

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

**NEPR**

**Received:**

**Apr 29, 2022**

**12:50 PM**

**IN RE:**

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

**CASE NO. NEPR-MI-2020-0012**

**SUBJECT: Motion in Compliance with the Progress  
Report and Updated Task Schedule Requirements of the  
Energy Bureau's Resolution and Order of April 27, 2022**

**MOTION IN COMPLIANCE WITH THE PROGRESS REPORT AND UPDATED TASK  
SCHEDULE REQUIREMENTS OF THE ENERGY BUREAU'S RESOLUTION AND  
ORDER OF APRIL 27, 2022**

**TO THE PUERTO RICO ENERGY BUREAU:**

**COME NOW LUMA Energy ServCo, LLC and LUMA Energy, LLC** (collectively  
“LUMA”), through the undersigned legal counsel, and respectfully submit the following:

1. On April 27, 2022, this honorable Puerto Rico Energy Bureau of the Public Service Regulatory Board (the “Energy Bureau”) issued a Resolution and Order (the “April 27<sup>th</sup> Order”) in connection with the eighteen (18) renewable energy projects of the Tranche 1 renewable energy procurement<sup>1</sup> that were approved by the Energy Bureau by Resolution and Order of February 2, 2022 (the “Approved Projects”).

2. In the April 12<sup>th</sup> Order, the Energy Bureau indicates that, based on information provided by PREPA, PREPA “is waiting for the completion of certain technical studies (i.e., Facilities Studies: Network Upgrades and Final Report: Interconnection Studies) by [...] LUMA

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<sup>1</sup> This is the first procurement tranche to be conducted by the Puerto Rico Electric Power Authority (“PREPA”) contemplated under the 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, of August 24, 2020.

to proceed with the execution of the Power Purchase Agreements (“PPOAs”)” for these Approved Projects (*see id.* at p. 1 (footnote omitted)) and LUMA had provided PREPA a “task schedule with specific dates to produce the final technical studies (“Task Schedule”)” (*see id.* (footnote omitted)). The Energy Bureau then issues separate orders to LUMA and PREPA with respect to expediting the work necessary to lead to the execution of the PPOAs. *See id.*

3. Specifically, the Energy Bureau orders LUMA to file with the Energy Bureau a “motion including: (i) progress report of the status of the mentioned studies on or before April 29, 2022, at 12:00 pm; and (ii) provide an updated Task Schedule with a shortened deadline or a certification, under oath, that all efforts to expedite the completion of the studies at an earlier date have been exhausted” (“Order No. 1”). *Id.* at numbered paragraph 1 (footnote omitted). The Energy Bureau also orders LUMA to file with the Energy Bureau: (a) on or before May 15, 2022, at 12:00 p.m., a copy of the Facilities Studies (“Order No. 2”), and (b) on or before May 30, 2022, at 12:00 p.m., a copy of the results of the Tranche 1 technical studies (“Order No. 3”). *See id.* at numbered paragraphs 2 and 3. PREPA, in turn, is ordered to file execution copies of the PPOA’s on or before June 30, 2022, at 12:00 p.m. *See id.* at numbered paragraph 4.

4. LUMA herein clarifies that, since early February 2022, it has communicated to PREPA, and it has been LUMA’s commitment since then, that the final report for the technical interconnection study for the Approved Projects would be delivered by May 30, 2022. This final technical interconnection study is composed of the following studies: the System Impact Study, the Point of Interconnection Facility Study, the Network Upgrades Facility Study (the latter two jointly, referred to as the “Facility Studies”) and the Minimum Technical Requirements (“MTR”) Compliance Study (collectively, the “Final Technical Interconnection Study”). The report of the

final interconnection study (the “Final Interconnection Study Report”) would be a package of all these studies providing a complete picture of the relevant technical information for interconnection of each Approved Project. LUMA outlined a schedule for the timely delivery of the Final Technical Interconnection Study Report by the committed deadline, which includes various intermediate milestones for the components of the study and report.

5. LUMA has dedicated significant resources and expertise in support of the Tranche 1 procurement process and has in good faith been pursuing the completion of the necessary tasks and studies to achieve the completion of the Final Technical Interconnection Study for the Approved Projects by May 30, 2022. LUMA has been supporting the Tranche 1 procurement efforts and is fully committed to the renewable energy transformation goals.

6. In compliance with the Energy Bureau’s request, LUMA herein submits a Progress Report describing LUMA’s efforts and the status of the activities undertaken to date in connection with the preparation of the Final Technical Interconnection Study, which includes estimated dates for completion of all of these studies and associated tasks, attached herein as Exhibit 1. As per the Energy Bureau’s request, Exhibit 1 also includes a Task Schedule. The Progress Report and Task Schedule project that the Facilities Studies as well as all other studies necessary for the Final Technical Interconnection Study for the Approved Projects and the Final Technical Interconnection Study Report will be delivered by May 30, 2022. This deadline meets the deadline established in Order No. 3 of the April 27<sup>th</sup> Order.

7. LUMA respectfully submits that the submittal of the Facilities Study in advance, and in isolation, of completion of the comprehensive package included in the Final Technical Interconnection Study Report would be premature and will provide an incomplete picture of the

technical interconnection needs and requirements of an Approved Project. In addition, certain components of the Facilities Study may not be ready by May 15 and the full technical and compliance review of the Final Technical Interconnection Study will not be completed.

8. In light of the above and the description of efforts in Exhibit 1 herein, LUMA respectfully requests this honorable Energy Bureau to provide a brief extension of the deadline set forth in Order No. 2 to allow for the submittal of the Facility Studies by May 30, 2022 as part of the complete package of studies included in the Final Technical Interconnection Study Report in compliance with Order No. 3.

**WHEREFORE**, LUMA respectfully requests the Energy Bureau to **take notice** of the aforementioned, **accept** the attached Exhibits 1 and 2 in compliance with Order No. 1 of the Energy Bureau's April 27th Order, and **grant** an extension for LUMA to submit the studies required under Order No. 2 as part of the Final Interconnection Study Report to be submitted on May 30, 2022, in compliance with Order No. 3.

**RESPECTFULLY SUBMITTED.**

In San Juan, Puerto Rico, this 29<sup>th</sup> day of April 2022.

We hereby certify that we filed this motion using the electronic filing system of this Puerto Rico Energy Bureau and that copy of this motion was notified to PREPA counsel [mvazquez@diazvaz.law](mailto:mvazquez@diazvaz.law) and [kbolanos@diazvaz.law](mailto:kbolanos@diazvaz.law).



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Exhibit 1

Progress Report required in Resolution and Order of April 27, 2022



# LUMA Response to the Energy Bureau's Request for Status of Renewable Procurement Studies

NEPR-MI-2020-0012

April 29, 2022

# 1. Progress Report: Status of Studies

## 1.1 Interconnection Feasibility Studies Tranche 1 Phase II

On July 15th, 2021, LUMA received a total of 78 proposals for evaluation of interconnection request from PREPA's RFP (Request for Proposals) No. 112648. The 78 proposals included:

- 41 solar PV projects (2,006 MW),
- 31 standalone energy resources,
- 3 ITC compliant energy storage projects (total storage: 1,690 MW), and
- 3 VPP (182 MW) proposals.

During the Feasibility Study process, 11 proposals were withdrawn from the process. In addition, at the transmission voltage level, many of the proposals were different configurations of the same project. To avoid duplicity in the analysis and for the purpose of Feasibility Study, the largest configuration (in MWs) of each project was considered. The total number of unique project proposals for the Feasibility Study at the transmission level was reduced to 46 projects: 30 solar and 16 storage proposals.

LUMA completed and delivered to PREPA the Phase II- Feasibility Study Analysis on August 20th, 2021. Feasibility Study scope included system modeling updates, renewable projects modeling and analysis on thermal violations to the grid during normal and contingencies scenarios, walkdowns of the proposed POIs to identify constructability and any hurdle or fatal flaw for interconnection. The deliverable of the Feasibility Study included an Association for the Advancement of Cost Engineering (AACE) Class 5 cost estimates for the physical interconnection of each project to the proposed POI and for the required network upgrades to resolve the identified thermal violations resulting from interconnecting projects.

Summary: Interconnection Feasibility Studies Tranche 1 RFP Phase II	
<b>July 15, 2021</b>	LUMA received list of projects for feasibility studies
<b>August 20, 2021</b>	LUMA delivered feasibility studies to PREPA

## 1.2 Interconnection Studies Tranche 1 RFP Phase III

LUMA's scope for Phase III Interconnection Studies includes three different Stages:

### 1.2.1 Stage 1: System Impact Study (SIS):

During this stage, LUMA performs system modeling updates, renewable projects modeling and a detailed analysis of the impact of the short list of projects to the grid. Analysis is performed for both day and night peak cases and considers normal and contingency scenarios. This analysis includes performing steady state power flow and short circuit analysis to identify thermal and voltage violations on the grid.

SIS identifies any additional new infrastructure needed and the required ratings to alleviate equipment violations and provides an allocation of upgrade cost responsibilities to projects.

**Progress To-date:** LUMA has completed all the system modeling, simulation, and analysis required in the System Impact Study. Grid violations have been identified. Based on the results, LUMA is currently performing a cost allocation of the network upgrades to each project.



**Planned Schedule:** LUMA will complete the cost allocation of the network upgrades to corresponding developers which finalizes the System Impact Study Stage and results will be provided to PREPA and the Energy Bureau on May 30<sup>th</sup>, 2022, as part of the Tranche 1 Technical Studies Final Report according to LUMA's schedule.

### 1.2.2 Stage 2: Facility Studies:

During this Stage, and for each project in the Tranche 1 short list, LUMA determines the required infrastructure improvements to existing facilities and any additional infrastructure necessary to provide a safe and reliable interconnection to the proposed Point of Interconnection (POI) and to have the grid prepared for the full power injection of the proposed project.

Facility Studies are broken down into two Categories:

- **Point of Interconnection (POI) Facility Study:** Determines the cost for the required POI upgrades and expansions needed to physically provide a safe and reliable interconnection for a project at either an existing or new station.
- **Network Upgrades Facility Study:** Determines the cost for all system improvements necessary to inject the full output of the project to the grid. This includes increased capacity and improvements at nearby station assets (outside the POI) in need of an increase in capacity due to the injection of the Tranche 1 projects to the grid.

These network upgrade facility study costs feed back into the System Impact Study results to complete the cost allocation process to calculate financial responsibilities of proponents.

Total Interconnection Costs for a project will be the sum of POI Facility Study plus allocated Network Upgrades.

### Progress To-date:

POI Facility Studies: LUMA has performed site visits to all proposed 19 POIs and has gathered field data and required information to complete the AACE Class 3 cost estimates by May 30, 2022. (The PREPA short list has 21 projects but 2 are storage projects co-located with a solar facility and will use the same POI).

Network Upgrades Facility Studies: LUMA has identified the assets required for upgrades to have the grid capable of receiving the full output of the Tranche 1 projects and is currently performing the AACE Class 5 cost estimates for these Network Upgrades identified during System Impact study.

### Planned Schedule:

LUMA will complete the Facilities Studies by May 30<sup>th</sup>, 2022, and results will be provided as part of the Interconnection Costs in the Tranche 1 Technical Studies Final Report in accordance with the schedule.

Interconnection Costs will include, on a per project basis, the cost for both the physical interconnection to the proposed POI and the allocated cost for required network upgrades to have the grid able to receive the full output of the project in a safe and reliable manner.

### 1.2.3 Stage 3: MTR Compliance Report

During this stage, an assessment of each proponent-provided electrical power system simulation file (PSS/E model) of their proposed facility, for both steady-state and dynamic conditions is performed. The assessment of these PSS/E models is aimed at confirming whether each proposed facility, as

represented by the PSS/E model, complies with the Minimum Technical Requirements (MTRs) specified by PREPA in the RFP. This evaluation includes analysis on compliance of voltage and frequency ride through, voltage regulation reactive power capabilities and power factor requirements.

**Progress To-date:**

As of April 28<sup>th</sup>, and following 3 rounds of proponent-provided models, 13 of the 21 projects remain non-compliant with the MTRs. LUMA has conducted a series of technical workshops with developers to remediate this situation and shall continue to conduct additional workshops in coordination with PREPA so that developers can comply with the MTRs.

**Planned Schedule:**

LUMA shall continue providing support to PREPA and developers so that they may deliver compliant PSS/E models per the RFP requirements. LUMA plans to complete the MTR evaluations by May 30<sup>th</sup>, 2022, subject to the developers providing the required models.

LUMA's expectation is to complete the assessment of developer-provided models' compliance with MTRs by May 30<sup>th</sup>, 2022, given that LUMA receives proper models by May 6<sup>th</sup>, 2022. A project that is not compliant with the MTRs will not be allowed to interconnect.

## 2. Tranche 1 Interconnection Cost Estimates Task Schedule

Tasks	Status	Target Date
<b>POI Facility Study Cost Estimates</b>	<b>In Progress</b>	<b>5/30/2022</b>
Review POI Facility Study and Include LUMA Planning and Management Cost	In Progress	5/12/2022
Prepare Final Package POI Facility Study Class 3 Estimates	In Progress	5/27/2022
<b>Network Upgrades Cost Estimates</b>	<b>In Progress</b>	<b>5/30/2022</b>
Development of Network Upgrades Class 5 Estimate Packages	In Progress	5/2/2022
Review Network Upgrades Class 5 Estimate and Include LUMA Management Estimate Cost	Pending	5/24/2022
Prepare Final Package Network Upgrades Class 5 Estimate	Pending	5/27/2022
<b>MTR's Compliance Reports</b>	<b>In Progress</b>	<b>5/30/2022</b>
Prepare Final Package MTR's Compliance Assessment	Pending	5/27/2022
<b>Tranche 1 Final Report Interconnection Studies</b>	<b>Pending</b>	<b>5/30/2022</b>