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

IN RE:

PROCESS FOR THE ADOPTION OF REGULATION FOR DISTRIBUTION RESOURCE PLANNING

CASE NO.: NEPR-MI-2019-0011

SUBJECT: Motion Submitting Presentation for Technical Conference Scheduled for June 12, 2024

MOTION SUBMITTING PRESENTATION FOR TECHNICAL CONFERENCE SCHEDULED FOR JUNE 12, 2024

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC and **LUMA Energy ServCo, LLC** (jointly referred to as "LUMA"), through the undersigned counsel, and respectfully state and request the following:

1. On April 11, 2024, this Honorable Energy Bureau of the Public Service Regulatory Board ("Energy Bureau") issued a Resolution and Order ("April 11th Order") taking notice of the Implementation Plan submitted by LUMA on July 30, 2022 and ordering LUMA to submit, on or before May 1, 2024, an updated version of the Implementation Plan. In addition, the Energy Bureau scheduled a Technical Conference for May 20, 2024 at 10:00 a.m. (the "Technical Conference") "to discuss in detail the current status of the implementation by LUMA of the matters ordered by the Energy Bureau in the referenced proceeding, including, but not limited to: (i) the current status of the implementation by LUMA of the Voltage Level Maps; (ii) the current status of implementation by LUMA regarding the Interconnection Capacity Maps; [and] (iii) the current status of implementation by LUMA regarding the Power Grid inventory". *See* April 11th Order on page 3 (translation ours). Furthermore, the Energy Bureau ordered LUMA to, among others, timely

submit copy of any presentation that LUMA has the intention of using during the Technical Conference.

2. On April 29, 2024, LUMA filed a *Motion to Request the Rescheduling of the Technical Conference Set for May 20, 2024* so that one of LUMA's key individuals with knowledge of the technical aspects of the subjects mentioned above could be present at the Technical Conference.

3. On May 1, 2024, LUMA submitted to the Energy Bureau the updated Implementation Plan. *See Motion to Submit Updated Implementation Plan in Compliance with Resolution and Order of April 11, 2024* filed on May 1, 2024.

4. On May 10, 2024, this Energy Bureau issued a Resolution and Order rescheduling the Technical Conference for June 12, 2024 ("June 12th Technical Conference"), as requested by LUMA.

5. LUMA submits herein as *Exhibit 1* a copy in PDF format of the presentation that LUMA will use in the June 12th Technical Conference.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned and **accept** LUMA's presentation for the June 12th Technical Conference.

RESPECTFULLY SUBMITTED.

We hereby certify that I filed this motion using the electronic filing system of this Energy Bureau and that we will send an electronic copy of this motion to PREPA at lionel.santa@prepa.com and its external counsel, arivera@gmlex.net and mvalle@gmlex.net, and the Independent Consumer Protection Office at hrivera@jrsp.pr.gov.

In San Juan, Puerto Rico, this 11th day of June 2024.

DLA Piper (Puerto Rico) LLC
500 Calle de la Tanca, Suite 401
San Juan, PR 00901-1969
Tel. 787-945-9147
Fax 939-697-6141

/s/ Laura T. Rozas
Laura T. Rozas
RUA No. 10,398
laura.rozas@us.dlapiper.com

Exhibit 1

Presentation for June 12th Technical Conference

LUMAPR.COM

IDP Implementation Updates

NEPR-MI-2019-0011

JUNE 12, 2024

Introduction

- LUMA fully supports the clean energy transformation for Puerto Rico and is committed to fostering the integration and increased adoption of renewable energy across the island. LUMA continues to advance renewables at an unprecedented pace. By March 2023, LUMA had interconnected over 91,000 Distributed Generation (DG) systems.
- LUMA is also working together with our partners, including the Puerto Rico Electric Power Authority (PREPA), the Solar Energy Storage Association of Puerto Rico (SESA), the Department of Economic and Commerce Development (DDEC) and the Government of Puerto Rico, to actively support the development and the increased adoption of renewable energy in the distributed generation and utility-scale level.
- LUMA is excited to provide further updates on our progress to enhance important customer resources that support further growth of renewable energy, specifically our interactive interconnection hosting capacity maps, which help guide customers and developers through the process of interconnecting their renewable projects to the grid to ensure the safe and reliable operation of the energy system.

Background

- Voltage level and interconnection capacity maps optimize Puerto Rico's process to adopt and increase the integration of DG by:
  - Helping DG customers efficiently plan and execute connections, with potential lower interconnection cost and ensuring reliable electricity delivery across Puerto Rico.
  - Providing visual representations to identify bottlenecks, anticipate constraints, and strategize for future expansion, including guidance on distributed generation connections.

Status

Order	Description	Status
1	Voltage Level Map	Map last updated in May 2024. LUMA is on track for the June update, with updates to occur every second week of the month.
2	Interconnection Capacity Map a) DG Penetration Map b) Incremental Capacity Map (Power Flow based)	Map last updated in May 2024. LUMA is on track for the June update, with updates to occur every second week of the month.
3	Provide DG proponent or its representative additional data upon their request and within 10 business days, including : a) Service transformer capacity and aggregated capacity of DG interconnected to the service transformer. b) If available, size of secondary cable (service drop) capacity.	Available data of 47,500 service transformers out of 196,000 was compiled and updated in the Geographic Information System (GIS). A web application that allows stakeholders to retrieve service transformer capacity and the aggregate DG connected to such service transformers was finalized. Service drop data is not yet available.

Additional Progress to Date

New DG portal - Portal Connection LUMA

- In January 2024, LUMA launched a new DG portal, called *"Portal Conexión LUMA,"* for DG proponents (i.e. customers or their representatives). This portal reduces the required documentation to apply for NEM and simplifies the validation process.

Feeder Model Improvement

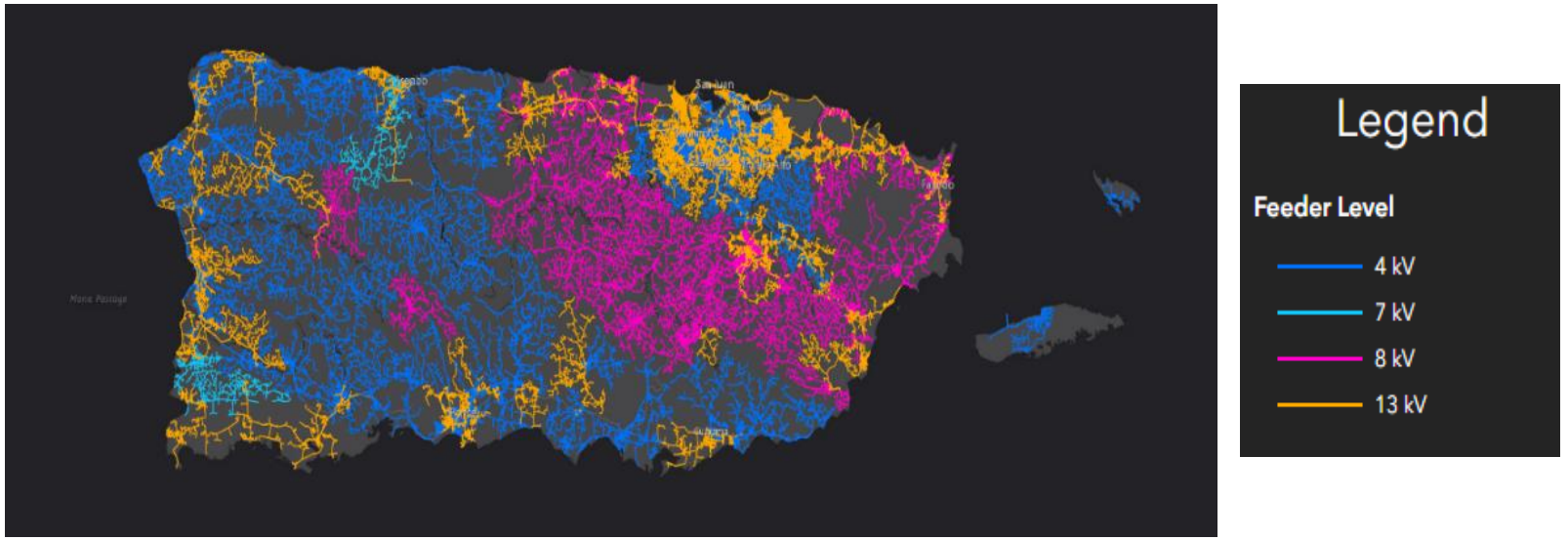
- LUMA has assembled a technical team dedicated to improving feeder maps by managing work orders, walking through the feeder route and assessing asset status, locations, and condition, and uploading to GIS and G-tech. This source of information is then available as reliable data for Synergi models. The field verification process began with the worst performing feeders from a reliability perspective.

Enhanced load and DG data analysis – NEMGIS

- An enhanced data analysis process was completed, named NEMGIS, which extracts data from GIS, CC&B, legacy DG Portal, and *Portal Conexión LUMA*, matching customers with DG with service transformer number and service transformer with feeder id number. LUMA's web application will provide DG customers or its representative, service transformer and aggregated DG capacity data.

Updates on Voltage Level Maps

- The voltage level map displays every feeder in a map highlighting at which voltage level (i.e., 4.16kV, 4.8kV, 7.2 kV, 8.32kV, or 13.2kV) each feeder is operated.
- In May 2024, the voltage level map was updated. A change in feeder voltage class (e.g., from 4 kV to 13.23 kV) will be reflected in the following month's update.



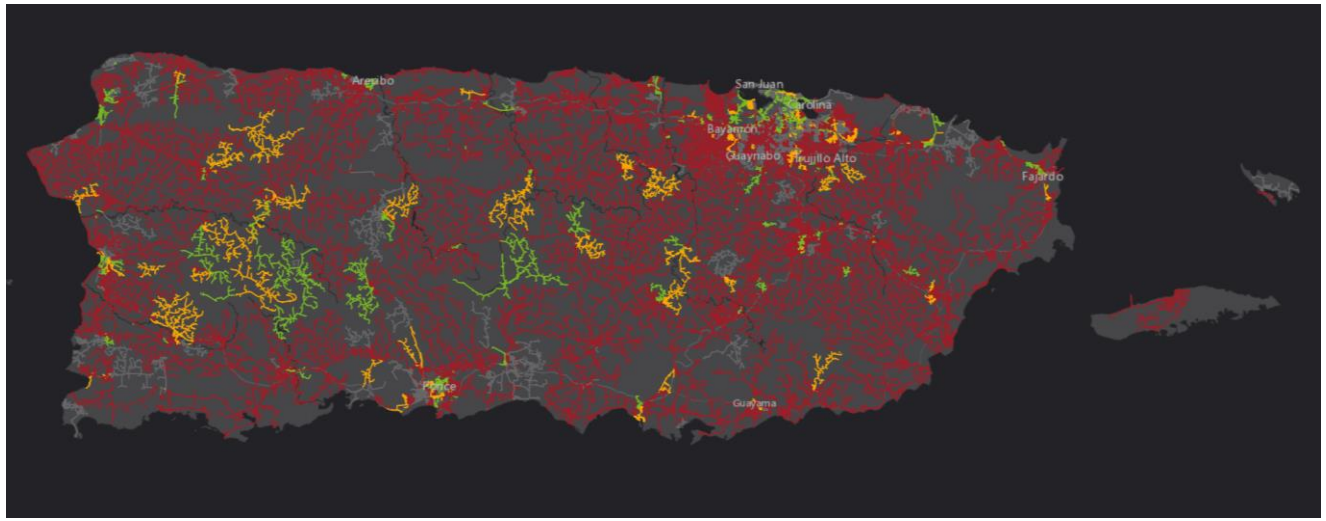
Updates on Interconnection Capacity Maps

- Interconnection Capacity Maps highlight feeder's sections or feeders where DG can be interconnected up to certain capacity with or without system and distribution planners. It also provides visibility on hosting capacity in the region.
- These maps provide information about capacity limits, due to potential impacts of DGs, prompting necessary system upgrades and mitigations.
- These maps do not replace distributed generation interconnection supplementary studies, which identify violations and required actions.
- Both the DG Penetration Map & Incremental Capacity are updated monthly.

Interconnection Capacity Maps; DG Penetration Map

- The DG penetration results for a given circuit, represents the percent of existing and queued-ahead DER, as a ratio to the peak load of the circuit, as per Regulation 8915, "*Reglamento para Interconectar Generadores con el Sistema de Distribución Eléctrica de la Autoridad de Energía Eléctrica y Participar en los Programas de Medición Neta*". The aggregate capacity of existing DG in a feeder peak demand is calculated as follows:

$$DG\% = \frac{DG_{existing}(MW)}{Feeder\ Peak\ Load(MW)}$$



Source: https://lumapr.com/residential/renewable-energy/?lang=en

DG % criteria	Color code
DG < 10%	Green
10% ≤ DG < 15%	Yellow
15% ≤ DG	Red

Interconnection Capacity Maps: Incremental Capacity, a power flow base Map

The Incremental Hosting Capacity analysis will be performed monthly, and the incremental hosting capacity maps will be updated based on the following feeder change criteria:

- When a feeder model is field inventoried and GIS data is updated, and its DG penetration level is above 15% of peak demand.
- Existing modeled and studied feeder modifies its topology characteristics. One or more of the below characteristic changes will be considered as topology modification:
  - A permanent load transfer takes place.
  - Completion of system upgrades, such as: three-phasing, reconductoring, voltage regulation equipment installation, substation power transformer change, feeder voltage level changes to higher level (i.e., from 4 KV to 13.2 kV).
  - A spot load (P>500 kW) is interconnected or disconnected. No feeder organic load growth will cause map updates.
- Aggregated DG increases to 500 kW capacity or above.

Update on Inventory of the Power Grid

- To comply with the May 25, 2022 Resolution and Order, LUMA developed a system, called NEMGIS, that retrieves data from several data sources such as GIS, Customer Care & Billing (CC&B), legacy DG Portal, Portal Conexion LUMA (enhanced DG Portal), Pi Historian, and distribution system operations (load transferring tracking).
- LUMA created a web application that:
  - Utilizes NEMGIS data for real-time information, promptly notifying conditions if data is unavailable.
  - Verifies DG customer identity swiftly.
  - Displays service transformer and connected DG capacity instantly.

Thank You!

LUMAPR.COM