMA").

[4] August 25 Motion, p. 2, ¶ 3.

[5] August 25 Motion, Exhibit 1, pp. 4-5.

Project Approved by the Energy Bureau

Region	Project Name	Presented Estimate ($M)	
Island wide Substation	4x25 MW BESS Interconnections on LUMA System	Architectural & Engineering Design	$21,127,952.00
		for Procurement and Construction	$195,451,476.00
		Total	**$216,579,428.00**

The total estimated costs for the project represent **$216,579,428.00** which includes **$21,127,952.00** for Architectural & Engineering Design and **$195,451,476.00** for Procurement and Construction. All costs are based on a Class 5 estimates that includes materials, construction, labor, and equipment, engineering, permitting, management, and contingencies.[6]

On August 30, 2023, the Energy Bureau determined that the project is necessary to improve the reliability and resiliency of the Puerto Rico electric transmission system, by interconnecting the Energy Storage Systems (ESS) to four locations across Puerto Rico ("August 30 Resolution"). Through the August 30 Resolution, the Energy Bureau approved the project as described in Attachment 1 of the Resolution which represents **$216,579,428.00** based on the Class 5 Cost Estimates submitted by LUMA.

On the August 30, 2023 Resolution, the Energy Bureau stated that LUMA shall present to FEMA and COR3 the project to finalize their approval process for the request of federal funds.

The Energy Bureau **ORDERS** LUMA to inform, **on or before January 9, 2025**, the status of the approval process, the actual contracted cost to construct, and the status of the project.

The Energy Bureau **WARNS** LUMA that, noncompliance with any provision of this Resolution and Order, may result in the imposition of fines under Act 57-2014[7] and applicable Energy Bureau's regulations and any other appropriate administrative sanctions, as considered appropriate by the Energy Bureau.

Be it notified and published.

Edison Avilés Deliz
Chairman

Sylvia B. Ugarte Araujo
Associate Commissioner

Antonio Torres Miranda
Associate Commissioner

[6] Exhibit 1, p. 7.

[7] Known as the *Puerto Rico Energy Transformation and RELIEF Act*, as amended ("Act 57-20214").

CERTIFICATION

I hereby certify that the majority of the members of the Puerto Rico Energy Bureau has so agreed on January 3, 2025. Associate Commissioners Lillian Mateo Santos and Ferdinand A. Ramos Soegaard did not intervene. I also certify that on January 3, 2025, a copy of this Resolution and Order was notified by electronic mail to arivera@gmlex.net; mvalle@gmlex.net; RegulatoryPREBOrders@lumapr.com; laura.rozas@us.dlapiper.com; margarita.mercado@us.dlapiper.com, Yahaira.delarosa@us.dlapiper.com; julian.angladapagan@us.dlapiper.com; alopez@sbgblaw.com; jfr@sbgblaw.com, legal@genera-pr.com, regulatory@genera-pr.com; and 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, on January 3, 2025.

Sonia Seda Gaztambide
Clerk

NEGOCIADO DE ENERGÍA DE PUERTO RICO
JUNTA REGLAMENTADORA DE SERVICIO PÚBLICO