Autoridad de Energía Eléctrica

February 2025 Fiscal Plan for the Puerto Rico Electric Power Authority

As certified by the Financial Oversight and Management Board for Puerto Rico on February 6, 2025

Disclaimer

The Financial Oversight and Management Board for Puerto Rico (the "FOMB" or "Oversight Board") has formulated this fiscal plan (the "Fiscal Plan," or when clarifying from previously certified fiscal plans or fiscal plans for other government entities, "February 2025 Fiscal Plan") based on, among other things, information obtained from the Puerto Rico Electric Power Authority ("PREPA") and the Government of Puerto Rico, including the Puerto Rico Fiscal Agency and Financial Advisory Authority ("AAFAF," by its Spanish acronym), the legislative body (the "Legislature"), its instrumentalities and agencies (collectively, the "Government"). Because the Oversight Board members and staff are not experts in utility revenues and expenses, the Oversight Board has retained experts and consultants throughout its existence to assist in the formulation of PREPA's Fiscal Plan.

This Fiscal Plan is directed to the Government and Legislature of Puerto Rico based on underlying data obtained from the Government.

This Fiscal Plan is not a plan of adjustment ("Plan of Adjustment" or "POA") under Title III of Puerto Rico Oversight, Management, and Economic Stability Act ("PROMESA"). It does not specify classes of claims and treatments. It neither discharges debts nor extinguishes liens.

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For the avoidance of doubt, the Oversight Board does not consider and has not considered anything in this Fiscal Plan as a "recommendation" pursuant to PROMESA Section 205(a). Nevertheless, to the extent that anything in this Fiscal Plan is ever deemed by the Governor or Legislature or determined by a court having subject matter jurisdiction to be a "recommendation" pursuant to Section 205(a), the Oversight Board hereby adopts it in the February 2025 Fiscal Plan pursuant to PROMESA Section 201(b).

This document does not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with standards established by the American Institute of Certified Public Accountants or any other organization. Accordingly, the Parties do not express an opinion or

any other form of assurance on the financial statements or any financial or other information or the internal controls of the Government and the information contained herein.

Any statements and assumptions contained in this document, whether forward-looking or historical, are not guarantees of future performance and involve certain risks, uncertainties, estimates, and other assumptions made. The economic and financial condition of the Government and its instrumentalities are affected by various legal, financial, social, public health, economic, environmental, governmental, and political factors. These factors are very complex, may vary from one fiscal year to the next and are frequently the result of actions taken or not taken, not only by the Government, but also by the Oversight Board and other third-party entities such as the government of the United States. Examples of these factors include, but are not limited to:

- The effect of the COVID-19 pandemic, bird flu, and other diseases on the health and well-being of the people of Puerto Rico;
- The impact of geopolitical conflict (e.g., Russia–Ukraine conflict) and other geopolitical risks on, among other things, costs associated with providing electric services;
- The economic effects of COVID-19, bird flu, and other diseases on the global economy and the economies of the United States and Puerto Rico as they relate to Puerto Rico's tax revenue and budget;
- The longer-term economic ramifications of behavioral changes caused by health risks (i.e., reduced travel, increased work from home, reduced activity in large gathering places, etc.);
- The amount of federal government aid provided to U.S. states and territories (including Puerto Rico), as well as the efficacy and speed of disbursement of such aid;
- The need to shift resources to create a more resilient structure to prevent or mitigate future pandemics;
- Any future actions taken or not taken by the United States government related to Medicaid, the Affordable Care Act, or tariffs;
- Any future actions taken or not taken by the Puerto Rico government related to legislation impacting the energy sector in Puerto Rico (e.g., Act 17-2019);
- Any future actions taken or not taken by the Puerto Rico government impacting operation of the energy sector in Puerto Rico as they relate to Puerto Rico's energy public policy and relationship with utility operators;
- The impact of development of a new Integrated Resource Plan ("IRP") governing the types and portfolios of fuel and resources to be approved by the Puerto Rico Energy Bureau ("PREB");
- Any future actions taken or not taken by PREB in connection with setting and approving rates to be charged to PREPA's customers;
- The impact of climate change on Puerto Rico, including the potential for more intense and frequent severe tropical weather (e.g., hurricanes) and more extreme heat;
- The amount and timing of receipt of any distributions from the Federal Emergency Management Agency ("FEMA"), the Community Development Block Grant-Disaster Recovery Program ("CDBG-DR") Program by the U.S. Department of Housing and Urban Development ("HUD"), and private insurance companies to repair damage caused by Hurricanes Irma, Maria, Fiona and the major earthquakes that occurred in January 2020;

- The amount and timing of receipt of any additional amounts appropriated by the U.S. government to address the funding gap described herein;
- The timeline for completion of the work being done by LUMA, Genera, and PREPA to repair PREPA's electric system and infrastructure and the impact of any future developments or issues related to the reconstruction and modernization of PREPA's transmission and distribution electric system and infrastructure by LUMA and the legacy generation operation and maintenance procurement process on Puerto Rico's economic growth;
- The impact of outmigration, declining population, and conversion to solar and other clean energy sources; and
- The timing and impact of the resolution of PREPA and Puerto Rico's Title III cases and related litigation.

Because of the uncertainty and unpredictability of these factors, their impact cannot be included in the assumptions contained in this document. Future events and actual results may differ materially from any estimates, projections, or statements contained herein.

Nothing in this document should be considered an express or implied commitment of facts or future events; provided, however, that, the Government is required to implement the measures in this Fiscal Plan and the Oversight Board reserves all its rights to compel compliance. Nothing in this document shall be considered a solicitation, recommendation, or advice to any person to participate, pursue or support a particular course of action or transaction, to purchase or sell any security, or to make any investment decision.

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The PREPA Certified Fiscal Plan incorporates the macroeconomic and demographic projections developed for and presented in the Fiscal Plan for the Commonwealth of Puerto Rico as certified by the Oversight Board on June 5, 2024, to comply with Section 201 of PROMESA. The Oversight Board utilizes the best data and projections it believes are available to it. Such data and projections are not necessarily the same data and projections PREPA or other governmental instrumentalities would adopt if they were formulating the fiscal plan for PREPA.

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1 Executive Summary

This Fiscal Plan provides the latest outlook regarding the transformation of Puerto Rico's energy sector and PREPA. Significant milestones have been achieved in the 1.5 years since the previous certification of the Fiscal Plan on June 23, 2023. Genera PR, LLC ("Genera"), the private legacy generation operator, has commenced its service. Also, steps were taken to diversify the generation fleet and reduce the reliance on oil-fired generation resources. For example, in 2023 and 2024, LUMA Energy, LLC ("LUMA," and, together with Genera, the "Operators") executed 16 interconnection agreements with project developers for renewable resource procurement. Furthermore, key initiatives to address leading causes of outages across the grid have been launched, such as the proposed island-wide vegetation clearance program, which targets 16,000 miles of transmission and distribution ("T&D") lines. Despite some progress, the current state of the electric system is unreliable, unsafe, and unsustainable. It negatively impacts both the population and the economy of Puerto Rico. Significant improvements are urgently needed. In other words, Puerto Rico needs reliable and affordable electricity provided by a sustainable utility outside of Title III that is fiscally responsible and can access capital markets.

Recent reliability data indicate the system is still underperforming relative to U.S. utilities, and performance has deteriorated since March 2023. In calendar year ("CY") 2023, the latest full year for which data is available, Puerto Ricans faced 7.8 times more service interruptions and 13.2 times longer outages than the median mainland U.S. customer, up from 6.6 times more interruptions and 12.5 times longer outages in 2022. Additionally, performance has worsened relative to March 2023 data, the latest available at the time of certification of the previous Fiscal Plan (June 2023). On average, customers experienced ~15% more service interruptions and ~21% longer outages when comparing the most recent available data (December 2024) to the March 2023 metrics. Efforts have been made to address these challenges. Following blackouts on June 12, 2024, PREB mandated operators to create two-year improvement plans to rebuild and stabilize Puerto Rico's electrical grid. Additionally, PREB extended the use of two temporary emergency generation units through December 31, 2025, to ensure grid stability and adequate generation capacity. The use of these units was recently approved by FEMA to be extended to December 31, 2027. The challenging performance trajectory (including an island-wide blackout in December 2024) will require substantial additional efforts to address the underlying root causes and improve service reliability.[1]

Sufficient and coordinated deployment of federal and non-federal funds is crucial to adequately repairing and maintaining the system. Federal funds need to be deployed faster, as only about 22% of the ~$14 billion obligated by FEMA has been disbursed. At the same time, regulatory filings from operators indicate clearly that expenses constrained by the revenue generated under the order issued by PREB on January 10, 2017, relating to rates chargeable to PREPA's customers (the "2017 Rate Order") are insufficient for the adequate operation, maintenance, repair, and transformation of Puerto Rico's energy system.

In the face of recent events and amidst requests from the regulator and Oversight Board to understand what is required to meet the needs of the system to deliver reliable power, this Fiscal Plan reflects the operators' forecast of required

[1] https://energia.pr.gov/wp-content/uploads/sites/7/2024/12/20241226-MI20190007-Resolution-and-Order.pdf

expenses without being limited by the 2017 Rate Order. LUMA, the operator of PREPA's T&D assets, has indicated that these non-federal and federal forecasted investments will allow Puerto Rico to reduce the frequency of outages over the next 10 years by 75-85% compared to the PREPA baseline. The Oversight Board intends to engage an independent consultant to conduct a study to further assess and pressure-test the operators' estimates of the system needs. A thorough rate review will have to be conducted, considering Puerto Rico's energy system's evolving demands and rate-making principles. PREPA's rates will ultimately require PREB's approval, but it is clear the system cannot be operated in the long term if PREPA's rates remain constrained by the 2017 Rate Order. PREB's rate review, initially scheduled for 2020, has been significantly delayed, but in December 2024, PREB reinitiated the rate review schedule and outlined a structured timeline for its ongoing rate review process to ensure transparency and adherence to regulatory standards, and an initial technical conference was held. This process is ongoing, and updated provisional rates are expected to take effect July 1, 2025.[2]

Additionally, Operators estimate an increase in Fuel and Purchased Power ("F&PP") cost projections based on the latest market price observations as the generation mix shifts towards 100% renewables to comply with Act 17-2019, the Puerto Rico Energy Public Policy Act, by CY2050. For example, amended Power Purchase and Operating Agreements ("PPOAs") for renewable energy projects are 34% more expensive than the initially approved PPOAs. This puts additional pressure on ratepayers. In January 2025, Puerto Rico's new governor proposed a bill amending Act 17-2019, which could impact system expense and load estimates.

Considering affordability and in light of the high costs estimated by Operators needed to operate and maintain the system, the Oversight Board concludes PREPA will not be able to impose rate increases sufficient to pay all expenses and debt service without charging rates well in excess of burdensome levels. Nevertheless, the Oversight Board's goal is for PREPA to exit Title III and access capital markets successfully. To that end, the Oversight Board is committed to take actions that will permit the Oversight Board to maintain settling creditor recoveries materially in line with those offered to PREPA's settling creditors in the February 2024 POA (with adjustments previously discussed with the settling creditors), while also paying the amount of the non-settling bondholders' allowable nonrecourse claim secured by Net Revenues the value of which will be determined by the Title III court. Therefore, when the Oversight Board, as PREPA's Title III representative, is allowed to propose an amended Title III POA, the proposed disclosure statement will specify the source of funds to confirm the POA.

PREPA must collaborate with LUMA, Genera, and other stakeholders to ensure progress in transforming Puerto Rico's energy sector and address operational and financial challenges. A coordinated, holistic plan is essential to prioritize and sequence investments for impactful transformation. Collaboration with key government counterparties, including the Oversight Board, PREB, the Puerto Rico Public-Private Partnerships Authority ("P3"), AAFAF, and the Central Office of Recovery, Reconstruction, and Resiliency ("COR3"), is crucial for success. This collective effort will accelerate PREPA's trajectory and Puerto Rico's energy sector towards a safe, reliable, clean, affordable, and efficient system that residents and businesses need and deserve.

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2 https://energia.pr.gov/wp-content/uploads/sites/7/2024/12/20241216-AP20230003-Resolution-and-Order.pdf

2 Historical Context and Current Challenges

2.1 Key Facts about PREPA

PREPA, known as the Puerto Rico Water Resources Authority until 1979, was created through Act No. 83 on May 2, 1941 (PREPA's Enabling Act). Throughout its history, PREPA has served as the sole franchise utility electricity provider in Puerto Rico. Until 2014, PREPA was self-regulated and operated without an independent regulatory body to oversee the utility's budgeting and rate-setting. On May 27, 2014, the Puerto Rico Energy Commission (now named the Puerto Rico Energy Bureau, or PREB) was established by Act 57-2014. PREB serves as an independent regulator responsible for establishing electricity rates in accordance with Puerto Rico law and public policy.

Today, PREPA works alongside LUMA (the private power company responsible for customer experience, billing and collections, and the operation and maintenance of PREPA's T&D infrastructure) and Genera (the private operator of PREPA's legacy thermoelectric generation assets) to serve over 1.5 million customers, making PREPA one of the largest utilities in the United States by number of customers served. For fiscal year ("FY") 2024 (July 1, 2023–June 30, 2024), the utility had approximately $4 billion in total revenue from 17.4 TWh of billed sales of electric energy, with $2.5 billion in revenue attributable to pass-through costs of fuel and purchased power for energy supply.

2.2 Historical Context

Decisions about the management of Puerto Rico's energy system have historically been subject to political influence and instability, leading to high rates of management turnover, discontinuity in capital investment plans, customer rates that were insufficient to cover operating and maintenance costs, and mounting costs of debt service. Politicized decision-making led PREPA to issue more debt to cover then current debt service rather than adjusting rates. As a result, PREPA has been operating under a structural financial deficit for decades, which has worsened over time. Historically, PREPA's long term planning was distorted by political considerations, resulting in operational instability, expensive changes in direction, and delays in and stoppages of necessary infrastructure projects. Lack of effective long-term planning led PREPA to defer investments in maintenance of and upgrades to its aging infrastructure.[3] Over the past decade, revenue has decreased. As the revenue base contracted, the unpredictability and fluctuations associated with higher fuel prices led to increased operating costs, which contributed to a rise in outstanding receivables and bad debt, ultimately having an adverse impact on PREPA's revenues and cash collections. In response to these liquidity challenges, PREPA financed its fuel procurement through credit lines, which only further exacerbated PREPA's unsustainable debt burden and overall cost structure.

Additionally, PREPA has not fully funded its pension plan and, since 2014, has not paid its debt service other than through the issuance of additional bonds. As of May 2017, PREPA had accumulated over $9 billion in debt and over $4 billion in pension liabilities, of which $3.6 billion was unfunded, the equivalent of $2,400 per customer.[4] This debt burden led to the Oversight Board filing a petition on PREPA's behalf in May 2017 for bankruptcy relief under

3 PREB 2017 Rate Order: https://energia.pr.gov/wp-content/uploads/sites/7/2017/01/Final-Resolution-and-Order.pdf

4 Based on independent actuarial study conducted by Aon Hewitt, valuation results as of June 30, 2020 (and as published in the PREPA fiscal plan certified on June 28, 2022).

Title III of PROMESA before the U.S. District Court for the District of Puerto Rico. Since filing for bankruptcy relief under Title III, PREPA has faced significant disruptions, including Hurricanes Irma, Maria, and Fiona, earthquakes, the COVID-19 pandemic, regular blackouts and other service interruptions—as recently as December 31, 2024—and asset depletion and the funding crisis of the PREPA Employees' Retirement System ("PREPA ERS").

2.3 Operational Context

2.3.1 T&D System Overview

PREPA's T&D system, operated and maintained by LUMA since June 2021 under the T&D Operation and Maintenance Agreement ("T&D OMA"), is composed of three major transmission loops that move electric generation from the power plants concentrated along the southern coast to the load centers concentrated in the northeast. The 115 kV system includes interconnections with two major power plants in the San Juan metropolitan area. More information on Puerto Rico's transmission loops can be found in the Fiscal Plan certified in June 2023.[5]

Puerto Rico's distribution system serves approximately 1.5 million customers utilizing over 1,100 circuits. LUMA maintains approximately 42,000 miles of distribution lines crossing mountainous and overgrown terrain, including nearly 17,000 miles of primary voltage lines and approximately 25,000 miles of secondary lines and service drops. The distribution system connects approximately 342 distribution substations, and nearly 800 privately owned substations. There are approximately 685,000 distribution poles and approximately 180,000 service transformers. Most of the distribution system is composed of overhead lines, but approximately 20% is underground lines and most of these underground lines are located primarily in urban centers. Distribution pole materials are either galvanized steel, concrete, or wood.

2.3.2 Generation Assets

The majority of PREPA-owned installed capacity is thermal generation fired by fossil fuels. PREPA's thermal power plants or Legacy Generation Assets ("LGA") are composed of over 4,800 MW of installed generation capacity from approximately 20 power plants and 50 generation units spread across the island. Much of PREPA's thermal generation fleet was installed over half a century ago and has been kept in service through increasingly costly maintenance and repairs. Although PREPA has expended significant of resources, it has been insufficient to satisfactorily maintain the generation system, and plant reliability has only continued to decline to unacceptably low levels given the age and limited budget available. This has affected the ability to meet demand, resulting in potentially higher generation shortfall. Loss of Load Expectation ("LOLE") is a metric that estimates the number of days per year when electricity production will fall short of meeting demand. Puerto Rico's average LOLE has increased from 8.81 days per year for FY2023 (based on LUMA's 2022 resource adequacy analysis) to 36.2 days for FY2025 (based on data available in LUMA's latest resource

5 See Chapter 2 (Historical Context and Current Challenges) of PREPA's fiscal plan certified on June 23, 2023.

adequacy analysis). This indicates that on average a generation shortfall can be expected to occur on 36.2 days during FY2025.[6]

On January 24, 2023, P3, PREPA, and Genera signed the Puerto Rico Thermal Generation Facilities Operation and Maintenance Agreement ("Generation OMA"). This agreement governs the operation and management of PREPA's fossil-fuel generation fleet, as defined in the Generation OMA, which includes 59 units composed of 24 baseload units, 30 peaking units, and 5 emergency units. On July 1, 2023 (the "Generation Service Commencement Date"), Genera assumed the operations and maintenance of the LGA. The Generation OMA is valid for 10 years from the Generation Service Commencement Date until June 30 of the calendar year following the 10th anniversary of the Generation Service Commencement Date (that is, June 2033). The agreement can be extended or terminated earlier in accordance with the terms of the Generation OMA.

Under the terms of the Generation OMA, PREPA remains the owner of the LGA, Genera serves as the operator, and P3 serves as the contract administrator. Genera is tasked with various responsibilities, including the daily operation and maintenance of the generation plants, as well as the administration of facility contracts, including those related to sourcing and purchase of fuel. Additionally, Genera is responsible for managing inventory supply, storage, and maintenance, as well as overseeing equipment maintenance, repair, and replacement and decommissioning of the LGA in accordance with the orders of PREB. Furthermore, Genera plays a crucial role in managing generation-related outages and facilitating power restoration efforts and, similar to LUMA, acts as PREPA's agent with regulators, such as PREB and environmental compliance agencies, and manages federal funds allocated for the LGA.

The Generation OMA is structured with both fixed and incentive compensation. The fixed and incentive compensation cost may be partially offset by operation, maintenance, and fuel savings Genera is incentivized to achieve under the Generation OMA. The incentive compensation mechanisms for the budget, fuel, and decommissioning savings are structured as 50%/50% sharing formulas between Genera and PREPA and its stakeholders. In addition, the Generation OMA caps the maximum incentive compensation achievable by Genera in a contract year, with any excess savings above the cap accruing 100% to the benefit of PREPA and its stakeholders.

In response to the energy supply challenges following Hurricane Fiona, PREPA initiated the acquisition of temporary generation units to stabilize the island's electricity system. These units, with a combined capacity of 350 MW, were installed at the Palo Seco Power Plant (150 MW) and the San Juan Power Plant (200 MW). On February 21, 2024, PREB approved the initial Scope of Work ("SOW") for this acquisition, which was funded through FEMA to address emergency energy needs. Further amendments to the SOW, incorporating FEMA's requirements, were approved on March 15, 2024.[7]

In a significant step towards transforming Puerto Rico's energy sector, the "LNG to H2 Combined Cycle Generation Plant" project was announced by the P3 through a public notice on March 1, 2023.[8] This initiative currently aligns with Puerto Rico's energy public policy and

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6 Puerto Rico Electrical System Resource Adequacy Analysis Report, October 31, 2024: https://ntc-prod-public-pdfs.s3.us-east-2.amazonaws.com/adag06Q5IogcvsnY_eH3yDxTD8E.pdf; Resource Adequacy Study, August 30, 2022: https://energia.pr.gov/wp-content/uploads/sites/7/2022/09/Motion-to-Submit-Lumas-Resource-Adequacy-Study-NEPR-MI-2022-0002.pdf

7 PREB Resolution and Order ("R&O") March 15, 2024 Docket NEPR-MI-2024-0001: https://energia.pr.gov/wp-content/uploads/sites/7/2024/03/20240315-AP20240001-Resolution-and-Order-1.pdf

8 P3 Website: https://www.p3.pr.gov/energy/lng-to-h2-combined-cycle-generation-plant

regulatory framework. The project seeks to modernize the island's energy infrastructure by replacing approximately 478 MW of existing generation capacity with a state-of-the-art, multi-fuel combined cycle plant, located in San Juan. Initially operating on natural gas and ultra-low sulfur diesel ("ULSD"), the plant is designed to transition to a hydrogen mix and eventually fully integrate green hydrogen. The facility's efficiency will significantly reduce the levelized cost of energy, estimated at $135–$150/MWh, while operating under a 30-year term starting from its commercial operation date.[9] By diversifying fuel sources, enhancing reliability, and reducing power generation costs, this project aligns with the broader goals of Puerto Rico's current IRP, which was approved by PREB in 2020 (the "2020 IRP"), and supports grid modernization efforts to achieve a sustainable and resilient energy future.

In addition to the PREPA-owned generation assets now operated and maintained by Genera, electricity supply from independent power producers ("IPPs") consists of 984 MW from two conventional power plants and 254 MW from various renewable energy providers. Notably, the Punta Lima wind farm that was destroyed in 2017 during Hurricane Maria was restored to service in FY2024, adding 26MW of renewable capacity that had been offline for over six years.[10] As part of the efforts to diversify and modernize the island's generation fleet and reduce reliance on oil-fired generation resources, PREPA and LUMA have been working to implement PREB's directives on renewable resource procurement for a total of 3,750 MW of renewable generation resources and 1,500 MW of energy storage resources. As of February 12, 2024, LUMA had executed 16 interconnection agreements with Tranche 1 project developers that are prepared to move forward.[11] LUMA is providing technical support on how to best ensure the growth of renewable energy across Puerto Rico while it continues to improve the overall reliability and resiliency of the grid. For further discussion on future renewable tranches, see **Chapter 3.2.5 (**Sustainability**)**.

2.3.3 Hydroelectric and Irrigation

PREPA, through HydroCo LLC ("HydroCo") (see the Fiscal Plan certified in Jun 2023 for more details on HydroCo), is also responsible for the operation and maintenance of a portfolio of 10 hydroelectric generating assets that have a nameplate capacity of approximately ~100 MW.[12] However, due to a lack of maintenance and repairs, only four of these units are consistently operational and capable of producing power, albeit at an average monthly capacity factor over 60% lower than typical, and often 80-90% lower.

PREPA's irrigation is organized into three geographic districts: South, Isabela, and Lajas, each of which is responsible for oversight and operations of the dams, reservoirs, and canals under its control. Each of the three districts is managed as a separate accounting entity like a subsidiary but is organizationally managed by a single director that reports to PREPA's Executive Director. Irrigation system operations are funded primarily through water sales to

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9 Letter from FOMB to PREPA on December 19, 2024: https://docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/5794_CRPREPA-Energiza(LNG-H2PPOA)(Aug2024).pdf?_gl=1*ranjyt*_gcl_au*NTU2OTM5NDY4LjE3MzAyMjQ5MzQ.*_ga*MTQ2MTY1Mzg4Mi4xNjc2Mzg0ODEw*_ga_LVK7G3FFVG*MTczNzEzMzk1OS4yMjIuMS4xNzM3MTMzOTY3LjAuMC4w

10 PREB Resolution and Order (CEPR-CT-2016-0007): https://energia.pr.gov/wp-content/uploads/sites/7/2024/07/20240717-CT20160007-Resolution-and-Order.pdf

11 LUMA's February 12, 2024 motion to PREB titled "Motion to Submit Information in Compliance with Resolution & Order of February 5, 2024 and Request for Confidential Treatment" (Docket No. NEPR-MI-2020-0012): https://energia.pr.gov/wp-content/uploads/sites/7/2024/02/20240212-MI20200012-Motion-in-compliance.pdf

12 Based on monthly averages using PREPA and LUMA Daily-Hourly Generation Reports. (BPS Monitoring - LUMA)

the Puerto Rico Aqueduct and Sewer Authority ("PRASA"), which accounts for over 90% of the revenue, and secondarily through a small portion of the subsidies rate rider.[13, 14]

2.3.4 HoldCo

Administrative functions and responsibilities that have not been transferred to LUMA, Genera, or HydroCo are managed by PREPA HoldCo LLC ("HoldCo"). This entity is responsible for legacy compliance and reporting activities, management and potential divestment of miscellaneous properties, pension fund administration, and oversight, among others. The HoldCo budgets and operations include the office of the Executive Director, Board of Directors, Employee Retirement Services, Human Resources, Finance, Legal Services, and the Disaster Funding Management Office ("DFMO"), among others.

2.4 Overview of Historical Financial Performance[15]

During the pendency of Title III, PREPA has made efforts to improve its overall financial transparency through reporting, controls, and communications. These improvements have been instrumental in preserving PREPA's stability through significant disruptions, including Hurricanes Maria and Fiona, earthquakes, and the COVID-19 pandemic. PREPA's improved reporting has helped AAFAF and the Oversight Board identify and quantify necessary relief measures to maintain PREPA's financial viability throughout these disruptions.

2.4.1 Liquidity and Service Accounts

As of September 30, 2024, PREPA's total cash position (including the multiple service accounts under LUMA's and Genera's OMAs) was approximately $1.2 billion, of which $1.1 billion was in PREPA operating accounts and $0.1 billion was in other PREPA bank accounts. The $1.1 billion included $279.8 million in FEMA reimbursement and FEMA working capital advance ("WCA") accounts, $246.6 million in various PREPA operating accounts (primarily concentration accounts and deposit accounts), $452.9 million in the T&D Service Accounts, $96.6 million in the Generation Service Accounts, and $2.4 million in the HydroCo Accounts. The $0.1 billion is related to insurance accounts, U.S. Bank Trustee accounts, the Reserve Maintenance Fund, and Other Restricted and Construction Accounts.

2.4.2 Title III Exit

For PREPA to procure confirmation of a Title III plan and exit Title III under PROMESA, the Oversight Board, as the Title III representative of PREPA, is required to file, procure confirmation, and implement a Plan of Adjustment setting forth the terms of a debt restructuring that will allow PREPA to reduce debt to enable it to become a solvent, stable, and sustainable utility. The Oversight Board is the only party that can propose a POA on behalf of PREPA and the POA is subject to confirmation by the U.S. District Court for Puerto Rico, which has jurisdiction over PREPA's Title III case. PREPA filed its current POA on February 16, 2024. The District Court held a two-week trial regarding the confirmation of that POA in March 2024.

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13 A rate rider is a utility charge, not included in standard rates, that allows a utility to recover specific costs.

14 PREB Motion NEPR-MI-2021-0004, https://energia.pr.gov/wp-content/uploads/sites/7/2024/10/20241014-MI20210004-Motion-in-Compliance-with-June-26th-2024-Resol.-and-Order.pdf

15 Figures presented are unconsolidated, showing PREPA only and excluding the irrigation division. Fuel, tourism (hotel), and public lighting subsidies are shown as revenue reductions rather than expenses.

On June 12, 2024, before any decision by the District Court regarding the POA confirmation, the U.S. Court of Appeals for the First Circuit issued a ruling partially affirming and reversing a prior ruling by the District Court, and holding the PREPA bond trustee holds a perfected security interest in PREPA's "Net Revenues" (as defined in the PREPA bond Trust Agreement) regardless of whether the Net Revenues are deposited into certain bank accounts. The First Circuit also ruled the bondholders' claims are non-recourse and limited to payment from those Net Revenues serving as their collateral. The First Circuit did not determine how its ruling impacts the confirmation of a POA, leaving that issue to the District Court. Following this, the Oversight Board filed a petition for rehearing with the First Circuit asserting the court made an error in finding a perfected security interest in Net Revenues. On November 13, 2024, the First Circuit issued a ruling in response to the Board's petition retracting its prior reasoning but holding the bondholders, nonetheless, have a perfected security interest for a different reason. The Oversight Board believes this alternative reason is also erroneous and therefore filed a second petition for rehearing on November 27, 2024. On December 31, 2024, the First Circuit denied the second petition.

As a result of the appellate court's June 2024 decision, the District Court entered an order on July 10, 2024, staying all litigation between proponents and opponents of the February 2024 POA, including any further POA confirmation proceedings, for 60 days, and directed the parties back into mediation. This litigation stay was subsequently extended and is currently in effect through March 24, 2025. Mediation is extended through April 30, 2025.

As set forth in more detail below, the Oversight Board has determined PREPA's current and projected rate and cost structure, in consideration of macroeconomic factors, cannot support any restructured debt burden to repay the legacy bond debt. However, despite these serious negative factors, the Oversight Board is committed to procuring confirmation of and implementing a POA and causing PREPA to regain access to capital markets, and believes that objective is best achieved by maintaining settling creditor recoveries materially in line with those offered to PREPA's settling creditors in the February 2024 POA, with adjustments previously discussed with the settling creditors, and paying the amount of the non-settling bondholders' allowable nonrecourse secured claim to be quantified by the Title III court. As a result, when the Oversight Board, as PREPA's Title III representative, is allowed to propose an amended Title III POA, the proposed disclosure statement will specify the source of funds to confirm the POA. Notably, at the confirmation hearing in March 2024 the Oversight Board's then chairman explained the Oversight Board recognized PREPA's downside risks. Had that plan been confirmed, the Oversight Board did not intend to allow it to fail.

For more information on Title III proceedings, see **Chapter 3.3 (**PREPA Reorganization**)**.

2.5 Overview of PREPA's Risks & Challenges

This Fiscal Plan reiterates the continued drive to transform Puerto Rico's energy sector to ensure safe, reliable, clean, and affordable service Puerto Rico's residents and businesses need and deserve. This transformation process is described further in **Chapter 3 (**Transformation**)**.

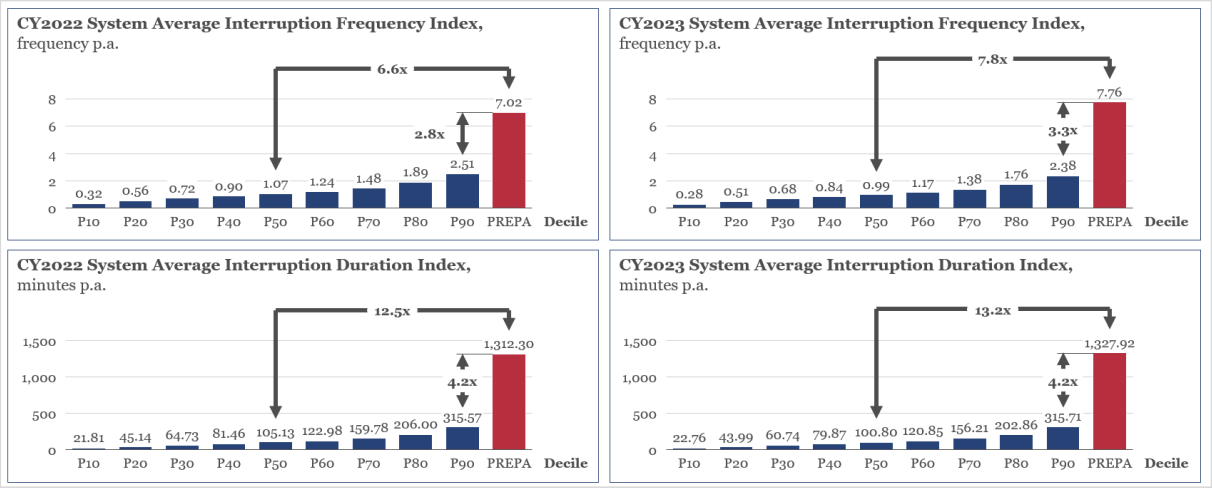
To successfully navigate this transformation, several risks and challenges must be considered. This section discusses updates to a selection of these issues: service reliability, changing load characteristics, and continued affordability challenges. More details on PREPA's full set of risks and challenges can be found in the Fiscal Plans certified in previous years.

2.5.1 Service Reliability

Recent reliability data indicate the system is still underperforming relative to U.S. utilities. Given these performance challenges, the Oversight Board requested—through a notice of violation letter dated August 2, 2024 (the "Notice of Violation")[16]—for the operators to provide projections of non-F&PP operating and maintenance ("O&M") expenses beyond FY2025 to reflect their views of the estimated expenses needed for the "adequate operation, maintenance, repair and transformation of Puerto Rico's energy system," not constrained by the rate structure of the 2017 Rate Order.[17]

PREPA's performance compared to other U.S. utilities. Comparison of the System Average Interruption Frequency Index ("SAIFI," outage frequency) and System Average Interruption Duration Index ("SAIDI," outage duration) data for CY2023 and CY2022 demonstrates service reliability for PREPA has deteriorated relative to that for the mainland U.S. utilities.[18]

Exhibit 1: Distribution of SAIDI and SAIFI by Decile for U.S. Utilities Reporting to the EIA During CY2023 and CY2022[19]



As depicted in the exhibit above, the median performance[20] for ~600 U.S. utilities reporting to the Energy Information Administration ("EIA") for CY2023, the last year for which data is currently available, is a SAIFI of 0.99 interruptions per year and a SAIDI of 100.80 minutes per year (for context, a lower value on SAIFI and SAIDI indicates better performance). For CY2023, LUMA reported a SAIFI of 7.76 and a SAIDI of 1,327.92 minutes.

Therefore, compared to the median mainland U.S. customer, in CY2023, Puerto Ricans experienced 7.8 times more service interruptions and 13.2 times longer average duration of

16 FOMB – Letter – Governor – PREPA Notice of Violation – August 2, 2024: https://drive.google.com/file/d/140zDjhzXOvVZkHVTvYYDwHpuDCpzpvej/view

17 The 2017 Rate Order issued by PREB in its CEPR-AP-2015-0001 docket and implemented by PREPA was the first base rate increase in 30 years.

18 The descriptions for SAIFI and SAIDI are from the Institute of Electrical and Electronics Engineers Guide for Electric Power Distribution Reliability Indices IEEE Std. 1366™-2022 ("IEEE Guide").

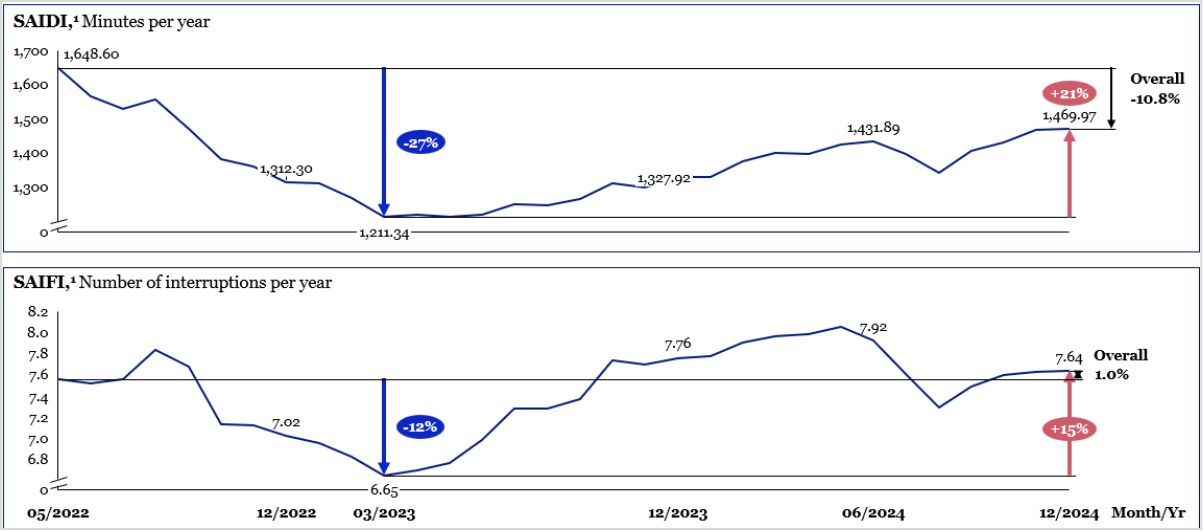
19 SAIDI and SAIDI exclude MEDs. Source for EIA U.S. median SAIDI and SAIFI: Annual Electric Power Industry Report, Form EIA-861 detailed data files, 2023 and 2022. PREPA's 12/2023 and 12/2022 SAIDI and SAIFI data are as calculated by LUMA and available in LUMA's "Resumen Métricas Máster_November2024", accessed November 2024.

20 The electric power industry uses SAIDI and SAIFI as a standard method for measuring the performance of electric utilities. They can vary greatly among utilities depending on climate (commonality of snow, ice, and/or windstorms), terrain (mountainous, desert, or coastal), load density (urban or rural) and system design (radial, looped, or 3-wire).

power outages. This is an increase compared to CY2022, when Puerto Ricans experienced 6.6 times more service interruptions and 12.5 times longer average duration of power outages than the median mainland U.S. customer.[21]

Further, PREPA is not only underperforming relative to the median, but its SAIFI and SAIDI were 3.3 and 4.2 times higher than the 90th percentile (i.e., bottom 10% performing utilities), respectively, relative to the U.S. utilities reporting to the EIA for CY2023. That means PREPA meaningfully underperforms even many of the worst utilities in the United States.

Exhibit 2: PREPA's Recent SAIDI and SAIFI Performance[22,23]



PREPA's recent performance. The above graphs show the monthly 12-month rolling SAIDI and SAIFI for the PREPA system. In LUMA's first 12 months as system operator, SAIDI was 1,649 minutes, while SAIFI was ~7.5 interruptions per year. Since then, SAIDI has fallen by 10.8% and SAIFI has remained close to flat, with an increase of 1.0% through December 2024.

However, a closer look reveals distinct trends over time. Over the period through March 2023,[24] just under two years after LUMA commenced operation of the PREPA T&D system, SAIDI had improved by ~27% compared to May 2022[25] and by 3% compared to the PREB-approved operator baseline of 1,243 annual minutes without major events.[26] However, since

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21 The SAIDI and SAIFI numbers considered for comparisons shown in 2021, 2022 and 2023 are without major event days.

22 SAIDI and SAIDI exclude major event days. PREPA's 2022-2024 SAIDI and SAIFI data are as calculated by LUMA based on LUMA's monthly data as of January 2025. Values listed correspond to the total SAIDI/SAIFI over the preceding 12-month period (i.e., values for 12/2023 correspond to actual SAIDI/SAIFI for the preceding calendar year, i.e., Jan-Dec 2023). SAIDI and SAIFI sum of previous 12 months available until Dec-24 based on latest available Resumen Métricas as of January 2025. SAIDI (T&D) 12-month rolling average and SAIFI (T&D) 12-month rolling average have slightly changed in Resumen Métricas Máster_November2024 for the period 2023-07 to 2024-06 as compared to data reflected in Resumen Métricas Master – July 2024, available as of July 22, 2024. This change is driven by annual quality revision on reliability metrics by LUMA. Further, official data available in Resumen Métricas for July–Dec 24 display a fiscal year-to-date value; however, for purposes of comparability and consistency, the exhibit has considered monthly SAIDI and SAIFI data for the past 12 months as reported in Resumen Métricas available as of January 2025.

23 The Oversight Board issued the Notice of Violation on August 2, 2024.

24 At the time of certification of the Fiscal Plan in June 2023, latest available quarterly report on system data was published in April 2023 and provided SAIDI and SAIFI data until March 2023. Performance metrics available at: https://energia.pr.gov/en/dockets/?docket=nepr-mi-2019-0007.

25 Earliest available data in the quarterly report on system data on SAIDI (T&D) and SAIFI (T&D) are from June 2021 after LUMA assumed its role as operator of the T&D System. Earliest available 12-month rolling average is from May 2022.

26 Resolution & Order, Case No. NEPR-MI-2019-0007: https://energia.pr.gov/wp-content/uploads/sites/7/2021/05/Resolution-and-Order-NEPR-MI-2019-0007.pdf

then, based on latest available data, SAIDI has worsened by ~21% when comparing December 2024 to March 2023.[27] Similarly, over the period through March 2023, SAIFI had improved by ~12% compared to May 2022 and by ~37% compared to the PREB-approved operator baseline of 10.6 interruptions per customer without major events.[28,29] However, since then, based on latest available data, SAIFI has worsened by ~15% when comparing December 2024 to March 2023, underscoring the ongoing reliability challenges of the PREPA system.

Since assuming operation and maintenance responsibilities on June 1, 2021, LUMA's efforts to transform the electric system, including service reliability as required under the T&D OMA and by PREB, initially helped improve SAIDI and SAIFI. However, the recent reversal in trends, especially given the already low level of system performance, will require additional efforts to address the underlying root causes and improve service reliability. Deteriorating service reliability is a strong driver for the Oversight Board to request expense estimates from operators needed to adequately operate, maintain, and repair the system on an ongoing basis. These expense estimates are additional to the federal funding needed to repair damage to the system. During FY2025 and beyond, LUMA will need to continue to make the necessary investments to improve the overall system reliability and resilience. LUMA expects the non-federal and federal investments will allow Puerto Rico to reduce its SAIFI by 75–85% over the next 10 years from the PREPA baseline of 10.6 interruptions in FY2020 to 1.6–2.7 interruptions.

Additionally, in the context of the Oversight Board's request, it is key to highlight LUMA's June 2024 outage events. The outage events highlighted significant infrastructure and maintenance challenges and led to widespread disruptions. The outages are described below.

First Set of Outages (June 1-3, 2024)		
The first set of outages, occurring between June 1 and June 3, originated at the Santa Isabel substation. Equipment failures and insufficient maintenance at this site triggered a cascading power loss. Several issues were identified for the first set of outages, as outlined below:		
Faulty equipment: Breakers and conductors at Santa Isabel were compromised due to contamination and undersized design; six spans of conductors broke, leading to extensive repairs and replacement with larger conductors	**Insufficient load capacity**: Insufficient load capacity of transformers and conductors at Santa Isabel, compounded by the absence of backup or redundant components, further stressed the system	**Extended repair times**: Replacement and repair activities, including manual load-shedding, continued through June 9, impacting up to 63,975 customers at the peak of the outage
Second Set of Outages (June 12-13, 2024)		
The second set of outages originated with a hardware failure at the San Juan Steam Plant, impacting around 280,000 customers, and was compounded by a vegetation-related fault		

27 For purposes of comparability and consistency, this analysis accounts for monthly SAIDI and SAIFI data for the past 12 months as reported in Resumen Métricas available as of January 2025

28 Resolution & Order, Case No. NEPR-MI-2019-0007: https://energia.pr.gov/wp-content/uploads/sites/7/2021/05/Resolution-and-Order-NEPR-MI-2019-0007.pdf

29 Official data available in Resumen Métricas for July-Dec 24 display a fiscal year-to-date value; however, for purposes of comparability and consistency, this analysis accounts for monthly SAIDI and SAIFI data for the past 12 months as reported in Resumen Métricas available as of January 2025

on a 115 kV line, leading to a second outage affecting 515,000 customers. Several issues were identified for the second set of outages, as outlined below:		
Inadequate vegetation management: Vegetation management was not prioritized for 115 kV lines, which contributed to the outage when a tree contacted the line, triggering widespread outages	**Faulty redundancies:** Critical transformers were out of service, leaving the system with no backup options; this created a "radial" (non-looped) configuration that allowed the outage to spread more widely	**Generator trip failures:** Inadequate maintenance of relays and protective equipment at the Cambalache units prevented the triggering of an overspeed trip, which could have reduced the spread of the outage

Moreover, although the operators have since provided estimates of expenses needed to adequately operate, maintain, and repair the system, in response to the Notice of Violation and reflected in this Fiscal Plan, revisions to the rate structure and rate amounts to reflect the estimated expenses are pending PREB's reinitiation of the rate review process and approval. Thus, Puerto Rico continues to suffer significant outage events and disruptions, including as recently as December 2024. For instance, in mid-December a generation unit went out of service, leaving more than 50,000 customers without power. Furthermore, on December 31, 2024, over 90% of the island lost electricity due to the failure of an underground power line.

LUMA's FY2025 resource adequacy assessment. As part of the overall service reliability assessment, LUMA conducts an annual Resource Adequacy assessment [30] to evaluate the ability of the existing electric generation resources to meet customer demand. Generation adequacy is a critical component of any electrical system, and this analysis speaks directly to the expected reliability and stability of Puerto Rico's electric system and the generation capacity required to meet expected demand.

The expected number of days per year when electricity production cannot meet demand is mathematically presented as the LOLE. LOLE of 0.1 (i.e., service will be interrupted 0.1 days in a year or one (1) day in ten years) is the typical utility generation portfolio planning standard.[31] As shown in the chart below, which was included in the LUMA Resource Adequacy Report ("Resource Adequacy Report") for FY2025, electricity customers in Puerto Rico have a significantly higher probability of having their services disrupted because of generation shortfall. The value of estimated LOLE calculated for Puerto Rico in the FY2025 Resource Adequacy Report was 36.2 days per year, meaning that, on average, a generation shortfall, i.e., loss of load, can be expected to occur on 36.2 separate days during FY2025 (July 1, 2024 to June 30, 2025). This is 362 times higher than the industry benchmark of 0.1 days per year. Based on LUMA's 2022 Resource Adequacy Report, the latest available data at the time of the

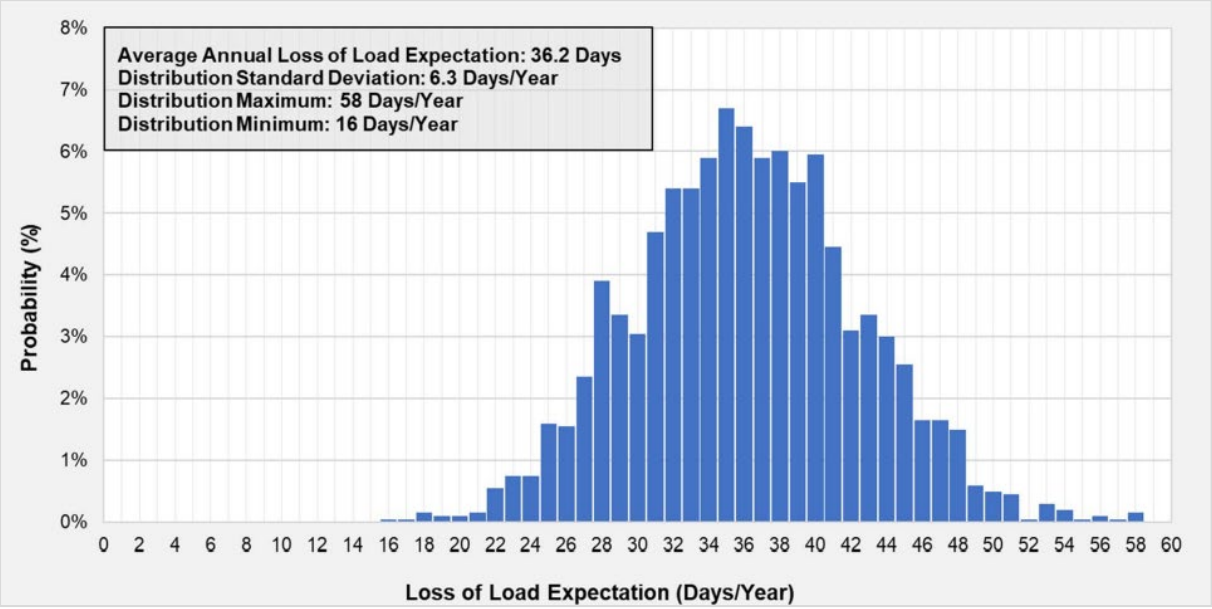
30 This is a standard industry assessment performed annually by most utilities and evaluates the risks and probabilities of various scenarios that could reasonably be expected to occur that affect generation capacity and availability. The typical planning standard used by most North American utilities is that there should be enough generation capacity to ensure customers will have their service interrupted on no more than one day every 10 years because of a generation shortfall. The variable used to describe this probability is the LOLE and LOLH, with the LOLE being more frequently used and referenced in different studies. The base case described in the Resource Adequacy assessment does not include temporary generation in its calculation.

31 New Resource Adequacy Criteria for the Energy Transition (ESIG), March 2024: https://www.esig.energy/wp-content/uploads/2024/03/ESIG-New-Criteria-Resource-Adequacy-report-2024.pdf

Fiscal Plan certification in June 2023, Puerto Rico's average LOLE was 8.81 days per year for FY2023. Relative to this, Puerto Rico's LOLE for FY2025 has further deteriorated.[32, 33]

An equally important item is the high standard deviation in LOLE results. Among simulations conducted to calculate expected LOLE outcome for FY2025, in no instance was the estimated LOLE less than 16 days per year. Further, up to 58 days per year of load shedding events were found to be possible according to the study. Exhibit 3 summarizes these results.

Exhibit 3: FY2025 LOLE Probability Distribution for Puerto Rico[34]



Additionally, loss of load hours ("LOLH") is a measure of how many hours it can be expected that generation resources will be inadequate to serve system load. The estimated LOLH for FY2025 in the LUMA resource adequacy analysis report for FY2025 is 154.2 hours, implying that, on average, in FY2025, there will be 154.2 hours in which generation resources will be deficient. By comparison, a utility achieving industry standard LOLE of 0.1 days per year would be expected to experience a LOLH of ~2.4 hours (i.e., ~2.4 hours of generation shortfall per year). Thus, Puerto Rico's estimated LOLH for FY2025 is 64 times higher than the industry standard. As shown in Exhibit 4 below and as found in the study, 74% of observed LOLH in the simulation was found to occur in the evening hours (between 6 and 11 pm).[35]

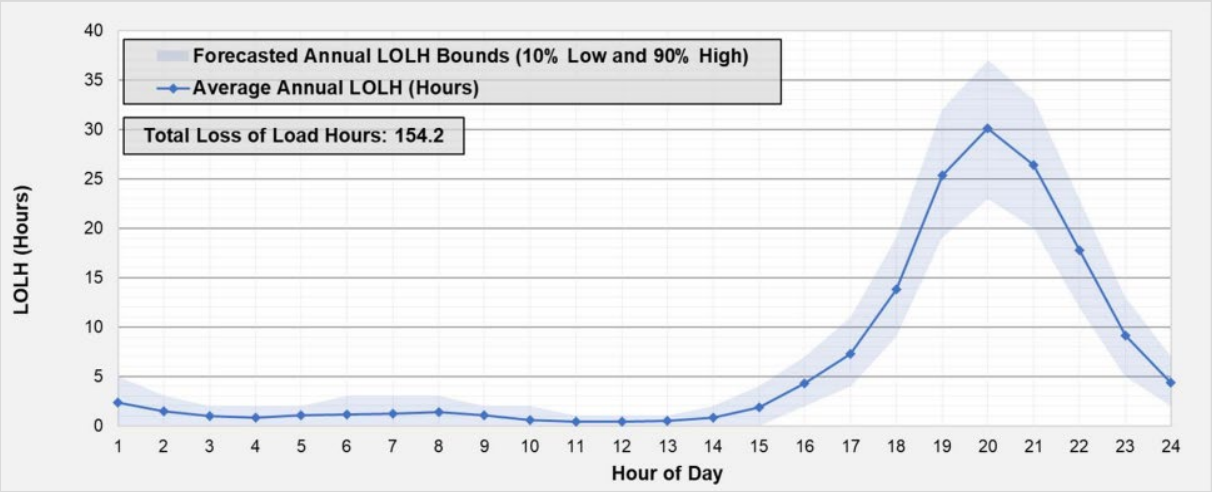
32 Resource Adequacy Analysis, August 30, 2022: https://energia.pr.gov/wp-content/uploads/sites/7/2022/09/Motion-to-Submit-Lumas-Resource-Adequacy-Study-NEPR-MI-2022-0002.pdf

33 Puerto Rico Electrical System Resource Adequacy Analysis Report, October 31, 2024: https://ntc-prod-public-pdfs.s3.us-east-2.amazonaws.com/adag06Q5IogcvsnY_eH3yDxTD8E.pdf

34 Puerto Rico Electrical System Resource Adequacy Analysis Report, October 31, 2024

35 Puerto Rico Electrical System Resource Adequacy Analysis Report, October 31, 2024: https://ntc-prod-public-pdfs.s3.us-east-2.amazonaws.com/adag06Q5IogcvsnY_eH3yDxTD8E.pdf

Exhibit 4: Calculated LOLH Broken Out by Hour of the Day for Puerto Rico[36]



Several factors listed below contribute to the challenge of lower service reliability and quality for PREPA compared to mainland utilities. Note that these factors may also have broader impacts for Puerto Rico's energy sector beyond service reliability.

2.5.2 Geographic Challenges

PREPA is faced with a set of challenges unique to Puerto Rico's geographic context. Most notably, Puerto Rico cannot rely on access to a larger, regional, and interconnected power grid like most parts of the U.S. mainland. Other complexities and issues, such as the availability and access to materials, personnel, and equipment, must also be considered and evaluated as they influence the cost of delivering electricity and potentially complicate service restorations following major disruption events. Additional details on recent geographic challenges can be found in the Fiscal Plan certified in June 2023.

2.5.3 Natural Disasters and Climate

Puerto Rico's energy system is at risk from the wide-ranging effects of climate change, including heat stress and coastal flooding. Moreover, Puerto Rico is susceptible to earthquakes and hurricanes, which adversely impact PREPA's vulnerable grid, resulting in island-wide blackouts and extensive damage to the T&D network. In the last few fiscal years, Puerto Rico has been impacted by multiple earthquakes and three major hurricanes: Irma (2017), Maria (2017), and Fiona (2022), collectively inflicting tens of billions of dollars in damage to energy system assets. Puerto Rico is also vulnerable to tropical storms such as Ernesto (2024). Additional details on recent natural disasters and climate-related events can be found in the Fiscal Plan certified in June 2023.

2.5.4 Challenges to Generation Assets and T&D Infrastructure

Failure to diversify and modernize generation resources has resulted in an aged and inefficient generation fleet. The LGA operated by Genera are composed of 2,892 MW thermal steam units, 1,032 MW combined cycles, 863 MW gas turbines and 13 MW diesel generators, totaling 4,800 MW of installed capacity and an average age of over 40 years old.[37] Including PREPA's new FEMA acquired generation units, the total installed capacity is 5,140 MW. The acquired

36 Puerto Rico Electrical System Resource Adequacy Analysis Report, October 31, 2024.

37 PREPA's fleet is also composed of ~100MW of hydroelectric power. PREPA remains the operator and owner of these units.

FEMA emergency generation units installed (350 MW) at San Juan and Palo Seco sites are to be used temporarily through December 31, 2025.[38] Later, on December 31, 2024, in a letter addressed to the Governor's Authorized Representative, FEMA approved an extension for time use of the emergency generators until December 31, 2027. Additional details on PREPA's generation fleet challenges can be found in the Fiscal Plan certified in June 2023.

In FY2023, approximately 36% of Puerto Rico's electric system generation was fueled by natural gas, 47% by oil-fire, 15% by coal-fire, and 2% by renewable sources. The surge in energy commodity prices starting in FY2022 was driven by tightening supply and demand and geopolitical events that drove PREPA electricity rates to a peak of over 35 ¢/kWh in October 2022, compared to a low of 16 ¢/kWh in October 2020, just two years prior. In the past 12 months, PREPA's overall rate has fluctuated from 17 ¢/kWh to 21 ¢/kWh, [39] which demonstrates its ongoing reliance on certain fossil fuels (especially diesel and bunker) and continues to subject Puerto Rico customers to significant rate volatility. Without further investment in more efficient and compliant base-load natural gas power and in cost-effective and stable renewable supply and battery storage technology, Puerto Rico residents and businesses will remain vulnerable to changes in global oil and gas prices.[40]

Along with challenges facing the generation fleet, there are several remaining significant systemic challenges that impact LUMA's operation and maintenance of the T&D system since June 2021. LUMA is continuing its efforts to restore the reliability of the T&D system, including ensuring the T&D system can operate such that temporary loss of one element (generation or transmission) does not interrupt electric service to customers. From a distribution system perspective, LUMA will also emphasize modifications to allow loads to be transferred to other feeders in a way that distributes generated power more efficiently and reduces the time of outages.

As operator, LUMA adheres to the North American standards[41] for planning and buildout of the T&D system. The application of the North American standards is important to ensure repairs and reconstruction are based on systematic and well-accepted procedures. LUMA has begun to improve the quality of asset and operating data and will further improve these during FY2025, addressing historical challenges around information on the T&D system, to ensure repairs and similar work are properly recorded, reported, and accessed to minimize and/or avoid system failure.

2.5.5 Changing Load Characteristics

Declines in load growth and peak demand are expected to continue over the coming years and decades, primarily due to: (1) declining population and weaker macroeconomic forecasts, (2) increased energy efficiency ("EE") measures described further in **Chapter 7.3.3.1 (EE Programs)**, and (3) greater adoption of distributed generation ("DG") where customers generate their own power (and therefore use less power from the grid and export power back to the grid) but continue to consume energy from the grid during peak demand hours. This

38 PREB R&O Docket NEPR-MI-2022-0003, Feb. 21, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/02/20240221-MI20220003-MI20210002-Resolution-and-Order.pdf

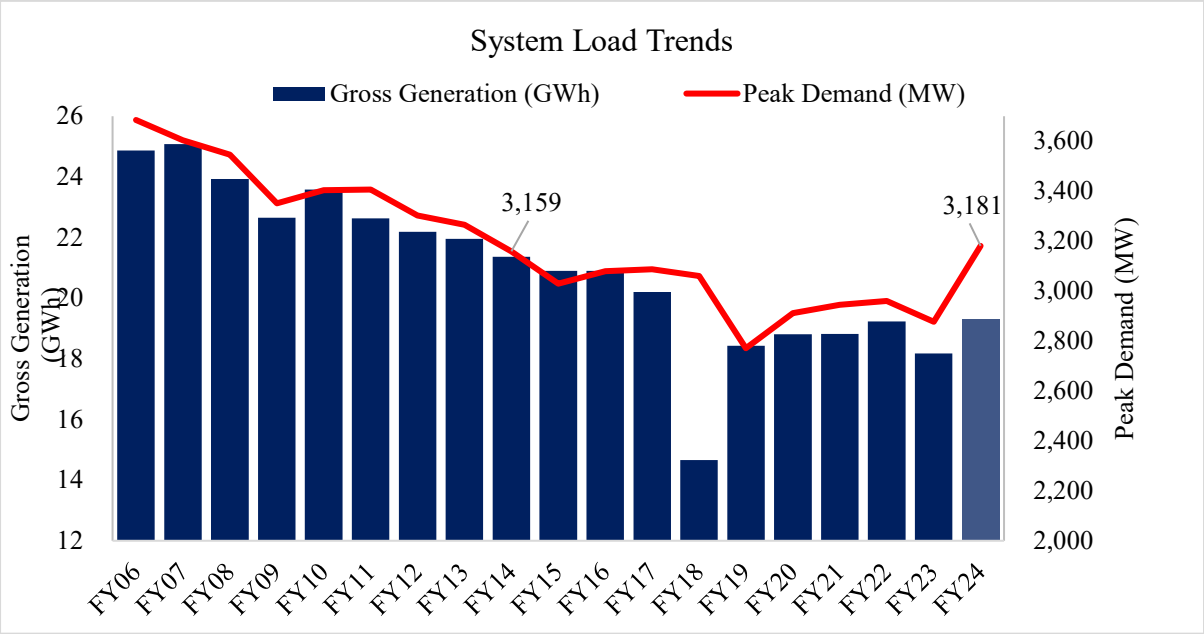
39 Table of Factors for Adjustments: https://lumapr.com/wp-content/uploads/2024/10/Table-of-factors-english1.xlsx

40 Siemens Industry, Puerto Rico IRP 2018-2019, RPT-015-19, rev. 2 (Schenectady, June 7, 2019), 7-3, https://energia.pr.gov/wp-content/uploads/sites/7/2019/06/2-IRP2019-Main-Report-REV2-06072019.pdf; U.S. EIA, Puerto Rico: Profile Overview, last modified November 21, 2019, https://www.eia.gov/state/?sid=RQ

41 North American Electric Reliability Corporation. *TPL-001-4 Transmission System Planning Performance Requirements*. Washington, DC: NERC, 2024. Accessed at https://www.nerc.com

has resulted in divergent trends in recent years in which volumetric kWh sales have continued a downward trend while peak demand (MW) has increased to a 10-year historic high.

Exhibit 5: System Load Trends[42]



Details on future load projections can be found in **Chapter 7 (**Summary of Financial Projections**).** For additional details on historical events and challenges, see Fiscal Plans previously certified.

42 FY2024 Generation estimate based on actual plus projection from LUMA as of April 2024.

3 Transformation

3.1 Introduction and Context of Puerto Rico's Energy Sector Transformation

In alignment with Puerto Rico energy public policy and the Fiscal Plan certified by the Oversight Board, the Government, together with PREPA and P3, is working to complete the transformation of Puerto Rico's energy sector into a modern, efficient, reliable, safe, resilient, and sustainable system that is operated in a fiscally responsible manner. The objective of a transformed energy sector is to improve the everyday lives of Puerto Rico's residents, create jobs, enable businesses to thrive, and help attract and maintain investment in Puerto Rico.

On January 22, 2018, after Hurricane Maria, the Government, in coordination with the Oversight Board, outlined a public policy vision for the energy sector's transformation. The vision states the need for a customer-centric, safe, reliable, resilient, sustainable, and cost-efficient electric power service that meets environmental, regulatory, and statutory requirements. This objective will be enabled by engaging competent and experienced third-party private operators for the generation and T&D systems and improving operational and financial efficiencies, along with improving independent regulatory oversight and insulation from political interference. Previous fiscal plans for PREPA and the Commonwealth of Puerto Rico certified by the Oversight Board outlined a comprehensive transformation of Puerto Rico's energy sector to address PREPA's financial and operational challenges. Over the last several years, and although there is more to do, PREPA has taken numerous steps to address these challenges and implement sector transformation.

The Government's objectives to transform the energy sector have been outlined in the following table.

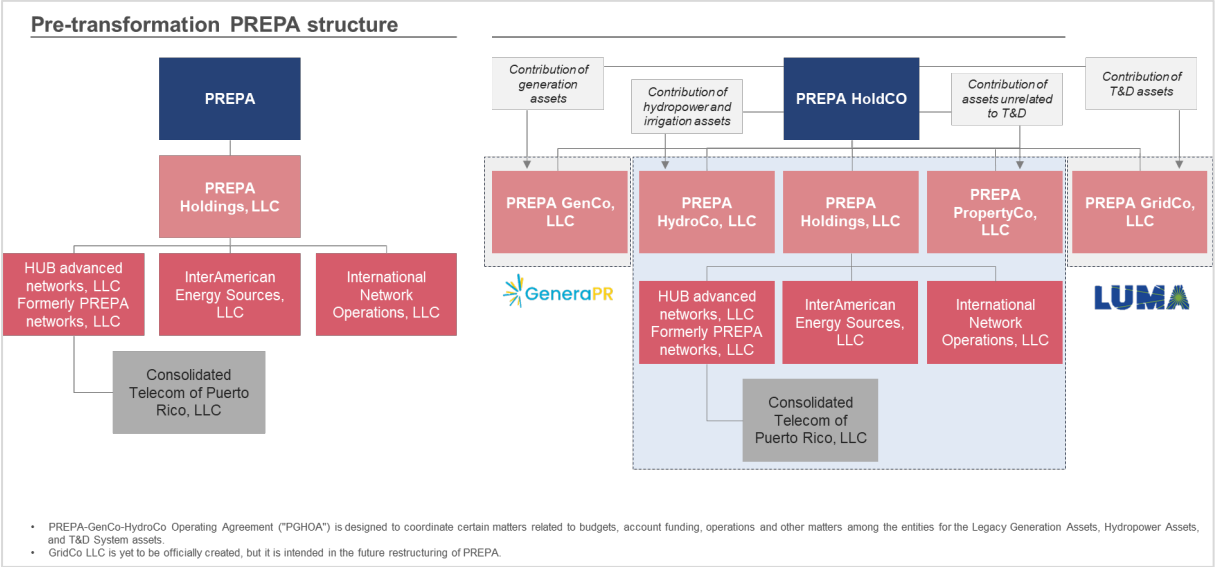
Table 1: Transformation Objectives

Transformation Objectives	
Customer-centricity	• Focus on best-in-class customer service and customer experience in planning and operations of the energy system
Affordability	• Ensure the delivery of electricity service in a cost-effective manner consistent with independent PREB oversight and orders • Improve operational efficiency and rate transparency
Reliability	• Establish an adequate and industry-standard level of service reliability and quality to improve customer satisfaction and economic development • Optimize funding available for investments in system reliability
Resilience	• Develop and install structurally hardened infrastructure to allow for adequate and rapid overall system recovery after the impacts of catastrophic natural disasters (hurricanes, earthquakes, etc.) and other adverse events • Develop and demonstrate sufficient emergency preparedness capabilities consistent with prudent utility practices
Sustainability	• Diversify energy resources by prioritizing clean sources of power, including modern, reliable combined cycle natural gas, renewable

Transformation Objectives	
	energy deployment, and reduction of the carbon intensity of the power sector • Incentivize customers to use energy wisely and efficiently
Hydroelectric Generation	• Improve PREPA hydroelectric operations and explore a possible transfer of the responsibilities for the operation and maintenance of PREPA's existing hydro assets to one or more qualified, professional, and experienced private operators, municipalities, or public corporations
PREPA Reorganization	• Restructure legacy debt and pension obligations and exit from Title III bankruptcy under PROMESA • Complete the reorganization of PREPA by separation of legal, financial and operations, eliminating all shared services between the entities, in line with Exhibit 6 below (including the formation of PREPA GridCo, LLC ("GridCo") and the contribution from HoldCo to GridCo of all assets comprising the T&D system) • Finalize the remediation of PREPA's financial accounting and records to enable clear and timely reporting • Continue with the rightsizing of PREPA subsidiaries, HoldCo, HydroCo, and PREPA PropertyCo, LLC ("PropertyCo"), to align with the limited scope and scale of responsibilities to minimize operating costs for these entities

To achieve the vision and objectives outlined above, the Government took multiple steps to establish a legal framework that mandates PREPA to separate its T&D and generation functions and to transfer operation and maintenance responsibilities to third-party, private operators. The transfer of the key utility operations was completed on July 1, 2023, following Genera's commencement of the operation of PREPA's LGA, and before that, with LUMA's commencement of the operation of PREPA's T&D system as of June 1, 2021, pursuant to the respective OMAs. Further reorganization and transformation steps, as detailed herein, will result in the future, post-transformation structure of PREPA found in the exhibit below.

Exhibit 6: PREPA Reorganization and Transformation[43]



3.2 Updates to Key Transformation Initiatives

This Fiscal Plan, reflecting the energy public policy and legal framework established by the Government, provides a roadmap to complete the transformation of the island's energy system. Once successfully implemented, a reformed energy system is expected to lead to modern, reliable, and cost-effective energy services across Puerto Rico. This includes a diversified fuel mix and more stable F&PP costs, anchored on renewable energy generation resources; efficient allocation of resources; increased operational efficiencies; and a well-funded, financially responsible utility. Additional details on legal and regulatory frameworks in place to help drive the transformation of Puerto Rico's energy sector, including the development of the IRP expected to be approved by PREB in 2025, can be found in **Chapter 4 (**Legal & Regulatory Structure and Resource Planning**)**. Also, a change in the requirements provided by the IRP or Act 17-2019 could have impacts to the progress of the tranches and renewable energy penetration targets as well as the energy efficiency goals described below, and may impact operators' expense and load projections.

Below is a table containing a selection of key transformation initiatives that have driven progress along the Government's transformation objectives in FY2024, and/or will be key drivers of progress in FY2025. These initiatives are discussed in further detail following the table below. Initiatives corresponding to two objectives, Reliability and Resiliency, will be covered in **Chapter 5 (**Capital Plan & Federal Funding**)**.

43 PREPA-GenCo-HydroCo Operating Agreement ("PGHOA") is designed to coordinate certain matters related to budgets, account funding, operations, and other matters among the entities for the LGA, hydropower assets, and T&D system assets. According to the Government's Department of State website, PREPA Holdings LLC was legally formed on November 13, 2009, while PREPA GenCo LLC ("GenCo"), PREPA HydroCo LLC and PREPA PropertyCo LLC were legally formed on March 3, 2023. PREPA GridCo LLC ("GridCo") has not yet been established as a legal entity.

Table 2: Select Key Initiatives by Transformation Objective[44]

Transformation Objective and Discussion in this Fiscal Plan	Select Key Initiatives (not exhaustive)
3.2.1 Customer Centricity	Study on Net Metering and DG
3.2.2 Affordability	**3.2.2.1** Transitioning of LGA to Genera
	3.2.2.2 Fuel Optimization Plan ("FOP")
	3.2.2.3 P3 Procurement Process for Combined Cycle Gas Turbine ("CCGT") Generation Asset
3.2.3 Reliability	Purchase of FEMA Emergency Generators
	Balance of Reliability covered in **Chapter 5 (**Capital Plan & Federal Funding**)**
3.2.4 Resilience	**3.2.4.1** Hurricane Maria and 2020 Earthquake Insurance Settlements
	3.2.4.2 Acquisition of Battery Energy Storage System ("BESS") and Peaker Project
	3.2.4.3 Acquisition of Grid Support Generation (Black Start and Peaker Units) Project
	3.2.4.4 Projects to Replace Critical Components and Improve Fuel Efficiency
	3.2.4.5 Accelerated Storage Addition Program ("ASAP")
	Balance of Resilience covered in **Chapter 5 (**Capital Plan & Federal Funding**)**
3.2.5 Sustainability	**3.2.5.1** Renewable Procurement
	3.2.5.2 Decommission Units
	3.2.5.3 EE and Demand Response Transition Period Plan
3.2.6 Hydroelectric Generation	Operational and Capital Transformation
3.3 PREPA Reorganization	**3.3.1** Title III Exit
	3.3.2 Continuation of HoldCo & HydroCo rightsizing
	3.3.3 Service Account Funding
	3.3.4 Remediation of PREPA Financial Records
	3.3.5 Separation of Back-Office and Shared Services Termination
	3.3.6 Completion of PREPA GridCo formation and Contribution of T&D Assets

44 Initiatives listed below may also have impacts on multiple Transformation Objectives and have been grouped by the Transformation Objective on which they are likely to have the most potential impact. Details on Key Transformation Initiatives accomplished in previous fiscal years can be found in the Fiscal Plans certified in June 202 and June 2023.

3.2.1 Customer Centricity (Study on Net Metering and DG)

While the expansion of DG is consistent with Puerto Rico's public policy, its rapid penetration through the expansion of rooftop solar combined with the current Net Metering program structure has consequences. Under the current Net Metering program mandated by Act 10-2024, customers who enroll in the Net Metering program are entitled to a full retail rate credit. This means customers receive a bill credit of their entire retail rate, including non-generation related charges, such as contribution-in-lieu-of-taxes ("CILT") and subsidies charges, and the non-generation portion of the base rate, in exchange for each kWh of electric energy exported to the grid. Net Metering customers with rooftop solar systems remain connected to the grid and still consume energy from the grid at night but can bypass all or most of the T&D and other non-generation related costs. Furthermore, the increased levels of intermittent DG resources (without considering the projected growing adoption of electric vehicles ("EVs") and EV chargers) may require additional T&D and generation infrastructure investment to manage grid instability and maintain reliability. Some components of rate increases (that will also impact non-Net Metering customers) will be required to recover lost revenues from the bypassed charges of Net Metering customers and to cover additional expenses and investments to maintain grid stability.

3.2.2 Affordability

3.2.2.1 Transitioning of LGA to Genera

Delivering the safe and affordable energy service the people and businesses of Puerto Rico deserve is necessary to complete the transformation of Puerto Rico's energy system. Transitioning the operation of PREPA's aging and outdated LGA to a private operator was a key pillar of that transformation. As part of the transition of PREPA's LGA, Genera developed a set of improvement programs to stabilize and improve the generation system. During the last fiscal year, Genera has made progress in several of these improvement programs.

3.2.2.2 Fuel Optimization Plan

As part of its role under the Generation OMA, Genera is responsible for managing fuels for the LGA and committed to implementing a plan that promotes fuel cost savings initiatives and puts forth methods for achieving estimated fuel savings during the Generation OMA's term.

The FOP [45] outlines Genera's vision and strategy to improve the management of fuels consumed by the LGA, as defined in the Generation OMA. The main objectives of the FOP are to optimize the use and consumption of fuels by the LGA and reduce the price of the associated fuels via specific and targeted fuel initiatives. The FOP provides specific details on multiple initiatives and how Genera will implement them. These initiatives will be implemented in parallel with the overall improvement in the reliability and efficiency of the LGA in compliance with Puerto Rico's energy public policy as implemented by PREB and the IRP. The initiatives described below seek to reduce the costs that customers pay for fuel adjustments.

Genera will achieve these objectives with the execution of various fuel cost savings initiatives classified into the following focus categories (the table below provides detailed descriptions of fuel cost savings initiatives aligned with the focus categories): acquisition, inventory portfolio optimization, credit optimization, fuel change, and asset enhancement.

45 https://energia.pr.gov/en/dockets/?docket=nepr-mi-2023-0004

Table 3: Fuel Cost Savings Initiatives

Focus Category/ Fuel Cost Savings Initiative	Fuel Cost Savings Initiative Description	Additional Details about Fuel Cost Savings Initiative
Acquisition / Reducing the fixed premium for ULSD	Reduce fixed premiums for ULSD annually through Request for Proposal ("RFP") negotiations with fuel suppliers. FY2025 RFPs are ongoing with active negotiations involving two potential suppliers. Genera aims for additional optimization in future RFPs	Additional optimization initiatives in future ULSD RFPs are: • Increasing the number of potential bidders to create a more competitive bidding process, • Increasing control of the logistics chain, and • Potentially adopting additional on-site ULSD storage.
Acquisition / Fuel reliability enhancements for ULSD	Address historical supply disruptions caused by insufficient reserve stock and logistic challenges by strengthening supply chain requirements in ULSD procurement. The RFP changes include mandatory stock reserves and optimized delivery logistics.	The two specific changes in the current ULSD RFP for FY2025 include: • An increase in the minimum stock reserve on call for unexpected demand, and • A minimum barge size requirement to optimize marine deliveries into all plants capable of receiving ULSD via water.
Acquisition / Change of fuel oil escalator and reduction of fuel oil adder	Replace the current escalator for fuel oil purchases, which is subject to volatility due to low trading volumes, with a crude oil posting reference. This will improve cost accuracy, reduce volatility, and minimize risks of price manipulation.	Specifically, switching to a crude oil escalator will achieve cost savings because: • The new crude escalator would be more accurate in terms of prices for large-scale utilities volumes, • It allows purchasers to more accurately manage the price risk of fuel oil, and • It reduces the volatility of the escalator due to limited liquidity or market manipulation.
Acquisition / Spot Purchase option for fuel oil and ULSD	Allow Genera to purchase up to 25% of annual fuel requirements from alternate suppliers offering lower prices than existing contracts. This flexibility ensures cost savings by leveraging competitive pricing and constant market monitoring.	Additional step to support this initiative is: • Establishing a dedicated system or team to continuously monitor fuel market prices, leveraging tools and market intelligence to identify alternate suppliers offering lower prices than the contractual rates.
Inventory Portfolio Optimization / Fuel	Mitigate fuel price fluctuations and volatility by implementing risk management strategies across the fuel portfolio. Genera will focus on	Following are select fuel optimization initiatives:

Focus Category/ Fuel Cost Savings Initiative	Fuel Cost Savings Initiative Description	Additional Details about Fuel Cost Savings Initiative
Optimization Initiative	conservative, stable methods to reduce financial risks associated with volatile energy markets.	• The new crude escalator would be more accurate in terms of prices for large-scale utilities volumes, • Allow purchasers to more accurately manage the price risk of fuel oil, and • Reduce the volatility of the escalator due to limited liquidity or market manipulation.
Credit Optimization / Fuel Credit Optimization Initiative	Address high financing costs due to PREPA's credit constraints by negotiating better payment terms in RFPs. Future contracts will include flexible terms (e.g., 60-day, 30-day, and 15-day options) to reduce premiums and secure cost savings.	Financing term improvements could be achieved through the following financing options: • Optimize the current order to cash process, • Leverage outside third-party financing, or • Through the use of the Operator's own capital. Fuel contracts will be renegotiated and extended or replaced as per government guidelines, with Genera acting as an intermediary providing increased access to the market.
Fuel Change / Fuel Change Initiative	Shift LGA from diesel to Liquified Natural Gas ("LNG") and optimize existing multi-fuel units to use alternative fuels. While LNG conversions require higher upfront investment, they yield significant long-term savings in fuel costs, emissions, and maintenance.	The Fuel Change Initiative may be broken down into two categories: • Fuel Conversion Initiatives, and • Fuel Swap Conversions.
Asset Enhancement / Asset Enhancement Initiative	Install new generation equipment near LGA to improve efficiency, reduce fuel consumption, and allow multi-fuel operations (e.g., natural gas, hydrogen). Equipment will be leased to avoid high upfront costs, with leasing costs covered by achieved fuel savings.	For new units to be considered, the generation equipment must meet two crucial requirements: • The potential to generate fuel savings, and • Minimal or no upfront capital investment. The capital outlay of the new equipment would be avoided by entering into leasing agreements and the associated leasing cost of the units would be covered by the fuel savings achieved on each implementation.

3.2.2.3 P3 Procurement Process for CCGT Generation Asset

The P3 issued a Request for Qualifications ("RFQ") on March 1, 2023, for the development of an LNG to hydrogen ("H2") combined cycle generation plant. This initiative aims to modernize and increase the efficiency of Puerto Rico's energy infrastructure by using LNG fuel that is available today and green hydrogen fuel in the future.[46]

The project was planned to be a combined cycle generation facility with an output capacity of approximately 300 MW and dual fuel capability to utilize hydrogen when it becomes available and is economic.[47] This capacity will contribute significantly to Puerto Rico's energy needs, supporting the transition to more sustainable energy sources and enhancing the reliability of the island's power supply.

During March and April of 2023, P3 released three addenda to the RFQ and posted responses to 56 requests for clarification from interested parties. The stated deadline for submission of statements of qualification was April 14, 2023, and the estimated date for notification to Qualified Respondents was May 17, 2023.[48] In 2024, P3 selected Energiza LLC as the entity to be in charge of the CCGT Generation asset. The proposed project consists of approximately 478 MW for a combined-cycle plant to be developed by Energiza LLC.

On December 19, 2024, the Oversight Board approved the PPOA between PREPA and Energiza LLC. The project's LCOE is estimated to range between $135/MWh and $150/MWh. The contract has a term of 30 years and encompasses payments based on net energy output, dependable capacity, start-up costs, and ancillary services. This transformative project highlights Puerto Rico's dedication to adopting innovative energy solutions and enhancing the reliability of the power grid.[49]

3.2.3 Reliability (Purchase of FEMA Emergency Generators)

Following Hurricanes Irma and Maria in 2017 and Hurricane Fiona in 2022, Puerto Rico faced critical challenges with insufficient power generation. In response, PREB authorized the use of temporary generation units until December 31, 2025, with PREPA responsible for operational oversight through Genera. Later, on December 31, 2024, in a letter addressed to the Governor's Authorized Representative, FEMA approved an extension for time use of the emergency generators until December 31, 2027. For more information on temporary generation units, see

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46 The RFQ seeks statements of qualification from potential bidders to demonstrate capability and experience with design, finance, construction, and operation of similar projects, in alignment with Puerto Rico's goals for energy transition and improved grid resilience.

47 For more information on the procurement process please visit the designated p3 website: https://www.p3.pr.gov/energy/lng-to-h2-combined-cycle-generation-plant

48 RFQs, LNG to H2 CC Generation Plant, Puerto Rico P3 Authority: https://docs.pr.gov/files/P3-PublicaPrivadas/Projects/LNG%20to%20H2%20Combined%20Cycle%20Generation%20Plant/404412216_18P3A-New-H2-CCGT-Request-for-Qualifications-CGSH-Draft-02.28.pdf

49 For more information on the Oversight Board's approval please visit the designated Oversight Board's contract review section: https://docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/5794_CRPREPA-Energiza(LNG-H2PPOA)(Aug2024).pdf?_gl=1*ranjyt*_gcl_au*NTU2OTM5NDY4LjE3MzAyMjQ5MzQ.*_ga*MTQ2MTY1Mzg4Mi4xNjc2MzgoODEw*_ga_LVK7G3FFVG*MTczNzEzMzk1OS4yMjIuMS4xNzM3MTMzOTY3LjAuMC4w

Appendix B: Temporary Generation Units of this Fiscal Plan.

3.2.4 Resilience

3.2.4.1 Hurricane Maria and 2020 Earthquake Insurance Settlements

For hurricane and earthquake damages, PREPA holds two separate insurance policies, each providing $300 million in coverage with a $25 million deductible. Prior to settlement discussions with the insurance carriers, PREPA received approximately $210 million under PREPA's hurricane policy and approximately $75 million under the earthquake policy. Thus, approximately $90 million remained available under PREPA's hurricane policy and approximately $200 million remained available under PREPA's earthquake policy.

In October 2023, PREPA reached an agreement with its insurers to settle its damage claims related to Hurricane Maria for $286 million, inclusive of the $25 million deductible. This settlement represents more than 95% of the $300 million hurricane insurance policy. As of May 3, 2024, PREPA received the full remaining settlement amount of $51 million, net of the $25 million deductible and $210 million that was previously disbursed.

On July 26, 2024 and October 21, 2024, PREPA entered into three settlement agreements with several insurance carriers regarding PREPA's 2020 earthquake claims. The settlements will resolve the earthquake claims for a total of approximately $167 million, inclusive of the $25 million deductible. Once consummated, PREPA will receive cash payments totaling the remaining $67.3 million, net of the deductible. Pursuant to an order entered by the Title III court in 2020, PREPA issued a notice of pending receipt of insurance proceeds to bondholder representatives and other notice parties. On October 28, 2024, U.S. Bank, in its capacity as trustee for PREPA's bondholders, sent PREPA an objection asserting the insurance proceeds constitute its collateral and demanding any payments be deposited into accounts subject to its lien. PREPA and the bond trustee are in the process of negotiating a settlement under which the funds will be held in a restricted or escrow account pending further resolution of the trustee's asserted rights to these funds.

3.2.4.2 Acquisition of BESS and Peaker Project

Genera is tasked with the management and maintenance of PREPA's LGA. However, the current state of the fleet presents significant challenges, impacting both performance and reliability, such as:

- Financial Constraints: PREPA's financial situation has strained its ability to maintain and upgrade the LGA effectively.
- Natural Disasters: Hurricanes Irma, Maria, and Fiona wreaked havoc, causing damage and disruptions to the fleet.
- Reduced Generation Capacity: The fleet's generation capacity has dwindled to a mere 46% of its installed capacity.
- Service Interruptions: Approximately 32% (equivalent to 640 MW) of the operational generation units experience monthly disconnections. These interruptions affect thousands of customers who rely on a stable power supply.

To enhance system resiliency and performance, Genera's mitigation strategy includes the acquiring and deploying 430MW of BESS throughout the island, as well as improving black-start capabilities (the ability of a power station to restart operations without relying on

external power sources after a complete or partial grid shutdown) and increasing spinning reserve (the extra generating capacity that is online but not fully utilized and can be used to quickly ramp up to meet sudden increases in demand or compensate for unexpected generation losses) through the peaker project. The following are the main facts regarding the BESS project:

- **Mitigation Strategy: Energy Storage in Batteries**
  - To enhance system resiliency, Genera will integrate BESS. These batteries will serve as a critical buffer during challenging scenarios.
  - The project involves installing batteries at existing peaker fleet facilities and base-load power plant locations.
  - 430 MW of dispatchable and active power will be injected at the interconnection point, providing a safety net for temporary generation deficits caused by disaster events or rapid start-up (black-start) units.
  - Genera aims to maximize existing space by co-locating BESS, new peakers, and other plant components. These installations will be monitored and controlled both locally and remotely from Genera's control room.
- **Key Aspects of BESS Implementation**
  - Fast-Spinning Reserve
    - BESS can inject up to 100% battery capacity within seconds. This rapid response helps prevent load shedding during sudden generation losses.
    - It acts as an emergency backup, ensuring uninterrupted power supply even in challenging situations.
  - Load Balance and Frequency Regulation
    - BESS actively participates in load balancing and frequency regulation.
    - By adjusting its output to match demand fluctuations, it contributes to grid stability.
    - Importantly, BESS protects base-load thermoelectric generators from frequency and voltage deviations.
- **Leveraging Existing Points of Interconnections ("POI")**
  - Genera will use existing POIs within the LGA.
  - Co-locating BESS with conventional generation units (such as peakers or base-load plants) maximizes electrical injection capacity without straining the grid.

Batteries will be available to be dispatched at the T&D system Operator's request.

The below tables provide a snapshot of the BESS and peaker projects.

Table 4: Overview of BESS Projects

Project	Location	Total Capacity (as Approved by PREB on July 23, 2024)	Projected Commercial Operational Date (as of July 31, 2024)
BESS	Costa Sur	40 MW	Q4 2025
	Aguirre	156 MW	Q3 2026

	Yabucoa	40 MW	Q1 2026
	Palo Seco	84 MW	Q3 2026
	Vega Baja	52 MW	Q4 2025
	Cambalache	58 MW	Q3 2025
		430 MW Total	

Table 5: Overview of Peaker Projects

Project	Location	Units (as Approved by PREB of July 23, 2024)	Total Capacity (as Approved by PREB on July 23, 2024)	Projected Commercial Operational Date (as of July 31, 2024)
Peakers	Costa Sur	2 x 50 MW combustion turbine generators ("CTG") 1 x 18 MW reciprocating internal combustion engine ("RICE")	118 MW	Q1 2027
	San Juan	1 x 18 MW RICE	18 MW	Q4 2027
	Daguao	2 x 18 MW RICEs	36 MW	Q2 2027
	Jobos	2 x 18 MW RICEs	36 MW	Q1 2027
	Yabucoa	2 x 18 MW RICEs	36 MW	Q1 2027
			244 MW Total	

Funding details can be found in **Chapter 5 (**Capital Plan & Federal Funding**)**

3.2.4.3 Acquisition of Grid Support Generation Units Project

Consistent with PREPA's legacy plans for supporting the generation system, one way to potentially prevent blackouts and maintain redundancy in the generation system is by having small- and mid-size dispatchable generating units. The acquisition and deployment of grid support generation units is aimed at mitigating the impacts of natural disasters on the generation system. These small units are also essential in integrating renewables into the grid as they can cover the intermittency caused by the reduced capacity of renewable energy until a more robust renewable energy system with more capacity is deployed throughout the island. Once these systems are connected to the grid with the capacity to meet regular load and peak demands, the grid support units will remain as a mitigation measure in case of intermittency or lack of generation due to unforeseen disturbances such as natural disasters or technical issues with renewable generation services.

The project entails the procurement and acquisition of black-start and emergency power units with a capacity to inject 330 MW into the grid. These units will be dual-fuel capable, primarily using natural gas. The equipment will be strategically located across five existing legacy generating facilities in Puerto Rico, which currently operate with GE Frame 5 combustion turbines powered by diesel fuel. The below table outlines key features of the project.

Table 6: Key Features of the Acquisition of Grid Support Generation Units Project

Features	Description
Black-Start Capability	• All units will possess the ability to initiate a black-start, ensuring rapid restoration of power during system-wide outages. • This capability is crucial for grid resilience and reliability.
Grid Stability Enhancement	• The design of plant equipment will prioritize grid stability. • Units will accommodate rapid load changes and frequent startup and shutdown cycles—common challenges with increased renewable energy integration.
Technology Employed	• The new units will utilize CTGs and/or RICEs. • Additionally, there is an option to integrate a BESS, as described previously.
Strategic Location	• The power generation units will be situated at the following sites: Yabucoa, Daguao, Jobos, Costa Sur and Palo Seco. • Notably, these units will be constructed in brownfields, minimizing impact on green-fields Puerto Rico can develop for other projects.
Flexibility in Location	• These locations may change based on the outcome of the ongoing competitive procurement process and with prior leave from PREB.

In summary, this project aims to enhance Puerto Rico's power generation system by integrating modern, efficient units while minimizing environmental impact and ensuring grid stability.

Funding details can be found **Chapter 5 (**Capital Plan & Federal Funding**).**

3.2.4.4 Projects to Replace Critical Components and Improve Fuel Efficiencies

Genera identified a group of critical components that, if replaced, would achieve improvement in fuel efficiencies. Due to budgetary, financial, and regulatory constraints, most of the main legacy fleet unit components have been continuously repaired instead of being outright replaced with acquisitions. The repairs serve as a temporary solution, but ultimately can and do fail, which then leads to forced outages and subsequent load sheds. This critical component replacement would end the continuous repair cycle and increase overall system reliability.

Furthermore, Genera identified a second group of components that, if replaced, would increase not only unit reliability, but also fuel efficiency, thus reducing fuel costs. These upgrades will improve the efficiency in the use of fuel, thus reducing overall legacy generation costs, lowering emissions, improving reliability, and ultimately benefiting customers.

In accordance with this work, Genera refined the current group of generation projects by integrating critical components and efficiency projects. Further, Genera identified federal projects previously approved that can be amended to include the acquisition of these components. Funding details can be found in **Chapter 5 (**Capital Plan & Federal Funding**)**.

Genera is working towards the goal of replacing critical components and the fuel efficiency improvement projects to make the LGA and the service they provide secure and unlikely to change, fail, or decline.

The acquisition of critical components is designed to enhance system reliability, reduce outages, and minimize recurring repairs, while the addition of fuel efficiency components aims

to improve fuel efficiency and further support system reliability. Both critical and fuel efficiency components will be available across all existing LGA locations.

Details on other key initiatives to improve the resilience of Puerto Rico's energy sector can be found in **Chapter 5 (**Capital Plan & Federal Funding**).**

3.2.4.5 Accelerated Storage Addition Program

ASAP created and managed by LUMA adds BESS at existing IPP locations through a "Standard Offer" for energy services approved by PREB. This allows deployment of BESS on an accelerated basis and at a lower cost compared to alternatives. ASAP fits well with Puerto Rico's energy public policy goals, providing cleaner, more reliable and resilient energy service for customers at reasonable prices.

These batteries will provide greater operational flexibility (such as frequency regulation and meeting of peak demand) at a lower cost to the customer and much shorter implementation timeframe than current market.

To achieve these objectives, LUMA developed the ASAP Standard Offer framework, and PREB confirmed the ASAP concept is consistent with public policy goals. Under the framework, LUMA and participating IPPs agree to the terms and conditions of a Standard Offer Agreement. Once negotiated and agreed, each Standard Offer is submitted to PREB for review and approval. The IPPs will complete the commissioning of the batteries following all applicable standards and regulations and each IPP generator will be responsible for the Engineering, Procurement and Construction ("EPC") of the new BESS facility. As of December 1, 2024, four contracts for a total of 110 MW were awarded and approved by PREB. Additional contracts may be awarded. New BESS units will begin to operate as early as December 2025.

3.2.5 Sustainability

3.2.5.1 Renewable Procurement

In PREB's final order on the 2020 IRP issued on August 24, 2020, PREPA was required to develop and execute a plan to procure renewable generation and battery storage in a series of six tranches. The 2020 IRP calls for a total of 3,750 MW of renewable power and 1,500 MW of battery storage to comply with renewable energy penetration targets of 40% for FY2025, 60% for FY2040 and 100% for FY2050, as established under Act 17-2019.[50] The tranches are discussed below.

Tranche 1

On February 22, 2021, the Tranche 1 process was initiated and PREPA issued an RFP for up to 1,000 MW of renewable power production and up to 500 MW of battery storage, incorporating recommendations from PREB and the Oversight Board. PREPA received initial proposals in June 2021, representing over 1,440 MW of renewable generation resources, 1,150 MW of energy storage resources and 182 MW of virtual power plant ("VPP") resources. On December 16, 2021, PREPA submitted draft PPOAs for 15 solar photovoltaic ("PV") projects

50 https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/17-2019.pdf

totaling 732.7 MW.[51] PREPA then executed 18 PPOAs in or before August 2022, fulfilling the bulk of its resource procurement obligations in Tranche 1.

Tranche 1 activities in FY2023 contained various studies and negotiations around the interconnection plan and related costs. On September 1, 2022, PREB approved the final four solar PV projects and the first two BESS projects from Tranche 1. On April 26, 2023, PREB ordered an investigation into the persistent delays and deadline extensions to the Tranche 1 renewable energy and battery storage procurement process.

By December 2023, 10 Tranche 1 projects were moving forward, totaling 775 MW, including eight utility-scale solar plants and two BESS projects. Construction of these projects is expected to span over a 24-month time period, with an anticipated completion date in 2026. PREPA expects an additional seven projects representing 260 MW of battery storage to be added. By January 31, 2024, there were nine PPOA and two Energy Storage Services Agreement ("ESSA") projects in the construction phase for a capacity of 888 MW, with expected completion by Q4 2025. Additionally, there are three ESSAs under review for approval and four ESSAs under reconsideration and evaluation of technical specifications. As of February 2024, LUMA executed over 16 interconnection agreements with Tranche 1 project developers that are prepared to move forward.

As explained above, the Tranche 1 process was initiated on February 22, 2021. On October 29, 2021, PREB issued an order modifying the process to procure Tranches 2–6, with PREB assuming the role of procurement agent through a procurement contractor Acción Group LLC ("Acción Group") to serve as the Independent Coordinator ("PREB-IC") starting with Tranche 2.[52] On June 9, 2022, PREB issued an order establishing and clarifying PREPA's and LUMA's respective roles in the renewable procurements, such that PREPA would be responsible for completing procurement activities for Tranche 1 and LUMA would be responsible for interconnection related activities.[53]

By mid-2023, none of the original 18 PPOA contracts from Tranche 1 were finalized due to significant concerns over increased interconnection costs and other financial barriers. Developers claimed the original bids from 2021 were outdated and no longer viable due to inflation, rising interest rates, and supply chain disruptions. Responding to these concerns, PREB ordered companies awarded Tranche 1 contracts to submit updated cost proposals, resulting in 11 amended PPOAs approved by PREB in April 2023 (the "Amended Tranche 1 PPOAs"). These amendments, which extend project timelines and increase maximum cost estimates by an average of ~34%, add 830 MW of capacity to Puerto Rico's renewable energy portfolio and are projected to impact PREPA's customer rates by an increase of less than ~2% by FY2035.

Following PREB's approval, the 11 amended PPOAs were submitted to the Oversight Board for final review. As of September 30, 2023, proponents and PREPA finalized interconnection

51 Motion Submitting 733 MW of PV Renewable Energy Draft PPOA Offered in Tranche 1 of PREPA's Renewable Generation and Energy Storage Resources RFP for Energy Bureau Evaluation and Approval, December 16, 2021. [NEPR-MI-2020-0012]

52 Resolution and Order regarding PREB's appointment of PREB-IC for Tranche 2 RFP. NEPR-MI-2020-0012, October 29, 2021.

53 Resolution and Order regarding establishment of PREPA's and LUMA's role in the procurement process for upcoming tranches. NEPR-MI-2020-0012, June 9, 2022.

agreements for these projects, with a requirement to achieve commercial operation within 24 months thereafter.[54]

As of the end of 2024, progress continues on Tranche 1 projects, with recent amendments addressing cost adjustments and capacity increases for several agreements. The Clean Flexible Energy ("CFE") projects in Salinas and Jobos have been amended to increase their energy storage capacity by a combined 85 MW, resulting in 285 MW of total capacity across the two projects. These amendments also reduce the base energy rates for the projects, with the savings projected to yield a total cost reduction of approximately 4%. The PREB and FOMB approved these amendments, ensuring alignment with fiscal and renewable energy policy goals while advancing Puerto Rico's transition to renewable energy.[55]

Tranche 2, 3, & 4

The Tranche 2 RFP was published by the PREB-IC on September 28, 2022, and the "Best and Final" offers were under evaluation until August 26, 2024, when PREB approved three contracts for Tranche 2. These contracts encompass 60 MW of energy storage and 60 MW of solar PV generation, contributing towards the broader goal of procuring at least 1,000 MW of renewable energy capacity and 500 MW of energy storage capacity.

On February 1, 2023, PREB announced the release of the Tranche 3 RFP, aiming to advance renewable energy goals. On November 27, 2023, the PREB-appointed election Committee reviewed seven bids and requested financial evidence from bidders. However, on October 23, 2024, PREB canceled Tranche 3 due to unsustainable pricing. Proposals exceeded costs from prior tranches, with high interconnection and development expenses and escalating bid prices, making the procurement financially unviable for ratepayers.[56]

Tranche 4 seeks to procure 500 MW of renewable energy and 250 MW of battery energy storage under a limited and expedited timeline. The RFP was issued on October 24, 2024, with bids submitted by November 25, 2024. By the submission deadline, four interconnection requests were submitted, with one proposal advancing. The project featuring a 50 MW, 6-hour BESS, aligns with Puerto Rico's IRP and energy public policies, focusing on grid reliability, sustainability, and cost efficiency. On December 26, 2024, PREPA submitted the contract and the Selection Committee's report for approval, which the PREB granted on December 30, 2024, after verifying compliance with regulatory standards and ensuring the interconnection cost ceiling of $20 million would not burden ratepayers. However, PREPA must seek approval from the Oversight Board before executing the contract, as it may be declared null and void without such approval.[57]

Key eligibility criteria for Tranche 4 include confirmed site control, viable financing plans, readiness to begin operations within two years of contract execution, and firm, non-escalating pricing. Pricing is capped at $125/MWh for renewable energy, $25,000/MW-month for a 4-

54 FOMB letter conditionally approving Tranche 1 RFP PPOAs: docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/4044_CRLetterPREPA-PPOAsTranche1Amendments(August2023)(final)(9.14.2023).pdf

55 FOMB letter approving CFE project - https://docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/5575_CRPREPA-CleanFlexibleEnergy(PPOAsandESSAs)(Sep2024).pdf?_gl=1*o4criy*_gcl_au*NTU2OTM5NDY4LjE3MzAyMjQ5MzQ.*_ga*MTQ2MTY1Mzg4Mi4xNjc2MzgoODEw*_ga_LVK7G3FFVG*MTczNjgwMjg0MS4yMjEuMS4xNzM2ODAzMDM3LjAuMC4w

56 PREB R&O on October 23, 2024 NEPR-MI-2020-0012. https://energia.pr.gov/wp-content/uploads/sites/7/2024/10/20241023-MI20200012-Resolution-and-Order.pdf

57 PREB R&O published on December 30, 2024 Docket No. NEPR-MI-2020-0012. https://energia.pr.gov/wp-content/uploads/sites/7/2024/12/20241230-MI20200012-Resolution-and-Order.pdf

hour battery storage, and $33,750/MW-month for a 6-hour battery storage. Additionally, all projects must meet strict performance standards to ensure affordability and feasibility while aligning with Puerto Rico's renewable energy goals. A snapshot of the tranches is provided in the table below.

Table 7: Renewable procurement of Tranches[58]

Program	Supply Resource Target	Storage Resource Target	Progress and Milestones in FY2024	Next Steps in FY2025
Tranche 1	1,000 MW	500 MW	Negotiations and execution of amended PPOAs	Project financing and construction commencement[59] Continue construction developments
Tranche 2	500 MW	250 MW	Offers under evaluation	Award contracts to successful bidders Seek Oversight Board Approval of selected bids[60]
Tranche 3	500 MW	250 MW	Selection Committee convened to discuss advancement of bids; PREB-IC requested evidence of bidder financial capability	PREB recommended to not proceed with tranche[61]
Tranche 4	500 MW	250 MW	N/A	RFP launched on October 24, 2024, aiming for a closing bid period by November 25, 2024 Submission of accepted contracts to PREB for approval Seek FOMB approval for the selected contract and commence detailed interconnection studies[62]

58 Values may be adjusted depending on procurement amounts in prior rounds.

59 FOMB letter "Tranche 1 RFP PPOAs" dated September 14, 2023. https://docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/4044_CRLetterPREPA-PPOAsTranche1Amendments(August2023)(final)(9.14.2023).pdf?_gl=1*co3u2s*_gcl_au*MjEwODQ5NTQ0NC4xNzM4NzK3NjQy*_ga*MjAwODk3NTc2NS4xNzM3NDc2MjMo*_ga_LVK7G3FFVG*MTczODc5NzUyOS4yLjEuMTczODc5Nzk4OS4wLjAuMA..

60 PREB R&O Docket No. NEPR-MI-2020-0012 published on August 26, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/08/20240826-MI20200012-Resolution-and-Order.pdf

61 PREB R&O Docket No. NEPR-MI-2020-0012 published on October 23, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/10/20241023-MI20200012-Resolution-and-Order.pdf

62 PREB R&O Docket No. NEPR-MI-2020-0012 published on December 30, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/12/20241230-MI20200012-Resolution-and-Order.pdf

Program	Supply Resource Target	Storage Resource Target	Progress and Milestones in FY2024	Next Steps in FY2025
Tranche 5	500 MW	125 MW	No development	Submit RFP
Tranche 6	750 MW	125 MW	No development	Submit RFP

Since LUMA commenced services under the T&D OMA in June 2021, PREB directed LUMA to submit pre-filing information and attend several Technical Conferences in connection with the development of a new IRP (the "2025 IRP"). After granting multiple deferrals of deadlines, PREB issued an R&O on October 29, 2024, revising the 2025 IRP filing schedule with a deadline for LUMA's full IRP proposal by May 16, 2025 in compliance with Regulation 9021. Although the new IRP is referred to as the 2025 IRP in this Fiscal Plan for ease of reference, it is unclear whether the new IRP will be approved by PREB within CY2025. The 2020 IRP, approved in August 2020, was approved approximately 18 months after PREPA submitted its proposed IRP in February 2019. For additional discussion on the IRP review and approval, see **Chapter 4 (**Legal & Regulatory Structure and Resource Planning**).**

3.2.5.2 Decommissioning Units

Genera is responsible for decommissioning units from the LGA as approved by P3, the T&D System Operator, and PREB under the Generation OMA. Genera is actively working to advance the decommissioning process to make room for new generation resources like BESS, and to replace old units with new peakers. Each site will have its own decommissioning plan, which will be approved by P3, LUMA, and PREB upon Genera's request. Decommissioning existing units of the LGA will reduce the emission associated with those LGA.

3.2.5.3 EE and Demand Response Transition Period Plan

LUMA has implemented several key programs aimed at enhancing EE in Puerto Rico, directly supporting the goals set by Act 17-2019, which mandates a 30% reduction in energy consumption by FY2040.

One of these initiatives is the EE kit program, which consists of both the Residential Energy Efficiency Kit Program and the Business Energy Efficiency Kit Program. The Residential Energy Efficiency Kit Program provides complimentary kits to homeowners, containing easy-to-install products designed to facilitate immediate energy savings. These kits empower residents to make simple changes that can lead to significant reductions in their energy usage and costs.

For commercial customers, the Business Energy Efficiency Kit Program offers similar benefits, providing free kits tailored to meet the needs of businesses. These kits include energy-saving tools and resources that help businesses reduce their energy consumption effectively. By participating in this program, businesses can quickly implement energy-saving measures, contributing to lower operational costs and enhanced sustainability.

Additionally, LUMA has established rebate programs that incentivize the installation of energy-saving equipment. The Home Efficiency Rebate Program allows residential customers to receive financial incentives for purchasing and installing eligible energy-efficient appliances, such as solar water heaters and energy-efficient air conditioning units. Similarly, the Business Efficiency Rebate Program provides financial incentives for commercial customers who invest in energy-efficient systems. These rebate initiatives help not only reduce

electricity costs but also decrease overall power consumption, aligning with the goal of enhancing grid reliability and supporting a clean energy transition.

LUMA has also launched the In-Store Discount Program, partnering with retailers like Home Depot to offer discounts on energy-efficient products. This initiative has resulted in significant sales of light emitting diode ("LED") units, making energy-efficient options more accessible, especially for low-income households. Furthermore, the Community Streetlight Initiative has improved public safety by installing new streetlights that incorporate modern lighting technology, which is more energy-efficient than traditional solutions.

Another significant program is the Customer Battery Energy Sharing ("CBES") initiative, which allows solar customers with battery storage systems to contribute to grid stability by supplying energy during peak demand periods. By activating enrolled customers' batteries when needed, this program helps reduce energy demand from the system and minimize outages caused by generation shortfalls. Participants are compensated for the energy they provide from their batteries, promoting renewable energy adoption while enhancing service reliability.

Collectively, these programs demonstrate LUMA's commitment to building a reliable and sustainable energy system while fostering economic growth and environmental sustainability in Puerto Rico.

3.2.6 Hydroelectric Generation (Operational and Capital Transformation)

On September 14, 2022, a petition was submitted by PREPA for the creation of the PREPA subsidiaries and the PGHOA. The Resolution and Order was issued by PREB on December 29, 2022, and subsequently the PGHOA was executed by all parties on June 19, 2023. On March 3, 2023, a Certificate of Formation and Organization was filed for HydroCo. Today, HydroCo is responsible for the operation and maintenance of PREPA's hydroelectric generating assets, which consist of 19 hydro turbine generating units at 10 hydroelectric facilities in the mountainous regions of Puerto Rico.

As required by the 2020 IRP, PREPA prepared and submitted a feasibility study on refurbishing each of the hydroelectric facilities.[63]

The table below outlines three key initiatives with key milestones this fiscal year to continue the transformation of HydroCo.

Table 8: HydroCo Transformation Initiatives

Program	Target	Progress and Milestones in FY2024	Next Steps in FY2025
HydroCo Federally Funded Capex Plan and Implementation	N/A	Submissions of plans that include specific projects, federal funding sources, impact on the system and execution timeline	Submissions of Q1-Q4 Begin surveys and permitting activities Continue quarterly reporting submissions

63 This study guided the planning of powerhouse refurbishment, automation, and mechanical upgrades at hydroelectric facilities. PREPA used the study's economic analysis to support petitions to PREB and FEMA for funding to enhance capacity factors and renewable energy output. These projects are key to the HydroCo transformation in FY2025, focusing on studies, permitting, design, scope finalization, and the Environmental and Historic Preservation ("EHP") compliance.

Program	Target	Progress and Milestones in FY2024	Next Steps in FY2025
Wind Down of Irrigation Subsidy and Price increases for Government Water Sales	N/A	PREPA response to PREB's order dated January 23, 2024, describing PREPA irrigation operating deficit and subsidy wind down options	PREPA subsidy wind down plan PREB order and implementation of directives by PREPA
Asset Repair and Maintenance Plan	N/A	Reports that detailed the actions, including maintenance, upgrades, and various projects, associated with the HydroCo assets	Continue issuing quarterly implementation reports through FY2025 Implementation and monitoring of action items included in the reports

3.3 PREPA Reorganization

3.3.1 Title III Exit

Successful emergence from Title III reorganization requires submission, confirmation, and implementation of a POA.

As discussed in **Chapter 2 (**Historical Context and Current Challenges**)**, PREPA filed its current POA in February 2024 and the District Court held a two-week trial in March 2024 to consider confirmation. Previously, the District Court had ruled the bondholders do not have a perfected security interest other than a lien on certain named deposit accounts held by the bond trustee containing a small amount of cash. The February 2024 POA proposed to return that collateral to the bondholders in full satisfaction of their secured claim. The March 2024 confirmation trial therefore did not address the valuation of collateral beyond that cash, and the rights of dissenting bondholder parties were considered as though they were unsecured claims in an amount previously estimated by the District Court at approximately $2.38 billion. As explained above in **Chapter 2.4.2 (** Title III Exit**)**, after the trial, the U.S. Court of Appeals for the First Circuit ruled the bondholders have a perfected security interest in PREPA's "Net Revenues," meaning its cash collections remaining after payment of "Current Expenses" under the terms of the bond Trust Agreement regardless of whether the Net Revenues have been deposited into certain bank accounts, and that the bondholders do not have any unsecured deficiency claim. Thus, both the District Court and the First Circuit ruled the bonds were secured by Net Revenues and not all revenues, but the First Circuit ruled the Net Revenues do not need to be deposited into certain accounts before they become collateral. The District Court therefore issued a stay of further confirmation proceedings and all other litigation with the bondholder parties and directed the parties to continue mediation to try to achieve a consensual restructuring of the bond debt. The litigation stay is currently in effect through March 24, 2025. Mediation is extended through April 30, 2025.

Based on the operators' estimates of the expenses needed to adequately operate and maintain the utility and make necessary repairs to the system as described in **Chapter 2 (**Historical Context and Current Challenges**)** and **Chapter 7 (**Summary of Financial Projections**)** of this Fiscal Plan, the Oversight Board has determined PREPA will not be able to impose rate increases sufficient to pay all expenses and debt service without charging rates well in excess

of burdensome levels. Therefore, when the Oversight Board, as PREPA's Title III representative, is allowed to propose an amended Title III POA, the proposed disclosure statement will specify the source of funds to confirm the POA that will permit the Oversight Board to maintain settling creditor recoveries materially in line with those offered to PREPA's settling creditors in the February 2024 POA (with adjustments previously discussed with the settling creditors), while also paying the amount of the non-settling bondholders' allowable nonrecourse claim determined by the Title III court. The Oversight Board intends to pursue confirmation of an amended POA as expeditiously as possible once the current litigation stay is lifted.

3.3.2 Continuation of HoldCo & HydroCo Rightsizing

With LUMA and Genera as the selected operators of PREPA's T&D system and generation assets, respectively, PREPA's HoldCo roles and responsibilities have been reduced. Throughout the transformation and transition process, PREPA, LUMA, and Genera have been working diligently to establish clear guidelines and operating responsibilities to eliminate duplicity and redundancy. HydroCo will oversee PREPA's hydropower assets, while HoldCo focuses on administrative and compliance functions. These include legally required financial reporting, record-keeping, resolution of past legal obligations, financing activities, and pension administration, along with compliance obligations.

During the Genera PR Mobilization, AAFAF undertook a study to identify a structure for PREPA reflective of its reorganized roles and responsibilities. The findings of this study were shared with PREPA in June 2023 and approved by PREPA's Governing Board on June 9, 2023 via Resolution 5064.

PREPA's labor rightsizing and reorganization proposed by AAFAF and reflected in the AAFAF study for HoldCo and HydroCo is ongoing. Attaining the recommended rightsized headcount threshold required two primary efforts, which occurred between July and November 2023:

1) An orderly phase out of PREPA employees who resigned, retired, and/or mobilized during the first three months of FY2024 ("Mobilization"), and
2) The reclassification of certain employees to positions with expanded administrative and operations responsibilities due to the reorganization after July 1, 2023 ("Reclassification").

PREPA will continue to monitor additional rightsizing opportunities across HoldCo and HydroCo to responsibly achieve optimal efficiencies while maintaining essential operations and services.

Table 9: HoldCo & Subsidiary Rightsizing

Program	Progress and Milestones in FY2024	Next Steps in FY2025
Submission of FY2025 to FY2028 organizational structure and labor projection, including staffing levels and roster	Roster lists submitted in monthly Implementation Reports	Continue reporting in FY2025
Accounting system remediation	Request for proposals process initiated by AAFAF, proposals received by April 4, 2024	Contract with professional services firm has been executed and accounting system remediation is under way

3.3.3 Service Account Funding

LUMA and Genera utilize Service Accounts, in accordance with the T&D OMA and Generation OMA. These accounts are used for funding and replenishment of expenditures incurred for the performance of O&M related services. On a monthly basis, PREPA is contractually responsible for funding to the T&D OMA GridCo Service Accounts, which are under LUMA's management. Upon receipt, LUMA is then obligated to provide the requisite funding to the GenCo Expenditure Accounts under Genera's management. PREPA's limited role in funding the service accounts is to issue the instructions for funding based on the cash amounts actually available in the PREPA operating account (PREPA cash). This account, in turn, is fed with LUMA's collections from customer invoices, insurance payments or reimbursements (if any), and federal fund reimbursements (mainly the responsibility of LUMA for T&D federally funded reconstruction, and Genera for legacy generation federally funded reconstruction).

PREPA's liquidity is directly proportional to LUMA's effectiveness in customer collections and federal reimbursements. Given the size and amount of federally funded reconstruction works for T&D and generation assets, it is imperative both private operators optimize the federal funds reimbursement process to reduce and minimize the need for PREPA cash and to protect and improve liquidity for PREPA, as System Owner, to be able to fund the relevant service accounts as contemplated under the OMAs.

The absence of PREPA cash to adequately fund the Service Accounts is a risk, as it constrains the Operators' access to cash for operations and raises concerns regarding private operators' capacity to fulfill broader obligations moving forward. Establishing minimum balances for PREPA's Operating Accounts, and PREPA's corresponding responsibility to fund the Service Accounts on a monthly basis, would mitigate risk related to PREPA's financial stability.

3.3.3.1 T&D OMA GridCo Service Accounts

The following chart indicates the accounts and their purpose, as outlined in the T&D OMA.

Table 10: GridCo Service Accounts Summary

Account Name	Account Type	Account Purpose	Requirements
Operating Account	T&D Pass-Through Expenditures and Service Fee	Labor, materials and supplies, fees and services related to operations and maintenance activities.	Initially funded in an amount equal to 4.5 months of anticipated T&D expenditures and the T&D operator's service fee. Thereafter, the account shall be replenished monthly in an amount required to maintain a 4.5-month reserve.
Capital Account - Federally Funded	Capital Costs – Federally Funded	Labor, materials and supplies, fees and services related to investments in assets that are reimbursed by FEMA and other federal agencies.	Initially funded in an amount equal to the next 4.5 months of anticipated federally funded disaster recovery ("DR") costs for obligated and scheduled projects. Thereafter, the account is funded by federal reimbursements and other financings available to fund

Account Name	Account Type	Account Purpose	Requirements
			the next 4.5 months of FEMA obligated and scheduled projects.
Capital Account - Non-Federally Funded	Capital Costs – Non-Federally Funded	Labor, materials, property, equipment, construction and development costs, fees, and other costs related to capital investments in assets that are incurred by LUMA for projects that are not federally funded	As of January 2025, funding is equal to the anticipated next 4.5 months of expenditures, in alignment with the approved T&D Non-Federally Funded Capital Expenditures budget for the corresponding fiscal year.
Outage Event Reserve Account	Outage Event Costs	Labor, materials and supplies, fees and services related to an outage event (for example, a weather event that causes a service interruption to a significant number of customers).	Initially funded in the amount of $30 million. Thereafter, the account is to be replenished to maintain a balance of $30 million.
Generation Expenditures Account	Generation Pass-through Expenditures, including Purchased Power and Fuel Account	Payments to cover invoices from generation expenditures for labor, materials and supplies, fees and services related to operations and maintenance activities. Payments to cover invoices for operation and management expenses incurred in connection with the PGHOA, Shared Services Agreement ("SSA"), and in connection with Generation Supply Contracts. Payments to cover invoices for fuel supply expenses incurred in connection with the PGHOA and expenses with any fuel supply arrangement between GridCo and Genco.	Initially funded in an amount equal to 2.0 months of anticipated generation pass-through expenditures, including fuel and purchase power. Thereafter, the account shall be replenished monthly in accordance with the working capital requirements under the GridCo-GenCo PPOA and any fuel supply arrangement between GridCo and GenCo.
Contingency Reserve Account	For funds in the event of a Funding Shortage	Designed in case there are insufficient funds in the other accounts and expenditures are required.	Initially funded in an amount equal to the average anticipated T&D Pass-Through Expenditures for 1.5 months in the initial contract year, as determined based on

Account Name	Account Type	Account Purpose	Requirements
			the initial operating budget. Thereafter, the account is to be funded in an amount equal to 1/24 of the original amount.

3.3.3.2 Generation OMA GenCo Service Accounts

PREPA provides funding to the T&D OMA GridCo Service Accounts, which are under LUMA's management. Upon receipt, LUMA then provides the requisite funding to the GenCo Expenditure Accounts. The following chart indicates the accounts and their purpose, as outlined in the Generation OMA.

Table 11: GenCo Service Accounts Summary

Account Name	Account Type	Account Purpose	Funding Requirements
Operating Account	Pass-Through Expenditures in performing the O&M Services and O&M Service Fee	Payroll, materials and supplies, labor, materials, and operational fees.	Initially funded in an amount equal to 2.0 months of anticipated generation pass-through expenditures and the generation operator's service fee. Thereafter, the account shall be replenished monthly in an amount required to maintain a 2.0-month reserve.
Fuel Account	Expenses related to purchase, transportation, testing, delivery and storage of fuel	Payments to cover invoices in connection with the purchase, transportation, testing, delivery, and storage of fuel (bunker C or diesel).	Initially funded in an amount equal to an average of 2.0 months of anticipated fuel costs based on the approved fuel budget for the current quarter. Thereafter, the account shall be replenished monthly in an amount required to maintain a 2.0-month reserve.
GenCo Legacy Generation De-Commissioning Account	Pass-Through Expenditures in performing the Decommissioning Services	Expenditures related to performing decommissioning services.	Initial funding requirement is in an amount equal to 1.0 month of the anticipated pass-through expenditures to decommission LGA in accordance with the approved decommissioning budget. Account is

Account Name	Account Type	Account Purpose	Funding Requirements
			currently unfunded as of December 2024.
GenCo Generation Reserve Account	Forced Outages, Force Majeure Events or Owner Fault, and the procurement/installation of any major, new or refurbished, equipment item the cost of which is equal to or in excess of US$1,000,000 that is required to ensure the reliability of the Legacy Generation Asset	Costs in connection with Forced Outages, Force Majeure events and costs in connection with procurement and installation of any major, new or refurbished, equipment item the cost of which is equal to or in excess of US$1,000,000 that is required to ensure the reliability of the Legacy Generation Assets approved by Administrator and PREB. May be utilized to draw funds from time to time to pay for any shortfalls in the required funding of any other Service Account.	Initially funded in the amount of $30 million. Thereafter, the account is to be replenished to maintain a balance of $30 million.
Mobilization Account	Accounts from which Owner shall pay Operator the Mobilization Service Fee	To cover Genera mobilization fee.	Initially funded in an amount of $15 million to cover reasonable costs and expenses incurred by the operator during the period prior to service commencement. Account is currently unfunded.

3.3.4 Remediation of PREPA Financial Records

In August 2022, P3, the Oversight Board, and AAFAF were notified regarding work necessary to create separate financial accounting records for the reorganized PREPA entities to enable financial reporting required under the T&D OMA. In order to produce and maintain separate financial and accounting records relating to the O&M Services in accordance with the generally accepted accounting principles, the Uniformed System of Accounts by the Federal Energy Regulatory Commission ("FERC"),[64] and accounting best practices, LUMA requires PREPA's bank reconciliations, the reconciliation of PREPA's fixed asset and inventory subledgers to its general ledger, and the reconciliation of PREPA's receivables to the Customer Care & Billing System (the "CC&B System") as of LUMA's start of operations in June 2021.

Resolving PREPA's legacy accounting issues is necessary to: (i) complete PREPA's reorganization (which should include the production of segregated financials for the T&D system, generation assets, and other business units of PREPA), and (ii) facilitate PREPA's eventual exit from Title III under a confirmed POA.

Given the potential impact and importance of these issues, the Oversight Board approved $25 million in the FY2024 Puerto Rico Commonwealth budget to carry out an initiative to address

64 For more details on the Uniformed System of Accounts of the FERC, see https://www.ferc.gov/accounting-matters-1

them. On March 14, 2024, AAFAF released an RFP to: (1) assess PREPA's current accounting procedures and practices and provide recommendations on areas of opportunity and improvement; (2) develop a proposed plan to execute such recommendations for review by the Puerto Rico Department of Treasury and PREPA; and (3) in case of acceptance of the proposed plan discussed in (2), provide guidelines and assistance to the Department of Treasury and PREPA in execution of said plan. A separate, competitive procurement process will be subsequently conducted to select a qualified contractor for the Execution Phase of the plan.

On July 9, 2024, AAFAF executed a contract with the selected RFP respondent to perform the scope of services and kickoff meetings were held during August. The accounting remediation project has been structured as a two-phase project, where Phase I is the development of a proposed plan to execute such recommendations for the Department of Treasury's and PREPA's review, and Phase II will be the implementation of the proposed plan and balance sheet separation. Phase I is currently underway, though the Phase I report with a proposed plan has not yet been issued and has no target issuance date. Phase II, the competitive procurement process and selection of a qualified contractor for the execution of the plan, is contingent upon the completion of Phase I.

The table below outlines the key milestones for PREPA in FY2025 related to the accounting remediation project.

Table 12: Key Milestones for Accounting Remediation Project

Milestone	FY2025 Target	Next Steps in FY2025
Issue Phase I Report	Pending (originally expected December 31, 2024)	Issued a proposed plan to execute such recommendations for review by the Department of Treasury and PREPA.
Issue and Complete RFP for Phase II	Q3	Perform competitive procurement process and selection of a qualified contractor for the execution of Phase II.
Begin Phase II Execution	Q4	Award contract and begin implementation of the proposed plan and balance sheet separation.

All parties are committed to supporting the Government in its efforts to enable compliance under the T&D OMA and to facilitate PREPA's eventual exit from Title III under a confirmed POA with improved financial reporting processes.

3.3.5 Separation of Back-Office and Shared Services Termination

3.3.5.1 PREPA's Corporate Subsidiaries

Table 13: List of PREPA's Corporate Subsidiaries

Name of Subsidiary	Description
PREPA Holdings	Formed in 2009 as a wholly owned subsidiary and LLC in Delaware to oversee the operation of PREPA's subsidiary corporations. Component units include HUB Advanced Networks, LLC, Consolidated Telecom of Puerto Rico, LLC, Inter American Energy Sources ("IAES"), and International Network Operations ("INO").

Name of Subsidiary	Description
HUB Advanced Networks, LLC	Formed November 13, 2008, in Delaware. HUB Advanced Networks, LLC, sells excess optical fiber capacity under the OTILA lease agreement with PREPA. Provides telecommunication services through satellite and fiber optic submarine cable, renting communications networks and equipment.
Consolidated Telecom of Puerto Rico, LLC	Formed October 26, 2009, in Delaware to develop and operate telecommunications within or outside the Commonwealth of Puerto Rico, not for profit. Operations limited to a service contract with the Puerto Rico Office of Management and Budget.
Inter American Energy Sources, LLC	Formed May 25, 2007, in Delaware to support PREPA's electric infrastructure through renewable energy projects. Currently non-operational with no revenues.
International Network Operations, LLC	Formed June 15, 2017, in Delaware to develop and operate a fiber optic and telecommunications business supporting PREPA's infrastructure.

3.3.5.2 Update on Shared Services

As directed under its OMA, LUMA began providing interim services to PREPA under the SSA on June 1, 2021. The services are provided at cost with no mark-up or profit, and they are predominantly related to common or shared Information Technology & Operational Technology ("IT/OT"), Finance, and Operations-related O&M for some plant equipment under PREPA's control where PREPA lacked the necessary skills or suppliers to complete the work. The original SSA expired on December 31, 2023, six months after Genera's July 1, 2023 Service Commencement Date.

During the period up to December 31, 2023, both PREPA and Genera completed various measures to establish independent operations consistent with the overall restructuring; however, a variety of plans and initiatives could not be completed by the agreed-upon SSA termination date. Consequently, both Genera and PREPA made independent requests to conditionally extend the original SSA and continue certain services until PREPA and Genera could assume responsibility for those services. Accordingly, LUMA entered into a new, separate Amended and Restated Shared Services Agreements ("A&R SSA") to satisfy the services for each party aligned with their requested needs and schedule. These agreements were set to terminate overall on September 30, 2024, unless either or both of the parties formally requested an extension of services.

PREPA requested an extension of Shared Services through June 30, 2025, but ultimately LUMA agreed to an extension only through February 28, 2025. Subsequently, on October 21, 2024, PREPA and LUMA entered into an Amendment to the Amended and Restated Shared Services Agreements ("Amended A&R SSA"). The Amended A&R SSA between LUMA and PREPA will terminate on February 28, 2025. A summary of Shared Services progress and milestones are presented in the table below.

Table 14: Update on Shared Services

Agreement	Target	Progress and Milestones in FY2024	Pending Milestones	Next Steps in FY2025
Genera SSA	01/15/25	A&R SSA in place; joint teams supporting implementation under Genera's direction.	Numerous Finance and IT/OT interim termination of services	Extended through February 28, 2025; Planned costs are budgeted for 1Q 2025 consistent with the A&R SSA.
PREPA SSA	2/28/25	Amended A&R SSA in place; joint teams supporting implementation under PREPA's direction.	Numerous Finance and IT/OT interim termination of services	A&R SSA expired on September 30, 2024; Planned joint costs are budgeted for 1Q 2025 consistent with the A&R SSA. PREPA requested for services to be extended to June 30, 2025, but LUMA agreed to an extension only through February 28, 2025. Amended A&R SSA agreement was executed with expiration on February 28, 2025.
Insurance Collaboration Agreement	6/30/25	Genera and LUMA ended the SSA on 6/30/2024. Since then, they have been jointly collaborating to obtain and place the proper insurance on PREPA's assets. A final draft of the insurance collaboration agreement was sent to LUMA by Genera. As of December 2024, LUMA awaits Genera's signature.	FY2025 insurance program placement is underway	Annual agreement for the parties to jointly solicit and place common insurance policies.
Facilities Collaboration Agreement	3/15/25	Agreement was executed on May 9, 2024.	Execution of the agreement	Most likely an evergreen agreement reviewed annually.
OT and Telecom Collaboration Agreements	1/15/25	Agreement updates presented to LUMA, and changes agreed in meeting on October 29, 2024; As of December 31,	Finalize scope and schedules	Likely multi-year agreements consistent with the overall restructuring.

Agreement	Target	Progress and Milestones in FY2024	Pending Milestones	Next Steps in FY2025
		2024, waiting for document updates from LUMA.		

3.3.5.3 PREPA's Shared Services Separation Plan

PREPA has been working with AAFAF to assure successful completion of the above-mentioned milestones. In conjunction with AAFAF, PREPA prepared a business case consistent with the Puerto Rico Government's integration plan, aimed at improving fiscal governance and transparency across all agencies. Despite numerous planning delays due to budget constraints and approvals, PREPA anticipates full separation, except for insurance-related services, from LUMA by June 30, 2025. As of January 2024, PREPA commenced the execution of the business case for PREPA to separate from LUMA. However, on June 26, 2024, PREB issued an R&O, mandating PREPA to defer the Shared Services separation and the implementation of a new Enterprise Resource Planning ("ERP") system until it has performed and submitted a comprehensive cost-benefit analysis.[65] PREPA complied and submitted its required cost-benefit analysis on August 15, 2024. In response, PREB issued an R&O on September 17, 2024, ordering PREPA to, among other things, include any applicable budget amendment request necessary to comply with either the continuance or the termination of Shared Services. Until such approval from PREB is received, including necessary budgetary funding, PREPA is not authorized to separate from LUMA's Shared Services or to implement a new ERP system.

If PREPA receives authorization from PREB, the A&R SSA between LUMA and PREPA will terminate on February 28, 2025. PREPA will continue with the business case prepared by and with AAFAF to ensure successful completion of the above-mentioned milestones. Once implemented, PREPA will outsource management of vendors necessary to replace LUMA's Shared Services for the PREPA subsidiaries of HoldCo, HydroCo, and PropertyCo. These vendors will include a business process outsourcing provider and an ERP system integrator, with PREPA retaining full ownership of finance and accounting activities.

The ERP implementation project is the deployment of an independent ERP system, spanning over an approximate 34-week period and focuses on the Finance, Accounting and Treasury services. The new ERP system will replace the legacy system, which is currently owned and maintained by LUMA.

The ERP implementation is split into three phases: Phase I - Financial Applications Implementation (i.e., Accounts Payable, General Ledger, Cash Management, etc.), Phase II - Procurement Applications Implementation (i.e., Purchasing, Receivables & Advanced Collections, Sourcing, etc.), and Phase III - Financial Integrations and Co-Mingled Fixed Assets (Balance Sheet Split).

3.3.5.4 Genera's Shared Services Separation Plan

The separation of the IT/OT component of the SSA with LUMA is underway. The IT/OT component separation is divided into three programs. These are:

65 PREB Docket No. NEPR-MI-2021-0004. https://energia.pr.gov/wp-content/uploads/sites/7/2024/06/20240626-MI20210004-Resolution-and-Order.pdf

1. Infrastructure:

This program targets the logical and physical separation from the PREPA network managed by LUMA. The infrastructure program is composed of network-internet, infrastructure, cybersecurity, OT, service management, and telecommunications.

2. Core Applications:

This program provides for migration of Oracle E-Business Suite ("EBS") to a new ERP, Oracle Fusion. Oracle Fusion was selected to minimize migration technical difficulties and to be able to integrate systems and data with the Government's financial ecosystem. The strategy for the Asset Suite shift from the EBS ecosystem to the Oracle Fusion ecosystem is a "lift and shift" to the new environment.

3. Operational Technology Demarcation, Asset, and Telecommunication:

The initial phase of the separation requires a best business practices and industry standards collaboration agreement to be established with LUMA. Upon completion of the collaboration agreement, equipment demarcation, including remote terminal units ("RTUs"), will be implemented, ensuring proper accountability and fiscal responsibility.

Table 15: Update on Genera's Shared Services Plan

Program	Target Date	Progress and Milestones in FY2024	Pending Milestones	Next Steps in FY2025
Infrastructure	Q3 FY2025	Network Separation: There are five sub-projects in progress. Tenant to tenant Office365 Migration: pilot successfully completed on December 18, 2024.	-	Implement physical separation in the following Power Plants: 1. Palo Seco 2. Aguirre 3. Costa Sur 4. Cambalache 5. Mayaguez 6. Peakers
Core Applications	Q3 FY2025	Separation of Core Applications underway: Oracle EBS to Oracle Fusion; Asset Suite "lift and shift" from Oracle EBS to Oracle Fusion.	1. Asset Suite Mock 1 testing. 2. Asset Suite Mock 2 testing. 3. Solution end to end test and deployment. 4. Documents (Curator) that reside within Asset Suite as supporting documentation for those transactions are critical to Genera.	Deploy Oracle Fusion and migrate Asset Suite to Genera's infrastructure
OT Demarcation, Asset and	Q3 FY2025	**1. Demarcation, OT & Telecommunica**	As of December 31, 2024, LUMA is still reviewing the initial draft of the OT	Finalize an industry standard collaboration

Program	Target Date	Progress and Milestones in FY2024	Pending Milestones	Next Steps in FY2025
Telecommunication		**tions -** Collaboration Agreement: an initial draft was provided to LUMA with industry standard guidelines, processes and procedures. A task force was defined to reach common ground. 2. **Private Branch Exchange Separation:** documentation submitted to Liberty. Genera continues to work with Liberty and Luma on a common plan.	Demarcation agreement submitted by Genera.	agreement between both operators

This Chapter underscores the exigency of continued progress to ensure the energy sector's transformation aligns with the Fiscal Plans for PREPA and the Commonwealth of Puerto Rico certified by the Oversight Board. The termination of Shared Services serves as a necessary step towards achieving fully independent generation and T&D operators in a restructured electric power sector. This transformation will help secure the growth and revenue targets set out in this Fiscal Plan, thereby ensuring an independent, sustainable, resilient, and reliable future for the power sector in Puerto Rico.

4 Legal & Regulatory Structure and Resource Planning

4.1 Historical Context

PREPA's Enabling Act established PREPA as a public corporation having a legal existence separate and independent from that of the Government. For additional details concerning PREPA, its Governing Board, and PREB, see the Fiscal Plan certified in June 2023.

As Puerto Rico's energy sector continues its transformation, PREB is responsible for promoting prudent investments, assuring reliable and stable quality of service to customers, determining rates, and ensuring industry trends and technological advancements are appropriately incorporated into Puerto Rico's energy system. To fully achieve its purpose, PREB must remain financially and operationally independent from the Government, and its determinations must be free from any direct or indirect political influence or interference.

Several legislative acts have strengthened the regulatory framework and empowered PREB with greater authority and an independent administrative budget, setting forth ambitious goals for private sector operations and revitalization of the energy sector. More recently, however, certain legislative acts have threatened to undermine those efforts. Recently, Act 10-2024, passed in January 2024, attempts to reduce PREB's authority and independence by prohibiting PREB from making changes to PREPA's net metering program until well into the future. This is despite the requirement, pursuant to Act 114-2007 and Act 17-2019 and the PREPA Fiscal Plan, that PREB conduct and complete a study concerning the Commonwealth's current net metering and energy distribution policy by 2024. The Oversight Board requested the Government to repeal or amend Act 10-2024, and when it failed to do so, commenced an action against the Governor seeking nullification of the law so PREB may make changes to the net metering program or other relevant legislation, if it deems it necessary, consistent with its responsibility to independently regulate, monitor, and enforce the energy public policy of the Government. For more information on historical legislative acts, see the Fiscal Plan certified in June 2023.

As a part of expanding private sector operations, PREB will be tasked with continuing to develop an environment that promotes innovation, investment, and economic vitality while safeguarding electrical consumer interests. To accomplish this, PREB will need to balance its authority in a manner that establishes prudent oversight and provides a consistent regulatory environment within which all private entities operate, particularly with respect to LUMA and Genera, which operate under the P3-sponsored agreements that lay out specific roles and responsibilities as well as rights and obligations for each. The environment needs to balance the necessary regulatory support for private-public contractual and operational obligations. PREB's independence will be critical for successful energy transformation.

4.2 Updates to Key Regulatory Issues

PREB's statutory mandate as an independent regulator is to promote an efficient, reliable, resilient, and customer-responsive energy system. For a more detailed list of PREB's responsibilities, see the Fiscal Plan certified in June 2023. In the context of regulatory oversight, PREB operates within the constraints and oversight of PROMESA. Proposed structural changes in the Fiscal Plan for the Commonwealth certified in 2023 are designed to enhance PREB's regulatory effectiveness.

The discussions below contain updates to key regulatory issues related to PREB's responsibilities that have either occurred in the last fiscal year or are expected to occur in this fiscal year.

Furthermore, Act 17-2019 included specific targets for renewable energy integration, fuel diversification, and load management to transform Puerto Rico's energy system. Among other targets, Act 17-2019 mandated a renewable portfolio standard of 60% by 2040, set a goal to phase out coal-based generation by 2028, and promoted EE programs. Any future actions or inactions by the Puerto Rico government related to energy sector legislation, such as amending or repealing Act 17-2019, could lead to changes in the generation mix, including the adoption of renewable energy, or promotion of EE incentivization, and may impact cost and load projections.

More details on updates to key regulatory issues that occurred in previous fiscal years can be found in the Fiscal Plans for PREPA certified in June 2022 and June 2023.

4.3 Rates and Rate Structure

4.3.1 PREPA's Current Rate Structure

The current rate structure, ordered by PREB in the 2017 Rate Order, remains in effect until a new rate structure is approved by PREB and implemented by LUMA. The 2017 Rate Order requires that the proposed annual budgets submitted for review do not increase the overall revenue requirements determined by the base rates or rate structure approved in the 2017 Rate Order, unless the proposed budget becomes subject to a rate review process.

Prior to January 2017, PREPA had not raised its rates since 1989. PREB intended the 2017 Rate Order to provide for a three-year rate increase in FY2017 and to establish of subsequent rate proceedings, including annual reviews and three-year reviews to follow, for further rate adjustments as needed. While the base rates are frozen under the 2017 Rate Order, the same order also established multiple "rate riders", including the quarterly F&PP rider. Unlike the base rates that remained unchanged since issuance of the 2017 Rate Order, the F&PP rider is reconciled to the actual cost of fuel and provides a rate adjustment to the customer bills (i.e., increase the rate for higher actual fuel cost or decrease the rate for lower actual fuel cost), subject to PREB's quarterly review. The quarterly review and reconciliation of the F&PP costs has continued since FY2017, and future F&PP cost increases can add materially to the customer bills even under the 2017 Rate Order.

The 2017 Rate Order issued by PREB and implemented by PREPA was the first base rate increase in 30 years. Years of underspending had left PREPA's system unreliable, at risk of environmental fines, and ill-prepared to accept the quantities of renewable energy mandated by Act 82-2010. While the 2017 Rate Order addressed a broad range of problems, PREB did not impose a rate increase sufficient to cover all of the deferred but necessary costs to fix the system. Instead, PREB established both an annual rate review process and a three-year rate review process that was intended to address the decades of deferred issues over a more moderate timeline. However, these open issues were left unresolved due to complexities arising from PREPA's Title III case and Hurricanes Maria and Irma that occurred within a few months following the 2017 Rate Order.

As such, on May 31, 2021, PREB ordered LUMA to prepare and file a formal rate review by August 1, 2023, more than three years after the planned target of 2020, with the intent of setting new electricity rates effective July 1, 2024.[66]

Even so, after a series of delays and deadline extension requests, on June 30, 2023, PREB suspended the August 1, 2023 filing deadline and established a three-phase process for reviewing electricity rates.[67] Phase I would entail an assessment of the combined ability of LUMA, Genera, and PREPA to meet the requirements laid out in Regulation 8720, which governed PREPA's first rate review between 2015 and 2017; Phase II would provide an initial review of electricity rates, including PREB issuing interim determinations regarding such rates; and, Phase III would comprise a full review of electricity rates, including the components associated with PREPA's legacy debt and pension costs, with the timing dependent on PREPA's exit from Title III. Once all phases of the rate petition were deemed complete, PREB would review the proposal in its entirety and establish an updated revenue requirement and permanent rates for the utility.

The Phase I report was filed on October 4, 2023. On March 15, 2024, PREB modified Phase II to break it down further into its own two-step process. Step 1 would entail the review of the utility's revenue requirement, and Step 2 would address rate design considerations, with an expectation Step 1 would be filed on or before June 1, 2024.

In April 2024 (i.e., after the March 2024 confirmation trial but before the First Circuit's first ruling), however, PREB issued an R&O further suspending the schedule for the rate review to a later and undetermined date based on the uncertainty of the Title III process and requesting a budget be filed for FY2025 based on the 2017 Rate Order.

On December 10, 2024, PREB reinitiated the rate review schedule and outlined a structured timeline for its ongoing rate review[68] process to ensure transparency and adherence to regulatory standards. A key event in this process is the Technical Conference held on December 20, 2024, which provided an opportunity for stakeholders, including LUMA, PREPA, and Genera, to discuss the substantive and procedural aspects of the rate case. Topics covered included revenue and expenditure considerations, a proposed three-year rate structure for FY2026 through FY2028, and a phased approach separating revenue requirement analysis from rate design.

PREB aims to finalize the requirements for filing rate cases by early February 2025, following a series of preparatory steps. These included issuing requests for information ("ROIs") on December 18-19, 2024, conducting a second Technical Conference from January 8-10, 2025, and collecting ROI responses on January 17, 2025.[69] PREB anticipates providing new provisional rates to be effective July 1, 2025, followed by permanent rates thereafter.[70]

As discussed in **Chapter 2 (**Historical Context and Current Challenges**)**, Puerto Rico suffered significant performance issues and outage events during the spring and summer of 2024,

66 As part of the transition into the T&D OMA, LUMA submitted filings to PREB as early as February 2021.

67 PREB Docket NEPR-AP-2023-0003 PREPA Rate Review R&O dated April 12, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/04/NEPR-AP-2023-0003-Resolution-and-Order.pdf

68 PREB Docket NEPR-AP-2023-0003 PREPA Rate Review. https://energia.pr.gov/wp-content/uploads/sites/7/2024/12/20241210-AP20230003-Resolution-and-Order.pdf

69 PREB Docket NEPR-AP-2023-0003 PREPA Rate Review Motion dated January 18, 2025. https://energia.pr.gov/wp-content/uploads/sites/7/2025/01/20250118-AP20230003-Motion-Subm-Responses-to-Req-of-Inf-issued-on-Dec-20-2024-and-Jan-10-2025.pdf

70 PREB Docket NEPR-AP-2023-0003 PREPA Rate Review. https://energia.pr.gov/en/dockets/?docket=nepr-ap-2023-0003

caused in part by the inadequate revenue made available under the outdated 2017 Rate Order and the suspended rate review process resulting in continued delays and deferral of necessary repairs and execution of initiatives. Therefore, as further discussed in **Chapter 7 (** Summary of Financial Projections**)**, the Oversight Board asked the operators to estimate the cost of service necessary—without the rate constraint of the 2017 Rate Order—to adequately repair the electrical system sufficient to return it to at least a state that could provide a standard of service comparable to that in the U.S. mainland, and to operate and maintain the system efficiently.

Thus, this Fiscal Plan reflects the operators' projections estimating the system's current needs without the constraint of the 2017 Rate Order rate structure. From a regulatory perspective, a thorough rate review by PREB that considers the evolving demands of Puerto Rico's electric power system, taking into account its current functionality, adheres to the guiding principles for ratemaking, and assesses the appropriate level of funding required by the system to be funded by ratepayers is necessary. As aforesaid, PREB reinitiated the rate review process on December 10, 2024, with the expectation of a rate changes to take effect as early as July 2025 with provisional rates. The guiding principles for ratemaking are covered in the following section.

4.3.2 Guiding Principles for Ratemaking

According to law and the PREB R&O, PREB considers the following list of non-exhaustive key guiding principles for ratemaking to achieve an optimal rate structure, similar to ordinary ratemaking procedures in other leading jurisdictions:[71]

- **Just & Reasonable:** PREB must ensure rates are affordable, just, reasonable, and non-discriminatory for all electric service consumers in Puerto Rico to provide reliable service at the lowest reasonable cost.
- **Fiscal responsibility:** Rates must be sufficient to cover payment of, among other things, F&PP costs, and the costs of electric utility operations, including operating costs (which may include direct and indirect labor related expenses such as pensions), capital requirements, debt repayment, and other obligations.
- **Affordability:** The ratemaking process should account for customer socioeconomic factors and conditions (e.g., consideration of subsidies and other cost-allocation measures).
- **Cost causation/cost of service allocation:** Customer electricity rates should be based on the cost of providing service to a specific type or class of customer, except where otherwise mandated by law (e.g., subsidies for low income, hotels, senior citizens).
- **Transparency:** Rate components and calculation methodology must be clearly communicated (fixed monthly and volumetric customer consumption), providing customers with detailed information on the costs covered by rate components.
- **Policy alignment:** Customer behavior is incentivized to be consistent with energy public policy (e.g., promote improvements in EE, reward customers for reliability benefits

[71] PREB's authority to review rates and approve modifications or temporary adjustments are established under Section 2.8 of Act 57-2014 (the Puerto Rico Energy Transformation and RELIEF Act), which amends Section 6(B) of Act 83-1941. PREB's process to review and approve proposed rates are also detailed under Section 6.25 of Act 57-2014. PREB R&O initiating rate review docket No. NEPR-AP-2023-0003 as of June 30, 2023, https://energia.pr.gov/wp-content/uploads/sites/7/2023/06/20230630-AP20230003-Resolution-and-Order.pdf

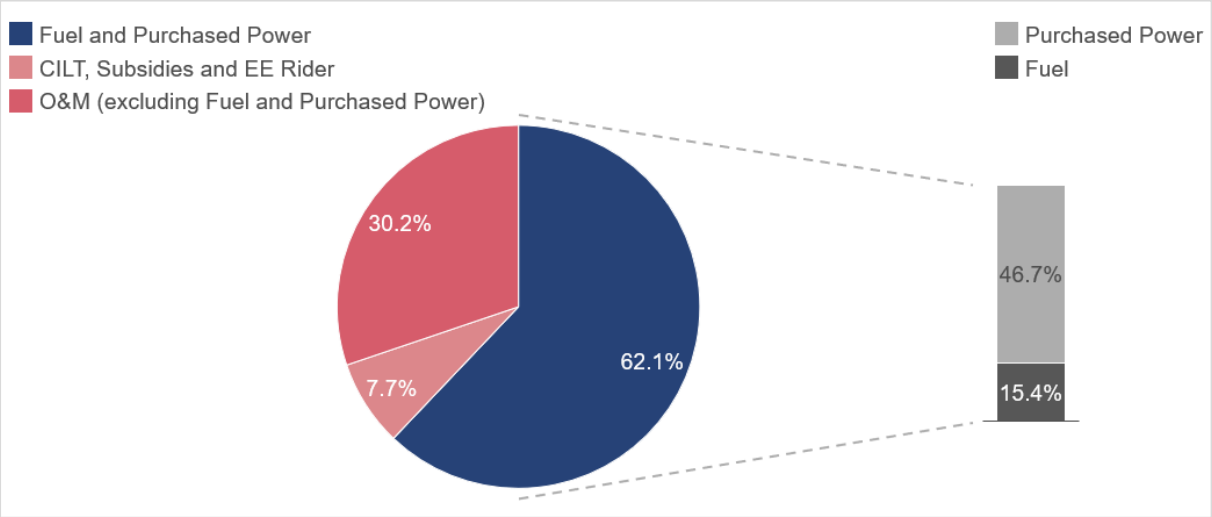
associated with customer-owned resources, encourage achieving renewable portfolio standards).

4.3.3 Overview of PREB-Approved Rates

The 2017 Rate Order establishing PREPA's new rate structure marked a meaningful step towards greater transparency by separating CILT and subsidy riders from the F&PP rate components.

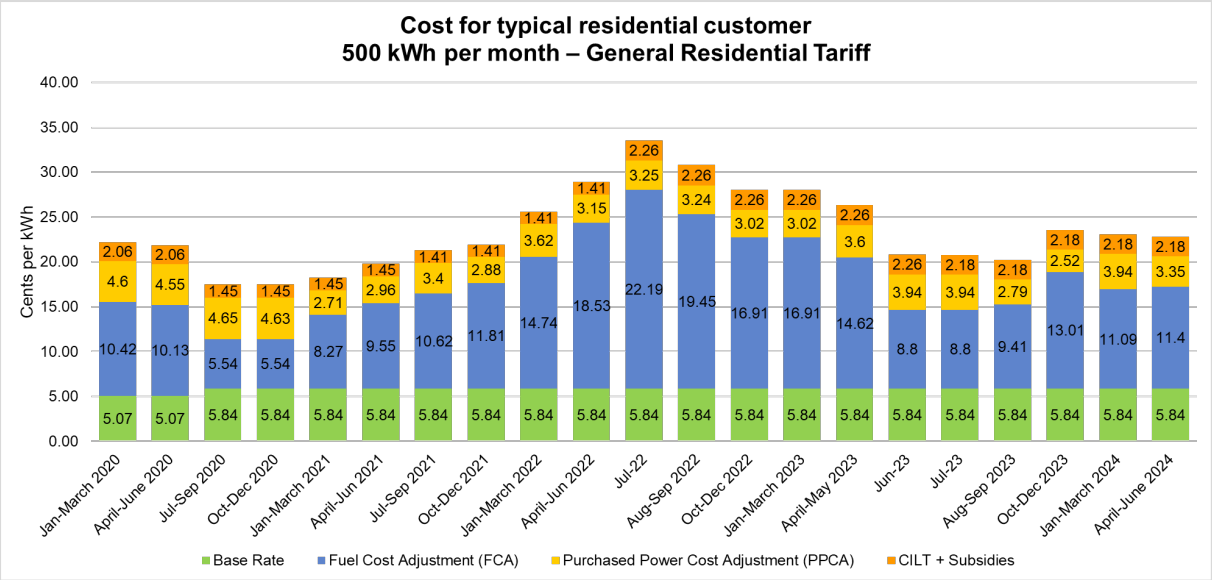
In FY2025, the projected rate components are 7.7% for CILT, EE rider, public lighting, and subsidies; 30.2% for utility O&M costs; and 62.1% for the F&PP costs.

Exhibit 7: Rate Composition, excluding any potential ERS pension charge and debt service charge FY2025 (Based on Nominal Rates)



Implementation of the 2017 Rate Order has provided customers stability in the base rate. Various riders reflected on customer bills since 2019, however, have changed based on PREB's review and approval. The CILT and subsidies riders are adjusted annually and provide for direct pass-through of the cost of (i) payments to municipalities in lieu of PREPA's payment of property and other municipal taxes, (ii) public lighting, and (iii) subsidized rates for low-income customers, certain hotels, elderly, students and other customers with specific needs. Charges for fuel used for generation by PREPA-owned units and power purchased under the PPOAs with IPPs—including AES Puerto Rico, EcoEléctrica, and multiple utility-scale renewable energy producers—are adjusted at least quarterly and may be adjusted to reflect costs between quarters on a monthly basis as deemed necessary by PREB. Like the CILT rider costs, these F&PP costs are passed through directly to customers. O&M costs and capital expenditures for utility operations and finances, and other PREPA costs not covered in riders are included in the base rate ("Base Rate"), which has remained unchanged since May 2019. However, utility inputs such as labor and costs of utility equipment have increased significantly since the 2017 Rate Order. For example, Puerto Rico's economy-wide inflation has been approximately 16% since CY2017, the year last used to set rates. Nevertheless, there has been no adjustment for inflation in the Base Rate. Adjustments to customer rates (through riders) since implementation of the 2017 Rate Case can be seen in the chart below.

Exhibit 8: Cost of Typical Residential Customer, General Residential Tariff Consuming 500 kWh per Month (¢ per kWh)



In the 2017 Rate Order, PREB established an "EE Rider" to cover the costs of EE and demand response programs aligning with the public policy set by Act 57-2014 and later modified in Act 17-2019.

If Act 17-2019 were to be amended, its energy efficient targets could be modified, and as a result, the EE rider may also change, and as well as future expense and cost projections may change. On February 16, 2023, PREB issued an R&O where it considered, amended, and approved the proposed EE and Demand Response Transition Period Plan ("Approved TPP"), determined part of the FY2024 budget would be recovered through the EE rider, and ordered LUMA to submit the proposed EE Rider for approval.[72]

However, on September 22, 2023, PREB issued an R&O in which it determined the cost of the EE programs of the Approved TPP would be included in the O&M costs, which is covered through the Base Rate revenues, rather than through the EE Rider revenues. Consequently, LUMA was instructed to include an EE Rider charge equal to zero (0) in the customer invoices. PREB issued another R&O instructing LUMA to implement the programs approved in the Approved TPP (without providing for a rate increase).

On May 31, 2024, and consistent with the intent of the EE Rider as approved by PREB, LUMA submitted a request for EE budget funding through the EE Rider in the amount of $13.7 million with a calculated EE factor of $0.000853/kWh for FY2025.[73] The calculated EE factor was based on estimated retail sales for July 2023 to June 2024 of 16,107,371,689.88 kWh. On June 11, 2024, PREB approved LUMA's proposed rate of $0.000853/kWh for the EE Rider for the period of July 1, 2024 to June 30, 2025, amounting to $13.7 million. The EE Rider approval marked the first time PREB issued an order requiring funding of the EE programs.

72 PREB Resolution and Order, Docket NEPR-MI-2022-0001. https://energia.pr.gov/wp-content/uploads/sites/7/2023/02/20230216-MI20220001-Resolution-and-Order.pdf

73 PREB Docket No. NEPR-MI-2020-0001.

LUMA's EE cost estimate is based on four program categories:[74]

1. **Residential Program:** Provides customers a financial incentive for purchasing and installing high-efficiency measures from a list of eligible measures through residential rebates, in-store discounts, EE kits and a CBES program.
2. **Commercial & Industrial Program:** Offers customers a financial incentive for purchasing and installing eligible measures through business rebates and a CBES program.
3. **Education & Outreach Program:** Consists of education tools and demonstration projects, information resources, and outreach initiatives to increase customer and stakeholder awareness and understanding of efficiency and demand response.
4. **Cross-Cutting Planning, Administrative & Startup Costs:** Includes costs not directly allocated to individual programs but related to preparing new processes and operational systems (i.e., IT, application systems, professional services, etc.) for program implementation.

The following table shows the breakdown by program of the overall EE Portfolio budget for FY2025.

Table 16: FY2025 Total Planned Program Budget for EE[75]

Program	FY2025 Budget ($M)
Residential Program	$6.27
Commercial & Industrial Program	$4.47
Education & Outreach Program	$1.15
Cross-Cutting Planning, Admin & Startup Costs	$1.15
Total Portfolio of Programs	**$13.75**

Significant work remains to achieve a rate structure that covers relevant operational, maintenance, and capital expenditures for the benefit of customers while encouraging sustainable economic development. Puerto Rico requires transparent billing with clear consumption and costs indicated to customers. This requirement mandates that major costs be listed separately on customer bills. Currently, the Base Rate costs are presented as a bundled cost component on customer bills. As PREPA's reorganization continues to move forward, separated costs and funding sources for generation, T&D, and other items must be developed. Separation of the bill elements will allow customers to see the progression of the energy sector transformation and provide transparency on costs to consumers.

74 See LUMA's December 20, 2023 motion titled "Motion to Submit Revised TPP and Other Information Requested under the Resolution and Order of November 29, 2023" (Docket Number NEPR-MI-2022-0001) for more details on each program.

75 LUMA's May 31, 2024 motion titled "Submission of CILTA, SUBA-HH, SUBA-NHH Reconciliations and Proposed Factors, EE Program Costs and Calculated Factors, and Request for Confidential Treatment" (Docket Number NEPR-MI-2022-0001), Attachment 1 (excel file "EE-Program-Costs-FY2025_Values").

4.3.4 Study on Net Metering and Distributed Generation

As provided in Act 114-2007,[76] and as amended by Act 17-2019,[77] existing customers who install DG (e.g., rooftop solar) systems and who participate in the net energy metering ("NEM") program are entitled to receive a credit for the excess energy exported to the grid equal to the full retail cost of energy.

A NEM program allows customers to inject any solar production that exceeds their load into the grid and draw from the grid when they do not have solar energy in their batteries. Excess generation exported to the grid within a billing period is netted against consumption drawn from the grid to determine the amount of energy used for billing purposes. Any excess energy is recorded as a customer credit that carries forward from one billing period to subsequent billing periods. At the end of the "netting period" (which is currently set at one year ending June 30 for the Puerto Rican NEM program), any excess credit not used within the netting period is paid out at a rate of 7.5 ¢/kWh to customers and 2.5 ¢/kWh to the Puerto Rico Department of Education.

Act 10-2024 further amends Act 114-2007 (which established Puerto Rico's net metering program) and prevents PREB from making changes to the net metering program until at least 2031. That means Act 10-2024 undermines PREB's ability to independently regulate the Puerto Rico energy sector and make the necessary decisions to do so. For this reason, the Oversight Board commenced an action seeking nullification of the law. Act 10-2024 reflects a concerning departure from the Government's policy and the Fiscal Plans' requirement regarding the need for PREPA to be managed by an independent, experienced regulator. This type of political interference in the management of PREPA is one of the causes of its current challenges, which is precisely why the Government created PREB and why the Fiscal Plans mandate PREPA be regulated by an independent regulator.

Importantly, invalidating Act 10-2024 would not change the current net metering program. The terms for PREPA customers who have net metering contracts will not change if the District Court nullifies Act 10-2024, and new customers would continue to be able to join the program under its current terms, unless and until PREB determines a change is needed.[78]

Under Act 114-2007 and Act 17-2019, rooftop solar PV installation and capacity expansion in Puerto Rico grew and are expected to continue to grow into the future. During the period from July 2018 to June 2023, rooftop solar capacity more than quadrupled to almost 600 MW. From July 2023 through March 2024, more than 3,600 new NEM participants were added on average each month, and the number of customers with NEM increased to 117,000. Puerto Rico now ranks 5th among the U.S. states and territories for solar adoption per capita.[79] Under the current net metering compensation structure, the capacity of DG in the Puerto Rico system has so far met the level of DG in the projection for FY2024 provided in the Fiscal Plan certified in June 2023.

In FY2024, the NEM program incurred a net loss of approximately $85 million associated with foregone revenues and unfunded costs of NEM support. The costs associated with the NEM program are projected to rise through FY2030. In the absence of a change in the structure of

76 https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/114-2007.pdf

77 https://bvirtualogp.pr.gov/ogp/Bvirtual/leyesreferencia/PDF/2-ingles/17-2019.pdf

78 https://oversightboard.pr.gov/act-10-faq/

79 LUMA Fact Sheet with key information from the Resource Adequacy Report. https://lumapr.com/wp-content/uploads/2024/10/Fact-sheet-with-key-information-from-the-Resource-Adequacy-Report.pdf

the Base Rates and the NEM program itself, the bulk of the costs of the NEM program may be borne by non-NEM customers.

In addition to the growing financial impact of the current NEM program, Act 10-2024 as currently written requires interconnections to be made prior to studying their impact on grid reliability and stability, risking the overall safety and integrity of the electric infrastructure for all. Other jurisdictions with comparably high distributed solar penetration, including Hawaii and California, have abandoned the type of initial net metering policy Act 10-2024 extends until at least 2031, recognizing a 1:1 net metering credit ratio must be prudently reevaluated to determine if it is fiscally unsustainable and has determined effects on customers and the energy system.[80]

To that end, PREB must continuously, and independently, assess the impact of Puerto Rico's NEM program and its effect on energy costs and grid reliability and adopt and implement the adjustments required from time to time to ensure the safe and successful transformation of the energy system as a whole. The process will require adjustment to allow technical studies that will maintain reliability for all customers and to adjust compensation structures that are unsustainable. In June 2024, PREB published a draft of the result of the NEM study. The study analyzed the costs and benefits of NEM, DG technologies, small-scale solar projects, and energy storage systems. The goal was to assess how NEM contributes to the renewable energy transition while also examining cost shifts to non-participating customers. NEM has successfully spurred solar adoption, with over 750 MW of NEM capacity installed on 110,000 premises by the end of 2023. The draft study identified potential equity concerns, such as cost-shifting and inefficiencies, as NEM customers benefit from reduced rates while non-participating customers may bear additional costs. The draft study acknowledged that while NEM has been instrumental in promoting renewables, it may not be the most effective pricing structure for Puerto Rico's long-term renewable goals. The draft study recommended exploring alternative mechanisms that align compensation more closely with grid value. The draft advised a continued public evaluation of the NEM alternatives, including mechanisms used in other states, to ensure a balanced approach between incentivizing solar adoption and managing grid stability.[81]

4.3.5 Current Rate Structure Limitations

The current rate structure is composed of fixed monthly per customer service-account charges and volumetric kWh-consumption and monthly kW-demand charges. PREPA's revenue is derived predominantly through kWh-consumption charges that are broadly categorized as Base Rate charges and rate riders. In contrast with PREPA's variable consumption-based revenue, its costs are mostly non-variable fixed expenses, which creates a mismatch between revenues and expenses.

Ongoing and forecasted declines in demographic and macroeconomic factors and increases in EE and adoption of DG are expected to drive significant declines in volumetric consumption and demand over the coming years and decades (see **Chapter 2.5.5 (**Changing Load Characteristics**)** for more information). As a result of declining volumetric factors, PREPA's

80 Hawaiian Electric Renewable Energy Programs Homepage, accessed January 23, 2025. https://www.hawaiianelectric.com/products-and-services/smart-renewable-energy-programs/previous-renewable-programs

California Public Utilities Commission summary of decision to adopt "NEM3.0". https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/customer-generation/nem-revisit/net-billing-tariff

81 PREB Docket NEPR-MI-2024-0006 R&O dated June 14, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/06/20240614-MI20240006-Resolucion.pdf

fixed costs are spread across a smaller volume of kWh sales that consequently will require a higher kWh consumption rate. Gradually adjusting PREPA's rate structure to derive more revenues from fixed monthly per customer service-account charges will increase the stability of collections and mitigate necessary increases in kWh-consumption charges. PREPA's current monthly fixed customer charge of $4 per month is less than half of the $10 per month median of a representative sample set of U.S. utilities.[82]

At current levels, electric rate revenues are insufficient to cover expenses for basic maintenance, operations, repair, critical modernization projects, and working capital requirements required to effectively transform the electric system. Rate limitations have and will continue to delay key maintenance projects needed to simply maintain current levels of service and reliability and to reduce PREPA's excessive reliance on fossil fuels. The transformation of PREPA through OMAs with LUMA and Genera, which were designed to improve reliability of the system, has also introduced new funding requirements for service accounts that must be addressed through a reconciling rate mechanism or other solution that adjusts to meet contractually obligated operating costs.

A fulsome review of revenue requirements and redesign of PREPA's rates remains critically needed to resolve the various issues identified in the 2017 Rate Order (a review process which began in 2015) and to address new issues arising from the significant transformation efforts already undertaken and higher operating costs.

This review is significant as it integrates budgeting and rate-setting processes, addressing changes brought about by the 2020 IRP and the anticipated 2025 IRP. The initial rates, set provisionally for July 1, 2025, will be refined as additional information becomes available, ensuring an equitable and accurate rate structure. By fostering active engagement from all parties, PREB aims to create a transparent, well-informed pathway for determining Puerto Rico's energy rates over the next three years.

The pendency of Title III cannot further delay this process given the mounting complexity and multitude of issues faced by the utility and its private operators.

4.4 Resource Planning and Resiliency

4.4.1 FY2025 Resource Adequacy Report

On October 31, 2024, LUMA filed its third annual Resource Adequacy Report with PREB. The Resource Adequacy Report is a yearly forward-looking evaluation of the stability, reliability and resiliency of the island's generation capacity and ability to meet energy demand. Key findings from the report can be found in the following section.

4.4.1.1 *Resource Adequacy Report Key Findings*

The FY2025 Resource Adequacy Report underscores the significant resource challenges confronting Puerto Rico's electric grid. Currently, PREPA's customers are paying some of the highest rates in the nation for the least reliable service in the nation. The study estimates a LOLE of 36.2 days annually, substantially exceeding the U.S. industry benchmark of 0.1 days per year. Relative to FY2023, this LOLE represents a deterioration in the grid as Puerto Rico's average LOLE was 8.81 days per year for FY2023. The associated LOLH for FY2025 is

82 https://www.brattle.com/wp-content/uploads/2017/10/5761_retail_costing_and_pricing_of_electricity.pdf

projected at 154 hours, emphasizing the urgent need to bolster resource adequacy. For more details, see **Chapter 2.5.1 (**Service Reliability**).**

Sensitivity analyses highlight the grid's vulnerability to prolonged outages of major power plants, such as Costa Sur 6 and AES. In such scenarios, LOLE could rise to over 100 days annually, with a corresponding surge in interruption hours. Addressing these deficiencies will require significant investment in approximately 1,000 MW of new energy resources, alongside enhancements to the reliability of existing infrastructure through higher operating and maintenance expenditures. Achieving this would align Puerto Rico's grid performance with mainland U.S. standards, ensuring stable and consistent service delivery.

The integration of advanced energy storage solutions is identified as a critical component for addressing resource deficiencies. The addition of 1,240 MW of energy storage could reduce LOLE to 0.1 days per year, achieving industry-standard reliability. While standalone solar energy projects contribute to sustainability goals, their ability to mitigate capacity shortfalls is limited unless coupled with energy storage technologies to address peak evening demand.

Puerto Rico's path to resource adequacy requires a strategic and multi-faceted approach. Investments in new generation capacity, modernization of the aging thermal fleet, and implementation of demand-response measures are essential to mitigating resource shortfalls. While improvements will take time and substantial resources, these actions are vital for building a resilient, reliable, and sustainable energy system that aligns with the island's fiscal and economic recovery objectives.

4.4.2 IRP

Pursuant to Acts 57-2014 and 17-2019 and the T&D OMA, LUMA is responsible for preparing, presenting, defending current or future IRPs to PREB. The current IRP, approved in August 2020, guides actions until the updated version is approved. Key elements include increasing renewable generation, enhancing grid resilience, and enabling customer choice. More details on the current IRP can be found in the Fiscal Plan certified in June 2023.

LUMA is scheduled to file a new proposed IRP with PREB by May 16, 2025, which will be LUMA's first IRP since it began operations in Puerto Rico in June 2021. See additional discussion of the 2025 IRP related deadlines in **Chapter 3.3 (**PREPA Reorganization**).** PREB held three public and one confidential Technical Conferences with LUMA regarding the pre-filing information of the 2025 IRP. The Technical Conferences were held on August 8, 2023, October 31, 2023, January 30, 2024, and September 18, 2024.[83] During these Technical Conferences, LUMA has described to PREB, and the public, its planned analyses and progress in the development of the 2025 IRP, including modeling plans, preliminary data sources, tasks with which consultants would be assisting LUMA, and its stakeholder engagement process and progress.

LUMA designed the stakeholder engagement process, which it has named "Solutions for the Energy Transformation for Puerto Rico" ("SETPR"), to gather input from stakeholders via in-person meetings, virtual meetings, and a public website. As of November 2024, LUMA has held 21 SETPR meetings attended by 173 stakeholders, including: residential and commercial customers, government officials, commercial and professional organizations and generation partners. LUMA presented its findings from these meetings to the PREB to keep it updated on

83 PREB Docket NEPR-AP-2023-0004 Resolution and Order dated October 29, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/10/20241029-AP20230004-Resolution-and-Order.pdf

LUMA's progress. Additionally, LUMA has held seven one-on-one meetings with stakeholders, like the Puerto Rico Chamber of Commerce, the Association of Commercial Centers of Puerto Rico, the Association of Restaurants of Puerto Rico, Justicia Energética, General Electric, Coopervision and EcoElectrica.[84]

4.4.3 U.S. Department of Energy ("DOE") PR100 Study

In March 2024, the DOE completed a two-year long study titled "Puerto Rico Grid Resilience and Transitions to 100% Renewable Energy Study" (the "PR100 Study").[85] The PR100 Study combined the analyses of six national laboratories to define and assess possible pathways for Puerto Rico to reach its goal of 100% renewable energy by CY2050, as well as other goals and milestones that were in Act 17-2019 at that time.

84 LUMA Press Release: https://lumapr.com/news/historic-milestone-first-interim-2025-integrated-resource-plan-filing-for-puerto-ricos-energy-future/?lang=en

85 https://pr100.gov/report

5 Capital Plan & Federal Funding

This Chapter has three sections: the **first** one provides a broad overview of all sources of funding and identifies steps to effectively deploy the investments the system needs, the **second** provides a deep-dive into federal funding and outlines key initiatives undertaken by LUMA, PREPA, and Genera in FY2025 targeted at transforming Puerto Rico's energy system, and the **third** provides an overview of the two-year stabilization plans requested by PREB from the system operators in light of the June 2024 outages.

5.1 Capital Initiative Prioritization Processes

Addressing the service reliability challenges identified in **Chapter 2 (**Historical Context and Current Challenges**)** requires both federal funds and necessary maintenance expenses ("NME"). Federal funding is meant for emergency recovery, restoration, and permanent work, and does not address regular deterioration of the system. For a deep dive on federal funding, see **Chapter 5.2 (**Federal Funding**).** The NME is required to maintain the system. For more details on NME, please refer to **Chapter 7 (**Summary of Financial Projections**).** As outlined in **Chapter 4.4 (**Resource Planning and Resiliency**),** PREPA's current rate structure is subject to the 2017 Rate Order. However, stakeholder comments in regulatory filings indicate that the previously estimated expenses constrained by the revenue generated with the rates under the 2017 Rate Order are no longer sufficient to support the growth, maintenance, repair, and operation of the Puerto Rico energy system. Per operator estimates, additional funding, beyond system expenses constrained by the 2017 Rate Order, is required to ensure adequate maintenance and operation of the system.

LUMA estimates the system needs approximately $40 billion in federal funding through FY2034 to fully rebuild, maintain, and operate a clean, reliable, and resilient T&D system. This funding estimate is separate and apart from NME and other operating expenses needed to run the system in a sustainable manner. Approximately $16 billion could be available from FEMA's funding for reconstruction and repair of Puerto Rico's energy grid following Hurricane Maria and hazard mitigation funds, such as its Public Assistance Program through Section 428 ("FEMA PA 428") of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the "Stafford Act"). Furthermore, LUMA also assumes that there is a potential for an additional $6 billion of hazard mitigation funds to become available based on an updated methodology used by FEMA to calculate its cost-benefit analyses including a lower discount rate. Therefore, LUMA identified unmet future needs ranging from $18 billion to $24 billion. LUMA expects the federally and non-federally funded investments will allow Puerto Rico to reduce the frequency of outages over the next 10 years by 75–85% compared to the current PREPA performance metrics, implying a SAIFI of 1.6–-2.7 at the end of 10 years (based on PREPA baseline of 10.6 interruptions in FY2020).

The potentially limited federal funds and magnitude of needs highlight the importance of a holistic approach that prioritizes and coordinates the initiatives across the system. Continued coordination among PREPA, the Operators, and other stakeholders (e.g., PREB) is critical to ensure the key initiatives identified for achieving transformation objectives are prioritized and sequenced to create maximized impact on Puerto Rico's energy system. The coordination process between PREPA, LUMA, and Genera is largely driven through the regulatory process with PREB, which is responsible for the final approval and prioritization of both federally funded and non-federally funded projects.

The process for coordination and prioritization of non-federally funded projects is promulgated by PREB through various regulatory proceedings related to operating and maintaining the energy system and has, for years, overseen authorizing all federally and non-federally funded projects PREPA, LUMA, and Genera undertake. Given the significant cost estimates for projects seeking an ultimately limited pool of federal funds and ratepayer revenues, LUMA, Genera, and PREPA have agreed a holistic and coordinated plan is necessary and prioritization of projects should be advanced through existing regulatory proceedings and determined by PREB. This plan must be created with the guidance and independent oversight of PREB, as regulator, due to the discrete interests of each party and specific requirements under the OMAs.

The following PREB dockets contain the ongoing and relevant regulatory proceedings under which various PREPA, LUMA, and Genera plans are being developed and conveyed to PREB and deliberated publicly. PREB currently reviews and approves non-federally funded projects and O&M expenses as part of the annual budget proceeding (NEPR-MI-2021-0004) and reviews and approves federally funded projects for submittal to FEMA and COR3 within the 10-Year Infrastructure Plan proceeding (NEPR-MI-2021-0002). PREB approval is required before submittal to FEMA or COR3 to ensure the proposed projects are compliant with the current in-effect IRP and other regulatory and statutory requirements.

PREB should direct and guide the holistic consolidation, alignment, and prioritization of the various plans that have been created or are in development into a coordinated and prioritized plan that efficiently utilizes the available federal funding and ratepayer revenues for projects over the long term. The active oversight and preparation of this holistic plan may require the expansion of certain ongoing proceedings to synchronize proposed plans across the various dockets. With input from PREPA, LUMA, and Genera, PREB must expand and develop its framework to evaluate and prioritize projects based on the individual merits of each and the anticipated benefits to the system as a whole. The relevant proceedings are:

- Revisión del Programa Comprensivo de Manejo de Vegetación de la Autoridad de Energía Eléctrica, NEPR-MI-2019-0005
- Implementation of the PREPA IRP and Modified Action Plan, NEPR-MI-2020-0012
- Review of PREPA's 10 Year Infrastructure Plan-December 2020, NEPR-MI-2021-0002
- LUMA Initial Budgets and Related Terms of Service, NEPR-MI-2021-0004
- 10 Year Plan Federally Funded Competitive Processes, NEPR-MI-2022-0005
- Review of the PREPA IRP, NEPR-AP-2023-0004
- Priority Plan for the Stabilization of the Electrical Network, NEPR-MI-2024-0005 (for more details on the stabilization plans for stakeholders, please refer to **Chapter 5.4 (**Two-Year Stabilization Plan**)** in this chapter)

In each of the proceedings referenced above, PREB has exercised its jurisdiction and discretion over the proposed plans and projects of the operating entities by approving, denying, or modifying proposals. PREB has also directed LUMA to ensure the proposed plans that will be included in the upcoming rate review and revenue requirement process are consistent with the plans and assumptions included in the 2025 IRP currently under development.

Along with ensuring efficient prioritization and sequencing of initiatives, coordination is also needed to enable successful execution of projects across Puerto Rico's energy sector. PREPA, LUMA, and Genera manage the operational coordination of capital plan execution through

monthly and ad hoc meetings to discuss maintenance activities and planned outages. This coordination is discussed in Section 10 of the Agreed Operating Procedures included in the PGHOA, which was submitted to and approved by PREB. This document outlines the roles and responsibilities of the system operator and legacy generation facility operator and sets forth expectations and procedural scopes to ensure effective and efficient execution of system planning and maintenance.

Table 17 below outlines the milestones to develop and achieve a unified and holistic infrastructure plan to ensure a coordinated approach to achieving the energy sector's transformation goals.

Table 17: Holistic Capital Plan Milestones for FY2025

Milestone	FY2025 Target	Next Steps in FY2025
Initiate PREB Proceeding	Q4	Coordinate with PREB on establishing a new proceeding if necessary, or if an existing proceeding is sufficient
Requirements and Milestones for LUMA, Genera, and PREPA	Q1 FY2026	PREB to establish requirements and milestones for all entities (LUMA, Genera, and PREPA) to determine project prioritization and funding sources
Plan Development	Q4 and Q1 of FY2026	PREB to host Technical Conferences and issue an ROI to LUMA, Genera, and PREPA
Finalize Holistic Capital Plan	Q1 FY2026	Holistic Capital Plan to be finalized and in place for FY2026

5.2 Federal Funding

Over the past several years and in the coming years, significant federal funding resources may be available for a unique generational opportunity to rebuild and transform Puerto Rico's energy system. The inflow of federal funds—as well as funding made available to meet the non-federal cost share—creates a significant opportunity to repair Puerto Rico's energy infrastructure and position it as a crucial enabler of general economic recovery. This is especially critical given the service reliability challenges outlined in **Chapter 2.5.1 (**Service Reliability**).**

5.2.1 Overview of Obligated Federal Funds

In total, PREPA estimates FEMA has obligated approximately $14.4 billion of federal funding for emergency recovery and restoration, and permanent work of the energy system.[86] Federal funding for emergency recovery and restoration work is provided for eligible costs incurred to repair infrastructure damage from federally declared disasters or recognized emergencies. Permanent work funding is provided for eligible and approved projects to repair, restore, or replace a disaster-damaged facility and mitigate potential damage from a future disaster or emergency. Emergency recovery and restoration funding is provided solely on a reimbursement basis for costs incurred by PREPA, whereas permanent work may be provided on an advance or reimbursement basis.

86 While PREPA estimates approximately ~$14.4 billion in federal funding has been obligated, this does not include the local cost share portion, which is expected to be ~$1.2 billion. LUMA estimates that at least $16 billion in federal funding will be available through FY2034, as discussed in Chapter 5.1.

Funding for both emergency and permanent work has been awarded from two federal agencies, FEMA and HUD, across various statutorily designated programs, including FEMA PA 428, FEMA's Public Assistance Program through Section 406 of the Stafford Act ("FEMA PA 406"), FEMA's Hazard Mitigation Grant Program through Section 404 of the Stafford Act ("FEMA 404 HMGP"), and the HUD's Community Development Block Grant ("CDBG") Programs: DR and Mitigation.

Emergency work funding is provided predominantly through FEMA PA 428. The FEMA PA 428 program is also the largest source of funds for permanent work from a single federal program. As of December 23, 2024, $10.4 billion was obligated under FEMA PA 428 for permanent work projects related to the Global Settlement (see Table 18 for obligated amount of FEMA PA 428) for reconstruction work related to damages from Hurricane Maria.[87] Funding for permanent work is applicable to projects related to restoring facilities through repair or restoration to pre-disaster design, function, and capacity in accordance with codes or standards.

The FEMA PA 406 program funds mitigation measures in conjunction with the repair of disaster-damaged facilities and is therefore limited for use only on eligible damaged facilities in eligible localities. FEMA 404 HMGP funds various permanent work mitigation projects for long-term hazard reduction to reduce the loss of life and property due to natural disasters. These FEMA programs do not have a total program allocation amount like FEMA PA 428 but are likewise obligated project-by-project based on Project Worksheet ("PW") submittals. Details on federal funding obligated and disbursed under specific programs can be found in Table 18 on the following page of this Fiscal Plan.

FEMA tracks funding through PW & defines the term "obligated" as the costs awarded and assigned to a PW. For a summary of the FEMA funding process, see Appendix C: Federal Funding Process Summary of this Fiscal Plan. FEMA determines the obligated amounts for each project based on a broad estimate of project costs for reconstruction. FEMA can distribute obligated funds under a PW to other project PWs. FEMA can adjust the obligated amounts after the revised SOW estimates are received and approved.

The amounts funded under the Global Settlement PW have been subject to ongoing reallocation to new PWs submitted by PREPA, LUMA, and Genera. PREPA must receive reimbursement for the federal share of permanent work through FEMA PA 428. Through FEMA PA 428, FEMA will fund 90% of the eligible costs related to the Global Settlement. The procedures for drawing down the funds obligated as part of the agreed-upon settlement are set forth in the FEMA Advanced Award Strategy Initiative. The remaining 10% of eligible costs will be borne by PREPA, or its agent, as part of the local non-federally funded cost share requirement. Funding for any ineligible costs is PREPA's responsibility.

The following tables summarize obligations and disbursements for FEMA assistance programs as of December 23, 2024.[88] For the below tables, Request for Reimbursement ("RFR") refers

87 Data obtained from internal reports from PREPA, which are reconciled to external reports from FEMA & COR3. Financial results for permanent work obligated under relevant sections of the Stafford Act (Public Law 93-288, as amended, 42 U.S.C. 5121 et seq., and Related Authorities). Permanent formulations under Section 428 were only utilized under FEMA Public Assistance Hurricane Maria DR-4339. For all other permanent work formulations for FEMA public assistance including earthquakes and Hurricane Fiona, PREPA did not opt-in for Section 428 and utilized Section 406 for formulation.

88 Numbers in the table may not sum due to rounding errors.

to the amount disbursed reflecting all reimbursements received and Disbursed WCA[89] refers to disbursed WCA amounts. The RFR and WCA together constitute the total amount drawn.[90]

Table 18: Total Federal Funding Obligated and Disbursed by Funding Type

Funding Type	Obligated Amount ($M)	Disbursed Amount ($M) (RFR)	Disbursed Amount ($M) (RFR + WCA)
FEMA Emergency Work	2,461.5	2,380.2	2,380.2
FEMA Permanent Work	11,366.9	707.2	2,055.4
FEMA Management Cost	640.4	65.5	91.2
Total FEMA Funding	**14,445.6**	**3,152.9**	**4,526.8**

Table 19: Total Federal Funding Obligated and Disbursed by Disaster[91]

Disaster	Obligated Amount ($M)	Disbursed Amount ($M) (RFR)	Disbursed Amount ($M) (RFR + WCA)
Hurricane Irma	13.5	13.5	13.5
Hurricane Maria	13,968.5	2,710.0	4,083.6
2020 Earthquake	370.6	354.6	354.7
COVID-19	3.8	2.8	2.7
Hurricane Fiona	89.2	72.0	72.2
Tropical Storm Ernesto	-	-	-
Total	**14,445.6**	**3,152.9**	**4,526.8**

Table 20: Total Federal Funding Obligated and Disbursed by Program for Permanent Work[92]

Program	Obligated Amount ($M)	Disbursed Amount ($M) (RFR)	Disbursed Amount ($M) (RFR + WCA)
FEMA PA 428	10,394.3	692.3	2,015.6
FEMA 404 HMGP	940.6	7.3	32.3
FEMA PA 406	8.7	7.5	7.5
Total	**11,343.6**	**707.1**	**2,055.4**

89 The WWCA is a payment method that provides cash advances to subrecipients to cover their estimated disbursement needs. The WCA program is a pilot program that was developed by COR3 and launched in June 2022 with FEMA's approval.

90 Information in the tables obtained from internal reports from PREPA, which are ultimately reconciled to external reports from FEMA and COR3. Note total amounts drawn includes the WCA which are yet to be reconciled and thus considered "unearned revenue" or liability until the RFR documentation is submitted to COR3 and validated. All HMGP projects are considered permanent in nature and, therefore, all such amounts are included in the Permanent Category.

91 All HMGP projects have been obligated within Hurricane Maria. Therefore, all program financial results were included for that event.

92 The table shows financial results for permanent work obligated under relevant sections of the Stafford Act. Permanent formulations under Section 428 were only utilized under FEMA Public Assistance Hurricane Maria DR-4339. For all other permanent work formulations for FEMA public assistance, including the earthquakes and Hurricane Fiona, PREPA did not opt-in for Section 428 and utilized Section 406 for formulations.

Table 21: Total Federal Funding Obligated and Disbursed by Stakeholder[93]

Entity	Obligated Amount ($M)	Disbursed Amount ($M) (RFR)	Disbursed Amount ($M) (RFR + WCA)
PREPA	8,174.2	2,872.6	2,962.2
LUMA	4,565.1	251.8	1,125.8
Genera	1,706.3	28.5	438.8
Total	**14,445.6**	**3,152.9**	**4,526.8**

As depicted by data presented in Table 18, as of December 31, 2024, only ~22% of the approximately ~$14 billion funds obligated by FEMA had been disbursed. Therefore, federal funding is not being deployed fast enough. Accelerated and effective deployment of federal funds is needed to increase the energy system's resiliency.

5.2.2 Local (Non-Federal) Cost Share

PREPA, or its agent, is required to bear a portion of the costs of FEMA federal funding programs, known as "Cost Share" or "non-federal share".[94] Cost share requirements vary by program, type of work, and disaster, and may be changed after initial declaration.

For the FEMA PA 428 funding concerning permanent work related to Hurricane Maria, the Cost Share requirements are estimated to be at 10%, amounting to approximately $1 billion (or ~10% of the $10.4 billion after deducting expected insurance proceeds).[95] PREPA plans to meet a significant portion of its non-federal share obligations through the CDBG-DR program as it becomes available. To date, $500 million has been made available under the Energy Grid Rehabilitation and Reconstruction ("ER1") Cost Share Program to meet the Cost Share. The sub-award agreement was signed on March 1, 2024.[96]

Funding from the CDBG-DR Energy Electrical Power Reliability and Resilience ("ER2") Program is expected to improve the dependability, affordability, and robustness of the electrical power system. This is achieved by implementing projects with a particular focus on decentralized power generation, distribution, and storage. Funds from the ER2 Program are intended to support qualified projects that are not currently anticipated to be funded by other federal or local sources. Projects for the ER2 Program are chosen by the Puerto Rico Department of Housing ("PRDOH"). Funding from the ER2 Program is expected to cover up to 100% of the costs for selected projects of public ownership, excluding the O&M costs, and up to 60% of the costs for selected projects of private ownership, with the remaining 40% of funds coming from non-CDBG funding sources.[97]

93 The table shows financial results for obligations and disbursements by delegated authorities. Information herein is obtained from internal reports that are reconciled to FEMA and COR3 reports. PWs for A&E (architecture and engineering)services and Equipment & Materials are shared between all three delegated authorities and thus allocation was made to them following COR3 consumption methodologies.

94 For additional details, see the Fiscal Plan certified in June 2023.

95 Other funds beyond FEMA PA 428 may also be subject to a 10% cost share requirement.

96 https://recuperacion.pr.gov/en/energy-grid-rehabilitation-and-reconstruction-cost-share-program/

97 The ER2 Program stipulates a minimum award threshold of $5 million. However, PRDOH retains the discretion to evaluate proposals below this threshold on an individual basis. There is no upper limit on award amounts.

5.3 Key Projects in FY2025

A wide range of initiatives and projects are being implemented to repair and enhance the resilience of the energy system and improve service reliability. To understand and assess how the available funding resources are being utilized to build system capabilities, this section outlines key initiatives and projects undertaken by LUMA, PREPA, and Genera in FY2025.

A consolidated list of prioritized projects for each stakeholder is summarized in Table 22 below (descriptions of the projects are provided below the table). These constitute some of the largest projects being undertaken by stakeholders for FY2025, and approximately 80% of projected federal funding spend in FY2025. Some of these projects have an impact on reliability and grid modernization, while others have an impact on system resilience. These projects are planned for commencement or continued implementation during FY2025. For more details on a selection of these projects including milestones until project completion, see Appendix D: Consolidated List of Largest Projects for FY2025 of this Fiscal Plan.

Note that this list is not exhaustive; while this list accounts for a significant share of projected federal funding spend for FY2025, there may be additional FY2025 projects by stakeholder that also contribute the goal of repairing and enhancing the resilience of the energy system and improving service reliability.

Table 22: Prioritized Projects for LUMA, PREPA and Genera in FY2025

Stake-holder	Project	Project Rationale	Projected Aggregate Federally Funded Portion ($M)	Funding Source
LUMA	Distribution Automation (Distribution Automation improvement portfolio)	Deployment of equipment for grid automation	1,120[98]	FEMA
LUMA	Advanced Metering Infrastructure (Implementation Program improvement portfolio)	Grid modernization and resilience	877	FEMA
LUMA	Streetlighting (Distribution Streetlighting improvement portfolio)	Grid modernization	1,006	FEMA
LUMA	Vegetation Clearing (Vegetation Management and Capital Clearing Implementation improvement portfolio)	Historical reliability and resiliency impacts	1,200	FEMA
LUMA	Distribution Pole and Conductor Replacement	Major repairs and replacement	669[99]	FEMA

98 Based on LUMA's estimates of ~$96 million in FY2022–FY2024, ~$90 million in FY20225, and $934 million by completion.

99 Based on LUMA's estimates of ~$93M in FY22-24, ~$61M in FY25, and $515M by completion.

Stake-holder	Project	Project Rationale	Projected Aggregate Federally Funded Portion ($M)	Funding Source
	(Distribution Pole and Conductor Repair improvement portfolio)			
LUMA	Transmission Line Rebuild	Resilience, industry codes and standards, and integration of renewables	3,326[100]	FEMA
LUMA	Substation Rebuild	Resilience, industry codes and standards, and integration of renewables	2,223	FEMA
LUMA	Distribution Line Rebuild	Resilience, industry codes and standards, and integration of renewables	4,070[101]	FEMA
Genera	BESS	430 MW of instant power for a 4-hour period	786	FEMA PA 406
Genera	Grid Support Generation (Black Start and Peaker Units)	330 MW of new generation by installing new gas-fired peaker units	911	FEMA PA 428 / 406
Genera	Replace Critical Components	Replacement of critical components that will increase the reliability of LGA	124	FEMA PA 428 Program
Genera	Improve Fuel Efficiency	Improvements to legacy units that will reduce fuel consumption on LGA	74	FEMA PA 428
HydroCo	Guajataca Dam	Increase dam spillway capacity, stabilize the earth embankment and abutment	566[102]	FEMA PA 428
HydroCo	Patillas Dam	Strengthen embankment to reduce the potential	559[103]	FEMA 404

100 Based on LUMA's estimates of ~$67M in FY25 and ~$3,259M by completion.

101 Based on LUMA's estimates of ~$111M in FY25 and ~$3,959M by completion.

102 Initial total cost estimate of the project is $1.1 billion. PREB approved $566 million on August 20, 2021 for this project.

103 Current federal approval for ~$558.5 million.

Stake-holder	Project	Project Rationale	Projected Aggregate Federally Funded Portion ($M)	Funding Source
		of a catastrophic failure		
HydroCo	Rio Blanco Hydroelectric System	Replacement of damaged infrastructure from lateral erosion that led to abutment failure	110[104]	FEMA PA 428/406 Mitigation
HydroCo	Early Warning System ("EWS")	Improve safety for vulnerable areas downstream of the dam and first responders	100[105]	FEMA 404
HydroCo	Dos Bocas Reservoir Dredging	Restore the reservoir storage to a condition optimal for operations, water supply, and flood control	58[106]	FEMA PA 428

5.3.1 LUMA

LUMA is working to modernize and transform Puerto Rico's T&D infrastructure to build a better energy future for Puerto Rico. To that end, LUMA is implementing comprehensive improvement programs strategically designed to address major gaps in the system's reliability and resilience, as well as to integrate increasing levels of distributed and utility-scale renewable generation.[107] LUMA's projects also aim to achieve operational excellence and incorporate advances in power system technology that allow customers to fully leverage the capabilities of behind-the-meter technologies such as rooftop solar and EE. In the short-term, LUMA is emphasizing projects aimed at improving service reliability and resilience, two of the transformation objectives identified by the Government (for more details, see **Chapter 3 (Transformation).** Progress towards these transformation objectives will also drive progress across the performance metrics established in the T&D OMA (for more details, see **Chapter 6 (Performance Metrics)).**

The following paragraphs provide a brief description of LUMA's key projects, including largest projects for FY2025 based on spend, and other key projects targeted at system resilience and service reliability. These projects, with other necessary actions, are intended to make the system less prone to outages and to improve system reliability.

104 Current estimate of cost is $109.8 million.

105 Current federal approval for $100 million.

106 Current Class 5 Cost Estimate is $98 million; PREB approved $58.3 million on August 20, 2021 for this project. Class 5 estimates are estimates that are prepared at an early stage in the project development process and is expected, based on industry standards, to range from –50% to +100% of the final actual project cost

107 For a detailed description of LUMA's improvement portfolios, see the Fiscal Plan certified in June 2023.

Distribution Automation[108]

This program focuses on deploying equipment for distribution automation. The program includes deployment of automated switchgear and communicating faults sensors on distribution feeders to improve reliability. The switchgear included consists of three-phase and single-phase reclosers. Automatically switching distribution feeder automation systems will be deployed to enhance reliability further. Communicating fault sensors will be deployed to provide fault location information to operations to improve service restoration. Labor and services are included for reliability analysis, load flow analysis, protection coordination studies, engineering design packages, testing, installation, commissioning, enterprise integration of operational and non-operational data, training, and maintenance.

Advanced Metering Infrastructure ("AMI")

AMI involves deploying smart meters and related communications infrastructure for approximately 1.5 million customers across Puerto Rico. These smart meters allow the T&D system operator to know when customers receive power and provide granular energy-use information to both the system operator as well as the customer. The AMI technology is considered standard, established, and foundational for the operation of modern electric utilities. AMI plays a critical role in emergency response capabilities. It allows the system operator to better deploy resources and provide more accurate estimates of outage location and restoration times, significantly improving the resiliency of communities during disruptive events. AMI enables LUMA to pinpoint customer-specific data to identify the source, location, and extent of an outage. This information facilitates faster dispatch and prioritization of power restoration crews. AMI also enables enhanced operation and financial performance through revenue recovery.

Streetlighting

The streetlight repair and replacement program upgrades and replaces streetlights that have failed or have a high likelihood of failure with the potential to cause damage to the public or surrounding infrastructure. In addition, all high-pressure sodium lamps will be replaced by LEDs by CY2030. All PREPA-owned streetlights will be monitored through LUMA's Geospatial Information System ("GIS"). This will improve the ability to report streetlight outages which will improve public safety. Additionally, this program will result in a reduction in energy consumption.

Vegetation Clearing Program

One of the most significant threats to Puerto Rico's electric system is overgrown vegetation in the right-of-way of overhead T&D lines. According to LUMA's analysis of factors impacting the electric system, unmanaged vegetation near grid assets is the leading cause of outages across the T&D system. Vegetation-caused outages lead to extended service interruptions across large system areas, particularly when transmission lines are impacted. For these reasons, FEMA has determined this program to be an eligible hazard mitigation expense. LUMA has proposed a one-time, island-wide vegetation clearance program that will:

1. Clear vegetation on at least 16,000 miles of T&D lines on a line-by-line basis, removing overgrown vegetation accumulated over decades of underinvestment.

[108] https://energia.pr.gov/wp-content/uploads/sites/7/2023/05/20230516-MI20210004-FY2024_Annual-Budgets_redacted.pdf

2. Remove vegetation near T&D lines, such as "hazard trees," which could fall on power lines if broken by strong winds and/or increase the risk of wildfires due to electric arcing from contact with energized conductors. This program will dramatically improve the resilience of the T&D system to hurricane and tropical storm force winds, as well as system reliability during thunderstorms and other localized high wind conditions.
3. Deploy technology-based, integrated vegetation solutions to provide information on locations where vegetation is too close to power lines. These solutions will allow the prioritization and implementation of long-term tree trimming and hazard tree removal activities.
4. Leverage accepted industry practices and mitigation measures specific to the terrain and vegetation found in Puerto Rico.

Distribution Pole and Conductor Replacement

This program focuses on minimizing the safety hazards caused by distribution poles, equipment, and conductors that must be repaired or replaced. Major repairs and replacement will be based upon the results of an assessment of the distribution system and an analysis by engineers to schedule the repair or replacement based on the criticality of the pole. Following this process, safety hazards and priority poles will be replaced, along with damaged equipment, conductors, and hardware.

Grid Repair Project

The grid repair projects include three initiatives: Transmission Line Rebuild, Substation Rebuild, and Distribution Line Rebuilds. It involves repairing prioritized substations, transmission lines, and distribution feeders across Puerto Rico. This includes repairing the mainline of high-priority distribution feeders, targeted transmission lines including backbone 230 kV and 115 kV lines, as well as prioritized substations. These assets were selected using criteria such as resiliency, system stability impact, reliability, presence of critical customers (e.g., hospitals, water treatment plants, etc.), asset condition, and other factors.

5.3.2 Genera

Genera is working to ensure continuous, reliable generation of energy in addition to integration of renewable energy sources. To that end, Genera is implementing projects to respond to fluctuations in power system supply or demand needs, mitigate the impact of unforeseen outages, and enhance the grid's resilience to natural and unanticipated disruptions. The following paragraphs provide a brief description of Genera's key projects for FY2025.

BESS Project

There are significant benefits to integrating new batteries into an old and aged grid undergoing substantial influx of renewables and facing frequent forced outages from larger, aging generating units like the LGA. The new BESS Project will be configured in multiples of individual 4-hour 430 MW power output battery units. For more details, see **Chapter 3 (Transformation)**.

The generation configuration at each site is expected to be as follows:

- Daguao Peakers: 4-hour 20 MW power output battery
- Jobos Peakers: 4-hour 20 MW power output battery

- Vega Baja: 4-hour 50 MW power output battery
- Yabucoa Peakers: 4-hour 20 MW power output battery
- Aguirre Power Plant: 4-hour 10 MW power output battery
- Cambalache Power Plant: 4-hour 20 MW power output battery
- Costa Sur Power Plant: 4-hour 100 MW power output battery
- Palo Seco Power Plant: 4-hour 50 MW power output battery
- San Juan Power Plant: 4-hour 50 MW power output battery

Grid Support Generation Units (Black Start and Peaker Units) Project

Small and midsize dispatchable generating units will help prevent blackouts and maintain redundancy in the generation system. The power generation equipment will be located at five different existing generating facilities throughout Puerto Rico. For more details, see **Chapter 3 (Transformation).**

Projects to Replace Critical Components

The parts to be procured under this project fall within the categories including: air heaters, air heater baskets (cold and hot), boiler water pumps, breakers, condensing water pumps, continuous condenser wash, cooling tower motors, demineralized reverse osmosis (RO) system pumps and equipment, ducts, fire protection system, fuel pumps, heaters, motors, screens, torque converters, transformers, and valves. For more details, see PREB docket number NEPR-MI -2021-0002 and **Chapter 3 (Transformation).**

Projects to Improve Fuel Efficiency

The parts to be procured under this project fall within the following main categories including, but not limited to: air and water heaters, air heater baskets (cold and hot), condenser continuous cleaning system, cold reheat reducing station, continuous condenser wash, combustion turbine compressor, condensers, debris filters, demineralized water injection systems, low pressure feedwater tubes, online/offline water wash system, steam coils, traveling screens, and variable frequency drives. For more details, see PREB docket number NEPR-MI -2021-0002 and **Chapter 3 (Transformation).**

5.3.3 HydroCo

HydroCo is responsible for the operation and maintenance of hydroelectric generating assets. To that end, HydroCo's priority projects focus on maintenance and repairs to ensure the units are consistently operational and producing power. The following paragraphs provide a brief description of HydroCo's largest projects for FY2025.

Guajataca Dam – Permanent Repairs

The purpose of this project is to increase the Guajataca Dam spillway capacity and stabilize the earth embankment and abutment landslide while providing seismic resilience to the dam. This project intends to reduce the dam operational risk below the tolerable risk safety guidelines of the U.S. Army Corps of Engineers ("USACE"). As of December 5, 2024, this project is still in the development phase and has not received FEMA approval.

Patillas Dam

FEMA has approved the Patillas Dam project, which is to strengthen the Patillas Dam embankment to reduce the potential of a catastrophic failure due to liquefaction of embankment soils following a seismic event, thus protecting life and property of residents downstream of the dam.

Rio Blanco Hydroelectric System

As of December 5, 2024, the Rio Blanco Hydroelectric System project is pending FEMA approval. This project consists of replacing damaged infrastructure from lateral erosion that led to abutment failure of a 70-foot aluminum truss bridge aerial pipe crossing. The erosion caused the bridge and 30-inch diameter fiberglass/concrete pipe to collapse, severing the gravity pipeline between the Cubuy and Sabana diversion dams that feed the Icacos reservoir. A new 30-inch aerial pipe crossing is proposed for reconstruction with new pipe pedestal abutments and suspension bridge to support the new pipe crossing and span across the widened gully.

Early Warning System

FEMA has approved the EWS project which includes the installation of EWS in 37 dams across Puerto Rico. This project will cover the various components of each EWS such as dam instrumentation, the siren system, the global positioning system (GPS) and controls system, evacuation route signage, flood poles, and the community outreach program. The instrumentation installed as part of the EWS will monitor the risk of dam rupture or damage, providing a warning signal to vulnerable areas downstream of the dam and first responders.

The EWS can provide notifications to residents during weather-related scenarios and is vital to the community's safety. Through these alarm systems people will be notified in case of emergencies such as extreme floods, controlled flood releases, or seismic activity, so they can take timely action to reduce disaster risks.

Dos Bocas Reservoir Dredging

The Dos Bocas Reservoir is supplied by the Rio Grande de Arecibo, the Rio Caonillas, and the Rio Limon. This reservoir has captured large quantities of sediment and debris from heavy rains, surface water runoff, soil erosion, and landslides. The project objective is to restore the reservoir storage to a condition optimal for operations, water supply, and flood control. As of December 5, 2024, this project is still in the development phase and has not been submitted to FEMA for approval.

5.4 Two-Year Stabilization Plan[109]

In addition to the initiatives discussed above, two-year stabilization plans submitted by LUMA, Genera, and PREPA are critical components of steps being taken to address service reliability and system resilience.

PREPA and its operators have not been able to access and deploy the billions of dollars of federal funding for the repair of Puerto Rico's energy system from damage sustained in natural disasters as rapidly as expected. The physical and economic shutdown effects of the COVID-19 pandemic also resulted in significant cost increases and supply chain delays. This,

[109] For more details on the 2-Year Stabilization Plans submitted by LUMA, Genera, and PREPA, see PREB docket number NEPR-MI-2024-0005.

combined with system deficiencies unrelated to weather-related damage, resulted in very high levels of service interruptions, culminating in the severe outage events in June 2024, as discussed in **Chapter 2.5.1 (**Service Reliability**).** Accordingly, on June 13, 2024, PREB mandated LUMA, PREPA, and Genera to develop prioritization plans to provide an analysis of the electric system "as is" and accelerate improvements to the electrical system, within a maximum implementation period of two years (by each entity, a "2-Year Stabilization Plan"). The 2-Year Stabilization Plans are aimed at mitigating recurring failures and eliminating weak points that affect the quality of electrical service and are necessary for operation of the system. By August 9, 2024, all parties submitted their preliminary plan and PREB established a procedural calendar for the analysis of these preliminary plans and a Virtual Technical Conference was held on September 11, 2024.

For all stakeholders, projects and priorities outlined in their respective 2-Year Stabilization Plans reflect a subset of the larger scope of the work they will be performing over the next several years to strengthen and stabilize the grid and make progress on other key metrics such as reducing forced outages. A brief description of the 2-Year Stabilization Plans is provided below.

LUMA. LUMA outlined the following goals as part of its 2-Year Stabilization Plan: strengthening the energy system against storms and hurricanes; reducing the size and the impact of outages; clearing vegetation to address a major cause of outages; replacing streetlights to improve community safety and EE; empowering the adoption of solar energy; and improving reliability during generation shortfalls. While LUMA's comprehensive improvement programs cover critical asset categories and utility processes and are aimed at driving long-term progress, for the purposes of directly improving system operations, stability, and reliability in the short-term, LUMA's immediate focus for the next two years is outlined below.

- **Substation Major Projects (Substation Rebuild Program):** This program focuses on necessary adjustments to substations to strengthen the electric grid and covers required high-level assessments, minor substation repairs, repairing of damaged or end-of-life substations, and relocation of substations with a high risk of flooding. Based on analysis conducted by LUMA, 87 substation sites are located within areas determined by FEMA as susceptible to flooding.
- **Transmission Line Major Projects:** This program includes hardening and repairing the 230 kV, 115 kV, and 38 kV systems.
- **Transmission Preventive Maintenance:** LUMA determined 51 line segments on the 38 kV and 115 kV systems contributed to approximately 75% of all transmission related customer minute interruptions. To help mitigate future outages and improve overall system reliability, LUMA is inspecting all 51 line segments during FY2025 and performing repairs on all critical components on the 1,000+ structures.

Genera. The goals of Genera's 2-Year Stabilization Plan are outlined below:

- Increase available generation capacity to 72% by December 2025 (43% available as of June 30, 2023)
- Achieve Reduce forced outages to 16% forced outage by December 2025 (37% as of June 30, 2023)
- Add 56MW BESS fast spinning reserve by December 2025

- Add frequency regulation capabilities to 100% of power plants by July 2025
- Reduce load shedding by 90% by 2026
- Increase planned maintenance by 15% (6% as of June 30, 2023)

The aforementioned goals are intended to be achieved by undertaking reliability improvement initiatives covered earlier in this Chapter.

PREPA. [110] PREPA's 2-Year Stabilization Plan outlines PREPA's intentions to repair hydroelectric power plants and the rehabilitation of the hydroelectric systems in both the short term (Q4 FY2024 through the end of FY2025) and the long term (execution timeline over three years).

For more details on the 2-Year Stabilization Plans submitted by LUMA, Genera, and PREPA, see PREB docket number NEPR-MI-2024-0005.

All the funds needed for the 2-Year Stabilization Plans might not be currently included in the projections for FY2025 which are based on the FY2025 Certified Budget and the 2017 Rate Order (for more details, see **Chapter 7 (**Summary of Financial Projections**)**). Any funding adjustments for FY2025 and potential additional funds for FY2026 and beyond would need to be assessed and reviewed by PREB.

[110] In response to PREB orders, PREPA indicated it "no longer holds the responsibility for the operation and maintenance of Puerto Rico's electric system in as much as this responsibility was transferred to LUMA and Genera pursuant to their respective OMAs. Consequently, PREPA is not the entity responsible for submitting or providing the requested improvement plan." For more details, see https://energia.pr.gov/wp-content/uploads/sites/7/2024/07/20240710-MI20240005-Motion-in-Compliance-with-the-June-13-2024-Resolution-and-Order.pdf

6 Performance Metrics

6.1 Introduction

As part of the transition to a reorganized electric system where roles and responsibilities are distributed across public and private entities, the Government entered into the OMAs with LUMA and Genera, in which performance-based compensation was established to align each Operator's performance with the public policy goals of Puerto Rico. For the Operators to earn their performance-based compensation, they must meet certain performance targets; operators' budgets should correspondingly provide reasonable opportunities for them to earn incentive compensation.

6.2 Genera Performance Metrics

Genera, as operator of the LGA, will be evaluated against two sets of performance metrics. The first set is the performance metrics established by PREB under the docket titled "The Performance of the PREPA."[111] These metrics include parameters to report against established baselines (historical performance) and benchmarks (minimum desired performance). The second set of performance metrics consists of incentive and penalty metrics established in the Generation OMA, subject to PREB's revisions in future proceedings.

6.2.1 Genera Performance Metrics Set by PREB

On May 21, 2021, PREB set the overall system performance metrics with baselines and benchmarks, utilizing data reported by PREPA in FY2020. Since it began operating the LGA on July 1, 2023, Genera's responsibilities include, among other things, compliance with the performance metrics established by PREB specific to generation. As of today, Genera has reported on the GenCo and the LGA performance metrics for the entire FY2024 and continues to do so in FY2025.

Appendix E: Overview of GenCo Performance Metrics of this Fiscal Plan shows the metrics on which Genera reports in accordance with the procedures outlined in the PREB docket number NEPR-MI-2019-0007[112] and their corresponding description. Genera submits the required information and metrics to LUMA on a quarterly basis, which LUMA, in turn, files as a consolidated report with PREB. Once PREB collects a fiscal year's data, it analyzes the provided data and produces a metrics summary report, such as the R&O titled "Fiscal Year 2024 12-Month Metrics Summary," dated December 26, 2024, under the aforementioned docket.

6.2.2 Generation OMA Performance Metrics

In each fiscal year, Genera is eligible to receive financial incentive compensation or be subject to penalties based on a set of metrics outlined in Annex II of the Generation OMA. These metrics measure Genera's O&M Services and Decommissioning Services performance.

111 PREB Docket No. NEPR-MI-2019-0007.

112 With minor modifications requested by Genera

The tables below show metrics for evaluation of incentives and penalties, and the incentives and penalties metrics included in the Generation OMA, their corresponding description, and the criteria for eligibility for payment or penalty for each metric.

Table 23: Generation Incentives and Penalties Metrics

Incentives	Penalties
• Operation cost efficiency • Equivalent availability factor ("EAF") • Safety compliance • Environmental compliance • Reporting obligations • Fuel savings • Decommissioning cost efficiency	• EAF • Safety compliance • Environmental compliance • Reporting obligations • Decommissioning cost efficiency

Table 24: Generation Incentives and Penalties Metrics Description, Criteria, and Penalty

Incentive	Description	Measuring Parameter	Criteria and Incentive/ Penalty
Operation Cost Efficiency [1]	Incentive based on a percentage of the total cost savings achieved in delivering the O&M Services compared to the approved operating budget.	Actual expenditures as a percentage of the approved Operating Budget, where actual savings equal the Operating Budget minus the actual expenditures.	50% of actual savings
			Decommissioning Services Penalty: $1 million weekly penalty for delayed Decommissioning Services beyond the set completion date, up to a $15 million aggregate maximum across all LGAs and Sites.

Incentive	Description	Measuring Parameter	Criteria and Incentive/ Penalty	
(EAF) (1)	Incentive based on overall annual EAF for a contract year exceeding the EAF established in accordance with the Annual Performance Test procedure.[113] Penalty is applicable if the EAF falls below the targets referenced above.	**EAF = [(AH – EPDH – EUDH) / PH] x 100%** Where: "AH" = Available Hours "EPDH" = Equivalent Planned Derated Hours "EUDH" = Equivalent Unplanned Derated Hours "PH" = Period Hours or number of hours the LGA was in active state	**EAF for Baseload Units:**	**>5% above Target:** Payment of $15 million
				>2.5% but ≤5% above Target: Payment of $10 million
				>0% but ≤2.5% above Target: Payment of $5 million
				≤ Performance Target: Penalty of $5 million
			EAF for Peaking Units:	**>10% above Target:** Payment of $15 million
				>5% but ≤10% above Performance Target: Payment of $10 million
				>0% but ≤5% above Target: Payment of $5 million
				≤ Performance Target: Penalty of $5 million
Safety Compliance (2)	Incentives and penalties based on performance concerning the safety compliance targets described, including subcontractors' performance.	Occupational Safety & Health Administration ("OSHA") Lost Time Incidents	**≤3:** Payment of $10,000	
			3-5: Payment of $5,000	
			5>: Penalty of $100,000	
		OSHA Recordable Injury or Illness	**0:** Payment of $10,000	
			1-3: Payment of $5,000	
			>3: Penalty of $100,000	
		OSHA Fatality or Severe Injury	**0:** Payment of $10,000	
			≥1: Penalty of $100,000	

113 Annual EAF targets and Minimum Performance Thresholds for Baseload and Peaking Units are set via the Annual Performance Test, conducted within 90 days of Service Start and in the first 30 days of each Contract Year, as provided for in the Generation OMA. The test provides a Capacity and Heat Rate baseline, influencing Genera's proposed targets, subject to the PREB approval.

Incentive	Description	Measuring Parameter	Criteria and Incentive/ Penalty
Environmental Compliance [2]	Incentive payment based on performance concerning the environmental targets.	Violation of Consent Decrees and/or Notice of Violations	**0:** Payment of $10,000
			>1: Penalty of $25,000 (for each violation or notice of violation)
Reporting Obligations [3]	Penalty based on the timeliness of responding to a reasonable request for information from P3.	Days of Failure of Response	$100,000 penalty for every 15 consecutive days of non-response to P3.
Fuel Optimization	Fuel Optimization Payment of 50% of any Actual Fuel Savings achieved during the relevant fiscal year.	Actual expenditures as a percentage of the approved Operating Budget, where actual savings equal the Operating Budget minus the actual expenditures.	Genera receives 50% of any Actual Fuel Savings achieved. Fuel Optimization Payment, calculated per FOP and current budget assumptions, equals the difference between budgeted and actual costs of relevant items.
Decommissioning Costs Efficiency [1]	Incentive Payment if (i) actual expenditures are below the estimates included in the applicable Decommissioning Budget and (ii) successful completion of the applicable Decommissioning Services on or before the relevant Decommissioning Completion Date.	Actual expenditures as a percentage of the approved Decommissioning Budget minus actual expenditures.	50% of actual savings
			Decommissioning Services Penalty: $1 million weekly penalty for delayed Decommissioning Services beyond the set completion date, up to a $15 million aggregate maximum across all LGAs and Sites.

Incentive	Description	Measuring Parameter	Criteria and Incentive/ Penalty
(1) The maximum incentive payment is subject to the Annual Incentive Cap for each fiscal year. (2) For each fiscal year, the maximum aggregate incentive payment payable to Genera is subject to the Annual Incentive Cap, and the maximum aggregate O&M Penalty Genera may incur is $100,000. (3) For each fiscal year, the maximum aggregate Reporting Obligation Charge Genera may incur is $1 million.			

The following table shows the timelines for Genera to present reports of these metrics to P3, as well as for the determination and payment or deduction of any incentive or penalty.

Table 25: Genera Incentives and Penalties Report

There are no incentives or penalties during the mobilization and demobilization period. Furthermore, upon any force majeure event, Genera and P3 will negotiate adjustments to the metrics shown in Table 25.

The performance incentive mechanisms shown in Table 24 are subject to the applicable legal provisions and the proceeding or proceedings that PREB may establish regarding Genera's compliance with the relevant metrics.[114]

PREB retains the authority to impose penalties. The penalties P3 imposes on Genera do not substitute for penalties PREB can impose in accordance with the applicable laws and regulations. Despite the powers granted to PREB by law and regulation, PREB will not duplicate penalties already imposed by P3, if any, for a given circumstance. Should PREB impose a duplicative penalty for an act or omission already penalized by P3 under the Generation OMA, PREB would deduct the amount previously imposed by P3 from the PREB imposed penalty.

6.3 LUMA Performance Metrics

After PREPA exits Title III and PREB sets performance targets, LUMA will be evaluated against a set of performance incentive metrics in three categories as set forth in Annex IX of the T&D OMA: 1) customer service; 2) technical, safety, and regulatory compliance; and 3) financial. These metrics align LUMA's performance priorities with improved customer experience and public policy goals. In many cases, the metrics track progress to reversing the significant negative performance trends observed under PREPA's management of the T&D

[114] Regulation 9137: Regulation for Performance Incentive Mechanisms. https://energia.pr.gov/wp-content/uploads/sites/7/2020/02/9137-Regulation-for-Performance-Incentive-Mechanisms.pdf

system. As part of LUMA's work during the Front-End Transition period,[115] in February 2021, LUMA submitted Proposed Performance Metrics and Baselines for PREB's evaluation.

Metrics are based on those outlined in the T&D OMA, including revisions to the metrics themselves, baselines, and performance targets. On January 26, 2024, PREB issued an R&O approving—with modifications—the revised Annex IX of the T&D OMA. LUMA challenged PREB's decision, filing a Motion in Reconsideration of the Determination by PREB on February 15, 2024. On June 14, 2024, PREB filed its Reconsideration of Final Order and on July 15, 2024, LUMA filed for Judicial Review in the Court of Appeals. In November 2024, the Court of Appeals denied LUMA's request and upheld PREB's decision. The PREB modifications to revised Annex IX of the T&D OMA include modifications on the tiers, baselines, targets, and proposed metrics to be approved. PREB's R&O modified the way the metric is calculated which could impact the ability for LUMA to earn the incentive fee.

LUMA's total compensation after completion of the Interim Period[116] is tied to achieving certain target thresholds for the performance metrics. In other words, LUMA's performance metrics are standards by which LUMA's performance may be measured, and incentive compensation is determined based on targets achieved. Incentives will be paid in the form of a variable and capped incentive fee. See **Chapter 6.3.3 (**T&D OMA Incentive Fee Calculation Approach**)** for more details.[117]

6.3.1 T&D OMA Normal Operating Performance Metrics

LUMA's performance for normal operations will be measured by and evaluated against performance metrics across three major categories:

- **Customer service metrics** to ensure LUMA is achieving a high-level of customer satisfaction across all customer classes
- **Technical, safety, and regulatory metrics** to verify LUMA is operating a safe, reliable electric grid while remaining compliant with applicable safety, environmental, and other regulations
- **Financial performance metrics** to ensure LUMA is operating sustainably within the Operating and Capital Budgets (both federally funded and non-federally funded), as defined by the T&D OMA. LUMA's financial performance is not measured by cost savings or achieving customer rate targets, and LUMA is not entitled to any incentive compensation for achieving cost savings. The Government's expectation was LUMA would improve reliability and resilience of the T&D system, without regard to reduction in rates.

115 The execution of the T&D OMA started the clock on a transition period (the "Front-End Transition Period"), defined in the T&D OMA as the period between the Effective Date of the O&M Agreement (June 22, 2020) and the Service Commencement Date.

116 Refers to the transitional phase between the execution of the OMA and the formal transfer of the operation and management of Puerto Rico's electricity transmission and distribution system to LUMA Energy

117 Further information on this process and an example Incentive Fee calculation can be found in the T&D OMA at https://ntc-prod-public-pdfs.s3.us-east-2.amazonaws.com/7eOUn4YsCCQMDscP8hZ1PfOJpRw.pdf

LUMA's metrics by category and description of each metric are included in Table 26.

Table 26: Overview of T&D OMA Performance Metrics[118]

	Metric	Description	Year 1 Target Threshold LUMA Filed with PREB June 14, 2024
Customer Service Metrics	J.D. Power Customer Satisfaction Survey (Residential Customers)	Third-party measure of customer satisfaction	398
	J.D. Power Customer Satisfaction Survey (Business Customers)	Third-party measure of customer satisfaction	345
	Average speed of answer (minutes)	The average wait time from the moment the customer enters the Automated Call Distribution ("ACD") queue to the time an agent answers the call	1.69
	Customer complaint rate	Total annual complaints registered with PREB divided by the total number of customers and then multiplied by 100,000	17.1
	Abandonment rate	The percentage of callers who hang up (abandon) while the call is still in the ACD queue	8.7%
Technical, Safety, and regulatory Metrics	OSHA Recordable Incident Rate	Total number of OSHA recordable incidents due to a work-related injury	2.19
	OSHA Fatalities	All work-related fatalities	0.08
	OSHA Severity Rate	Total number of work-related injuries with severity days (both restricted and lost time days)	17.90
	OSHA Days Away Restricted or Transferred ("DART") Rate	Total number of OSHA recordable cases with lost-time days (away, restricted, or transferred)	1.32

118 Revised Performance Metric Annual Targets and Minimum Performance Levels for Incentive as approved by PREB in Docket NEPR-AP-2020-0025 R&O dated June 14, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/06/20240614-AP20200025-Resolution-and-Order.pdf

	Metric	Description	Year 1 Target Threshold LUMA Filed with PREB June 14, 2024
	SAIFI	Indicator of how often the average customer experiences a sustained interruption over a predefined period	7.0
	SAIDI	Indicator of the total duration of interruption for the average customer during a predefined period	1,218
	Distribution Line Inspections & Targeted Corrections	The number of distribution line inspections completed, with data recorded in a database for analysis. Category 0[119] and Category 1[120] findings will be incorporated in a plan to be addressed within 60 days of identification	16
	Transmission Line Inspections & Targeted Corrections	The number of transmission line inspections completed, with data recorded in a database for analysis. Category 0 and Category 1 findings will be incorporated in a plan to be addressed within 60 days of identification	4
	T&D Substation Inspections & Targeted Corrections	The number of distribution and transmission substation inspections completed with data recorded in a database for analysis. Category 0 and Category 1 findings will be incorporated in a plan to be addressed within 60 days of identification	6
Financial Performance	Operating budget	Ability to stay within budget	100% of T&D Approved Operating Budget
	Capital budget: federally funded	Ability to stay within budget	100% of FY2025 Approved Capital Spend
	Capital budget: non-federally funded	Ability to stay within budget	<100% of FY2025 Approved Capital Spend

119 Critical or immediate safety-related issues that pose a high risk to public safety, worker safety, or system reliability

120 High-priority but non-critical issues that still require prompt attention to prevent deterioration or potential hazards.

	Metric	Description	Year 1 Target Threshold LUMA Filed with PREB June 14, 2024
	Overtime	Ability to manage overtime costs under normal operations (excluding emergency events)	23% of Total Non-Exempt Base Compensation[121]
	Days Sales Outstanding ("DSO") – General Customers	Ability to collect bills from general customers	131
	DSO – Government Customers	Ability to collect bills from government customers	754

Since September 2021, PREB has requested additional metrics for evaluation, in the areas of NEM, EE, demand response, and vegetation management. These additional metrics are summarized in the table below.

[121] Non-Exempt Base Compensation refers to the regular wages earned by employees classified as non-exempt under the Fair Labor Standards Act or similar labor laws. These employees are entitled to overtime pay for hours worked beyond 40 in a workweek. Base compensation includes pay for standard working hours and excludes overtime, bonuses, and other supplemental earnings.

Table 27: Overview of Additional T&D OMA Performance Metrics Requested by PREB

	Metric	Description	Year 1 Target Threshold LUMA Filed with PREB October 28, 2022
Technical, Safety, and Regulatory Metrics[122]	Vegetation Maintenance Miles Completed by 230 kV, 115 kV, 38 kV, and Distribution (primary line only)	Indicates the number of overhead line miles fully maintained in the given year by Transmission (230 kV, 115 kV, 38 kV) and Distribution (less than 38 kV)	1,600
	NEM Project Activation Duration	Measures the average duration (days) for activating NEM projects	28
	Energy Savings as % of Sales	Measures total energy savings achieved (MWh) as percentage of total energy sales (MWh) during the period	0.10% savings
	Peak Demand Savings as % of Peak Demand	Measures peak demand savings achieved (MW) as percentage of total peak demand (MW) during the period	0.10% savings

6.3.2 T&D OMA Major Outage Event Performance Metrics

The T&D OMA also includes a set of Major Outage Event Performance Metrics to measure LUMA's performance during a Major Outage Event. For the purposes of the T&D OMA and Major Outage Event Performance Metrics, a "Major Outage Event" is defined as:[123]

"an event as a result of which (i) at least two hundred and five thousand (205,000) T&D Customers are interrupted for more than 15 minutes or (ii) at any point in time during the event, there are one thousand five hundred or more (≥1,500) active outage events for the T&D System, which are tracked in the Outage Management System ('OMS'). The major outage event is deemed ongoing so long as the interruptions/outages continue to remain above the stated cumulative amounts, in each case for a period of twenty-four hours or longer (≥24) and are caused by an act of God. If such an act of God is a storm, the storm must be designated as a named storm by the U.S. National Weather Service, or a State of Emergency declared by the Government of Puerto Rico. The major outage event will be deemed to have ended when the cumulative number of T&D customers remaining interrupted falls below ten thousand (10,000) for a continuous period of eight (8) hours."

[122] LUMA's proposed metrics, baselines and targets are currently under review and consideration for adjudication before PREB. The Target Thresholds outlined are from the revised Annex IX of the Transmission and Distribution OMA as filed before PREB by LUMA on October 28, 2022.

[123] Based on definition of Major Outage Event from LUMA's comments on performance metrics baseline, p .PREB Docket NEPR-MI-20019-0007. https://energia.pr.gov/wp-content/uploads/sites/7/2021/02/LUMA-Motion-Resubmitting-Comments-and-Exhibits-1-3-NEPR-MI-2019-0007.pdf

The T&D OMA Annex IX includes metrics for a Major Outage Event and a description of each metric.

6.3.3 T&D OMA Incentive Fee Calculation Approach

LUMA's performance in the contract year as measured against the normal operation performance metrics will determine LUMA's eligibility for the T&D OMA Incentive Fee. For details regarding the incentive fee, see the Fiscal Plan certified in June 2023.

7 Summary of Financial Projections

The following chapter provides an overview of PREPA's financial projections. The Chapter first describes the process in which PREPA's financial projections are built, followed by a deep dive into its key components: load forecast, expenses, revenues, and sensitivities. Projections are calculated using inputs and assumptions from PREPA and its operators and will be discussed separately in each section.

All projections in this Chapter are based on and consistent with the macroeconomic assumptions (including population and the gross national product ("GNP") growth) underlying the Fiscal Plan for the Commonwealth of Puerto Rico certified in June 2024. This Chapter also largely assumes compliance with Act 17-2019's targets for EE and renewable generation, as well as the 2020 IRP mandates. In January 2025, Puerto Rico's new governor has proposed a bill amending Act 17-2019, which could affect system expense and load estimates. An amendment of Act 17-2019 that alters targets for implementing renewable generation resources or EE accomplishments could impact the generation and load forecasts as well as the costs associated with it.

It should be noted that while this chapter includes a discussion on system expenses and load, which can be translated into an expense projection per kWh, Chapter 7 of this Fiscal Plan should not be construed to imply any change to the rate structure of the PREPA system. Any change to the revenue requirement, and to the rates required to sustain it, is subject to PREB approval.

7.1 Introduction

PREPA's financial projections combine key inputs such as load forecast and operators' expense forecasts, among others, to determine the revenue required to cover planned operation and maintenance expenses. The ongoing rate review process commenced by PREB, designed to account for Puerto Rico's energy system's evolving demands and ratemaking principles, will ultimately determine how much will be required to be funded by ratepayers. LUMA projects the net load for this Fiscal Plan's forecast period based on a series of external factors that include macroeconomic forecasts (e.g., population and GNP growth), existing system needs (e.g., maintenance, operation costs, and vegetation management), and internal developments (e.g., the integration of renewable generation capacity). Based on the net load forecast and other inputs, operators then estimate year-by-year expenses. Expense projections reflect the potential impact of external factors (e.g., fuel price increases) as well as the impacts of PREPA's ongoing transformation, including the initiatives and operational measures being planned or implemented across the four separate entities that make up PREPA: HoldCo, GenCo, GridCo, and HydroCo, each with their own specific role, responsibilities, and costs.

The certification process of this Fiscal Plan process initially commenced with the Oversight Board's establishment of the certification timeline on April 16, 2024. On June 7, 2024, PREPA submitted an initial proposal of the Fiscal Plan including inputs from LUMA and Genera and updates on the system's future operating costs and load projections.

Throughout the spring and summer of 2024, PREPA's customers experienced substantial instances of power outages and load-shedding events., including (but not limited to) major blackouts in June 2024, and December 2024's island-wide blackout affecting over a million customers. This exemplifies the ongoing challenges to the system's operations and performance reflected by the deteriorating service reliability indicators since March 2023 (as

described in **Chapter 2 (**Historical Context and Current Challenges**)**). Additionally, stakeholder comments by LUMA in its FY2025 budget filings stated the previously estimated expenses constrained by the revenue generated by the rates under the 2017 Rate Order were no longer sufficient to support the operation, maintenance, repair, and modernization of Puerto Rico's energy system.[124] The 2017 Rate Order requires that the proposed annual budgets submitted for review do not increase the overall revenue requirements determined by the base rates or rate structure approved in the 2017 Rate Order. The 2017 Rate Order established the current rate structure and remains in effect until the new rate structure is approved by PREB (see **Chapter 4.3.1 PREPA's Current Rate Structure** for additional details).

To address this, the Oversight Board asked the Operators to estimate the necessary repairs to address the ongoing disrepair and deficiencies that were becoming more pronounced and not being adequately addressed due to the rate limitations of the 2017 Rate Order. The Oversight Board issued a Notice of Violation dated August 2, 2024, and requested the operators to provide financial projections to reflect the "ongoing operational and maintenance needs of the system" including "funding for necessary improvements in service quality for ratepayers." The Notice of Violation also included a request to provide non-F&PP O&M expense projections beyond FY2025 that reflect the needs of the energy system absent constraints imposed by the 2017 Rate Order, including "estimated amounts and yearly incremental costs that currently do not have a recurring funding source and may be required to be funded by [customer payments]."[125] The extension and uncertainty of the restructuring process further underscored the importance of the assessment of system needs. In response, on September 25, 2024, PREPA submitted a revised proposal of the Fiscal Plan that included the operators' updated O&M expenses. These expenses included projections until FY2030 for HydroCo, HoldCo, and Genera, and high-level projections until FY2034 for LUMA. LUMA expects the federally and non-federally funded investments will allow Puerto Rico to reduce the frequency of outages over the next 10 years by 75–85% compared to PREPA's baseline.

To examine the reasonableness of the operators' assessment of the system needs, the Oversight Board further asked PREPA and the operators to review their projections taking into account four considerations: (i) the projected speed of expense ramp-up, (ii) the capacity to execute the projected expenses, (iii) their confidence in the NME estimates, and (iv) the operating expenses required to adequately operate the system and support the projected level of NME. PREPA and its operators submitted their responses and related information on November 20, 2024, December 17, 2024, and January 3, 2025. This Fiscal Plan reflects and incorporates the Operators' projections and submissions up to January 2025.

Given multiple proceedings by PREB focusing on the extent of system needs and adequacy of spend to date (e.g., requirement of the 2-Year Stabilization Plans, reinitiating a new rate review proceeding in December 2024 with a target effective date of provisional rates on July 1, 2025, ongoing development of a new IRP with a full proposal filing deadline of May 16, 2025), the Oversight Board's use of projections not constrained by the revenue requirement of the 2017 Rate Order in this Fiscal Plan aligns with the regulatory environment's shift away from the outdated cost constraints. In addition, the Oversight Board intends to engage an

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124 LUMA FY2025 Budget Submission. https://energia.pr.gov/wp-content/uploads/sites/7/2024/05/20240525-MI20210004-Motion-FY2025-TD-GenCo-and-System.pdf

125 August 2, 2024, Notice of Violation letter, available at https://drive.google.com/file/d/140zDjhzXOvVZkHVTvYYDwHpuDCpzpvej/view

independent consultant to conduct a study to further assess and pressure-test the operators' estimates of the system needs.

Separately, a sensitivity analysis of the load projection has been made by testing an alternative load forecast based on different EE efficiency adoption assumptions that do not consider the mandates of Act 17-2019.

7.2 Baseline Revenue Requirement

The revenue requirement refers to the total revenue PREPA must earn in a given period (in this case, a fiscal year) to cover its planned expenses. PREPA's projected revenue, which it receives through its main economic activity (selling electricity to its customers), must fully cover all projected costs it reasonably anticipates incurring in providing adequate service to the Puerto Rico electricity consumers. To achieve this, PREB reviews and approves rates such that the revenue requirements for the expenses PREB determines are necessary and appropriate are met for the upcoming fiscal year, using factors including the expected load, electricity demand across customer classes, and the costs associated with operating and maintaining PREPA's infrastructure. Any change to the revenue required rate in the PREPA system is subject to PREB approval.

As further discussed in the following sections of this Chapter, this Fiscal Plan incorporates the load forecast in Puerto Rico, as provided by the Operators for the forecast period of FY2025 through FY2053, with a discussion on select macroeconomic drivers behind it, and additional factors (including EE, DG, and EV) that could affect the load. This Fiscal Plan also incorporates the revenue requirement or estimated expenses, as provided by the Operators, as aforementioned. PREB may or may not approve a rate sufficient to pay all the estimated expenses. Previous fiscal plans for PREPA contemplated a rate sufficient to pay estimated expenses constrained by the 2017 Rate Order and some of PREPA's legacy debt. Because the expenses alone projected in this Fiscal Plan require a rate in excess of the rate the Oversight Board believes will render PREPA sustainable, in this Fiscal Plan the Oversight Board concludes it will use other sources to free up some of PREPA's revenues for debt service. PREPA, as a covered entity subject to the requirements of PROMESA, is currently navigating the Title III process, which includes ongoing discussions around the restructuring of debt obligations. To this end, that process remains uncertain. Additionally, while this Fiscal Plan relies on the operators' estimates of costs necessary to operate, maintain, repair, and where applicable, modernize the system developed without the constraint of the 2017 Rate Order rate design, it does not dictate changes to rate design that may be implemented by PREB during the ongoing rate review process, or which may otherwise be required to support the evolving energy transition in Puerto Rico.

FY2021 is the last fiscal year in which consolidated expenses for PREPA are presented for reporting. Starting with FY2022, the Fiscal Plans and Budgets for PREPA presented the three component units separately: GenCo, GridCo, and HoldCo. In FY2024, HydroCo was incorporated and is presented as a component unit.

7.3 Load Forecasting

This section focuses on providing an overview of this Fiscal Plan's load forecast, referred to as the "Base Case," the macroeconomic drivers that affect load, and additional modifiers to the load considered in the projections, including EE, DG, and EV. Additionally, it includes a

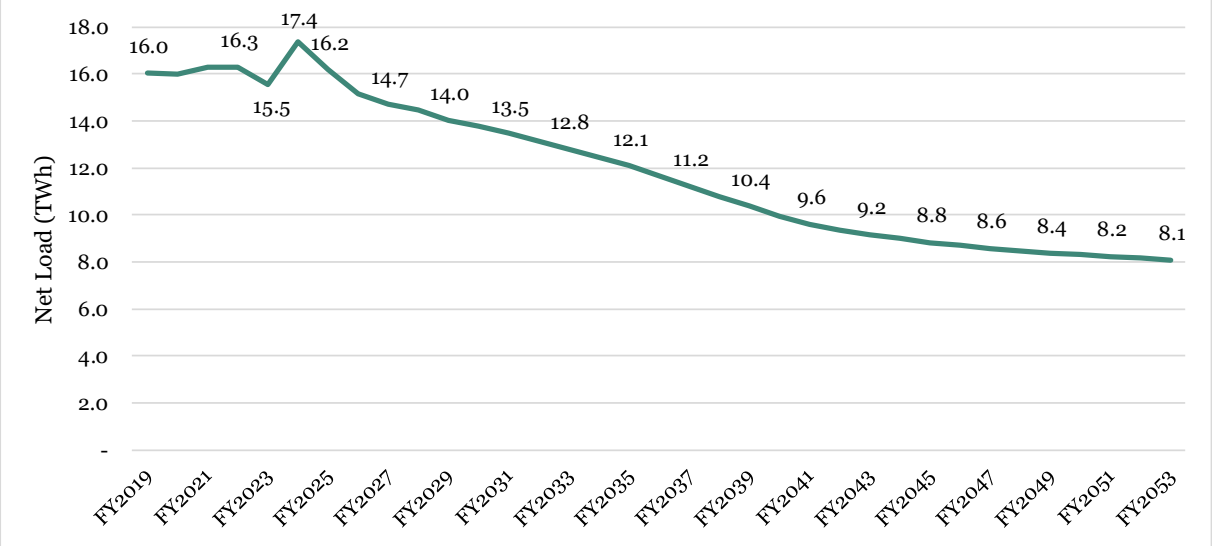
sensitivity analysis in **Chapter 7.3.4 (**Sensitivities**),** which provides an alternative load forecast not constrained by Act 17-2019's EE targets.

7.3.1 Load Forecast

For this Fiscal Plan, LUMA submitted its forecast for the net load for the period FY2025 to FY2053. Exhibit 9 shows the historic net load from FY2019 to FY2024 alongside the forecasted load for FY2025 until FY2053 expressed in TWh. Between FY2023 and FY2024, there was an increase in net load from 15.5TWh to 17.4 TWh or +11.7%. According to LUMA, the main factor for this increase was an impact in Cooling Degree Days ("CDD") compared to the previous year and the FY2024 forecast. The increase in CDD reflect higher-than-expected temperatures in Puerto Rico in the midst of an island-wide heatwave that has resulted in higher than usual temperatures, starting from the end of FY2023 through FY2024, leading to an increase in electricity demand for cooling and air conditioning.

From FY2025 onwards there is an expected steady decline in net load down to ~14TWh in FY2030, ~10TWh in FY2040, and a low of ~8 TWh in FY2050. This translates into an average annual decrease of ~2.4% in net load and a FY2050 net load projection that is approximately 57% of the load forecasted for FY2025.

Exhibit 9: Net Load Forecast (TWh), FY2019–2024 Actuals and FY2025–2053 Forecast



Two factors contributing to the projected decline in load will be analyzed in the following sections: macroeconomic factors and load modifiers.

Macroeconomic factors: The ongoing decline in Puerto Rico's population combined with the decline in economic activity on the island, as measured through its GNP, leads to a reduction in energy demand, and therefore a decreasing load over time (see **Chapter 7.3.2 (**Macroeconomic Projections**)** for further discussion on this topic).

Load modifiers: Behavioral components on the demand side that directly affect the projected load (see **Chapter 7.3.3 (**Modifiers to the Base Case Load Projection**)** for further discussion on this topic) include:

- **EE** initiatives that make residential and commercial appliances and public lighting more efficient in their use of energy, thereby reducing load demand.

- **DG** via the installation of rooftop solar and other renewable power generation, which results in customers generating their own power, thereby reducing load demand.
- **EV** adoption in Puerto Rico leads to an increase in load from new connections to the grid and higher energy requirements to recharge, therefore increasing the load demand.

While it is impossible to predict the load with certainty, a combination of macroeconomic trends and other factors affecting the electricity market (e.g., changing consumption habits, statutory requirements around EE, and renewable energy adoption) must be considered to give the best possible estimate of how the supply and demand for electricity will affect load requirements.

7.3.2 Macroeconomic Projections

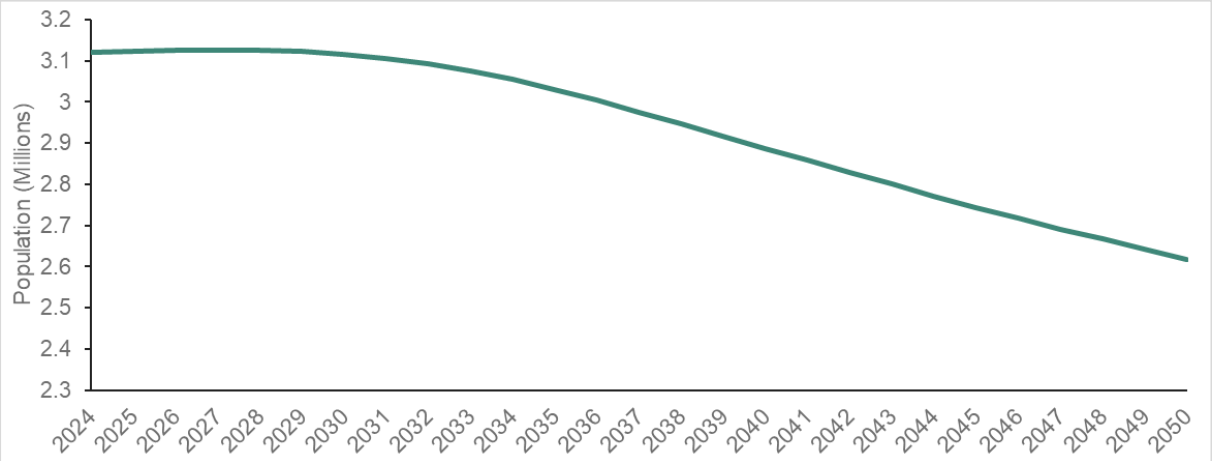
This Fiscal Plan incorporates macroeconomic projections consistent with those used in the Fiscal Plan for the Commonwealth of Puerto Rico certified in June 2024.[126] Projections show a relatively steady (albeit slightly declining) population from FY2025 to FY2030. Beginning in FY2031, a noticeable population decline is observable, driven by a combination of outmigration and demographic factors.

Macroeconomic indicators and demographics

Population: Projections show a mild annual rate of decline between FY2025 and FY2030 of 0.05%. Between FY2031 and FY2050, there is a higher annual rate of decline of 0.90% leading to a projected FY2050 population of ~2.6 million. The decline from FY2025 to FY2050 is approximately 16%. The projection for the population of Puerto Rico including the actual FY2024 population and projections from FY2025 to FY2050 can be seen in Exhibit 10.

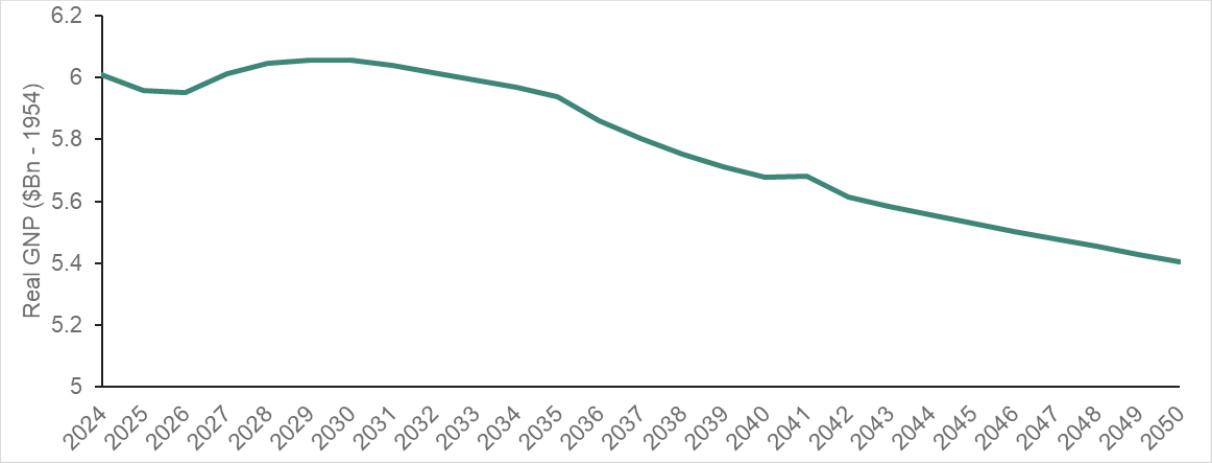
GNP: The real GNP is projected to decline 0.48% between FY2024 and FY2026. This period is projected to be followed by a brief period of 0.24% annual growth from FY2027 to FY2030. Post FY2031, real GNP follows a negative trend with an average decline of 0.34% per year until FY2050. See Exhibit 11 for more details.

Exhibit 10: Commonwealth of Puerto Rico Population Projections



126 2024 Commonwealth Certified Fiscal Plan: https://drive.google.com/file/d/1XBItaK-cYs4cKZv8VvUm2Oi6jP6S25Vc/view?usp=sharing

Exhibit 11: Commonwealth of Puerto Rico GNP Projections



7.3.3 Modifiers to the Base Case Load Projection

Large-scale trends across three primary areas are used to determine the Base Case load forecast: EE, DG, and EV use. Expectations from various stakeholders and industry experts, including PREB, were accounted for in considering these demand-side impacts. Together with the projected decline in Puerto Rico's population and economic activity, EE, and DG can be expected to further contribute to declining load projections through the forecast period. This will be partially offset by other trends, such as the increasing adoption of EVs.

7.3.3.1 EE Programs (EE)

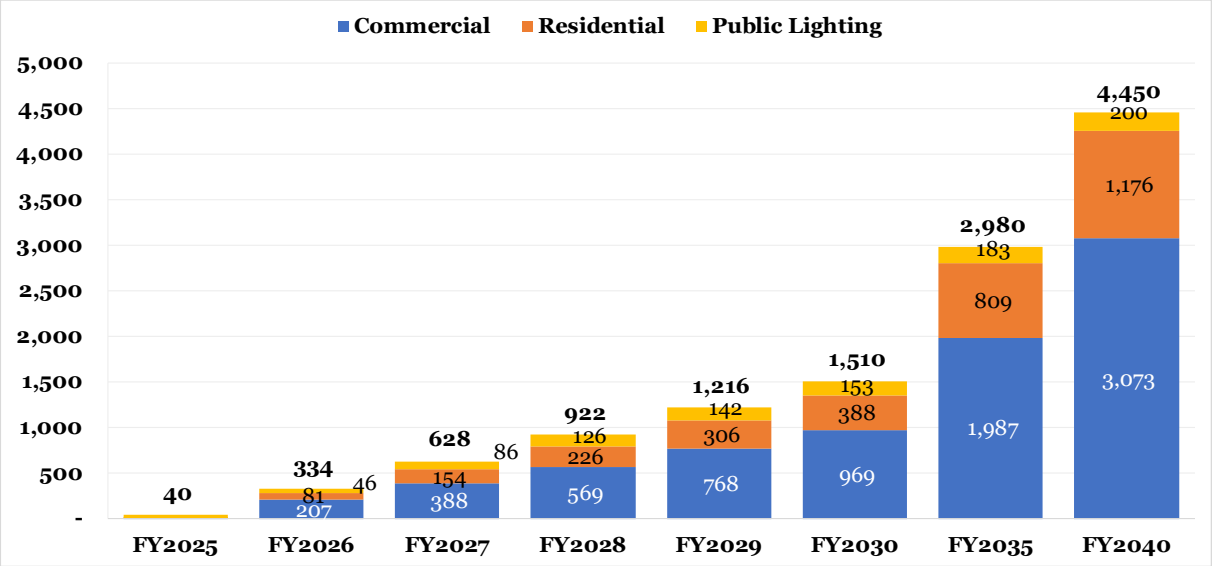
This Fiscal Plan load forecast assumes PREPA achieves the target set forth by the Legislature in Act 17-2019 of a 30% reduction in load attributable to EE programs by FY2040, compared to PREPA's FY2019 net utility sales.

On June 21, 2022, LUMA submitted the inaugural EE and Demand Response Plan to PREB, which it named the "Transition Period Program Plan for EE and Demand Response." The plan outlined a series of ramp-up actions and approaches to build market readiness prior to beginning a full-scale comprehensive portfolio of EE and demand response programs. The impact of the market-ready programs on customers and the overall distributed energy resource market will determine the full-scale portfolio programs and plans. For more information on the TPP and EE Regulation, see PREB docket number NEPR-MI-2021-0006 and docket number NEPR-MI-2021-0005.[127]

The cumulative energy savings through implementing EE programs is expected to be approximately 4,450 GWh in FY2040, pursuant to the current requirements of Act 17-2019. The path to this level of saving can be seen in Exhibit 12. However, there has been limited year-over-year progress towards EE goals in recent years, with actual cumulative EE savings currently standing at ~17 GWh in FY2024 and projected to rise to 40 GWh in FY2025. While this represents a 2.4x increase in EE year-over-year, efficiency would still need to increase even further by a factor of 8.4 to meet the cumulative EE savings target of 334 GWh in FY2026.

[127] PREB docket number NEPR-MI-2021-0006: https://energia.pr.gov/en/dockets/?docket=nepr-mi-2021-0006 and PREB docket number NEPR-MI-2021-0005: https://energia.pr.gov/dockets/?docket=nepr-mi-2021-0005

Exhibit 12: Cumulative Energy Efficiency Savings by Program (GWh)



Actual energy savings from EE will depend on the adoption of programs by customers, and the actual impact of programmatic EE measures might be less than expected, resulting in a lower-than-expected decline in demand for electricity.

To achieve the EE goals, on September 22, 2023, PREB issued an R&O in docket number NEPR-MI 2021-0004, determining costs attributed to such EE programming must be funded through LUMA's annual budget. LUMA kept the EE Rider factor at zero for FY2024 per PREB's instruction. In May 2024, LUMA filed an EE Rider petition, which included an analysis of the impact of the EE Rider charge for FY2025. LUMA submitted a request for EE budget funding through the EE rider in the amount of $13.7 million with a calculated EE factor of $0.000853/kWh for FY2025.[128] On June 11, 2024, PREB approved LUMA's proposed EE rider of $0.000853/kWh for the period of July 1, 2024 to June 30, 2025. As of the date of this Fiscal Plan, no future year analyses have been filed, though it is anticipated that such analyses will be incorporated into the ongoing rate case before PREB. See additional discussion of the EE Rider in **Chapter 4.3.3 (**Overview of PREB-Approved Rates**)**.

In FY2024, the actual EE program cost was ~$5.7 million with an EE gain of ~17 GWh. LUMA provided an EE Program Cost Forecast that ran from FY2025

7.3.3.2 DG

The DG forecast was performed using data collected by the EIA on residential rooftop systems in the United States. A regression analysis was then applied to the historical data between July 2014 and December 2023. To calculate an accurate starting point, the analysis incorporated important trends found on the data; for example, that between the months of January 2022 and January 2023, there was an acceleration in the DG deployment (i.e., rooftop solar and combined heat and power generation ("CHP")) and NEM registration by customers all over Puerto Rico. Additional assumptions on capacity factors and recent adoption trends were used to estimate generation output.

[128] PREB Docket No. NEPR-MI-2020-0001: https://energia.pr.gov/en/dockets/?docket=nepr-mi-2021-0001

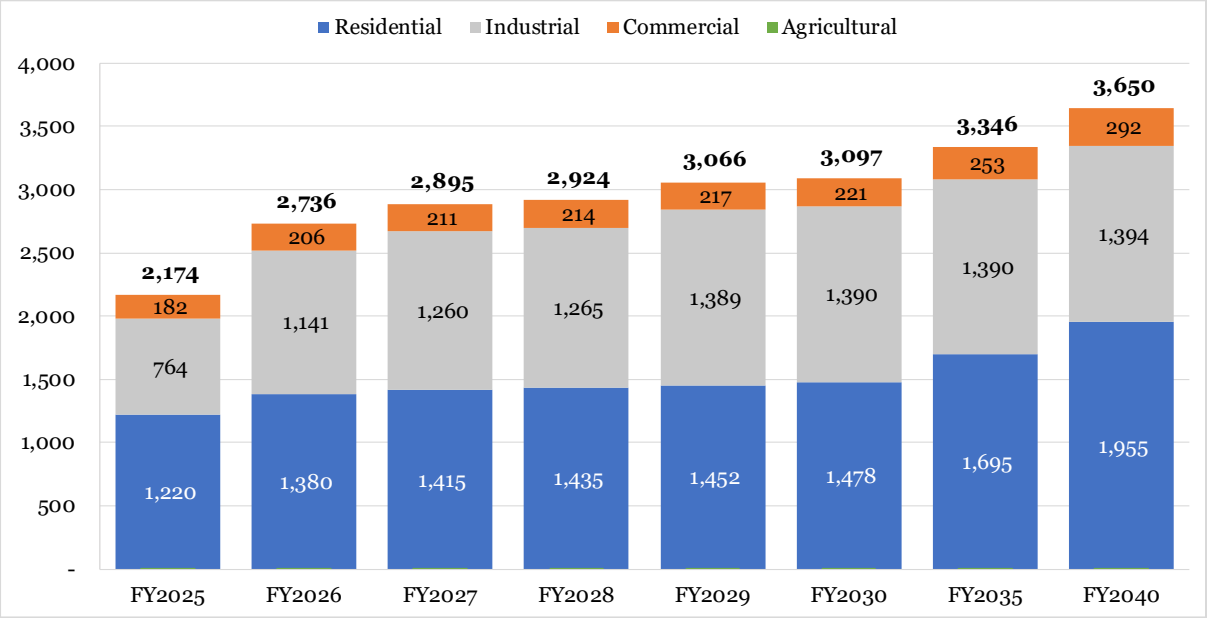
Onsite solar generation is the most likely DG option for both residential and commercial customers, but industrial customers are more likely to build CHP as well. The assumptions for the CHP are based on economics incorporated in the model for the Aurora dispatch.

Some risks associated with the adoption of PV and DG have been identified:

Grid defection: Customers may find it increasingly economically feasible to install solar units to generate electricity at home. Some might switch completely to DG (with the addition of battery storage) or significantly curtail consumption from the grid during times when solar generation is viable. All else equal, this would cause overall load to decline, and result in higher costs/kWh for those still connected to or using the grid.

Decreasing load factor: The load factor is the ratio between the average demand and peak demand. As the load factor decreases (i.e., as the gap between average and peak demand grows), the cost to serve each unit of energy increases. Increasing penetration of solar PV reduces energy sales overall, so average demand will fall. However, in locations where peak demand occurs after sunset and therefore solar generation is not viable, like in Puerto Rico, solar PV tends to not have a big impact in energy sales. This means PV can substantially reduce revenue collected per customer without materially impacting the fixed capacity system costs imposed per customer, resulting in the potential for relative increases in the prices faced by customers over the longer term. The CBES is a tool launched in FY2024 that would help increase available energy during emergency conditions and peak demand periods which would help lower the gap, but the implementation of this program would come at a significant generation cost of $1.25/kWh.[129]

Exhibit 13: Distributed Generation Forecast by Customer Class Total (GWh)



7.3.3.3 EV

Driven by technological development and regulatory support, penetration of EVs is expected to increase in the upcoming decades. While the precise share of EVs in a given geography depend on a variety of factors including battery cost developments, regulation, political

[129] PREB Resolution and Order ("R&O") October 28, 2024 Docket NEPR-MI-2022-0001. https://energia.pr.gov/wp-content/uploads/sites/7/2024/10/20241028-MI20220001-M.Submit-FY24-Consolidated-TPP-and-DR-Administrative-Cost-Annual-Report-Final.pdf

sentiment, and customer preferences, a significant uptake in EV sales would increase electricity demand, both on average and peak load.

This Fiscal Plan's load forecast uses an adjusted version of the DOE PR100's EV forecasts published in February 2024 as its basis.[130] The EV forecast values were based on the PR100's Light-Duty Vehicle ("LDV") and Medium and Heavy-Duty Vehicle ("MHDV") EV charging load forecast. LUMA, in their capacity of system operator in Puerto Rico, determined that the LDV kWh requirements were lower than what can be expected in modern vehicles, so adjusted the LDV efficiency portion of the PR100's charging load forecasts while keeping the MDV portion of the forecast unchanged.

LUMA additionally presented challenges to the Electric System that outlined some risks related to increased peak demand, distribution system thermal overloading, and generation resource adequacy constraints.[131] The primary mitigation measure currently identified for the EV risks is the implementation of time-of-use rates for the EV charging which would motivate customers to shift charging load to off-peak periods.

7.3.4 Sensitivities

The Base Case includes a load scenario based on assumptions for key gross load drivers and key net load drivers, as aforementioned in **Chapter 7.3.1 (**Load Forecast**)** to **Chapter 7.3.3 (**Modifiers to the Base Case Load Projection**).**

This Fiscal Plan also includes a sensitivity analysis to the load forecast: an alternative load forecast using a bottom-up approach not constrained by the EE targets in Act 17-2019, or "Alternative Forecast." The Alternative Forecast accounts for the potential risk the assumptions in the Base Case for EE may not fully capture the actual constraints and realities in Puerto Rico or the state of current programs and plans in place to support these assumptions. This forecast uses current energy consumption in Puerto Rico as the starting point and incorporates the latest data available on EE gains by sector, type of appliance, and current and future costs of appliances. It is supported by driver-specific models but solely focuses on load and does not include any assumptions of the impact of these changes on system costs. This forecast is subject to change based on changes in legal and regulatory framework, continued changes in price and cost trajectories, and other factors.

The assumptions, results, and final impact on the net load of the Alternative Forecast as compared to the Base Case will be discussed in the next section.

Comparative View

Key Differences and Assumptions

Fundamentally, the Base Case load projections are based on top-down assumptions (such as system-wide EE savings based on current Act 17-2019 targets), while the Alternative Forecast approach is based on a bottoms-up perspective.

Approach to EE Program: The Base Case projects a 30% reduction in load attributable to EE programs by FY2040, compared to PREPA's FY2019 net utility sales (consistent with the targets established in the current Act 17-2019). More specifically, the Base Case starts with a

130 Puerto Rico Grid Resilience and Transitions to 100% Renewable Energy Study (PR100). https://www.nrel.gov/docs/fy24osti/88615.pdf

131 PREB Resolution and Order ("R&O") May 1, 2023 Docket NEPR-MI-2021-0013

top-down target and assumes that the 30% EE goal for FY2040 is achieved on time. The Base Case assumes a constant yearly load reduction of ~2% to achieve the EE mandate.

On the other hand, the Alternative Forecast assumes organic growth of EE adoptions through incremental year-over-year technology efficiencies without considering legislation or program investments beyond those already in place today. Given current rates of technological improvement and cost savings, the load decrease projected in the Base Case through EE is unlikely to be achieved only through organic commercial and residential lighting, equipment, and appliance replacements. It will likely require additional interventions such as those proposed in the TPP discussed in **Chapter 3.2.5.3 (**EE and Demand Response Transition Period Plan**)**.

Specific Assumptions in the Alternative Forecast

The EE forecast in the Alternative Forecast is based on replacement life cycles, load savings from EE programs that reduce energy consumption, and customer uptake.

Each equipment type is assumed to have a projected useful life or natural replacement cycle (e.g., residential lighting compact fluorescent light bulbs are expected to be replaced every 4.5 years, and LED lighting every 6.4 years).

For the EE gains, the assumptions used were primarily based on the EIA's EE reports, namely the Updated Buildings Sector Appliance and Equipment Costs and Efficiencies[132] as well as the Annual Energy Outlook,[133] and the DOE's 2022 Solid-State Lighting R&D Opportunities report.[134] Combined, they provide a perspective on the expected gains by type of appliance divided by the main sectors of focus, commercial and residential (e.g., residential air conditioners are expected to have 0.3–0.4% annual efficiency gain).

Finally, the Alternative Forecast also accounts for the yearly customer uptake based on the level of behavior change required and purchasing decisions.[135] Exhibit 14 showcases the net difference these assumptions generate in the projection of net load.

Calculations and Results

The resulting load reductions from the EE assumptions between the Base Case and the Alternative Load Model ("ALM") (i.e., Alternative Forecast) are similar during the first years of the forecast. By FY2030, a gap of ~430 GWh of less load reductions are expected under the ALM than compared to the Base Case. That gap continues to grow until reaching its maximum point in FY2042 of ~2.74 TWh, or ~-57% when the Base Case assumes satisfying the current mandates of Act 17-2019. Afterward, the Base Case estimates no further load reduction, so the gap closes to reach a final diversion from the Base Case of around ~-53% in FY2053 (the end of the Fiscal Plan forecast period).

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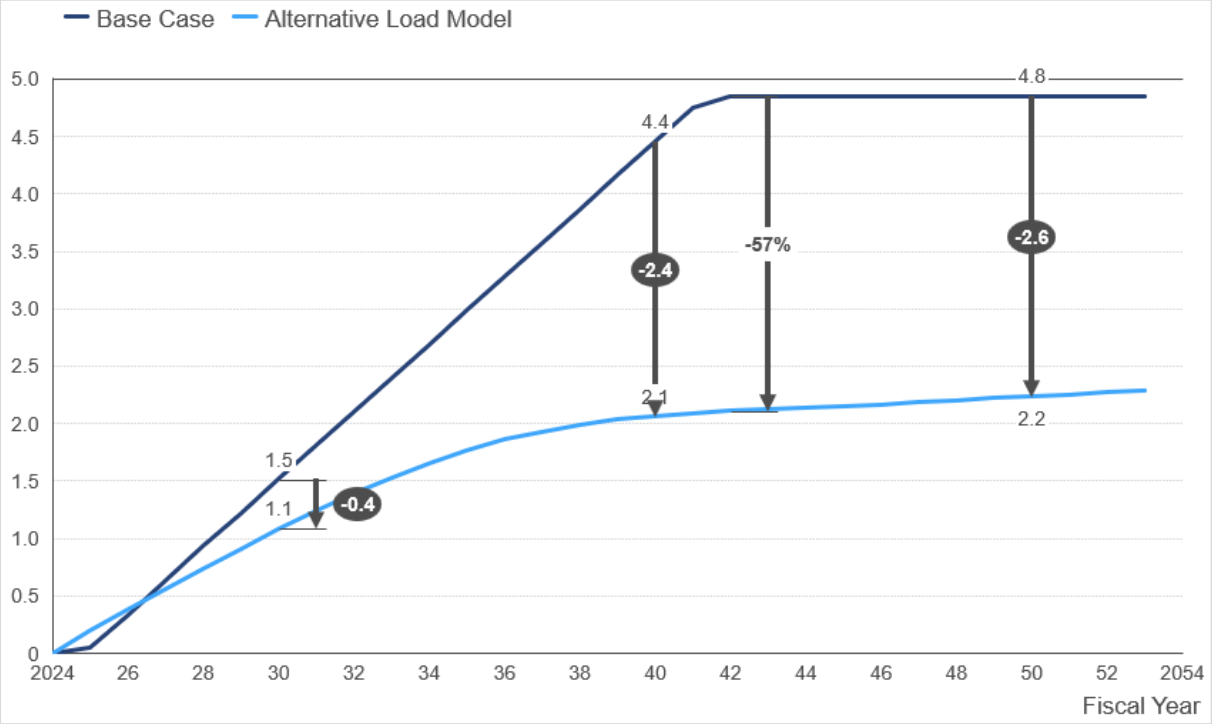
132 Updated Buildings Sector Appliance and Equipment Costs and Efficiencies, Appendix B and Appendix C. Published March 2023. https://www.eia.gov/analysis/studies/buildings/equipcosts/

133 Annual Energy Outlook. Published 2023: https://www.eia.gov/outlooks/aeo/

134 2022 Solid-State Lighting R&D Opportunities: https://www.energy.gov/sites/default/files/2022-02/2022-ssl-rd-opportunities.pdf

135 2022 Solid-State Lighting R&D Opportunities at page 15.

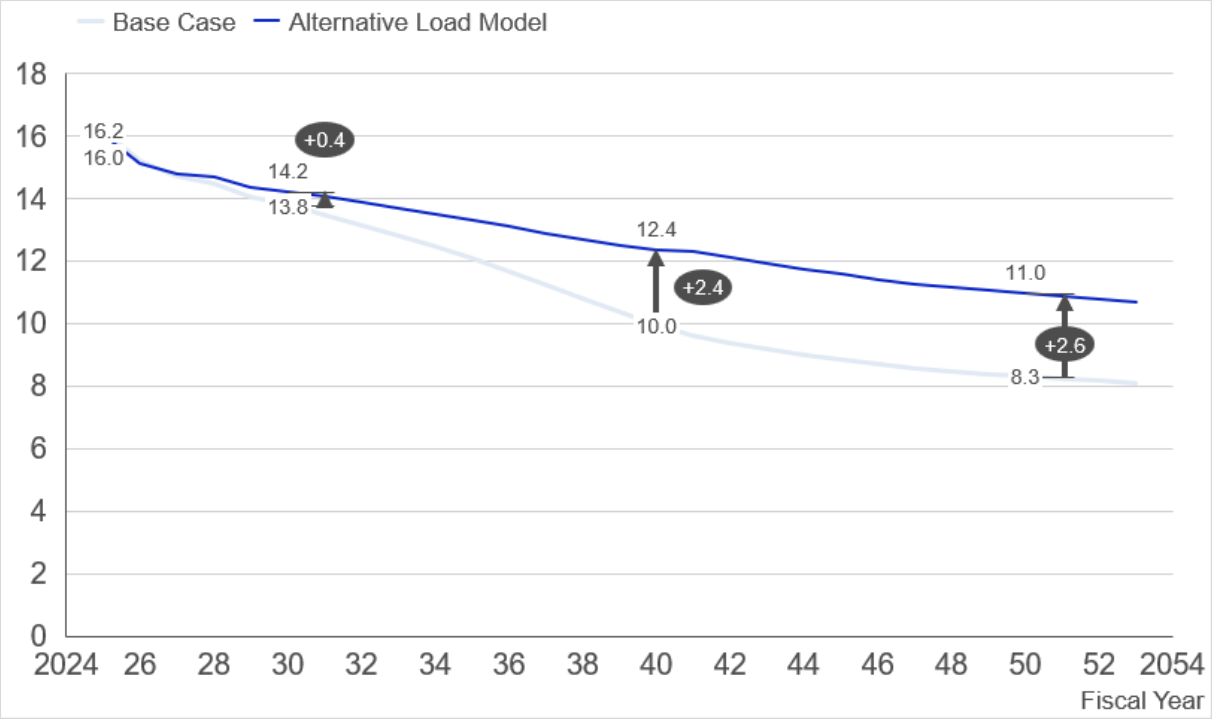
Exhibit 14: Net Load Reductions from Implementation of EE initiatives (TWh)



Impact on Net Load

The Alternative Forecast projects a net load 2.6 TWh higher than the Base Case by FY2050, driven by a more conservative approach to EE program adoptions. The resulting uplift would be less impactful during the first years, but as the ALM forecasts a slowed adoption of the EE measures, the impact on load is greater than in the Base Case. Results are shown in Exhibit 15.

Exhibit 15: Alternative load model and base case comparison (TWh)

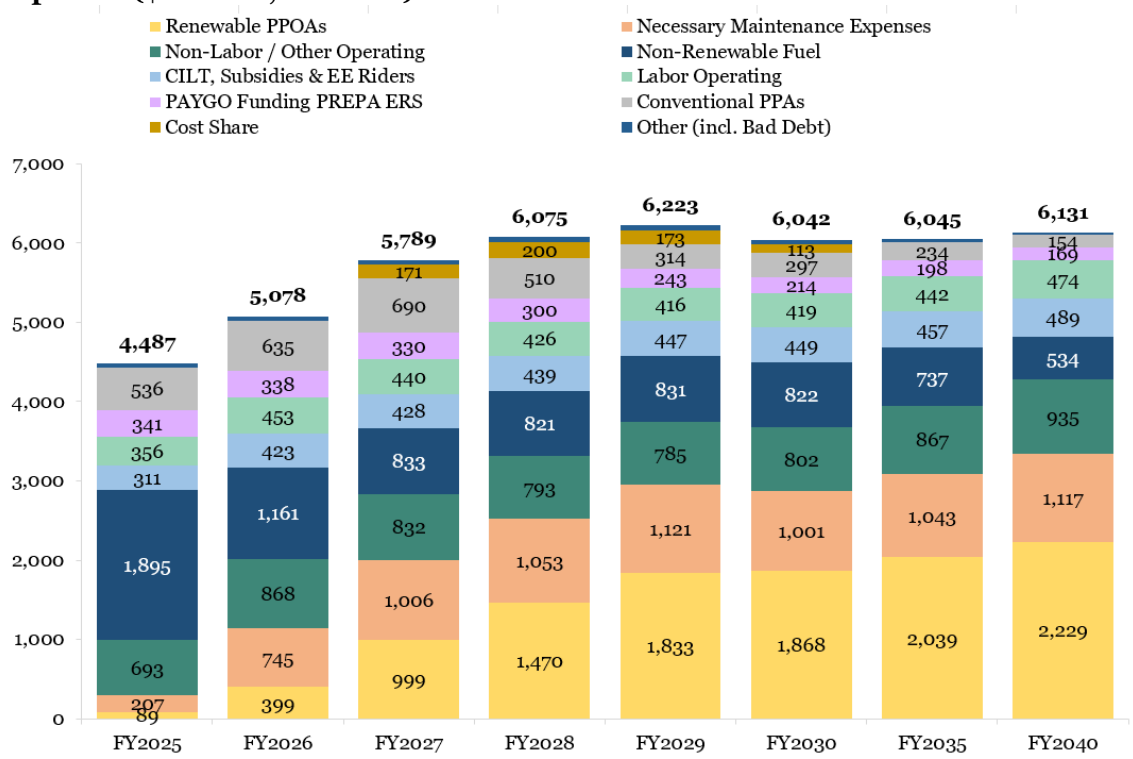


7.4 Expenses

This section gives an overview of the major expense categories that make up PREPA's revenue requirement and outlines how these categories are projected to evolve. Non-F&PP O&M expense projections in this Fiscal Plan are not constrained by the rate design and revenue requirements of the 2017 Rate Order, and those expense projections may or may not be approved by PREB in the upcoming rate review. As described in the Introduction of this Chapter, a Notice of Violation was issued by the Oversight Board which requested the operators to submit their projected Non-F&PP expenses beyond FY2025 that reflect the estimated needs of the energy system without the constraint of the 2017 Rate Order. This Chapter provides an overview of the estimated expenses provided by the operators in response to the Notice of Violation, including projections up to FY2040 with particular focus on projections up to FY2029.

Note that the expense projections shown below reflect the Operators' view of what is required to meet the needs of the energy system without the constraint of the 2017 Rate Order in addition to the incremental obligated federal funds that are expected to be received for emergency recovery, restoration, and permanent work (see **Chapter 5** for more details). The consolidated expenses for PREPA are forecasted at $4,487 million for FY2025. Operators' expense projections for FY2025 are based on the FY2025 Certified Budget approved by PREB under the 2017 Rate Order. [136] The expenses estimated without the 2017 Rate Order constraints are projected to reach $6,223 million in FY2029.

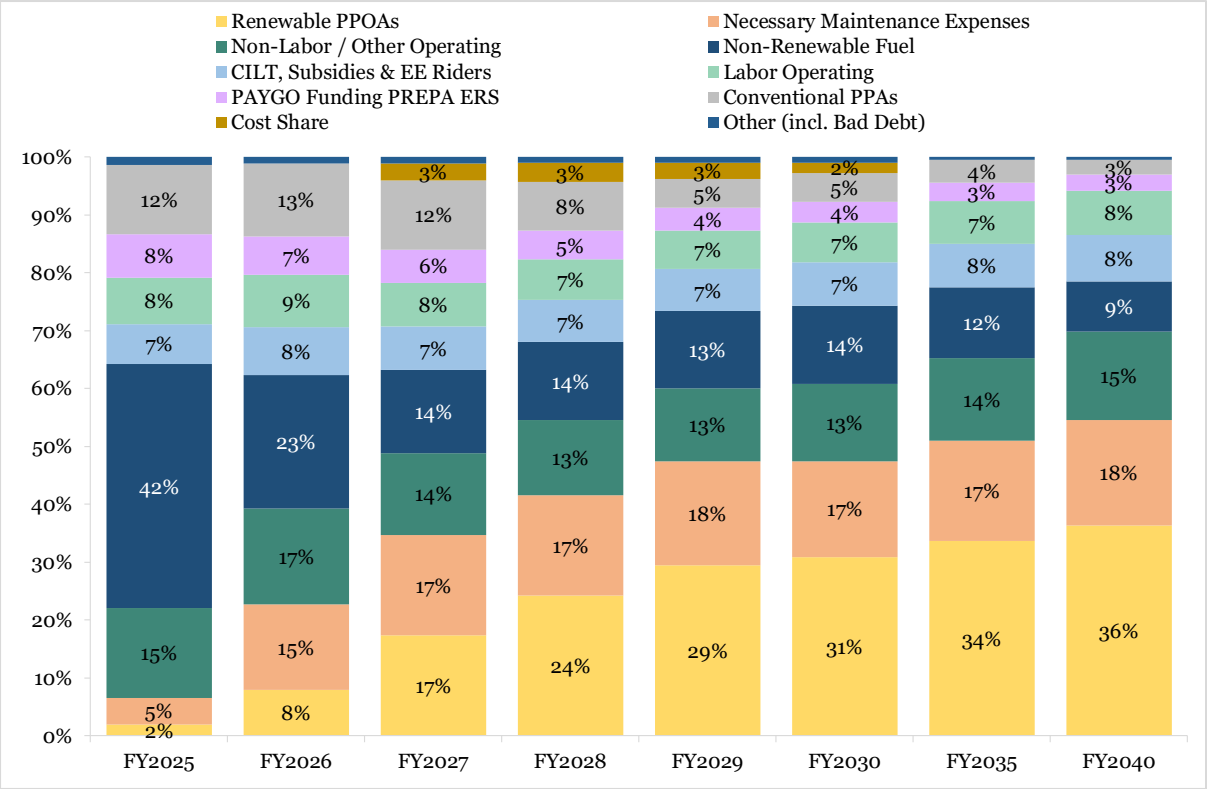
Exhibit 16: Consolidated Forecast Expenses by Category, Excluding Debt Service Expenses ($ Million, Nominal)[137]



[136] Certified Fiscal Year 2025 Budget: https://drive.google.com/file/d/1zj76A-DXt7uQTUJIcIJ01toFEKgQJ39y/view?usp=sharing

[137] Expense projections by the system operators are based on anticipated receipt of obligated federal funds which are incremental to the operators' expense projections shown in this exhibit; "cost share" refers to the amount that should be covered locally in order to receive the obligated federal funds (see Chapter 5 for more details on Federal Funds).

Exhibit 17: Consolidated Forecast Expenses Percentage by Category, Excluding Debt Service Expenses (%)



PREPA's overall expenses are made up of the following nine expense categories, not including debt service expenses:

- **Non-Renewable Fuel:** Cost of fossil fuels, e.g., coal, diesel, and heavy fuel oil.
- **Conventional Power Purchase Agreements ("PPAs")**: Expenses for non-renewable power purchased from third-party providers (e.g., EcoEléctrica and AES).
- **Renewable PPOAs**: Expenses for renewable power purchased from third-party providers.
- **Labor Operating Cost**: Expenses for the labor associated with operating generation assets and the T&D system.
- **Non-Labor / Other Operating Cost**: Operating expenses other than labor, e.g., supplies, rent, transportation, etc., associated with operating, maintaining, and administering generation assets and the T&D system.
- **NMEs**: Expenses for maintaining energy systems and assets not funded externally. This includes repairs and associated materials, among others, and does not include the Cost Share (non-federal share), which is shown as a separate line item.
- **CILT, Subsidies, and EE Rider**: Expenses for CILT; subsidies that benefit certain customer groups (such as low-income ratepayers); and the EE Rider charges (see **Chapters 7.3.3.1 (**EE Programs (EE)**)** and **4.3.3 (**Overview of PREB-Approved Rates**)**) which provides funds for the recovery of certain costs for approved EE programs.
- **Pension Expenses**: Expenses to fund PayGo pension benefits and other post-employment benefits ("OPEB") (after FY2024) for retirees.

- **Cost Share**: Non-Federally funded portion of the costs of projects under the FEMA programs that PREPA bears, in the absence of external funding sources (see **Chapter 5.2.2 (**Local (Non-Federal) Cost Share**)** for more details).

PREPA's expenses are expected to increase overall over the next five years, in nominal terms. The projected changes on the expense categories are:

- **Non-Renewable Fuel:** As the largest expense category, constituting ~42% in FY2025, the share of non-renewable fuel expenses is expected to decline to ~13% in FY2029. PREPA's generation mix shifts from owned and operated fossil-fuel-powered generation to third-party-provided renewable power, exemplified by cheap but polluting coal generation being phased out in FY2028.
- **Conventional PPAs:** Expenses are projected to increase between FY2025 and FY2027, then experience a decline as generation shifts from conventional to renewable sources, with the cost of conventional PPAs being ~$536 million in FY2025, ~$690 million in FY2027, ~$314 million in FY2029, and then expenses continuing to decrease post FY2029.
- **Renewable PPOAs**: Expenses are expected to increase more than 4x from FY2025 to FY2026. Expenses continue to rise, increasing more than 4x from FY2026 to FY2029 due to the generation mix shifting towards renewables as compliance with Act 17-2019 is reached. In September 2023, the Oversight Board approved, with conditions, the Amended Tranche 1 PPOAs, which were also reviewed and approved by PREB in April 2023. The Amended Tranche 1 PPOAs reflect an energy cost that is 34% above that of the initial PPOAs the Oversight Board approved on March 25, 2022. For the purpose of this Fiscal Plan, the operators updated the F&PP projections based on their latest expectations for market prices.
- **Labor Operating Cost**: Expenses are projected to increase from $356 million in FY2025 to $416 million in FY2029 to reflect the operators' projection of labor operating cost required to meet the needs of the system starting in FY2026**.**
- **Non-Labor / Other Operating Cost**: Expenses are expected to increase from $693 million in FY2025 to $868 million in FY2026, as non-F&PP O&M expenses increase to reflect the operators' projection of operating costs required to meet the needs of the system, before falling year over year until FY2029.
- **NME:** Expenses are projected to almost quadruple from FY2025 to FY2026 and then increase steadily from FY2026 to FY2029. This growth is driven by operators' updated expenses that more accurately reflect the needs of the deteriorating system and that are not constrained by the 2017 Rate Order.
- **CILT, Subsidies, and EE Rider:** After an increase from FY2025 to FY2027, driven by a ~10x increase in EE Rider expenses from FY2025 to FY2026, expenses are expected to stay relatively stable.
- **Pension Expenses:** Expenses are projected to decrease over time and are subject to change based on Title III restructuring results (see **Chapter 9 (**Pension Reform**)** for more details).
- **Cost Share:** Between FY2024 and FY2026, costs are expected to be covered by the $500 million funding from the CDBG-DR ER1 program without incurring expenses to PREPA or its ratepayers. Between FY2027 and FY2033, in the absence of other funding sources, PREPA's Cost Share to access the federal funds is projected to be borne by PREPA,

spreading evenly across the period. See **Chapter 5 (**Capital Plan & Federal Funding**)** for more details.

Expense projections were developed using a set of assumptions and inputs, including macroeconomic projections, load-related assumptions, and inputs for specific expense categories, e.g., existing contracts for non-labor expenses, expenditure plans, and the 2020 IRP (see **Chapter 7.4.6 (**Key Expense Assumptions**)** for more details).

7.4.1 Overview of Expenses by Entity

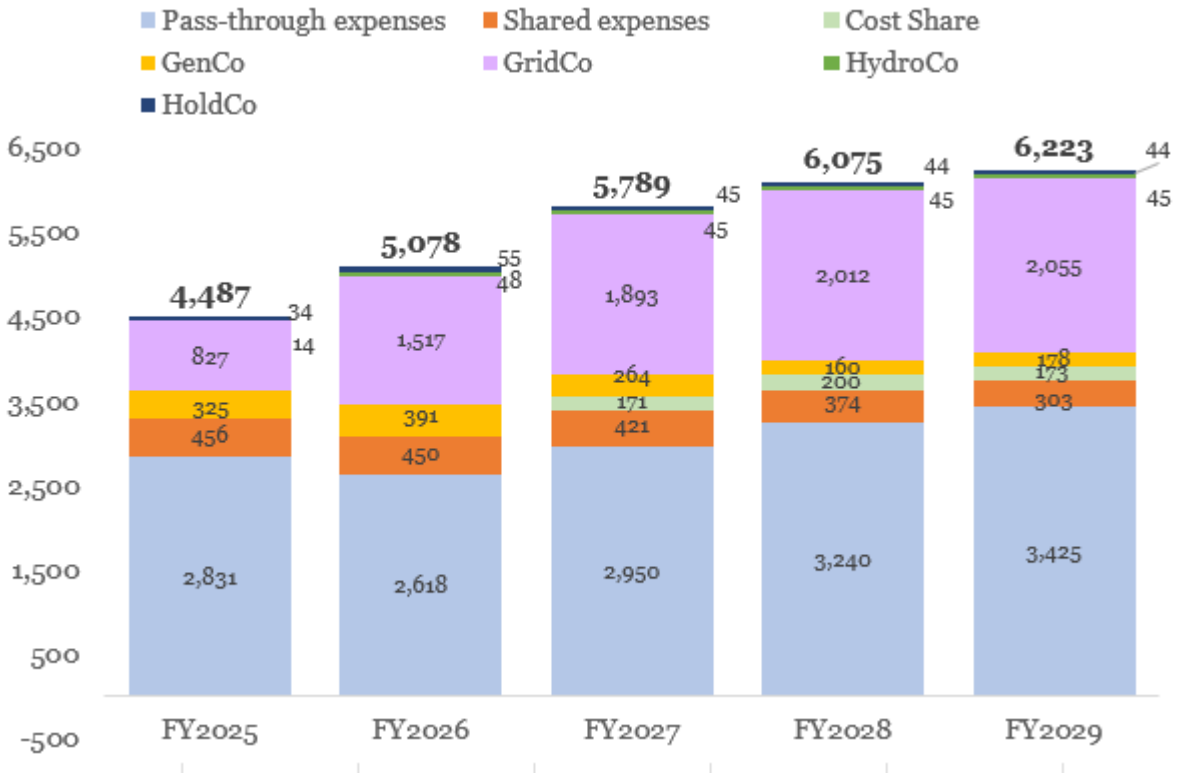
As a result of the transition to GenCo, GridCo, HoldCo, and HydroCo, expenses will be split across the four entities (see Exhibit 18). Cost Share, shared expenses, and pass-through expenses are shown separately.[138] Through FY2029, overall expenses are expected to increase as critical repairs to the system are undertaken to provide reliable and sustainable service. Expense projections are based on the estimate of the funding required to maintain the system's long-term reliability and resilience. Operators projected estimates based on their assessment of the funding needed for continued adequate operation and maintenance. Operators submitted non-F&PP O&M expense estimates not constrained by the 2017 Rate Order, therefore forecasting "non-F&PP O&M expenses beyond FY2025 that reflect more accurate needs of the energy system".[139] All entities currently project an increase in their non-FPP O&M expenses from FY2025 to FY2026.[140] Between FY2025 and FY2026, GridCo's expenses are expected to increase by ~2x, GenCo's expenses are expected to increase by 20%, HydroCo's expenses are expected to increase by ~2.5x, and HoldCo's expenses increase by ~60% before decreasing as Genera assumes responsibility over LGA and PREPA expects to exit Title III bankruptcy.

138 Pass-through expenses include fuel, PPOA and PPA expenses, and CILT, subsidies, and EE Rider costs. Shared expenses include bad debt expenses, bankruptcy and restructuring costs, operator fees, and pension costs.

139 Notice of Violation, available at https://drive.google.com/file/d/140zDjhzXOvVZkHVTvYYDwHpuDCpzpvej/view

140 As discussed in the Introduction of this Chapter, the Oversight Board intends to engage a third-party consultant to assist in further review and pressure-testing of Operators' estimates.

Exhibit 18: Consolidated Forecast Expenses by Entity, Excluding Debt Service Expenses ($ Million, Nominal)[141]



7.4.2 GenCo Expense Projections

GenCo-specific expenses, excluding Cost Share, pass-through, and shared expenses, are projected overall to decline over the next five years, from $325 million in FY2025 to $178 million in FY2029 (see Exhibit 19).

As many PREPA-owned legacy generation units are scheduled to retire, associated labor and non-labor expenses are expected to decrease. The NMEs are expected to decrease from ~$97M in FY2025 to ~$54M in FY2029. Certain non-labor and other expenses less correlated with legacy generation capacity, such as SSA between LUMA and Genera, insurance expenses, and IT costs, are expected to decrease over the same period.

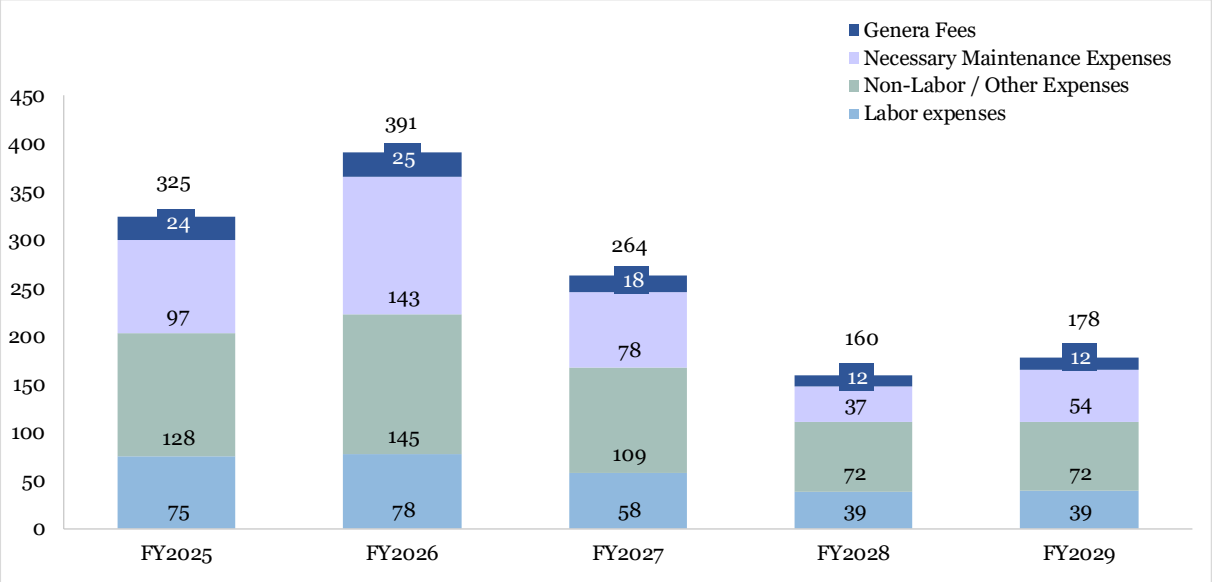
The labor expenses are projected with consideration of (i) facilitating the transition to Genera, the private operator, (ii) implementing the transition to renewable energy, and (iii) the hiring, training, and retaining of the necessary employees to allow for the continuous and safe operation and maintenance of LGA.

The non-labor expense category includes the purchase of non-capitalizable services, equipment and tools, and materials needed to conduct technical activities in compliance with operational-, environmental-, and insurance-related requirements. This is essential to ensure a safe and reliable operation and maintenance of the legacy generation units and to meet the

[141] Expense projections by the system operators are based on anticipated receipt of obligated federal funds which are incremental to the operators' expense projections shown in this exhibit; "cost share" refers to the amount that should be covered locally in order to receive the obligated federal funds (see Chapter 5 for more details on Federal Funds).

energy dispatch and load reserve requirements required during hours of regular and peak demand, as well as the hurricane season.[142]

Exhibit 19: Five-Year Expense Forecast for GenCo ($ Million, Nominal)



7.4.3 GridCo Expense Projections

GridCo-specific expenses, excluding Cost Share, pass-through, and shared expenses, are projected to increase by a compound annual growth rate ("CAGR") of ~25% over the next five years, from ~$827 million in FY2025 to $2,055 million in FY2029 in line with the operator's expense estimates to maintain the system and prevent further degradation, as submitted by the operator (see Exhibit 20). Projections are LUMA's estimate of expenses necessary to meet and maintain prudent utility practices, not constrained by the 2017 Rate Order. LUMA expects the federally and non-federally funded investments will allow Puerto Rico to reduce the frequency of outages over the next 10 years by 75–85% compared to PREPA's baseline. GridCo's expense projections assume funding at levels not constrained by the 2017 Rate Order (and which may or may not be approved by PREB in its upcoming rate review), enabling the implementation of multi-year programs and optimization of volume-based unit costs of materials and services. Additionally, GridCo assumes funding is immediately available and would not constrain the ability to execute across all activities as it ramps up to the projections.

The NME and associated operating expenses will be used to combat degradation and repair the system to allow it to move towards steady-state maintenance requirements. Programmatic asset replacement based on asset health assessment is key to planning the maintenance program. Towards this end, GridCo developed a high-level estimate of the funding gap and a portfolio-level implementation plan, by examining the T&D system. This implementation plan identifies the actions required over a 10-year period and includes an asset-level assessment of age, health, and replacement needs for key components with the most critical funding gaps:

- Poles, structures, and towers
- Cable systems

[142] Note the cost of insurance premiums for the various insurance policies is included in the cost of Shared Services with LUMA, not in Generation Non-Labor Expenses.

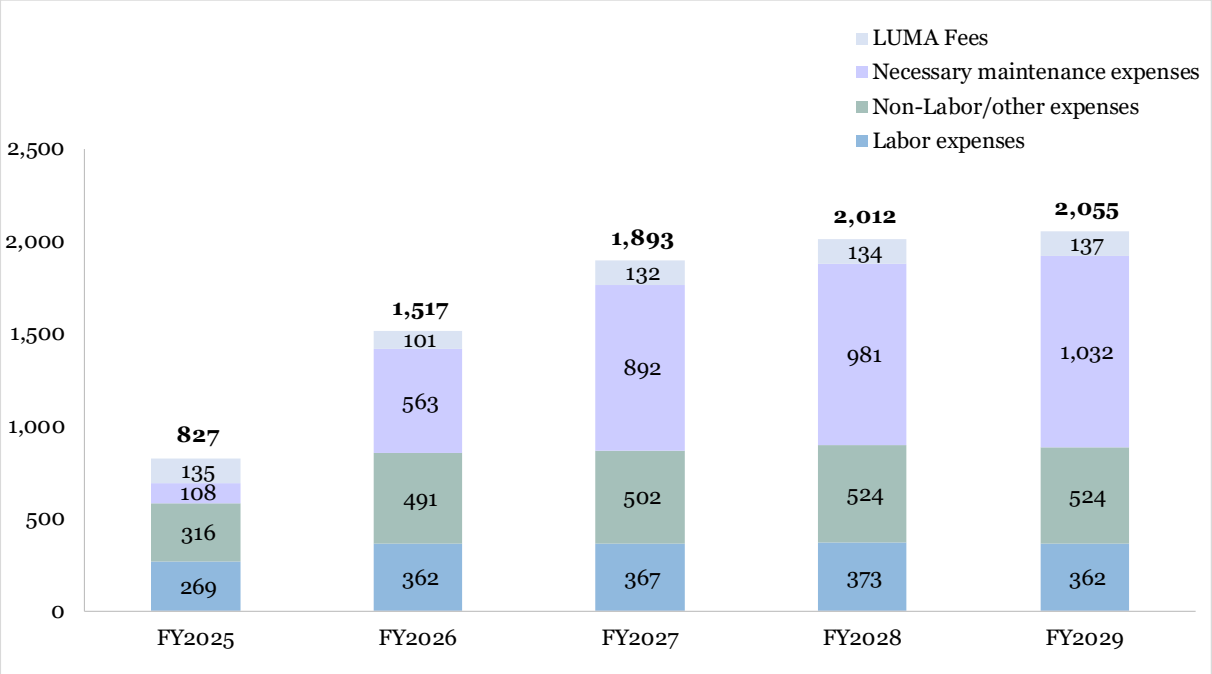
- Substation transformers
- Substation circuit breakers, switchgear, and major equipment
- Transmission & substation bushing replacement
- Protective relays, electronic equipment, and telecommunications equipment in substations
- Transmission equipment component replacements
- Distribution equipment component replacements

NME is expected to increase by 10x from ~$108 million in FY2025 to ~$1,032 million in FY2029, as non-F&PP O&M expenses are expected to increase beyond the constraints imposed by the 2017 Rate Order. This would enable a comprehensive maintenance program, supporting a transition to a more proactive, preventative, and sustainable strategy. Additionally, this would represent a shift from the current program where many elements are operated until failure due to a lack of sufficient funding. For instance, the distribution portfolio expense is expected to increase by ~1,000% from ~$35 million in FY2025 to ~$388 million in FY2026. Within the distribution portfolio, the distribution pole and conductor expense is expected to increase by ~2,500% from ~$9 million in FY2025 to ~$234 million in FY2026.

Operating expenses are divided into labor and non-labor expenses and are expected to grow steadily during the 10-year period. Labor expenses are projected to grow from ~$269 million in FY2025 to ~$362 million in FY2029 as changes to the organization (e.g., procurement, fleet, support functions, etc.) would be required to match the increase in the anticipated additional work associated with the NME- and federally-funded projects**.**

Non-labor operating expenses are projected to increase at a CAGR of ~13% from FY2025 to FY2029, with an increase from $316 million in FY2025 to $491 million in FY2026. For example, to support the level of system improvements, IT software, user, and system impacts were considered. From FY2025 to FY2026, expenses associated with the IT service agreements are projected to increase by 174%.

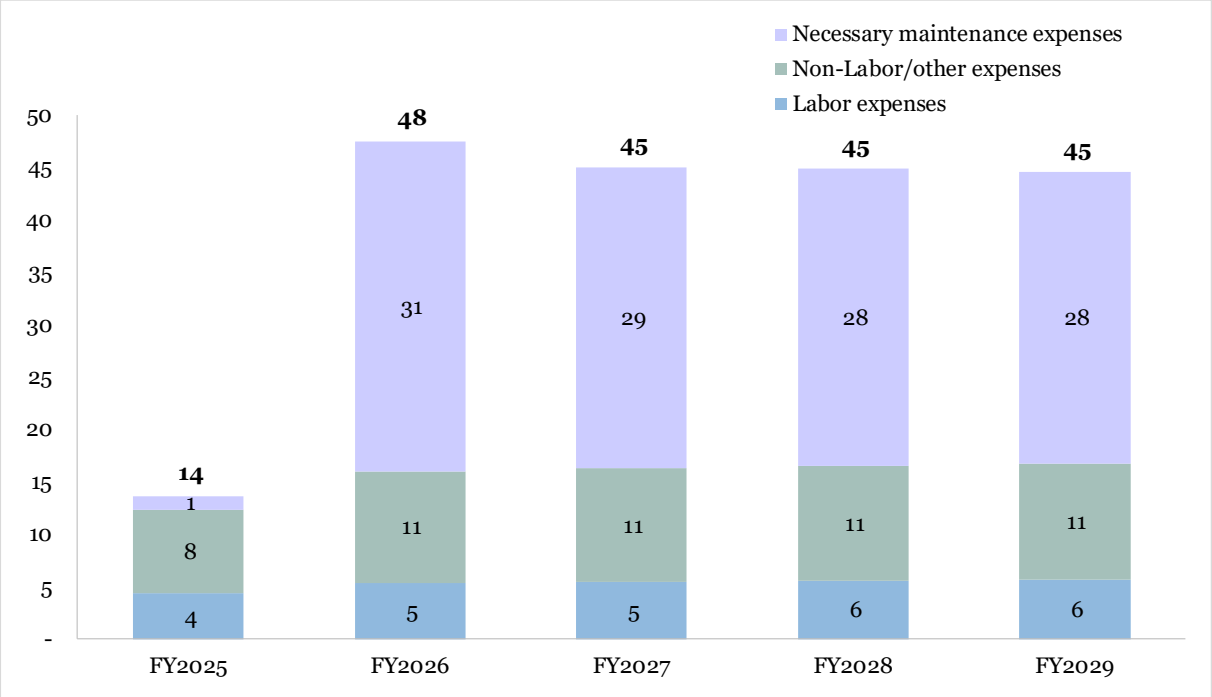
Exhibit 20: Five-Year Expense Forecast for GridCo ($ Million, Nominal)



7.4.4 HydroCo Expense Projections

HydroCo-specific expenses, excluding Cost Share, pass-through, and shared expenses, are projected to increase from ~$14M in FY2025 to ~$48M in FY2026. After FY2026, expenses remain stable at ~$45 million per annum over the period FY2026 to FY2029. (see Exhibit 21).

Exhibit 21: Five-Year Expense Forecast for HydroCo ($ Million, Nominal)

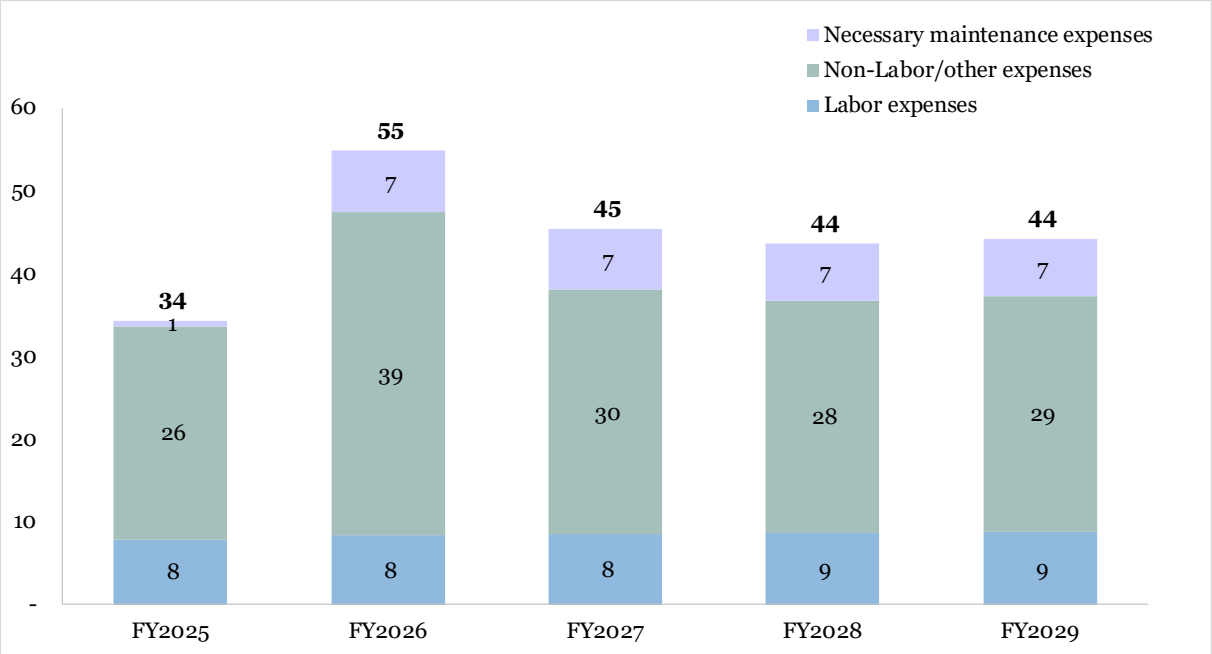


7.4.5 HoldCo Expense Projections

HoldCo-specific expenses, excluding Cost Share, pass-through, and shared expenses, are projected to rise over the next five years from ~$34 million in FY2025 to $44 million in FY2029 (see Exhibit 22).

As Genera assumes responsibility for the LGA, the HoldCo expenses are expected to decrease between FY2026 and FY2027, driven by decreases in retiree benefits and non-labor expenses (see **Chapter 3.3.2 (**Continuation of HoldCo & HydroCo Rightsizing**)**). Additionally, the shared bankruptcy and restructuring costs are expected to decrease in this period, as PREPA is expected to exit Title III bankruptcy.

Exhibit 22: Five-year Expense Forecast for HoldCo ($ Million, nominal)



7.4.6 Key Expense Assumptions

Key assumptions for expense projections are provided in the table below, consistent with various discussions in the preceding Chapters of this Fiscal Plan. These assumptions were provided by PREPA and the Operators when submitting their expense forecasts.

Table 28: Key Expense Assumptions

Entity	Expense Item	General Assumptions
PREPA	Cost Share	• Cost Share requirement is estimated at 10% of FEMA's obligated amount less insurance and other costs.[143] • Up to FY2027, Cost Share is assumed to be covered by the $500 million CDBG-DR ER1 funding.[144]
GenCo	F&PP Costs	• F&PP cost projections are based on an hourly generation dispatch model forecast that uses capacity expansion consistent with the 2020 IRP and Modified Action Plan and recent market pricing and projections for refined fuel products from the operators. • For FY2025, a PROMOD simulation was used to estimate F&PP expenses. • Projections for FY2026 onward are based on an Aurora capacity expansion model simulation which assumes an optimal economic dispatch, without the capacity to consider transmission constraints, which yields F&PP projections that are significantly optimized compared to PROMOD's projections. Therefore, absent changes on inputs, Aurora provides expense projections that are significantly lower than PROMOD.
GenCo	Labor Expenses	• FY2025 is in line with the certified budget. • FY2031 and beyond are projected by adjusting the FY2030 pending levels with an inflation factor.
GenCo	Genera Fees	• Cost of service includes generation operator management fee for the forecast period.
GenCo	Non-Labor / Other Operating Expenses	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
GenCo	NME	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
GridCo	Labor Expenses	• FY2025 is in line with the LUMA filed budget for GridCo. • FY2035 and beyond are projected by adjusting the FY2034 spending levels with an inflation factor provided by LUMA.
GridCo	Non-Labor / Other Operating Expenses	• FY2025 is in line with the LUMA filed budget for GridCo. • FY2035 and beyond are projected by adjusting the FY2034 spending levels with an inflation factor provided by LUMA.
GridCo	LUMA Fees	• Cost of service includes T&D operator management fee for the forecast period.

143 FEMA Public Assistance Alternative Procedures (Section 428) - Guide for Permanent Work from February 10, 2020. Document #: FEMA-4339-DR-PR.

144 PREB; Page 18; In Re: Review of LUMA's Initial Budgets; Case No.: NEPR-MI-2021-0004; Subject: Determination on LUMA's FY23 Annual Budgets and LUMA's FY24 Annual Budgets pre-filing requirements.

Entity	Expense Item	General Assumptions
GridCo	NME	• Federal funding is assumed to be available to cover projects related to DR and hazard mitigation for up to FY2034. • FY2025 is in line with the LUMA filed budget for GridCo. • Expenses are integrated from FY2026 to FY2029 via a ramp-up period where FY2026 is 60%, FY2027 is 95%, FY2028 is 105%, and FY2029 is 112% of the 10-year steady-state program estimates. These estimates were calculated to reflect the needs of the system to provide a sustainable and reliable service and that are not constrained by the 2017 Rate Order. The higher expenses in FY2028 and FY2029 account for the lower ramp-up expenses in FY2026 and FY2027. • FY2035 and beyond are projected by adjusting the FY2034 spending levels with an inflation factor provided by LUMA.
HydroCo	Labor Expenses	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
HydroCo	Non-Labor / Other Operating Expenses	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
HydroCo	NME	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
HoldCo	Labor Expenses	• FY2025 is in line with the filed budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.
HoldCo	Non-Labor / Other Operating Expenses	• FY2025 is in line with the adjusted budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor. • Excludes PREPA Restructuring & Title III cost and Oversight Board advisor costs allocated to PREPA.
HoldCo	NME	• FY2025 is in line with the adjusted budget. • FY2031 and beyond are projected by adjusting the FY2030 spending levels with an inflation factor.

7.4.7 Further Expense Forecasting Assessment

Operators provided their estimates of the non-F&PP O&M expense projections beyond FY2025 that reflect the needs of the energy system not constrained by the 2017 Rate Order. Therefore, this Fiscal Plan's projections are based on estimates reflecting the views of the system operators on what the system needs are and are not constrained by existing sources of system revenue. As such, in addition to the examination of the reasonableness of their estimates conducted to date, the Oversight Board intends to engage an independent consultant to conduct a study to further assess the estimated system needs.

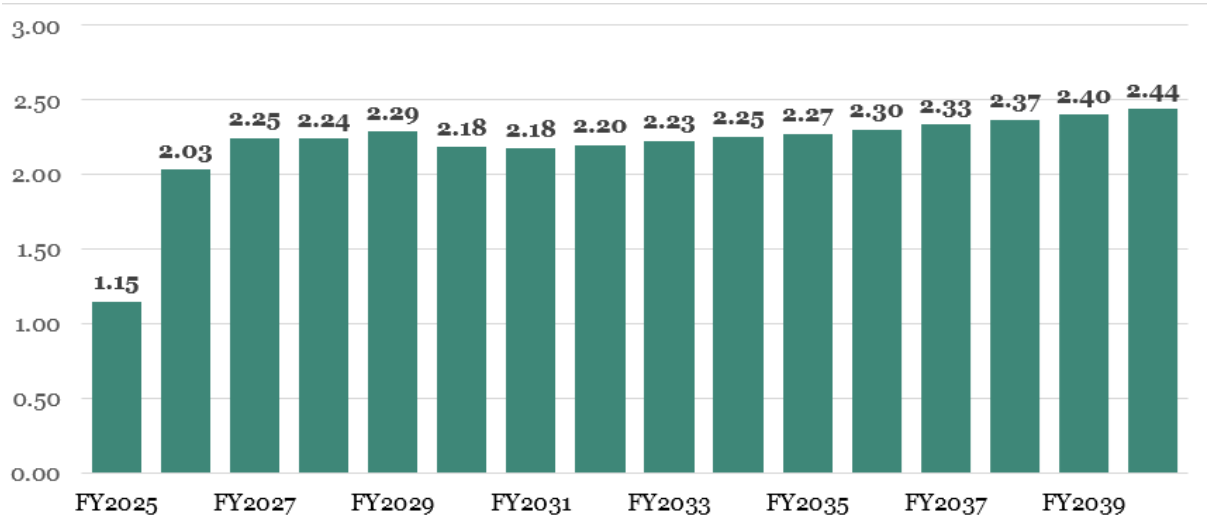
7.5 Resulting Revenue Projections

The revenue requirement refers to the total revenue PREPA must earn in a given period (in this case, a fiscal year) to cover its planned expenses. PREPA's projected revenue, which it receives through its main economic activity (selling electricity to its customers), must fully cover all projected costs it reasonably anticipates incurring in providing adequate service to the Puerto Rico electricity consumers. One key component of the revenue requirement model forecast is the basic revenue rate component, which includes a fixed monthly customer charge and a rate schedule of volumetric charges, plus demand-related charges for the majority of non-residential customers. These charges add up to the Basic Revenue component of PREPA's overall revenue.

7.5.1 Basic Revenue Forecast

The basic revenue forecast, as seen in Exhibit 23, is not constrained by the 2017 Rate Order starting in FY2026. In FY2025, basic revenue is set to reach a revenue requirement of ~$1.15 billion, based on the June 28, 2024, Certified Budget in accordance with the 2017 Rate Order. Basic revenues are then expected to rise to ~$2.03 billion in FY2026 in nominal terms. Basic revenue is forecasted to rise steadily reaching ~$2.44 billion in FY2040. Importantly, other factors beyond the load also affect basic revenue estimates such as increases in operating expenses, including NME and labor and non-labor expenses.

Exhibit 23: Basic Revenue Forecast (USD Billion, Nominal)



In FY2025, the projected $1.15 billion of basic revenue will originate as follows: ~54% from commercial customers, ~35% from residential customers, ~9% from industrial customers, and ~2% from public lighting. Less than 1% is expected to come from agriculture and "other" customers. The full breakdown can be seen in Table 29 below.

Table 29: Basic Revenues and Energy Sales by Customer Class Projected in FY2025

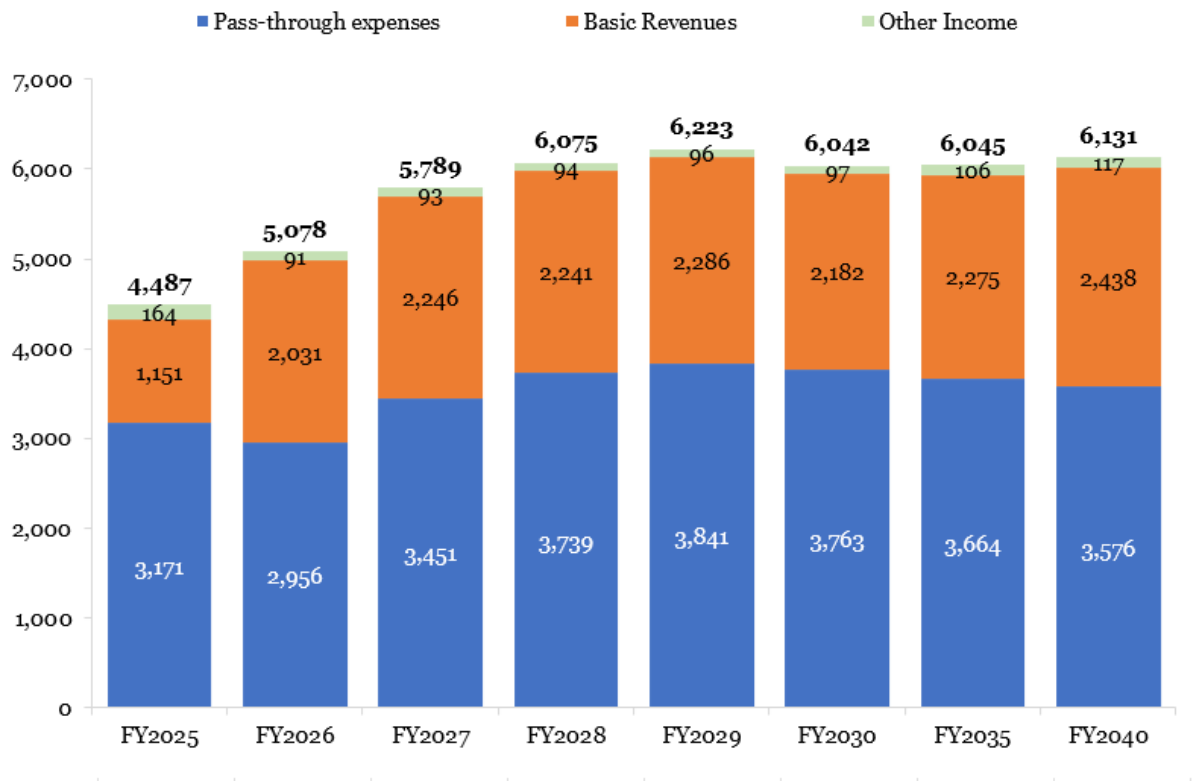
Customer Class	Basic Revenue ($ Million)	GWh	Customers
Residential	400	6,371	1,391,200
Commercial	623	7,762	124,099
Industrial	106	1,720	584

Customer Class	Basic Revenue ($ Million)	GWh	Customers
Public Lighting	19	266	2,164
Agricultural	2	22	1,096
Other	2	38	2
Total	**$1,151.5**	**16,179**	**1,519,145**

7.5.2 Total Revenue Forecast

Total revenues for PREPA are calculated by adding the three following components: Basic revenues, pass-through expenses, and Other Income. Pass-through expenses include: F&PP, CILT, Subsidies, EE programs, ERS Pensions, and Cost Share. PREPA's total revenues for the forecasted period can be found in Exhibit 24; these are mostly comprised of pass-through expenses that remain relatively stable during the FY2025 – 2040 period. During the same period, Basic revenues are expected to increase from $1,151 Million in FY2025 to $2,438 Million leading to a total increase in revenues from $4,487 Million to $6,131 Million in FY2040. For more details on Basic revenues, see **Chapter 7.5.1 (Basic Revenue Forecast)**.

Exhibit 24: Total Revenue Forecast (USD Million, Nominal)

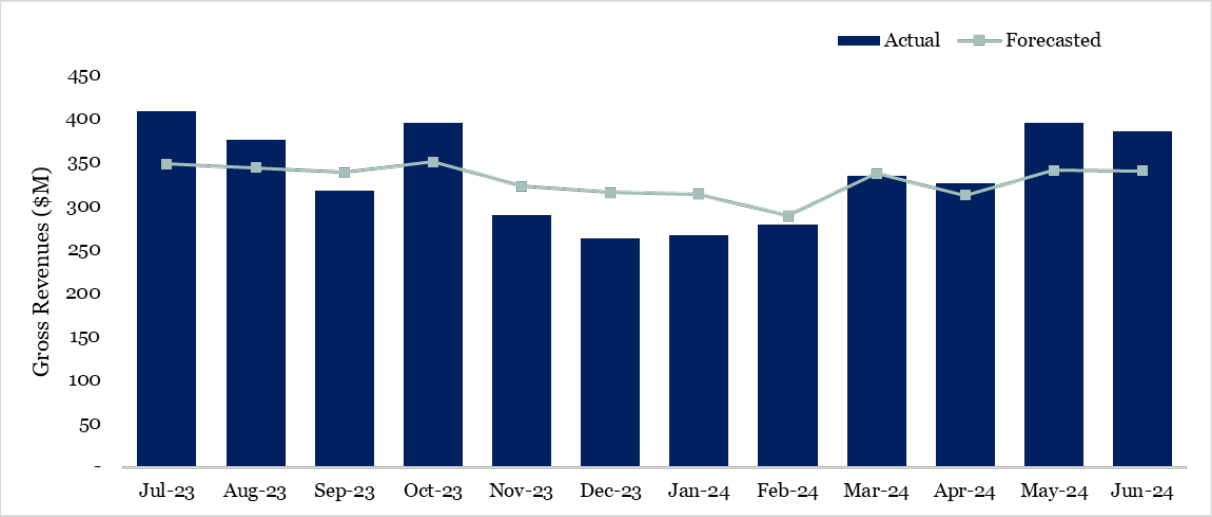


7.6 Overview of Historic Revenue Requirements

In FY2024, PREPA's actual gross revenue (i.e., revenue from electricity sales without other income or other adjustments) was approximately $4 billion. This compares to forecasted gross revenue of $3.9 billion. The cumulative difference between the forecasted and actual revenue for FY2024 is $86.1 million.

Exhibit 25 shows a monthly comparison of forecast and actual gross revenues for FY2024. This demonstrates actual revenue exceeded forecasted revenue for six out of 12 months of the fiscal year. The largest gaps where actual revenue was lower than what was previously forecasted were observed during the months of November, December, and January, with a deviation of 10%, 17%, and 15%, respectively.

Exhibit 25: FY2024 Gross Revenues, Forecast vs. Actuals (USD million, Nominal)



When only Basic rate revenue is considered, the overall trend differs, with actual Basic rate revenue being higher than forecasted Basic rate revenue, as shown in Exhibit 26. The only month that did not follow this trend was January 2024, which had an actual Basic rate revenue of $1 million lower than the forecasted Basic rate revenue. The largest difference between the actual and forecasted Basic rate revenue happened in July 2023 and June 2024, representing a deviation of 9% and 11%, respectively. Considering Exhibit 25 and Exhibit 26 together, higher actual gross revenues (than forecasted) in certain months were driven by higher actual revenues (than forecasted) from riders, not base rates. This is consistent with the increased F&PP costs, higher temperatures than expected, and the need to resort to more expensive fuel or engage in immediate responses in times of sudden peak demands or service deficiencies.

Exhibit 26: FY2024 Basic Rate Revenues, Forecast vs. Actuals (USD million, Nominal)

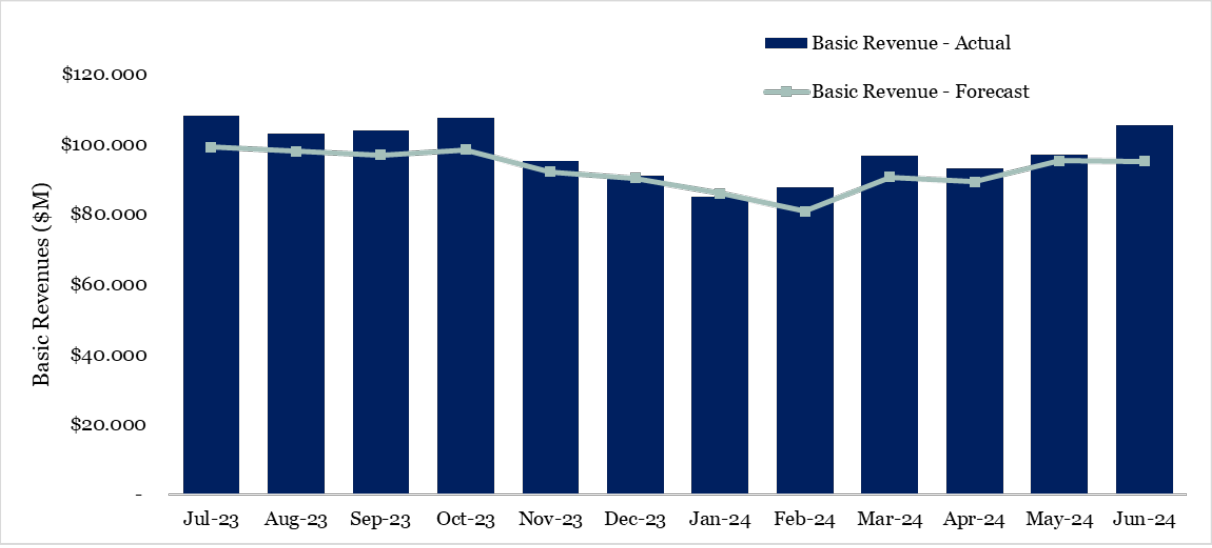
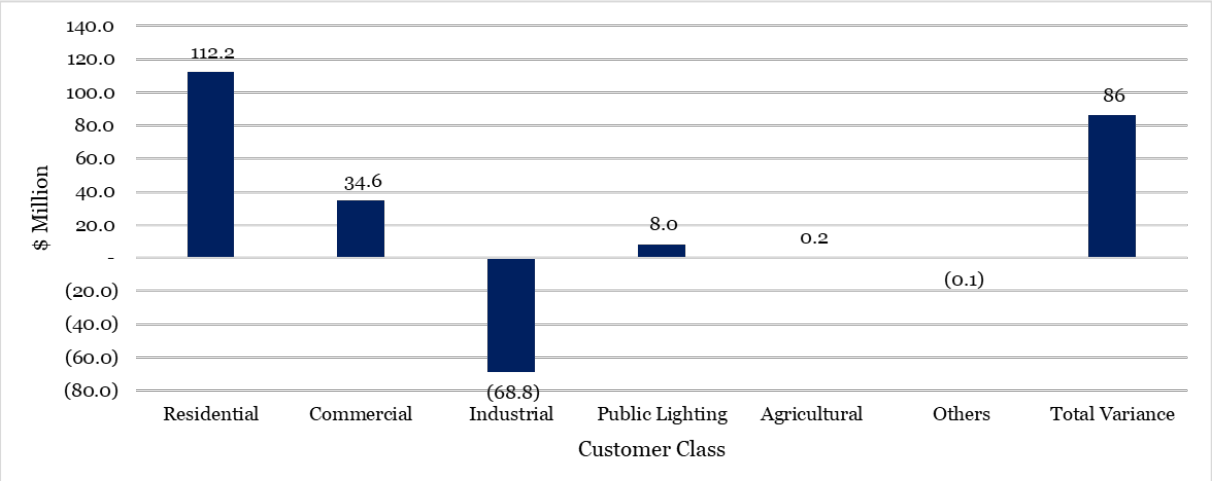


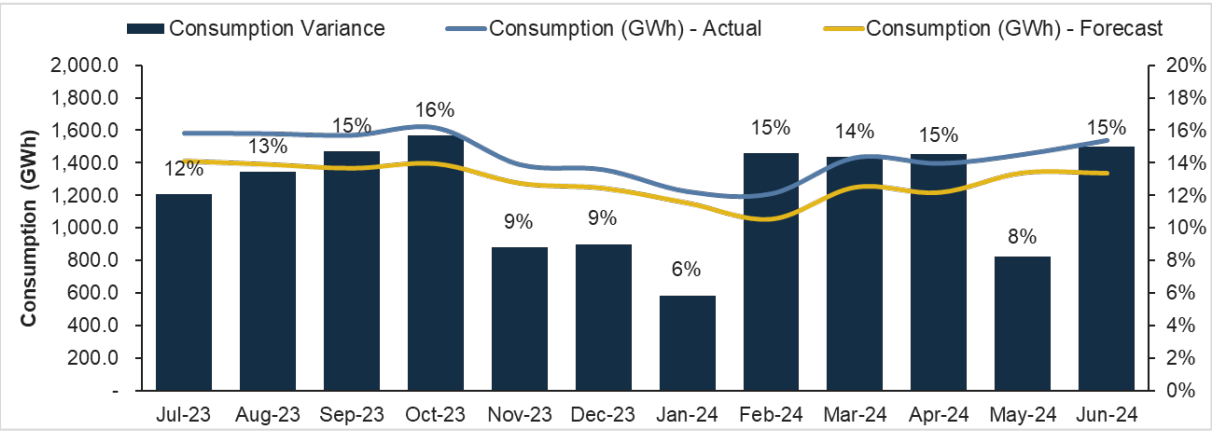
Exhibit 27 shows a breakdown of the total variance for FY2024 between forecasted and actual gross revenue split across customer classes. Actual revenue exceeded forecasted revenue in all customer classes except for: (i) the industrial customer class, which was 15% below the forecasted revenue for its class, and (ii) the "others" customer class, which was 1% below the forecasted revenue for its class. Actual and forecasted revenue variance was greater than 5% for three of the customer classes: residential (7%), industrial (15%), and public lighting (7%), while variance was low (under 5%) for the remainder customer classes.

Exhibit 27: FY2024 Difference Between Actual Revenues and Budgeted Revenue by Customer Class (USD million, Nominal)



Actual revenues exceeded forecasted revenues in FY2024, driven by higher-than-expected energy consumption and corresponding sales. Exhibit 28 shows how actual consumption exceeded forecasted consumption in every month. Higher-than-expected temperatures caused higher-than-expected energy consumption in Puerto Rico. For instance, higher temperatures led to an increase in the use of air conditioning units, which increased energy consumption across Puerto Rico. The discrepancy between forecasted and actual energy consumption and sales should be further evaluated in future planning efforts to ensure continued accurate budgeting and rate setting.

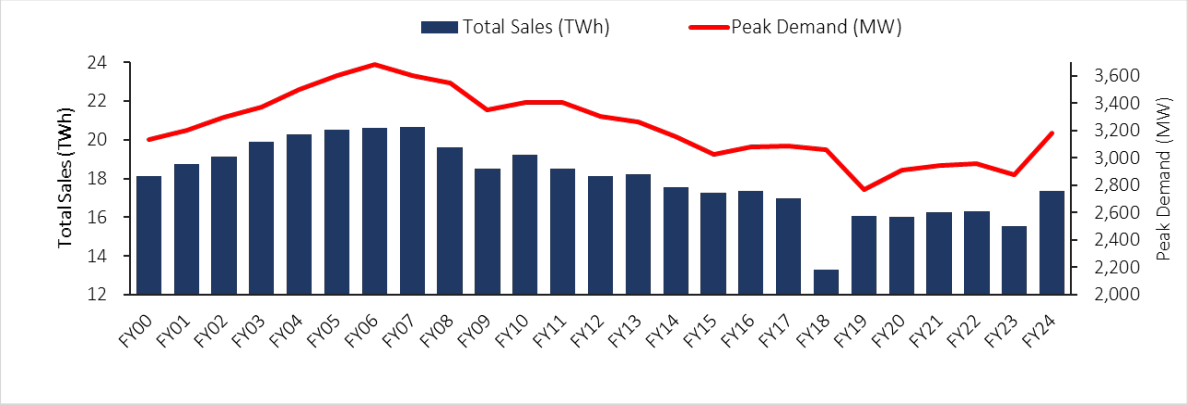
Exhibit 28: FY2024 Consumption, Gap to Forecast (GWh, %)



In FY2024, there was a reversal of the trend of falling energy sales in Puerto Rico. Exhibit 29 shows the historic sales and peak demand since FY2000. Sales showed steady growth from FY2000 to FY2007 where they peaked at approximately 21 TWh. In the following decade, consumption declined, falling to 17 TWh in FY2017. In FY2018, Hurricanes Irma and Maria left many parts of Puerto Rico with no electricity for extended periods of time, leading to a

demand shock equivalent to almost 4 TWh of energy sales in FY2018. After recovering from the Hurricanes, total sales have held relatively steady at approximately 16 TWh per year from FY2019 to FY2022, with sales trending slightly lower in FY2023. Over this period, peak demand has generally followed the same trend, with a peak in FY2006 at 3.7 MW and gradually declining thereafter to approximately 2.9 MW in FY2023. In FY2024 sales have increased relative to FY2023 by 10%.

Exhibit 29: Historical Billing Determinants (TWh, MW)



8 Debt Service

8.1 Overview of PREPA Debt and Restructuring Efforts

Currently, PREPA is faced with more than $10 billion in claims, including principal and interest on bond debt, other funded debt obligations, and other unsecured creditor claims. PREPA also has a pension plan actuarially underfunded by approximately $4.4 billion. To pay full debt service on just the bond obligations plus accrued unpaid interest within applicable contractual terms (as of the Petition Date), PREPA would be required to increase rates by approximately 7 to 8 ¢/kWh in real 2025 dollars between FY2025 and FY2044 based on the load forecast used for this Fiscal Plan.

PREPA's capital structure was unsustainable due to its having inadequate revenues to maintain the T&D System and its failure or inability to raise customer rates, leading to decades of borrowing to fund operating deficits. In February 2014, three major credit-rating agencies downgraded Puerto Rico's public debt, including PREPA's, to below investment grade. In late June 2015, the debt was downgraded a second time when it became clear the island's debts were unpayable.[145] Finally, in the spring of 2016, as the investment community viewed default on nearly all of Puerto Rico's debt as a "virtual certainty," PREPA lost access to credit markets—thus eliminating debt as a means of funding.[146, 147]

In July 2017, in the interest of protecting PREPA's future financial sustainability, and at the request of the Government, the Oversight Board filed with the U.S. District Court a voluntary petition on behalf of PREPA for protection under PROMESA Title III. In May 2019, a group of PREPA creditors, the Oversight Board, the Government, and PREPA negotiated and signed a consensual debt restructuring support agreement, which was subject to termination by, among other entities, the Government and the Oversight Board under certain conditions. In Spring 2020, as a result of the uncertain and unpredictable effects of COVID-19 on PREPA and its customers, the Oversight Board and AAFAF requested, and the Court granted, a pause in the Title III process governing approval of this agreement to assess and understand the implications of COVID-19.

On March 8, 2022, due to concerns regarding high rates, inflation, surging gas prices, and sustainability of the electric system (among other reasons), AAFAF terminated the PREPA restructuring support agreement in accordance with its terms, an action supported by the Oversight Board. AAFAF's action terminated the restructuring support agreement to all parties such that it is no longer in effect.

On March 1, 2023, the Oversight Board filed and proposed a Modified Second Amended Plan of Adjustment (the "March 2023 POA") to restructure PREPA's debt and other obligations, including its unfunded pension liabilities. The March 2023 POA provided for the issuance of new debt in the amount of $5.68 billion based on the debt sustainability analysis ("DSA") in the Fiscal Plan certified on June 28, 2022.

145 D. Andrew Austin, Puerto Rico's Current Fiscal Challenges, (U.S. Library of Congress, Congressional Research Service, R44095, 2016), 4, https://fas.org/sgp/crs/row/R44095.pdf

146 "An obligation rated 'CC' is currently highly vulnerable to nonpayment. The 'CC' rating is used when a default has not yet occurred, but S&P Global Ratings expect a default to be a virtual certainty, regardless of the anticipated time to default.", "S&P Global Ratings Definitions," S&P Global Ratings, last modified September 18, 2019, https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352

147 D. Andrew Austin, Puerto Rico's Current Fiscal Challenges, 4.

On June 23, 2023, the Oversight Board certified a Fiscal Plan based on updated costs and load projections provided by the operators for the forecast period. As part of the Fiscal Plan certified in June 2023, the Oversight Board estimated that, based on the assumptions set forth therein and data as of that date, PREPA's rate base would be able to support debt service on no greater than approximately $2.3 billion of debt on top of its operating costs (including funding its pension system to support restructured pension costs on a PayGo basis). On August 25, 2023, following a settlement reached with holders of approximately 35% of PREPA's bonds, the Oversight Board filed a Third Amended Plan of Adjustment (the "August 2023 POA") to restructure PREPA's debt and other obligations. The August 2023 POA provided for the issuance of new Series A and B bond debt in the amount of $2.282 billion based on projections set forth in the Fiscal Plan certified in June 2023. Among other things, the August 2023 POA proposed to issue cash recoveries to all creditors other than the prepetition fuel line lenders, which were to be issued Series A Bonds in accordance with the Fuel Line Lender Plan Support Agreement, and PREPA ERS, which would be funded through periodic future payments sufficient to allow PREPA ERS to pay retirees on a PayGo basis. The cash recoveries would be supported by the purchase of Series B Bonds by a group of bondholders (the "Purchasers").

On December 29, 2023, the Oversight Board filed a Corrected Fourth Amended Plan of Adjustment (the "December 2023 POA"), which increased the aggregate amount of new Series A and B bond debt to approximately $2.536 billion based on additional updated information received regarding income levels of PREPA's residential ratepayers. The December 2023 POA reflected restructuring support agreements reached with certain of PREPA's creditor constituencies, including its prepetition fuel line lenders, the Purchasers and other bondholders joining the Second Bond Settlement Agreement, National Public Finance Guarantee Corporation, and the official committee of unsecured claimholders. On February 16, 2024, the Oversight Board filed the February 2024 POA, which provided clarifying and other limited modifications to the December 2023 POA but did not amend the amount of the recoveries provided in the December 2023 POA. In March 2024, the Title III court held a contested confirmation hearing in respect of the February 2024 POA.

On June 12, 2024, before the Title III court issued a ruling regarding confirmation of the February 2024 POA, the First Circuit issued an opinion in connection with the bondholders' security interest and recourse rights. In brief, the First Circuit ruled the bondholders would have a perfected, unavoidable security interest in all Net Revenues (as defined in the PREPA bond Trust Agreement), rather than a security interest solely in Net Revenues deposited into certain funds, as the District Court had held. The First Circuit also ruled the bonds were nonrecourse, meaning that the non-settling bondholders were not entitled to any unsecured deficiency claim above the value of their Net Revenue collateral (eliminating the $2.388 billion unsecured claim the District Court had awarded the bondholders). The First Circuit expressed no opinion on the valuation of the bondholders' secured claim against PREPA's Net Revenues. The First Circuit's opinion held the bondholders were entitled to an equitable accounting, but that any such accounting claim would not expand the bondholders' recourse beyond their collateral pursuant to the terms of the Trust Agreement.

The Oversight Board filed a petition for rehearing with the First Circuit, requesting panel rehearing of its determination that the bondholders had an unavoidable security interest in all Net Revenues, rather than only in the Net Revenues deposited into certain funds. The statutory creditors' committee filed a similar petition, and AAFAF joined.

In light of the First Circuit's June 12, 2024 opinion, the Oversight Board's reconsideration motion, and the First Circuit's request for briefing, the Title III court issued an order on July

10, 2024, staying all bond-related litigation, including the confirmation proceeding regarding the February 2024 POA, and for mediation to resume with holders and insurers of PREPA's bonds to determine whether a consensual resolution would be attainable in light of the First Circuit's opinion. The litigation stay was extended several times and is currently effective until March 24, 2025. As of yet, no consensual resolution has been reached.

On November 13, 2024, the First Circuit withdrew its June 12, 2024 opinion, vacated its judgment, and replaced the opinion with a revised opinion. In short, the revised opinion stated that the Oversight Board's legal argument in its petition for rehearing was reasonable and retracted its prior reasoning. The First Circuit nonetheless reached the same conclusion as in the prior opinion under a new theory. On November 27, 2024, the Oversight Board filed a petition for panel rehearing of the November 13, 2024 opinion. AAFAF filed a joinder to the Oversight Board's petition. The statutory creditors' committee also separately filed a petition for panel rehearing and joinder to the Oversight Board's petition. On December 31, 2024, the First Circuit denied the petitions for rehearing filed on November 27, 2024. Thus, the November 13, 2024 ruling that the bonds are secured by a perfected security interest in PREPA's Net Revenues currently stands.

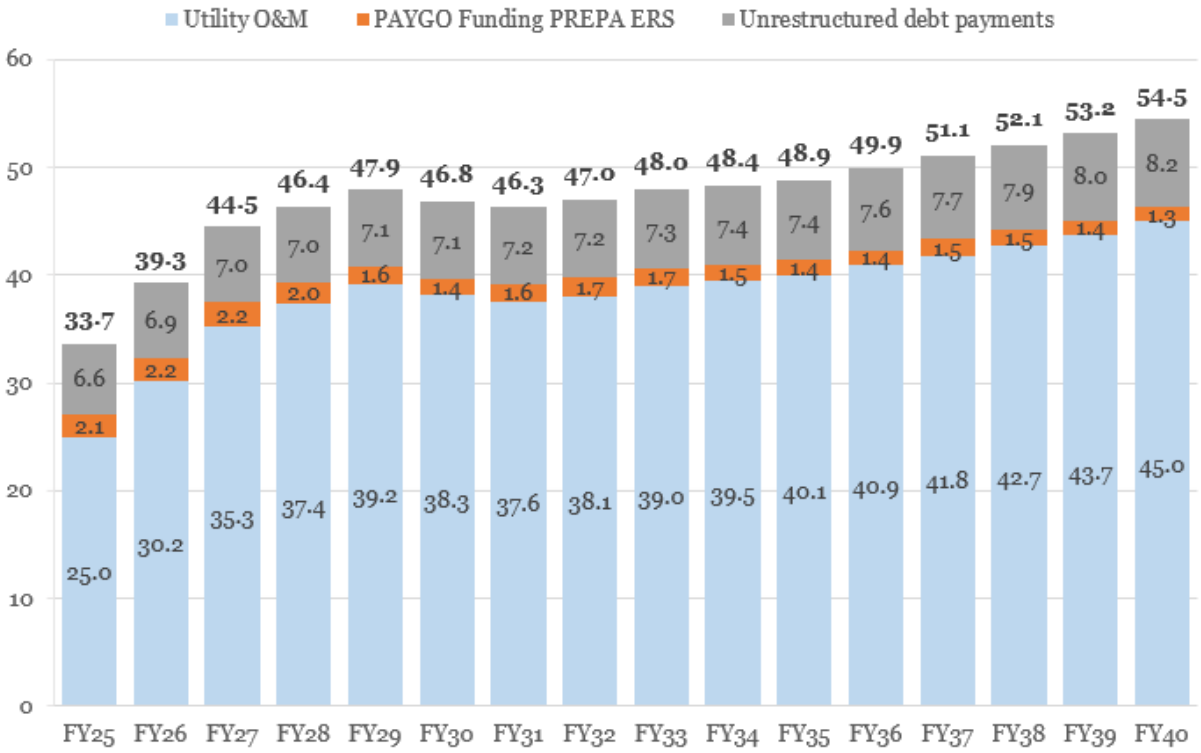
8.2 Implications of Unrestructured Debt on Projected Rates

Without restructuring its bond debt and other liabilities, PREPA would need to repay approximately $2.63 billion of scheduled legacy debt obligations over four years from FY2025 to FY2028 in addition to the roughly $5.48 billion of unpaid past and currently due amounts through the end of FY2024. Bringing PREPA's unrestructured debt obligations current in the near term would require rate increases of approximately 6 to 7 ¢/kWh in the FY2025–FY2028 period (just for legacy bond debt service). In the longer term, without any restructuring, PREPA's estimated debt service obligation is approximately $1.1 billion per year based on amortization of all long-term financial liabilities at a 5.25% interest rate over 20 years.[148] Absent restructuring of the debt, PREPA, and its customers cannot afford to meet these obligations without incurring substantial risks to the utility, primarily in the form of deferred maintenance on its already severely deficient electric system and/or very high electricity rates adversely borne by business and consumers, including lower-income Puerto Ricans.

Payments for unrestructured debt service would directly translate into significantly higher customer bills. Exhibit 30 below illustrates the calculation if the required rate were computed to pay in full the unrestructured debt described in **Chapter 7 (**Summary of Financial Projections**)**.

[148] Comprised of unpaid principal and bond interest, Fuel Line principal balance, unpaid FLL interest, and UCC

Exhibit 30: Rate with Unrestructured Debt Added (in Real 2025 Terms, ¢/kWh) (in Gray)



As an illustration, for a residential customer receiving service under PREPA's General Residential Service tariff (i.e., a non-subsidized rate) with electricity consumption of 425 kWh per month in FY2026, unrestructured debt service would require an addition of 6.9 cents per kWh to a monthly electricity bill, or approximately $29 each month. Furthermore, in FY2026, restructured pension expenses would require an addition of 2.2 cents per kWh to a monthly electricity bill of the same customer, or approximately $9 each month.

8.3 Debt Sustainability Analysis

The projections of load and expenses as provided by the operators and reflected in this Fiscal Plan, together with severe service interruptions and outages—as recently as December 31, 2024—and recent R&Os by PREB focusing on the system stabilization and reinitiating the rate review process—demonstrate PREPA's inability to provide reliable electricity service without addressing the decades of deferred system repairs. As a practical matter, PREPA has no projected excess cash flow after addressing the system needs and, as explained herein, no ability to raise rates further to sustain any debt because rates (without accounting for debt service) will already have to be increased above the 6% of share-of-wallet level for a nonsubsidized median-income residential customer (i.e., 30.5 cents per kWh) to maintain, operate, and repair the dilapidated system. The Oversight Board believes Puerto Rico cannot have a sustainable future without an efficient and reliable source of power.

Nonetheless, taking into account the Oversight Board's commitment to creditors and finding a path to exit Title III, the Oversight Board, when allowed to propose an amended Title III POA, will file a proposed disclosure statement that will specify the source of funds to confirm the POA because without a confirmed plan discharging burdensome debt, PREPA cannot be

sustainable, and without PREPA, Puerto Rico cannot be sustainable. The amended proposed Plan of Adjustment will permit the Oversight Board to honor PREPA's existing settlements with adjustments previously discussed with the settling creditors and satisfy the amount of the non-settling bondholders' allowable nonrecourse secured claim determined by the Title III court. If the non-settling bondholders hold any allowable recourse claims, those claims will also have to be paid their legal entitlements under PROMESA Title III.

Meeting PREPA's expenses before debt service will already require rates above the 6% share-of-wallet level for the nonsubsidized median-income household customer. The following analysis further explains the Oversight Board's debt sustainability analysis.

This Fiscal Plan's DSA begins with a framework for assessing PREPA's long-term capacity to pay debt service. PREPA's debt levels need to align with the objective of achieving fiscal responsibility and access to capital markets to fund ongoing and future infrastructure capital investment to develop and maintain a sustainable electric system with affordable energy prices for the Commonwealth of Puerto Rico and its residents. Increasing rates must be assessed in the context of the adverse consequences such increases cause, such as rendering Puerto Rico less capable of attracting new business, investments, and jobs, accelerated conversion to solar, accelerated out-migration, and hardship for a population in which 39.6%[149] are below the federal poverty level.

PREPA's sole source of revenues is its customers' payments for power. Accordingly, without an external subsidy, payment of any debt service must be funded through an increase in rates to generate net revenues, after payment of O&M expenses and other expenses, if any, necessary to ensure the system provides a sustainable and reliable electricity service to the ratepayers and subsidized users. The DSA therefore takes into account that rate increases are constrained by customers' ability to pay, alternatives available to them if rates increase beyond their ability to pay or beyond the cost of alternative energy, the negative impact higher rates have on a generally poor population, and Puerto Rico's ability to attract new investments to grow its economy and provide jobs for a population having a high unemployment rate. Put simply, raising rates causes a series of other negatives to both PREPA and PREPA's stakeholders. PREPA's debt levels also need to align with the Oversight Board's statutory objective of restoring capital market access at reasonable interest rates. Such access is essential for PREPA to fund ongoing and future infrastructure capital investment, ensure a sustainable electric system with affordable energy prices for Puerto Rico and its residents, and avoid the consequences to PREPA of increased levels of bad debt, electricity theft, and accelerating grid defection. Indeed, the Trust Agreement governing PREPA's bonds expressly contemplates PREPA accessing the bond market to raise money for improvements.

This DSA determines PREPA's capacity to pay debt by imposing an additional rate increase on top of the rates necessary for PREPA to pay essential operating expenses (including paying current pensions on a pay-as-you-go basis) and to continue to provide basic service to the people of Puerto Rico. The analysis, necessarily, incorporates the Oversight Board's objective and subjective judgments concerning fairness to Puerto Rico residents, fairness to creditors, carrying out PREPA's statutory mission, and risks of demand loss from multiple causes.[150]

Specifically, the DSA accounts for the Oversight Board's judgments—after reviewing and examining the projections from PREPA's operators—based on expertise from consultants and

149 United States Census Bureau, 2023 American Community Survey (ACS), 1-year estimates: https://www.census.gov/quickfacts/fact/table/PR/IPE120223

150 This Fiscal Plan's references to fairness to creditors refers to fairness from a ratemaking and business perspective and do not purport to opine on fairness for confirmation or other legal purposes.

staff it has retained, in respect of : (1) overall customer affordability (customer ability to pay for PREPA's services before they seek out alternatives and/or out-migrate to other jurisdictions); (2) PREPA's sustainability (the extent to which PREPA can be a going concern by, among other things, being able to raise rates to generate revenues to fund necessary maintenance expenses and operating expenses, and make required contributions to its pension system, without reaching the point of losing substantial numbers of customers and revenues due to incremental rate hikes); and (3) the likely cost of alternatives to PREPA's services (for example, customers installing solar PV panels on their homes or businesses) and the potential impact of those alternatives on PREPA's customer base and revenues.

Guiding Principles

The DSA incorporates many economic and societal considerations, including:

- **Residential Affordability**. The large number of low-income households in Puerto Rico means that many PREPA residential customers have limited or no ability to afford higher rates without sacrificing other necessities. Additionally, based on significant secondary literature, the Oversight Board believes households that pay more than 6% of their annual income, or share of wallet, on energy costs live in energy burden or energy poverty.[151]
- **Elasticity**. Elasticity is the concept that increasing rates will decrease demand for PREPA's electricity services. Higher rates, and the resulting higher bills for customers, ultimately induce customers to reduce their consumption of electricity from PREPA (including notably by using electricity generated by PV solar panels installed at their premises), to "cut the cord" from the grid entirely by taking full responsibility for their electricity generation, or even to out-migrate from Puerto Rico. Whenever customers decrease their consumption, the remaining customers must shoulder a higher share of the electric system's fixed costs. Increases of rates accelerate these trends, and increases beyond a certain point may result in knock-on effects difficult for PREPA to manage. These concerns also have a negative impact on those least able to shoulder the costs. Higher-income customers tend to have more opportunities to respond to rate hikes with actions such as installing solar roofs, thereby opting out of PREPA's services (partially or completely). When higher income ratepayers find alternatives, their exits from or diminished use of the electric grid burden other customers, particularly those of lower income, who have fewer options. Therefore, rates must be kept below levels that will excessively accelerate defection from PREPA's grid and the negative social consequences attendant to that defection.
- **Historical Underfunding of Necessary Costs**. PREPA has underfunded its needs for decades. The result is that PREPA's energy system has one of the highest costs while at the same time providing the poorest performance in the United States. Given the antiquated and fragile nature of PREPA's infrastructure, PREPA's repair and maintenance costs exceed its rate capacity, and all incremental revenues generated from rate increases are required to restore PREPA and transform it into a modern, reliable, efficient, safe utility.

151 Ariel Drehobl et al., "How High Are Household Energy Burdens?", American Council for an Energy-Efficient Economy (September 2020), p. ii; Eric Scheier and Noah Kittner, "A measurement strategy to address disparities across household energy burdens," Nature Communications, 13 (2022), https://doi.org/10.1038/s41467-021-27673-y. To be clear, the Oversight Board does not believe non-subsidized, median-income household customers' bill should be increased and remain at or above the 6% threshold for a long period of time. Keeping a large proportion of Puerto Rico ratepayers under such a burden for an extended period of time is clearly undesirable.

Impact of the Cost Projections on Residential Affordability

In certifying this Fiscal Plan, the Oversight Board noted the operators' projections estimate needing a substantial rate increase to be placed on PREPA's ratepayers7Summary of Financial Projections to meet the needs of the system. Imposing the implied rate required to meet the operators' cost projections (including current funding of pensions to PREPA's retirees and ***without any other debt service***) on a nonsubsidized residential customer earning median income in FY2026 and consuming 425 kWh per month would result in the customer paying more than 6% of their annual income to PREPA, which may result in such customers falling under an "energy burden"; i.e., needing to make choices between electricity and other essentials. More importantly, due to the decades of deferred system repairs, the burden on the customer rates is generally expected to grow over time so that the gap between the implied rate of the operators' projection and the 6% electricity share-of-wallet threshold for this customer widens throughout the Fiscal Plan period.

Even if the Oversight Board were to assume that the median-income household will consume less than 425 kWh per month in FY2026 or that the household's monthly consumption of PREPA's electricity would decline over time (an assumption the Oversight Board believes would be baseless), the projected load and expense levels provided by the operators would still far exceed what the nonsubsidized median-income household could afford without paying more than 6% of their annual income for electricity.

Finally, the Oversight Board has considered whether the absence of debt sustainability might change if the newly elected Puerto Rico government repeals Act 17-2019 which requires increasing renewable energy and improving energy efficiency, which is expensive to incorporate. The Oversight Board has estimated that the repeal or substantial amendment of Act 17-2019 would likely result in a higher load forecast and lower projected costs. However, the rates that PREPA would need to charge for electricity would result in bills to median income families that would, even then, exceed a 6% electricity share-of-wallet level.

Conclusion

In light of the significant increase in the F&PP costs and PREPA's inability to provide reliable electricity service without addressing the deferred system needs, the Oversight Board concludes PREPA will not be able to impose any additional rate increases for debt service above the rates necessary to pay for the F&PP costs and maintenance costs. That is, the headroom identified in the Fiscal Plans certified in prior years to impose a rate charge to pay legacy debt no longer exists. Although the DSA in the Fiscal Plan certified in June 2023 was based on rate "headroom" shown in the first fiscal year following the then anticipated POA effective date (and maintained throughout the projection period), the new load and expense projections show that, even if one were to use this metric to assess affordability for a typical residential customer over the same period, it would not yield any affordable debt service. Under the Fiscal Plan certified in June 2023, the all-in projected rates, including the proposed rates for legacy debt service, remained slightly above or slightly below the 6% electricity share of wallet ceiling during the entire projection period. Under this Fiscal Plan, however, projected rates materially exceed this threshold from FY2026 and only get worse in later years, even without an additional rate for debt service.

PREPA, relying solely on its own resources, thus cannot afford on its own to issue new debt to fund creditor recoveries in a Plan of Adjustment if it must also pay all its non-debt expenses. The Oversight Board is nevertheless committed to its statutory objective of obtaining access to capital markets for PREPA by restructuring and discharging its debt and rendering it sustainable. In line with that objective, when allowed to propose an amended Title III POA,

the Oversight Board will file a proposed disclosure statement that will specify the source of funds to confirm the POA that will permit the Oversight Board to maintain settling creditor recoveries materially in line with those offered to PREPA's creditors in the February 2024 POA (with adjustments previously discussed with the settling creditors), while also paying the amount of the non-settling bondholders' allowable nonrecourse claim secured by Net Revenues, as determined by the Title III court. The amendment to the Plan of Adjustment will likely impact resources otherwise dedicated to providing much needed improvements to other government functions or to make critical investments to improve the quality of life for the people of Puerto Rico. Given, however, the limited resources at PREPA and the considerations discussed above and in preceding Chapters, the Oversight Board has determined there is no superior alternative.

9 Pension Reform

9.1 Historical Background and Organizational Structure

PREPA ERS was initially created through Resolution 200 of PREPA's Governing Board in accordance with the terms of a collective bargaining agreement executed in 1942 between the Puerto Rico Electrical Industry and Irrigation Workers Union ("UTIER," by its Spanish acronym) and the Water Resources Authority, now known as PREPA. PREPA's Governing Board adopted the resolution establishing PREPA ERS as of July 1, 1945. Through the years, PREPA ERS expanded its scope to cover other PREPA employees. Since its inception, PREPA ERS has been governed by its bylaws, as amended, which are contractual in nature, known as the "Electric Power Authority Employee Retirement System Regulations" (the "PREPA ERS Regulations").

PREPA ERS is a public pension system. Its assets are dedicated for the benefit of active members, retired members, and their beneficiaries. PREPA is the plan sponsor, contributes to PREPA ERS, and pays for most of the administrative costs of PREPA ERS, which cost approximately $5 million total per year. The PREPA ERS Regulations establish a board of trustees (the "Board of Trustees") to administer PREPA ERS. The Board of Trustees is composed of eight members, of which one member is the Executive Director of PREPA, three members are active members of PREPA ERS and are elected by the active members of PREPA ERS, three members are appointed by the PREPA Governing Board, and one member is elected by the retired members of PREPA ERS.

Article 7 of the PREPA ERS Regulations provides the powers of the Board of Trustees are subject to the limitations prescribed by PREPA's Governing Board. Further, Article 11 of the PREPA ERS Regulations provides the PREPA ERS Regulations may be amended by the Board of Trustees, provided the Board of Trustees notifies the PREPA Governing Board 30 days in advance of its intention to amend the PREPA ERS Regulations. PREPA's Governing Board may veto the proposed amendment within said 30-day period. Additionally, Article 9(2) of the PREPA ERS Regulations provides PREPA's Governing Board with the ability and authority "upon recommendation of the Board of Trustees" to modify contributions to or terminate PREPA ERS "for reasons that affect its development and normal operations as a solvent entity, [or] discontinue, suspend or reduce its contributions." Article 9(3) of the PREPA ERS Regulations allows PREPA to terminate operation of PREPA ERS "based on causes or circumstances that are outside of its control" upon the recommendation of the Board of Trustees; however, to date, no such recommendation has been made.

To fund the system, the PREPA ERS Regulations provide for PREPA to make an employer contribution to PREPA ERS in the amount of the actuarially determined contribution ("ADC"), which is an actuarially determined amount reflecting the cost of benefits earned during the year ("normal cost") plus the amortization of any determined unfunded status of the plan over a fixed number of years. The ADC is the amount needed, if contributions are made consistently based on each year's actuarial calculation, to fully fund all the benefits payable by a plan, so long as the ADC is based on a set of assumptions that accurately represents expected future costs of the plan and return on investments. The PREPA ERS Regulations impose on the Board of Trustees the obligation to approve its actuarial reports and financial statements annually. Up until June 30, 2016, the actuarial valuation the actuary for PREPA ERS provided PREPA was, in hindsight, based on overly optimistic assumptions regarding payroll, life expectancy, and investment return on system assets. As a result, the ADC that had been historically approved by the Board of Trustees was insufficient to maintain the health and funded status

of PREPA ERS. In 2018, an actuarial revision was performed by the PREPA ERS actuary with the help of the PREPA Governing Board. Many key economic and demographic assumptions were updated, which significantly increased the projected ADC that would be required beginning with the June 30, 2017 valuation reports (i.e., FY2019 ADC).

As of July 2024, there were 244 active PREPA employees, 2,006 mobilized PREPA employees employed by the Government who still participate in PREPA ERS, and 12,545 retirees, beneficiaries, and surviving spouses. In total, the monthly recurring benefit payments were ~$23.4 million (excluding one-time or short-term bonus payments or contribution withdrawals by former participants).

9.2 Pension Benefits Background

PREPA ERS undertook a significant pension reform in 1993. Most notably, PREPA ERS increased the minimum retirement age and imposed a cap on pension benefits through the establishment of a maximum annual compensation limit of $50,000 as the base for the calculation of the pension benefit (pre-1993 employees would receive a merit-based pension of 75% of the highest three years of compensation without any cap). As a result, the maximum amount of annual pension benefit a post-January 1, 1993 hire could earn is $37,500 (75% of $50,000). Such reform notwithstanding, the Cost-of-Living Adjustment ("COLA") remained in effect and applies to all retirees, providing for an increase to benefits every three years. Additionally, effective June 30, 2002 and June 30, 2003, an annual $400 Christmas bonus and a $100 Summer bonus, respectively, were added to retiree benefits. As of June 30, 2004, a lump sum Funeral Benefit of $1,000 was also established.

Key retirement provisions are itemized in the table below, for employees hired both before and after January 1, 1993.

Table 30: Key Retirement Provisions

Defined Benefit	Hired Before January 1, 1993	Hired On or After January 1, 1993
Eligibility for Full Retirement Benefit	• 30 years of service	• Age 55 and 30 years of service
Maximum Compensation	• Average of the three highest annual base salaries	• Average of the three highest annual base salaries, but capped at $50,000
Annual Benefits	• Merit annuity is 2.5% of compensation times years of service up to 30 years • Accrued benefit annuity is 1.5% compensation for each year of service, plus 0.5% of compensation for each year of service after 20 years • Maximum benefit at retirement is $37,500 for those hired on or after January 1, 1993	
Employee Contributions	• Employee contributions are generally 9.06% of salary	• Employee contributions are 11% of salary

Defined Benefit	Hired Before January 1, 1993	Hired On or After January 1, 1993
Cost-of-Living Adjustment	• Every three years: 8% increase for monthly pension of up to $300; 4% increase for monthly pension between $300 and $600; 2% increase for monthly pension in excess of $600	
Other Benefits	• Annual bonuses of $500 ($400 for Christmas and $100 for Summer); Funeral benefit of $1,000 paid as a lump sum; Lump sum of one year's pay at death while active or retired	

Furthermore, surviving spouses of retired members are entitled to receive a life annuity equal to 30% of the retiree's annual pension level at the time of death.

9.3 Other Post-Employment Benefits

For OPEB, PREPA currently provides postretirement medical benefits outside of PREPA ERS (i.e., not paid from the pension trust). To be eligible for these medical benefits one needs to have performed 30 years of service. Currently, PREPA provides medical coverage for retirees through a contract with Triple-S. This benefit is included in the PREPA operating budgets, costing approximately ~$8 million annually under the current contract. There are approximately 8,200 retirees that receive the OPEB medical benefit.

9.4 Liquidity Concerns

The pension system's assets were in chronic decline for the past several decades due to (a) ongoing and increasing benefit payment outflows from an increasing number of retired plan participants and (b) insufficient employer contributions. For many years prior to PREPA's Title III petition, PREPA ERS failed to estimate an adequate level of employer pension contributions and maintained a persistently low funded ratio of plan assets to liabilities of less than 50% as of the date of the Title III petition, as demonstrated in Exhibit 31 and Exhibit 32. The insufficient funding requests were driven in part by the use of unrealistic asset return assumptions and discount rates, which drastically understated the total pension liability, and unrealistic assumptions on the go-forward state of PREPA employment levels.

Exhibit 31: Employer Contributions

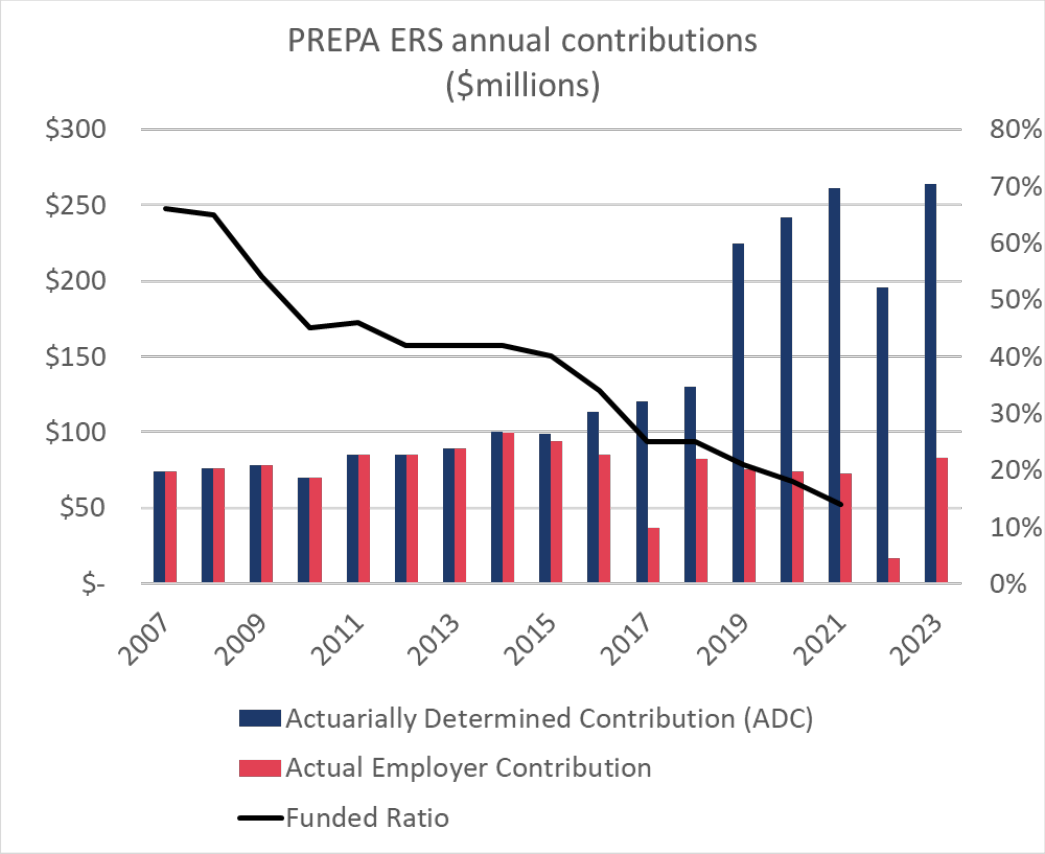
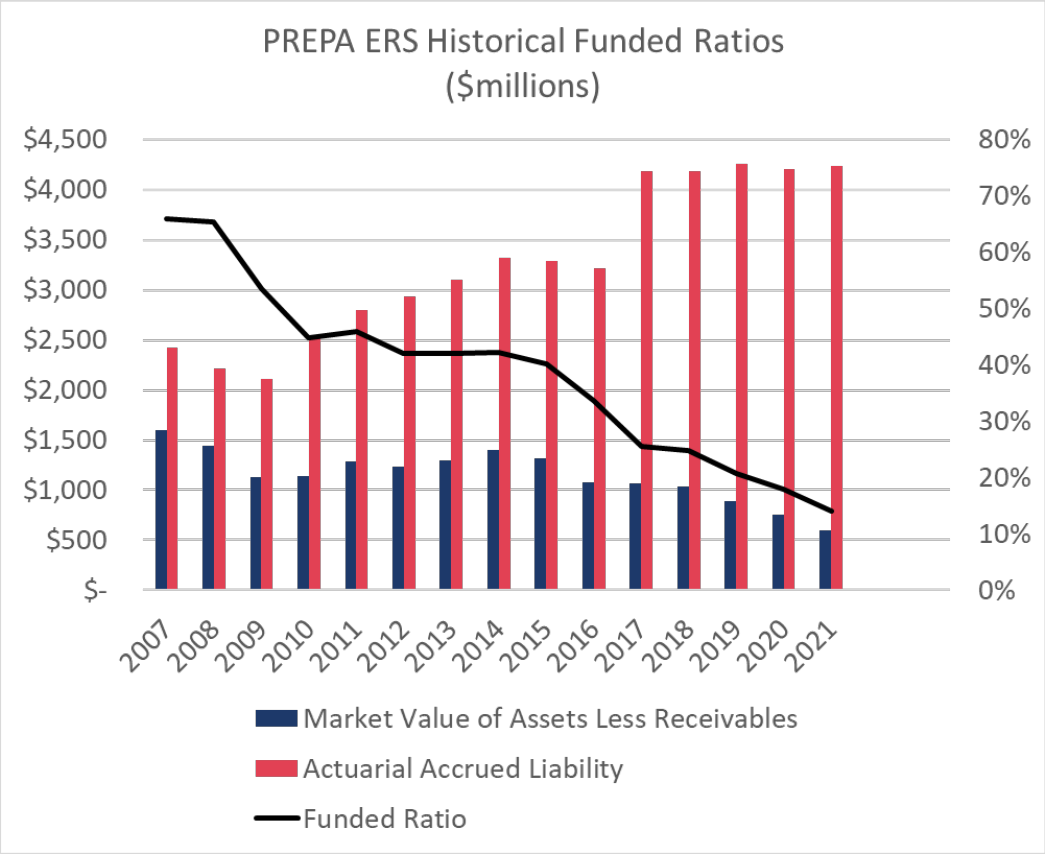


Exhibit 32: Plan Asset Value and Funded Ratio



In February 2023, PREPA ERS notified the Oversight Board the pension system would not have sufficient assets to continue making benefit payments as early as May 2023. In response to the notice and with the assistance of AAFAF, the Commonwealth, and the Oversight Board, PREPA ERS received additional, non-recurring cash flow on an "emergency basis" arising from multiple sources to address the shortfall needed to pay required benefit payments:

- ~$8 million from the Government in connection with amounts budgeted for employer contributions for former PREPA employees who transferred to the Government in connection with the formation of LUMA ("Mobilized Employees").
- ~$65 million via a budget amendment for "emergency PayGo for FY2023" funded from PREPA's operating cash balances.
- ~$32 million of bad debt recovery from a payment by the Puerto Rico Medical Services Administration ("ASEM," by its Spanish acronym) made in January 2023 and March 2023 to settle past due accounts receivables with certain government entities for the period prior to the LUMA service commencement.
- ~$25 million of installment payments from PRASA pursuant to the executed settlement under the Memorandum of Understanding dated February 7, 2023, to settle past due accounts receivables with certain government entities for the period prior to the LUMA service commencement.
- ~$51 million pursuant to the settlement between PREPA, the Puerto Rico Office of Management and Budget, and the Puerto Rico Department of Treasury, dated June 23, 2023, to settle past due accounts receivables with certain government entities for the period prior to the LUMA service commencement.

While these contributions provided temporary relief to maintain benefit payments, PREPA ERS remained insolvent and was forced to seek additional funding in the absence of an increase in electricity rates to cover the monthly retiree benefit payments. Therefore, in December 2023, the Oversight Board, in coordination with the Government, approved an interim pension loan of $300 million to fund an estimated twelve months of retiree benefits through December 2024. The loan agreement approved by the Oversight Board was done on an emergency basis after the Legislature approved a Commonwealth of Puerto Rico budget amendment to ratify the appropriation. As the loan was provided as a bridge to the implementation of a long-term solution through electricity rates, the Oversight Board included a covenant requiring PREPA to take necessary actions to implement a permanent solution by June 15, 2024.

In August 2023, PREB had filed a resolution revising the format for the pending rate case to set forth a three-step process to review the current electricity rates to establish the procedural requirements for the rate review. After extensive deliberations and negotiations, PREB and LUMA had agreed to a revised process to assess the costs of service for the system.

In October 2023, the parties provided responses to the first phase of the rate case process to identify the information and financial data available and proposed methodology for assessment and review to be developed as part of phase two of the process.

After a series of information requests, the PREB filed a resolution in April 2024, after the Title III confirmation hearings, to postpone the process to await the court's ruling on the proposed Title III POA.

As of October 31, 2024, PREPA had approximately $60 million of funding to support benefits and other costs of PREPA ERS, which was sufficient to fund such costs through the end of CY2024. As reported by PREPA ERS, the estimated funding need for monthly retiree and beneficiary benefits is approximately $24 million to $26 million per month (including administrative expenses and death benefits). This amount is in addition to any potential withdrawals from former employees which may increase the estimated funding need to a higher amount.

On November 15, 2024, PREPA filed an informative motion with PREB stating PREPA will be unable to continue to fund pension benefits in full after December 2024 and availed itself to PREB for assistance. PREB responded by rejecting the motion and requesting PREPA to either identify funds for a budget reapportionment or take required action as provided under Act 57-2014, including requesting a rate increase to fund the monthly benefits. PREPA responded shortly after this stating it had identified $74 million of pending reimbursements from FEMA that, once fully submitted and processed, would provide interim liquidity, but failed to identify a permanent solution. Instead, PREPA requested continued support from the Government. PREB approved this request on December 26, 2024. On January 10, 2025, the Oversight Board certified an amended FY2025 budget for PREPA to account for receipt of such FEMA funding and its contribution to PREPA ERS.

The Oversight Board, in collaboration with the Government, is committed to bridge liquidity needs until identification of funding through implementation of a rate sufficient to pay monthly pension costs, which will eventually be adjusted through the Title III process.

That said, the Oversight Board urges all stakeholders, including PREPA, AAFAF, PREPA ERS, and PREB, to take immediate action to implement a dedicated funding source during CY2025 while conclusion of the Title III case is pursued. As PREB reinitiated the rate review process in December 2024, with expectation of a provisional rate imposition in July 2025, including the pension cost into the revenue requirement as part of the base rate or a rider may be a possible funding source.

From FY2018 to FY2022, PREPA budgeted and contributed approximately $66 million per year as the employer portion of the pension system contribution, with the FY2023 contribution decreasing to ~$18 million with emergency funding coming from PREPA operating cash towards the end of FY2023 to fund benefit payments on a “pay-as-you-go” basis. The Fiscal Plan certified in June 2023 reflected using the emergency funding through calendar year 2023 and later relying on the $300 million Commonwealth loan to continue benefit payments after PREPA ERS fully depleted its liquid assets as a bridge to a permanent solution for payment of PREPA’s pension obligations on a PayGo basis.

9.5 Structural Pension Reform

9.5.1 Summary of Pension Reform

The Oversight Board intends to address PREPA’s significant underfunded status while minimizing the associated long-term impact the pension system will have on electricity rates. The Oversight Board intends to file an amended POA that, consistent with the February 2024 POA, includes the following pension reform measures: (a) close the pension system to future participants; (b) freeze pension benefits as of the effective date of the POA (“Effective Date”) for active employees currently participating and accruing service, including, for the avoidance of doubt, Mobility Employees; (c) eliminate COLA for all participants after the Effective Date;

(d) convert PREPA ERS from being funded based on ADC's or other annual payroll rates to a PayGo system to fund annual benefits; and (e) establish a PREPA PayGo Trust to support the payment of pensions. These measures are consistent with pension reform measures imposed previously by the Government with respect to the Employees Retirement System of the Government of the Commonwealth of Puerto Rico pursuant to Act 3-2013, and by the Oversight Board through the Title III POA for the Commonwealth of Puerto Rico with respect to the Teachers' Retirement System and the Judiciary Retirement System.

The freezing of pension benefits, including the COLA elimination, produces material savings over time which will help reduce future costs for ratepayers once implemented through the POA.

9.5.2 Establishment of PayGo Trust

As of the certification of this Fiscal Plan, the Oversight Board expects the upcoming amended proposed POA to provide the benefit payments to continue to be administered and paid from the current pension trust (PREPA ERS), but the funding structure of PREPA ERS to shift from a funded model to PayGo. The PREPA PayGo Trust may be established to reimburse PREPA ERS for retirement benefits paid and reasonable administrative costs (subject to approval by PREB) as part of operating expenses as defined in the pending POA. PREPA ERS would be entitled to reimbursement of benefit payments as long as the benefit payments reflect the pension reform outlined above (e.g., no COLAs and frozen benefit accruals for active participants), and such reimbursement would be used by PREPA ERS to fund the upcoming monthly benefits. The PREPA PayGo Trust would be funded based on the estimated amounts needed to reimburse PREPA ERS, plus additional amounts needed to build up an approximate one-year reserve of benefit payments ("PayGo+"). This PayGo+ structure will provide a funding backstop in the event of disruptions to the production or sale of electricity and/or collections of amounts due from ratepayers (e.g., due to a hurricane or other natural disaster).

10 Post-Certification Reporting

Electric utilities and energy providers operate critical infrastructure, often as monopolies. To provide transparency and inform regulators, employees, customers, and other stakeholders, regulated energy and utility companies must adhere to strict transparency and reporting requirements mandated by different federal, state, and other regulatory entities. Such reporting requirements are industry standard and apply to PREPA.

Historically, it has been PREPA's responsibility to report on its financial, operational, and reliability indicators. As part of the transformation of Puerto Rico's energy sector and their role as operators of the T&D and Generation systems, LUMA and Genera must continue to comply with these—and certain additional—reporting requirements. Both the T&D OMA and the Generation OMA authorize LUMA & Genera to represent PREPA before PREB "with respect to any matter related to the performance of any of the O&M Services provided by Operator." Both OMAs specify LUMA and Genera will be responsible for all related filings and other submissions before PREB. Annex I of the T&D OMA and Annex IX of the Generation OMA detail the accounting and financial information reporting requirements. These include (among other requirements):

- Quarterly and annual (year-end) financial reporting
- Monthly and annual federal agency reporting requirements
- PREB reporting requirements
- Budget Reconciliation Act of 2017 and other federal and Commonwealth of Puerto Rico stimulus or funding program reporting requirements
- DOE reporting requirements

To monitor the progress of PREPA's operational and financial reorganization, the transformation of Puerto Rico's energy sector, and the health and performance of Puerto Rico's electricity system, the Oversight Board has historically required PREPA to submit additional performance- and implementation-related information to the Oversight Board on a regular basis. PREPA must continue to meet these reporting requirements, for which it is still responsible and has not transferred responsibility to LUMA or Genera, until it is no longer a covered territorial instrumentality as designated by the Oversight Board pursuant to PROMESA. The Oversight Board will use the private operators' reports that are submitted to PREB and P3 related to the outcome metrics and implementation status to supplement the information provided by PREPA and continue to monitor the financial health and performance of Puerto Rico's electricity system, while reserving its right to request certain other reports from LUMA and/or Genera either directly or through PREPA.

The sections below describe various reports and metrics that must be submitted by PREPA, LUMA, and Genera. The cadence and process for reporting are described in the table below.

Table 31: Reporting Cadence

Report Type	Submission Timeline
Weekly	Submitted on Wednesdays for the preceding week
Monthly	Expected 15 days or 10 business days after the end of the month
Quarterly	Expected 45 days after the end of the quarter in the form of a consolidated report
Annually	Expected 120 days after end of a fiscal year in the form of a consolidated report

10.1 Non-Operational Reports

Reporting of non-operational matters, i.e., information not tied to specific operational measures describing the performance and health of the electricity system at a more general level, is divided into two categories: (1) Resilience and Resource Planning, and (2) Financial. Resilience and Resource Planning. These reports provide updates on implementation of the IRP, grid modernization, and federal funding efforts. The Financial reporting cadence varies based on the nature of the reported metric, ranging from weekly to annual reports.

Table 32: Non-Operational Reports

	Report	Detail	Cadence	Responsible Entity
Resiliency & Resource Planning	Implementation of PREB approved IRP and Modified Action Plan	Submission of all PREB required IRP status reports, including: • Two-year near-term forecast of the system's expected capacity resource balance on a seasonal basis and its ability to meet peak load	As determined by PREB	PREPA
	Puerto Rico Electrical System Resource Adequacy Analysis Report	Annual submission of the report includes: • Executive Summary • Introduction • Puerto Rico's Electrical System and Resource Adequacy • Resource Adequacy Analysis Results and Implications	Annual	LUMA
	System Operator Requirements	Operating reserve requirements with existing and anticipated resources at each of the forecasted intervals	Updated as required	PREPA/ LUMA
	Implementation of Grid Modernization (i.e., Two-Year Stabilization Plans)	Grid modernization plan including any reports or status required by PREB	As determined by PREB	Genera/ PREPA
	Grid Modernization Reporting (i.e., Two-Year Stabilization Plans)	LUMA provides the following reports: • EE and Demand Response TPP Quarterly Report • Quarterly Streetlight Report • Puerto Rico's Electric Vehicle Adoption Plan Semi-Annual report	Varies	LUMA

	Report	Detail	Cadence	Responsible Entity

	T&D/Generation Outage Report	• Breakdown of outages categorized by cause, distinguishing between generation-related and T&D issues
		• Explanation for outages considered major:
		  ○ Outage lasting more than 4 hours
		  ○ More than 50,000 customers impacted
		  ○ Affecting an entire substation, feeder, or critical infrastructure (e.g., hospitals, airports)
		  ○ Significant safety risks (e.g., fire)
			Monthly	LUMA

	Permanent and Emergency Work-Related Federal Funding Report	Updates on FEMA and CDBG-DR funding programs for permanent and emergency work for generation (including hydro) and T&D assets (including Vegetation Management). Provide the following: • Funding Source • Allocated/Identified amount • Intended use and description of project portfolio • Obligated amount • Received amount • Cost-match requirements • Cost-match funded (by source) • Project timeline and/or milestones	Monthly FEMA -	PREPA / Genera / LUMA

	Report	Detail	Cadence	Responsible Entity
	LUMA's FEMA Federal Funding Report	Overview and key next steps related to FEMA funded projects that include the following: • PREPA-LUMA Coordination and Alignment • Federal Grant Management • Funding and Reporting • Environmental and Historic Preservation • Engineering Management	Quarterly	LUMA
	LUMA's Quarterly Federal Funding Report	Summary report outlining federal funding activity that includes the following: • Summary of Activities • Construction Progress • FEMA-Obligated T&D Projects • Detailed Scope of Work ("SOW") • Initial SOW • Additional Funding Sources • Federally Funded Project Status	Quarterly	LUMA
	Interconnection for DG Systems progress Report	• Total number of connections to the system • The DG megawatts • Average number of activations • Average activation days for expedited interconnection cases • Average capacity for cases over 25 kilowatts • Credited and exported energy by NEM customers	Quarterly	LUMA
Financial	Accounts Receivable / Cash Flow Reporting	PREPA provides continued reporting on cash flow and receivables by customer or vendor class; LUMA provides reporting on payables	Monthly / Weekly	PREPA / LUMA
	Accounts Payable	LUMA provides reporting on accounts payables	Monthly	LUMA

	Report	Detail	Cadence	Responsible Entity
	Budget to Actuals (Reporting requirement is separate from any requirement under Section 203 of PROMESA)	Tracking of certified budget to actual for HoldCo and HydroCo based on template to be provided by the Oversight Board, which must include the following: • Explanation for material variances (greater than 10% and/or $30 million) • Income statement in the reporting package • Monthly budget reporting	Monthly / Quarterly	PREPA
	Budget to Actuals (Reporting requirement is separate from any requirement under Section 203 of PROMESA)	Tracking of certified budget to actual for GridCo and GenCo based on a consolidated template to be provided by the Oversight Board, which must include the following: • Explanation for material variances (greater than 10% and/or $30 million) • Summary of revenues and expenses • Quarterly budget reporting (including any major updates to shared services)	Quarterly	LUMA / Genera

10.2 T&D-Related Operational Measures

Per the T&D OMA, LUMA will submit annually to P3 the T&D-related performance metrics relating to: (1) Customer Satisfaction, (2) Technical, Safety & Regulatory, and (3) Financial Performance. LUMA will also submit performance metrics on LUMA's performance during a Major Outage Event. The specific metrics within each category are included in **Section 6.3 (LUMA Performance Metrics)**.

On January 26, 2024, PREB issued an R&O approving (with modifications) the revised Annex IX of the T&D OMA. Annex IX of the T&D OMA outlines the performance metrics used to evaluate the operator's performance in three major categories—Customer Satisfaction, Technical, Safety and Regulatory Compliance, and Financial Performance—each tied to specific performance goals and linked to an incentive compensation pool. The PREB modifications to revised Annex IX of the T&D OMA include major modifications to the incentive fee scheme, such as regarding the tiers, baselines, targets, and proposed metrics to be approved. LUMA filed a Motion in Reconsideration of the Determination by PREB on February 15, 2024, asserting the modifications would have a negative impact on the ability for LUMA to earn the incentive fee as stipulated in the T&D OMA. Certain intervenors in the case (known collectively as the Local Environmental and Civic Organizations or "LECO") also filed a Motion in Reconsideration of the Determination by PREB on February 15, 2024, to which LUMA filed a notice of its intention to oppose.

On February 26, 2024, PREB issued a Resolution and Order whereby it determined that it would consider LUMA's Motion for Reconsideration and that it would grant LUMA and LECO 20 days, from the notification of the Resolution and Order, for each to file their respective oppositions to the motions for Reconsideration filed with PREB. On June 14, 2024, PREB filed its Reconsideration of Final Order where it introduced further modifications, and rejected LUMA's October 28, 2022, Proposed Annex IX. In addition, the PREB reformulated the incentive calculation structure negotiated as part of Annex IX of the T&D OMA. LUMA asserted that the PREB acted outside of its authority while PREB reaffirmed its right and authority to modify and establish the performance incentive framework for LUMA.[152] On July 15, 2024, LUMA filed for Judicial Review in the Court of Appeals. In November 2024, the Court of Appeals upheld PREB's decision, rejecting LUMA's arguments.

10.3 PREPA HoldCo and HydroCo Measures and Reports

Table 33: Reports on Reorganization Implementation, and HoldCo and HydroCo Operational Measures

Report	Detail	Cadence
PREPA Reorganization Plan Implementation	Reporting requirements for execution of the remainder of the PREPA Reorganization Plan, including but not limited to: • Ongoing reporting on labor costs and positions for HydroCo and HoldCo, consistent with the approved reorganization plan for headcount. Include: Employee name, employee position, salary, and description of employee role • PropertyCo miscellaneous properties divestment plan updates with expected timeline for execution and estimated revenue targets • GridCo asset identification and reconciliation progress report in preparation for subsidiary creation and capital contribution progress report	Quarterly
HydroCo and Irrigation System Sale of Water report	HydroCo and Irrigation system sale of water report must include but not limited to: • Acre-feet of water sold • Rate charged ($) by customer type • Billed and collected monies • Breakdown by client types and descriptions • Detailed information about sources of water and current water reserves (supply) • Current and projected water usage and demand, including irrigation needs, hydroelectric power generation, and direct consumer use • Accounts receivable report tracking HydroCo and Irrigation system sale of water and federal monies deployment	Monthly

152 PREB Docket NEPR-AP-2020-0025 R&O dated June 14, 2024. https://energia.pr.gov/wp-content/uploads/sites/7/2024/06/20240614-AP20200025-Resolution-and-Order.pdf

Report	Detail	Cadence
HydroCo Operating Status Report	Operational report offering an update on the status of the Hydro units, online capacity, and energy generated, outlining the expected timeline for their operational readiness.	Quarterly
HydroCo Federally Funded Capital Expenditure Plan and Implementation	Status report on hydroelectric and irrigation projects submitted for regulatory approval and federal funding to FEMA, COR3, and PREB	Quarterly

Appendix A: Glossary/List of Acronyms

AAFAF	Puerto Rico Fiscal Agency and Financial Advisory Authority
ACD	Automated Call Distribution
ADC	Actuarially Determined Contribution
ADMS	Advanced Distribution Management System
ALM	Alternative Load Model
AMI	Advanced Metering Infrastructure
ASAP	Accelerated Storage Addition Program
ASEM	Puerto Rico Medical Services Administration
BESS	Battery Energy Storage System
BOR	Bureau of Reclamation
BPO	Business Process Outsourcing
CAGR	Compound Annual Growth Rate
CBES	Customer Battery Energy Sharing
CCGT	Combined Cycle Gas Turbine
CDBG	Community Development Block Grant
CDBG-DR	Community Development Block Grant Disaster Recovery
CDD	Cooling Degree Days
CFE	Clean Flexible Energy
CHP	Combined Heat and Power Generation
CILT	Contribution-in-Lieu-of-Taxes
COLA	Cost-of-Living Adjustment
CSR	Customer Service Representative
CTG	Combustion Turbine Generator
CTPR	Consolidated Telecom of Puerto Rico
DART	Days Away Restricted or Transferred
DER	Distributed Energy Resources
DERMS	Distributed Energy Resource Management System
DFMO	Disaster Funding Management Office
DG	Distributed Generation
DOE	Department of Energy
DR	Disaster Recovery
DSA	Debt Sustainability Analysis
DSO	Days Sales Outstanding
EAF	Equivalent Availability Factor
EBS	E-Business Suite
EE	Energy Efficiency
EHP	Environmental and Historical Preservation
EIA	Energy Information Administration
EMS	Energy Management System
EOC	Emergency Operation Centers

EPC	Engineering, Procurement, and Construction
EPDH	Equivalent Planned Derated Hours
ERP	Enterprise Resource Planning
ERS	Employees' Retirement System
ESSA	Energy Storage Service Agreement
ETR	Estimated Time of Restoration
EUDH	Equivalent Unplanned Derated Hours
EVs	Electric Vehicles
EWS	Early Warning System
FAASt	FEMA Advanced Award Strategy Initiative
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FOMB	Financial Oversight and Management Board for Puerto Rico
FOP	Fuel Optimization Plan
GIS	Geospatial Information System
GNP	Gross National Product
GPS	Global Positioning System
HMGP	Hazard Mitigation Grant Program
HUD	U.S. Department of Housing and Urban Development
IAES	Inter American Energy Sources
INO	International Network Operations
IPP	Independent Power Producers
IRP	Integrated Resource Plans
IT/OT	Information Technology & Operational Technology
IVR	Interactive Voice Response
JRS	Judiciary Retirement System
LDV	Light-Duty Vehicle
LECO	Local Environmental and Civic Organization
LED	Light Emitting Diode
LGA	Legacy Generation Assets
LNG	Liquified Natural Gas
LOLE	Loss of Load Expectation
LOLH	Loss of Load Hours
MAGI	Modified Adjusted Gross Income
MED	Major Event Day
MHDV	Medium and Heavy-Duty Vehicle
NEM	Net Energy Metering
NEPA	National Environmental Policy Act
NFE	New Fortress Energy
NME	Necessary Maintenance Expense
OMA	Operation and Maintenance Agreement
OMS	Outage Management System

OPEB	Other Post-Employment Benefits
OSHA	Occupational Safety & Health Administration
PBX	Private Branch Exchange
PGHOA	PREPA-Genco-HydroCo Operating Agreement
POA	Plan of Adjustment
POI	Points of Interconnection
PPA	Power Purchase Agreement
PPOA	Power Purchase and Operating Agreement
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRDOH	Puerto Rico Department of Housing
PREB	Puerto Rico Energy Bureau
PREB-IC	Independent Coordinator
PREPA	Puerto Rico Electric Power Authority
PROMESA	Puerto Rico Oversight, Management, and Economic Stability Act
PV	Photovoltaic
PW	Project Worksheet
RDI	Rapid Disaster Infrastructure
RFP	Requests For Proposal
RFQ	Request for Qualification
RFR	Request for Reimbursement
RICE	Reciprocating Internal Combustion Engines
ROIs	Requests for Information
RTU	Remote Terminal Unit
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SETPR	Solutions for the Energy Transformation for Puerto Rico
SOW	Scope of Work
SSA	Shared Services Agreement
TPP	Transition Period Plan
TRS	Teachers' Retirement System
ULSD	Ultra-Low Sulfur Diesel
USACE	U.S. Army Corps of Engineers
UTIER	Puerto Rico Electrical Industry and Irrigation Workers Union
VPP	Virtual Power Plant
WCA	Working Capital Advance

Appendix B: Temporary Generation Units

In the aftermath of Hurricanes Irma and Maria in 2017 and later Hurricane Fiona in 2022, the risk of insufficient generation capacity for Puerto Rico became greater and more evident.

In response and to mitigate the risk, a presidential declaration was issued on September 18, 2022, authorizing the U.S. Department of Homeland Security and FEMA to coordinate all disaster relief efforts. In turn, FEMA tasked the U.S. Army Corps of Engineers ("USACE") with adding and installing two temporary generation units (collectively. the "Temporary Units") at Palo Seco Steam Plant (150 MW) and San Juan Power Plant (200 MW) in support of the overall mission to stabilize the electrical grid on the island.

In March 2023, Weston Solutions Inc ("Weston") was awarded a task order under its USACE Omaha Rapid Disaster Infrastructure ("RDI") contract to supply the temporary generation at both Palo Seco and San Juan with the expectation the temporary generators would enable maintenance and repair work on Puerto Rico's power system and energy grid.

The Palo Seco task order totaled approximately $470 million over a six-month period, while the San Juan task order totaled approximately $523 million over an eight-month period of performance. The Palo Seco and San Juan units were commissioned on May 29, 2023, and September 26, 2023, respectively. Since the commission date, FEMA covered 90% of the costs associated with the operations. The Temporary Units were initially set to be decommissioned on March 15, 2024, including the operation cost coverage by FEMA. Thereafter, the units would be decommissioned or purchased by PREPA.

On January 5, 2024, FEMA sent a letter to COR3 approving the negotiation of the acquisition of the temporary equipment by lease or purchase. Through PREB's R&O dated February 21, 2024, the Temporary Units are authorized for utilization through December 31, 2025.

As previously mentioned, prior to the acquisition, the Temporary Units were under lease between the unit owners and New Fortress Energy ("NFE"), and were supplied fuel by NFE. The federal government eventually recommended terminating the leases and providing funding to have the units purchased by PREPA, for management and operation by Genera. Per PREB's R&O dated February 21, 2024, Genera will only administer the Temporary Units now owned by PREPA through December 31, 2025, and will be responsible for the operation and maintenance of the Temporary Units as part of its generation fleet. Later, on December 31, 2024, in a letter addressed to the Governor's Authorized Representative, FEMA approved an extension for time use of the emergency generators until December 31, 2027. To the extent the Temporary Units are added to and/or replace existing LGA, the Temporary Units are to be considered part of the LGA under the Generation OMA.

On February 29, 2024, the then Governor Pedro Pierluisi announced FEMA has obligated over $335 million for the acquisition of the Temporary Units and associated infrastructure. This obligation was incremental to current FEMA funding for PREPA matters.

On March 18, 2024, NFE announced the completion of PREPA's acquisition of the Temporary Units for ~$306.6 million. PREPA was responsible for the 10% Cost Share of the purchase price (~$30.7 million), while the remaining 90% was covered through the FEMA obligated funds.

With this acquisition of the Temporary Units, permanent generation for the people of Puerto Rico has increased by ~350 MW. Details on other key initiatives to improve the reliability of Puerto Rico's energy sector can be found in **Chapter 5 (**Capital Plan & Federal Funding**).**

Appendix C: Federal Funding Process Summary

Federal funding from FEMA may be structured as a reimbursement program, but PREPA management is currently working with COR3 to request advances to assist with PREPA's liquidity position. LUMA, Genera, and/or PREPA may request an advance from COR3 if the following criteria are met:

- PW is obligated by FEMA;
- Procurement for the advance is complete and the subrecipient has awarded the contract to the vendor;
- Subrecipient provides a complete set of procurement and award documents for the contract for which advance funds are requested;
- Subrecipient provides a timeline of when costs are expected to be incurred and paid;
- Subrecipient has no outstanding/unsubstantiated advance payments for the contract for which advance funds are requested; and COR3 determines the subrecipient has immediate cash needs.

If LUMA, Genera, or PREPA has to request reimbursements instead of receiving advances, the process is like the process for emergency work. However, for permanent work, the following additional actions must occur prior to the RFR submission:

- PREPA, LUMA, or Genera submits the proposed projects' SOWs;
- The SOWs are reviewed by COR3 and FEMA to determine eligibility; and
- PREPA may not commence work prior to receiving approval from the FEMA PA and the FEMA Environmental and Historical Preservation ("EHP"). Initiation of construction prior to the FEMA PA and the FEMA EHP completion of reviews may jeopardize part or the entirety of the federal funding for the project.

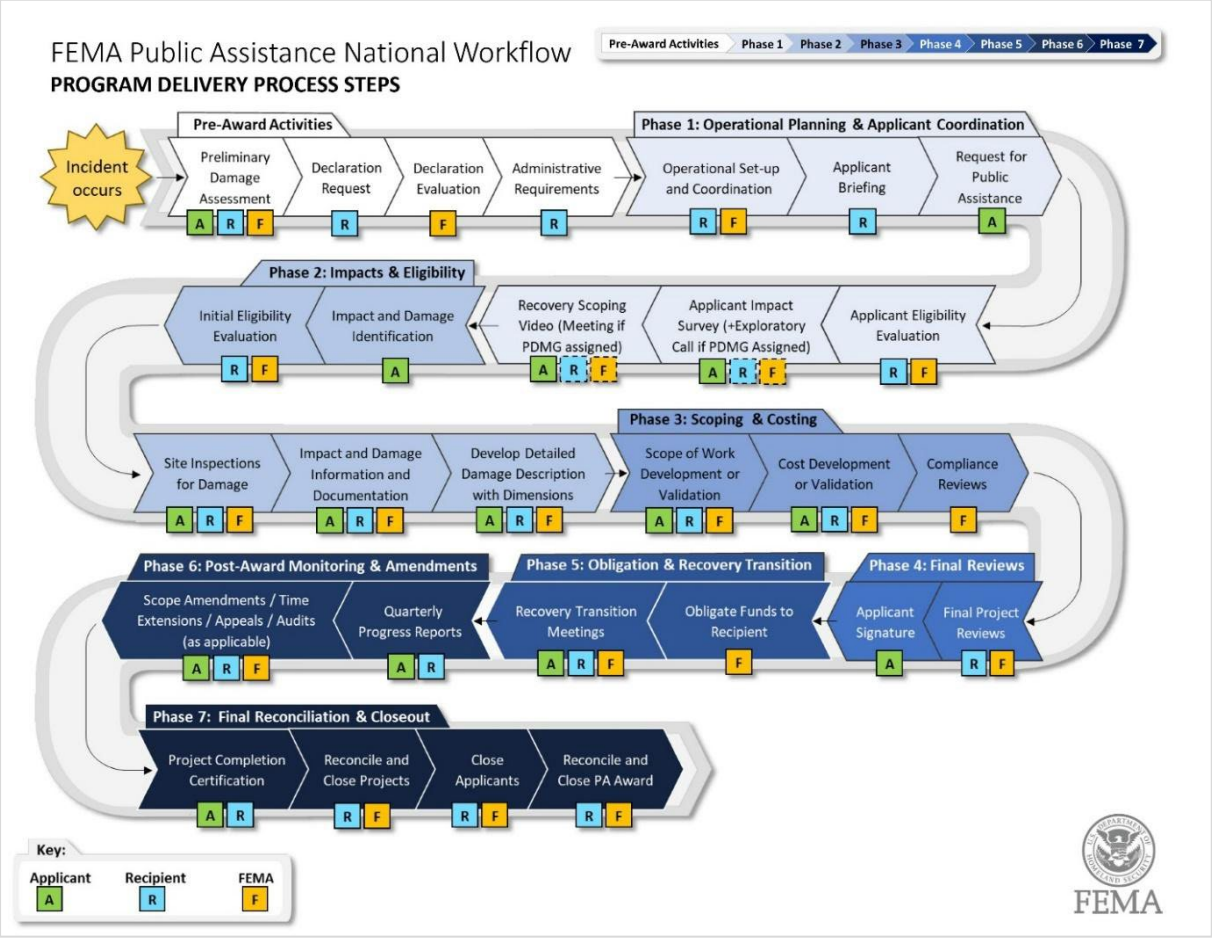
The general procedure for PREPA as the subrecipient (or LUMA and Genera as its agents and under delegation to manage and comply with the FEMA federal funding requirements) to obtain the FEMA PA funds related to emergency work includes PREPA, LUMA, or Genera incurring and tracking eligible costs, the development of PWs through the FEMA obligation process, the obligation of funds to the recipient, the RFR submission, and the subsequent cash funding to the subrecipient. The detailed requests are as follows:

- PREPA, LUMA, and/or Genera incurs costs due to damages caused by the disaster(s)
- PREPA, LUMA, or Genera tracks these costs and works with FEMA and COR3 to determine eligibility
- FEMA creates a PW that goes through various levels of review until the PW is obligated[153]
- Once the PW is obligated, the funds are appropriated for the recipient (i.e., COR3)
- PREPA, LUMA, or Genera can then submit a RFR to COR3
- COR3 reviews the RFR and draws down funds from FEMA related to the obligated PW, which will be subsequently sent to PREPA as the subrecipient; and

153 "Obligation" refers to the commitment of funds by FEMA to support approved projects. However, it is important to note that this obligation does not mean the funds are immediately accessible.

- COR3 transfers the funds to PREPA.

Exhibit 33: Federal Funding Process[154]



[154] https://www.fema.gov/sites/default/files/documents/fema_review-public-assistance-national-delivery-model_012023.pdf

Appendix D: Consolidated List of Largest Projects for FY2025

The projects listed in the tables below together represent ~80% of projected federal funding spend in FY2025 for respective stakeholders.

LUMA

Project Name	**Improvement Portfolio**
Distribution Automation	**Distribution Automation**
Project Description	
This program focuses on deploying equipment for grid automation. It includes deploying automated switchgear and communicating fault sensors on distribution feeders and sub-transmission 38 kV lines to improve reliability. The included switchgear consists of three-phase and single-phase reclosers. To further enhance reliability, LUMA will deploy automatic switching distribution feeder automation systems. Communicating fault sensors will be deployed to provide fault location information to the operations team to improve service restoration. (**Note:** Timeline is fully dependent on FEMA obligations)	
Project Start Date and Expected Completion Date	
Project Start Date: FY2023 **Project End Date:** Indefinite	
Key Milestones	
Deployment of three-phase and single-phase reclosers	FY2023
Deployment of radios for three-phase reclosers and EMS/OMS integration	FY2025
Deployment of communicating fault sensors	FY2025
Start deployment of tie reclosers for Fault Location, Isolation, and Service Restoration scheme implementation	FY2026
Complete automation on all overhead distribution feeders	FY2032
Dependencies on Other Initiatives	
This initiative interacts with others, including distribution feeder repair projects, the EMS, AMI, and others.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2022-FY2024: $96,054,125.94 **In FY2025**: $89,999,999 (FEMA)	**By completion:** $934,000,000.00 (FEMA)
Funding Source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability	
SAIDI: reduction of 293 minutes **SAIFI:** decrease of 1.5 interruptions	

Project Name	Improvement Portfolio
Advanced Metering Infrastructure	**AMI Implementation Program**
Project Description	
The AMI implementation program establishes two-way remote meter reading reporting and control capabilities. This program enables a broad range of capabilities that result in improved reliability and resiliency, potential cost savings to the utility and customer, and increased customer satisfaction, through the support of clean energy technology integration.	
Project Start Date and Expected Completion Date	
Project Start Date: April 2024 **Project End Date:** June 2028	
Key Milestones[155]	
Start of deployment including Project Management Organization, business transformation, work process design, and pre-deployment walk downs	April 2024
Systems integration of the AMI head end, work order management system into the CC&B	Q1 FY2026
Systems integration of the Customer Portal (MiLUMA), GIS, and OMS	Q3 FY2026
System implementation and integration of Meter Data Management System	Q2 FY2027
End of installations	Q1 FY2028
Dependencies on Other Initiatives	
Maximizing the impact of this initiative entails alignment with other initiatives, such as the EMS (e.g., the OMS that is included as part of the scope of the EMS project) and Control Center to effectively leverage the data collected by the AMI project to improve outage management and response.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2022-FY2024: $6,641,598.32 **In FY2025:** $148,000,000.00	**By completion:** $722,054,184.32
Funding Source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability	
The outcome of the AMI project will be grid modernization utilizing the grid of the future solution that provides communication access for distribution assets and sensors to monitor real-time grid power flow and capacity, advanced analytics to proactively manage and mitigate grid system challenges, and the agility to accept innovative grid technologies. The project will ensure reliable grid operations by reducing the frequency, scale, and/or duration of disruptions, reducing capacity interconnection time, increasing regional and interregional transfer capacity, or reducing costs associated with increased reliability.	

155 Assuming WCA are provided at expected timeframes

Project Name	Improvement Portfolio
Streetlighting	**Distribution Streetlighting**
Project Description	
This program deals with upgrading and replacing distribution streetlights 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 also audit streetlights' associated billing.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2021 **Project End Date:** June 2031	
Key Milestones[156]	
Start streetlight assessment	H1 FY2022
Start streetlight remediation plan and high-risk streetlight replacement	H2 FY2022
Finalize process documentation for future audits, lights-out, reporting and dispatch process	H1 FY2024
Complete streetlight assessments (Asset Management Audit)	H2 FY2024
Start updating the Oracle CC&B	H2 FY2027
Finish updating the Oracle CC&B	H2 FY2029
Remediated state complete streetlight and billing	H2 FY2031
Dependencies on Other Initiatives	
The vegetation clearing program will help produce efficiencies for this initiative.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2022-FY2024: $239,379,041 **In FY2025:** $203,550,738	**By completion:** $562,751,496
Funding Source(s)	
In FY25: FEMA	**By completion:** FEMA
Expected Impact on System Reliability	
This initiative will increase the reliability of key streetlighting infrastructure, as well as some adjustments on the secondary electrical system.	

156 These dates are assuming timely approvals by various government agencies and receipt of necessary WCA

Project Name	Improvement Portfolio
Vegetation Clearing	**Vegetation Management and Capital Clearing Implementation**
Project 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 rights of way (ROWs) to standard widths.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2024 **Project End Date:** FY2028	
Key Milestones	
Receive obligation of San Juan Group and start the clearing process[157]	June 2024
Ramp up crew numbers to spread throughout the island between A and B region	Q3 FY2025
Start the clearing process for regions C-F	Q2 FY2027
Dependencies on Other Initiatives	
This will align with the execution and impacts of a wide range of other initiatives, including transmission line repair projects, distribution feeder repair projects, and substation repair efforts.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2022-FY2024: $1,785,171 **In FY2025:** $158,179,050	**By completion:** $1,040,420,000
Funding source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability[158]	
• SAIDI: reduction of 311 minutes • SAIFI: decrease of 1.88 interruptions	

157 LUMA will be implementing the project in groups and regions across all substations, transmission, distribution and telecom facilities.

158 Reliability improvement assumptions are subject to FEMA obligation approval, sufficient non-federal capital and O&M investments made to the remainder of the system.

Project Name	Improvement Portfolio
Distribution Pole and Conductor Replacement	**Distribution Pole and Conductor Repair**
Project Description	
This program focuses on minimizing the safety hazards caused by distribution poles, equipment, and conductors that must be repaired or replaced.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2021 **Project End Date:** N/A	
Key Milestones	
Start inspections & assessment	June 2021
Start materials procurement	June 2022
Complete inspections & assessments	June 2026
Remediated state	June 2028
Dependencies on Other Initiatives	
This program will supplement other initiatives, including distribution feeder rebuild projects and distribution automation, as well as be supported by other initiatives such as vegetation clearing.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2022-FY2024: $92,662,518 **In FY2025:** • $61,232,031 (FEMA)	**By completion:** • $515,129,514 (FEMA)
Funding source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability[159]	
• SAIDI: reduction of 116 minutes • SAIFI: decrease of 0.49 interruptions	

[159] Reliability improvement assumptions are subject to FEMA obligation approval, sufficient non-federal funding and O&M spending made to the remainder of the system.

Project Name	Improvement Portfolio
Transmission Line Rebuild	**Transmission Line Rebuild**
Project Description	
The Transmission Line Rebuild program increases resilience by reconstructing and deploying new transmission lines so they will withstand high wind loads, including through their deployment underground and undersea, support floodproofing of substations being elevated or relocated, and build new facilities to achieve contingency security to facilitate industry-standard reliability requirements.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2021 **Project End Date:** N/A	
Key Milestones	
Engineering 38 kV, 115 kV, and 230 kV transmission lines to prepare for the FEMA project approval process	FY2023–FY2029
Begin construction on 38 kV Transmission Line Rebuilds (subject to FEMA environmental review and obligation)	FY2026
Begin construction on 115 kV Transmission Line Rebuilds (subject to FEMA environmental review and obligation)	FY2026
Restoration of out-of-service transmission assets (e.g., TL100/200)	Begin FY2025
Begin construction on 230 kV Transmission Line Rebuilds (subject to FEMA environmental review and obligation)	Begin FY2029
Dependencies on Other Initiatives	
This initiative will be supported by other initiatives, including the EMS, the substation rebuild projects, and vegetation clearing.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: • $66,735,775 (FEMA)	**By completion:** • $3,258,776,376 (FEMA)
Funding source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability[160]	
• SAIDI: reduction of 90 minutes • SAIFI: decrease of 1 interruptions	

160 Reliability improvement assumptions are subject to FEMA obligation approval, sufficient non-federal funding and O&M spending made to the remainder of the system.

Project Name	Improvement Portfolio
Distribution Line Rebuild	**Distribution Line Rebuild**
Project Description	
The Distribution Line Rebuild program focuses on repairing 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 adjustments in the short term and incremental improvements for the remaining program duration.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2021 **Project End Date**: TBD	
Key Milestones	
Complete engineering on 41 worst performing feeders	FY2026
Begin construction on 41 worst performing feeders	FY2026
Complete engineering on 62 poor performing feeders	FY2027
Begin construction on 62 poor performing feeders	FY2028
Dependencies on Other Initiatives	
This initiative is dependent on other programs such as transmission line rebuild, substation rebuild, EMS, microgrid, vegetation clearing, pole and conductor replacement, and distribution automation.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: • $111,110,800 (FEMA)	**By completion:** • $3,959,088,241 (FEMA)
Funding source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability[161]	
• SAIDI: reduction of 279 minutes • SAIFI: decrease of 0.94 interruptions	

[161] Reliability improvement assumptions are subject to FEMA obligation approval, sufficient non-federal capital and O&M investments made to the remainder of the system.

Project Name	Improvement Portfolio
Substation Rebuild	**Substation Rebuild**
Project Description	
The Substation Rebuild program focuses on items necessary for the operation of substations to strengthen the electric grid and covers required high-level assessments, minor substation repairs, and repairing of damaged or end-of-life substations. This includes upgrades to the latest codes and industry standards to achieve reliability improvement. It also includes system stabilization work, including repairs to key out-of-service transformers as part of larger rebuild projects.	
Project Start Date and Expected Completion Date	
Project Start Date: June 2021 **Project End Date:** N/A	
Key Milestones	
Begin construction on breaker replacement projects (e.g., Costa Sur, Aguirre, Manati)	FY2022
Begin construction on major component replacements including transformers (e.g., Conquistador, Sabana Llana, Venezuela)	FY2023
Begin construction on minor repairs	FY2023
Begin construction on substation rebuilds	FY2026
Dependencies on Other Initiatives	
This project interacts with other initiatives including the EMS, the T&D line rebuilds, and the deployment of advanced sensors, which will all allow the rebuilt substations to operate as intended.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: $89,000,000	**By completion:** $2,134,116,420
Funding source(s)	
In FY2025: FEMA	**By completion:** FEMA
Expected Impact on System Reliability[162]	
• SAIDI: reduction of 250 minutes • SAIFI: decrease of 1.28 interruptions	

[162] Reliability improvement assumptions are subject to FEMA obligation approval, sufficient non-federal capital and O&M investments made to the remainder of the system.

PREPA

Project Name	
Guajataca Dam	
Project Description	
The objective of this project is to increase the Guajataca Dam spillway capacity, stabilize the earth embankment and abutment while providing seismic resilience to the dam.	
Project Start Date and Expected Completion Date	
Project Start Date: February 28, 2024 **Project End Date:** April 30, 2035	
Key Milestones	
Receive approval from FEMA regarding the April 2024 COR3 letter to designate USACE as leading agency for the National Environmental Policy Act ("NEPA") process	H2 FY2025
Completion of planning and design phase	H2 FY2027
Commencement of construction phase	H2 FY2027
Completion of project	H2 FY2035
Dependencies on Other Initiatives	
PREPA officially requested the assistance of USACE for the execution of the Guajataca permanent repairs project. A Memorandum of Understanding with USACE was signed on June 29, 2023, and delimits all the works in Phase I. Therefore, the EPC project is the responsibility of USACE. Phase II construction is dependent upon Phase I design completion. The current estimated timeline to complete Phase I design is ~3 years. Discussions between the FEMA Region 2 and USACE regarding NEPA process are in progress.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: Project is in 30% of Phase I1 (the studies and design phase) and has not been submitted to FEMA for approval	**By completion:** Initial total cost estimate of the project is $1.1 billion. PREB approved $566M on August 20, 2021 for this project
Funding source(s)	
In FY2025: FEMA PA 428 (GM[163] 334770)	**By completion:** FEMA PA 428
Expected Impact on System Reliability	
Reduce the dam's operational risk below the USACE tolerable risk safety guidelines	

[163] Grants Manger

Project Name	
Patillas Dam	
Project Description	
The objective of this project is to stabilize a critical dam failure under seismic conditions. The Bureau of Reclamation ("BOR") recommends the placement of a secondary dam on the downstream portion of the existing dam to hold back the reservoir during liquefaction events. Project scope includes: 1. Excavation to bedrock and earth, and rock overlay over dam toe and removal of aboveground building, some waterwork features (weir, penstock, overflow canal, etc.) by hydroelectric plant, and the roadway 2. Extension of outlet works including control tower reconstruction, powerplant appurtenant demolition, replacement of sliding gates, tunnel, and concrete • Installation of waterworks system and a secondary dam with a chimney filter	
Project Start Date and Expected Completion Date	
Project Start Date: Restarted on June 2024 (temporarily on hold by BOR) **Project End Date:** Q2 2035	
Key Milestones	
Environmental Data Package	Completed October 1, 2024
Completion of 30% design phase	Q1 CY2025
Completion 100% design closeout	January 15, 2027
Phase II construction is dependent upon Phase I (design and geotech) completion. Phase I (design and geotech) current estimated completion is January 2027. Phase II (construction) current estimated timeline is eight years after design completion. Project depends on FEMA's NEPA process review after the 30% design is completed.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: As of January 10, 2025, amount received to date ~$1.4 million, with an additional ~$0.3 million in WCAs received and $0.8 million in outstanding RFRs that are in progress (PW 4339-0011)	**By completion:** Current federal approval for ~$558.5 million
Funding source(s)	
In FY2025: Phase I (design and geotech): FEMA 404 HMGP; Phase II (construction): CDBG Mitigation	**By completion:** Phase I (design and geotech): FEMA 404 HMGP; Phase II (construction): CDBG Mitigation
Expected Impact on System Reliability	
Strengthen the Patillas Dam embankment to reduce the potential of a catastrophic failure due to liquefaction of embankment soils following a seismic event, thus protecting life and property of residents downstream of the dam	

Project Name	
Rio Blanco	
Project Description	
This project consists of replacing damaged infrastructure from lateral erosion.	
Project Start Date and Expected Completion Date	
Project Start Date: July 2021 **Project End Date:** Q3 2028 (estimated)	
Key Milestones	
Final 30% design completed and accepted	May 2024
Completion of the EHP review by FEMA	To be determined, in progress since mid-June 2024
Dependencies on Other Initiatives	
Preliminary design was revised and received on December 2, 2023 and subsequently submitted to FEMA mid-December 2023. Project has been under the EHP review phase since mid-June 2024. The EHP review process must be completed before funds are released to carry out the proposed project. Once the EHP process is complete, the project moves to the FEMA final review in compliance with the FEMA Nation Workflow. Amounts reimbursed are subject to architecture and engineering costs incurred in the development of Technical Specifications and Design. Costs were reimbursed through PW 9510 architecture and engineering (GM # 180723). Toro Negro Hydroelectric System (Orocovis and Villalba) project will be used as an example for Rio Blanco. This project has also been on the EHP review since mid-June 2024.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: Funds cannot be disbursed until the EHP process is complete	**By completion:** Current estimate cost is $109.8 million
Funding source(s)	
In FY2025: FEMA PA 428/406 Mitigation (GM 180723)	**By completion:** FEMA PA 428/406 Mitigation
Expected Impact on System Reliability	
Maximize water flow to improve reliability, generation, and performance of the Rio Blanco hydroelectric power plant	

Project Name	
Early Warning System	
Project Description	
Installation of an EWS in 37 dams across Puerto Rico. This project will cover the various components of each EWS. This is an EPC project.	
Project Start Date and Expected Completion Date	
Project Start Date: August 7, 2024 **Project End Date:** Q3 2027	
Key Milestones	
Kick off meeting with contractors	August 23 and September 3, 2024
Initiate field studies and design phase	September 9, 2024
Completion of the EPC project, design and build	May 12, 2027
Dependencies on Other Initiatives	
There are no dependencies on other initiatives. Reimbursement amounts include administrative cost reimbursed of ~$50,000.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: As of December 31, 2024, amount received to date ~$2.9 million, with an additional ~$24.7 million received in WCA	**By completion:** Current federal approval for $100 million
Funding source(s)	
In FY2025: FEMA 404 HMGP (PW 4339-0012)	**By completion:** FEMA 404 HMGP
Expected Impact on System Reliability	
The EWS can provide notifications to residents during weather-related scenarios and is vital to the community's safety. Through these alarm systems people will be notified in case of emergencies such as extreme floods, controlled flood releases or seismic activity, so they can take timely action to reduce disaster risks. There will be four Emergency Operations Center in different locations and the system will provide information to Puerto Rico Emergency Management Bureau and the U.S. Army Corps of Engineers Caribbean Region.	

Project Name	
Dos Bocas (Dredging)	
Project Description	
The Dos Bocas Reservoir aims to restore the reservoir storage to the condition prior to Hurricane Maria, a condition optimal for operations, water supply, and flood control.	
Project Start Date and Expected Completion Date	
Project Start Date: September 30, 2024 **Project End Date:** Q4 2028 (execution of dredging)	
Key Milestones	
Completion of design studies (staging and disposal areas)	January 9, 2025
30% design completion for FEMA's EHP review	January 13, 2025
Completion of permits and endorsements	August 14, 2025
100% design completion	October 20, 2025
Dependencies on Other Initiatives	
Project start date was initiated by the Notice to Proceed for Dos Bocas Reservoir dredging studies and design. Amounts reimbursed are subject to architecture and engineering costs incurred in the development of Technical Specifications and Design. Costs were reimbursed through PW 9510 architecture and engineering.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: The 30% design and Class 4[164] cost estimate are currently being developed; to be submitted to FEMA for approval after completion	**By completion:** Current Class 5[165] cost estimate is $98 million; PREB approved $58.3 million on August 20, 2021, for this project
Funding source(s)	
In FY2025: FEMA PA 428 (GM 334811)	**By completion:** FEMA PA 428
Expected Impact on System Reliability	
Restore the reservoir storage to a condition prior to Hurricane Maria, for optimal operations, water supply, and flood control	

164 Class 4 estimates are estimates that are prepared at an early stage in the project development process and are expected, based on industry standards, to range from –15% to +30% of the final actual project cost

165 Class 5 estimates are estimates that are prepared at an early stage in the project development process and are expected, based on industry standards, to range from –50% to +100% of the final actual project cost

Genera

Project Name	
Grid Support Generation Units (Black Start and Peaker Units) Project	
Project Description	
The project involves the procurement, acquisition, and deployment of black-start and emergency units capable of injecting 330 MW into the electrical grid	
Project Start Date and Expected Completion Date	
Project Start Date: Q1 2024 **Project End Date:** Q4 2027	
Key Milestones	
Project development – program management and design of all sites	Q4 2027
Permitting – federal and local permitting process of all sites	Q4 2025
Equipment purchase – procurement & delivery process of units	Q4 2026
Decommissioning & demolition – decommissioning and demolition of existing units on sites	Q3 2026
Construction – site development and construction, including electrical and mechanical required works	Q4 2027
Commissioning – equipment testing upon completed installation.	Q4 2027
Interconnection	Q3 2027
Dependencies on Other Initiatives	
There are no dependencies on other initiatives	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2024: $7,450,000.00 **In FY2025:** $352,867,000.00 (Expected)	**By completion:** $551,024,000.00
Funding Source(s)	
In FY25: FEMA PA406 & 428	**By completion:** FEMA PA 406 & 428
Expected Impact on System Reliability	
Within the confines of the current generation fleet, the use of Grid Support Units seeks to prevent blackouts and maintain redundancy in the generation system by having small- and mid-size dispatchable generating units. Once these systems are connected to the grid with the capacity to meet regular load and peak demands, the Grid Support Units will remain as a mitigation measure in case of intermittency or lack of generation.	

Project Name	
Battery Energy Storage System (BESS) Project	
Project Description	
The BESS Project is for the acquisition and deployment of 430MW of BESS throughout the island. This system seeks to enhance overall system resiliency. The batteries will serve as a critical buffer during challenging scenarios.	
Project Start Date and Expected Completion Date	
Project Start Date: Q1 2024 **Project End Date:** Q1 2027	
Key Milestones	
Project Development – program management and design of all sites	Q1 2027
Permitting – federal and local permitting process of all sites	Q2 2025
Equipment purchase – procurement and delivery process of units	Q3 2026
Decommissioning & demolition – decommissioning and demolition of existing units on sites	Q2 2026
Construction – site development and construction, including electrical and mechanical required works	Q4 2026
Commissioning – equipment testing upon completed installation	Q1 2027
Interconnection	Q4 2026
Dependencies on Other Initiatives	
There are no dependencies on other initiatives.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2024: $2,170,000.00 **In FY2025:** $315,388,000.00 (Expected)	**By completion:** $468,524,000.00
Funding Source(s)	
In FY25: FEMA PA 406	**By completion:** FEMA PA 406
Expected Impact on System Reliability	
The BESS system seeks to enhance overall system resiliency. The batteries will serve as a critical buffer during challenging scenarios.	

Project Name	
Projects to Replace Critical Components	
Project Description	
The project involves direct replacement of critical components. Genera identified a group of critical components that, if replaced, would increase the reliability of LGA and reduce forced outages while reducing costs. Due to budgetary, financial, and regulatory constraints, most of the main fleet unit components have been continuously repaired instead of outright replaced. The repairs performed serve as a temporary solution but ultimately fail, resulting in forced outage and subsequent load shed. Critical component replacement would end the continuous repair cycle and increase overall system reliability.	
Project Start Date and Expected Completion Date	
Project Start Date: Q1 2024 **Project End Date:** Q1 2027	
Key Milestones	
Projects to Replace Critical Components is comprehensive and extensive. A total of 69 individual projects are included in this, each requiring a separate procurement, acquisition, and deployment process. The individual projects, each with specific milestones, are currently under various stages of the procurement process such as: 1. RFP design and specifications development; 2. RFP publishment; 3. Open RFP; 4. Closed RFP; 5. RFP evaluation; 6. RFP award; 7. Regulatory review; 8. Contracting; and 9. Other steps. Parts are being procured for all generation sites.	
Dependencies on Other Initiatives	
There are no dependencies on other initiatives.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: $23,977,571	**By completion:** An estimated total of $124,000,000 is expected
Funding Source(s)	
In FY2025: FEMA PA 428	**By completion:** FEMA PA428
Expected Impact on System Reliability	
Replacement of critical components that will increase the reliability of LGA and reduce forced outages while reducing costs	

Project Name	
Projects to Improve Fuel Efficiency	
Project Description	
Genera identified a second group of components that, if replaced, will increase unit reliability and fuel efficiency, thus reducing fuel costs, reducing generation costs, and lowering emissions.	
Project Start Date and Expected Completion Date	
Project Start Date: Q1 2024 **Project End Date:** Q1 2027	
Key Milestones	
The Projects to Improve Fuel Efficiency is a comprehensive and extensive set of projects, with each one requiring a separate procurement, acquisition and deployment process. The individual projects, each with eventual specific milestones, are currently under the development stages of design and specification detail. This step must be completed prior to initializing the procurement and acquisition process.	
Dependencies on Other Initiatives	
There are no dependencies on other initiatives.	
Projected Aggregate Federally Funded Portion of Initiative	
In FY2025: $0.00	**By completion:** $74,000,000.00
Funding Source(s)	
In FY25: FEMA PA 428	**By completion:** FEMA PA 428
Expected Impact on System Reliability	
Adjustments to legacy units that will reduce fuel consumption of LGA	

Appendix E: Overview of GenCo Performance Metrics

	Metric	Description	Unit of Measure
Safety	OSHA Recordable Rate	Total number of OSHA recordable incidents because of work-related injury	Rate
	OSHA DART Rate	Total number of OSHA recordable cases with lost-time days (away, restricted or transferred)	Rate
	OSHA Severity Rate	Total number of work-related injuries with severity days (both restricted and lost time days)	Rate
	OSHA Fatality Rate	All work-related fatalities	Rate
Finance	Operational expenses vs. budget: System	Comparison of operational expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Operational expense vs. budget: Labor	Comparison of operational expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Operational expense vs. budget: Non-Labor	Comparison of operational expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Operational expenses vs. budget: NME	Comparison of operational expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Capital budget: System	Comparison of system projects expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Capital budget: Federally funded	Comparison of federally funded projects expenses versus those budgeted to measure the ability to stay within budget	Percentage
	Capital budget: Non-federally funded	Comparison of non-federally funded projects expenses versus those budgeted to measure the ability to stay within budget	Percentage
Generation	Plant Availability (System)	Shows plant availability of the entire system.	Percentage
	Plant Availability (By Plant)	Shows plant availability per plant (includes all LGA and the hydro assets operated by PREPA).	Percentage
	Forced Outages (System)	Shows forced outages of the entire system.	Percentage

	Metric	Description	Unit of Measure
	Forced Outages (By Plant)	Shows forced outages per plant (includes all LGA and the hydro assets orated by PREPA).	Percentage
	Cost of Generation (System Total)	Shows the total cost of generation of the entire system.	$/kWh
	Cost of Generation (System Fuel)	Shows the total fuel cost of generation of the entire system	$/kWh
	Cost of Generation (System O&M)	Shows the total O&M cost of generation of the entire system	$/kWh
	Cost of Generation (By Plant - Fuel - Steam)	Shows the fuel cost of generation of the steam units by plant	$/kWh
	Cost of Generation (By Plant - Fuel - Gas)	Shows the fuel cost of generation of the gas units by plant	$/kWh
	Cost of Generation (By Plant – O&M - Steam)	Shows the O&M cost of generation of the steam units by plant	$/kWh
	Cost of Generation (By Plant – O&M - Gas)	Shows the O&M cost of generation of the gas units by plant	$/kWh
	Cost of Generation (By Plant – Total - Steam)	Shows the total cost of generation of the steam units by plant	$/kWh
	Cost of Generation (By Plant – Total - Gas)	Shows the total cost of generation of the steam units by plant	$/kWh
	Cost of Generation (By Plant – Total - Hydro)	Shows the total cost of generation of the hydro units by plant	$/kWh
	Monthly Thermal Generation (System)	Shows the amount of generation of the system	GWh
	Monthly Thermal Generation (By Plant)	Shows the amount of generation per plant	GWh
	Average Heat Rate (System)	Shows the average heat rate of the system	BTU/kWh
	Average Heat Rate (By Plant)	Shows the average heat rate per power plant	BTU/kWh
Fleet	Fleet out of service (System)	Shows the percentage of vehicles that are not in service	Percentage
	Total vehicles in service (System)	Shows the number of vehicles that are in service	Number of Vehicles

	Metric	Description	Unit of Measure
Fuel	MMBtu consumed: Diesel #2	Fuel: Diesel #2 consumed shown in MMBtu	Million MMBTU
	MMBtu consumed: Fuel Oil #6	Fuel: Fuel Oil #6 consumed shown in MMBtu	Million MMBTU
	MMBtu consumed: Natural Gas	Fuel: Natural Gas consumed shown in MMBtu	Million MMBTU
	Average fuel price: Diesel #2	Cost of fuel: Diesel #2 price shown in $ / MMBtu	$ / MMBTU
	Average fuel price: Fuel Oil #6	Cost of fuel: Fuel Oil #6 price shown in $/ MMBtu	$ / MMBTU
	Average fuel price: Natural Gas	Cost of fuel: Natural Gas price shown in $/ MMBtu	$ / MMBTU
	Average fuel price vs. forecast price: Diesel #2	Variance of fuel price: Diesel #2 price versus forecasted	Percentage
	Average fuel price vs. forecast price: Fuel Oil #6	Variance of fuel price: Fuel Oil #6 price versus forecasted	Percentage
	Average fuel price vs. forecast price: Natural Gas	Natural Gas price versus forecasted	Percentage
Human Resources	Budgeted headcounts by employee type – Exempt	Number of employees budgeted – Exempt	Number
	Budgeted headcounts by employee type – Non-Exempt	Total employees – Non-Exempt	Number
	Actual headcounts by employee type – Exempt	Total employees – Exempt	Number
	Actual headcounts by employee type – Non-exempt	Total employees – Non-exempt	Number
	Absenteeism	Percentage of absenteeism compared to total employees	Percentage
Planning and Environmen	Timeliness of permitting: New	Shows the timelines of obtaining permits	Percentage
	Timeliness of permitting: Renewals	Shows the timelines of obtaining permits	Percentage

	Metric	Description	Unit of Measure
	Emissions of SO2, NOx, CO2, Particulate Matter ("PM"), Hg, and other regulated pollutants (system)	Emissions of SO2, NOx, CO2, PM, Hg, and other regulated pollutants of the system are shown in lb. / MMBtu	Tons
	Emissions rates of SO2, NOx, CO2, PM, Hg and other regulated pollutants (system)	Emissions rates of SO2, NOx, CO2, PM, Hg and other regulated pollutants of the system are shown in tons / MWh	lbs / MMBTU
	Carbon intensity of fossil generation	Emissions of carbon in tons / MWh	tons / MWH

PREB may expand these reporting requirements and add additional reporting metrics for LGA and GenCo.

Appendix F: Overview of T&D OMA Major Outage Event Performance Metric[166]

Metric	Description
1. Preparation Phase	Completion of steps to provide timely and accurate emergency event preparation following an alert from the U.S. National Weather Service or the company's private weather service, in accordance with the Emergency Response Plan, for an event expected to impact the company's service territory
2. Downed Wires	Response to downed wires reported by municipal public officials
3. Damage Assessment	Completion of preliminary damage assessment
4. Crewing	50% of the forecast crewing [from mutual assistance] committed to the utility.
5. Estimated Time of Restoration ("ETR") for 90% of Service Outages	ETR for 90% of service outages (made available by utility on web, Interactive Voice Response ("IVR"), to Customer Service Representatives, etc.)
6. ETR Accuracy for 90% of Service Restoration	Regional ETR accuracy – Information is determined at a regional level, initially communicated as the point in time when 90% of customers within a specific region are restored. Municipal ETR accuracy - Information is determined at a local level, in most cases, for specific assets including transmission lines, substations, and distribution feeders.[167]
7. Municipality Coordination	Coordination with municipalities regarding road clearing, down wires, critical customers, etc.

166 As stated in Section 2.8 of Request for Authorization to Submit Revised Pre-Filed Testimony of Melanie Jeppesen, Second Amended Revised Annex IX to the OMA, and Redline of Second Amended Revised Annex IX to the OMA In Re: Performance Targets for Luma Energy ServCo, LLC, Case No. NEPR-MI-2020-0025, September 24, 2021.

167 2024 T&D Emergency Preparedness Report published by LUMA on PREB Docket NEPR-MI-2019-0006. https://energia.pr.gov/wp-content/uploads/sites/7/2024/05/20240531-MI20190006-Motion-Submitting-2024-Annual-TD-Emergency-Preparedness-Report.pdf

Metric	Description
8. Municipal Emergency Operation Centers ("EOC")	Coordination with municipal Puerto Rico Commonwealth and Federal EOCs.
9. Utility Coordination	Coordination with other utilities (communications, water, etc.)
10. Safety	Measurement of any employee or contractor injured doing hazard work during storm/outage and restoration
11. Mutual Assistance	Crew requests made through all sources of mutual assistance or other pre negotiated contracts with utility service providers
12. Call Answer Rates	Customer calls answered by properly staffed call centers (use of IVR and other technology is an acceptable solution)
13. Web Availability	Make available around the clock the company's website, specifically the section pertaining to outage impact and restoration, during a major storm event and information updated hourly until final restoration. In the event no new information is available, the web site must display the last time and date that information was updated. The web site and/or section pertaining to outage impact and restoration may be taken offline for a short period during off peak hours to perform system maintenance
14. PREB and Administrator (P3) Reporting	Provide storm event information to PREB and P3 in accordance with Electric Outage Reporting System guideline requirements to be established in the ERP for LUMA
15. Customer Communications	Availability of press releases, text messaging, email, and social media
16. Outgoing message on telephone line	Update recorded message providing callers with outage information within two hours of communication of press releases