

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

NEPR

Received:

Sep 16, 2022

8:06 PM

IN RE:

IN RE: REVIEW OF THE PUERTO RICO
ELECTRIC POWER AUTHORITY'S 10
YEAR INFRASTRUCTURE PLAN-
DECEMBER 2020

CASE NO. NEPR-MI-2021-0002

SUBJECT: Submittal of LUMA's September 2022
Update to PREPA-LUMA 90-Day Plan for T&D
Projects

**MOTION SUBMITTING LUMA'S SEPTEMBER 2022 UPDATE TO PREPA-LUMA 90-
DAY PLAN FOR T&D PROJECTS**

TO THE PUERTO RICO ENERGY BUREAU:

COME NOW LUMA Energy, LLC ("ManagementCo")¹, and **LUMA Energy ServCo, LLC** ("ServCo")², (jointly referred to as "LUMA"), through the undersigned legal counsel and respectfully submit the following:

1. Pursuant to the continued reporting requirements set forth in this Puerto Rico Energy Bureau's ("Energy Bureau") Resolution and Order of March 26, 2021³ and in accordance with LUMA's Motion of July 15, 2021⁴ and PREPA's and LUMA's Motion of September 21, 2021⁵, LUMA hereby submits, as *Exhibit 1* to this Motion, LUMA's September 2022 update to the PREPA-LUMA 90-Day Plan pertaining to the transmission and distribution system projects

¹ Register No. 439372.

² Register No. 439373.

³ In this Resolution and Order ("March 26th Resolution") the Energy Bureau required, among others that PREPA "continue reporting to the Energy Bureau and [the Federal Emergency Management Agency ("FEMA")], within the next five (5) years, the progress of all ongoing efforts related to the final approval of the submitted projects not yet approved by the Energy Bureau". March 26th Resolution at page 19.

⁴ This refers to the *Motion Submitting Corrected LUMA Presentation at Technical Conference of July 11, 2021 and Requesting Approvals of Matters Presented and Proposed during the Technical Conference* filed by LUMA on July 15, 2021 ("July 15th Motion") wherein LUMA proposed, among others, that reporting in this docket be done quarterly and that updates to the 90-Day Plan in relation to the 10-Year Infrastructure Plan be provided to the Energy Bureau during the last month of every quarter as it is provided to FEMA. *See* July 15th Motion at pages 8-9.

⁵ This refers to the *Motion Submitting September 2021 Update to PREPA-LUMA 90 Day Plan* jointly filed by LUMA and PREPA on September 21, 2021 ("LUMA September 21 Motion") wherein LUMA and PREPA informed that going forward, they would continue to file the PREPA-LUMA 90-Day Plans, instead of 90-Day updates of the 10-Year Infrastructure Plan given that FEMA was only requiring the 90-Day Plans. *See* September 21 Motion at page 4.

(“T&D Projects”) (“September 2022 Update to PREPA-LUMA 90-Day Plan”) updating the status of T&D Projects and providing a summary of key next steps for the upcoming 90 days. LUMA and PREPA are submitting to COR3 their respective updates to the PREPA-LUMA 90-Day Plan separately (LUMA with respect to the T&D Projects and PREPA with respect to generation-related projects) and COR3 will then submit the respective PREPA-LUMA 90-Day Plan to FEMA. Accordingly, LUMA will be submitting its 90-Day Plan updates separately to this Energy Bureau as they are submitted to COR3.

2. In addition, as *Exhibit 2* to this Motion, LUMA submits a redline version that compares the update to the PREPA-LUMA 90-Day Plan filed with this Energy Bureau on June 17, 2022 (*see Exhibit 1 of Motion Submitting June 2022 Update to PREPA-LUMA 90-Day Plan for T&D Projects* filed by LUMA on that date) with the September 2022 Update to PREPA-LUMA 90-Day Plan being submitted today.

WHEREFORE, LUMA respectfully requests that the Energy Bureau **take notice** of the aforementioned and **accept** LUMA’s September 2022 Update to PREPA-LUMA 90-Day Plan for T&D Projects submitted herein as **Exhibit 1** to this Motion in compliance with LUMA’s reporting obligations.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 16th day of September 2022.

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.



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Exhibit 1

September 2022 T&D 90-Day Plan



FEMA



LUMA 90-Day Plan

September 2022





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I. Introduction

In accordance with the directive received from FEMA to produce a 90-Day Plan, this document captures an overview of the key next steps and progress made on FEMA-funded projects for the Puerto Rico electrical system.

On June 1, 2021, LUMA assumed overall responsibilities for PREPA's T&D System as outlined within the O&M Agreement (OMA) between PREPA, P3A, and LUMA. Upon Commencement of the Service Period, PREPA refocused its efforts on projects in the Generation and Dams, Hydro, and Irrigation asset categories; while projects in the Transmission, Distribution, Substations, IT/Telecom, Buildings, and Environmental asset categories ("T&D Projects") were transitioned to and are now the responsibility of LUMA.

This 90-Day Plan provides information on various focus areas for LUMA.

II. Overview of Focus Areas for the Next 90-Days

The content below summarizes next steps across the following six areas: 1) PREPA-LUMA Coordination and Alignment; 2) Federal Grant Management; 3) Funding and Reporting; 4) Environmental and Historic Preservation; 5) Engineering Management; and 6) Enterprise Project Management ("EPM").

PREPA-LUMA Coordination and Alignment

PREPA and LUMA Focus Areas

- PREPA and LUMA leadership are participating in regular weekly meetings with COR3 & FEMA to ensure visibility of progress of project work, ensure the coordination and understanding of common matters, and to identify and resolve risks that involve points of integration between the two entities
- PREPA and LUMA will continue coordination to support successful operations under the OMA

Federal Grant Management

LUMA Focus Areas

- Continue working with COR3 and FEMA to obtain Project Obligations for the 48 *Detailed SOWs* submitted to date (i.e., 6 Substation Rebuild projects, 12 Transmission Line Rebuild projects, 3 Substation Minor Repair projects, 3 Substation Physical Security projects, 2 Transmission Pole Replacement projects, and 15 Distribution Pole and Conductor Replacement projects, 5 Streetlight projects, 1 SCADA Remote Access and RTU Replacements project and 1 Energy Management System (EMS) projects)

- Continue advancing work on 428 projects towards finalizing *Detailed* SOWs for submission to COR3 and FEMA. This effort includes 406 Hazard Mitigation and EHP work. Expect to submit *Detailed* SOWs within the next 90-day period as per target schedule in Section IV
- Continue refinement of 406 Hazard Mitigation Strategies for Distribution, Transmission, Substation and Streetlights and ongoing discussions with COR3 and FEMA for feedback and alignment
- During the last 90-day period, LUMA completed the following:
 - Received PREB approval for 7 *Initial* SOWs projects and programs representing \$567 million in capital investments
 - Submitted 54 *Detailed* SOWs to FEMA for approval representing \$1.5 billion in capital investments
 - Obtained FEMA Authorization and Project Obligations on *Detailed* SOWs for 19 *Detailed* SOWs representing \$0.1 billion in capital investments
 - Obtained FEMA Project Obligations for Long Lead Materials representing \$0.65 billion in capital investments
 - Construction activities on 11 projects representing \$0.1 billion
 - Completed construction activities on 1 project (4 projects completed to date representing \$0.1 billion)
- Continue to work with the representatives from COR3 and FEMA on key issues identified to date and identified as the work progresses

Funding and Reporting

LUMA Focus Areas

- Continue tracking project actual costs in accordance with FEMA, HUD, and COR3 standards to support financial reporting requirements for federally funded projects
- Submitted progress and financial quarterly reports for period ending 6/30/2022 on all 428-obligated projects
- Submitted \$11.8 million in requests for reimbursements (RFRs) to COR3 to date and has another \$9.5 million in process to be submitted leveraging established RFR processes for document managements, as required by FEMA, HUD, and COR3
- Incorporated learnings from RFR preparation to date to improve preparation time and overall quality of documentation for RFR submissions moving forward

- Started compiling and preparing documentation for a material (inventory) RFR
- Engaged with our grid recovery partners on additional Federal Funding opportunities to include Department of Energy electrical system improvement Grants, HUD and PRDOH CDBG-DR Programs for Hazard mitigation, Grid Resilience and Cost Share as well as FEMA 406 Hazard Mitigation proposals in all major asset categories and projects
- Continued working on additional proposals utilizing the FEMA/SHPO 404 Hazard Mitigation program with 4 key back-up projects proposed and developed, representing \$900 million, should additional 404 HMGP funds become available. These projects were included in the PRDOH's draft Disaster Recovery Action Plan for public consultations. Of the four projects, three were included in PRDOH's submission to HUD in January 2022 and LUMA awaits the final recommendation before developing a SOW for PREB's review and approval and a subsequent submission to PRDOH and HUD for final approval
- Continued engagement with PRDOH/Vivienda on implementing ER-1 Cost Share Program for CDBG-DR funds against specific projects. Current efforts are towards Cataño Substation 1801 as a pilot project

Environmental and Historic Preservation

LUMA Focus Areas

- Continue to complete Endangered and Threatened Species Biological Studies and Wetland Hydrological Studies to support construction planning, permitting, and the development of appropriate environmental mitigations
- Continue to consult with FEMA and COR3 on Project-Specific Programmatic Agreement (PSPA) measures specific to streetlight, telecommunications, substations, transmission, and distribution projects
- During the last 90-day period, LUMA completed the following:
 - Project Specific Programmatic Agreement was executed on June 2, 2022
 - Streamlined consultation process with FEMA relating to environmental studies, pre-construction, and construction disturbances
 - Continue to provide environmental training for A&E, construction contractors and LUMA operations crews in support of compliance with EHP requirements
 - Continue to review initial FEMA Record of Environmental Considerations (RECs) for approved projects to implement conditions into project scopes
 - Continue to support in pre-construction and construction inspections visits, aided with the implementation of mitigation measures required

by FEMA EHP and other agencies to meet environmental conditions, and provided supporting documents for Class 3 estimate

- Develop EHP Closeout guideline
- Began notifying and requesting endorsements from government agencies for projects obligated by FEMA (LUMA's Capital Programs and Permitting Office)

Engineering Management

LUMA Focus Areas

- Start preliminary engineering design on additional distribution line, substation, and transmission line projects working with new and existing A/E firms
- Continue with preliminary engineering design work with existing A/E firms towards the development of *Detailed SOWs*
- Continue detailed engineering on all projects with FEMA approved *Detailed SOWs*
- Continue to finalize contracts for additional A/E resources to support the federally funded projects and leverage the successful engineering firm(s) to assign projects with FEMA project numbers to begin A/E design work towards the development of *Detailed SOWs*. These contracts are in various stages from agreeing to terms and conditions to FOMB approval
- Continue evaluating and prioritizing the existing projects with FEMA numbers against the needs and constraints of the electrical system and available contractor capacities to optimize and level the execution strategies
- During the last 90-day period, LUMA completed the following:
 - Finalized and executed 6 contracts for additional A/E resources to support the federally funded projects and leverage the successful engineering firm(s) to assign projects with FEMA project numbers to begin A/E design work
 - Assigned additional distribution rebuild project engineering packages to engineering firms to finalize engineering scope, budget, and schedule and begin preliminary engineering design in October
 - Commenced process of incorporating NERC Compliance efforts for transmission system studies and analysis (e.g., TPL001 through 4, MOD 29 and CIP 14)
 - Completed the planning technical studies and functional specifications on 42 transmission lines
 - Completed planning and analysis on 70 additional distribution feeders

- Completed high-level assessment on 113 substations (29 of the 113 have completed functional specifications)
- Issued Request for Proposal for the Energy Management System

Enterprise Project Management (“EPM”)

LUMA Focus Areas

- Execute contract(s) for Program Management services to support the federally funded projects
- Continue to ramp-up project management resources, systems, and processes related to the execution of project within the infrastructure plan and continue to monitor resource needs as additional projects are launched
- Continue to track and monitor project schedules and costs within the EPM System leveraging the quality controls developed by LUMA

III. LUMA Estimated Schedule for Submission of *Detailed SOWs*

Over the next 90-days, LUMA will be focused on preparing *Detailed SOW* and cost estimates for T&D projects that currently have both PREB approval and FEMA project numbers.

The tables below show the current set of projects, by asset category, along with the estimated timing for *Detailed SOWs* submittals to COR3 and FEMA.

The estimation of project submission timing noted below is based on the best information available to LUMA at the time of this plan update. LUMA is focused on meeting or exceeding the project submission estimates listed in the table below.

SUBSTATIONS

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
174422	Cataño Modernization & Hardening (Obligated)	Oct-2021 (Completed)	Dec-2022
165209	Culebra 3801 Substation (Obligated)	Apr-2022 (Completed)	Jan-2023
165225	Vieques 2501 Substation (Obligated)	Apr-2022 (Completed)	Jan-2023
179558	Manati TC BKR - T005 (Obligated)	May-2022 (Completed)	Nov-2023

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
165268	Rio Grande Estates - CH – 2306	May-2022 (Completed)	Feb-2024
169495	Tapia GIS 1102	May-2022 (Completed)	Dec-2023
169058	Llorens Torres 1106	May-2022 (Completed)	Dec-2023
169266	Centro Medico 1327 & 1359	May-2022 (Completed)	Jan-2024
169896	Costa Sur TC (Obligated)	Jun-2022 (Completed)	Nov-2023
178258	Taft 1105	Jun-2022 (Completed)	Jul-2025
169500	Bayamon TC - BKRS Y1 - 1711	Jul-2022 (Completed)	Aug-2023
178503	Aguirre TC -BKRS	Sep-2022	Sep-2023
178577	Cachete 1526	Nov-2022	Aug-2023
169276	Viaducto TC 1100	Nov-2022	Oct-2023
546370	Substation Minor Repairs-Group A	Apr-2022 (Completed)	Feb-2023
542758	Substation Minor Repairs-Group B	Jul-2022 (Completed)	Apr-2023
546371	Substation Minor Repairs-Group C	Jun-2022 (Completed)	Jul-2023
549715	Substation Minor Repairs-Group D	Dec-2022	Sep-2023
549725	Substation Minor Repairs-Group E	Dec-2022	Sep-2023
550910	Physical Security Group 1	Apr-2022 (Completed)	Feb-2023
549764	Physical Security Group 2	Jul-2022 (Completed)	Apr-2023
551861	Physical Security Group 3	Jun-2022 (Completed)	May-2023
660422	Physical Security Group 4	Dec-2022	Jun-2023

TRANSMISSION

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
168226	38000 - San Juan - Isla Grande (LOOP)	May-2022 (Completed)	Sep-2023
176971	8200 - San Juan SP - Cataño Sect	Jul-2022 (Completed)	Apr-2024
180052	Existing 38kV - Line 100, Line 200 Ponce TC to Jobos TC	Aug-2022 (Completed)	Aug-2024
180326	Existing 115 kV - Line 36800 Palmer Fajardo to Sabana Llana	Aug-2022 (Completed)	Apr-2024
166904	37800 - Caguas – Monacillo	Aug-2022 (Completed)	Apr-2024
167443	36200 - Monacillos - Juncos	Aug-2022 (Completed)	Mar-2027
176913	9500 - Palo Seco SP - Cataño Sect	Aug-2022 (Completed)	Jul-2024
176954	1100 - Garzas 1 HP - Garzas 2 HP	Aug-2022 (Completed)	Mar-2024
168483	36400 - Dos Bocas - Ponce	Aug-2022 (Completed)	Mar-2025
166860	37800 - Jobos – Caguas	Aug-2022 (Completed)	Oct-2025
167168	37100 - Costa Sur - Acacias	Aug-2022 (Completed)	Nov-2024
177191	39000 - Aguas Buenas – Caguas	Sep-2022 (Completed)	Dec-2024
165213	Main Land 5400 - Rio Blanco HP - Dagua TC	Sep-2022	May-2024
167508	50100 - Cambalache - Manati	Sep-2022	Apr-2027
166707	51300 - Ponce - Costa Sur	Nov-2022	Jul-2024
177134	4100 - Guaraguo TC - Comerio TC	Nov-2022	Apr-2024
167446	36100 - Dos Bocas - Monacillos	Dec-2022	May-2023
668669	230kV Transmission Priority Poles Replacements - Mora 50500	Apr-2022 (Completed)	Mar-2022 (Completed)
334468	38kV Transmission Priority Pole Replacement Line 2200 (Obligated)	May-2022 (Completed)	Dec-2022
550896	38kV Transmission Priority Pole Replacement Line 6700 (Obligated)	Jun-2022 (Completed)	Nov-2022

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
668583	38kV Transmission Priority Pole Replacement Line 13300 (Obligated)	Jun-2022 (Completed)	Jan-2023
668592	38kV Transmission Priority Pole Replacement Line 9800	Jul-2022 (Completed)	Mar-2023
681672	38kV Transmission Priority Pole Replacement Line 2300	Sep-2022	May-2023

DISTRIBUTION

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
165226	Vieques Feeders 2501-01, 2501-02, 2501-03 and Culebra Feeders 3801-01, 3801-02	Oct-2022	May-2023
542690	Streetlighting – Maunabo (Obligated)	Feb-2022 (Completed)	Jun-2022 (Started)
542688	Streetlighting – Aguada (Obligated)	Mar-2022 (Completed)	Jun-2022 (Started)
542756	Streetlighting – Guanica (Obligated)	Mar-2022 (Completed)	Jul-2022 (Started)
542687	Streetlighting – Lajas (Obligated)	Mar-2022 (Completed)	Aug-2022 (Started)
542517	Streetlighting – Luquillo (Obligated)	Mar-2022 (Completed)	Jul-2022 (Started)
660239	Streetlighting- Villalba (Obligated)	Jul-2022 (Completed)	Sep-2022
659715	Streetlighting – Aibonito	Jul-2022 (Completed)	Jan-2023
659623	Streetlighting - Cataño	Jul-2022 (Completed)	Dec-2022
659625	Streetlighting- Dorado	Aug-2022 (Completed)	Dec-2022
660227	Streetlighting- Hatillo	Aug-2022 (Completed)	Oct-2022
660437	Streetlighting- Manati	Aug-2022 (Completed)	Oct-2022
673504	Streetlighting- Gurabo	Dec-2022	Feb-2023
659968	Streetlighting- San German	Nov-2022	Mar-2023
666894	Streetlighting- San Juan	Nov-2022	Feb-2023

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
436616	Distribution Pole and Conductor Repair-Arecibo Group 1	Jul-2022 (Completed)	Nov-2022
542762	Distribution Pole and Conductor Repair-Arecibo Group 2 (Obligated)	Feb-2022 (Completed)	Aug-2022 (Completed)
334473	Distribution Pole and Conductor Repair-Bayamon Group 1	Jul-2022 (Completed)	Oct-2022
334474	Distribution Pole and Conductor Repair-Bayamon Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022 (Completed)
334475	Distribution Pole and Conductor Repair-Bayamon Group 3	Jul-2022 (Completed)	Nov-2022
334420	Distribution Pole and Conductor Repair-Caguas Group 1	Jul-2022 (Completed)	Nov-2022
334443	Distribution Pole and Conductor Repair-Caguas Group 2 (Obligated)	Jul-2022 (Completed)	Sep-2022
334452	Distribution Pole and Conductor Repair-Caguas Group 3	Jul-2022 (Completed)	Nov-2022
334488	Distribution Pole and Conductor Repair-Caguas Group 4 (Obligated)	Feb-2022 (Completed)	Aug-2022
334491	Distribution Pole and Conductor Repair-Caguas Group 5	Jun-2022 (Completed)	Sep-2022
334497	Distribution Pole and Conductor Repair-Caguas Group 6	Jul-2022 (Completed)	Aug-2022
334518	Distribution Pole and Conductor Repair-Caguas Group 7 (Obligated)	Jun-2022 (Completed)	Nov-2022
334527	Distribution Pole and Conductor Repair-Caguas Group 8 (Obligated)	Feb-2022 (Completed)	Aug-2022 (Completed)
334476	Distribution Pole and Conductor Repair-Carolina Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022
334477	Distribution Pole and Conductor Repair-Carolina Group 3 (Obligated)	Jun-2022 (Completed)	Aug-2022
334308	Distribution Pole and Conductor Repair-Mayaguez Group 1 (Obligated)	Jun-2022 (Completed)	Sep-2022
334285	Distribution Pole and Conductor Repair- Mayaguez Group 2	Jul-2022 (Completed)	Oct-2022
334191	Distribution Pole and Conductor Repair- Mayaguez Group 3	Jul-2022 (Completed)	Aug-2022
334293	Distribution Pole and Conductor Repair- Mayaguez Group 4 (Obligated)	Jun-2022 (Completed)	Sep-2022
334323	Distribution Pole and Conductor Repair- Ponce Group 1 (Obligated)	Jan-2022 (Completed)	Sept-2022

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
334329	Distribution Pole and Conductor Repair- Ponce Group 2 (Obligated)	Jan-2022 (Completed)	Oct-2022
334471	Distribution Pole and Conductor Repair- San Juan Group 1 (Obligated)	Jun-2022 (Completed)	Oct-2022
334472	Distribution Pole and Conductor Repair- San Juan Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022
546374	Distribution Pole and Conductor Repair- San Juan Group 3 (Obligated)	Jul-2022 (Completed)	Oct-2022
TBD	Distribution Pole and Conductor Repair - Arecibo Group 6	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Bayamon Group 7	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Caguas Group 12	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 8	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Ponce Group 6	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - San Juan Group 7	Oct-2022	Jan-2023
682121	Distribution Pole and Conductor Repair - Arecibo Group 7	Oct-2022	Jan-2023
682135	Distribution Pole and Conductor Repair - Bayamon Group 8	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Caguas Group 13	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 9	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Ponce Group 7	Oct-2022	Jan-2023
682028	Distribution Pole and Conductor Repair - San Juan Group 8	Oct-2022	Jan-2023
TBD	Distribution Pole and Conductor Repair - Arecibo Group 8	Nov-2022	Feb-2023
682136	Distribution Pole and Conductor Repair - Bayamon Group 9	Nov-2022	Feb-2023
TBD	Distribution Pole and Conductor Repair - Caguas Group 14	Nov-2022	Feb-2023
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 10	Nov-2022	Feb-2023
TBD	Distribution Pole and Conductor Repair - Ponce Group 8	Nov-2022	Feb-2023
682031	Distribution Pole and Conductor Repair - San Juan Group 9	Nov-2022	Feb-2023
TBD	Distribution Pole and Conductor Repair - Arecibo Group 9	Dec-2022	Mar-2023
TBD	Distribution Pole and Conductor Repair - Caguas Group 15	Dec-2022	Mar-2023

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 11	Dec-2022	Mar-2023
TBD	Distribution Pole and Conductor Repair - Ponce Group 9	Dec-2022	Mar-2023
TBD	Distribution Pole and Conductor Repair - San Juan Group 10	Dec-2022	Mar-2023
TBD	Transmission and Distribution Automation Program – Group 1	Nov-2022	Jan-2022

IT & TELECOM

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
657300	Energy Management System (EMS)	Jul-2022 (Completed)	Oct-2023
675345	IT OT Technology Systems Repairs	Dec-2022	Jun-2023

BUILDINGS

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
679006	Test & Technology Laboratory	Oct-2022	Dec-2023

Exhibit 2

*Redline showing changes from June 2022 Update to PREPA-LUMA 90-Day Plan for
T&D Projects to the September 2022 Update to PREPA-LUMA 90-Day Plan for T&D Projects*



FEMA



LUMA 90-Day Plan

~~June~~ September 2022

LUMA 



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I. Introduction

In accordance with the directive received from FEMA to produce a 90-Day Plan, this document captures an overview of the key next steps and progress made on FEMA-funded projects for the Puerto Rico electrical system.

On June 1, 2021, LUMA assumed overall responsibilities for PREPA's T&D System as outlined within the O&M Agreement (OMA) between PREPA, P3A, and LUMA. Upon Commencement of the Service Period, PREPA refocused its efforts on projects in the Generation and Dams, Hydro, and Irrigation asset categories; while projects in the Transmission, Distribution, Substations, IT/Telecom, Buildings, and Environmental asset categories ("T&D Projects") were transitioned to and are now the responsibility of LUMA.

This 90-Day Plan provides information on various ~~difference~~ focus areas for LUMA.

II. Overview of Focus Areas for the Next 90-Days

The content below summarizes next steps across the following six areas: 1) PREPA-LUMA Coordination and Alignment; 2) Federal Grant Management; 3) Funding and Reporting; 4) Environmental and Historic Preservation; 5) Engineering Management; and 6) Enterprise Project Management ("EPM").

PREPA-LUMA Coordination and Alignment

PREPA and LUMA Focus Areas

- PREPA and LUMA leadership are participating in regular weekly meetings with COR3 & FEMA to ensure visibility of progress of project work, ensure the coordination and understanding of common matters, and to identify and resolve risks that involve points of integration between the two entities
- PREPA and LUMA will continue coordination to support successful operations under the OMA

Federal Grant Management

LUMA Focus Areas

- Continue working with COR3 and FEMA to obtain Project Obligations for the 19-48 Detailed SOWs submitted to date (i.e., 6-6 Substation Rebuild projects, 4-12 Transmission Line Rebuild projects, 2-3 Substation Minor Repair projects, 2-3 Substation Physical Security projects, 3-2 Transmission Pole Replacement projects, and 15 Distribution Pole and Conductor Replacement projects, 5 Streetlight projects, 1 SCADA Remote Access and RTU Replacements project and 1 Energy Management System (EMS) projects):-

- Continue advancing work on 428 projects towards finalizing *Detailed* SOWs for submission to COR3 and FEMA. This effort ~~will include~~ s 406 Hazard Mitigation and EHP work. Expect to submit *Detailed* SOWs within the next 90-day period ~~or Q3 2022~~ as per target schedule in Section IV
- Continue refinement of 406 Hazard Mitigation Strategies for Distribution, Transmission, Substation and Streetlights and ongoing discussions with COR3 and FEMA for feedback and alignment
- During the last 90-day period, LUMA completed the following:
 - Received PREB approval for ~~1-7~~ Initial SOWs projects and programs representing \$~~11.95~~67 million in capital investments
 - Submitted ~~22-54~~ Detailed SOWs to FEMA for approval representing \$~~0.171~~.5 billion in capital investments
 - Obtained FEMA Authorization and Project Obligations on *Detailed* SOWs for ~~14-19~~ Detailed SOWs representing \$0.1 billion in capital investments
 - Obtained FEMA ~~Authorization and~~ Project Obligations for Long Lead Materials representing \$0.65 billion in capital investments
 - ~~Defined critical loads list in collaboration with Municipalities for the electrical system to inform mitigation approaches for undergrounding and submitted to FEMA~~
 - ~~Finalized four LUMA Codes and Standards (Transmission, Distribution, Substation, and Streetlighting Strategies) that informs 428 versus 406 approaches~~
 - ~~Commenced construction 10~~\$0.1 billion
 - ~~Completed construction activities on 3-5 projects representing on Aguada S\$0.1 billion treetlights project~~
 - Construction activities on 11 projects representing \$0.1 billion
 - Completed construction activities on 1 project (4 projects completed to date representing \$0.1 billion)
- ~~Continue to work on opportunities for potential additional funding afforded by the 404 Hazard Mitigation Grant Program and the Community Development Block Grant (CDBG-DR) Program. LUMA submitted six key projects representing ~\$1,257M to COR3 for consideration. Out of these, three projects have been included in the PRDOH's Disaster Recovery Action Plan submitted to HUD for its consideration. LUMA will continue to work with COR3 & PRDOH to advance these projects as required~~

- ~~LUMA engaged with PRDOH/Vivienda on implementing ER-1 Cost Share Program for CDBG-DR funds against specific projects. Current efforts are towards Catano Substation 1801 project~~
- Continue to work with the representatives from COR3 and FEMA on key issues identified to date and identified as the work progresses

Funding and Reporting

LUMA Focus Areas

- Continue tracking project actual costs in accordance with FEMA, HUD, and COR3 standards to support financial reporting requirements for federally funded projects
- Submitted progress and financial quarterly reports for period ending 6/30/2022 on all 428-obligated projects
- ~~LUMA has s~~Submitted \$~~115.879~~ million in requests for reimbursements (RFRs) to COR3 to date and has another \$~~63.979.5~~ million in process to be submitted leveraging established RFR processes for document managements, as required by FEMA, HUD, and COR3
- Incorporated learnings from RFR preparation to date to improve preparation time and overall quality of documentation for RFR submissions moving forward
- Started compiling and preparing documentation for a material (inventory) RFR
- Engaged with our grid recovery partners on additional Federal Funding opportunities to include Department of Energy electrical system improvement Grants, HUD and PRDOH CDBG-DR Programs for Hazard mitigation, Grid Resilience and Cost Share as well as FEMA 406 Hazard Mitigation proposals in all major asset categories and projects
- Continued working on additional proposals utilizing the FEMA/SHPO 404 Hazard Mitigation program with 4 key back-up projects proposed and developed, representing \$900 million, should additional 404 HMGP funds become available. These projects were included in the PRDOH's draft Disaster Recovery Action Plan for public consultations. Of the four projects, three were included in PRDOH's submission to HUD in January 2022 and LUMA awaits the final recommendation before developing a SOW for PREB's review and approval and a subsequent submission to PRDOH and HUD for final approval
- Continued engagement with PRDOH/Vivienda on implementing ER-1 Cost Share Program for CDBG-DR funds against specific projects. Current efforts are towards Catano Substation 1801 as a pilot project

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Environmental and Historic Preservation

LUMA Focus Areas

- Continue to complete Endangered and Threatened Species Biological Studies and Wetland Hydrological Studies to support construction planning, permitting, and the development of appropriate environmental mitigations
- Continue to consult with FEMA and COR3 on Project-Specific Programmatic Agreement (PSPA) measures specific to streetlight, telecommunications, substations, transmission, and distribution projects
- During the last 90-day period, LUMA completed the following:
 - ~~Assisted FEMA with the public consultation process for the PSPA by hosting consultation materials on its website during April and May 2022~~
 - Project Specific Programmatic Agreement PSPA was executed on June 2, 2022
 - Streamlined consultation process with FEMA relating to environmental studies, ~~and~~ pre-construction, and construction disturbances
 - ~~Continue to P~~provided environmental training for A&E, construction contractors and LUMA operations crews in support of compliance with EHP requirements
 - ~~Continue to R~~reviewed initial FEMA Record of Environmental Considerations (RECs) for approved projects to implement conditions into project scopes
 - ~~Continue to S~~supported in pre-construction and construction inspections visits, aided with the implementation of mitigation measures required by FEMA EHP and other agencies to meet environmental conditions, and provided supporting documents for Class 3 estimate
 - Develop EHP Closeout guideline
 - Began notifying and requesting endorsements from government agencies for projects obligated by FEMA (LUMA's Capital Programs and Permitting Office)

Engineering Management

LUMA Focus Areas

- Start preliminary engineering design on multiple additional distribution line rebuild groups, substation-rebuild, and transmission line rebuild projects working with new and existing A/E firms towards the development of Detailed SOWs
- Continue with preliminary engineering design work with existing A/E firms towards the development of Detailed SOWs.

- ~~Begin-Continue~~ detailed engineering on all projects with FEMA approved *Detailed SOWs*; ~~these projects are all in the contracting phases an in various stages, from agreeing to terms and conditions to FOMB approval~~
- Continue to ~~finalize~~ contracts for additional A/E resources to support the federally funded projects and leverage the successful engineering firm(s) to assign projects with FEMA project numbers to begin A/E design work towards the development of *Detailed SOWs*. These contracts are in various stages from agreeing to terms and conditions to FOMB approval
- Continue evaluating and prioritizing the existing projects with FEMA numbers against the needs and constraints of the electrical system and available contractor capacities to optimize and level the execution strategies
- ~~Continue developing the~~ Develop an area plan analysis to identify contingency issues and provide a backup analysis to determine sectionalization and segmentation needs (e.g., installation of reclosers)
- During the last 90-day period, LUMA completed the following:
 - Finalized and executed 6 contracts for additional A/E resources to support the federally funded projects and leverage the successful engineering firm(s) to assign projects with FEMA project numbers to begin A/E design work
 - Assigned 26 additional distribution rebuild groups project engineering packages to engineering firms to finalize engineering scope, budget, and schedule and begin preliminary engineering design in October
 - ~~Developed standardized engineering packages for engineering firms to leverage during the preliminary engineering work for each project. These templates will be based on lessons learned during the development of the initial series of projects~~
 - Commenced process of incorporating NERC Compliance efforts for transmission system studies and analysis (e.g., TPL001 through 4, MOD 29 and CIP 14 e.g., PTO 1 through 4, Security, and CIP 114)
 - ~~Performed reliability compliance N-1 115KV and above transmission facility thermal overloading studies, proposed 11 transmission solutions to mitigate and resolve overloading issues~~
 - ~~Performed reliability compliance N-1 38KV and above transmission facility thermal overloading studies, proposed 30 transmission solutions to mitigate and resolve overloading issues~~
 - ~~Performed Puerto Rico south to north transfer capability studies (e.g., capability to shift load and generation), proposed 4 transmission solutions to increase the power grid south to north transfer capability~~

- Completed the planning technical studies and functional specifications on 42 transmission lines ~~(17 of the 42 have completed functional specifications)~~
- Completed planning and analysis on 70 additional⁹ distribution feeders
- Completed high-level assessment on 113 substations (24⁹ of the 113 have completed functional specifications)
- Issued Request for Proposal for the Energy Management System
- ~~Established 10 Planning Areas and began working with the area plan analysis~~

Enterprise Project Management (“EPM”)

LUMA Focus Areas

- Execute contract(s) for Program Management services to support the federally funded projects
- Continue to ramp-up project management resources, systems, and processes related to the execution of project within the infrastructure plan and continue to monitor resource needs as additional projects are launched
- Continue to track and monitor project schedules and costs within the EPM System leveraging the quality controls developed by LUMA

III. LUMA Estimated Schedule for Submission of *Detailed SOWs*

Over the next 90-days, LUMA will be focused on preparing *Detailed SOW* and cost estimates for T&D projects that currently have both PREB approval and FEMA project numbers.

The tables below show the current set of projects, by asset category, ~~in this group~~ along with the estimated timing for *Detailed SOWs* submittals to COR3 and FEMA.

The estimation of project submission timing noted below is based on the best information available to LUMA at the time of this plan update. LUMA is focused on meeting or exceeding the project submission estimates listed in the table below.

SUBSTATIONS

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
174422	Catano Modernization & Hardening (Obligated)	Oct-2021 (Completed)	Dec-2022
165209	Culebra 3801 Substation (Obligated)	Apr-2022 (Completed)	Jan-2023

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
165225	Vieques 2501 Substation (Obligated)	Apr-2022 (Completed)	Jan-2023
179558	Manati TC BKR - T005 (Obligated)	May-2022 (Completed)	Nov-2023
165268	Rio Grande Estates - CH – 2306	May-2022 (Completed)	Feb-2024
169495	Tapia GIS 1102	May-2022 (Completed)	Dec-2023
169058	Llorens Torres 1106	May-2022 (Completed)	Dec-2023
169266	Centro Medico 1327 & 1359	May-2022 (Completed)	Jan-2024
169896	Costa Sur TC (Obligated)	Jun-2022 (Completed)	Nov-2023
178258	Taft 1105	Jun-2022 (Completed)	Jul-2025
169500	Bayamon TC - BKRS Y1 - 1711	Jul-2022 (Completed)	Aug-2023
178503	Aguirre TC -BKRS	Sep-2022	Sep-2023
178577	Cachete 1526	Nov-2022	Aug-2023
169276	Viaducto TC 1100	Nov-2022	Oct-2023
546370	Substation Minor Repairs-Group A	Apr-2022 (Completed)	Feb-2023
542758	Substation Minor Repairs-Group B	Jul-2022 (Completed)	Apr-2023
546371	Substation Minor Repairs-Group C	Jun-2022 (Completed)	Jul-2023
549715	Substation Minor Repairs-Group D	Dec-2022	Sep-2023
549725	Substation Minor Repairs-Group E	Dec-2022	Sep-2023
550910	Physical Security Group 1	Apr-2022 (Completed)	Feb-2023
549764	Physical Security Group 2	Jul-2022 (Completed)	Apr-2023
551861	Physical Security Group 3	Jun-2022 (Completed)	May-2023
660422	Physical Security Group 4	Dec-2022	Jun-2023

TRANSMISSION

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
168226	38000 - San Juan - Isla Grande (LOOP)	May-2022 (Complete)	Sep-2023
176971	8200 - San Juan SP - Catano Sect	Jul-2022 (Complete)	Apr-2024
180052	Existing 38kV - Line 100, Line 200 Ponce TC to Jobos TC	Aug-2022 (Complete)	Aug-2024
180326	Existing 115 kV - Line 36800 Palmer Fajardo to Sabana Llana	Aug-2022 (Complete)	Apr-2024
166904	37800 - Caguas – Monacillo	Aug-2022 (Complete)	Apr-2024
167443	36200 - Monacillos - Juncos	Aug-2022 (Complete)	Mar-2027
176913	9500 - Palo Seco SP - Cantano Sect	Aug-2022 (Complete)	Jul-2024
176954	1100 - Garzas 1 HP - Garzas 2 HP	Aug-2022 (Complete)	Mar-2024
168483	36400 - Dos Bocas - Ponce	Aug-2022 (Complete)	Mar-2025
166860	37800 - Jobos – Caguas	SepAug-2022 (Complete)	Oct-2025
167168	37100 - Costa Sur - Acacias	SepAug-2022 (Complete)	Nov-2024
177191	39000 - Aguas Buenas – Caguas	Sep-2022 (Complete)	Dec-2024
165213	Main Land 5400 - Rio Blanco HP - Dagua TC	Sep-2022	May-2024
167508	50100 - Cambalache - Manati	Sep-2022	Apr-2027
166707	51300 - Ponce - Costa Sur	Nov-2022	Jul-2024
177134	4100 - Guaraguo TC - Comerio TC	Nov-2022	Apr-2024
<u>167446</u>	<u>36100 - Dos Bocas - Monacillos</u>	<u>Dec-2022</u>	<u>May-2023</u>
668669	230kV Transmission Priority Poles Replacements - Mora 50500	Apr-2022 (Complete)	Mar-2022 (Complete)
334468	38kV Transmission Priority Pole Replacement Line 2200 (Obligated)	May-2022 (Complete)	NovDec-2022
550896	38kV Transmission Priority Pole Replacement Line 6700 (Obligated)	Jun-2022 (Complete)	DecNov-2022

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
668583	38kV Transmission Priority Pole Replacement Line 13300 (Obligated)	Jun-2022 (Complete)	Oct <u>Jan</u> -2023 2
668592	38kV Transmission Priority Pole Replacement Line 9800	Jul-2022 (Complete)	Jan <u>Mar</u> -2023
681672	38kV Transmission Priority Pole Replacement Line 2300	Sep-2022	May-2023

DISTRIBUTION

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
165226	Vieques Feeders 2501-01, 2501-02, 2501-03 and Culebra Feeders 3801-01, 3801-02	<u>Oct</u> -2022	<u>May</u> -2023
542690	Streetlighting – Maunabo (Obligated)	Feb-2022 (Completed)	Jun-2022 (Started)
542688	Streetlighting – Aguada (Obligated)	Mar-2022 (Completed)	Jun-2022 (Started)
542756	Streetlighting – Guanica (Obligated)	Mar-2022 (Completed)	Jul-2022 (Started)
542687	Streetlighting – Lajas (Obligated)	Mar-2022 (Completed)	Aug-2022 (Started)
542517	Streetlighting – Luquillo (Obligated)	Mar-2022 (Completed)	Jul-2022 (Started)
660239	Streetlighting- Villalba (Obligated)	Jul-2022 (Completed)	Sep-2022
659715	Streetlighting – Aibonito	Jul-2022 (Completed)	Jan-2023
659623	Streetlighting - Catano	Jul-2022 (Completed)	Dec-2022
659625	Streetlighting- Dorado	Aug-2022 (Completed)	Dec-2022
660227	Streetlighting- Hatillo	Aug-2022 (Completed)	Oct-2022
660437	Streetlighting- Manati	Aug-2022 (Completed)	Oct-2022
673504	Streetlighting- Gurabo	Dec-2022	Feb-2023
659968	Streetlighting- San German	Nov-2022	Mar-2023

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
666894	Streetlighting- San Juan	Nov-2022	Feb-2023
436616	Distribution Pole and Conductor Repair-Arecibo Group 1	Jul-2022 (Completed)	Nov-2022
542762	Distribution Pole and Conductor Repair-Arecibo Group 2 (Obligated)	Feb-2022 (Completed)	Aug-2022- (Completed)
334473	Distribution Pole and Conductor Repair-Bayamon Group 1	Jul-2022 (Completed)	Oct-2022
334474	Distribution Pole and Conductor Repair-Bayamon Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022 (Completed)
334475	Distribution Pole and Conductor Repair-Bayamon Group 3	Jul-2022 (Completed)	Nov-2022
334420	Distribution Pole and Conductor Repair-Caguas Group 1	Jul-2022 (Completed)	Nov-2022
334443	Distribution Pole and Conductor Repair-Caguas Group 2 (Obligated)	Jul-2022 (Completed)	Sep-2022
334452	Distribution Pole and Conductor Repair-Caguas Group 3	Jul-2022 (Completed)	Nov-2022
334488	Distribution Pole and Conductor Repair-Caguas Group 4 (Obligated)	Feb-2022 (Completed)	Aug-2022
334491	Distribution Pole and Conductor Repair-Caguas Group 5	Jun-2022 (Completed)	Sep-2022
334497	Distribution Pole and Conductor Repair-Caguas Group 6	Jul-2022 (Completed)	Aug-2022
334518	Distribution Pole and Conductor Repair-Caguas Group 7 (Obligated)	Jun-2022 (Completed)	Nov-2022
334527	Distribution Pole and Conductor Repair-Caguas Group 8 (Obligated)	Feb-2022 (Completed)	Aug-2022 (Completed)
334476	Distribution Pole and Conductor Repair-Carolina Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022
334477	Distribution Pole and Conductor Repair-Carolina Group 3 (Obligated)	Jun-2022 (Completed)	Aug-2022
334308	Distribution Pole and Conductor Repair-Mayaguez Group 1 (Obligated)	Jun-2022 (Completed)	Sep-2022
334285	Distribution Pole and Conductor Repair- Mayaguez Group 2	Jul-2022 (Completed)	Oct-2022
334191	Distribution Pole and Conductor Repair- Mayaguez Group 3	Jul-2022 (Completed)	Aug-2022
334293	Distribution Pole and Conductor Repair- Mayaguez Group 4 (Obligated)	Jun-2022 (Completed)	Sep-2022

FEMA Prj. #	Project Name	DSOW Submission Estimate	Construction Start Estimate
334323	Distribution Pole and Conductor Repair- Ponce Group 1 (Obligated)	Jan-2022 (Completed)	Aug Sept-2022 (Completed)
334329	Distribution Pole and Conductor Repair- Ponce Group 2 (Obligated)	Jan-2022 (Completed)	Oct-2022
334471	Distribution Pole and Conductor Repair- San Juan Group 1 (Obligated)	Jun-2022 (Completed)	Oct-2022
334472	Distribution Pole and Conductor Repair- San Juan Group 2 (Obligated)	Jun-2022 (Completed)	Oct-2022
546374	Distribution Pole and Conductor Repair- San Juan Group 3 (Obligated)	Jul-2022 (Completed)	Oct-2022
TBD	Distribution Pole and Conductor Repair - Arecibo Group 6	Oct-2022	<u>Jan-2023</u>
TBD	Distribution Pole and Conductor Repair - Bayamon Group 7	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Caguas Group 12	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 8	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Ponce Group 6	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - San Juan Group 7	Oct-2022	<u>Jan-2023</u> -
682121	Distribution Pole and Conductor Repair - Arecibo Group 7	Oct-2022	<u>Jan-2023</u> -
682135	Distribution Pole and Conductor Repair - Bayamon Group 8	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Caguas Group 13	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 9	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Ponce Group 7	Oct-2022	<u>Jan-2023</u> -
682028	Distribution Pole and Conductor Repair - San Juan Group 8	Oct-2022	<u>Jan-2023</u> -
TBD	Distribution Pole and Conductor Repair - Arecibo Group 8	Nov-2022	<u>Feb-2023</u>
682136	Distribution Pole and Conductor Repair - Bayamon Group 9	Nov-2022	<u>Feb-2023</u> -
TBD	Distribution Pole and Conductor Repair - Caguas Group 14	Nov-2022	<u>Feb-2023</u> -
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 10	Nov-2022	<u>Feb-2023</u> -
TBD	Distribution Pole and Conductor Repair - Ponce Group 8	Nov-2022	<u>Feb-2023</u> -
682031	Distribution Pole and Conductor Repair - San Juan Group 9	Nov-2022	<u>Feb-2023</u> -
TBD	Distribution Pole and Conductor Repair - Arecibo Group 9	Dec-2022	<u>Mar-2023</u>

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
TBD	Distribution Pole and Conductor Repair - Caguas Group 15	Dec-2022	<u>Mar-2023</u> -
TBD	Distribution Pole and Conductor Repair - Mayaguez Group 11	Dec-2022	<u>Mar-2023</u> -
TBD	Distribution Pole and Conductor Repair - Ponce Group 9	Dec-2022	<u>Mar-2023</u> -
TBD	Distribution Pole and Conductor Repair - San Juan Group 10	Dec-2022	<u>Mar-2023</u>
<u>TBD</u>	<u>Transmission and Distribution Automation Program – Group 1</u>	<u>Nov-2022</u>	<u>Jan-2022</u>

IT & TELECOM

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
657300	Energy Management System (EMS)	Jul-2022 (Completed)	Oct-2023
675345	IT OT Technology Systems Reparatons	Dec-2022	Jun-2023

BUILDINGS

FEMA Prj. #	Project Name	<u>DSOW</u> Submission Estimate	Construction <u>Start</u> Estimate
679006	Test & Technology Laboratory	Oct-2022	<u>Dec-2023</u>

Table 1.2 – LUMA Projects Being Prepared for Detailed SOW Submission

FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
174422	Catano Modernization & Hardening (Obligated)	Oct-2021 (Completed)	Nov-2022	Substations
180052	Existing 38kV Line 100, Line 200 Ponce TC to Jobos TC	Jul-2022	Apr-2023	Transmission

FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
180326	Existing 115 kV Line 36800 Palmer Fajardo to Sabana Llana	Oct-2022	Dec-2023	Transmission
165268	Rio Grande Estates CH 2306	May-2022 (Completed)	Mar-2023	Substations
165213	Main Land 5400 Rio Blanco HP Dagua TC	Aug-2022	Jun-2023	Transmission
166707	51300 Ponce Costa Sur	Sep-2022	Jun-2023	Transmission
166860	37800 Jobos Caguas	Sep-2022	Feb-2024	Transmission
169495	Tapia GIS 1102	May-2022 (Completed)	Oct-2023	Substations
166904	37800 Caguas Monacillo	Sep-2022	Nov-2023	Transmission
167168	37100 Costa Sur Acacias	Aug-2022	Dec-2024	Transmission
167446	36100 Dos Bocas Monacillos	Oct-2022	Nov-2023	Transmission
168226	38000 San Juan Isla Grande (LOOP)	Apr-2022 (Completed)	Sep-2023	Transmission
176913	9500 Palo Seco SP Cantano Sect	Jul-2022	Oct-2023	Transmission
176954	1100 Garzas 1 HP Garzas 2 HP	Jun-2022	Sep-2023	Transmission
176971	8200 San Juan SP Catano Sect	Aug-2022	May-2023	Transmission
177134	4100 Guaraguo TC Comerio TC	Jul-2022	Oct-2023	Transmission
177191	39000 Aguas Buenas Caguas	Aug-2022	Nov-2024	Transmission
435257	Existing 115 kV Line 36200 Fajardo to Rio Blanco	May-2023	Feb-2024	Transmission
165209	Culebra 3801 Substation (Obligated)	Mar-2022 (Completed)	Jul-2022	Substations
165225	Vieques 2501 Substation (Obligated)	Mar-2022 (Completed)	Jul-2022	Substations
165226	Vieques Feeders 2501-01, 2501-02, 2501-03 and Culebra Feeders 3801-01, 3801-02	Aug-2022	Dec-2022	Distribution
169058	Llorens Torres 1106	Mar-2022 (Completed)	Aug-2023	Substations
169266	Centro Medico 1327 & 1359	May-2022 (Completed)	Mar-2023	Substations
169276	Viaducto TC 1100	Aug-2022	Jun-2023	Substations
169500	Bayamon TC BKRS Y1 1711	Jul-2022	Oct-2023	Substations

FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
169896	Costa-Sur TC	Jun-2022 (Completed)	Feb-2023	Substations
178258	Taft 1105	May-2022 (Completed)	Oct-2023	Substations
178503	Aguirre TC-BKRS	Jul-2022	Aug-2023	Substations
178577	Cachete 1526	Jul-2022	Jun-2023	Substations
179558	Manati BKR T005 (Obligated)	Apr-2022 (Completed)	Jun-2023	Transmission
169576	Arecibo Regional Office Building	Oct-2022	Mar-2023	Buildings
169798	Arecibo Electric Service Center	Oct-2022	Mar-2023	Buildings
169804	Aguadilla Electric Service Center	Oct-2022	Mar-2023	Buildings
167508	Line 50100—Cambalache GP TC to Manati TC	Aug-2022	May-2027	Transmission
168483	Line 36400—Dos Bocas HP to Ponce TC	Aug-2022	Jun-2024	Transmission
167443	Line 36200—Monacillos to Juncos	Oct-2022	Jan-2027	Transmission
436616	Distribution Pole and Conductor Repair Arecibo Group 1	Jun-2022	Nov-2022	Distribution
542762	Distribution Pole and Conductor Repair Arecibo Group 2 (Obligated)	Feb-2022 (Completed)	Aug-2022	Distribution
334473	Distribution Pole and Conductor Repair Bayamon Group 1	Jun-2022	Oct-2022	Distribution
334474	Distribution Pole and Conductor Repair Bayamon Group 2	Jun-2022 (Completed)	Oct-2022	Distribution
334475	Distribution Pole and Conductor Repair Bayamon Group 3	Jul-2022	Nov-2022	Distribution
334420	Distribution Pole and Conductor Repair Caguas Group 1	Jun-2022	Nov-2022	Distribution
334443	Distribution Pole and Conductor Repair Caguas Group 2	Jun-2022	Sep-2022	Distribution
334452	Distribution Pole and Conductor Repair Caguas Group 3	Jul-2022	Nov-2022	Distribution
334488	Distribution Pole and Conductor Repair Caguas Group 4 (Obligated)	Feb-2022 (Completed)	Aug-2022	Distribution
334491	Distribution Pole and Conductor Repair Caguas Group 5	Jun-2022	Sep-2022	Distribution
334497	Distribution Pole and Conductor Repair Caguas Group 6	Jul-2022	Aug-2022	Distribution

FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
334518	Distribution Pole and Conductor Repair-Caguas Group 7	Jul-2022	Nov-2022	Distribution
334527	Distribution Pole and Conductor Repair-Caguas Group 8 (Obligated)	Feb-2022 (Completed)	Aug-2022	Distribution
334476	Distribution Pole and Conductor Repair-Carolina Group 2	Jun-2022	Oct-2022	Distribution
334477	Distribution Pole and Conductor Repair-Carolina Group 3	Jun-2022	Aug-2022	Distribution
334308	Distribution Pole and Conductor Repair-Mayaguez Group 1	Jun-2022 (Completed)	Aug-2022	Distribution
334285	Distribution Pole and Conductor Repair-Mayaguez Group 2	Jul-2022	Oct-2022	Distribution
334191	Distribution Pole and Conductor Repair-Mayaguez Group 3	Jul-2022	Aug-2022	Distribution
334293	Distribution Pole and Conductor Repair-Mayaguez Group 4	Jun-2022 (Completed)	Aug-2022	Distribution
334323	Distribution Pole and Conductor Repair-Ponce Group 1 (Obligated)	Jan-2022 (Completed)	Aug-2022	Distribution
334329	Distribution Pole and Conductor Repair-Ponce Group 2 (Obligated)	Jan-2022 (Completed)	Aug-2022	Distribution
334471	Distribution Pole and Conductor Repair-San Juan Group 1	Jun-2022	Oct-2022	Distribution
334472	Distribution Pole and Conductor Repair-San Juan Group 2	Jun-2022 (Completed)	Aug-2022	Distribution
546374	Distribution Pole and Conductor Repair-San Juan Group 3	Jul-2022	Oct-2022	Distribution
550910	Physical Security Group 1	Mar-2022 (Completed)	Aug-2022	Substations
549764	Physical Security Group 2	Jul-2022	Aug-2022	Substations
551861	Physical Security Group 3	Jun-2022 (Completed)	Aug-2022	Substations
660422	Physical Security Group 4	Jul-2022	Oct-2022	Substations
549768	Physical Security Group 5	Jul-2022	Oct-2022	Substations
546370	Substation Minor Repairs-Group A	Mar-2022 (Completed)	Aug-2022	Substations
542758	Substation Minor Repairs-Group B	Jul-2022	Oct-2022	Substations
546371	Substation Minor Repairs-Group C	Jun-2022 (Completed)	Sep-2022	Substations

FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
549715	Substation Minor Repairs-Group D	Jul-2022	Nov-2022	Substations
549725	Substation Minor Repairs-Group E	Jul-2022	Nov-2022	Substations
542688	Streetlighting—Aguada (Obligated)	Mar-2022 (Completed)	Jun-2022	Distribution
542756	Streetlighting—Guanica (Obligated)	Mar-2022 (Completed)	Jul-2022	Distribution
542687	Streetlighting—Lajas (Obligated)	Mar-2022 (Completed)	Jul-2022	Distribution
542517	Streetlighting—Luquillo (Obligated)	Mar-2022 (Completed)	Jul-2022	Distribution
542690	Streetlighting—Maunabo (Obligated)	Feb-2022 (Completed)	Jun-2022	Distribution
659715	Streetlighting—Aibonito	Jul-2022	Nov-2022	Distribution
659623	Streetlighting—Catano	Jun-2022	Oct-2022	Distribution
659625	Streetlighting—Dorado	Jul-2022	Sep-2022	Distribution
660227	Streetlighting—Hatillo	Aug-2022	Dec-2022	Distribution
660437	Streetlighting—Manati	Jul-2022	Dec-2022	Distribution
659968	Streetlighting—San German	Aug-2022	Dec-2022	Distribution
660239	Streetlighting—Villalba	Jul-2022	Oct-2022	Distribution
668669	Transmission Priority Pole Replacement Mora 50500	Mar-2022 (Completed)	Feb-2022 (Completed)	Transmission
668583	38kV Transmission Priority Pole Replacement Line 13300	Jun-2022 (Completed)	Oct-2022	Transmission
334468	38kV Transmission Priority Pole Replacement Line 2200	Apr-2022 (Completed)	Aug-2022	Transmission
668592	38kV Transmission Priority Pole Replacement Line 9800	Jun-2022	Oct-2022	Transmission
Pending	38kV Transmission Priority Pole Replacement Line 6700	Jun-2022	Oct-2022	Transmission
657300	Energy Management System (EMS)	Jun-2022	Oct-2023	IT and Telecommunications