

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

NEPR

Received:

Jul 9, 2021

8:23 PM

IN RE:

PROCESS FOR THE ADOPTION OF
REGULATION FOR DISTRIBUTION
RESOURCE PLANNING

CASE NO.: NEPR-MI-2019-0011

SUBJECT:

Motion submitting presentation in anticipation for
compliance hearing of July 14, 2021.

**MOTION SUBMITTING PRESENTATION IN ANTICIPATION OF COMPLIANCE
HEARING SCHEDULED FOR JULY 14, 2021**

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW, LUMA ENERGY, LLC as Management Co., and **LUMA ENERGY
SERVCO, LLC** (collectively, LUMA), through the undersigned legal counsel and respectfully
state and submit the following:

1. In compliance with the Energy Bureau's Resolution and Order of December 31, 2020 ("December 31st Resolution and Order"), setting, among others, a third compliance hearing for July 14, 2021, and directing that copies of the presentation to be offered on Distribution Planning shall be filed at least three days prior to each compliance hearing, LUMA hereby submits a Power Point™ presentation in pdf format entitled "*Plan for Distribution System Interconnection Capacity Map & Power System Inventory-Compliance Hearing,*" July 14, 2021. *See Exhibit 1.*
2. The presentation includes updates on the status of the work and time lines to complete the three tasks that this Energy Bureau identified in the December 31st Resolution and Order: (1) creation of voltage level maps; (2) creation of preliminary maps of interconnection capacity; and (3) updating and completing a power grid inventory. *See Resolution and Order of December 31, 2020, pages 8-10.*

WHEREFORE, LUMA respectfully requests that the Energy Bureau **accept** and **consider** this filing of the Power Point™ presentation in pdf format for the compliance hearing scheduled for July 14, 2021, and **deem** that LUMA timely filed the same for consideration by the Energy Bureau in preparation for the upcoming compliance hearing on Distribution Planning.

RESPECTFULLY SUBMITTED.

I hereby certify that I filed this motion using the electronic filing system of this Energy Bureau and that I will send an electronic copy of this motion to the attorneys for PREPA, Joannely Marrero-Cruz, jmarrero@diazvaz.law and Katuska Bolaños-Lugo, kbolanos@diazvaz.law.

In San Juan, Puerto Rico, this 9th day of July 2021.



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Exhibit 1

Presentation

*Plan for Distribution System Interconnection Capacity Map & Power System Inventory-
Compliance Hearing, April 14, 2021*



Plan for Distribution System Interconnection Capacity Map & Power System Inventory – Compliance Hearing

NEPR-MI-2019-0011
July 14, 2021

Agenda

- Overall Status
- Status Updates by Order
 - Order 1: Voltage level maps
 - Order 2: Preliminary maps of interconnection capacity
 - Order 3: Power grid inventory
- Clarifications/Confirmation
- Data Verification RFP Updates and Timeline



Overall Status

- On track, no risk
- On track, some risk but manageable
- Delayed, high risk identified

Order	Overall Status	Risks	Next Steps
Order 1 – Voltage Level Maps		<ul style="list-style-type: none"> • Map created and published on May 31 • Map is hosted in LUMA’s DG-Portal and it accessible to DG customers/developers 	<ul style="list-style-type: none"> • Map to be updated on August 31
Order 2 – Preliminary Maps of Interconnection Capacity <ul style="list-style-type: none"> • DG and load per feeder data review • Synergi modeling process review 		<ul style="list-style-type: none"> • The following gaps have been identified: <ul style="list-style-type: none"> • DG and load data; there is DG with no feeder id or coordinates data • ~300 feeders have between 0 to 10% valid data • Feeder’s models require extensive field validation 	<ul style="list-style-type: none"> • Test data consolidation criteria among G-tech, CC&B and DG Portal • Reviewing options to gather load data of ~300 feeders, i.e., different time period and load readings at substation level • Implementing validation criteria to reduce field validation need.
Order 3 – Power Grid Inventory		<ul style="list-style-type: none"> • Information gaps have been discovered relating to DGs and backup generation. The team is exploring options to fill this gap 	<ul style="list-style-type: none"> • Analyze collected data to generate required outputs. • For items requiring multi-year data collection: proceed with inspections (substations) and procurement (line asset data). • For DGs: Consolidate data sources and determine plan for misaligned or missing data. Identify industrial and institutional customers and develop plan to solicit backup generation information.

Order 2: Interconnection Capacity

Highlights – Data Assessment

Task	Detail	Assessment Status	Notes / Next Steps
1	Load Profile per feeder	In progress	<ul style="list-style-type: none">• Load profile data process and cleansing tool created and running, weather data was successfully introduced to the cleansing process.• Data Gap identified for ~300 feeders. <p>Next steps:</p> <ul style="list-style-type: none">• Data, from different period and from substations, are analyzed to be incorporated in the process.

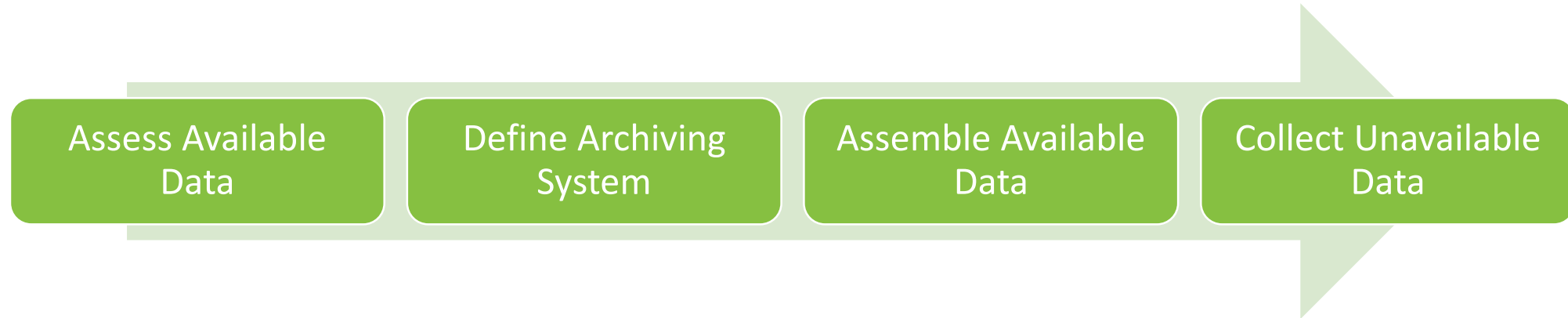
Order 2: Interconnection Capacity

Highlights – Data Assessment

Task	Detail	Assessment Status	Notes / Next Steps
2	DG data per Feeder	In progress	<ul style="list-style-type: none">Data consolidation in process, this process is in alignment with DG interconnection enhancement initiatives. <p>Next steps:</p> <ul style="list-style-type: none">Test consolidation of data gaps among DG Portal, GIS and CC&B data bases.
3	Synergi Model Assessment	In progress	<ul style="list-style-type: none">Synergi model of 35 feeders are complete, working on 70 Synergi models which have missing data e.g., connectivity, load, DG, equipment rating, status and settings (e.g., Reclosers, Voltage Regulators, Capacitor Banks, Fuses, etc.). <p>Next steps:</p> <ul style="list-style-type: none">Continue to log missing and anomalous data for field inspection and updating GIS.

Order 3: Power Grid Inventory

As a reminder, Order 3 is 10 related sub-projects, each following this framework:



- **Assess available data:** Assess the availability of data in PREPA's existing systems.
- **Define archiving system:** Determine how the data should be stored to accomplish this order (e.g., a GIS field, a database, etc.). Create the necessary templates and frameworks.
- **Assemble available data:** For data available in existing systems, collect and input it into the selected storage method.
- **Collect unavailable data:** For data that is not available, create a plan to collect it. Where there are synergies, align with other existing data collection efforts.

Order 3: Power Grid Inventory

Highlights – Assess Data Availability / Define Archiving System

Order	Data	Assess Data Availability	Define Archiving	Next Steps (Assembling / Collecting Data)
a	Geographic position of circuits and service transformers	Complete	Complete	Data to be collected during field verification initiative.
b	Availability of SCADA visibility	Complete	Complete	Analyzing SCADA database data to determine level of visibility at distribution devices.
c	Availability of data about load profiles	Complete	Complete	Analyzing historical feeder loading data to determine where load profiles are available.
d	Identification of DERs	In progress	Complete	DERs: Consolidating data sources and assessing missing data. Backup generation: Defining industrial and institutional customers, so that a customer list can be identified and the customers contacted.

Order 3: Power Grid Inventory

Highlights – Assess Data Availability / Define Archiving System

Order	Data	Assess Data Availability	Define Archiving	Next Steps (Assembling / Collecting Data)
e	Typical daily profile of DERs	Complete	Complete	Generating profiles from available data
f	Transformer state and remaining life	Complete	Complete	Data to be collected during field verification initiative. Useful life calculations to follow.
g	Technical and non-technical losses	In Progress	In progress	Technical: Have 75% of data collected; collecting remaining 25%. Non-technical: Initiate customer yearly energy consumption consolidation per feeder to incorporate in the calculation model
h	Physical and cyber vulnerabilities at substations	Complete	Complete	Checklists created to be used during substation inspections. Physical assessments to be carried out 2021 – 2023, in progress. Cyber assessments to be carried out 2021 – 2025, beginning later this year.

Order 3: Power Grid Inventory

Highlights – Assess Data Availability / Define Archiving System

Order	Data	Assess Data Availability	Define Archiving	Next Steps (Assembling / Collecting Data)
i	Identification of feeders with critical loads, priority loads, needing supplementary studies	Complete	Complete	Critical and priority loads complete. List of supplementary studies present and will be further updated as time goes by.
j	Location, state, joint use status of poles	Complete	Complete	Data to be collected during field verification initiative.

Clarifications / Confirmation

- For order 3i, we are interpreting “critical loads” to be those designated as critical on the Emergency Response Plan and approved Integrated Resource Plan.
- For order 3d, we are interpreting “institutional customers” to mean the customers that are critical or priority load.

Asset Health RFP

- LUMA notified proponents that the GIS Field Survey issued by PREPA was cancelled
- The cancellation was based on LUMA's assessment that the RFP process followed by PREPA would not allow for the application of federal funds to cover inspections as the RFP was not published publicly which is required for the inspection work to qualify for federal funding
- LUMA is working to adjust the scope of work for the GIS Field Survey to include the system health assessment inspections to coordinate the GIS Field Survey RFP with the Distribution Lines Inspection Program and reduce the need for return trips for pole inspection



Asset Health RFP (continued)

Projected Timeline

MILESTONE / ACTIVITY	START DATE	END DATE
Procurement Process for New RFP Issuance (*)(**)	6/11/2021	8/9/2021
Bid Process Out to Public	8/10/2021	9/20/2021
Evaluation & Contractor Selection	9/21/2021	10/18/2021
Contract Negotiation	10/19/2021	11/1/2021
FOMB Approval	11/2/2021	11/22/2021
Contract Signing	11/23/2021	11/29/2021
Mobilization & Safety Training	11/30/2021	1/2/2022
Execution of Field Inventory and Health Assessment (*)	1/3/2022	12/31/2024
Data Entry (Collected Data)	1/3/2022	1/30/2025
Close Out	1/30/2025	3/12/2025

(*) Includes:

NEPR-MI-2019-0011: T&D System Field Inventory

NEPR-MI-2020-0019: T&D System Health Assessment

(**) Subject to PREPA Board ratification of LUMA's Consolidated FEMA Procurement manual



Timeline Scenarios

Base Figures	
Number of Poles	725,000
Productive Weeks Per Year	45
Work Days Per Week	5
Weeks for Pre-Project Meetings	2
Weeks for Post-Project Meetings	2
Poles Per Crew Per Day	6
Field Crew Size	2
Field: Office Ratio	3

	2023 end	2024 end	2025 end
Duration (years)	2	3	4
Productive Weeks	86	131	176
Poles Per Week	8430	5534	4119
Poles Per Day	1686	1107	824
Crews Required	281	184	137
Field Personnel Required	562	369	275
Office Personnel Required	94	61	46
Total Personnel Required	656	430	320



Thank you

