

# Holistic Capital Plan

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#### Informational Use Disclaimer

The content in this document is furnished in response to the Financial Oversight and Management Board for Puerto Rico (FOMB)'s Notice of Violation (NOV) dated August 2, 2024, and is intended to be used for informational use only and is subject to change without notice. The document should not be construed as a final commitment by LUMA to execute all the initiatives listed herein or as a limitation to include additional initiatives. This is designed as a dynamic plan borne of an iterative process and subject to changes to adjust and recognize situations where change is warranted. The initiatives listed here are complementary and work with additional initiatives that LUMA would seek to execute in due time. The outlined plan presented hereinafter is based on existing and identified funding sources corresponding with LUMA's FY2025 Budget Petition submitted to the Energy Bureau. Accordingly, it does not reflect all the initiatives and investments that would be undertaken to fully address the transmission and distribution system (T&D System) needs and deliver our customers with a more reliable electric service. In response to the FOMB's NOV, please note that LUMA is in the process of preparing an unconstrained forecast that will be submitted in correlation with this report.

### Introduction

This Holistic Capital Plan (Holistic Plan) presents LUMA's current investment plan for the next ten years (FY2025-FY2034) across three key funding types (Federally Funded Capital, Non-Federally Funded Capital, and Operating Expenditures) to support a better energy future for our customers. The Holistic Plan is designed to improve the energy system's infrastructure, process, and technology and will allow Puerto Rico to take steps toward a more reliable and resilient power system. This Holistic Plan does not account for any federal funding incremental to that obtained from Hurricane Maria (for example funding from Hurricane Fiona, Tropical Storm Ernesto, or others).

The primary source of funds for this Holistic Plan comes from expected reimbursements from FEMA for reconstruction following Hurricane María. In the Federal Emergency Management Agency Accelerated Awards Strategy (FAASt), settled between FEMA, COR3, and PREPA in September 2020, the parties agreed on setting aside \$10.7 billion to repair PREPA assets, of which \$9.7 billion would be used to make repairs to the T&D System. The FAASt allows for the overall \$10.7 billion to be allocated according to the priorities established by the applicant (i.e. COR3). This Holistic Plan assumes that all the \$9.7 billion identified in the FAASt as necessary for repairs to the T&D System will be made available to LUMA as 428 funds.

In 2023, FEMA completed an island-wide cost-benefit analysis, which estimated \$7.6 billion as the necessary 406 hazard mitigation funds to repair PREPA assets, including the T&D System. This Holistic Plan assumes that the same percentage used to allocate 428 funds to the T&D System (91%) will be used to determine the amount of hazard mitigation funds made available to the T&D System. Of the aggregate \$18.3 billion that has already been set aside to repair PREPA's assets, including 428 repairs and 406 hazard mitigation, LUMA assumes \$16.6 billion would be set aside for repairs to the T&D System. Since then, FEMA has informed COR3 and LUMA that changes in how FEMA calculates its cost-benefit analyses, including a lower discount rate, could result in an additional \$6 billion of hazard mitigation funds to repair PREPA assets. Assuming the same percentage allocation as before (91%), this would result in a total of \$22 billion to be destined towards T&D System investments.

It is important to recognize that federal funding, as outlined in this plan, should not be interpreted as a replacement for regular maintenance or operational expenditures that are critical for the ongoing reliability initiatives of the T&D System. While substantial federal investments will address significant infrastructure

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repairs, these funds are allocated for specific purposes and do not cover the costs associated with standard maintenance. The need for additional funding to ensure adequate upkeep of the system remains, and this has not been factored into the plan as the activities presented are based on existing and identified funding sources. This Holistic Plan is based on the best information available to LUMA at the time of this submission. It will evolve as projects are completed and as conditions across the electric power system change.

### **LUMA's Mission and Goals**

## Our Mission for Puerto Rico

To recover and transform the utility to deliver customercentric, reliable, resilient, safe, and sustainable electricity at reasonable prices



#### PRIORITIZE SAFETY

Reform utility activities to support a strong safety culture focused on employee safety and the safety of the people of Puerto Rico



#### IMPROVE CUSTOMER SATISFACTION

Transform utility operations to deliver a positive customer experience and reliable electricity at reasonable prices



#### SYSTEM REBUILD & RESILIENCY

Effectively deploy federal funding to restore the grid and improve the resilience of vulnerable infrastructure



#### OPERATIONAL EXCELLENCE

Enable employees to pursue operational excellence through new systems, processes, and training



#### SUSTAINABLE ENERGY TRANSFORMATION

Modernize the grid and the utility to enable the sustainable energy transformation

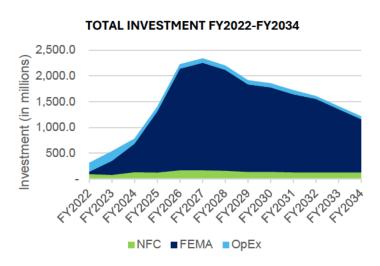
## **Recovery and Transformation**

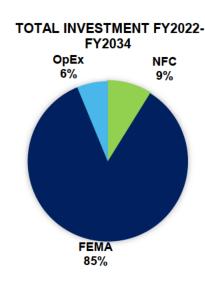
LUMA's System Remediation Plan (SRP) was first developed in 2020 in compliance with the Transmission and Distribution Operating and Maintenance Agreement (T&D OMA) to outline the major areas inherited by LUMA that required significant investment to repair and recover, and then transform into a modern and reliable energy system. LUMA's SRP outlines the strategies and initiatives to remediate, repair, replace, and stabilize transmission and distribution system equipment, systems, practices, and services. The initiatives are fundamental to the recovery and transformation framework and to address the T&D System's most dangerous and fragile elements. They will enable LUMA to operate and maintain Puerto Rico's electricity system as a Prudent Utility operator in accordance with the T&D OMA and its contractual and policy standards.

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While measurable progress has been achieved since LUMA assumed responsibility for the T&D System, Puerto Rico's fragile T&D System still requires substantial investments to achieve minimum industry standards with reliability levels comparable to the second or third quartile of peer utilities across the United States. These investments are crucial to fully meeting industry standards and practices most peer utilities in the United States typically implement to meet resilience goals. As noted before, the activities, milestones, and goals discussed throughout this Holistic Plan are based on existing expectations of federal funding availability and constrained by the current base rate.

#### **Total Investment**





#### \$ in 000s

| Total Capital Spend by Funding Source |                          |                           |                           |                                     |  |  |  |
|---------------------------------------|--------------------------|---------------------------|---------------------------|-------------------------------------|--|--|--|
|                                       | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total Investment<br>(FY2022-FY2034) |  |  |  |
| Non-Federally Funded Capital          | 306.9                    | 766.6                     | 657.2                     | 1,730.7                             |  |  |  |
| Federally Funded Capital              | 873.8 <sup>1</sup>       | 8,890.2                   | 6,836.0                   | 16,600.1                            |  |  |  |
| Operating Expenditures                | 462.5                    | 423.2                     | 328.3                     | 1,214.1                             |  |  |  |
| Total                                 | 1,643.3                  | 10,080.0                  | 7,821.5                   | 19,544.8                            |  |  |  |

<sup>&</sup>lt;sup>1</sup> The Federally Funded Capital actual expenditures shown are limited to Hurricane Maria. The actual expenditures for Hurricane Fiona Emergency Work during FY2023 and FY2024 amount to \$225.4 million, and the total amount of Federally Funded actuals for both Hurricane Fiona and Hurricane Maria is \$1.1 billion.

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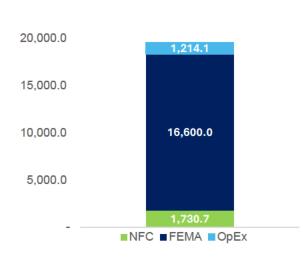
Total Capital Project<sup>2</sup> Spend by Program

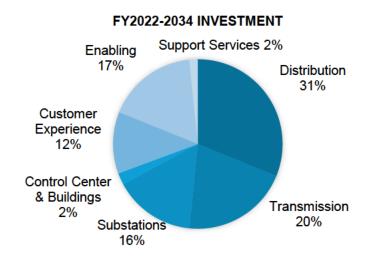
|                                            | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total Investment<br>(FY2022-FY2034) |
|--------------------------------------------|--------------------------|---------------------------|---------------------------|-------------------------------------|
| Distribution                               | 385.4                    | 2,436.1                   | 3,264.4                   | 6,085.8                             |
| Transmission                               | 123.5                    | 1,668.7                   | 2,200.4                   | 3,992.6                             |
| Substations                                | 175.6                    | 1,338.5                   | 1,504.2                   | 3,018.4                             |
| Control Center and Buildings               | 32.6                     | 370.3                     | 53.4                      | 456.4                               |
| Customer Experience                        | 340.0                    | 1,804.9                   | 153.8                     | 2,298.7                             |
| Customer Driven                            | 268.8                    | 750.0                     | 33.9                      | 1,052.7                             |
| Meters                                     | 28.8                     | 915.1                     | 23.8                      | 967.7                               |
| Revenue Generation                         | 1.1                      | 129.8                     | 96.1                      | 227.0                               |
| Billing Accuracy and Back Office           | 41.2                     | 10.0                      | -                         | 51.2                                |
| Enabling                                   | 401.8                    | 2,362.8                   | 612.4                     | 3,376.9                             |
| Vegetation Management and Capital Clearing | 170.1                    | 1,448.6                   | 250.0                     | 1,868.7                             |
| T&D Fleet                                  | 119.4                    | 274.7                     | 278.0                     | 672.1                               |
| Tools and Materials                        | 28.4                     | 38.2                      | 31.4                      | 98.0                                |
| Process Improvement                        | 10.6                     | 80.5                      | 3.5                       | 94.7                                |
| Compliance and Studies                     | 69.9                     | 116.2                     | 39.2                      | 225.2                               |
| Microgrid Installation and Integration     | 3.4                      | 404.5                     | 10.2                      | 418.2                               |
| Support Services                           | 184.3                    | 98.8                      | 32.9                      | 316.0                               |
| IT OT Improvements                         | 14.3                     | 66.2                      | 19.8                      | 100.3                               |
| System and Process Improvements            | 161.7                    | 30.0                      | 13.1                      | 204.8                               |
| Safety Oriented                            | 0.9                      | 0.1                       | -                         | 1.0                                 |
| Electric Vehicle Implementation Support    | 7.4                      | 2.5                       | -                         | 10.0                                |
| Total                                      | 1,643.3                  | 10,080.0                  | 7,821.5                   | 19,544.8                            |

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<sup>&</sup>lt;sup>2</sup> Capital Project Spend may include capitalized or non-capitalized expenditures associated with an Improvement Program.







## **Portfolio Accomplishments**

Prior to assuming responsibility for the operation and maintenance of the T&D System, LUMA conducted a system-wide gap assessment, identifying over 1,000 deficiencies and determining that most system assets were in poor health. These deficiencies in physical assets correspond with adverse effects on system performance and reliability, requiring significant improvement, resources, and capital to address. As recognized in the T&D OMA, LUMA assumed responsibility for an electrical system that could not comply with Prudent Utility Practice and fell short of the T&D OMA Contract Standards. LUMA developed the SRP to provide an appropriate timeline and roadmap for the remediation of the multiple deficiencies and shortcomings inherent in PREPA's T&D System. Since then, LUMA has implemented multiple improvement programs focusing on advances to the T&D System, and progress has been made across all facets of Puerto Rico's electric grid. Examples of the significant progress made over the last three years include:

- Strengthening the energy system against storms and hurricanes by replacing more than 17,000 utility poles with new poles designed to withstand 160+ mph winds,
- Reducing the size and the impact of outages by installing over 8,200 grid automation devices, which has saved our customers over 120 million service interruption minutes,
- Addressing the most significant cause of outages by clearing vegetation from over 4,800 miles of powerlines and electric infrastructure
- Improving community safety and energy efficiency by replacing over 124,000 streetlights as part
  of LUMA's Community Streetlight Initiative,
- Empowering the adoption of solar energy by connecting over 112,000 customers to rooftop solar, representing 735 megawatts of clean, renewable energy for Puerto Rico, and,
- Improving reliability during generation shortfalls by launching the Customer Battery Energy Sharing initiative

Outside of the progress examples above, Table 1 below details the magnitude of milestones completed since 2021 across SRP and Non-SRP Programs within LUMA's Portfolios. While there is much more work to do, customers are already seeing results. In fact, an analysis of LUMA's daily reliability determined that more than 95% of LUMA's 1.5 million customers have had concurrent service for more than 98% of the year when generation is available.

#### **Advancing FEMA Projects**

Before LUMA commenced services, only 37 projects had been submitted to COR3 and FEMA for their consideration. In three years, LUMA has submitted over 460 projects for federal funding consideration – a record pace for Puerto Rico. These 460 projects represent more than \$13 billion in federal funds. They are critical to enabling the short- and long-term investments necessary to transform and modernize the T&D System and significantly improve customer service. Of those projects, 171 have received obligation, representing over \$2 billion of project investments and \$2 billion in incremental funding to procure long-lead materials and the engineering services needed to execute additional work. Of the 171 projects that are obligated, 144 are currently under construction, and 41 have been energized. This work contributes to a more reliable and robust electrical system and includes critical transmission priority pole replacements, distribution pole replacement projects, and critical substation projects.

Much more, however, remains to be done to allow the grid to reach the levels of reliability and resilience that our customers expect and deserve. Other key initiatives that are planned or underway to improve service reliability and build system resiliency include:

- The Vegetation Safety and Reliability Initiative is an island-wide initiative that will target overgrown vegetation from over 16,000 miles of powerlines to reduce outages for all customers by up to 45% once complete.
- The Smart Meter Initiative will install 1.5 million electric meters across Puerto Rico to help modernize electric service and help respond to outages more quickly.
- The deployment of a modern Energy Management System (EMS) and a new Primary Control
   Center, Secondary Data Center, and Control Room will provide advanced operational capabilities.

LUMA continues to work with COR3 and FEMA on more than 280 projects that have initiated the approval process. These include the large-scale deployment of distribution automation devices, rebuilding critical transmission lines, deploying a cutting-edge networked microgrid project serving Vieques and Culebra, and rebuilding the Telecommunication network that underpins utility operation. LUMA also continues to complete the interconnection of 729 MW of utility-scale solar and 350 MW of battery energy storage, awarded through a competitive solicitation to independent power developers.

**Table 1 Program Completed Milestones** 

| Portfolio              | Program                                  | SRP /<br>Non-<br>SRP | Program Timeline                                                                                                                                | Completion<br>Date |
|------------------------|------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|                        |                                          | Non-SRP              | LUMA has a process to ensure full coverage during an emergency                                                                                  | FY2023             |
| Customer<br>Experience | Modernize Customer<br>Service Technology | Non-SRP              | Developing the IVR to provide customers with self-service options (e.g. account balance, make a payment, report an outage, or object to a bill) | FY2024             |
| \                      | Voice of Customer                        | Non-SRP              | A QA program to review agent interactions and provide coaching/feedback regularly, creating QA evaluation                                       | FY2022             |

|              |                                           | SRP /   |                                                                                                                            |                    |
|--------------|-------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------|--------------------|
| Portfolio    | Program                                   | Non-    | Program Timeline                                                                                                           | Completion<br>Date |
|              |                                           |         | criteria/scorecards, and hiring and training new QA analysts to establish the new QA program.                              |                    |
|              |                                           | Non-SRP | An enterprise-wide customer experience training program.                                                                   | FY2024             |
|              |                                           | Non-SRP | Implementation of speech and text analytics capability post-interaction customer surveys following phone/chat interactions | H2 FY2024          |
|              |                                           | Non-SRP | Implementation of speech and text analytics lexicons                                                                       | H2 FY2024          |
|              | Billing Accuracy and<br>Back Office       | SRP     | Execute bill print and delivery via an outsourced vendor                                                                   | FY2022             |
|              | Distribution Meter                        | Non-SRP | Begin the process of determining and replacing failed meters                                                               | FY2022             |
|              | Replacement and<br>Maintenance            | Non-SRP | Select vendors/contractors to complete the work                                                                            | FY2022             |
|              | Standardized<br>Metering and Meter        | SRP     | The meter shop building was identified, and test equipment was purchased                                                   | FY2022             |
|              | Shop Setup                                | SRP     | Requisitions to lease additional test equipment and purchase                                                               | FY2023             |
|              | Loss Recovery                             | Non-SRP | Development of NTL Reduction Plan Field operations and customer team training on NTL identification                        | FY2023             |
|              | Program                                   | Non-SRP | Procurement of equipment for field investigations                                                                          | FY2024             |
|              | AMI Implementation<br>Program             | Non-SRP | Business process workshops and vendor RFI                                                                                  | FY2023             |
|              |                                           | SRP     | Start streetlight assessment                                                                                               | FY2022             |
|              | Distribution                              | SRP     | Start streetlight remediation plan and high-risk streetlight replacement                                                   | FY2022             |
|              | Streetlighting                            | SRP     | Finalize process documentation for future audits, lights-out, reporting, and dispatch process                              | FY2024             |
|              |                                           | SRP     | Complete streetlight assessments (Asset Management Audit)                                                                  | H2 FY2024          |
|              | New Business                              | Non-SRP | Begin to develop the project management plans                                                                              | FY2024             |
|              | Connections                               | Non-SRP | Prepare service fee estimates                                                                                              | H2 FY2024          |
|              | Distribution                              | Non-SRP | Begin Installation                                                                                                         | FY2023             |
|              | Automation                                | Non-SRP | Begin fault location, isolation, and service restoration (FLIRS) pilot                                                     | FY2024             |
| Distribution | Distribution Line<br>Rebuild              | SRP     | Start line inspections (another program)                                                                                   | FY2022             |
|              | Distribution Line                         | SRP     | Start inspections, assessment, and reliability planning                                                                    | FY2022             |
| As<br>Dis    | Assessments                               | SRP     | Develop Remediation Plan                                                                                                   | FY2022             |
|              | Distribution Pole and<br>Conductor Repair | SRP     | Start inspections and assessment and reliability planning (other programs)  Start materials procurement                    | FY2022             |
|              |                                           | SRP     | Start line inspections (another program)                                                                                   | FY2022             |
| Transmission | Transmission Line<br>Rebuild              | SRP     | Start remediation plan                                                                                                     | FY2022             |
|              |                                           | SRP     | Start remediation repairs/projects                                                                                         | FY2023             |

| Portfolio               | Program                                                | SRP /<br>Non-<br>SRP | Program Timeline                                                                                                                                                                                         | Completion<br>Date |
|-------------------------|--------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|                         | IT OT Telecom<br>System and<br>Networks                |                      | Field mobile devices enrolled in the FirstNet First Responder system  Repair IP network to enable network connection to remote commercial offices  Upgrade end-of-life assets on 4G to 5G (meter modems) | FY2022             |
|                         | Transmission Priority<br>Pole Replacement              | SRP                  | Start assessments (other program) and remediation work                                                                                                                                                   | FY2022             |
|                         | Assessment of                                          | SRP                  | Start line inspection                                                                                                                                                                                    | FY2022             |
|                         | Transmission Lines                                     | SRP                  | Start remediation plan and repairs                                                                                                                                                                       | FY2022             |
|                         |                                                        | SRP                  | Start Substation assessments (other programs)                                                                                                                                                            | FY2022             |
|                         | Substation Rebuilds                                    | SRP                  | Start minor distribution substation repairs and development of procedures and agreements for peaking/hydro units                                                                                         | FY2023             |
|                         |                                                        | Non-SRP              | Start annual planning process/forecast of emergency replacements                                                                                                                                         | FY2023             |
| Substation              | Substation Reliability                                 | Non-SRP              | Begin procurement process for substation equipment, materials, and potential service contracts  Begin CB, RTU, and PAC program development, project initiation, and scheduling                           | FY2023             |
|                         |                                                        | Non-SRP              | Begin engineering design and project scheduling Begin CB, RTU, and PAC engineering design and material procurement                                                                                       | FY2024             |
|                         |                                                        | Non-SRP              | Start execution, construction, and commissioning Installation and commissioning of new breakers and CB, RTU, and PAC program                                                                             | FY2024             |
|                         | Substation Physical<br>Security                        | SRP                  | Prioritize sites Submit detailed scope of work to FEMA                                                                                                                                                   | FY2023             |
|                         |                                                        | SRP                  | Business and technical requirements                                                                                                                                                                      | FY2022             |
|                         | Critical Energy<br>Management                          | SRP                  | Project execution                                                                                                                                                                                        | FY2024             |
|                         | System Upgrades                                        | SRP                  | Vendor selections                                                                                                                                                                                        | FY2023             |
| Control                 |                                                        | SRP                  | Project Kickoff                                                                                                                                                                                          | FY2024             |
| Center and<br>Buildings | Control Center                                         | SRP                  | Business and technical requirements                                                                                                                                                                      | FY2022             |
|                         | Construction and<br>Refurbishment                      | SRP                  | PCC define and design project                                                                                                                                                                            | FY2023             |
|                         | Regional Operations<br>Facilities Physical<br>Security | Non-SRP              | Survey of selected facilities and warehouses to understand the exact state of the security situation at each                                                                                             | FY2022 –<br>FY2023 |
|                         |                                                        | Non-SRP              | Start developing Project Management IT Tools                                                                                                                                                             | FY2021             |
|                         | Project Management<br>Software and Tools               | Non-SRP              | Begin configuration and implementation of Project Management IT Tool                                                                                                                                     | FY2022             |
| Enabling                |                                                        | Non-SRP              | Developed PMO website and Document Control System                                                                                                                                                        | FY2023             |
|                         | HSEQ and Technical                                     | Non-SRP              | Identify those who need specific training (priority); begin training                                                                                                                                     | FY2023             |
|                         | Training                                               | Non-SRP              | Apprenticeship program registered and launched; pre-<br>apprenticeship program launched; initial onboarding training                                                                                     | FY2022 -<br>2023   |

| Portfolio | Program                                                                              | SRP /<br>Non-<br>SRP                              | Program Timeline                                                                                                                                               | Completion<br>Date |
|-----------|--------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|           |                                                                                      | Non-SRP                                           | Continue with priority training and train new employees                                                                                                        | FY2023 -<br>2024   |
|           |                                                                                      | Non-SRP                                           | Remediated state  All line workers are either in an apprenticeship program or have been grandfathered into journey level; priority HSEQ training is completed. | FY2025             |
|           | Emergency                                                                            | Non-SRP                                           | Development of the Emergency Response Plan                                                                                                                     | FY2022             |
|           | Response<br>Preparedness                                                             | Non-SRP                                           | Establish a working primary EOC                                                                                                                                | FY2023             |
|           |                                                                                      | SRP                                               | Assume management of fleet operations                                                                                                                          | FY2022             |
|           | T&D Fleet                                                                            | SRP                                               | Compliance with Puerto Rico's DTOP, CSP, USDOT, and OSHA standards                                                                                             | FY2022             |
|           |                                                                                      | SRP                                               | Deployment of an FMIS to track maintenance records for all fleet vehicles and preventative maintenance programs                                                | FY2023             |
|           | Compliance and Studies  Workflow Processes and Tracking  Tools Repair and Management | SRP                                               | Distribution Protection Studies start                                                                                                                          | FY2022             |
|           |                                                                                      | SRP                                               | Substation grounding remediation start                                                                                                                         | FY2022             |
|           |                                                                                      | SRP LIEVEION WORK SCONE AND DEOGRAM FEDILIFEMENTS |                                                                                                                                                                | FY 2022            |
|           |                                                                                      | SRP                                               | Start tool and PPE inventory                                                                                                                                   | FY 2022            |
|           |                                                                                      | SRP                                               | Purchase all high priority/replace all unusable tools and PPE<br>Implement training program                                                                    | FY 2022            |
|           | Materials                                                                            | SRP                                               | Assume management of materials management functions Finalize materials management SOP material                                                                 | FY2022             |
|           | Management                                                                           | SRP                                               | Compliance with Governance Regulations                                                                                                                         | FY2022             |
|           |                                                                                      | SRP                                               | Form a centralized vegetation management team                                                                                                                  | FY2022             |
|           |                                                                                      | SRP                                               | Purchase and implement a field-enabled IT tool                                                                                                                 | FY2023             |
|           |                                                                                      | SRP                                               | Prepare and submit vegetation clearance initial SOW for PREB approval                                                                                          | FY2023             |
|           | Vegetation                                                                           | SRP                                               | Receive PREB approval                                                                                                                                          | FY2023             |
|           | Management and<br>Capital Clearing<br>Implementation                                 | SRP                                               | Submit vegetation clearance initial SOW to FEMA and receive the assigned FAASt number from FEMA Accelerated Awards Strategy number from FEMA                   | FY2023             |
|           |                                                                                      | SRP                                               | Submit the first detailed scope of work to FEMA                                                                                                                | FY2024             |
|           |                                                                                      | SRP                                               | Award federal contracts for island-wide capital clearing                                                                                                       | FY2024             |
|           |                                                                                      | SRP                                               | All 230 kV rights of way cleared                                                                                                                               | FY2024             |
|           |                                                                                      | SRP                                               | Identify and obtain missing and expired permits for operation                                                                                                  | FY2022             |
|           | Permit Processes and Management                                                      | SRP                                               | Obligations under operational permits are identified, and a record system for operational permits is established                                               | FY2022             |
|           | Asset Data Integrity                                                                 | SRP                                               | Procedures for permit compliance are developed, and basic operational performance levels are established                                                       | FY2023             |
|           |                                                                                      | SRP                                               | Start assessments and data requirements determination                                                                                                          | FY2022             |
|           |                                                                                      | 0.1.                                              |                                                                                                                                                                |                    |

| Portfolio           | Program                           | SRP /<br>Non-<br>SRP | Program Timeline                                                                                                                                                                                                                                    | Completion<br>Date |
|---------------------|-----------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|                     | Critical Financial<br>Controls    | SRP                  | Started internal audit revamp and control work                                                                                                                                                                                                      | FY2022             |
|                     |                                   | SRP                  | Hire a Public Safety Manager and develop public safety policy and public safety incident reporting guidelines                                                                                                                                       | FY2022             |
|                     | Public Safety                     | SRP                  | Develop content for prospective presentation Report on and investigate public safety incidents Develop training for employees to deliver public safety training                                                                                     | FY2024             |
|                     | Wasta Managament                  | SRP                  | Initial assessment of sites, begin installing containment and bins, and begin restocking spill kits                                                                                                                                                 | FY2022             |
|                     | Waste Management                  | SRP                  | Obtain regulator feedback on approach, complete installation, and restock remaining spill kits                                                                                                                                                      | FY2023             |
|                     | HR Information                    | Non-SRP              | Undertake online training for all LUMA employees                                                                                                                                                                                                    | FY2021             |
|                     | Systems and<br>Learning Platforms | Non-SRP              | Remediated State All Employees trained in core compliance areas                                                                                                                                                                                     | FY2022             |
|                     |                                   | SRP                  | Governance, risk, and compliance model initiated Adequate staff to manage and govern Security awareness program implemented across the organization Multifactor authentication NIST CSF self-assessment = 1.8                                       | FY2022             |
| Support<br>Services | IT OT Cybersecurity<br>Program    | SRP                  | Endpoint protection improved Establish a vulnerability management program NIST CSF self-assessment = 2.2                                                                                                                                            | FY2023             |
|                     |                                   | SRP                  | Remediated State Improve segmentation Review third-party master security service provider Vulnerability and penetration testing NIST CSF self-assessment = 2.5                                                                                      | FY2024             |
|                     |                                   | SRP                  | Reassess the cybersecurity maturity levels to determine the future state roadmap                                                                                                                                                                    | FY2025             |
|                     |                                   | SRP                  | Establish end-user device standards. Procure and distribute end-user devices for business-critical userbase Implement critical service and IT OT vendor management processes and practices  Deploy end-user devices for business priority user base | FY2022             |
|                     | IT OT Enablement<br>Program       | SRP                  | Implement end-user image and device management tools Implement priority service management process and practice Select and deploy ITSM strategy and tool Technology Project Management processes and practices defined and implemented              | FY2023             |
|                     | IT OT Asset<br>Management         | SRP                  | Establish a roadmap and strategy for disaster recovery and business continuity of critical assets Field mobile devices enrolled in the FirstNet First Responder system                                                                              | FY2022             |

| Portfolio | Program                                                       | SRP /<br>Non-<br>SRP | Program Timeline                                                                                                                                                                                               | Completion<br>Date |
|-----------|---------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
|           |                                                               | SRP                  | Identification and inventory of technology assets Establish infrastructure standards and lifecycle refresh Complete application and infrastructure assessment and roadmap for dev, test, and prod environments | FY2023             |
|           | IT OT Collaboration and Analytics                             | Non-SRP              | Implementation of LUMA's internal collaboration space to enable knowledge sharing across the organization Implementation of a central repository of information for all projects                               | FY2023             |
|           | Update to Third<br>Party Use, Audit,<br>Contract, and Billing | SRP                  | Studies related to third-party attachments complete                                                                                                                                                            | FY2022             |
|           |                                                               | SRP                  | New regulations, standards, and codes related to pole attachment                                                                                                                                               | FY2023             |
|           | Procedures                                                    | SRP                  | New agreement developed                                                                                                                                                                                        | FY2023             |
|           | Land Acquisition and Dispute                                  | Non-SRP              | Land acquisition and administration processes will be fully compliant with applicable law, and settlement options for claims will have been fully developed                                                    | FY2022             |
|           | Management                                                    | Non-SRP              | Develop guidelines for land agents to engage with landowners to prevent disputes from arising and to settle claims quickly                                                                                     | FY2023             |
|           | Land Record                                                   | SRP                  | Review of current land files to determine file structure                                                                                                                                                       | FY2022             |
|           | Management                                                    | SRP                  | Develop the land file structure pertinent to Operations                                                                                                                                                        | FY2022             |
|           | Electric Vehicle                                              | Non-SRP              | Begin electric vehicle time of use (EV TOU) development                                                                                                                                                        | FY2023             |
|           | Implementation                                                | Non-SRP              | Begin EV webpage and education tools development                                                                                                                                                               | FY2023             |
|           | Support                                                       | Non-SRP              | Ongoing customer engagement                                                                                                                                                                                    | FY2024             |

# Holistic Capital Plan

In the following sections of this Holistic Plan, LUMA provides a high-level overview of the T&D System, including the challenges and expected impacts of the investments detailed herein. It then details the system improvement plan being executed over the next ten years, including associated budgets and planned execution.

### **Program Prioritization**

LUMA's Improvement Programs are prioritized considering cost development and impact on the Recovery and Transformation Framework to qualitatively value each program's contribution to LUMA's Key Goals and Objectives. While LUMA's initial prioritization was developed after a comprehensive review of the Gap Assessment during the Front-End Transition, LUMA conducts annual reviews to ensure its planned investments align with the evolving needs of the T&D System.

The Recovery and Transformation programs are designed to deliver value to customers in alignment with policy and contract requirements within annual budget constraints. LUMA's investment plan is characterized by a dual emphasis on foundational Recovery programs for system safety and reliability and Transformation programs to enhance system resiliency. Many of our near-term activities are related to our SRP commitments, which are informed based on assessments and studies completed.

Budget funding constraints and operational considerations create the need to prioritize and ensure the right investments are completed at the right time to deliver value to our customers under regulatory and contract requirements. LUMA uses a prioritization framework to qualitatively value each program's contribution to our key Goals and Objectives to aid this effort. Recovery and Transformation are not distinct, sequential phases, as many Transformation programs are being executed alongside and in coordination with Recovery programs.

For asset prioritization, the relevant aspects of reliability, resilience, risk, exposure, impact, and criticality are evaluated so that the highest needs are addressed first to maximize the impact of investment and prioritize the remediation of the most critical items. Asset risk is assessed based on field inspections and an evaluation using an asset health condition assessment, which is a measure of risk and is used as a basis for identifying SRP work. The SRP includes the highest risk assets —those whose mitigation is critical to reaching Prudent Utility Practice and meeting the contractual requirements of the T&D OMA. This method represents an industry best practice for reliability and resilience enhancements.

## **Portfolios Capital Activity**

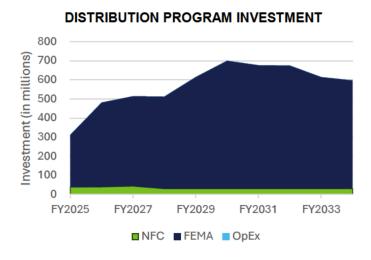
Each Portfolio section below includes a financial summary and a qualitative narrative. Each financial summary includes FY2022-FY2024 actual spending in addition to projections from FY2025-FY2034. We also include depictions for each portfolio's funding across our three funding sources (federally funded, non-federally funded capital, and operating expenditures).

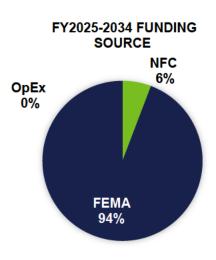
Each portfolio narrative includes a brief description of the corresponding programs, the portfolio's alignment with LUMA's key goals, the portfolio's near and long-term activities, and the upcoming milestones and timeline.

The portfolio's alignment with LUMA's key goals is represented by a series of circles that are filled based on the number of programs whose activities impact that goal. For example, if 4 of 4 programs directly impact Safety, the full Safety circle is filled in orange. These graphics clarify that our programs and investments in these areas contribute to LUMA's overall mission and key goals.

#### **Distribution**

### Distribution Portfolio Financial Summary





#### \$ in 000s

| Distribution                 |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 103.1                    | 184.2                     | 151.9                     | 336.2                                 |
| Federally Funded Capital     | 280.2                    | 2,251.8                   | 3,112.4                   | 5,364.3                               |
| Operating Expenditures       | 2.0                      | -                         | -                         | -                                     |
| Total                        | 385.4                    | 2,436.1                   | 3,264.4                   | 5,700.4                               |

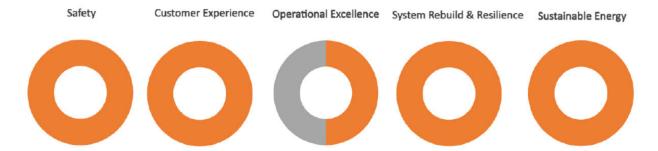
# Holistic Capital Plan

#### Distribution Portfolio Activities

The Distribution Portfolio is dedicated to improving the distribution system infrastructure. This portfolio includes the following four programs:

- Distribution Line Rebuild
  - The Distribution Line Rebuild program focuses on rebuilding distribution feeders with poor reliability performance and those that serve critical power facilities, targeting the worst-performing feeders first. This program will result in significant system improvements in the short term and incremental improvements for the remaining program duration. The program introduces critical redundancy in supply paths, reconstructs circuit backbones as required with higher-capacity conductors, addresses existing voltage and loading violations, and provides improved resilience and service reliability, especially to critical facilities. It further implements mitigation measures, including targeted undergrounding and reliability-based, technologically advanced measures to elevate Puerto Rico's distribution infrastructure to meet industry codes, standards, and best practices.
- Distribution Automation
  - This program focuses on deploying equipment for distribution automation. It includes deploying
    automated switchgear and communicating fault sensors on distribution feeders to improve
    reliability. The switchgear consists of three-phase and single-phase intelligent reclosers.
    Communicating fault sensors will be deployed to provide incipient fault detection to prevent
    outages and fault location information to Operations to improve service restoration.
- Distribution Pole and Conductor Repair
  - This program focuses on minimizing the safety hazard caused by distribution poles and conductors that must be repaired or replaced. LUMA will undertake repairs under this program based on the Distribution Line Assessments program results. It will base prioritization for repair or replacement on the pole or structure condition and system criticality. Following this process, safety hazards and priority poles will be replaced, along with damaged conductors and hardware, improving the safety of customers and employees and reducing the frequency and duration of outages experienced.
- Distribution Line Assessments
  - This program targets the assessment, testing, and studying of distribution lines, along with required spot repairs and replacements. We will first prioritize distribution line assessments by worst-performing feeder and highest criticality, initially focusing on identifying SRP-related items.

# Holistic Capital Plan



### Distribution Alignment to Key Goals

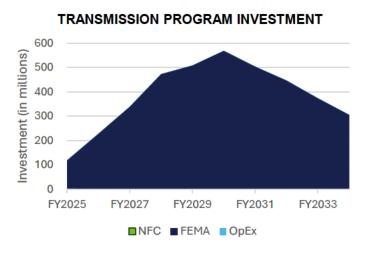
**Near-Term Activities:** LUMA's focus will be on prioritizing the installation of the distribution automation devices, including three-phase and single-phase reclosers, alongside communication infrastructure to support fault location, isolation, and service restoration software and commencing the installation of communicating fault circuit indicators to reduce response time to outages. LUMA will continue with high-level area planning assessments of distribution lines and assets to identify poles and assets that need to be remedied while also identifying priorities that require feeder rebuild solutions for distribution lines.

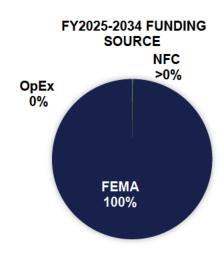
Long-Term Activities: LUMA will ensure that key feeders that meet specific reliability criteria and serve critical facilities or a significant number of customers will have a reconstructed backbone or critical portions as required. Underground sections will be strategically implemented between the main backbone and critical facilities where required. Activities aim to complete the implementation of systems fault location, isolation, and service restoration software on at least 80% of the distribution feeders and deploy a decentralized automatic transfer system at critical customer locations.

| Distribution Milestones and Timeline |                                                                                                                                                                              |                   |  |  |  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|--|--|
| Program                              | Milestone                                                                                                                                                                    | Target Completion |  |  |  |
|                                      | Begin installation of communicating fault circuit indicators' comms devices                                                                                                  | H1 FY2025         |  |  |  |
|                                      | Start FLISR ATS deployment; Start Fault sensor                                                                                                                               | H2 FY2025         |  |  |  |
| Distribution Automation              | Continue recloser installation on all Distribution feeders and integrate reclosers to Fault Location Isolation and Service Restoration and Automatic Transfer Scheme/System. | H1 FY2027+        |  |  |  |
| Distribution Line Rebuild            | Remediated State                                                                                                                                                             | H2 FY2028         |  |  |  |
| Distribution Lines Assessment        | Remediated State - Complete assessment                                                                                                                                       | H2 FY2026         |  |  |  |
| Distribution Pole and Conductor      | Complete assessments (other program)                                                                                                                                         | H2 FY2026         |  |  |  |
| Repair                               | Remediated State                                                                                                                                                             | H2 FY2028         |  |  |  |

### **Transmission**

### Transmission Portfolio Financial Summary





#### \$ in 000s

| Transmission                 |                          |                           |                           |                                   |
|------------------------------|--------------------------|---------------------------|---------------------------|-----------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY25-FY34) |
| Non-Federally Funded Capital | 14.1                     | 5.9                       | -                         | 5.9                               |
| Federally Funded Capital     | 108.5                    | 1,662.8                   | 2,200.4                   | 3,863.2                           |
| Operating Expenditures       | 1.0                      | -                         | -                         | -                                 |
| Total                        | 123.5                    | 1,668.7                   | 2,200.4                   | 3,869.1                           |

#### Transmission Portfolio Activities

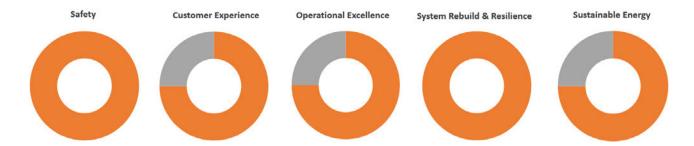
The Transmission Portfolio focuses on improving system recovery, resilience, and transformation through the remediation of transmission lines and equipment.

- Transmission Line Rebuild
  - The Transmission Line Rebuild Program focuses on increasing resilience and addressing the reconstruction of transmission lines to withstand high wind loads and reduce or eliminate contingency thermal or voltage violations. As part of the Transmission Line Rebuild projects, LUMA performs comprehensive modeling and analysis on the transmission system to verify criteria such as equipment loading, voltage profile, automation device placement, and coordination of protective devices. This program includes numerous 230 kV, 115 kV, and 38 kV projects to harden and upgrade the transmission system, including rebuilding aged and deteriorating poles and structures, replacing transmission line hardware as required, or undergrounding targeted lines to reduce or eliminate the risk of failure during a major event.
  - IT OT Telecom Systems & Network

## Holistic Capital Plan

- This program includes IT and OT telecom investments to improve and revamp the mobile voice, phone exchange and telephone systems, and fiber optic and microwave data telecommunications systems. These systems carry all grid IT and OT data. Capability enhancements will include improved first responder and emergency response communication, greater resilience of the internal telecommunications network, an enhanced fiber optic network, and a new packet-switched transport network providing greater resilience for grid system services such as transmission line protection and a network control center to improve centralized monitoring and control over facilities and IT traffic.
- Transmission Priority Pole Replacements
  - This program replaces damaged overhead transmission poles, towers, associated hardware, and conductors. LUMA will undertake repairs under this program based on the Assessment of Transmission Lines program results. It will base prioritization for repair or replacement on the pole or structure condition and system criticality. Following this process, safety/hazard and priority poles and structures, along with damaged conductors and hardware, will be replaced.
- Assessment of Transmission Lines
  - This program includes the assessment, data collection, and testing of the Transmission
    Lines. Required repairs and replacements will be identified to restore the system and improve
    reliability and resiliency in line with current codes and standards. Assessments will include,
    but are not limited to, poles, towers and structures, ground rods, anchors and guys,
    conductor condition, and line clearance checks.

### Transmission Alignment to Key Goals



**Near-Term Activities:** Activities will focus on the continuing efforts of the transmission lines assessments and detailed engineering proposed projects of the reconstruction of transmission lines to increase resilience and reduce concerns related to safety hazards. Efforts will target replacing high potential safety issues involving structures, grounding, anchors, guy clearance, etc., on all lines in vulnerable areas or within public access and critically damaged overhead transmission structures, poles, conductors, and associated hardware to ensure operational reliability.

Long-Term Activities: The activities will center on hardening the transmission infrastructure to meet current standards by rebuilding with structures and lines designed to withstand 160+ mph wind speeds, that incorporate double circuit towers on select lines and replacing safety/hazard priority wood poles and associated hardware on key transmission line sections. A thorough assessment of the existing anchors, guys, and foundations will complement those activities with reinforcement or replacement actions taken where necessary to ensure structural integrity. The team will also identify and address corrosion areas and replace damaged and highly overloaded conductors to enhance the transmission system's safety and resilience.

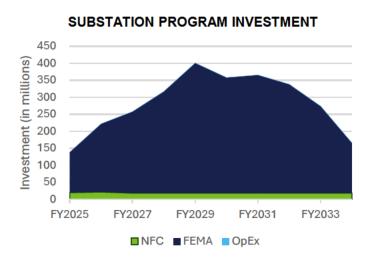
# Holistic Capital Plan

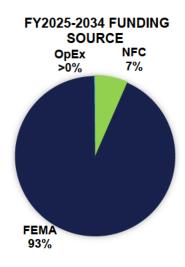
Telecommunications activities include implementing the packet-switched transport network and the field area network to replace the existing SONET network, enabling advanced grid services, including distribution automation, transmission, and distribution advanced grid analytics via phasor measurement units (PMUs). Significant repairs to the fiber optic infrastructure will be performed in conjunction with the transport network deployment to significantly increase grid resiliency.

| Transmission Milestones and Timeline |                                                                             |                      |  |
|--------------------------------------|-----------------------------------------------------------------------------|----------------------|--|
| Program                              | Milestone                                                                   | Target<br>Completion |  |
| Transmission Line Debuild            | Complete line assessments                                                   | H2 FY2026            |  |
| Transmission Line Rebuild            | Remediated State                                                            | H1 FY2028            |  |
|                                      | Begin repair and upgrade telecom infrastructure to support IP-based traffic | H1 FY2025            |  |
|                                      | Begin to expand telecom route diversity on the microwave backbone           | H1 FY2026            |  |
| IT OT Telecom System and<br>Networks | Deploy field worker communication solution                                  | H2 FY2026            |  |
|                                      | Begin repair fiber in foundational sections                                 | H2 FY2027            |  |
|                                      | Expand telecom redundancy using fiber and microwave                         | H1 FY2028            |  |
|                                      | Remediated State                                                            | H2 FY2030            |  |
| Transmission Priority Pole           | Complete assessments (another program)                                      | H2 FY2025            |  |
| Replacement                          | Remediated State                                                            | H1 FY2028            |  |
| Assessment of Transmission Lines     | Complete assessments                                                        | H2 FY2025            |  |
| Assessment of Transmission Lines     | Remediated State                                                            | H2 FY2026            |  |

### **Substations**

### Substation Portfolio Financial Summary





\$ in 000s

| Substations                  |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 33.3                     | 95.7                      | 90.7                      | 186.4                                 |
| Federally Funded Capital     | 140.1                    | 1,240.9                   | 1,411.5                   | 2,652.4                               |
| Operating Expenditures       | 2.2                      | 2.0                       | 2.0                       | 4.0                                   |
| Total                        | 175.6                    | 1,338.5                   | 1,504.2                   | 2,842.8                               |

#### Substation Portfolio Activities

The Substation Portfolio focuses on improving system resiliency and safety by rebuilding, hardening, and modernizing substations. This Portfolio includes the following Programs:

- Substation Rebuilds
  - The Substation Rebuild Program focuses on improvements to substations to strengthen the electric grid and covers the required inspection, repair, and rebuilding of damaged substations. This includes upgrades to the latest codes, industry standards, and practices to improve long-term reliability and evaluating relocation or mitigation for substations in flood zones. The Substation Rebuild Program introduces reconstruction with enhanced bus configuration such as ring bus or breaker-and-a-half designs instead of conventional straight bus configuration, the adoption of gas-insulated switchgear or enclosed metal-clad switchgear to resist weather exposure and heavy wind loads, and elevated or relocated structures to mitigate flood risks. Also, adopting technology such as intelligent substation automation and protocols helps provide enhanced situational awareness and operational intelligence to manage system reliability better and quickly respond to events inside a substation.
- Substation Reliability
  - This program will reinforce and upgrade the existing aging system infrastructure to improve reliability. This includes the replacement of transformers, oil circuit breakers, distribution circuit breakers, other high voltage equipment, alternating current/direct current (AC/DC) systems, standby generators, relays, remote terminal units, and auxiliary systems, along with protection and control upgrades, and procurement of emergency spares.
- Substation Physical Security
  - This program will focus on various physical security concerns at transmission and distribution substations. The program will replace and add new security technology and hardware to deter, detect, and delay physical security incidents (e.g., intrusion, theft, damage) that can affect employee and public safety. This program's physical security concerns involve fencing and gates, including locking devices, lighting, signage, perimeter cleanup, installation of cameras for remote monitoring, and window bars. In distribution facilities, the program also addresses the provision of locks for distribution switches and pad mount transformers in the field.
- Regional and Technical Facilities Security
  - This program will replace and add new physical security technology and hardware to deter, detect, and delay physical security incidents (e.g., intrusion, theft, damage, etc.) at regional and technical facilities. This includes replacing and installing new CCTV equipment at several regional and technical facilities. The program also funds fence repairs where identified.

# Holistic Capital Plan

### Substation Alignment to Key Goals



**Near-Term Activities:** LUMA will continue with substation inspections and engineering on proposed projects. Activities will also be focused on improving substation reliability by replacing substation arrestors at the end of life and not suitably designed or installed according to industry standards, improving safety by installing new insulating gravel, planning and prioritizing new equipment replacement programs for critical assets like transmission and distribution power transformers, high-voltage transmission gas circuit breakers and distribution vacuum breakers, and installing animal contact mitigation equipment on substations to minimize wildlife contacts with energized high-voltage equipment to reduce outages and improve reliability. The Substation Physical Security Program will continue to focus on meeting utility standards in fencing and gates, installation of cameras for remote monitoring, yard vegetation clearing, signage, and lighting.

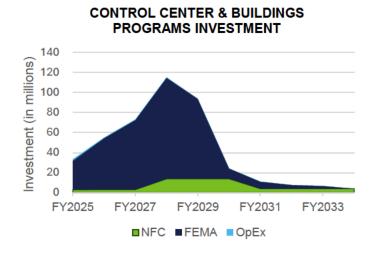
Long-Term Activities: Completion of key substation rebuilds and repair items (imminent failure and major safety items) based on assessments of the elements (primary equipment, security, safety, and secondary equipment or control room). Rebuilds will implement new bus configurations like ring and breaker-and-a-half to increase operating flexibility and align with industry codes and standards for enhanced reliability and resilience. Rebuilds will also relocate flood-prone substations out of regulatory flood hazard areas to reduce the likelihood of damage during severe weather events. Replace aging high voltage infrastructure such as transformers, circuit breakers, and other high voltage equipment, including switches, potential transformers, arrestors, etc., that are deemed end-of-life and have poor condition assessment ratings. Major and minor substation repairs that are not SRP related based on detailed assessments of the elements (primary equipment, security, safety, and secondary equipment or control room). Substation upgrades may include installing a new control building, transmission and distribution bus configuration upgrades, replacing transformers that are damaged or past their service life, provision of spare services and space for future expansion, protection, and control, and SCADA upgrades, new cabling, and some high-voltage equipment replacements such as switchgear, circuit breakers, and disconnects.

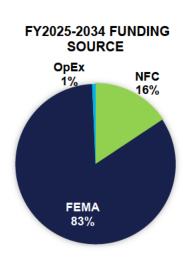
The Substation Physical Security program will continue to focus on ensuring secure perimeter fencing and controlled locks. The substations will also have additional standard and advanced security features, specifically outdoor lighting, remote monitoring, and secure external facing doors and windows.

| Substations Milestones and Timeline |                                                                                        |                      |  |
|-------------------------------------|----------------------------------------------------------------------------------------|----------------------|--|
| Program                             | Milestone                                                                              | Target<br>Completion |  |
|                                     | Finish installation of high-accuracy metering                                          | H2 FY2025            |  |
| Substation                          | Complete substations assessments                                                       | H2 FY2025            |  |
| Rebuilds                            | Remediated State Complete major substation repair remediation                          | H2 FY2028            |  |
| Substation<br>Reliability           | Completion of Programs: breaker and CB, RTU, and PAC program replacements              | H2 FY2028            |  |
| Substation                          | Execute construction contracts and install CCTV for substations with approved PWs      | FY2025               |  |
| Physical<br>Security                | Remediated State Projects execution                                                    | FY2032               |  |
| Regional and                        | Complete technical operation surveys to order equipment                                | FY2025               |  |
| Technical<br>Facilities<br>Security | Damaged physical security equipment replaced across selected facilities with new CCTVs | FY2026               |  |

## **Control Center and Buildings**

### Control Center and Buildings Portfolio Financial Summary





#### \$ in 000s

| Control Center and Buildings |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 10.1                     | 36.8                      | 29.6                      | 66.4                                  |
| Federally Funded Capital     | 19.6                     | 330.6                     | 23.9                      | 354.5                                 |
| Operating Expenditures       | 2.9                      | 2.9                       | -                         | 2.9                                   |
| Total                        | 32.6                     | 370.3                     | 53.4                      | 423.8                                 |

### Control Center and Buildings Portfolio Activities

The Control Center and Buildings Portfolio focuses on building the necessary infrastructure to deliver economic and reliable energy while meeting applicable laws and regulations.

- Facilities Development and Implementation
  - This program is focused on the development, implementation, and maintenance of several different areas overseen by the Real Estate, Facility Services, and Architectural divisions, including:
    - Construction required to remediate facilities and real property (e.g., warehouses, mechanic shops, etc.) damaged by natural disasters
    - Implementation of a facility capital improvement program
    - o Implementation of LUMA testing lab facilities
    - Implementation of an asset management system to support facility maintenance and the preventative maintenance program
    - Deployment of robust security devices and systems
    - Development and implementation of a tenant services program
    - Development and implementation of safety training programs for Facilities employees
    - Planning and construction to delineate space between LUMA and GenCo"
- Critical Energy Management System Upgrades
  - This program will replace an obsolete and unsupported Energy Management System (EMS) and add relevant technology to operate the electric system safely and reliably. This program will also implement Advanced Distribution Management Systems (ADMS). The EMS is a computer-based system used by operators to monitor, control, and optimize the performance of the generation, transmission, and distribution system. Additionally, this program will develop capabilities related to energy management and load/generation balancing. This includes the development of strategies and mechanisms for energy balancing and establishing and implementing a plan for operating reserves. Additionally, the program will address technology needs to efficiently manage renewable energy, unit commitment, economic dispatch, generation performance testing, battery storage, and demand response programs and define the role of microgrids within the electrical system as required by the IRP.
- Control Center Construction and Refurbishment
  - This program aims to construct or refurbish buildings to house the primary and secondary control
    centers and all ancillary support services. Since the control centers do not meet mission-critical

# Holistic Capital Plan

industry standards, Puerto Rico building codes, or provide the capacity to house the System Operations and EMS systems, this program will rebuild or relocate them and establish a designated secondary control center. At the same time, the program will centralize more control center activities.

- Warehouse Security
  - This program (which includes Warehouse Security and Regional and Technical Facilities Security)
    will focus on providing CCTV, electronic card access, and fencing at various warehouse locations.
    This program will replace and add new physical security technology and hardware to deter,
    detect, and delay security incidents (e.g., intrusion, theft, damage, etc.) at warehouses.

### Control Center and Buildings Alignment to Key Goals



**Near-Term Activities:** Design and refurbishment of fire control, electrical, and mechanical systems to mitigate safety hazards, managing asset spacing throughout facilities, and implementing computerized maintenance management systems. Additionally, upgrades to energy management systems will continue alongside the security enhancements at regional operations facilities and establishing monitoring and communication standards for renewable and distributed resources.

Long-Term Activities: Development of Real Estate and Facility Services design processes, templates, and standards. Carrying out asset compilation of building systems and components, studies of remaining useful life, and required capital improvements per commercial site. Procurement of services and materials to perform repairs/improvements to remediate and reconstruct facilities, including roofs, walls, drainage, overhead cranes, fences, yards, water distribution systems, internal and external lighting, generators, heating, ventilation, and air conditioning (HVAC), doors, windows, and shutters. Remediation or legally compliant containment of any hazardous materials found on the properties or within the facilities. Development and implementation of preventative maintenance, training, and educational programs to ensure safe work practices across the organization. Instituting programs and services that promote healthy and safe working conditions for personnel within the facilities across the organization.

Configuration and installation of the EMS in new facilities. The new equipment will be commissioned and placed into service after installation. Procurement of technologies for managing these procedures and processes, including procurement and implementation of the EMS and System ADMS, will allow for the efficient management of the electrical grid to support increasing renewable, storage, and demand response programs.

Design of control centers by suitable subject matter experts, including a review of options to rent or remodel existing buildings vs. new construction. Building required capabilities to accommodate the high-tech environment where the control center facilities will operate. Start-up and commissioning of the newly

designed control center system. This will be a complex process with the need for LUMA personnel at every cut-over point before moving operations personnel into the permanent control center.

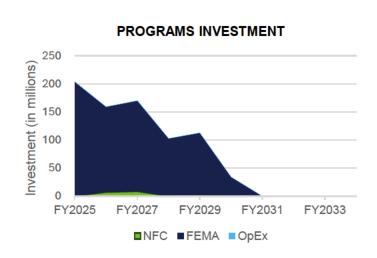
Replacing damaged physical security equipment across selected warehouses.

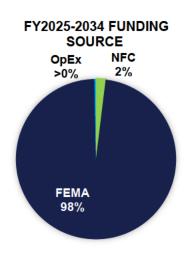
| Control Center and Buildings Milestones and Timeline |                                                                                         |                   |  |
|------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------|--|
| Program                                              | Milestone                                                                               | Target Completion |  |
|                                                      | Decommission of assets                                                                  | H2 FY2028         |  |
| Facilities Development and                           | Site abatement and remediation for hazardous materials                                  | H2 FY2029         |  |
| Implementation                                       | Remediated State and remediation for hazardous materials                                | H2 FY2034         |  |
| Critical Energy Management<br>System Upgrades        | Remediated State<br>EMS in service                                                      | H1 FY2026         |  |
| System opgrades                                      | Begin tuning of system with GENCO                                                       | H2 FY2026         |  |
|                                                      | SCC Land acquisition                                                                    | H2 FY2025         |  |
|                                                      | Operations relocated / PCC<br>Construction starts                                       | H2 FY2026         |  |
| Control Center Construction and Refurbishment        | SCC Construction starts                                                                 | H1 FY2028         |  |
|                                                      | Remediated State Primary control center operational                                     | H1 FY2029         |  |
|                                                      | SCC Operational                                                                         | H1 FY2030         |  |
|                                                      | Complete warehouse surveys to order equipment                                           | FY2025            |  |
| Warehouse Security                                   | Damaged physical security equipment replaced across selected warehouses, with new CCTVs | FY2026            |  |

## **Customer Experience**

#### **Customer-Driven**

### Customer-Driven Financial Summary





#### \$ in 000s

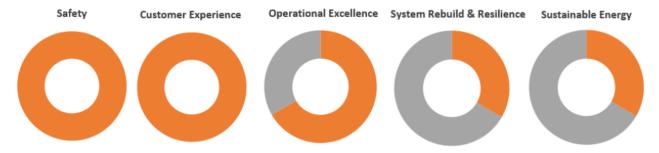
| Customer Driven              |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 17.4                     | 15.2                      | -                         | 15.2                                  |
| Federally Funded Capital     | 249.0                    | 732.4                     | 33.9                      | 766.3                                 |
| Operating Expenditures       | 2.5                      | 2.4                       | -                         | 2.4                                   |
| Total                        | 268.8                    | 750.0                     | 33.9                      | 783.9                                 |

#### **Customer-Driven Activities**

The Customer Experience Portfolio is committed to improving customer satisfaction. Within the Customer Experience Portfolio, the following three programs were themed as customer-driven programs:

- Distribution Streetlighting
  - This program deals with upgrading and replacing distribution streetlights (streetlight components, streetlight-only poles, and secondary poles with streetlights on them) that are a physical safety hazard scheduled for repair or replacement based on their criticality. Along with increasing the number of distribution streetlights in service, this process will include LED replacements and GIS data entry of all streetlights. This program will require LUMA to complete a physical audit of the streetlights, assigning each with a unique indicator. Once this process is complete, updates will be made in the CC&B system to ensure customers are being properly billed.
- Modernize Customer Service Technology
  - The Modernized Customer Service Technology program focuses on remediating telephony technology by developing and implementing a new cloud-based contact center platform. Contact center software allows for managing a high volume of inbound and outbound customer communications across various channels. Modernizing the contact center and associated procedures will mitigate LUMA's risk of customers being unable to report emergency situations. The program will create real-time dashboards and reporting to cover key performance indicators across all the customer experience, including the contact center, district offices, and billing services.
- Voice of the Customer
  - This program focuses on customer service, providing customers with increased voice and improving tracking of customer service interactions. Quality assurance mechanisms implemented under this program include customer surveys, welcome packs, customer center voice, and screen recording. The program also includes process and communications improvements such as quantitative analysis of key performance indicators and other metrics to improve overall customer service and employee customer experience training.

### Customer-Driven Alignment to Key Goals



**Near-Term Activities:** Upgrading and replacing distribution streetlights (streetlight components, streetlight-only poles, and secondary poles with streetlights on them) that are a physical safety hazard. Develop a map of attributes to update the CC&B system accordingly so that each streetlight has a unique billing account.

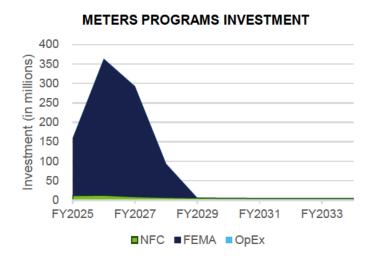
Incorporate additional functionalities to the initial transaction-based short message service (SMS), including new service request confirmation with a new account number, confirmation number for streetlights repair reported, and confirmation number for vegetation issues reported. Implementing speech and text analytics lexicons, continuing with ongoing survey issuance, adding listening to posts, leveraging quality programs to capture behavioral trends, and refining training/process improvement programs to improve the customer experience continuously.

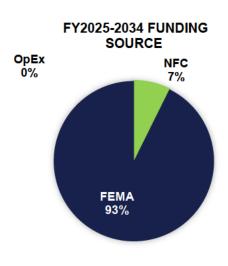
Long-Term Activities: Completing the upgrade and replacement of the distribution streetlight system (streetlight components, streetlight-only poles, and secondary poles with streetlights on them) that are a physical safety hazard. Continued updates to the Oracle CC&B system ensure each streetlight has a unique identifier and billing account. Develop new reports to support all Customer Experience departments. Develop the first contact resolution tracking program using a new contact center management platform. Implementation of speech and text analytics. Build out of the speech and text analytics lexicons.

| Customer-Oriented Milestones and Timeline |                                                                                                                                                    |                      |  |  |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|--|
| Program                                   | Milestone                                                                                                                                          | Target<br>Completion |  |  |
| Modernize Customer Service                | Enhancement to our current system, which will allow speech-to-text translation and provide us the opportunity to QA a larger sample every month    | FY2025               |  |  |
| Technology                                | Develop and launch first call resolution tracking and reporting.                                                                                   | FY2025               |  |  |
|                                           | Further, develop our current text messaging platform to include notifications of such as "Your bill is ready," "Your account is in default,", etc. | FY2025               |  |  |
|                                           | Start updating Oracle CC&B                                                                                                                         | H2 FY2027            |  |  |
| Distribution Streetlighting               | Finish updating Oracle CC&B                                                                                                                        | H2 FY2029            |  |  |
|                                           | Remediated state Complete streetlight remediation                                                                                                  | H2 FY2031            |  |  |

#### Meters

### Meters Financial Summary





#### \$ in 000s

| Meters                       |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 21.4                     | 45.0                      | 23.8                      | 68.9                                  |
| Federally Funded Capital     | 6.0                      | 870.1                     | -                         | 870.1                                 |
| Operating Expenditures       | 1.4                      | -                         | -                         | -                                     |
| Total                        | 28.8                     | 915.1                     | 23.8                      | 938.9                                 |

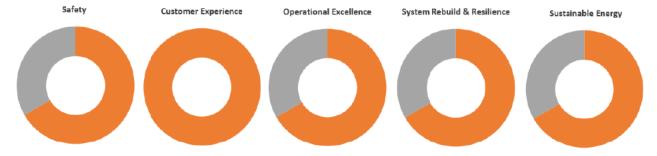
#### **Meters Activities**

Within the Customer Experience Portfolio, the following three programs were themed as meter-related programs:

- AMI Implementation Program
  - The AMI implementation program establishes two-way remote meter reading reporting and
    control capabilities. This program will enable a broad range of capabilities that result in improved
    reliability and resiliency, cost savings for utility and customer satisfaction improvements, and
    support for clean energy technology integration. This is achieved by offering more granular
    consumption data, bi-directional metering, outage notifications, power quality measurements, and
    remote connect/ disconnect.
- Standardized Metering and Meter Shop Setup
  - This program's purpose is to re-establish a meter shop and test equipment, establish a location for standardized meter testing, and provide appropriate internal and external meter testing

equipment. Enhanced procedures and operational support for the new facility and equipment are also included.

- Meter Replacement and Maintenance
  - This program deals with correcting, replacing, and maintaining distribution meters. In particular, the program will replace failed Two-Way Automatic Communication System (TWACS) meters and maintenance items related to improving communications within the existing TWACS system. The program also addresses the provision of meter locks at customer metering points in distribution facilities.



### Meters Alignment to Key Goals

**Near-Term Activities:** Replace all meters and begin the Advanced Metering Infrastructure programmatic deployment. It is expected to take approximately three years to exchange all 1.5 million meters in Puerto Rico, including residential and commercial meters.

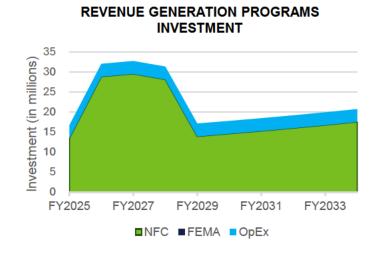
Focus on improving the MV90 program, implementing a meter replacement plan to maintain the current legacy system in optimal conditions while the Advanced Metering Infrastructure program reaches completion, and optimizing/upgrading current head-end systems (AclaraOne and MV90).

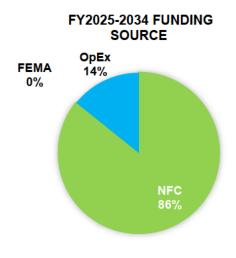
**Long-Term Activities:** Requisitions for test equipment. Implementation of MV90 cell connectivity. Improve TWACS head-end tools or interphases.

| Meter Milestones and Timeline        |                                                                                                            |                      |  |  |
|--------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------|--|--|
| Program                              | Milestone                                                                                                  | Target<br>Completion |  |  |
| Meter Replacement and Maintenance    | Start the improvement of MV90 Program and installing new meters with updated communication devices         | H2 FY2025            |  |  |
|                                      | Optimize/upgrade actual head-end systems (AclaraOne and MV90)                                              | H2 FY2025            |  |  |
| Standardized Metering and Meter Shop | Operations realignment and procedures                                                                      | FY2023 -<br>FY2025   |  |  |
| Setup Setup                          | Requisitions for additional test equipment and purchase - Next Generation                                  | FY2025               |  |  |
|                                      | Remediated state                                                                                           | FY2029               |  |  |
| AMI Implementation Program           | RFP development and release<br>Vendor Response evaluation and selection<br>Contract Finalization and Award | H1 FY2025            |  |  |
|                                      | Start of Implementation                                                                                    | H1 FY2025            |  |  |

### Revenue Generation

### Revenue Generation Financial Summary





\$ in 000s

| Revenue Generation           |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | -                        | 113.7                     | 80.0                      | 193.8                                 |
| Federally Funded Capital     | -                        | -                         | -                         | -                                     |
| Operating Expenditures       | 1.1                      | 16.1                      | 16.1                      | 32.1                                  |
| Total                        | 1.1                      | 129.8                     | 96.1                      | 225.9                                 |

#### Revenue Generation Activities

Within the Customer Experience Portfolio, the following three programs were themed as revenuegenerating programs:

- Loss Recovery
  - This program is targeted at reducing NTLs by applying advanced monitoring and software
    techniques coupled with many inspection teams in the field. Initiatives include AMI revenue
    protection software and modules that can identify equipment anomalies and customer
    consumption, enhanced data analytics, field theft detection tools, and widespread inspections, all
    supported by a team of new back-office business and data analysts.
- New Business Connections
  - LUMA's New Business Connections program is focused on ensuring customers can connect to
    the electric system following established processes to ensure compliance with engineering
    standards and specifications. This program manages all aspects of the new customer connection
    process, from evaluation to endorsement and inspection, as outlined in the OGPE regulation.
- Retail Wheeling

# Holistic Capital Plan

• The Retail Wheeling program is a Puerto Rico Energy Bureau (PREB) mandate required by the Regulation on Electric Energy Wheeling (Regulation 9374), which was enacted and adopted to implement the energy wheeling mechanism in Puerto Rico. The program is designed to create a system where retail electricity suppliers can sell energy directly from eligible private generators to eligible end-user customers. As the Transmission and Distribution system operator, LUMA will deliver this energy to participating customers over the existing transmission and distribution network.

### Revenue Generation Alignment to Key Goals



**Near-Term Activities:** Complete more than 6,000 field investigations for energy irregularities and suspected meter tampering and ensure team members maintain quality investigations and equipment availability for inspections. Complete field verification of all commercial and industrial customer disconnections for non-payment that are not reconnected for possible irregularity. Define business and technical requirements to procure the equipment and services required to implement the PREB-mandated Retail Wheeling program and create a mechanism where retail electricity suppliers can sell energy from private generators to eligible end-user customers while also collaborating with the Geographic Information System team to establish and maintain a process for updating the system of record to reflect newly installed assets accurately.

Improve and implement best practices in the work management process to ensure customers can connect to the system in an effective manner. The improved process will track each step through different internal teams and measure their effectiveness and timeliness. LUMA is preparing to submit a proposal for implementing a new service fee designed to cover all expenses associated with New Business Connections. This fee is intended to support the comprehensive process of evaluations, endorsements, and inspections that new connections require. Expenses for these efforts are currently funded as part of the general base rate; in the future, if the proposed fee is implemented, these dollars would not be requested as part of the general base rate but would be assessed to those new customers looking to connect to the T&D system.

Long-Term Activities: Development of NTL reduction plan, including data quality review and coordination with the metering department and utility transformation. Measurement of billing and collections-related NTLs on a monthly, quarterly, and annual basis. Customer and community-based education to deter bypassing meters or diverting connections. Continued monitoring of the meters (either through physical inspection or electronically when AMI is implemented). Addressing meter violations/issues as we discover them. Maintain a minimum of back-office personnel and field inspection crew to ensure NTL are kept low, close to zero. Involve key stakeholders, individuals, or agencies to increase education on the risks associated with NTLs and, as appropriate, aid in a criminal prosecution of suspected electrical theft.

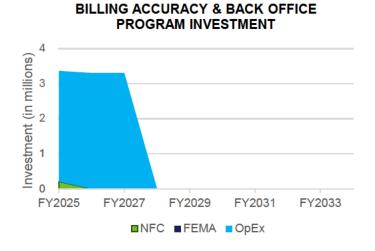
# Holistic Capital Plan

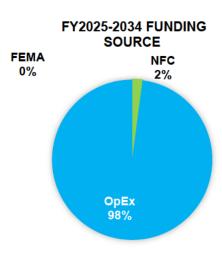
Design, develop, and build the infrastructure required to support the new processes. Transform the functional roles of existing staff in the System Operations and Customer Experience areas due to required changes in the current IT/OT architecture. Several functions, such as scheduling and forecasting, enrollment, and settlement, require new capabilities that the existing staff and current job roles do not possess. Hire and train additional resources to support incremental enrollment, settlement, and key accounts processes driven by Retail Wheeling.

| Revenue Generating Milestones and Timeline |                                                    |                      |  |
|--------------------------------------------|----------------------------------------------------|----------------------|--|
| Program                                    | Milestone                                          | Target<br>Completion |  |
| Loss Recovery Program                      | Complete boundary metering data analysis           | FY2025               |  |
| Loss Recovery Flogram                      | Enhance data analytic tools for theft detection    | FY2026               |  |
| New Business Connections                   | Submit for approval service fees                   | H2 FY2025            |  |
|                                            | Update business and technical requirements         | H2 FY2025            |  |
| Detail Wheeling Dragram                    | Vendor selection                                   | H2 FY2025            |  |
| Retail Wheeling Program                    | Implement infrastructure, technology and processes | H1 FY2028            |  |
|                                            | Trial operations conclude                          | H1 FY2028            |  |

### Billing Accuracy and Back Office

### Billing Accuracy and Back Office Financial Summary





#### \$ in 000s

| Billing Accuracy and Back Office |                          |                           |                           |                                       |  |
|----------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|--|
|                                  | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |  |
| Non-Federally Funded Capital     | 3.7                      | 0.2                       | -                         | 0.2                                   |  |
| Federally Funded Capital         | -                        | -                         | -                         | -                                     |  |
| Operating Expenditures           | 37.5                     | 9.8                       | -                         | 9.8                                   |  |
| Total                            | 41.2                     | 10.0                      |                           | 10.0                                  |  |

### **Billing Accuracy and Back Office Activities**

This program includes billing print and delivery updates and other back-office systems to ensure LUMA can continue producing customer invoices. Current technology, machines, and systems are outdated, creating a financial liability in delayed revenue of ~\$12.5M for invoices not produced daily. This upgrade includes acquiring new hardware and software to support billing and customer contracts and removing redundant bill printing and enveloping equipment. Additionally, the program supports back-office processing of service order paperwork and mobilizes resources to address backlogs of estimated and unbilled accounts. The program also implements a customer experience metrics dashboard and agent routing technology for Billing Services to reduce resolution time and increase customer satisfaction.

### Billing Accuracy and Back Office Alignment to Key Goals



Near-Term Activities: Complete user roles and functions configuration developed in CC&B. Complete final remediation of the Oracle CC&B estimation algorithm issue identified through assessments of meter lifecycle. Develop remaining reporting for work routing, management, and exception handling. Complete assessment of meter lifecycle issues between Oracle CC&B and TWACS/AMR to target root cause challenges regarding long-term estimating meters. Conduct data clean-up and standardization of historical meter loading to systems. Automatic closure of service orders in CC&B. Continued validation of existing utility intelligence platform reporting dashboards

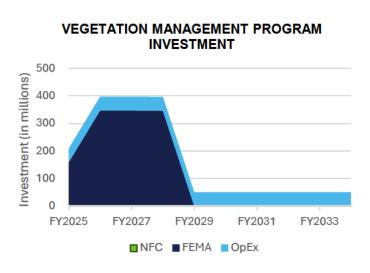
**Long-Term Activities**: The issue will be remediated in FY2027.

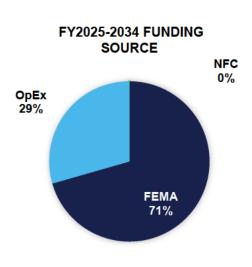
| Billing Accuracy and Back Office Milestones and Timeline |                                             |                   |  |  |
|----------------------------------------------------------|---------------------------------------------|-------------------|--|--|
| Program                                                  | Milestone                                   | Target Completion |  |  |
| Billing Accuracy and Back Office                         | Metric Dashboard and User Roles             | FY2025            |  |  |
|                                                          | Increase system automation and data cleanup | FY2026            |  |  |
|                                                          | Remediated state                            | FY2027            |  |  |

## **Enabling**

Vegetation Management and Capital Clearing Implementation

Vegetation Management and Capital Clearing Implementation Financial Summary





\$ in 000s

| Vegetation Management        |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | -                        | -                         | -                         | -                                     |
| Federally Funded Capital     | 1.7                      | 1,198.6                   | -                         | 1,198.6                               |
| Operating Expenditures       | 168.4                    | 250.0                     | 250.0                     | 500.0                                 |
| Total                        | 170.1                    | 1,448.6                   | 250.0                     | 1,698.6                               |

### Vegetation Management and Capital Clearing Implementation Activity Description

This program includes work to abate or mitigate immediate vegetation risk in the most critical locations and an ongoing program to clear and re-establish the right of ways to standard widths. The program also includes a federally funded capital vegetation clearing and reclamation effort along our transmission and distribution lines, in and around substations, and along facility access roads to achieve vegetation remediation, as well as software technology to facilitate these efforts. This vegetation management and capital clearing work includes an immediate response for the highest risk sites (those that pose hazards to public safety or routinely experience tree-caused service interruptions) and reclaiming rights of way corridors (especially those impacting the transmission and distribution systems).



# Vegetation Management and Capital Clearing Implementation Alignment to Key Goals

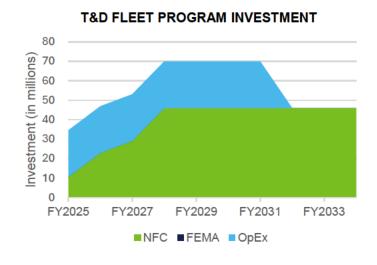
**Near-Term Activities:** Initiating a second maintenance cycle of 230 kV rights of way, which are now on a routine 3-year cycle, continue maintenance work on all remaining voltage levels and pursuing federal funding obligation for vegetation clearance to ensure distribution T&D rights of way and in and around substations are cleared. Establish performance management and qualify control systems to manage vegetation work.

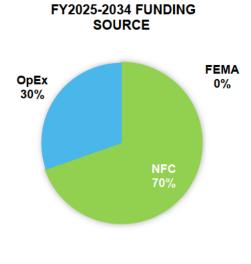
**Long-Term Activities**: Reclamation of the existing rights of way —through vegetation maintenance activities and federally funded vegetation clearing work throughout every region of the island for all transmission and distribution lines, in and around substations, and along facility access roads. After the one-time federally funded capital vegetation clearing project, Vegetation management will maintain reclaimed ROWS and easements on a dynamic cycle.

| Vegetation Milestones and Timeline                           |                                                                                                               |                      |  |  |  |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------|--|--|--|
| Program                                                      | Milestone                                                                                                     | Target<br>Completion |  |  |  |
| Vegetation Management and<br>Capital Clearing Implementation | Commencement of San Juan Group A Distribution Non-Sensitive                                                   | H2 FY2024            |  |  |  |
|                                                              | Commencement of all Distribution Non-Sensitive, 38 kV Non-Sensitive Projects, and Substation/Telecom projects | H2 FY2025            |  |  |  |
|                                                              | Commencement of all 38 kV / Distribution EHP Sensitive Projects, Transmission 115 kV and 230 kV Projects      | H2 FY2027            |  |  |  |
|                                                              | Remediated state achieved<br>All 115kV and 38kV rights of way cleared                                         | H2 FY2028            |  |  |  |

#### T&D Fleet

### T&D Fleet Financial Summary





#### \$ in 000s

| T&D Fleet                    |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 42.8                     | 154.7                     | 230.0                     | 384.7                                 |
| Federally Funded Capital     | -                        | -                         | -                         | -                                     |
| Operating Expenditures       | 76.6                     | 120.0                     | 48.0                      | 168.0                                 |
| Total                        | 119.4                    | 274.7                     | 278.0                     | 552.7                                 |

### T&D Fleet Activity Description

The T&D Fleet program includes various activities and investments to bring the current fleet up to industry standards, including vehicles and equipment. Additionally, activities will be focused on initializing and improving processes for data collection, repair, and maintenance of these assets.

T&D Fleet Alignment to Key Goals



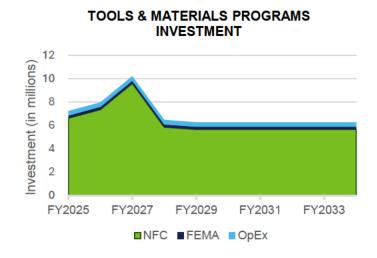
**Near-Term Activities:** Ensure the existing fleet is safe and operable and modernize existing vehicles in service via telematics and fuel management. Implement telematics, fuel management, and the purchase program. Integrate vehicle locational data captured from telematics into our Outage Management System (OMS) for faster response.

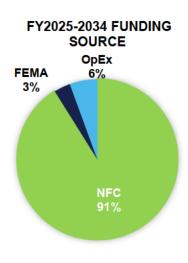
**Long-Term Activities**: Implement regimented testing and inspection processes for all fleet assets, assuring compliance with Puerto Rico's DTOP, CSP, US DOT, OSHA, and ANSI standards and equipment manufacturers' recommended inspection and maintenance requirements. Acquire new vehicles to replace those that have passed the point where we can operate them reliably, safely, and cost-effectively.

| Fleet Milestones and Timeline |                                        |                   |  |  |
|-------------------------------|----------------------------------------|-------------------|--|--|
| Program                       | Milestone                              | Target Completion |  |  |
| TRD Floor                     | Start implementation of T&D telematics | H2 FY2025         |  |  |
| T&D Fleet                     | Remediated state                       | FY2032            |  |  |

#### Tools and Materials

### Tools and Materials Financial Summary





#### \$ in 000s

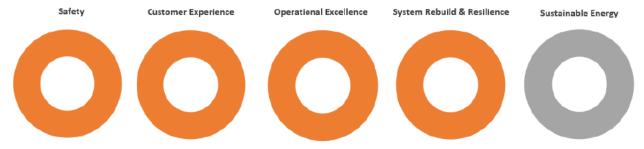
| Tools and Materials          |                |                           |                           |                                       |
|------------------------------|----------------|---------------------------|---------------------------|---------------------------------------|
| Y2022-2024                   | F<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 24.6           | 35.1                      | 28.3                      | 63.4                                  |
| Federally Funded Capital     | 3.6            | 1.2                       | 1.2                       | 2.3                                   |
| Operating Expenditures       | 0.2            | 1.9                       | 1.9                       | 3.9                                   |
| Total                        | 28.4           | 38.2                      | 31.4                      | 69.6                                  |

#### Tools and Materials Activity Description

Within the Enabling Portfolio, the following two programs are related to Tools and Materials:

- Tools Repair & Management
  - This program focuses on the personal protective equipment (PPE) and tooling plan to address safety needs and implement a better PPE and tools management system. In addition to acquiring the needed PPE and tools, this program includes implementing a centralized tool and equipment crib system to improve inventory management, tool maintenance, tool supply, and coordination and oversight of tool and equipment use.
- Materials Management
  - This program covers all aspects of materials management. It includes asset recovery, oil
    containment, inventory management, asset suite reconfiguration, demand training,
    implementation and measurement of key performance indicators related to materials, capital
    plans for material handling and warehousing storage, facility improvements, logistics function,
    and related equipment, material evaluation and disposition.

### Tools and Materials Alignment to Key Goals



Near-Term Activities: Continued standardization and improvement management of tools and other property, plant, and equipment to support operations better. Continue to acquire live substations, line tools, and testing equipment. Implement tool management to support tracking, maintenance, calibration, and deployment parallel to the tool crib launch. Complete dielectric testing of all appropriate tools and equipment. Implement standardized equipment inventories by crew and work type. Implement mobile portal/access to Asset Suite for warehousing activities, which is critical for tracking material for federally funded programs. Continue to deploy spill containment, mobile and site-specific, required to mitigate spills and environmental risk at key facilities and enable transport of salvaged oil-filled equipment. Continue to

# Holistic Capital Plan

replace aged racking and materials handling equipment. Begin logistics equipment replacement initiatives. Begin Asset Suite reconfiguration initiatives

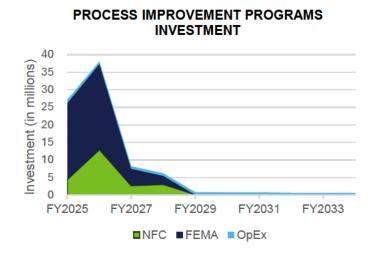
**Long-Term Activities:** As per OSHA, ensure all rated equipment meets manufacturers' recommendations. Purchase all high-priority PPE and equipment necessary for the employee to work safely. Implement a training program to operate and maintain PPE and tools safely. Develop tool work methods. Track and inventory all tools.

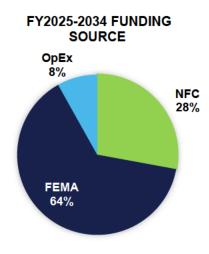
Setup and implement asset recovery function. Implement Warehouse Oil-Filled Equipment and Oil Containment Management Program, Material Handling Equipment Capital Plan, Warehousing Storage Equipment Capital Plan, Warehousing Facility Improvements Capital Plan, Logistics Equipment Capital Replacement Program, Logistics Function Implementation.

| Tools & Material Milestones and Timeline |                  |           |  |  |
|------------------------------------------|------------------|-----------|--|--|
| Program Milestone Target Completion      |                  |           |  |  |
| Tools Repair & Management                | Remediated state | H2 FY2034 |  |  |
| Materials Management                     | Remediated state | H2 FY2026 |  |  |

#### **Process Improvement**

#### **Process Improvement Financial Summary**





#### \$ in 000s

| Process Improvement          |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 9.0                      | 23.2                      | 0.2                       | 23.4                                  |
| Federally Funded Capital     | (0.1)                    | 53.8                      | -                         | 53.8                                  |
| Operating Expenditures       | 1.7                      | 3.5                       | 3.3                       | 6.8                                   |
| Total                        | 10.6                     | 80.5                      | 3.5                       | 84.0                                  |

#### **Process Improvement Activity Description**

Within the Enabling Portfolio, the following four programs are related to Process Improvement:

- Project Management Software & Tools
  - LUMA will introduce new specialized project management, schedule management, and project
    analysis software to ensure the efficient execution of capital projects. This includes the setup of
    an IT-based project, program and schedule management tool, a cost management and project
    analysis/reporting tool, a tool for workforce planning, scheduling, resource leveling, and resource
    management, and a tool to develop, manage, and control PMO processes and flowcharts.
- Asset Data Integrity
  - This program aims to ensure the integrity of key asset data, focusing on our geographic
    information system (GIS) and computerized maintenance management system (CMMS). The
    program works with stakeholders to identify data requirements, determine processes and
    templates for storing data, and update asset data systems with data gathered from asset
    assessments. These systems and the integrity of their information are fundamental for accurate
    modeling, operations, and planning of the T&D System.
- Workflow Process & Tracking
  - This program includes several initiatives that address gaps between the current state and standard industry methods, practices, and processes to manage, track, and report progress on fieldwork performance.
- Permits, Process, and Management
  - LUMA will introduce new systems for managing operational permits to enable the system to
    comply with permit obligations and to provide support for federal funding requirements. The
    program will develop new procedures so that responsible parties have the tools to meet permit
    obligations and identify additional necessary permits, along with introducing training programs to
    allow those procedures to be implemented effectively. As part of this program, LUMA will continue
    to engage with government agencies to adhere to any adjusting permitting procedures or
    requirements to be implemented.

# Holistic Capital Plan

### Process Improvement Alignment to Key Goals



**Near-Term Activities:** Implement all required project management IT tools, including all required end-toend testing. Continue to ensure operational data is accurate and integrated throughout systems used in the utility, effectively using data collected from critical compliance studies and field assessments that influence strategy and operational decision-making. Development of a procedure for new work methods to be identified, developed, and changes made to existing work methods. Implementation of a new records system including job procedures and training programs as necessary to address work practices required to demonstrate compliance.

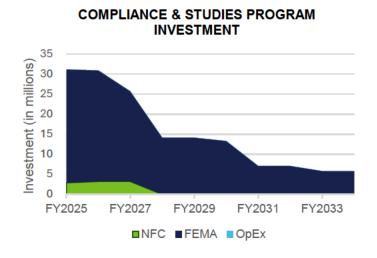
**Long-Term Activities:** Configurate an enterprise asset management solution for transmission and distribution assets – leverage a phased approach to implementation based on asset criticality and then extend to other asset categories such as substations and telecom. Develop and track asset management programs to enable the transition from run-to-failure to preventive maintenance based on asset criticality. Work with stakeholders of downstream systems to determine data requirements for the GIS and CMMS. Develop processes, templates, and tools for verifying and storing this data in alignment with the GIS and CMMS plan.

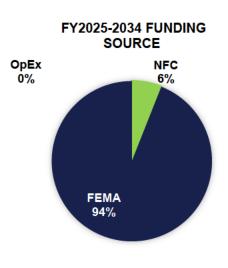
Develop a consistent work management and dispatch system by improving functionality in existing systems (OMS, in-service, Storms, iNET, etc.) or procuring a new software solution. Develop site training material for critical work methods, likely through a third-party vendor. Identify and develop procedures and processes required to address potential safety gaps and conduct training, as appropriate, to ensure proper implementation. Develop and roll out training on the new software and processes. Define and implement scheduling protocols and regimens to drive organizational alignment around work performance. Develop key performance indicators/ metrics, and reporting regimens to increase the transparency of worker productivity and system performance. Define business requirements and assess available software solutions against business requirements, technical fit, and cost. Define work priorities and associated competencies for the tool. Perform initial implementation of workforce management solution (18 months) and establish competencies for performing transmission, distribution, and substation work. Purchase and distribute the balance of communications and reporting tools (e.g., laptops, cell phones mobile data collection devices, radios, satellite phones, and vehicle GPS to support worker productivity.

| Process Improvement Milestones and Timeline |                                                                                                                                       |                      |  |  |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|--|
| Program                                     | Milestone                                                                                                                             | Target<br>Completion |  |  |
| Project Management Software & Tools         | New WBS, DLF and governance models implemented Developed and implement contract management cost control and project reporting systems | H2 FY2025            |  |  |
|                                             | Complete work management procedures                                                                                                   | H1 FY2025            |  |  |
|                                             | Procure workforce management software                                                                                                 | H1 FY2026            |  |  |
| Workflow Processes & Tracking               | Set up processes and training to effective use workforce management software                                                          | H1 FY2026            |  |  |
|                                             | Set up monitoring and key performance indicators for workforce management                                                             | H2 FY2026            |  |  |
|                                             | Remediated state                                                                                                                      | H2 FY2027            |  |  |
| Permit Processes & Management               | Remediated state Training programs and Quality management system developed but not fully implemented                                  | H2 FY2025            |  |  |
|                                             | Standards, processes, procedures, templates and tools developed                                                                       | H1 FY2025            |  |  |
| Asset Data Integrity                        | Remediated state Priority assets configured and managed in central repository                                                         | H2 FY2028            |  |  |

### Compliance & Studies

### **Compliance & Studies Financial Summary**





#### \$ in 000s

| Compliance & Studies         |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 8.4                      | 9.3                       | -                         | 9.3                                   |
| Federally Funded Capital     | 60.0                     | 106.9                     | 39.2                      | 146.0                                 |
| Operating Expenditures       | 1.4                      | -                         | -                         | -                                     |
| Total                        | 69.9                     | 116.2                     | 39.2                      | 155.4                                 |

#### Compliance & Studies Activity Description

The compliance and studies program includes Transmission and Distribution System studies, renewable and distributed energy resource (DER) interconnection studies, T&D system safety studies, and wildfire mitigation. The T&D studies are engineering and operational studies of the technical performance of the transmission line, substation, and distribution line equipment and facilities considering load forecasts, equipment capabilities and settings, generation, and system configuration under various conditions and contingencies. This program also includes evaluating the capabilities and supporting the implementation of load forecasting, power flow, protection coordination, voltage control, and generation of economic dispatch software tools used in the study process. The renewable and DER studies are engineering and operational studies of the technical performance of the T&D system when new generations and energy storage facilities are proposed to be interconnected to it. LUMA plans to develop a comprehensive strategy to reduce wildfire risks in Puerto Rico, focusing on improving data, vegetation management, denergization criteria, infrastructure upgrades, and enhancing communication with stakeholders.

#### Compliance & Studies Alignment to Key Goals



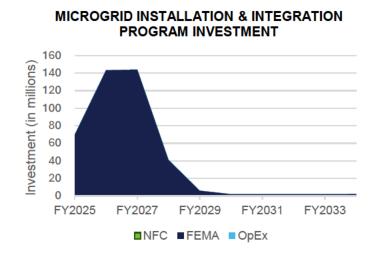
**Near-Term Activities:** The continued focus will be on T&D system studies, renewable and DER integration studies, and continuing safety, grounding, and civil site studies and mitigations. Near-term wildfire mitigation activities include identifying high-risk areas, devising specific mitigation measures, and deploying advanced study and monitoring devices for early detection and ongoing monitoring.

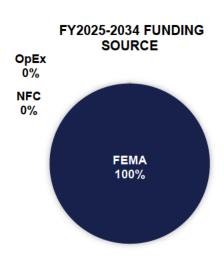
**Long-Term Activities:** Completion of T&D planning criteria development and performance of T&D planning studies. Address deficiencies from Transmission system studies and transmission infrastructure plans. Establish system-wide protection coordination in the T&D system. Develop distribution coordination and fusing criteria. Establish a multi-dimensional plan for managing and reducing wildfire ignition risk for Puerto Rico and addressing key elements of developing such a plan.

| Compliance & Studies Milestones and Timeline |                                                                                        |                      |  |  |
|----------------------------------------------|----------------------------------------------------------------------------------------|----------------------|--|--|
| Program                                      | Milestone                                                                              | Target<br>Completion |  |  |
|                                              | Complete Transmission Protection Studies                                               | H2 FY2025            |  |  |
|                                              | Substation assessment complete (another program)                                       | H1 FY2026            |  |  |
| Compliance & Studies                         | Remediated state Substation grounding remediation achieved                             | H2 FY2026            |  |  |
|                                              | Quantitative wildfire risk modeling, simulation, and visualization                     | H1 FY2025            |  |  |
|                                              | Stakeholder engagement and communications protocols for preemptive de-<br>energization | H1 FY2025            |  |  |
|                                              | Situational Awareness Pilot Project Selection                                          | H2 FY2025            |  |  |
|                                              | Wildfire mitigation Investment Prioritization                                          | H2 FY2025            |  |  |
|                                              | Launching pilot preemptive de-energization program                                     | H1 FY2026            |  |  |

## Microgrid Installation and Integration

# Microgrid Installation and Integration Financial Summary





#### \$ in 000s

| Microgrid Installation and Integration |                          |                           |                           |                                       |  |
|----------------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|--|
|                                        | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |  |
| Non-Federally Funded Capital           | 0.1                      | -                         | -                         | -                                     |  |
| Federally Funded Capital               | 3.4                      | 404.5                     | 10.2                      | 414.7                                 |  |
| Operating Expenditures                 |                          | -                         | -                         | -                                     |  |
| Total                                  | 3.4                      | 404.5                     | 10.2                      | 414.7                                 |  |

#### Microgrid Installation and Integration Activity Description

The Microgrid Installation and Integration program includes the activities necessary to install and integrate microgrids safely, reliably, and effectively on the electric system managed by LUMA. The microgrids encompassed contain more than one customer (i.e., more than one facility and involve utility-owned infrastructure such as poles, conductors, fault interrupters, and transformers). Building block components such as electricity generation in the microgrid projects included in this program will be owned and operated by an entity other than LUMA. Other components, such as energy storage, may be owned and operated by LUMA or another entity. For all the microgrid projects included in this program, LUMA plays an active role in developing, designing, and ultimately operating them after construction.

### Microgrid Installation and Integration Alignment to Key Goals



**Near-Term Activities:** Complete agreements with project partners and confirm funding availability. Refine the project scopes consistent with approved funding. Start Phase 1 –Planning studies, permits, final engineering design, and drawings for the funded projects.

Long-Term Activities: Studies to determine optimal locations for microgrid, PMUs, and battery storage installations from a system-wide perspective. Studies to determine general interconnection requirements and regulatory engagement for microgrid, PMUs, and battery storage installations. Conduct engineering studies that include load balancing and management, load flows, safety, and performance grounding, among others, as needed. Conduct studies to support the installation and integration of specific proposed projects. Complete design and engineering of deliverables to advance technology and sustainability projects involving LUMA as approved by LUMA's regulators. Installation of approved microgrid, PMU, and BESS projects involving LUMA. Integrating microgrid, phasor measurement units, and battery energy storage system operational information into the control center.

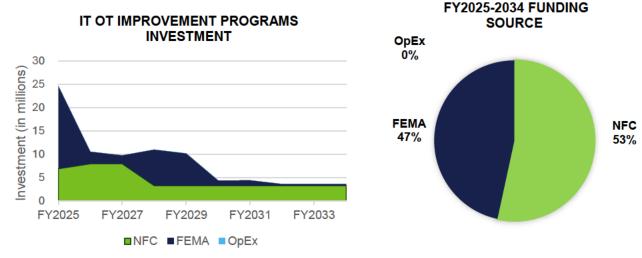
| Microgrid Milestones and Timeline                                        |                                                                                 |                      |  |  |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------|--|--|
| Program                                                                  | Milestone                                                                       | Target<br>Completion |  |  |
|                                                                          | Preliminary engineering, procurement, and construction award                    | H2 FY2025            |  |  |
| Microgrid, Phasor Measurement Units<br>(PMU), and Battery Energy Storage | Equipment delivery, mobilization to the site, design completion, implementation | H2 FY2026            |  |  |
| Installations and Integration                                            | Construction complete, and project close-out                                    | H2 FY2027            |  |  |

### **Support Services**

### IT OT Improvement

#### IT OT Improvement Financial Summary

\$ in 000s



| IT OT Improvements           |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 11.1                     | 29.4                      | 16.5                      | 45.9                                  |
| Federally Funded Capital     | 1.8                      | 36.8                      | 3.3                       | 40.1                                  |
| Operating Expenditures       | 1.3                      | -                         | -                         | -                                     |
| Total                        | 14.3                     | 66.2                      | 19.8                      | 86.0                                  |

### IT OT Improvement Activity Description

Within Support Services, the following four programs are affiliated with IT OT Improvement:

- IT/OT Asset Management
  - LUMA will introduce industry-standard IT OT systems and procedures and provide the necessary
    system upgrades to ensure secure business operation, continuity, and improved customer
    responsiveness. The program's scope includes assessing PREPA's application and infrastructure
    portfolio and beginning a series of software and infrastructure upgrades such as the outage
    management system (OMS) that drive toward a transition to cloud-based technology. IT OT
    resilience in this program also extends to establishing a new backup data center to ensure the
    reliability and resilience of technology systems.
- IT/OT Cybersecurity Program
  - This program focuses on establishing a cybersecurity program that protects key organizational assets, including people, resources, and technology. The program will ensure that cyber risk,

internal and external threats, vulnerabilities, and natural disasters are identified and mitigated based on risk and readiness factors. Improving cybersecurity is critical to hardening the T&D System and PREPA business continuity. Cyber risks could severely affect T&D System operations, potentially even to the point of widespread failure. The program will design and implement the people, processes, and technologies essential for effective cybersecurity governance, cybersecurity operations and monitoring, vulnerability identification and management, and cloud security.

- Key to this program is the ability to defend against cyber incidents. This includes but is not limited to data breaches, damage to systems (physical or digital), loss of system control or operations, lack of confidence in or accuracy of data, ransomware, phishing, theft, natural disaster (loss of ability to operate), equipment/system failure and unauthorized access. By ensuring the confidentiality, integrity, and availability of assets in compliance with Section 13 of the T&D OMA, the cybersecurity program will proactively mitigate risk and enable business operations by identifying and reducing the risk and impact of a cybersecurity incident on the organization.
- IT/OT Enablement Program
  - This program will implement capabilities to deliver and maintain IT OT services and systems, enabling LUMA operations by implementing industry best practices and standardized processes and tools.
- IT/OT Collaboration & Analytics
  - LUMA will upgrade and implement technology solutions to support collaboration across the organization, provide employees with access to relevant content to do their work, track performance across the organization, and drive data-based decision-making through analytics. This program also includes the development of a strategy, along with target architecture and the associated roadmap, for a data analytics structure to better support critical decision-making across the company. The program will also implement a centralized repository for internal and external reporting of performance metrics and expand data sources as business needs dictate.

### IT OT Improvement Alignment to Key Goals



**Near-Term Activities:** Strategize and implement a plan for rationalizing analytics tools, establishing performance metrics for IT OT services, and evaluating and implementing recommended risk and compliance management tools.

Assess and protect unstructured data through high-end industry tools that manage data classification, backup, and protection and enhance internal network security posture by implementing network segmentation.

Commission the workforce management. Configure GIS to allow offline mapping. Filling out the RFPs and CRFs for infrastructure replacement. Building on ServiceNow to cover IT and OT systems. Expand OMS Mobile functionality work not to be limited to outage events. Commission of IT DR site.

Implement a configuration database manager in Service Now to manage IT assets and start migration to a DevOps model to establish the Building Code.

**Long-Term Activities:** Establish internal collaboration channels (intranet). Upgrade/replace end-of-life software solutions supporting content management. Rationalize analytics tools through strategy and implementation plan. Establish performance metrics for IT OT services. Implement cloud security configuration, monitoring, and integrations

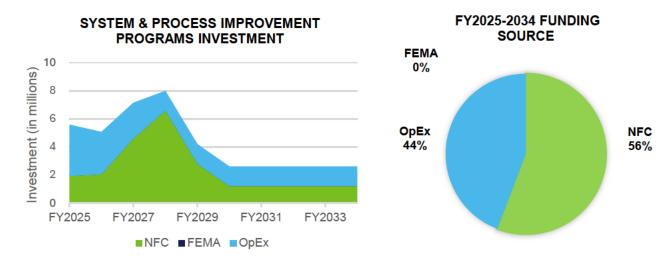
Extend the service management toolset to manage the application and infrastructure portfolio per the technology asset management strategy, enabling lifecycle planning and supporting disaster recovery and business continuity planning. Establish a new backup data center and relocate all backup and disaster recovery infrastructure

Design an Enterprise Architecture strategy that formalizes leading technology resource interactions. Develop level three business process models and standard operating procedures for requests. Establish the Building Code as the basis by which technology work will be conducted.

| ITOT Improvement Milestones and Timeline |                                                                                                                                                                                                                                                            |                      |  |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| Program                                  | Milestone                                                                                                                                                                                                                                                  | Target<br>Completion |  |
|                                          | •Roadmap established for Production and Disaster Recovery environments migration to cloud for business-critical systems                                                                                                                                    | FY2025               |  |
| IT OT Asset<br>Management                | Disaster Recovery Facility Relocated     Business Critical systems are updated to industry standards (Vendor supported software and hardware)     LUMA's IT OT Asset Management procedures are compliant with the T&D OMA (T&D OMA Annex I, Section II(A)) | FY2025               |  |
|                                          | Remediated State -Backup Control Center capabilities relocated to a secure and resilient facility                                                                                                                                                          | FY2026               |  |
| IT OT Cybersecurity<br>Program           | Reassess the cybersecurity maturity levels to determine future state roadmap                                                                                                                                                                               | FY2025               |  |
| IT OT Enablement<br>Program              | Remediated State Establish end-user device standards and lifecycle refresh Strengthen and document Architectural Model for High impact areas in Bus Comp Model                                                                                             | FY2025               |  |
| IT OT Collaboration                      | Defining usability governance and publishing standards for all content     Evaluate and implement software solutions to deliver a central repository for business process models based on best practices aligned with business process modeling standards  | FY2025               |  |
| and Analytics                            | Evaluate and implement an Enterprise Architecture tool     Implementation of a centralized repository to enable the internal and external reporting of performance metrics.                                                                                | FY2026               |  |

### System and Process Improvement

### System and Process Improvement Financial Summary



#### \$ in 000s

| System and Process Improvements |                          |                           |                           |                                       |
|---------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                                 | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital    | 7.7                      | 18.0                      | 6.1                       | 24.0                                  |
| Federally Funded Capital        | -                        | -                         | -                         | -                                     |
| Operating Expenditures          | 154.0                    | 12.0                      | 7.0                       | 19.0                                  |
| Total                           | 161.7                    | 30.0                      | 13.1                      | 43.1                                  |

#### System and Process Improvement Activity Description

Within Support Services, the following four programs are affiliated with System and Process Improvement:

- HR Information Systems and Learning Platforms
  - This program brief covers two distinct areas to support the LUMA HR department. This includes the following:
    - LUMA will implement core compliance training to ensure employees understand and comply with all corporate policies, procedures, and Commonwealth Laws and Regulations, to support and promote appropriate conduct. In addition, all functions across LUMA will implement comprehensive training programs that meet the minimum requirements necessary to improve employee skill sets, bringing performance to Contract Standards.

# Holistic Capital Plan

The implementation of Human Capital Management software to introduce standardized processes for the management of employee data, employee performance management, talent management, succession planning, recruitment on-boarding and off-boarding management, learning management and compensation management. It will also provide employees and managers with self-service capabilities. This is a key element that will support contemporary HR practices.

#### Critical Financial Systems

This program covers technology projects for Finance and Facilities, including financial
management systems and technology, risk management systems, and supply chain management
technology. The initiatives cover time tracking and labor costing, employee expenses,
procurement, budgeting and forecasting, financial and operational reporting, risk management,
and facilities management. These initiatives are required to address gaps identified in the
financial management area.

#### Critical Financial Controls

• The Critical Financial Controls program focuses on two key areas, internal controls and internal audit. These two areas will build an internal control framework consisting of policies and control procedures to assess financial statements, and an internal audit will provide independent assurance that company risk management, governance, and internal control processes are operating effectively. Therefore, updating and enforcing industry-standard policies and procedures that comply with the latest laws and regulations is part of the work plan. Internal Controls will address various internal control items, including obtaining and reviewing service organization controls for major vendors, the implementation of key transaction controls, reconciliations, validation, physical inspections, documentation evidencing performance of control tasks, disclosures, enforcement of applicable policies and procedures for employees to identify deviations. The internal audit establishes a formal plan for communications with the audit committee and revamps the internal audit department. It also builds the foundation of the internal audit team, develops the methodology and process, and builds and retains the required skills and technology base.

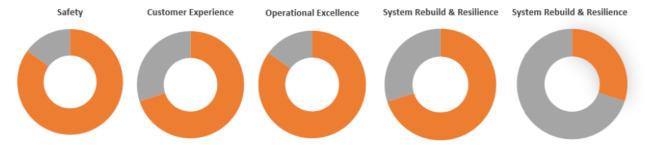
#### Land Acquisition and Dispute Management

This program focuses on creating a new record management system designed to make land
information accessible and managed in line with utility industry standards. This system ensures
compliance with legal requirements to satisfy regulators. It also allows user groups efficient
access to vital information, enabling Operations and Construction teams to perform their work
while upholding land rights agreements.

#### Land Record Management

 The Land Record Management program integrates industry best practices from land management to improve record-keeping, manage land acquisition, and work with landowners to resolve disputes. It also focuses on establishing landowner relationship concepts as a core component of land management practices.

#### System and Process Improvement Alignment to Key Goals



**Near-Term Activities:** Expand the existing HRIS and the completion of remaining learning platform activities.

Complete the migration of the procurement for all inventory purchased for the warehouse from Asset Suite to Oracle EBS. Implementation of a risk management information system to capture the exposures and the ability to manage insurance claims in a centralized system.

Advance the development of an internal control framework and develop and document policies and controls within Finance Transformation. Risk Management will develop a framework to align corporate objectives and the risk assessment entity wide. Target audits of areas of the organization identified by senior management as higher risk. Establish the Internal Audit Committee for reporting.

Acquire and implement a new land management system, convert existing land files to the new structure, remediate information gaps in existing land files, and integrate all land files into a land management system. Use the new software to keep track of new land acquisitions, encroachment, and land rights management (in alignment with the Permit Processes and Management Improvement Program) and continue evaluating the effectiveness of the procedures developed for encroachments.

**Long-Term Activities:** N/A – all activities to be completed by FY2027.

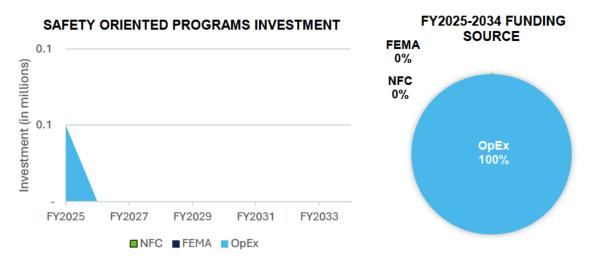
| System and Process Improvement Milestones and Timeline |                                                                                                                                                                                                                                                                            |                      |  |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| Program                                                | Milestone                                                                                                                                                                                                                                                                  | Target<br>Completion |  |
| HR Information<br>Systems and<br>Learning Platforms    | Development of learning tools and base content                                                                                                                                                                                                                             | H1 FY2025            |  |
| Critical Financial<br>Systems                          | Non-warehouse procurement moved into Oracle EBS Risk management system completed Estimating software is in place to support the major facilities work that is required with accurate forecasts and progress tracking Warehouse/inventory procurement moved into Oracle EBS | FY2025               |  |
|                                                        | Meeting rooms are equipped to support collaboration and communication                                                                                                                                                                                                      | FY2026               |  |
|                                                        | Remediated State Purchasing consolidation complete                                                                                                                                                                                                                         | FY2027               |  |
| Critical Financial<br>Controls                         | Policies, guidelines and procedures in place                                                                                                                                                                                                                               | FY2025               |  |
|                                                        | Create a framework to ensure alignment between corporate objectives and the risk assessments of the finance and operations teams                                                                                                                                           | FY2026               |  |
|                                                        | Remediated State Internal control framework and Governance, Risk, and Compliance tool implemented                                                                                                                                                                          | FY2027               |  |

# Holistic Capital Plan

| System and Process Improvement Milestones and Timeline |                                                                                                                                     |                      |  |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------|--|
| Program                                                | Milestone                                                                                                                           | Target<br>Completion |  |
|                                                        | Achieved 90% of implementation of SRP- Critical Financial Control Gap Assessment observation                                        |                      |  |
| Land Acquisition & Dispute Management                  | Ensure that we are using the new software to keep track of new land acquisitions, encroachment, and management of land rights       | H2 FY2025            |  |
|                                                        | Assess and acquire land mgmt. system                                                                                                | H1 FY2025            |  |
| Land Record<br>Management                              | Remediated State Integrated land mgmt. system fully implemented Conversion of existing files to new structure and land mgmt. system | H2 FY2026            |  |

### Safety-Oriented

### Safety-Oriented Financial Summary



#### \$ in 000s

| Safety Oriented              |                          |                           |                           |                                       |
|------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                              | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital | 0.1                      | -                         | -                         | -                                     |
| Federally Funded Capital     | -                        | -                         | -                         | -                                     |
| Operating Expenditures       | 0.8                      | 0.1                       | -                         | 0.1                                   |
| Total                        | 0.9                      | 0.1                       |                           | 0.1                                   |

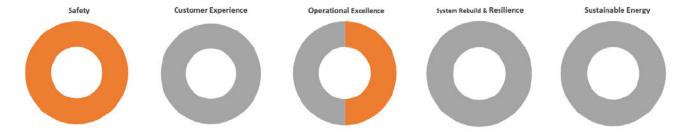
### Safety-Oriented Activity Description

Within Support Services, the following two programs are affiliated with Safety:

Public Safety

- LUMA will introduce an organizational strategy to engage and educate the public on safety
  around electric equipment and installations, thereby reducing public safety incidents. The
  program will include procuring public safety-related materials for training awareness and public
  outreach, developing and completing a communications plan, and continuing a maintenance plan
  for the program.
- Waste Management
  - Under the requirements of the Puerto Rico Transmission and Distribution System Operation and Maintenance Agreement (T&D OMA) Section 5.10 and the scope of T&D OMA Services specified in Annex I, LUMA will install new equipment and implement management processes to comply with environmental statutory requirements and support safe and efficient operations. The program includes installing secondary containment to prevent contamination, ensuring proper containers are in place to store wastes, and when required for site operations, processing, or removal of accumulated waste debris.
  - LUMA will take actions concerning pre-existing environmental conditions, including accumulated waste, per the T&D OMA Section 5.10(b).

### Safety-Oriented Alignment to Key Goals



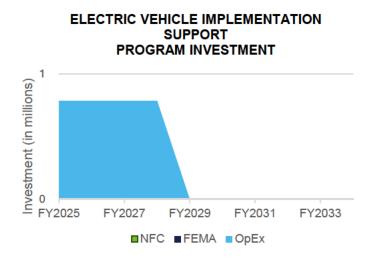
**Near-Term Activities:** Offering public safety seminars and implementing the Public Safety Policy along with the Operations and Distribution Engineering Departments. Develop communications strategies to deliver the Public Safety message to a broader audience. Removing accumulated vehicles located at Palo Seco and Carolina Warehouse as identified in the front-end transition and procuring additional secondary containment for damaged transformers at operations facilities.

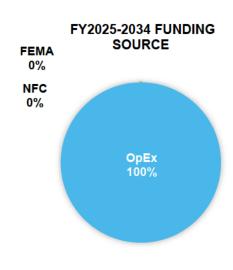
Long-Term Activities: N/A – both programs are to be completed by FY2027.

| Safety Milestones and Timeline |                                                                                                                                             |                      |        |  |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------|--|
| Program                        | Milestone                                                                                                                                   | Target<br>Completion |        |  |
| Public Safety                  | Remediated State Trend and analyze public safety data; purchase one visual display; present a minimal amount of public safety presentations | In Progress          | FY2025 |  |
| Waste<br>Management            | Remediated State Develop plan to remove accumulated waste                                                                                   | In Progress          | FY2025 |  |

### Electric Vehicle Implementation Support

### Electric Vehicle Implementation Support Financial Summary





#### \$ in 000s

| Electric Vehicle Implementation Support |                          |                           |                           |                                       |
|-----------------------------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
|                                         | FY2022-2024<br>(actuals) | FY2025-2029<br>(forecast) | FY2030-2034<br>(forecast) | Total 10-Year Plan<br>(FY2025-FY2034) |
| Non-Federally Funded Capital            | -                        | -                         | -                         | -                                     |
| Federally Funded Capital                | -                        | -                         | -                         | -                                     |
| Operating Expenditures                  | 7.4                      | 2.5                       | -                         | 2.5                                   |
| Total                                   | 7.4                      | 2.5                       |                           | 2.5                                   |

### Electric Vehicle Implementation Support Activity Description

This program involves developing and implementing new EV initiatives in compliance with regulatory requirements. The activities conducted in this program will help support a coordinated, proactive approach to the electric vehicle transition. The EV Plan identifies near-term and mid-term EV support actions that customers may engage in. The EV Plan outlines a roadmap for future growth and increased EV adoption in Puerto Rico.

#### Electric Vehicle Implementation Support Benefits



**Near-Term Activities:** Market Research, education and outreach to customers and stakeholders with regards to Electric Vehicles (EV); support and coordinate EV charging infrastructure deployment; prepare the utility and greater ecosystem workforces for the growing adoption of EVs; and implement an interim EV TOU rate and/or other structural mechanisms to influence charging behavior and corresponding load management impacts for both consumers and the grid.

**Long-Term Activities:** Continued provision of educational materials and customer guidance in support of market transformation and engagement of customers and stakeholders in the EV Ecosystem. Planning and supporting grid infrastructure and system improvements are required and aligned to increase EV penetration. Provision of EV Rate and Incentive Options to further influence the balance of customer behavior with the efficient, safe, and balanced operation of the grid. Preparation of the utility and greater workforce ecosystem for the growing adoption of EVs.

| EV Milestones and Timeline              |                       |                   |  |  |
|-----------------------------------------|-----------------------|-------------------|--|--|
| Program                                 | Milestone             | Target Completion |  |  |
| Electric Vehicle Implementation Support | Completion of Phase I | H2 FY2025         |  |  |

# Holistic Capital Plan

### Conclusion

Overall, the Holistic Capital Plan represents a historic step forward for Puerto Rico and the critical strategy for achieving progress toward successfully transforming and modernizing the electric system. As described, the Plan includes foundational investments, such as substations that will improve reliability and resiliency by meeting requirements regarding flood zones, as well as advanced technologies that will help Puerto Rico leverage clean, distributed resources to meet the challenges of today and tomorrow.

This ten-year plan represents LUMA's ongoing commitment to utilizing critical FEMA funds to achieve significant operational and systemic transformation. Still, it recognizes that achieving an even more resilient and reliable energy future will necessitate additional investment. By building on the foundation of investment in Puerto Rico outlined in this ten-year Plan, LUMA determines we can achieve our shared goal of reaching the level of energy system reliability and resiliency expected and necessary to address the island's day-to-day energy needs while hardening the system for any future contingencies..