

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

NEPR Received: Mar 18, 2022 8:54 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 March 2022 Update to
PREPA-LUMA 90-Day Plan

JOINT MOTION SUBMITTING MARCH 2022 PREPA-LUMA 90-DAY PLAN

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”) and the Puerto Rico Electric Power Authority (“PREPA”), through their respective undersigned legal counsel and respectfully submit the following:

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,

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.

⁵This 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.

LUMA and PREPA hereby submit, as Exhibit 1 to this Joint Motion, the March 2022 update to the PREPA-LUMA 90-Day Plan (“March 2022 PREPA-LUMA 90-Day Plan”) updating the status of projects and providing a summary of key next steps for the upcoming 90 days in relation to the 10-Year Infrastructure Plan. In addition, as Exhibit 2 to this Joint Motion, LUMA and PREPA submit a redline version that compares the update to the PREPA-LUMA 90-Day Plan filed with this Energy Bureau on December 21, 2021 (*see Exhibit 1 of Motion Submitting December 2021 Update to PREPA-LUMA 90 Day Plan* jointly filed by PREPA and LUMA on that date) with the March 2022 PREPA-LUMA 90-Day Plan being submitted today.

WHEREFORE, LUMA and PREPA respectfully request that the Energy Bureau **take notice** of the aforementioned and **accept** the March 2022 PREPA-LUMA 90-Day Plan submitted herein as **Exhibit 1** to this Joint Motion.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 18th day of March 2022.

We hereby certify that we filed this motion using the electronic filing system of this Energy Bureau.



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Exhibit 1

PREPA-LUMA March 2022 90-Day Plan



FEMA



PREPA-LUMA 90-Day Plan

March 2022



Puerto Rico Electric
Power Authority



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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 areas of coordination between PREPA and LUMA as well as focus areas specific to each.

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

PREPA Focus Areas

- A total of 102 SOW (\$344M) were submitted to the Puerto Rico Energy Bureau (PREB) for approval out of which 62 have been approved and 7 deferred for further review
 - Projects include rehabilitation, improvement, and repairs to various generation units to recover load generation capacity and reliability reducing load sheds events to citizens and commercial and industry sectors. In addition, improvements to fuel tank, fire protection and



- cooling systems to address compliance standards under NFPA and CWA were also submitted
- PREPA is working alongside FEMA and COR3 to organize approved SOWs into logical grouping for Project Formulation submissions (*Detailed SOWs*)
- Logical grouping of SOWs takes into consideration EHP limitations to evaluate all environmental impacts under one area
- PREPA submitted a total 8 FEMA projects (*Detailed SOWs*) including:
 - Mayagüez Hydro-Gas Power Plant Permanent Repairs (1)
 - Cambalache Power Plant Permanent Repairs (1)
 - San Juan Power Plant – Permanent Repairs (3)
 - Aguirre Power Plant – Permanent Repairs (3)
- Once the remaining SOWs receive regulatory approval, PREPA will continue with its *Detailed SOWs* submission. Meanwhile, the Authority will issue a motion to request approval priority to a subset of projects holding formulation progress
- Continue advancing work on other 428 projects towards finalizing *Detailed SOWs* for submission to COR3 and FEMA. This effort will include 406 Hazard Mitigation and EHP work

LUMA Focus Areas

- Continue working with COR3 and FEMA to obtain Project Obligations for the 11 *Detailed SOW's* submitted to date (i.e., Cataño Modernization and Hardening project, 5 Streetlight projects and 5 Distribution Pole and Conductor Replacement projects)
- Continue advancing work on 428 projects towards finalizing *Detailed SOWs* for submission to COR3 and FEMA. This effort will include 406 Hazard Mitigation and EHP work. Expect to submit *Detailed SOWs* within the next 90-day period or Q2 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 requested input from COR3/FEMA on:
 - Substation Projects 406 Hazard Mitigation Strategies and System approach justifications
 - Defining criticality loads list in collaboration with Municipalities for the electrical system to inform mitigation approaches for undergrounding
 - Criteria in assessing the health of the distribution infrastructure documented within LUMA's Guide for Setting Condition Assessment Criteria Levels



- Documentation requirements from LUMA for storm damaged elements not repaired to codes and standards to obtain reimbursement
- During the last 90-day period, LUMA completed the following:
 - Received PREB approval for 3 *Initial* SOWs representing \$0.36 billion¹ in capital investments
 - Received FAASt numbers for all 171 projects submitted to FEMA to date
 - Submitted 10 *Detailed* SOWs to FEMA for approval representing \$0.05 billion in capital investments
 - Cancelled FAASt#171118 Caridad Project – scope to be included in FAASt#169500 Bayamon TC - BKRS Y1 – 1711 Project
 - Cancelled FAASt#551928 Primary and Secondary Control Centers Project – scope to be included in FAASt 657300 Energy Management System (EMS) Project
- 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 four key projects representing ~\$900M for consideration. These 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
- 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

PREPA Focus Areas

- Establish a Standard Operating Procedure between PREPA and LUMA for shared project worksheets (1294 & 9510) related to administrative expenses, assessing the flow of funds to PREPA and LUMA, meeting the OMA requirements and regulatory standards
- Finalize advance reconciliation on request for advance (RFA) for PW 9510 with submitted RFRs and continue submittals of related A&E expenditures for reimbursements
- Evaluate potential impacts on Cost-share matching funding from CDBG-DR and central government. Assess impacts on funding limitations if global match guidelines are not granted

¹ Value does not match subcomponent total exactly due to rounding



- Request amendment to Management Cost PW 1294 to include contracts awarded for grant management and program management activities by LUMA and PREPA, to obtain adequate funding
- Submit progress and financial quarterly reports for period ending 03/31/2022 on all 428 and 404-obligated projects

LUMA Focus Areas

- As previously reported, established structure and reports to support development of FEMA-required financial reporting in preparation for submitting the FEMA-funded projects progress and financial quarterly reports during future periods
- Continue tracking project actual costs in accordance with FEMA and COR3 standards to support financial reporting requirements for federally funded projects
- Submit progress and financial quarterly reports for period ending 3/31/2022 on all 428-obligated projects
- During the last 90-day period, LUMA submitted a RFR to COR3 for \$2.2 million in reimbursements

Environmental and Historic Preservation

PREPA Focus Areas

- For emergency Generation projects PREPA prepared an all-inclusive EHP checklist by site taking into consideration that all projects have similar scope and very limited implications in environmental matters
 - Checklists have been completed for San Juan, Costa Sur, Cambalache, Mayagüez, Palo-Seco, and Aguirre. Checklist have been presented alongside *Detailed* SOW submissions
 - Completion of EHP Checklists for Palo-Seco and Hydrogas Gas Turbine Installations are underway and to be completed within the following month
- FEMA, COR3 and PREPA are working at Project-Specific Programmatic Agreement (PSPA), the document draft is out for public comments
- Management is currently pursuing a Request for Proposal to contract services to support carrying out compliance activities, including the preparation of Biological Assessments for FEMA consultation with U.S. Fish and Wildlife Services; development of high level NEPA documentation (i.e., Environmental Assessments, Supplemental Environmental Assessments; or an Environmental Impact Statement); Clean Water Act Section 401 and 404 permit submittals through the U.S. Army Corps of Engineers; and actions required to achieve compliance with Section 106 of the National Historic Preservation Act



(NHPA) (including archaeological survey and monitoring; building survey and recordation; data recovery and curation; and mitigation of adverse effects)

- Implement an independent public notification program that meets FAASt and EHP requirements within PREPA website. Current actions to complete entail establishing an “inquiry information” platform
- For the Black Start projects, the geotechnical studies will be included as part of the scope of service within the EPC RFP to be issued

LUMA Focus Areas

- Complete Endangered and Threatened Species Biological Studies and Wetland Hydrological Studies to support construction planning, permitting, and the development of appropriate environmental mitigations
- Consult with FEMA and COR3 on PSPA measures specific to transmission and distribution projects
- Adapt EHP Checklist templates based on completed reviews of *Detailed SOWs*
- During the last 90-day period, LUMA completed the following:
 - Completed the standard EHP template and associated environmental studies as part of the *Detailed SOW* for projects
 - Completed consultation with FEMA’s EHP group for the review and authorization of environmental, geotechnical, and engineering studies required for projects currently in preliminary design
 - In conjunction with FEMA, continued engagement state and federal agencies including DRNA, FWS, SHPO and USACE to streamline project review and consultation processes
 - Reviewed and analyzed environmental impacts (soil testing or boring, water works, vegetation removal, etc.) required during the preliminary and detailed design
 - Obtained FEMA approval for environmental studies, access, vegetation clearing and soil testing or boring on required projects to facilitate the preliminary designs

Engineering Management

PREPA Focus Areas

- Dredging Projects – Bathymetric survey RFP to be published during March 2022 and commencement date is estimated as May 2022. Design phase will include floor sampling planning to be submitted for EHP approval
 - PREPA will continue collaborative meetings with FEMA EHP to address studies eligibility and completeness
- Guajataca Dam – Project requires specialized skillsets and thus management is finalizing the evaluation of the contract structure to receive such services



- Meeting to be held with all stakeholders to discuss eligibility on procurement and contracting structure
- PREPA awarded two contract releases to A/E contractor and has initiated design on:
 - Cambalache Flood Barrier Protection: PREPA will review documents available and design drawing of the existing earthen berm to determine the current level of freeboard from the top of the berm. Collect the environmental parameters and prepare a criteria document for the new flood protection barrier system's design for RFP specifications
 - Toro Negro Hydroelectric System: PREPA will review documents and assessment reports, develop walkdown checklist, inspection visits for the preparation of RFP specifications
- Commence formation of construction specifications for applicable asset categories and work with program stakeholders on review and approval
- Costa Sur & Yabucoa Black Starts – Technical specifications completed and RFP for EPC competitive process to be published in July 2022
- Irrigation Channels – PREPA is finalizing a cost analysis to complete its procurement package and engage an A/E contractor. Expected commencement date is estimated to be in June 2022
- Rio Blanco Hydroelectric System – PREPA finalized its design alternative solutions and is currently awaiting selection
 - A meeting was held with the Forest Service and FERC to present three alternatives for the repair of the water pipe
 - PREPA will work with the selection of the best alternative and work with the design specifications for RFP including the start of the environmental compliance permitting

LUMA Focus Areas

- Continue with preliminary engineering design work with existing A/E firm towards the development of *Detailed SOW*. Begin detailed engineering on all projects with FEMA approved *Detailed SOWs*
- Execute 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*
- Develop 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 Cataño Modernization and Hardening project



- 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

Enterprise Project Management (“EPM”)

PREPA Focus Areas

- Continue managing project schedules, tasks, budgets, and progress in PREPA’s system of record, MS Project Online
- Continue refining project management controls and artifacts aligned with federal requirements
- Monitor and manage implementation progress through the EPM program

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. PREPA Estimated Schedule for Submission of Detailed SOWs

Over the next 90 days, PREPA will be focused on submitting Generation Emergency projects *Detailed SOWs* once approved by PREB. The table below shows the current set of projects estimated to have *Detailed SOWs* submitted to COR3 and FEMA in the second quarter of 2022, all of which are Generation projects.

The estimation of project submission timing is based on the best information available to PREPA at the time of this plan update.

Table 1.1 – PREPA 2022 Q2 Project Submittal Milestone

FEMA Project #	Project Name	Submission Estimate	Construction Estimate	Asset Category
662947	San Juan Plant - Unit 5 & 6	Submitted	Jan-22	Generation
Pending	San Juan Plant - Unit 7 & 8	Submitted	Mar-23	Generation
Pending	San Juan Plant - Unit 10	Mar-22	Mar-23	Generation
Pending	San Juan Plant - Auxiliary Equipment	Submitted	Mar-22	Generation
663385	Mayaguez Power Plant Permanent Repairs	Submitted	Mar-22	Generation



663383	Cambalache Power Plant Permanent Repairs	Submitted	Apr-22	Generation
Pending	Aguirre units 1 & 2	Submitted	Mar-22	Generation
Pending	Aguirre Auxiliary Equipment	Submitted	Mar-22	Generation
Pending	Combined Cycle Units	Submitted	Feb-22	Generation
662957	Palo Seco Steam Plant Permanent Repairs	Mar-22	Jan-23	Generation
Pending	Costa Sur Permanent Repairs	Mar-22	Nov-22	Generation
Pending	Hydro Gas Peakers	Mar-22	Jul-22	Generation
435769	South Coast Irrigation District – Canals	Nov-22	Jan-23	Dams/Hydro
436467	Isabela Irrigation District - Canals	Nov-22	Jan-23	Dams/Hydro
436462	Lajas Valley Irrigation District - Canals	Nov-22	Jan-23	Dams/Hydro
334811	Dos Bocas Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334769	Garzas Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334771	Guajataca Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334772	Guayabal Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334813	Guayo Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334798	Guerrero Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334803	Loco Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
334773	Lucchetti Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
335207	Guineo Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
335206	Matrullas Reservoir – Dredging	Jul-22	Jan-23	Dams/Hydro
436621	Damns Minor Repairs	Jul-22	Feb-23	Dams/Hydro
436468	Toro Negro Hydroelectric System Connection	May-22	Nov-22	Generation
334770	Guajataca Dam – Permanent Repairs	Jul-25	Jul-27	Dams/Hydro
180723	Rio Blanco Hydroelectric System	May-22	Jun-23	Generation
164988	New Black Start System at Costa Sur	Apr-22	Dec-22	Generation
164966	New Black Start System at Yabucoa	Apr-22	Dec-22	Generation
169340	Cambalache Power Plant – Flood Protection Barrier	May-22	Dec 2022	Generation

IV. 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 table below shows the current set of projects 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.



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	Oct-2021 (Completed)	Oct-2022	Substations
180052	Existing 38kV - Line 100, Line 200 Ponce TC to Jobos TC	Jul-2022	Apr-2023	Transmission
180326	Existing 115 kV - Line 36800 Palmer Fajardo to Sabana Llana	Oct-2022	Jun-2022	Transmission
165268	Rio Grande Estates - CH - 2306	May-2022	Mar-2023	Substations
165213	Main Land 5400 - Rio Blanco HP - Daguao 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	Dec-2022	Substations
166904	37800 - Caguas - Monacillo	Sep-2022	Jul-2023	Transmission
167168	37100 - Costa Sur - Acacias	Aug-2022	Feb-2024	Transmission
167446	36100 - Dos Bocas - Monacillos	Sep-2022	Jun-2023	Transmission
168226	38000 - San Juan - Isla Grande (LOOP)	Apr-2022	Oct-2022	Transmission
176913	9500 - Palo Seco SP - Cantano Sect	Jul-2022	Apr-2023	Transmission
176954	1100 - Garzas 1 HP - Garzas 2 HP	May-2022	Apr-2023	Transmission
176971	8200 - San Juan SP - Catano Sect	Aug-2022	Feb-2023	Transmission
177134	4100 - Guaraguao TC - Comercio TC	Jul-2022	Jun-2023	Transmission
177191	39000 - Aguas Buenas - Caguas	Aug-2022	Apr-2023	Transmission
435257	Existing 115 kV - Line 36200 Fajardo to Rio Blanco	May-2023	Feb-2024	Transmission
165209	Culebra 3801 Substation	Mar-2022	Jun-2022	Substations
165225	Vieques 2501 Substation	Mar-2022	Jun-2022	Substations
165226	Vieques Feeders 2501-01, 2501-02, 2501-03 and Culebra Feeders 3801-01, 3801-02	Apr-2022	Dec-2022	Distribution
169058	Llorens Torres 1106	Mar-2022	Oct-2022	Substations
169266	Centro Medico 1327 & 1359	May-2022	Mar-2023	Substations



FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
169276	Viaducto TC 1100	Jun-2022	Jun-2023	Substations
169500	Bayamon TC - BKRS Y1 - 1711	May-2022	Feb-2023	Substations
169896	Costa Sur TC	Apr-2022	Feb-2023	Substations
171118	Caridad 1714	Cancelled	Cancelled	Substations
178258	Taft 1105	Jun-2022	Feb-2023	Substations
178503	Aguirre TC -BKRS	Apr-2022	May-2023	Substations
178577	Cachete 1526	May-2022	Jan-2023	Substations
179558	Manati BKR T005	May-2022	Apr-2023	Transmission
169576	Arecibo Regional Office Building	Oct-2022	Mar-23	Buildings
169798	Arecibo Electric Service Center	Oct-2022	Mar-23	Buildings
169804	Aguadilla Electric Service Center	Oct-2022	Mar-23	Buildings
167508	Line 50100 - Cambalache GP TC to Manati TC	Aug-2022	Oct-2023	Transmission
168483	Line 36400 - Dos Bocas HP to Ponce TC	Aug-2022	Jan-2024	Transmission
167443	Line 36200 – Monacillos to Juncos	Oct-2022	Nov-2023	Transmission
436616	Distribution Pole and Conductor Repair-Arecibo Group 1	May-2022	Sep-2022	Distribution
542762	Distribution Pole and Conductor Repair-Arecibo Group 2	Feb-2022 (Completed)	Apr-2022	Distribution
334473	Distribution Pole and Conductor Repair-Bayamon Group 1	Apr-2022	Jul-2022	Distribution
334474	Distribution Pole and Conductor Repair-Bayamon Group 2	Apr-2022	Jun-2022	Distribution
334475	Distribution Pole and Conductor Repair-Bayamon Group 3	May-2022	Aug-2022	Distribution
334420	Distribution Pole and Conductor Repair-Caguas Group 1	May-2022	Aug-2022	Distribution
334443	Distribution Pole and Conductor Repair-Caguas Group 2	Apr-2022	Jun-2022	Distribution
334452	Distribution Pole and Conductor Repair-Caguas Group 3	May-2022	Aug-2022	Distribution
334488	Distribution Pole and Conductor Repair-Caguas Group 4	Feb-2022 (Completed)	May-2022	Distribution



FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
334491	Distribution Pole and Conductor Repair-Caguas Group 5	Apr-2022	Jun-2022	Distribution
334497	Distribution Pole and Conductor Repair-Caguas Group 6	Apr-2022	Jun-2022	Distribution
334518	Distribution Pole and Conductor Repair-Caguas Group 7	May-2022	Aug-2022	Distribution
334527	Distribution Pole and Conductor Repair-Caguas Group 8	Feb-2022 (Completed)	May-2022	Distribution
165226	Distribution Pole and Conductor Repair-Carolina Group 1	May-2022	Aug-2022	Distribution
334476	Distribution Pole and Conductor Repair-Carolina Group 2	Apr-2022	Jul-2022	Distribution
334477	Distribution Pole and Conductor Repair-Carolina Group 3	Apr-2022	May-2022	Distribution
334308	Distribution Pole and Conductor Repair-Mayaguez Group 1	Apr-2022	May-2022	Distribution
334285	Distribution Pole and Conductor Repair- Mayaguez Group 2	Apr-2022	Jul-2022	Distribution
334191	Distribution Pole and Conductor Repair- Mayaguez Group 3	Apr-2022	May-2022	Distribution
334293	Distribution Pole and Conductor Repair- Mayaguez Group 4	Apr-2022	May-2022	Distribution
334323	Distribution Pole and Conductor Repair- Ponce Group 1	Jan-2022 (Completed)	Apr-2022	Distribution
334329	Distribution Pole and Conductor Repair- Ponce Group 2	Jan-2022 (Completed)	Apr-2022	Distribution
334471	Distribution Pole and Conductor Repair- San Juan Group 1	Apr-2022	Jul-2022	Distribution
334472	Distribution Pole and Conductor Repair- San Juan Group 2	Apr-2022	Jul-2022	Distribution
546374	Distribution Pole and Conductor Repair- San Juan Group 3	Apr-2022	Jul-2022	Distribution
550910	Physical Security Group 1	Mar-2022	May-2022	Substations
549764	Physical Security Group 2	Jun-2022	Sep-2022	Substations
551861	Physical Security Group 3	Jun-2022	Aug-2022	Substations
660422	Physical Security Group 4	Jul-2022	Sep-2022	Substations
549768	Physical Security Group 5	Jul-2022	Oct-2022	Substations



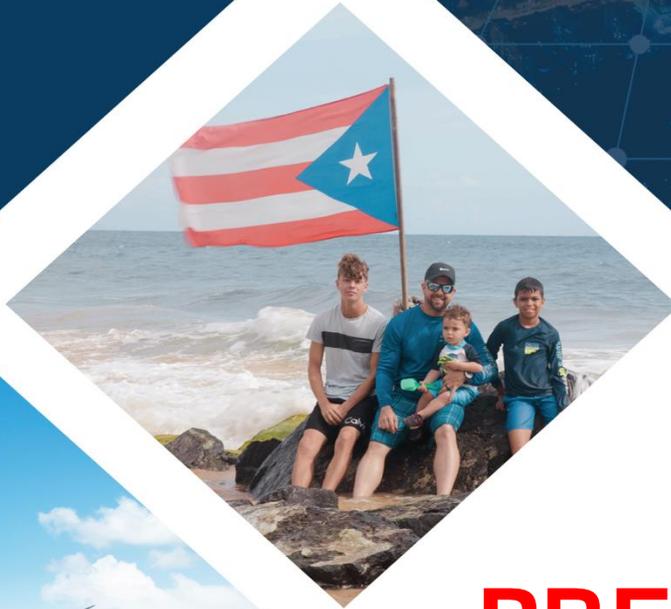
FEMA Prj. #	Project Name	Submission Estimate	Construction Estimate	Asset Category
546370	Substation Minor Repairs-Group A	Mar-2022	Jun-2022	Substations
542758	Substation Minor Repairs-Group B	Jul-2022	Sep-2022	Substations
546371	Substation Minor Repairs-Group C	Jun-2022	Sep-2022	Substations
549715	Substation Minor Repairs-Group D	Jul-2022	Nov-2022	Substations
549725	Substation Minor Repairs-Group E	Jul-2022	Nov-2022	Substations
542688	Streetlighting - Aguada	Mar-2022 (Completed)	Jun-2022	Distribution
542756	Streetlighting - Guanica	Mar-2022 (Completed)	May-2022	Distribution
542687	Streetlighting - Lajas	Mar-2022 (Completed)	Jun-2022	Distribution
542517	Streetlighting - Luquillo	Mar-2022 (Completed)	May-2022	Distribution
542690	Streetlighting - Maunabo	Feb-2022 (Completed)	May-2022	Distribution
659715	Streetlighting- Aibonito	Jun-2022	Aug-2022	Distribution
659623	Streetlighting- Catano	Jun-2022	Aug-2022	Distribution
659625	Streetlighting- Dorado	Jul-2022	Sep-2022	Distribution
660227	Streetlighting- Hatillo	Jul-2022	Sep-2022	Distribution
660437	Streetlighting- Manati	Jun-2022	Aug-2022	Distribution
659968	Streetlighting- San German	Jul-2022	Sep-2022	Distribution
660239	Streetlighting- Villalba	Jun-2022	Aug-2022	Distribution
167508	Transmission Priority Pole Replacement Mora 50500	Mar-2022	Feb-2022	Transmission
657300	Energy Management System (EMS)	Aug-2022	Oct-2023	IT and Telecommunications
657300 Rev. 1	New Primary and Backup Control Centers	Oct-2022	Aug-2024	IT and Telecommunications

Exhibit 2

Redline showing changes from December 2021 PREPA-LUMA 90-Day Plan to PREPA-LUMA March 2022 90-Day Plan



FEMA



~~PREPA-LUMA~~ ~~90-Day Plan~~

December 2021



Puerto Rico Electric
Power Authority



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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 areas of coordination between PREPA and LUMA as well as focus areas specific to each.

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

PREPA Focus Areas

- Submitted 104 projectsA total of 102 SOW (\$344M) were submitted to the Puerto Rico Energy Bureau (PREB) for approval in the last 90-day period, representing \$344.2 million in infrastructure investmentsout of which 62 have been approved and 7 deferred for further review
 - Projects include repair and rehabilitation, improvement, and repairs to various generation units to recover load generation capacity and



- reliability reducing load sheds events to citizens and commercial and industry sectors
- ~~Projects include. In addition,~~ improvements to fuel tank, fire protection and cooling systems to address compliance standards under NFPA and CWA were also submitted
 - ~~All projects are awaiting PREB approval for formal submittal to FEMA~~
 - ~~Four (4) reimbursement projects were submitted on December 1, 2021, for PREB approval to claim repair cost incurred in generation plants after Hurricane Maria. PREB approved these projects on December 20, 2021~~
 - ~~Nevertheless, once projects~~PREPA is working alongside FEMA and COR3 to organize approved SOWs into logical grouping for Project Formulation submissions (*Detailed SOWs*)
 - ~~Logical grouping of SOWs takes into consideration EHP limitations to evaluate all environmental impacts under one area~~
 - ~~PREPA submitted a total 8 FEMA projects (*Detailed SOWs*) including:~~
 - ~~Mayagüez Hydro-Gas Power Plant Permanent Repairs (1)~~
 - ~~Cambalache Power Plant Permanent Repairs (1)~~
 - ~~San Juan Power Plant – Permanent Repairs (3)~~
 - ~~Aguirre Power Plant – Permanent Repairs (3)~~
 - ~~Once the remaining SOWs receive regulatory approval the Authority will execute formal submission to FEMA via grants. Meanwhile, PREPA will continue collaboration with COR3 and FEMA its *Detailed SOWs* submission. Meanwhile, the Authority will issue a motion to request approval priority to address project eligibility, specifically on environmental compliance a subset of projects holding formulation progress~~
 - ~~Continue with remaining Generation Plants' FAASt reimbursement repairs~~
 - ~~Continue with actions required by the Environmental Protection Agency (EPA) in its November 10 Administrative Compliance Order regarding the Megagenerators project in Palo Seco~~
 - ~~Continue with the development of an amendment to the \$280M Emergency Generation 404 program-funded project that includes investing approximately \$100M in retrofitting existing simple cycle units island-wide~~
 - Continue advancing work on other 428 projects towards finalizing *Detailed SOWs* for submission to COR3 and FEMA. This effort will include 406 Hazard Mitigation and EHP work

LUMA Focus Areas



- ~~Continue working with COR3 and FEMA to obtain Project Obligations for the 11 Submitted the Detailed SOW (including 406 Hazard Mitigation & EHP requirements) for the SOW's submitted to date (i.e., Cataño Modernization and Hardening project to COR3 and FEMA for review, 5 Streetlight projects and approval (currently awaiting FEMA approval)~~
- ~~Developed 406 Hazard Mitigation Strategies for 5 Distribution, Transmission, Substation Pole and Streetlights and presented to COR3 and FEMA for feedback and alignment. In the next 90-day period LUMA will continue to refine 406 Strategies with COR3 and FEMA~~
- ~~During the last 90-day period, LUMA completed the following:~~
 - ~~Conductor Replacement Submitted 38 Initial SOWs to the PREB for approval representing \$0.65 billion[†] in capital investments~~
 - ~~Received approval from PREB of 67 Projects/Programs~~
 - ~~Submitted 96 Projects to COR3 and FEMA for FAAsT number assignment~~
 - ~~Received FEMA assigned FAAsT numbers for 52 projects~~
- ~~Awaiting assignment of FAAsT numbers on 45 projects still under FEMA review)~~
- Continue advancing work on 428 projects towards finalizing *Detailed SOWs* for submission to COR3 and FEMA. This effort will include 406 Hazard Mitigation and EHP work. Expect to submit *Detailed SOWs* within the next 90-day period or Q2 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 requested input from COR3/FEMA on:
 - Substation Projects 406 Hazard Mitigation Strategies and System approach justifications
 - Defining criticality loads list in collaboration with Municipalities for the electrical system to inform mitigation approaches for undergrounding
 - Criteria in assessing the health of the distribution infrastructure documented within LUMA's Guide for Setting Condition Assessment Criteria Levels
 - Documentation requirements from LUMA for storm damaged elements not repaired to codes and standards to obtain reimbursement
- During the last 90-day period, LUMA completed the following:

[†]-Value does not match subcomponent total exactly due to rounding



- Received PREB approval for 3 Initial SOWs representing \$0.36 billion² in capital investments
- Received FAASt numbers for all 171 projects submitted to FEMA to date
- Submitted 10 Detailed SOWs to FEMA for approval representing \$0.05 billion in capital investments
- Cancelled FAASt#171118 Caridad Project – scope to be included in FAASt#169500 Bayamon TC - BKRS Y1 – 1711 Project
- Cancelled FAASt#551928 Primary and Secondary Control Centers Project – scope to be included in FAASt 657300 Energy Management System (EMS) Project
- 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 four key projects representing ~\$900M for ~~COR3 & the Puerto Rico Department of Housing's (PRDOH)~~ consideration. These projects have been included in the PRDOH's ~~draft~~ Disaster Recovery Action Plan ~~currently undergoing public consultations~~ submitted to HUD for its consideration. LUMA will continue to work with COR3 & PRDOH to advance these projects as required
- ~~Expect to submit ~30 Detailed SOWs within the next 90-day period or Q1 2022~~
- 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

PREPA Focus Areas

- ~~Link all proof of payments for A/E advance received (\$7.1 million) and formalize subsequent advance to fund A/E services for~~ Establish a Standard Operating Procedure between PREPA and LUMA for shared project worksheets (1294 & 9510) related to administrative expenses, assessing the flow of funds to PREPA and LUMA, meeting the OMA requirements and regulatory standards
- Finalize advance reconciliation on request for advance (RFA) for PW 9510 with submitted RFRs and continue submittals of related A&E expenditures for reimbursements
- Evaluate potential impacts on Cost-share matching funding from CDBG-DR and central government. Assess impacts on funding limitations if global match guidelines are not granted
- ~~Generation and Water assets~~

² Value does not match subcomponent total exactly due to rounding



- Request amendment to Management Cost PW 1294 to include contracts awarded for grant management and program management activities by LUMA and PREPA, to obtain adequate funding
- Submit progress and financial quarterly reports for period ending 9/30/2021-03/31/2022 on all 428 and 404-obligated projects

LUMA Focus Areas

- As previously reported, established structure and reports to support development of FEMA-required financial reporting in preparation for submitting the FEMA-funded projects progress and financial quarterly reports during future periods
- Continue tracking project actual costs in accordance with FEMA and COR3 standards to support financial reporting requirements for federally funded projects
- Submit progress and financial quarterly reports for period ending 12/31/2021-2022 on all 428-obligated projects
- During the last 90-day period, LUMA submitted a RFR to COR3 for \$2.2 million in reimbursements

Environmental and Historic Preservation

PREPA Focus Areas

- For emergency Generation projects PREPA prepared an all-inclusive EHP checklist by site taking into consideration that all projects have similar scope and very limited implications in environmental matters. ~~PREPA alongside COR3 will continue with the formulation of the following remaining plants:~~
 - ~~Mayaguez~~
 - ~~Costa Sur~~
 - ~~Cambalache~~
 - EHP checklist Checklists have been completed for San Juan, Costa Sur, Cambalache, Mayagüez, Palo-Seco, and Aguirre ~~and will be share with FEMA,~~ Checklist have been presented alongside Detailed SOW submissions
 - Completion of EHP Checklists for Palo-Seco and Hydrogas Gas Turbine Installations are underway and to be completed within the SOW, once PREB approval following month
- FEMA, COR3 and PREPA are working at Project-Specific Programmatic Agreement (PSPA), the document draft is received out for public comments



- Management is currently pursuing a Request for Proposal to contract services to support ~~to carry~~carrying out compliance activities, including the preparation of Biological Assessments for FEMA consultation with U.S. Fish and Wildlife Services; development of high level NEPA documentation (i.e., Environmental Assessments, Supplemental Environmental Assessments; or an Environmental Impact Statement); Clean Water Act Section 401 and 404 permit submittals through the U.S. Army Corps of Engineers; and actions required to achieve compliance with Section 106 of the National Historic Preservation Act (NHPA) (including archaeological survey and monitoring; building survey and recordation; data recovery and curation; and mitigation of adverse effects)
- Implement an independent public notification program that meets FAASt and EHP requirements within PREPA website. Current actions to complete entail establishing an "inquiry information" platform
- ~~Initiate contracting process for Costa Sur~~For the Black Start environmental projects, the geotechnical studies:- will be included as part of the scope of service within the EPC RFP to be issued
 - ~~Geotechnical Floor study~~
 - ~~Facility Study~~

LUMA Focus Areas

- Complete Endangered Submitted — EHP — checklist and received feedback Threatened Species Biological Studies and Wetland Hydrological Studies to support construction planning, permitting, and the development of appropriate environmental mitigations
- Consult with FEMA and COR3 on PSPA measures specific to transmission and distribution projects
- Adapt EHP Checklist templates based on completed reviews of Detailed SOWs
- During the last 90-day period, LUMA completed the following:
 - Completed the standard EHP template and associated environmental studies as part of the ~~submittal of the Detailed SOW for the Cataño Modernization and Hardening project to COR3 and FEMA projects~~
 - LUMA's Environmental, Land, and Permitting teams developed a ~~process in~~ Completed consultation with FEMA's EHP group for the review and authorization of environmental, geotechnical, and engineering studies required for projects currently in preliminary design
 - In conjunction with FEMA, engaged continued engagement state and federal agencies including DRNA, FWS, SHPO and USACE to streamline project review and consultation processes



- ~~Obtain FEMA approval for access, vegetation clearing and soil testing or boring on required projects to facilitate the preliminary designs~~
 - ~~Review and analyze~~Reviewed and analyzed environmental impacts (soil testing or boring, water works, vegetation removal, etc.) required during the preliminary ~~design and continue to refine standardized internal process to better facilitate the development and execution of environmental assessments and detailed design~~
 - Obtained FEMA approval for environmental studies, access, vegetation clearing and soil testing or boring on required projects to facilitate the preliminary designs

Engineering Management

PREPA Focus Areas

- Dredging Projects – ~~Publish~~Bathymetric survey RFP to ~~perform bathymetric surveys~~be published during March 2022 and ~~thus initiate its design, environmental considerations and other~~commencement date is estimated as May 2022. Design phase will include floor sampling planning to be submitted for EHP approval
 - PREPA will ~~initiate~~continue collaborative meetings with FEMA EHP to address studies eligibility and completeness
- Guajataca Dam – Project requires specialized skillsets and thus management is finalizing the evaluation of the contract structure to receive such services
 - Meeting to be held with all stakeholders to discuss eligibility on procurement and contracting structure
- ~~Award~~PREPA awarded two contract releases to A/E contractor and ~~initiate~~has initiated design on:
 - Cambalache Flood Barrier Protection: PREPA will review documents available and design drawing of the existing earthen berm to determine the current level of freeboard from the top of the berm. Collect the environmental parameters and prepare a criteria document for the new flood protection barrier system's design for RFP specifications
 - Toro Negro Hydroelectric System: PREPA will review documents and assessment reports, develop walkdown checklist, inspection visits for the preparation of RFP specifications
- Commence formation of construction specifications for applicable asset categories and work with program stakeholders on review and approval
- Costa Sur & Yabucoa Black Starts – ~~Complete~~ Technical specifications completed and ~~draft~~RFP for EPC competitive process to be published in July 2022



- Irrigation Channels – PREPA is finalizing a cost analysis to complete its procurement package and engage an A/E contractor. Expected commencement date is estimated to be in June 2022
- Rio Blanco Hydroelectric System – PREPA finalized its design alternative solutions and is currently awaiting selection. ~~PREPA will request a collaborative meeting with FEMA EHP and 406 to incorporate recommendations into its alternative selection~~
 - A meeting was held with the Forest Service and FERC to present three alternatives for the repair of the water pipe
 - PREPA will work with the selection of the best alternative and work with the design specifications for RFP including the start of the environmental compliance permitting

LUMA Focus Areas

- Evaluated Continue with preliminary engineering design work with existing A/E firm proponents from towards the recently published an RFP seeking development of Detailed SOW. Begin detailed engineering on all projects with FEMA approved Detailed SOWs
- ~~Execute contracts for~~ additional A/E resources to support the federally funded projects. ~~Expect to name and assign contracts to successful proponents within the next 90 days~~
- ~~Leverage~~ leverage the successful engineering firm ~~proponents(s)~~ to assign projects with FEMA project numbers to begin A/E design work ~~within the next two 90-day periods~~ towards the development of Detailed SOWs
- Develop standardized engineering ~~package~~ 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 Cataño Modernization and Hardening project
- 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

Enterprise Project Management (“EPM”)

PREPA Focus Areas

- Continue managing project schedules, tasks, budgets, and progress in PREPA’s system of record, MS Project Online
- Continue refining project management controls and artifacts aligned with federal requirements



- Monitor and manage implementation progress through the EPM program

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. PREPA Estimated Schedule for Submission of Detailed SOWs

Over the next 90 days, PREPA will be focused on submitting Generation Emergency projects *Detailed SOWs* once approved by PREB. The table below shows the current set of projects estimated to have *Detailed SOWs* submitted to COR3 and FEMA in the firstsecond quarter of 2022, all of which are Generation projects.

The estimation of project submission timing is based on the best information available to PREPA at the time of this plan update.

Table 1.1 – PREPA 2022 Q2 Project Submittal Milestone

<u>#FEMA Project #</u>	<u>Project Name</u>	<u>Submission Estimate</u>	<u>Construction Estimate</u>	<u>Asset Category</u>
Milestone: Submit Project to COR3 and FEMA for Review <u>662947</u>	San Juan Plant - Unit 5 & 6	Submitted	Jan-22	Generation
<u>Pending</u>	<u>San Juan Plant - Unit 7 & 8</u>	<u>Submitted</u>	<u>Mar-23</u>	<u>Generation</u>
<u>Pending</u>	<u>San Juan Plant - Unit 10</u>	<u>Mar-22</u>	<u>Mar-23</u>	<u>Generation</u>
<u>Pending</u>	<u>San Juan Plant - Auxiliary Equipment</u>	<u>Submitted</u>	<u>Mar-22</u>	<u>Generation</u>
<u>663385</u>	<u>Mayaguez Power Plant Permanent Repairs</u>	<u>Submitted</u>	<u>Mar-22</u>	<u>Generation</u>
<u>663383</u>	<u>Cambalache Power Plant Permanent Repairs</u>	<u>Submitted</u>	<u>Apr-22</u>	<u>Generation</u>
<u>Pending</u>	<u>Aguirre units 1 & 2</u>	<u>Submitted</u>	<u>Mar-22</u>	<u>Generation</u>
<u>Pending</u>	<u>Aguirre Auxiliary Equipment</u>	<u>Submitted</u>	<u>Mar-22</u>	<u>Generation</u>
<u>Pending</u>	<u>Combined Cycle Units</u>	<u>Submitted</u>	<u>Feb-22</u>	<u>Generation</u>
<u>662957</u>	<u>Palo Seco Steam Plant Permanent Repairs</u>	<u>Mar-22</u>	<u>Jan-23</u>	<u>Generation</u>
<u>Pending</u>	<u>Costa Sur Permanent Repairs</u>	<u>Mar-22</u>	<u>Nov-22</u>	<u>Generation</u>



<u>Pending</u>	<u>Hydro Gas Peakers</u>	<u>Mar-22</u>	<u>Jul-22</u>	<u>Generation</u>
<u>435769</u>	<u>South Coast Irrigation District – Canals</u>	<u>Nov-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>436467</u>	<u>Isabela Irrigation District - Canals</u>	<u>Nov-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>436462</u>	<u>Lajas Valley Irrigation District - Canals</u>	<u>Nov-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334811</u>	<u>Dos Bocas Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334769</u>	<u>Garzas Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334771</u>	<u>Guajataca Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334772</u>	<u>Guayabal Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334813</u>	<u>Guayo Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334798</u>	<u>Guerrero Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334803</u>	<u>Loco Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>334773</u>	<u>Lucchetti Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>335207</u>	<u>Guineo Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>335206</u>	<u>Matrullas Reservoir – Dredging</u>	<u>Jul-22</u>	<u>Jan-23</u>	<u>Dams/Hydro</u>
<u>436621</u>	<u>Damns Minor Repairs</u>	<u>Jul-22</u>	<u>Feb-23</u>	<u>Dams/Hydro</u>
<u>436468</u>	<u>Toro Negro Hydroelectric System Connection</u>	<u>May-22</u>	<u>Nov-22</u>	<u>Generation</u>
<u>334770</u>	<u>Guajataca Dam – Permanent Repairs</u>	<u>Jul-25</u>	<u>Jul-27</u>	<u>Dams/Hydro</u>
<u>180723</u>	<u>Rio Blanco Hydroelectric System</u>	<u>May-22</u>	<u>Jun-23</u>	<u>Generation</u>
4164988	<u>New Black Start System at Costa Sur</u>	<u>Apr-22</u>	<u>Dec-22</u>	<u>Generation</u>
2164966	Emergency New Black Start System at Yabucoa Generation projects – Various pending approval	<u>Apr-22</u>	<u>Dec-22</u>	<u>Generation</u>
<u>169340</u>	<u>Cambalache Power Plant – Flood Protection Barrier</u>	<u>May-22</u>	<u>Dec 2022</u>	<u>Generation</u>

IV. 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 table below shows the current set of projects 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.

Table 1.2 – LUMA Projects Being Prepared for *Detailed SOW* Submission



FEMA Project ID #	Project Name	Submission Estimate	Construction Estimate	Asset Category
174422	FAASt - Catano - Rebuild 1801 (Substation) Modernization & Hardening	Complete Oct-2021 (Completed)	Substation Oct-2022	Substations
18005246 5209	FAASt - Substation 3801 Culebra (Substation) Existing 38kV - Line 100, Line 200 Ponce TC to Jobos TC	Jul-2022-Q1	Substation Apr-2023	Transmission
18032646 5225	FAASt - Substation 2501 Vieques (Substation) Existing 115 kV - Line 36800 Palmer Fajardo to Sabana Llana	Oct-2022-Q1	Substation Jun-2022	Transmission
16526846 9058	FAASt - Llorrens Torres MC 1106 - Equipment Repair & Replacement - (Substation) Rio Grande Estates - CH - 2306	May-2022-Q1	Substation Mar-2023	Substations
4695001 65213	FAASt - Bayamon TC - MC-BKRS-Y1 (Substation) Main Land 5400 - Rio Blanco HP - Dagua TC	Aug-2022-Q1	Substation Jun-2023	Transmission
166707	51300 - Ponce - Costa Sur	Sep-2022	Jun-2023	Transmission
166860	37800 - Jobos - Caguas	Sep-2022	Feb-2024	Transmission
16949517 8577	FAASt Cachete - MC 1526 (Substation) Tapia GIS 1102	May-2022-Q1	Substation Dec-2022	Substations
166904	37800 - Caguas - Monacillo	Sep-2022	Jul-2023	Transmission
167168	37100 - Costa Sur - Acacias	Aug-2022	Feb-2024	Transmission
167446	36100 - Dos Bocas - Monacillos	Sep-2022	Jun-2023	Transmission
168226	FAASt 38000 - San Juan 115kV Underground - Isla Grande (LOOP-Loop-)	Apr-2022-Q2	Oct-2022	Transmission
176913	9500 - Palo Seco SP - Cantano Sect	Jul-2022	Apr-2023	Transmission
176954	FAASt 1100 - Garzas 1 HP to Garzas 2 HP - Line 4100 (-)	May-2022-Q2	Apr-2023	Transmission
176971	8200 - San Juan SP - Catano Sect	Aug-2022	Feb-2023	Transmission
177134	FAASt Guaraguae 4100 - Guaraguo TC to Comerio TC - Line 4100 (Transmission)	Jul-2022-Q2	Jun-2023	Transmission
177191	39000 - Aguas Buenas - Caguas	Aug-2022	Apr-2023	Transmission
43525746 5268	FAASt Rio Grande Estate Substation CH-2306 (Substation) Existing 115 kV - Line 36200 Fajardo to Rio Blanco	2022-Q2 May-2023	Substation Feb-2024	Transmission



FEMA Project ID #	Project Name	Submission Estimate	Construction Estimate	Asset Category
178258	FAASt-Taft-MC 1105 (Substation)		2022-Q2	Substation
169266	FAASt Centro Medico 1327/1359 Equipment Repair & Replacement (Substation)		2022-Q2	Substation
169896	FAASt-Costa Sur SP TC-Equipment Repair and Replacement (Substation)		2022-Q2	Substation
178503	FAASt Aguirre TC-BKRS (Substation)		2022-Q2	Substation
16520946 0495	FAASt-Culebra 3801 Substation-Tapia GIS Rebuilt-Equipment Repair & Replacement (Substation)	Mar-2022-Q2	Substation Jun-2022	Substations
16522517 4118	FAASt Caridad Vieques 2501 Substation-XFMR MC 1714 (Substation)	Mar-2022-Q2	Substation Jun-2022	Substations
179558	FAASt-Manatí TC-BRKS 230 kV-(Substation)		2022-Q2	Substation
169276	FAASt Substation-Viaducto TC-MC 1100-Equipment Repair & Replacement [Substation]		2022-Q2	Substation
165226	FAASt-Vieques Feeders 2501-01, 2501-02, 2501-03 and Culebra Feeders 3801-01, 3801-02 (Distribution)	Apr-2022-Q2	Dec-2022	Distribution
16905817 6974	FAASt-Line 8200-San Juan SP to Catano Sect Line (Llorens Torres 1106 Transmission)	Mar-2022-Q3	Oct-2022 Transmission #	Substations
16926619 0052	FAASt Ponce TC to Jobos TC-100 & 200 (Centro Medico 1327 & 1359 Transmission)	May-2022-Q3	Mar-2023 Transmission #	Substations
1669041 69276	FAASt Viaducto TC 1100 Transmission Line 37800 Caguas TC to Monacillos TC (Transmission)	Jun-2022-Q3	Jun-2023 Transmission #	Substations
165213	FAASt-Line 5400-Rio Blanco HP to Daguao TC to Punta Lima TO to Vieques 2501 to Culebra 3801 (Transmission)		2022-Q3	Transmission
176913	FAASt [Palo Seco SP to Catano Sect Line-9500] (Transmission)		2022-Q3	Transmission
1771941 69500	FAASt-Line 39000-Aguas Buenas TC to Caguas TC (Bayamon TC - BKRS Y1 - 1711)	May-2022-Q3	Transmission Feb-2023	Substations
1667071 69896	FAASt-Line 51300-Ponce TC to Costa Sur SP TC (TC Transmission)	Apr-2022-Q3	Transmission Feb-2023	Substations
171118	Caridad 1714	Cancelled	Cancelled	Substations
178258	Taft 1105	Jun-2022	Feb-2023	Substations



FEMA Project ID #	Project Name	Submission Estimate	Construction Estimate	Asset Category
1668601 78503	FAASt Line 37800 - Jobos TC to Cayey TC & Cayey TC to Caguas TC (Transmission) Aguirre TC -BKRS	Apr-2022-Q3	Transmission May-2023	Substations
178577	Cachete 1526	May-2022	Jan-2023	Substations
1674461 79558	FAASt Line 36100 - Dos Bocas HP to Monacillos TC (Transmission) Manati BKR T005	May-2022-Q3	Apr-2023	Transmission
169576	FAASt Arcibo Regional Office Building (Buildings)	Oct-2022-Q3	Mar-23	Buildings
169798	FAASt Arcibo Electric Service Center (Buildings)	Oct-2022-Q3	Mar-23	Buildings
169804	FAASt Aguadilla Electric Service Center (Buildings)	Oct-2022-Q3	Mar-23	Buildings
167168	FAASt Transmission Line 37100 Costa Sur ST - Acacias TC (Transmission)		2022 Q3	Transmission
180326	FAASt - Line 36800 - Sabana Llana TC to Canevanas TC to Palmer-Fajardo TC (Transmission)		2022 Q4	Transmission
167443	FAASt - Line 36200 - Monacillos TC to Juncos TC (Transmission)		2022 Q4	Transmission
167508	FAASt Transmission - Line 50100 - Cambalache GP TC to Manati TC (Transmission)	Aug-2022	Oct-2023-Q1	Transmission
168483	FAASt - Line 36400 - Dos Bocas HP to Ponce TC (Transmission)	2023 Q2 Aug-2022	Jan-2024	Transmission
1652081 67443	Line 36200 - Monacillos to Juncos	Oct-2022	Nov-2023	FAASt Transmission Access Roads (Environmental)
Pending 436616	Distribution Pole and Conductor Repair-Arecibo Group 1	May-2022-Q1	Sep-2022	Distribution
Pending 542762	Distribution Pole and Conductor Repair-Arecibo Group 2	2021-Q4 Feb-2022 (Completed)	Apr-2022	Distribution
Pending 334473	Distribution Pole and Conductor Repair-Bayamon Group 1	Apr-2022-Q1	Jul-2022	Distribution
Pending 334474	Distribution Pole and Conductor Repair-Bayamon Group 2	Apr-2022-Q1	Jun-2022	Distribution
Pending 334475	Distribution Pole and Conductor Repair-Bayamon Group 3	May-2022-Q1	Aug-2022	Distribution
Pending 334420	Distribution Pole and Conductor Repair-Caguas Group 1	May-2022-Q1	Aug-2022	Distribution



FEMA Project ID #	Project Name	Submission Estimate	Construction Estimate	Asset Category
Pending 334443	Distribution Pole and Conductor Repair-Caguas Group 2	Apr-2022-Q1	Jun-2022	Distribution
Pending 334452	Distribution Pole and Conductor Repair-Caguas Group 3	May-2022-Q1	Aug-2022	Distribution
Pending 334488	Distribution Pole and Conductor Repair-Caguas Group 4	Feb-2022-Q1 (Completed)	May-2022	Distribution
Pending 334491	Distribution Pole and Conductor Repair-Caguas Group 5	Apr-2022-Q1	Jun-2022	Distribution
Pending 334497	Distribution Pole and Conductor Repair-Caguas Group 6	Apr-2022-Q1	Jun-2022	Distribution
Pending 334518	Distribution Pole and Conductor Repair-Caguas Group 7	May-2022-Q2	Aug-2022	Distribution
Pending 334527	Distribution Pole and Conductor Repair-Caguas Group 8	Feb-2022-Q2 (Completed)	May-2022	Distribution
Pending 165226	Distribution Pole and Conductor Repair-Carolina Group 1	May-2022-Q2	Aug-2022	Distribution
Pending 334476	Distribution Pole and Conductor Repair-Carolina Group 2	Apr-2022-Q2	Jul-2022	Distribution
Pending 334477	Distribution Pole and Conductor Repair-Carolina Group 3	Apr-2022-Q1	May-2022	Distribution
Pending 334308	Distribution Pole and Conductor Repair-Mayaguez Group 1	Apr-2022-Q1	May-2022	Distribution
Pending 334285	Distribution Pole and Conductor Repair- Mayaguez Group 2	Apr-2022-Q1	Jul-2022	Distribution
Pending 334191	Distribution Pole and Conductor Repair- Mayaguez Group 3	Apr-2022-Q1	May-2022	Distribution
Pending 334293	Distribution Pole and Conductor Repair- Mayaguez Group 4	Apr-2022-Q1	May-2022	Distribution
Pending 334323	Distribution Pole and Conductor Repair- Ponce Group 1	2021-Q4 Jan-2022 (Completed)	Apr-2022	Distribution
Pending 334329	Distribution Pole and Conductor Repair- Ponce Group 2	2021-Q4 Jan-2022 (Completed)	Apr-2022	Distribution
Pending 334471	Distribution Pole and Conductor Repair- San Juan Group 1	Apr-2022-Q1	Jul-2022	Distribution
Pending 334472	Distribution Pole and Conductor Repair- San Juan Group 2	Apr-2022-Q2	Jul-2022	Distribution



FEMA Project ID #	Project Name	Submission Estimate	Construction Estimate	Asset Category
<u>Pending 546374</u>	Distribution Pole and Conductor Repair- San Juan Group 3	<u>Apr-2022-Q2</u>	Jul-2022	Distribution
<u>550910</u>	<u>Physical Security Group 1</u>	<u>Mar-2022</u>	<u>May-2022</u>	<u>Substations</u>
<u>549764</u>	<u>Physical Security Group 2</u>	<u>Jun-2022</u>	<u>Sep-2022</u>	<u>Substations</u>
<u>551861</u>	<u>Physical Security Group 3</u>	<u>Jun-2022</u>	<u>Aug-2022</u>	<u>Substations</u>
<u>660422</u>	<u>Physical Security Group 4</u>	<u>Jul-2022</u>	<u>Sep-2022</u>	<u>Substations</u>
<u>549768</u>	<u>Physical Security Group 5</u>	<u>Jul-2022</u>	<u>Oct-2022</u>	<u>Substations</u>
546370	Substation Minor Repairs-Group A	<u>Mar-2022-Q4</u>	Jun-2022	Substations
542758	Substation Minor Repairs-Group B	<u>Jul-2022-Q4</u>	Sep-2022	Substations
546371	Substation Minor Repairs-Group C	<u>Jun-2022-Q4</u>	Sep-2022	Substations
<u>Pending 549715</u>	Substation Minor Repairs-Group D	<u>Jul-2022-Q4</u>	Nov-2022	Substations
<u>Pending 549725</u>	Substation Minor Repairs-Group E	<u>Jul-2022-Q4</u>	Nov-2022	Substations
542688	Streetlighting - Aguada	<u>Mar-2022-Q4 (Completed)</u>	Jun-2022	Distribution
542756	Streetlighting - Guanica	<u>Mar-2022-Q4 (Completed)</u>	May-2022	Distribution
542687	Streetlighting - Lajas	<u>Mar-2022-Q4 (Completed)</u>	Jun-2022	Distribution
542517	Streetlighting - Luquillo	<u>Mar-2022-Q4 (Completed)</u>	May-2022	Distribution
542690	Streetlighting - Maunabo	<u>Feb-2022-Q4 (Completed)</u>	May-2022	Distribution
<u>659715</u>	<u>Streetlighting- Aibonito</u>	<u>Jun-2022</u>	<u>Aug-2022</u>	<u>Distribution</u>
<u>659623</u>	<u>Streetlighting- Catano</u>	<u>Jun-2022</u>	<u>Aug-2022</u>	<u>Distribution</u>
<u>659625</u>	<u>Streetlighting- Dorado</u>	<u>Jul-2022</u>	<u>Sep-2022</u>	<u>Distribution</u>
<u>660227</u>	<u>Streetlighting- Hatillo</u>	<u>Jul-2022</u>	<u>Sep-2022</u>	<u>Distribution</u>
<u>660437</u>	<u>Streetlighting- Manati</u>	<u>Jun-2022</u>	<u>Aug-2022</u>	<u>Distribution</u>
<u>659968</u>	<u>Streetlighting- San German</u>	<u>Jul-2022</u>	<u>Sep-2022</u>	<u>Distribution</u>



FEMA Project #	Project Name	Submission Estimate	Construction Estimate	Asset Category
660239	Streetlighting- Villalba	Jun-2022	Aug-2022	Distribution
167508	Transmission Priority Pole Replacement Mora 50500	Mar-2022	Feb-2022	Transmission
657300	Energy Management System (EMS)	Aug-2022	Oct-2023	IT and Telecommunications
657300 Rev. 1	New Primary and Backup Control Centers	Oct-2022	Aug-2024	IT and Telecommunications