Puerto Rico
Aqueduct and Sewer Authority
2024 FISCAL PLAN
Fiscal Years 2024 to 2038

AS CERTIFIED BY THE FINANCIAL OVERSIGHT AND MANAGEMENT BOARD FOR PUERTO RICO | JUNE 11, 2024




Table of Contents

Exhibits

Tables

Acronyms and other defined terms

2008 Senior Bonds	2008 Senior Revenue Bonds, Series A&B, issued on March 18, 2008
2008 Guaranteed Bonds	Revenue Refunding Bonds, Series A&B, issued on March 18, 2008
2008 Bonds	2008 Senior Bonds and 2008 Guaranteed Bonds Collectively
2012 Senior Bonds	2012 Senior Revenue Bonds, Series A&B, issued on February 29, 2012
2017 Hurricanes	Hurricanes Irma and María
2020 Senior Bonds	2020 Senior Revenue Refunding Bonds, Series A&B, issued on December 17, 2020
2021 Senior Bonds	2021 Senior Revenue Refunding Bonds, Series A&B, issued on August 25, 2021
2021/2022 Bonds	2021 Senior Bonds and 2022 Senior Bonds Collectively
2022 Senior Bonds	2022 Senior Revenue Refunding Bonds, Series A (forward delivery bonds) to be issued on June 15, 2022
2024 Master Plan	PRASA Master Plan dated April 30, 2024
Senior Debt	2008 Bonds, 2020 Senior Bonds, 2021 Senior Bonds, and Federal Debt
Fiscal Plan	Puerto Rico Aqueduct and Sewer Authority 2023 Fiscal Plan
AAFAF	Puerto Rico Fiscal Agency and Financial Advisory Authority
AM	Asset Management
AMI	Advanced Metering Infrastructure
ARPA	American Rescue Plan Act of 2021
ASES	Puerto Rico Health Insurance Administration
Authority	Puerto Rico Aqueduct and Sewer Authority
AWIA	America Water Infrastructure Act of 2018
AWWA	American Water Works Association
B	Billion
BANs	Bond Anticipation Notes
BBA	Bipartisan Budget Act of 2018
BESS	Battery Energy Storage System
BIL	Infrastructure Investment and Jobs Act of 2021, also known as the Bipartisan Infrastructure Law
BLS	U.S. Bureau of Labor Statistics
CAA	Consolidated Appropriations Act

CARES	Coronavirus Aid, Relief and Economic Security
CDBG-DR	Community Development Block Grants – Disaster Recovery
CDBG-MIT	Community Development Block Grants – Mitigation
CGI	Commonwealth Guaranteed Indebtedness
Commonwealth	Commonwealth of Puerto Rico
CIF	Capital Improvement Fund
CIP	Capital Improvement Program
CSO	Commonwealth Supported Obligations
CSR	Civil Service Reform
COR3	Central Office for Recovery, Reconstruction, and Resilience
CRRSA	Coronavirus Response and Relief Supplemental Appropriations
CWSRF	Clean Water State Revolving Fund
DG	Distributed Generation
DMA	District Metering Area
DOJ	Puerto Rico Department of Justice
DRA	GDB Debt Recovery Authority
DSA	Debt Sustainability Analysis
DWSRF	Drinking Water State Revolving Fund Programs
D&B	Design and Build
EPA	Environmental Protection Agency
EPCs	Energy Performance Contracts
EQB	Environmental Quality Board, succeeded by PRDNER
ERAP	Emergency Rental Assistance Program
ERI	Economic Research Institute
ERPs	Emergency Response Plans
ERS	Employees Retirement System of the Government of the Commonwealth of Puerto Rico
FAASt	FEMA Accelerated Award Strategy
Federal Debt	Debt held by EPA (SRFs) and USDA RD
Federal Lenders	EPA and RD
FEMA	Federal Emergency Management Agency
FOMB	Financial Oversight and Management Board for Puerto Rico
FTE	Full-Time Employee

FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GDB	Government Development Bank for Puerto Rico
GIS	Geographical Information System
Government	Government of Puerto Rico
Governor	Governor of Puerto Rico
HFA	Housing Financing Authority for Puerto Rico
HMGP	Hazard Mitigation Grant Program
HUD	United States Department of Housing and Urban Development
IRP	Integrated Resource Plan for PREPA
IT	Information Technology
KPIs	Key Performance Indicators
kWh	Kilowatt-Hours
LIHWAP	Low-Income Household Drinking Water and Wastewater Assistance Program
LUMA	LUMA Energy, LLC, responsible for the operation and maintenance of Puerto Rico's electric power transmission and distribution system owned by PREPA
M	Million
MAT	Master Agreement of Trust
MGD	Million Gallons per Day
MHI	Median Household Income
MTBF	Mean Time Between Failure
NFMP	Non-Federal Match Program
NPV	Net Present Value
NRW	Non-Revenue Water
OATRH	Oficina de Administración y Transformación de los Recursos Humanos
OH	Overhead
OMB	Puerto Rico Office of Management and Budget
O&M	Operations and Maintenance
ORF	Operating Reserve Fund
Oversight Board	Financial Oversight and Management Board for Puerto Rico
P3	Public-Private Partnership
P3 Authority	Puerto Rico Public-Private Partnership Authority

P3 Project	Metering System and Customer Service Optimization Project
PAN	Nutritional Assistance Program
PAPPG	Public Assistance Program and Policy Guide
PayGo	Pay-As-You-Go
PFC	Puerto Rico Public Finance Corporation
PM	Project Manager
PMA	Pressure Management Area
PMC	Project Management Consortium
PMO	Project Management Office
PMIS	Project Management Information System
PPAs	Power Purchase Agreements
PPE	Personal Protection Equipment
PRASA	Puerto Rico Aqueduct and Sewer Authority
PRDNER	Puerto Rico Department of Natural and Environmental Resources
PRDOH	Puerto Rico Department of Health
PREB	Puerto Rico Energy Bureau
PREPA	Puerto Rico Electric Power Authority
PRGSA	Puerto Rico General Services Administration
PRHUD	Puerto Rico Department of Housing
PRIFA	Puerto Rico Infrastructure Financing Authority
PROMESA	Puerto Rico Oversight, Management, and Economic Stability Act
PSI	Pounds per Square Inch
PWSIDs	Potable Water System Identification
RD	USDA Rural Development
Regions	Operational Regions
RFC	Raftelis Financial Consultants
RFP	Request for Proposals
RFQ	Request for Qualifications
RRAs	Risk and Resiliency Assessments
R&R	Renewal and Replacement Projects
RSA	Rate Stabilization Account
SA	Robert T. Stafford Disaster Relief and Emergency Assistance Act
SAHFI	SRF Supplemental Appropriation for Hurricanes Fiona and Ian

SAP	Proprietary Computer Software
SBA	Small Business Administration
SCADA	Supervisory Control and Data Acquisition
SSOMP	Sewer System Operation and Maintenance Program
SOP	Standard Operating Procedure
SIM	Integrated Maintenance System
SPI	Schedule Performance Index
SRF	State Revolving Fund
System	Authority's Public Water Supply and Wastewater System
TANF	Puerto Rico Temporary Assistant for Needy Families
TBD	To Be Determined
STS	Sludge Treatment System
UIA	Unión Independiente Auténtica (Independent Authentic Union)
US	United States of America
USACE	Unites States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
vDMA	Virtual District Metering Area
VHCC	Visualization and Hydraulic Control Center
WRF	Water Research Foundation
WPS	Water Pump Station
WRO	Water Recovery Office
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plants
WWPS	Wastewater Pumping Stati

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- The impact of outmigration and declining population; and
- The amount of federal government aid provided to the U.S. states and territories (including Puerto Rico) and the efficacy and speed of disbursement of such aid;
- The amount and timing of receipt of any distributions from FEMA, HUD, USDA and USEPA to repair damage caused by Hurricanes Irma and Maria in 2017, the January 2020 earthquakes and Hurricane Fiona in 2022;
- The limited availability of resources to reconstruct Puerto Rico infrastructure after the events mentioned previously and to create a more resilient structure to prevent or mitigate future natural disasters;
- The timeline for completion of the capital projects to repair PRASA's infrastructure;
- The impact of any future environmental regulations on PRASA's required investment and operational costs;
- The behavior of certain economic indicators, including inflation and population changes;
- The uncertainties of including 15-year term projections while several key projects are under evaluation and which, when completed, may materially affect the financial projections included herein;
- The impact of the resolution of the PREPA's Title III pending litigation and its potential impact on the electricity cost; and
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Executive Summary

The Puerto Rico Aqueduct and Sewer Authority (the "Authority" or "PRASA") is committed to providing reliable, affordable, and safe water and wastewater services to the people of Puerto Rico.

Over the past several years, PRASA has made substantial progress implementing measures that have improved its fiscal condition and set the Authority on a path towards fiscal responsibility. Still, PRASA has a long road ahead to address the historical challenges that have previously hindered, and continue to affect, its operational performance. Therefore, PRASA shall continue pursuing improvements in key operational areas with the Oversight Board's support, including:

Non-revenue water ("NRW"): In addition to the operational constraints and inefficiencies with PRASA's treatment and distribution system needs, the significantly high levels of NRW also presents challenges to PRASA's operations and financial condition to the extent the cost of production rises. PRASA completed the installation of master meters to properly measure most of its water production at treatment facilities. PRASA has prioritized the reduction of commercial water losses resulting from inaccurate water consumption metering and theft, while the Authority seeks to define a more robust strategy to reduce physical water losses from leakage and overflows.

Accurate metering and effective customer service: PRASA's aged mechanical customer meters present a high level of inaccuracy and degradation. Dependence on these meters precludes PRASA from properly billing for actual consumption, measuring the scale and impact of NRW, understanding customer consumption patterns and improving efficiency. With a FEMA grant funding agreement in place, PRASA plans to complete a pilot phase, which is currently under execution, to define the best technology and equipment to deploy across the island starting in 2025.

Capital delivery: The expected influx of federal grants (including a $3.7B FEMA award[1]) and additional funds for mitigation and resiliency projects will allow PRASA's Capital Improvement Program ("CIP") to reach its highest historical level and implement transformational capital improvements to its Systems that can gradually reduce operating costs (including financing costs), generate new revenue, increase resiliency, and most importantly, improve the quality of service and customer experience. New capital projects must be executed on-budget and on-schedule to rebuild PRASA's infrastructure to achieve top-tier water utility standards.

[1] In connection with this award, PRASA is required to meet a 10% local cost share match of ~$400M. PRASA anticipates meeting this match requirement with CDBG-DR funds, of which $200M has already been obligated. Refer to Chapter 4 (Federal Funds for Disaster Recovery and Resiliency) for additional detail.

PRASA's financial condition has improved materially since 2017, mainly due to the implementation of various revenue enhancing and debt optimization measures, including modest and gradual rate increases across all customer segments, proactive collection of past-due amounts from government accounts, debt modification and debt refunding transactions. PRASA's debt optimization strategies resulted in approximately $1.3 billion in debt service relief through (i) a debt modification with its Federal Lenders, (ii) refunding a significant portion of its outstanding 2008 Senior Bonds and all of the 2008 Guaranteed Bonds in 2020 and 2021, (iii) refunding of all the outstanding 2012 Series A and B senior bonds, and (iv) the settlement with GDB/DRA of an outstanding loan. Furthermore, renewed access to SRF loans and grants, FEMA recovery, mitigation and reconstruction funds, and CDBG disaster related and mitigation funds, are collectively expected to provide the necessary financial support to improve, rebuild, recover, and upgrade critical water and wastewater facilities.

With the new funds and debt service relief, PRASA has a unique opportunity to invest in its infrastructure at a much lower cost than usual without the need to access capital markets in the short term. PRASA must take advantage of this unique opportunity to accelerate the transformation of PRASA's systems and operations which began with the successful debt related transactions from 2019 through 2022.

Given PRASA's current fiscal situation and given the need to prioritize improving System performance, this 2024 Certified Fiscal Plan outlines areas of opportunity largely related to operations and capital investment, such as NRW, capital delivery, and metering infrastructure upgrades. Through the successful and timely implementation of each of the measures identified herein, PRASA is expected to improve its financial condition and the operational capacity of its System, thereby ensuring top-tier water utility standards in the provision of safe, reliable, and affordable water and wastewater services for the people of Puerto Rico.

The 2024 Certified Fiscal Plan provides a roadmap for PRASA's fiscal and operational transformation by continuing to address the following areas of opportunity:

- Collecting sufficient revenues to continue improving its fiscal condition;
- Investing in water metering infrastructure in a cost-effective manner to address commercial water losses (theft, water metering errors, data errors);
- Implementing a robust action plan to mitigate physical water losses resulting in water production reduction and the expenses related thereto;
- Executing an aggressive CIP to maintain and upgrade the System's safety, reliability, resiliency, and overall performance; and
- Maximizing federal funding opportunities to allow for low or no-cost financing for the execution of the CIP.

The 2024 Certified Fiscal Plan outlines several measures that, if successfully implemented, would improve PRASA's financial performance and operational condition. These measures are necessary to address revenue enhancement, cost reductions, operational efficiencies, CIP delivery, and federal funding, including:

1. **Rate Adjustments**: Continuing with the scheduled implementation of modest rate increases in FY2025 and beyond, as needed, consistent with the recently simplified rate structure.
2. **Metering Optimization**: Replacing existing mechanical meters with more precise smart meter technology, to measure water consumption more accurately, provide real time

information for the benefit of its customers, identify commercial water losses more rapidly, and thus increase efficiency and billed revenues.

3. **Electricity Expense Reduction:** Reducing electricity costs through solar energy microgrid projects.
4. **Physical Water Loss Reduction:** Reducing water losses through leak reduction, pressure management, and water balance monitoring, among other efforts.
5. **New Financing for CIP**: Maximizing funding from federal programs to take advantage of low or no cost financing.

Table 0-1 provides an annual and cumulative summary of PRASA's pre-measures and post-measures financial results. Through the implementation of these measures, and the continuation of investments into its Systems, PRASA projects balanced budgets during the Fiscal Plan Period.

TABLE 0-1: POST-MEASURES FINANCIAL RESULTS FOR FY2024-FY2038 (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Authority Revenues	1,101	1,158	1,156	1,124	1,124	1,124	1,122	1,120
Senior Debt Service	(246)	(244)	(246)	(245)	(246)	(245)	(270)	(270)
Net Operating Expenses	(810)	(900)	(931)	(939)	(945)	(956)	(969)	(982)
Operating Reserve Fund	(6)	(8)	(6)	-	-	-	(0)	(1)
Capital Improvement Fund	(125)	(236)	(392)	(331)	(158)	(155)	(174)	(153)
Pre-Measures Financial Need	(87)	(229)	(420)	(390)	(225)	(233)	(291)	(287)
Measures Benefit	90	229	421	391	228	237	294	291
Financial Result	3	0	1	1	3	4	2	4

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Authority Revenues	1,116	1,111	1,106	1,099	1,092	1,084	1,076	16,712
Senior Debt Service	(270)	(270)	(270)	(242)	(242)	(242)	(242)	(3,793)
Net Operating Expenses	(1,005)	(1,023)	(1,038)	(1,061)	(1,078)	(1,095)	(1,124)	(14,859)
Operating Reserve Fund	(3)	(2)	(1)	(3)	(1)	(2)	(4)	(37)
Capital Improvement Fund	(178)	(148)	(140)	(159)	(150)	(155)	(138)	(2,792)
Pre-Measures Financial Need	(340)	(332)	(344)	(367)	(380)	(410)	(433)	(4,768)
Measures Benefit	344	336	348	370	386	413	435	4,813
Financial Result	4	4	4	3	6	3	2	45

In addition to the quantifiable benefits listed above, this Fiscal Plan also incorporates critical enabling measures. These include:

- **2024 Master Plan**: updated with the results from the 2020 US Census, this plan provides a long-term roadmap to transform PRASA's System, so they are simpler, safer, operationally efficient, and financially responsible, and serves to consolidate recommendations from other plans and strategies (e.g., Fiscal Plan, Emergency Response Plans, Climate Change Adaptability Plan).
- **Asset Management**: implement processes and systems to properly track and monitor the condition of PRASA's assets and define the maintenance program to maximize its useful lives.
- **Chemical Expense Stabilization**: to be achieved through an independent assessment of the current challenges, risks, and opportunities within chemical expenditures and consumption and identify a remediation plan to optimize chemical-related expenditures.
- **CIP Delivery:** implement processes to ensure the execution of capital projects timely and on-budget in order to take advantage of the federal funding available for recovery and reconstruction projects after the 2017 Hurricanes, as well as from the recently approved

funding to address PRASA's aging water and wastewater infrastructure (BIL Act) and the impact of Hurricane Fiona in 2022 (SAHFI).

- **Organization Optimization and Efficiency:** update the Classification and Compensation plans to retain a motivated and efficient workforce for the operation of PRASA's Systems and providing personnel evaluation to improve efficiency.

The continuous progress and improvements in PRASA's financial condition, as highlighted in this Fiscal Plan, will largely depend on whether the Authority succeeds in (i) developing a comprehensive NRW plan designed to reduce and control water loses entity-wide, focusing on commercial and physical water losses (ii) stabilizing rising operating costs like electricity and chemical expenditures; and (iii) investing heavily into its system through its federally-funded CIP. Achieving these strategic objectives will not only bolster the Authority's improved financial condition, but it will provide the foundation for PRASA to become a more stable water utility capable of investing capital at sustainable asset replacement levels. Accordingly, the Certified Fiscal Plan projects that PRASA will deploy billions of federal funds from partners such as FEMA, EPA (SRF) and HUD (CDBG-DR funds), among others, into its critical infrastructure such as water quality testing laboratories, advanced metering technology, distribution and sewer pipe replacement, and treatment plants upgrades.

Lastly, this Certified Fiscal Plan reflects the financial and operational goals of PRASA in compliance with the requirements mandated by PROMESA to develop and implement a path towards fiscal responsibility and to have the capacity to access to the capital markets at reasonable rates, when and if needed.

1 Introduction

As the sole provider of public water and wastewater services in Puerto Rico, PRASA is committed to providing reliable, affordable, and safe water and wastewater services to the people of Puerto Rico. The Certified Fiscal Plan outlines the required actions that are expected to continue PRASA's transformation into a well-performing, safe, efficient, and sustainable water and wastewater utility for the benefit of the people of Puerto Rico.

1.1 Purpose of this Fiscal Plan

The Certified Fiscal Plan has been developed with the commitment of delivering reliable, affordable, and safe water and wastewater treatment services while ensuring PRASA's continued fiscal responsibility and operational efficiency. To implement this Certified Fiscal Plan, PRASA's efforts shall be focused in the following areas:

	**Enhance revenues**
	**Reduce expenses**
	**Improve operational performance**
	**Improve customer satisfaction and reduce NRW**
	**Increase water availability and reduce service rationing potential**
	**Execute a timely, on budget, multi- year Capital Improvement Program (CIP) maximizing federal funding, including recovery funds**

Successful implementation of measures and initiatives to meet these objectives will keep PRASA on a path towards financial and fiscal responsibility and operational efficiency, establishing the foundation for PRASA to become a top tier water utility with access to short-term and long-term credit markets at reasonable rates to meet borrowing needs, when and if needed.

1.2 Changes from Previous Fiscal Plan

The major changes from the prior fiscal plan certified by the Oversight Board on May 26, 2023, are as follows:

1. Updated projection period, including an extended 15-year period financial projections as required by the Oversight Board in a letter dated December 22, 2023, covering the period from FY2024 through FY2038, which is referred herein as the Fiscal Plan Period. The extended projections period results in increased uncertainty with respect to the estimates included

herein, as many critical projects are in initial or development stages, and proper long-term projections are not possible. Examples include, but are not limited to:

a) Impact of the meter replacement project, for which different technologies and equipment are under evaluation and the final decision may impact the financial projections.
b) Revision of the Jobs Classification and Compensation Plan, which is expected to be completed by the end of FY2024 and may materially impact the payroll projected cost.
c) Definition of NRW strategy based on information obtained from the Advanced Metering Infrastructure (AMI) Project.
d) Final impact of CIP investments on future operational costs.
e) Final funding for mitigation projects.

2. Revised projections based on updated information, including current service rates, electricity rates and macroeconomic assumptions, as well as updated historical information.
3. Incorporation of (i) salary adjustments based on current legislation for minimum wages and the preliminary results of the updated Compensation Plan, and (ii) headcount requirements update.
4. Update of expected levels of federal funding arising from disaster recovery (FEMA, CDBG), COVID stimulus (ARPA, BIL) and from SRF programs, including BIL and SAHFI.
5. Inclusion of revised and updated action plans and financial projections for proposed measures set forth herein.
6. Updated CIP projections, subject to additional reviews and updates based on the 2024 Master Plan recommendations.

1.3 Authority's General Information

PRASA is a public corporation and instrumentality of the Government. PRASA owns and operates the public water and wastewater Systems throughout Puerto Rico.

1.3.1 Authority's Mission and Vision

PRASA's core mission is to provide high-quality, safe, reliable, and affordable water and wastewater services to the people of Puerto Rico, to help ensure the protection of the people's health and the environment. To accomplish its mission, PRASA has adopted a vision to become a top-performing utility while continuously exceeding customer expectations and ensuring sustainable water resources management.

1.3.2 History of the Authority

PRASA is an instrumentality of the Government created by Act 40 of 1945, as amended, for the purpose of owning and operating the Government's public water supply and wastewater systems. Exhibit 1-1 below provides a timeline of PRASA's historical background.

EXHIBIT 1-1: THE AUTHORITY'S HISTORICAL BACKGROUND TIMELINE

1945	**PRASA was created** through Act No. 40-1945
1990–1993	**PRASA state of emergency** declared by Governor • PRASA subsidized by Government (over $400 million annually)
1994	• **Debt downgraded below investment grade**, no capital market access • **Severe drought** impacted Puerto Rico
1995–2004	**PRASA's Management Privatization:** • Operations directed by private operators and performed by both private and PRASA's employees
2004	**Operational restructuring** through Act No. 92-2004 • PRASA management transferred back to public sector • Operations reorganized into five Regions and Infrastructure Directorate
2005–2006	• **Rate increase implemented in two phases** (128% on average across customer segments) • **Elimination of Government subsidies** • **Bond anticipation note** obtained from private banks
2008	**Investment grade rating recovered**, allowing return to capital markets • Master agreement of Trust was created • $1.3 billon in revenue bonds were issued and $284 million in refunding bonds
2008–2012	• **Lines of credit from GDB and BANs** used to finance PRASA's CIP
2012	• **$2.1 billion in revenue bonds** issued by PRASA
2013–2014	• **Credit ratings downgraded** to "non-investment grade" • **Rate increase** of 60% on average across customer segments • **$200 million bond anticipation note** to finance CIP
2015	• **Severe drought** required water rationing plan, resulting in decreased billings
2016	• **PROMESA enacted** in response to Puerto Rico's financial and debt crisis • PRASA designated as **covered territorial instrumentality** under PROMESA

2017	• **Hurricanes Irma and Maria** caused extensive system damage • **Series of gradual rate increases** adopted from FY 2018 to FY2022
2019	• **Federal debt reprogramming** allowing for re-access to federal funds and debt service savings of $370 million in 10 years
2020	• **January 2020 earthquakes** caused extensive system damage • **COVID-19 pandemic** caused collection delays due to its economic impact • New **$163 million CWSRF loan** dated August 18, 2020 • Return to capital markets on December 17, 2020, **refunding $1.4 billion** of the 2008 outstanding bonds for savings of **$348 million** in debt service
2021	• **$3.7 billion were obligated by FEMA** on January 8, 2021, for projects to rebuild the Authority infrastructure after the 2017 Hurricanes impact • **$1.8 billion** in 2012 Bonds were refunded for savings of **$570 million** in debt service
2022	• **New simplified rate** structure implemented on July 1, 2022 • **Hurricane Fiona** (category 1) affected Puerto Rico and PRASA system island wide • New SRF loans for CIP and RD funds for Irma related expenditures
2023	• **AMI Project** Contract execution and pilot phase start

Beginning in the early 1990s the Authority's revenues became insufficient to meet all its obligations, including paying debt service on its outstanding revenue bonds. As a result, the Government provided the Authority with subsidies, including direct Government appropriations to fund the Authority's capital projects. In 1994, the Governor declared the Authority in a state of emergency, and its debt was downgraded below investment grade, eliminating the Authority's access to the capital markets at reasonable rates to finance its CIP.

Between 1995 and 2004, to improve service and overall efficiency, the Government and the Authority engaged and contracted with private companies to manage, operate, and maintain its System. In 2004, the Government enacted Act 92-2004 and transferred all responsibilities back to the Authority. Post-privatization, and in an effort to allow the Authority to become more autonomous, a two-phased rate increase was implemented in October 2005 and July 2006; the first rate increase in almost 20 years. Implementation of the rate increases allowed the Authority to meet all operational and debt service obligations without the need for Government subsidies, which were discontinued shortly thereafter. However, the Authority still faced challenges in generating sufficient revenues to execute its CIP. As such, the Authority CIP costs were financed through short-term interim financing until 2008.

In 2008, and as a result of its improved financial condition, the Authority recovered its investment grade credit rating and was able to access the capital markets at reasonable rates. The Authority raised $1.3 billion in new senior lien debt in March 2008 to finance its CIP and repay outstanding lines of credit. Also, $284 million of PRASA's 1995 bonds were refunded for a total bond issuance of approximately $1.6 billion.

Once the proceeds of the 2008 Senior Bonds were used for the construction of CIP projects, the Authority resumed financing its CIP with interim lines of credit from GDB and Bond Anticipation Notes (BANs) from commercial banks until 2012. In 2012, the MAT was amended to enhance

bondholder protections, including providing a gross revenue pledge (i.e., absent an event of default, senior lien debt service would be paid ahead of the Authority's operating expenses). The MAT amendments facilitated the Authority's issuance of its $2.1 billion 2012 Senior Bonds to pay out outstanding lines of credits and BANs and to provide additional funds for PRASA's CIP execution.

In 2013, a new rate structure was implemented to generate enough revenue to cover the Authority's operating needs (i.e., expenses and debt service) at the time. In addition, a $200 million BAN was extended to the Authority by a syndicate of local commercial banks to fund its CIP costs until a new, long-term bond issuance could be completed. The bond issuance was expected to be completed during FY2014 but couldn't be executed due to downgrades in the Government's credit ratings, leading to subsequent downgrades to the Authority's credit ratings to below investment grade levels. The loss of access to capital markets to finance its system improvements forced the Authority to suspend its CIP and accumulate approximately $150 million in debt to its vendors and suppliers by FY2016, subsequently paid in full.

On June 30, 2016, the President of the United States enacted PROMESA to address the fiscal crisis in Puerto Rico. PROMESA created the Oversight Board to provide a method for the Government and its covered agencies and instrumentalities to achieve fiscal responsibility and access the capital markets, among other things. On September 30, 2016, the Authority was designated as a covered territorial instrumentality by the Oversight Board.

In September 2017, Hurricanes Irma and Maria struck Puerto Rico (the "2017 Hurricanes") and caused devastating and lasting damage to the Island. Both hurricanes damaged the electric power infrastructure and PRASA's facilities and Systems, which in turn affected the continuity of water and sewer services to customers throughout the Island.

From 2016 until July 2019, the Authority maintained several forbearance agreements that permitted the deferral of payments on its Federal Debt. On July 26, 2019, the Authority and AAFAF consummated definitive agreements that reprogrammed approximately $1 billion in Federal Debt, both SRF and USDA RD. This resulted in $370 million in debt service relief over the following ten years and into renewed access to potential sources of federal funding for the Authority's CIP. Thereafter, the Authority re-activated regulatory-driven CIP projects.

In August 2020, the Authority obtained its first loan after the 2019 SRF debt modification from the CWSRF program for $163 million at a 1% interest rate with a 30-year maturity. Subsequently, PRASA continued to execute financial assistance agreements for SRF funding.

On November 2020, the Authority settled a non-secured loan with the GDB Debt Recovery Authority, resulting in over $55 million in savings.

On December 17, 2020, the Authority issued the 2020 Senior Bonds to refinance most of its 2008 Bonds through a limited public offering. The issuance of the 2020 Senior Bonds resulted in $350 million in total debt service savings. Also, the new bondholders consented to a MAT amendment that will modify the revenue pledge from a gross revenue pledge to a net revenue pledge. This amendment will become effective when and if all the remaining senior indebtedness holders, including the Federal Lenders, consent to the change.

On January 5, 2021, after over three years of collaborative work by and among the Authority, COR3 and FEMA, the President of the United States announced a total award of $3.66 billion for

infrastructure projects to rebuild PRASA's Systems from the devastation caused by the 2017 Hurricanes. Such funds were obligated by FEMA on January 8, 2021. The amount obligated by FEMA represents the federal government's 90% funding share of the $4.07 billion fixed cost estimate for repairing the damages to PRASA's facilities. As required by the FEMA award, the Authority must meet a 10% cost share ("match") requirement for its FEMA-funded permanent work projects (approximately $400 million). The Authority plans to meet its cost-share portion with HUD CDBG-DR grant funds, as they become available. On September 2, 2021, the PRHUD and the Authority entered into a sub-award agreement for $200 million under the CDBG-DR Non-Federal Match Program to fund half of the state match requirement of the FEMA award. On March 8, 2024, PRHUD informed PRASA that the additional $200 million was identified and that the PRHUD team will commence the process to amend the sub-award agreement to add such amount to the original amount.

On August 25, 2021, the Authority issued a portion of its 2021/2022 Bonds in a total principal amount of $1,089.8 million and, on June 15, 2022, the Authority issued the remaining 2021/2022 Bonds in a total principal amount of $565.2 million to refinance all of the $1,806 million 2012 Senior Bonds. This refunding resulted in a total debt service reduction of $570 million when compared to the 2012 Senior Bonds. The holders of the 2021/2022 Bonds have also consented to the MAT amendments referred to above.

On July 1, 2022, PRASA implemented a new simplified rate structure, including a prospective minimum annual rate increase of 2% for subsequent years, as further described in Chapter 3.

During September 2022, Puerto Rico was impacted by Hurricane Fiona, a Category 1 hurricane in the Saffir-Simpson Hurricane Wind Scale, requiring incremental emergency expenditures and resulting in revenue reductions as a result of service interruptions. Despite the impact of Hurricane Fiona, PRASA managed to protect its liquidity mainly through savings from lower-than-expected electricity expenditures for FY2023 and the receipt of federal funds from several sources, including FEMA, to cover a portion of the incremental costs.

During FY2023, PRASA was able to settle outstanding balances owed to ERS and PREPA, allowing PRASA to shift its focus on operational efficiency and capital delivery. Also, the contract for the AMI Project was executed in November 2023 and the pilot phase is ongoing.

In summary, during recent years, the Authority has made measurable progress towards fiscal responsibility, as evidenced by its Federal Debt modification and subsequent access to SRF loans, the refunding for substantial debt service savings of its 2008 and 2012 Senior Revenue Bonds, and the obligation of disaster recovery funds from FEMA.

1.4 Overview of the Authority's System

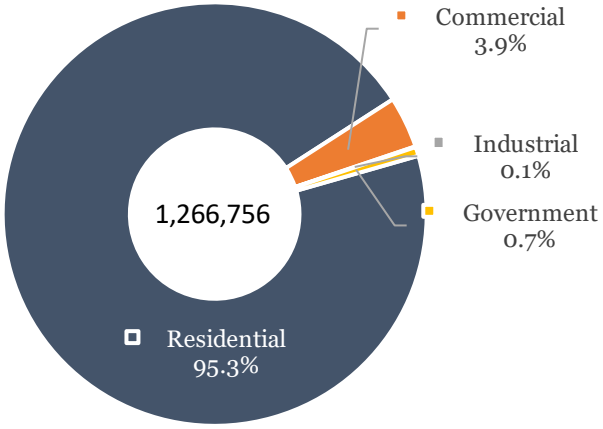
The Authority is a component unit of the Commonwealth of Puerto Rico, created in 1945 under Act No. 40, as amended, and reenacted for the purpose of owning, operating, and developing public water and sewer systems in Puerto Rico.

The Authority serves most of Puerto Rico's population (including Government and businesses) which, based on the 2020 census as of April 2020 was 3,285,874 residents, and millions of tourists

every year. On July 1, 2023, the US Census Bureau estimated Puerto Rico's population at 3,205,691, reflecting a decline of over 2% from the 2020 census on April 1, 2020[2].

The Authority provides drinking water supply to approximately 96% of the population and wastewater management to 59%[3] of the population. As of December 31, 2023, PRASA had 1,266,756 active accounts, of which 95% were residential accounts. Exhibit 1-2 provides a breakdown of customers by category.

EXHIBIT 1-2: CUSTOMER BREAKDOWN BY CATEGORY (AS OF DECEMBER 31, 2023)



The Authority provides water and wastewater services throughout the Island, which has an approximate area of 3,535 square miles. Because of Puerto Rico's varied topography, dispersed demographic distributions, and its diverse mix of users, the Authority has a fragmented and localized system of water sources, treatment, and delivery (as shown in Exhibit 1-4 and Exhibit 1-5). While a few facilities serve the large urban centers and several adjacent communities in a single area, most of the Authority's facilities are small in terms of service capacity and coverage.

[2] Source: US Census Bureau – https://www.census.gov, Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico: April 1, 2020 to July 1, 2023 (NST-EST2023-POP)

[3] Remaining 41% of wastewater service customers use septic tanks or other forms of wastewater disposal (smaller private effluent disposal systems).

EXHIBIT 1-3: OVERVIEW OF THE AUTHORITY'S INFRASTRUCTURE SYSTEM[4]

8 dams

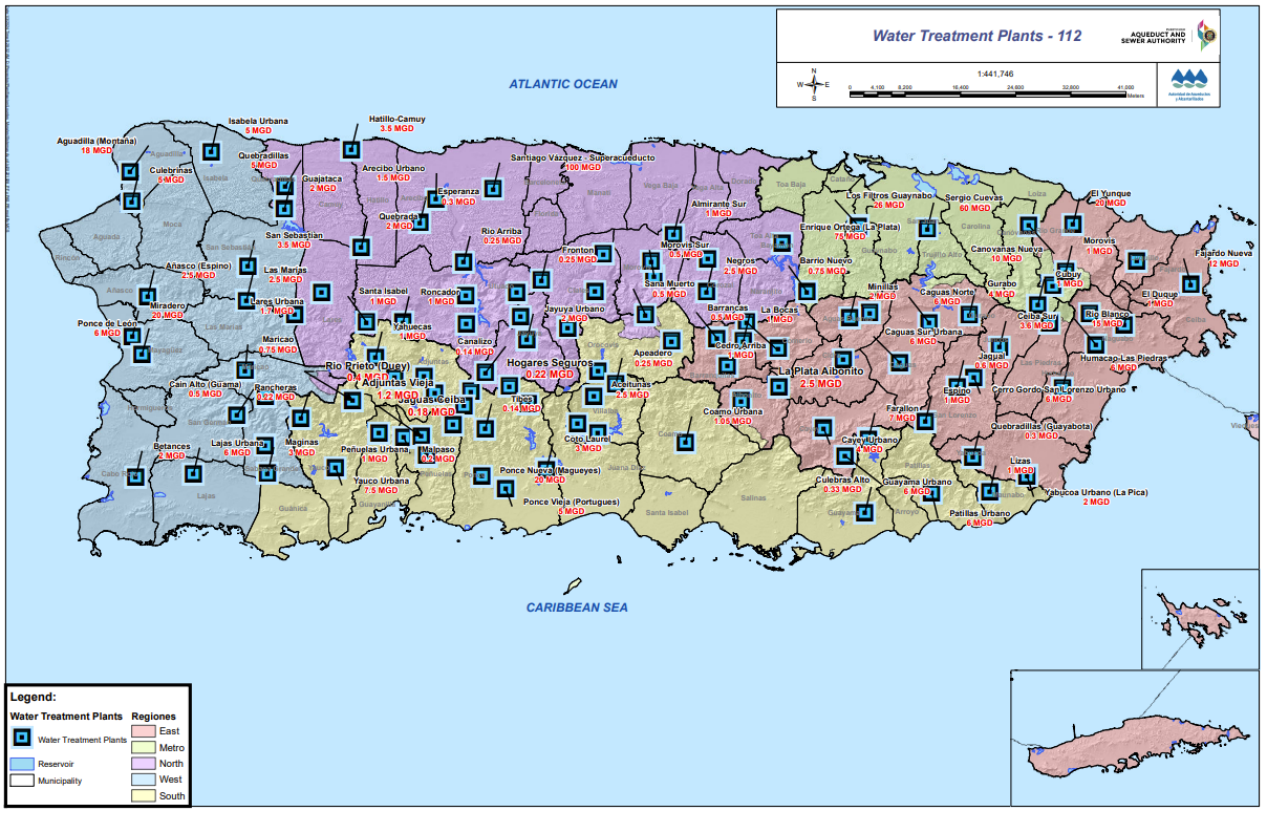
112 Filter Plants with 112 intakes, producing ~520 MGD

50 Wastewater Plants treating ~200 MGD

Around 3,800 auxiliary facilities: Tanks - 1,569 Pump Stations – 1,965 Water wells – 244

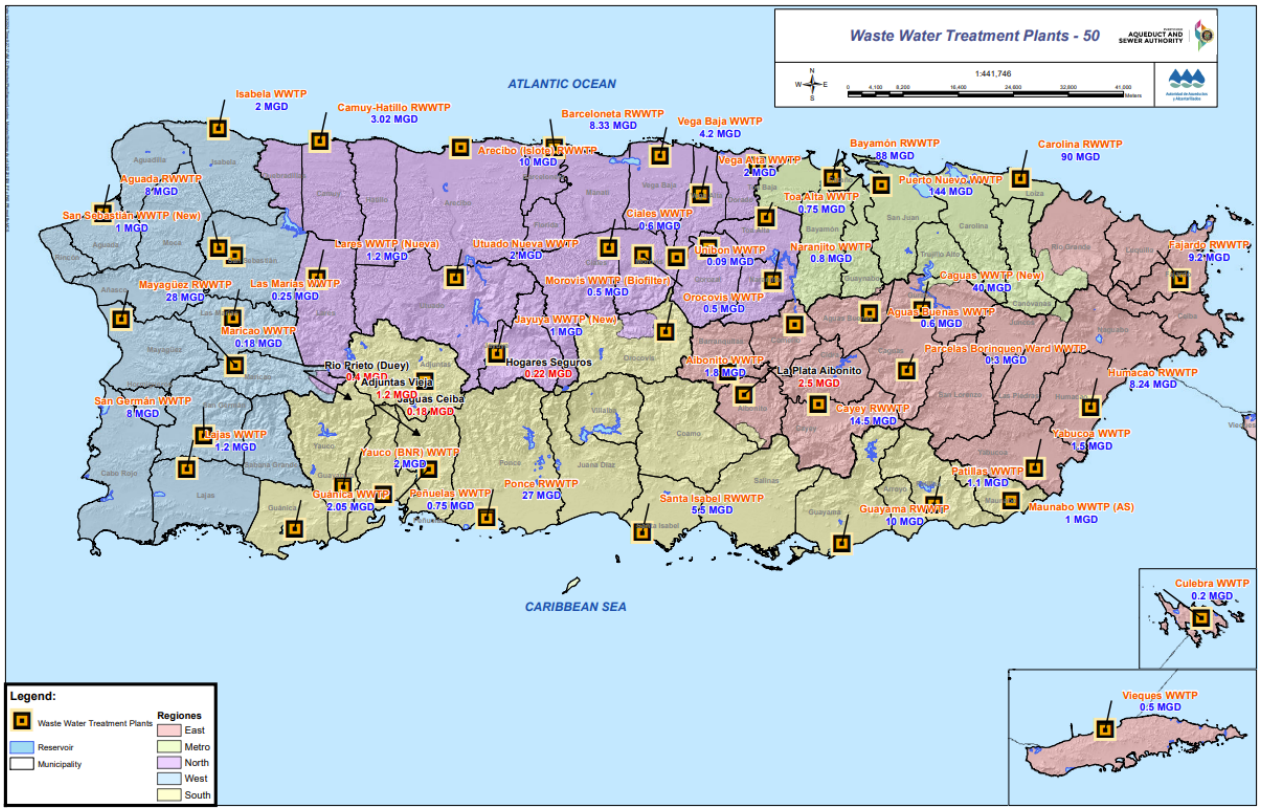
Over 20,000 miles of pipes

EXHIBIT 1-4: PRASA WATER TREATMENT PLANTS[5]



[4] Preliminary information on facilities retrieved from PRASA's GIS database as of December 31, 2023
[5] Active facilities as of December 31, 2023, according to PRASA's GIS database.

EXHIBIT 1-5: PRASA WASTEWATER TREATMENT PLANTS[6]



1.5 Governance and Organizational Structure

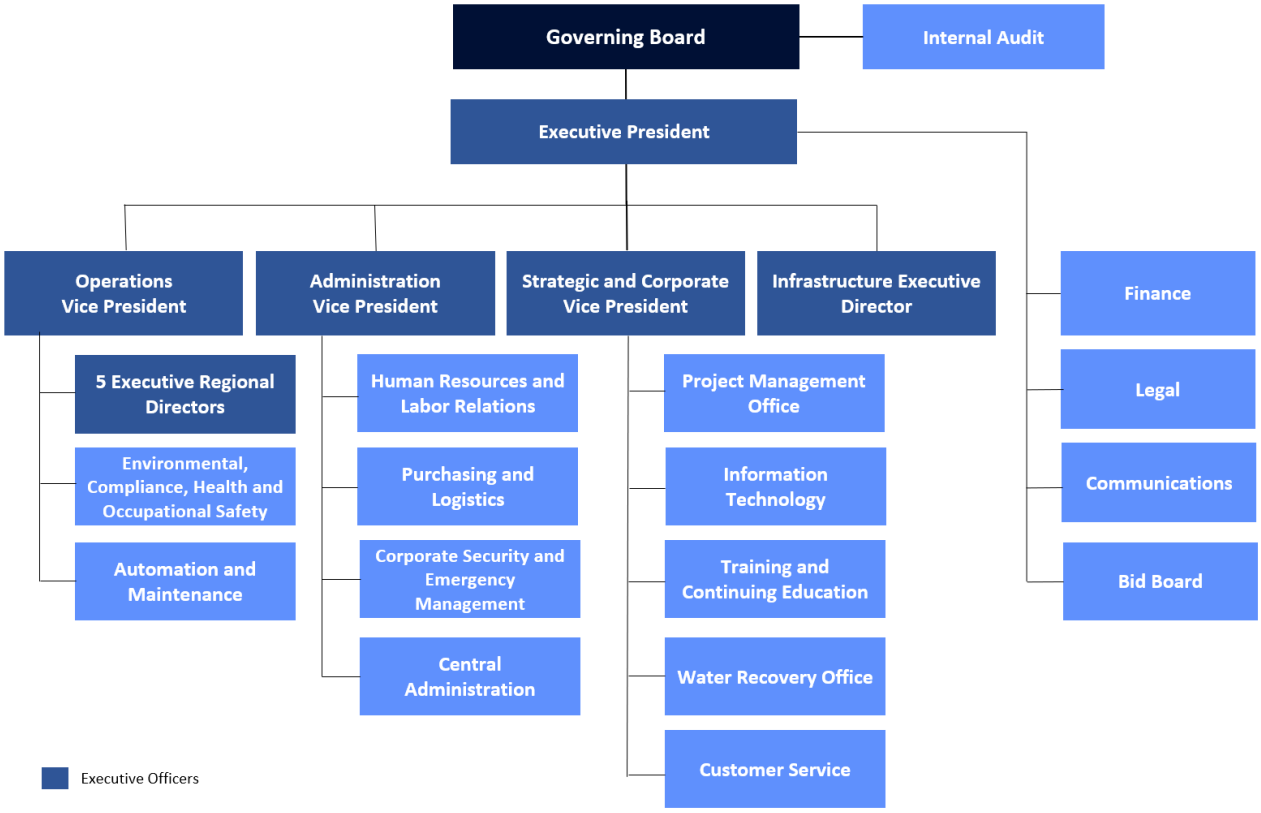
The Authority's organizational structure and governance model are designed to facilitate the achievement of its mission, implementation of its Fiscal Plan and its Strategic Plan (2021-2025), and for the improvement of operational efficiency and accountability.

Exhibit 1-6 shows PRASA's current organizational structure. Key departments and offices to highlight are:

- **Strategic and Corporate Planning Department** overseeing offices of Customer Service, Information Technology, PMO and WRO. The PMO ensures the successful execution of PRASA's Strategic and Fiscal Plan measures. The WRO is specifically responsible for all NRW-related measures.
- **Infrastructure Department** responsible for planning and executing the CIP, in collaboration with, and the support of, the Finance Department.
- **Office of Environmental, Compliance, Health and Occupational Safety** focuses on providing quality water service and overseeing compliance requirements related to the Authority's agreements with the USEPA and the PRDOH.

[6] Active facilities as of March 31, 2023, according to PRASA's GIS database.

EXHIBIT 1-6: ORGANIZATIONAL STRUCTURE



1.5.1 Governing Board

PRASA has an experienced Governing Board that is independent from direct political influence and has the ability to effectively carry out its duties. Moreover, existing law allows Governing Board members to serve their entire term—rather than being replaced with changes in the Government administrations—which is essential to maintaining consistency and institutional knowledge in decision-making.

Pursuant to Act No. 68-2016, which sets requirements for a diversified and professionalized board, PRASA's Governing Board was restructured to include seven members, consisting of four Independent Directors appointed by the Governor (with advice and consent from the Senate), two ex officio members, and one Consumer Representative, with the following qualifications:

1. One Professional Engineer licensed to practice in Puerto Rico with at least ten years of experience;
2. One attorney with at least ten years of experience in Puerto Rico and licensed to practice in the Commonwealth of Puerto Rico;
3. One Corporate Finance Specialist with wide knowledge and experience in the field;

4. One Professional with expertise in any field related to PRASA's functions;
5. The Executive Director of the Mayor's Association (ex officio member);
6. The Executive Director of the Mayor's Federation (ex officio member); and
7. One Consumer Representative, a private citizen representing the Authority's customers.

Additionally, an AAFAF representative will sit on the Governing Board while the Authority is a covered territorial instrumentality under PROMESA, thus temporarily increasing its size to eight board members as required by Act 2 of 2017.

Members appointed by the Governor are selected from a list of at least ten candidates, vetted by a recognized executive search firm, and evaluated according to objective criteria that includes the professional and educational backgrounds of the candidates.

Members not named by the Governor include the consumer representative, the Executive Director of the Mayor's Association, the Executive Director of the Mayor's Federation and the AAFAF representative. The consumer representative is elected by PRASA's customers through a process under the jurisdiction of the Puerto Rico Ombudsman.

Term lengths for non-ex-officio members are as follows:

- The Governor-appointed members serve staggered five-year terms and may only hold office for three terms.
- The Consumer Representative serves a three-year term with no term limits.

PRASA's Governing Board is responsible for making and approving all major decisions taken by the Authority, including decisions related to overall institutional policies, strategies and programs, operational budget and capital improvement programs, executive and key management recruitment and terminations, approval of collective bargaining agreements, major procurements and professional services and other contracts that exceed the materiality limits for Executive President approval.

1.5.2 Executive Officers

Executive Officers are appointed by the Governing Board. By having an independent and experienced Governing Board select the Authority's executive leadership further protects the Authority from political influence and ensures only the most qualified individuals are selected for these roles.

The Executive Officers include:

- **Executive President:** The Authority's chief executive officer, based solely on experience, ability, and other qualities that especially enables them to lead the Authority, achieving its strategic mission and vision.
- **Infrastructure Executive Director:** A Licensed Professional Engineer with experience in activities related to the development and management of infrastructure projects.
- **Five Regional Executive Directors:** For the Metro, North, South, East, and West Regions management.

- **Three Vice Presidents:** Operations, Administration, and Strategic & Corporate Planning.

The Executive President, the Infrastructure Director and the Regional Executive Directors, unless appointed on an interim basis, serve five-year terms as established by Act No. 68-2016.

1.6 The Authority's Challenges

The Authority faces financial, strategic, and operational challenges common or typical to water utilities. Also, PRASA faces a specific set of challenges related to the size and complexity of its Systems, the Puerto Rico's economic and demographic environment, which are exacerbated by the exposure to natural disasters typical to the Caribbean region such as hurricanes and droughts, in addition to earthquakes.

Some of the main challenges faced by PRASA are:

- Declining population and water consumption;
- Maintaining large, complex, and capital-intensive facilities (managing over 20,000 miles of pipelines and a combined 162 water and wastewater treatment plants);
- Reducing longstanding and significant volumes of NRW;
- Addressing Systems vulnerabilities to climate change and natural disasters;
- Meeting environmental and safety regulatory requirements, including implementing EPA and PRDOH consent decree and agreements requirements; and
- Maximizing and effectively utilizing available federal funding to enable the restoration of and improvements to the Systems affected by the 2017 Hurricanes, 2020 Earthquakes and Hurricane Fiona to industry standards.

While many of these challenges are not unique to water utilities, the Authority's challenges also represent an opportunity to rebuild a better and more resilient System for the benefit of Puerto Rico.

1.6.1 Non-Revenue Water

High levels of water losses in distribution systems (both real and apparent losses) continue to burden water companies and customers around the world.

Water losses consist primarily of commercial and physical losses. The AWWA defines the water balance components of water losses as apparent (or commercial) and real (or physical) losses, as detailed in Table 1-1[7].

[7] "M36 Water Audits and Loss Control Programs, 4th Edition", AWWA, 2016.

TABLE 1-1: WATER BALANCE COMPONENTS (AWWA M36 MANUAL)

System input volume (dispatched water)	Authorized consumption	Billed authorized consumption	Billed metered consumption	Revenue water
			Billed unmetered consumption	
		Unbilled authorized consumption	Unbilled metered consumption	NRW
			Unbilled unmetered consumption	
	Water losses	Commercial losses (apparent losses)	Unauthorized consumption (theft)	
			Customer metering inaccuracies	
			Data handling (billing) errors	
		Physical losses (real losses)	Main line leakage	
			Storage tank overflows	
			Service connection leakage	

Source: AWWA and International Water Association

Commercial losses are due to unauthorized activities such as theft, or operational shortcomings like meter error, misbilling, or data error. Hence, commercial losses represent water that is produced and reaches customers but is not billed, and therefore does not generate revenue for PRASA.

Physical losses, on the other hand, are due to leaks and breaks throughout the System network. It represents water that is produced but never reaches the end customer, and thus, is not billed. This is partially due to the gradual aging and depreciation of the infrastructure. This results in higher than required water production and increased variable costs of production (mainly chemicals and electricity).

Table 1-2 below presents the different water balance components for PRASA during fiscal year 2023.

TABLE 1-2: PRASA WATER BALANCE COMPONENTS FY2023

Water Balance Components FY2023	MGD
Annual Production	513.09
Authorized Billed Consumption (Revenue Water)	178.25
Unbilled Authorized Consumption (CANF)	18.28
Commercial or Apparent Losses	52.19
Physical or Real Losses	264.37
Non-Revenue Water (NRW)	334.84

When comparing the evolution of this water components during the last 5 years, since fiscal year 2019, is important to highlight the following improvements:

- ✓ Annual Production of water decreased by 27 MGDs or 5%
- ✓ Authorized Consumption increased by 8 MGDs or 4% mostly as a result of improvements in measurements of internal water use.
- ✓ Non-Revenue Water decreased by 14 MGDs or 4%.
- ✓ Water Losses reduced by 25 MGDs or 7%.
- ✓ Physical Losses decreased by 38 MGDs or 13%.

In contrast, the continuous aging of the meters resulted in a reduction of billed meter consumption of 34 MGDs or 18% and Commercial Losses therefore increased by 13 MGDs or 33%.

Therefore, most of the water balance components improved except for commercial losses which were mostly driven by an increase in meter inaccuracies.

These results reflect the positive impacts of the NRW initiatives but there is still much more to do. Based on the Water Balance results, PRASA must focus area on commercial water losses reduction. While commercial water losses are less than physical losses in total MGD, because they are valued at the price of sale of the water, their financial impact is much higher than real losses. The value of the water losses is estimated at $113.6 million for the physical losses based on variable production costs and $323 million for commercial water losses, measured at the average price of sale. With the implementation of the AMI Project, the meter inaccuracy losses should be minimized, and valuable information will be generated to strategically address physical losses to ultimately reduce production costs and improve water availability.

Additionally, AWWA has developed a standard for monitoring and evaluating a water distribution agency's water control, this is known as the Infrastructure Leakage Index (ILI). As the WRO continues to gather more accurate water audit data to improve the performance indicators, PRASA will manage to utilize this for cross-system comparison (benchmarking). The ILI is defined as the ratio of actual current annual loss to annual unavoidable water loss. The ILI has the following four main performance categories:

- Category A - ILI ranges from 1 through 2: Further loss reduction may be uneconomic unless there are shortages; careful analysis needed to identify cost effective improvement.
- Category B - ILI ranges from 2 through 4: Potential for marked improvements; consider pressure management, better active leakage control practices, and better network management.
- Category C - ILI ranges from 4 through 8: Poor leakage record, tolerable only if water is plentiful and cheap; even then, analyze level and nature of leakage and intensify leakage reduction efforts.
- Category D - ILI ranges from 8 and beyond: Very inefficient use of resources; leakage reduction programs imperative and high priority.

As per the FY 2023 Water Balance Report[8], developed by PRASA, the ILI for FY2023 resulted in 10.80, a decrease of 1.4 when compared to FY 2022 value of 11.40. PRASA is currently in category D, which translates into very inefficient use of resources and as such, leakage reduction programs are imperative and must be a high priority. This ratio is subject to adjustment and refinement once more precise information on its components is gathered.

The Authority's Management has established NRW reduction as a top priority and the plan to address this challenge is detailed in Section 3.1.2.2 herein.

1.6.2 Vulnerability to Climate Change and Natural Disasters

Worldwide, water utilities have been exposed to increasing vulnerability from climate change and natural disasters, such as droughts, storms, flooding, rising sea levels, and earthquakes. Research findings also indicate concerns about fluctuations in global water usage.

The Authority is not immune to these risks. In recent years, Puerto Rico has experienced a severe drought from October through December 2015, hurricanes (Irma and Maria in September 2017 and Fiona in 2022), and several earthquakes concentrated in the southern region, with the largest occurring on January 7, 2020, with a magnitude of 6.4 on the Richter scale. These events caused significant damage to infrastructure throughout the Island.

To better understand the potential effects of climate change on PRASA operations, during FY2015, the Authority developed a Vulnerability Study on the impacts of climate change in all its infrastructure. In the Vulnerability Study, the Authority assessed its infrastructure to identify potential climate change risks and impacts caused by five indicators or stressors: increases in temperature; changes in precipitation (including an increase in heavy downpours in the short-term and an increase in drought events in the long term); sea level rise; increases in hurricane and tropical storms' intensity and frequency; and ocean acidification. The Vulnerability Study concluded that the stressors that present highest impact risk to water and wastewater infrastructure are sea level rise, precipitation changes, and hurricanes and tropical storms. Sea level rise threatens flooding coastal infrastructure, which could force the Authority to discontinue using infrastructure along the coasts altogether. Changes in precipitation patterns also have the ability to negatively impact the Authority's infrastructure. On one hand, more precipitation in the short term causes more turbidity, affecting the overall System water quality; on the other hand, less precipitation in the long-term causes droughts and threatens the reliability of the System by causing service interruptions. Finally, damages caused by higher intensity hurricanes and storm events will generate significant and costly expenses to the Authority as evidenced after the 2017 Hurricanes and Hurricane Fiona in 2022.

Although each water system is unique, PRASA has recognized these matters represent a significant challenge to day-to-day operations, resource planning, overall water resource conservation efforts, and its ability to withstand periods of water stress such as droughts. Given the potential impact of these issues on PRASA's intricate water and wastewater infrastructure, the

[8] PRASA asserts that based on available information, the actual water consumption component of PRASA's Water Balance Report is uncertain.

Authority must incur greater operating and capital costs to prevent and react to such issues. PRASA has been implementing – and must continue implementing - projects and programs that enhance the resilience of the water and wastewater systems. Recently, PRASA completed the 2024 Master Plan with specific recommendations for additional adaptation actions: planning, studies, infrastructure projects, and programmatic solutions are included in the 2024 Master Plan to be implemented by PRASA in the coming years.

2 Pre-Measures Financial Projections

The Pre-Measures Financial Projections considers the Authority's current financial situation and assumes PRASA will continue its current state of operations without implementing any new measures to enhance revenues or reduce expenses. This includes the benefits from measures and initiatives that have already been implemented such as the debt modification with the Federal Lenders, the 2020 and 2021 refunding of outstanding debt, a new rate structure implemented as of July 1, 2022, as well as other implemented measures described in Section 2.1

2.1 Recently Implemented Measures

PRASA has successfully implemented several initiatives that had a material beneficial impact on the Authority's financial results. The benefits from these initiatives have been included in the baseline or pre-measures financial projections. These initiatives include:

1. **Rate Adjustments**: implemented regularly scheduled rate increases ranging from 2.5% to 4.5% between FY2018 and FY2022 for all customer segments, and 2% rate adjustments starting in FY2023.
2. **Government Account Collections**: collected past due government receivables and improved government collections.
3. **Pre-Retirement Program**: reduced payroll costs by incentivizing early retirement for eligible employees.
4. **Electricity Expense Reduction**: reduced energy costs through renewable distributed generation ("DG") projects.
5. **Federal Debt Modification**: consolidated and modified SRF and USDA RD loans as senior debt and with more favorable repayment terms.
6. **Debt Refunding:** refunding $3.2 billion of 2008 Bonds and 2012 Senior Bonds resulting in significant debt service savings without extending final maturities of the refunded bonds.

These measures resulted in a benefit of $1,373.5 million from FY2018 to FY2024. Table 2-1 summarizes the benefits of the implemented measures.

TABLE 2-1: FINANCIAL RESULTS OF IMPLEMENTED MEASURES (FY2018-FY2024, IN $ MILLIONS)

In $' Millions	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024 (Projected)	**FY2018 to 2024**
Revenue Enhancement Initiatives								
Rate Adjustments	13.3	60.3	79.6	101.9	133.6	161.2	182.2	**732.2**
Government Account Collections	55.9	72.6	5.9	1.0	39.2	10.0	3.0	**187.6**
Cost Saving Initiatives								
Pre-Retirement Program	-	5.9	7.4	7.5	6.7	5.8	4.8	**38.1**
Electricity (current PPAs)	0.3	0.4	0.5	0.2	0.8	1.1	1.0	**4.4**
Debt Service Reduction								
Federal Debt Restructuring	55.6	32.4	43.4	42.0	40.1	39.7	39.1	**292.4**
Debt Refunding (2020 Bonds)	-	-	-	13.0	13.4	13.4	12.5	**52.3**
Debt Refunding (2021&2022 Bonds)	-	-	-	-	21.6	21.2	23.8	**66.6**
Total	**125.1**	**171.6**	**136.8**	**165.6**	**255.5**	**252.5**	**266.4**	**1,373.5**

The implemented measures shown above resulted in meaningful, measurable economic benefits over the seven fiscal years ending on June 30, 2024.

2.1.1 Implemented Revenue Enhancing Measures

PRASA implemented a series of measures to increase its revenues while attempting to minimize negative impacts on service affordability.

2.1.1.1 Rate Adjustments

In 2017, the Oversight Board required PRASA to implement moderate, but consistent multi-year rate adjustments to ensure costs were fully covered by service revenues.

Rate adjustments (FY2018 through FY2024)

$732 million

PRASA's rate structure until June 30, 2022 provided for a maximum annual rate adjustment of 4.5%, up to a cumulative 25% through the application of an "Annual Adjustment Coefficient."[9]

PRASA's Governing Board approved a moderate rate adjustment schedule for five years between FY2018-FY2022, summarized in Table 2-2 below, which has been fully implemented.

TABLE 2-2: IMPLEMENTED RATE INCREASES (FY2018/FY2022)

Type of Client	Jan 1, 2018 (FY2018)	July 1, 2018 (FY2019)	July 1, 2019 (FY2020)	July 1, 2020 (FY2021)	July 1, 2021 (FY2022)
Residential	2.5%	2.5%	2.5%	2.5%	2.5%
Commercial	2.8%	2.8%	2.8%	2.8%	2.8%
Industrial	3.5%	3.5%	3.5%	3.5%	3.5%
Government	4.5%	4.5%	4.5%	4.5%	4.5%

On July 1, 2022, PRASA implemented a new simplified rate structure to incorporate minimum annual adjustments for subsequent years.

For FY2024 and beyond, PRASA is projecting 2% annual rate adjustments across all customer segments. The new rate structure provides for a minimum of 2% and up to a maximum of 5% rate adjustments, subject to actual needs with a cumulative rate increase cap of 30%. The scope and magnitude of future rate adjustments (FY2024 and beyond) will therefore be dynamic and guided by PRASA's fiscal needs to finance its operations and capital needs, as well as to comply with the required reserves under the MAT.

These rate adjustments are not only necessary for PRASA to achieve balance budgets and keep up with rising operating costs, but are also critical to ensure the Authority achieves fiscal responsibility, while maintaining sufficient liquidity to fund its CIP, as described in Section 2.5.

Additional revenues are required to continue delivering reliable, affordable, and safe water and wastewater services without reducing critical investments in its System. As a result of the new minimum rate adjustments schedule, PRASA should have sufficient funding to meet all of its current obligations (operational and deposits), while deploying capital as projected in its CIP work

[9] PRASA's prior rate structure was adopted after the public hearing process of Act 21 and approved by the Governing Board pursuant to Resolution No. 2794 on July 3, 2013 and as amended by Resolution No. 2825, approved on December 18, 2013.

schedule and maintaining healthy levels of cash reserves. Finally, best practices in the water sector[10] suggest that through the implementation of moderate annual rate increases, water utilities should be able to stabilize their service revenues and be better positioned to deliver capital projects.

2.1.1.2 Government Account Collections Improvement

The Authority has four different government client categories: (i) Central Government agencies, paid by the General Fund; (ii) public corporations, generally paid from their own revenues; (iii) municipalities; and (iv) federal agencies. During the last several years, PRASA has worked jointly with the Government to reconcile balances of accounts receivable, speed up their collection processes, and receive payment of receivables in arrears. As a result of these efforts, PRASA recovered $188 million of outstanding government accounts receivable.

Government accounts recovered receivables (FY2018 through FY2024)

$188 million

Although municipalities' outstanding balances have also been recently reduced, total accounts receivable for municipalities totaled almost $50 million as of March 31, 2024, which represents 50% of total accounts receivable from government accounts.

2.1.2 Implemented Cost Saving Measures

PRASA has implemented several cost-reduction measures, including various measures focused on the two largest expense categories: payroll and electricity.

2.1.2.1 Pre-Retirement Program

As a result of the fiscal crisis, the Government created a Voluntary Pre-Retirement Program in FY2016.[11] The program provides incentives to certain eligible government employees to voluntarily retire early from service.[12] The program was implemented to reduce the workforce progressively and voluntarily, allowing employees to retire with an orderly transition process. The vacant positions resulting from the retirement program must be eliminated unless the OMB specifically determines in writing that each vacant position should not be eliminated and provides an explanation for such a determination.

Pre-Retirement Program Savings (FY2018 through FY2024)

$38 million

Over 350 PRASA employees have retired under the program, generating estimated savings of $38.1 million projected through June 30, 2024.

2.1.2.2 Electricity

[10] Study on rate increases by water and wastewater utilities of 37 of the top 50 U.S. cities as conducted by Bluefield Research in August of 2021.
[11] Enacted through Act 211-2015 on December 8, 2015.
[12] Incentives include: 60% payment of average salary, payout of unused vacation and sick days (as per Act 66-2014) and maintaining their health insurance coverage for a term of two years. These incentives are applicable to pre-retired employees and payable by PRASA until each eligible employee reaches full retirement age under ERS's rules.

PRASA implemented energy supply projects through Power Purchase Agreements ("PPAs") to reduce its electricity costs.

Electricity Expense Reduction from PPAs (FY2018 through FY2024)
$4.4 million

The Authority currently has 10 facilities under PPA mechanisms using photovoltaic energy, producing approximately 11.3 million kWh per year at a $0.15 per kWh blended rate, which is less than rates charged by PREPA/LUMA. Annual savings from these PPAs vary based on PREPA rates. Facilities currently under PPAs along with their associated average annual solar energy production, are shown in Table 2-3.

TABLE 2-3: FACILITIES WITH SOLAR ENERGY

Facility	Million kWh/yr
Yunque WTP	3.43
Arecibo WTP	1.71
Canóvanas WWTP	1.71
Guaynabo WTP	0.86
Aguada WWTP	0.86
Humacao WWTP	0.86
Cayey WWTP	0.86
Culebra WWTP	0.49
Vieques WWTP	0.33
Arcadia WPS	0.19
Total kWh	11.30

PRASA has already implemented, among other initiatives, a set of regional level commitments to execute non-capital-intensive energy conservation measures throughout its facilities. Regional initiatives include measures such as facility consolidations, minor repairs, operational optimization, and installation improvements. Since FY2013, PRASA has reduced its electricity consumption by over 10%, from over 740 million kWh to around 660 million kWh.

Efficiency measures were achieved by some non-capital-intensive measures such as:

- Performing further operational improvements focused on conservation measures in its water treatment plants (WTPs) and wastewater treatment plants (WWTPs);
- Leveraging hydraulic modeling analyses and optimization efforts to reduce energy consumption in the water distribution and wastewater collection system (i.e., pump station facilities);
- Providing more flexibility to the System, reducing, and optimizing the hours of operation at the facilities; and
- Identifying energy conservation measures in equipment operation.

Additional initiatives to reduce the electricity expense are included in Section 3.1.2.1: *Electricity Expense Reduction*.

2.1.3 Debt Service Reduction

PRASA has implemented three debt service reduction measures to date: federal debt modification, refunding of most of its remaining outstanding debt, and fully settling a non-secured loan with the GDB Debt Recovery Authority.

Furthermore, on January 20, 2022, AAFAF, on behalf of PFC, entered into a Restructuring Support Agreement (the "PFC RSA") with holders of a majority of those certain Series 2011A, Series 2011B, and Series 2012A Commonwealth Appropriation Bonds (the "PFC Bonds"). The PFC RSA provided for a restructuring and discharge of the PFC Bonds under a Title VI Qualifying Modification (the "PFC Qualifying Modification"). The PFC RSA further provided that the Notes, including Notes owed by the Authority, for the repayment of the PFC Bonds, would be cancelled and extinguished under the PFC Qualifying Modification and the Authority would be relieved from any liability arising from or related to such promissory notes.

On October 25, 2022, AAFAF, on behalf of PFC, and the Oversight Board launched solicitation of the PFC Qualifying Modification. On October 28, 2022, the Oversight Board, as the Title VI Administrative Supervisor, commenced a Title VI proceeding in the U.S. District Court for the District of Puerto Rico.

On December 30, 2022, the Court entered an order approving the PFC Qualifying Modification. On January 12, 2023, the PFC Qualifying Modification became effective. The PFC Bonds and Notes were thus discharged and extinguished. Therefore, since January 2023, PRASA has no outstanding PFC debt or obligations thereunder.

2.1.3.1 Federal Debt Modification

Historically, the Authority has received federal funds for its CIP through loans from the CWSRF and DWSRF—collectively known as the "SRFs"—and bonds or loans under the USDA Rural Development ("USDA-RD") Program.

Federal debt service relief (FY2018 through FY2024)

$292 million

On June 30, 2016, the Authority executed a Forbearance Agreement with the PRDOH and EQB (administrators of the DWSRF and CWSRF, respectively). PRASA also signed a short-term Forbearance Agreement under the USDA-RD Program. The original Forbearance Agreements were subsequently extended on several occasions, allowing for the deferral of payments due from July 2016 through July 2019, subject to certain conditions and partial payments.

On July 26, 2019, the Authority and AAFAF consummated definitive agreements (the "Agreements") that modified the Authority's debt obligations under the SRF and USDA-RD loans, which totaled approximately $1 billion in federal debt. The Agreements were approved by the Oversight Board pursuant to Section 207 of PROMESA on July 3, 2019. The benefits of the Agreements to PRASA and the Government include (i) the reduction of interest rates and extension of the amortization periods, resulting in debt service relief to the Authority of approximately $370 million between FY2020 and FY2030 and $292 million from FY2018-FY2024; (ii) the termination of existing Commonwealth guarantees of the federal debt, thus reducing overall Government contingent liabilities by approximately $1 billion; and (iii) access to new infrastructure project loans from the SRF and USDA-RD Program, including $26 million granted under the SRF program (coupled with increased protection of the interests of the Federal Lenders). The modified federal debt was designated as "Other System Indebtedness" on a parity as to payment with other senior debt under PRASA's MAT.

A summary of the modification to the federal debt terms is summarized in Exhibit 2-1

EXHIBIT 2-1: MODIFICATIONS TO FEDERAL DEBT TERMS

	Prior to debt modification	After debt modification	Projected Impact (FY21-FY31)
SRF			
Balance	$581M	$596M (including new loans)	**$250M**
Amortization term	20 years	30 years	
Interest rate	2%	0% for years 1-10/ 1% thereafter	
Annual debt service	$36M	$10M for years 1-10/ $27M thereafter	
RD			
Balance (incl. accrued interests)	$392M	$392M	**$120M**
Amortization term	40 years	40 years	
Interest rate	4% (average)	2%	
Annual debt service	$24M	$10M for years 1-10/ $17M thereafter	

2.1.3.2 2020 Refunding

On December 17, 2020, the Authority issued its 2020 Senior Bonds in the principal amount of $1,370 million to refund a significant portion of its outstanding 2008 Senior Bonds (excluding the non-callable 2008 Senior Bonds with a principal current balance of $23.8 million that mature on July 1, 2024), and all of the Authority's 2008 Guaranteed Bonds.

2020 Refunding debt service savings (FY2021 through FY2024)

$52 million

The 2020 Senior Bonds bear coupons at rates ranging from 4% to 5% per annum with yields at the time of issuance ranging from 2.5% to 4.5% and maturity dates ranging from July 1, 2021 to July 1, 2047. The issuance of the 2020 Senior Bonds resulted in a reduction in average annual senior debt service of $13 million, total debt service savings to final maturity of approximately $348.2 million (or approximately $213.3 million NPV savings), representing 15% of refunded par amount, and the termination of the Commonwealth guarantee over the Authority's 2008 Guaranteed Bonds, that were payable by the Authority on a basis subordinate to its senior debt.

After the federal debt modification in July 2019 and the issuance of the 2020 Senior Bonds, no Commonwealth Guaranteed Indebtedness remains outstanding.

Furthermore, each purchaser of 2020 Senior Bonds consented, by its purchase and execution of an investor letter, to certain amendments to the MAT, effective upon the receipt of the written consent of the holders of all outstanding senior indebtedness under the MAT, including the Federal Lenders, that will, among other changes, convert the security for the Authority's revenue bonds under the MAT from a gross revenue pledge to a net revenue pledge.

2.1.3.3 2021 Refunding

On August 25, 2021, the Authority issued its 2021 Senior Bonds in a total principal amount of $1,089.8 million and on June 15, 2022, the Authority completed the issuance of its 2022 Senior Bonds in a total principal amount of $565.2 million to refinance in the aggregate all of the Authority's 2012 Series A and B senior revenue bonds.

2021/22 Refunding debt service savings (FY2021 through FY2024)

$67 million

The 2021/2022 Senior Bonds bear interest at rates ranging from 4% to 6% per annum with yields at the time of issuance ranging from 1.17% to 3.75% and maturity dates ranging from July 1, 2022 to July 1, 2047.

The proceeds of the 2021/2022 Senior Bonds were used as follows (in thousands):

Refunded Bonds	Transaction	New Series	Refunding Bonds Par	Closing Date
2012A	Tender of a portion of 2012 Series A senior revenue bonds for cash purchase by Authority	2021A	$92,330	August 25, 2021
2012A	Exchange of a portion of 2012 Series A senior revenue bonds for new senior revenue refunding bonds	2021B	$842,410	August 25, 2021
2012B	Current refunding of 2012 Series B senior revenue bonds	2021C	$155,090	August 25, 2021
Remaining 2012A	Forward delivery current refunding of remaining 2012 Series A senior revenue bonds	2022A	$565,180	June 15, 2022
			$1,655,010	

The issuance of the 2021/2022 Senior Bonds resulted in a reduction of average annual senior debt service of $22 million and total debt service savings to final maturity of approximately $569.7 million (or approximately $361.5 million NPV savings), representing 20% of refunded par amount.

Each purchaser of the 2021/2022 Bonds also consented, by its purchase and execution of an investor letter, to certain amendments to the MAT, effective upon the receipt of the written consent of the holders of all outstanding senior indebtedness under the MAT, including the Federal Lenders, that will, among other changes, convert the security for the Authority's revenue bonds under the MAT from a gross revenue pledge to a net revenue pledge.

2.2 Main Assumptions

The main assumptions underlying the four components of PRASA's financial projections—(i) revenues, (ii) expenses, (iii) CIP, and (iv) financing and debt service—are explained in this Chapter.

PRASA's Pre-Measures Financial Projections presented herein reflect the best estimates of future results based on PRASA's current financial situation, and several assumptions, including the following:

- PRASA's service rates as approved in 2022 and as published on PRASA's website. The Pre-Measures Financial Projections do not include the minimum approved rate adjustment of 2% for future years (to be implemented in FY 2025 and subsequent years);
- Payroll costs adjusted to reflect updated headcount and the new preliminary job classification and compensation plans to allow for (i) alignment with the government CSR, as required by the Oversight Board, (ii) adequate personnel salaries and (iii) resources retention;
- Electricity costs are projected based on the assumptions described in Section 2.4.2;
- Expenses based on FY2024 adjusted projections and the identified needs for FY2025, as adjusted by inflation and non-recurrent expenses thereafter;
- Current contractual debt service takes into account the Federal Debt modification completed on July 26, 2019, as well as the debt refinancing agreements which closed on December 17, 2020 and August 25, 2021 including the forward delivery bonds;
- The Capital Improvement Program, as approved by PRASA's Governing Board on March 15, 2024, increasing by $430 million to gradually fund a reserve for meter replacement and other infrastructure needs, starting in FY2029; and
- Macroeconomic indicators as provided by the Oversight Board on May 2, 2024.

As previously mentioned, the extended projection period results in an increased level of uncertainty of the estimates included herein, as many critical projects are in initial or development stages hindering for proper long-term projections, such as:

a) Impact of the meter replacement project, for which different technologies and equipment are under evaluation and the final decision may impact the financial projections.
b) Revision of the Jobs Classification and Compensation Plan, which is expected to be completed by the end of FY2024 and may materially impact the payroll projected cost.
c) Definition of NRW strategy based on information obtained from the AMI Project.
d) Final impact of CIP investments on future operational costs.
e) Final funding for mitigation projects.

A summary of some specific assumptions used to develop the fifteen-year Pre-Measures Financial Projections are included in Table 2-4.

TABLE 2-4: ASSUMPTIONS SUMMARY TO DEVELOP THE FISCAL PLAN

Revenues	• **Billings:** Residential, Commercial and Government billings are projected based on demographic indicators. Industrial billing is projected based on real GNP macroeconomic indicators. • **Collections Rate:** FY2024 adjusted to reflect actual collections and a 96.5% collections rate is assumed for all regular customers categories during the subsequent years.

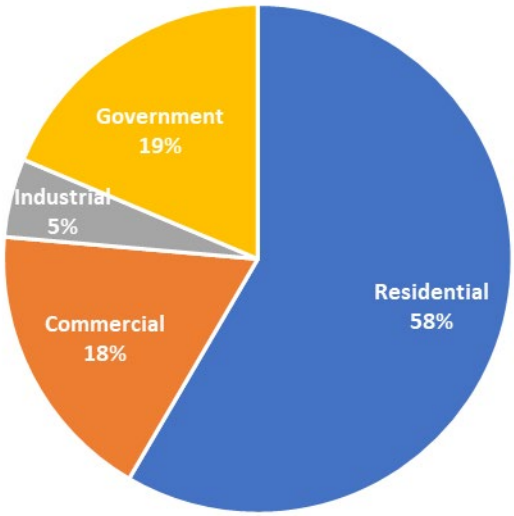
Expenses	• **Payroll and related costs:** Based on average revised cost per FTE, including salary adjustments, and assuming the headcount level will increase from 4,625 in FY2024 to 4,800 by FY2026 to properly operate the Systems. • **Electricity:** Based on FY2024 preliminary consumption projections and electricity rates provided by PREPA's consultants as applicable to PRASA. • **Other expenses:** Projected based on the FY2024 updated projections, the identified needs for FY2025 and subsequently adjusted by projected inflation rate.
Capital Improvement Program	• **Reconstruction and Recovery Projects:** Estimated funding based on FEMA funding obligations (for 90% of the total estimate) to address the impact from the 2017 Hurricanes to PRASA's infrastructure, assuming the 10% match for such projects will be provided by the CDBG-DR Program. • **Compliance Projects:** Based on agreements with USEPA and PRDOH as negotiated or resulting from ongoing negotiations. • **Mitigation and Resiliency:** To harden the infrastructure based on availability of Hazard Mitigation funding. • **Renewal and replacement**: Estimated based on expected needs of the Systems and funding availability.
Contractual Debt Service	• **Debt Service:** Projected based on current debt service as per amortization tables, reflecting the benefit of the Federal Debt modification and the issuance of the 2020 and 2021-2022 Revenue Refunding Bonds.

2.3 Revenues

2.3.1 Customers and Revenue Base

As of December 31, 2023, PRASA had 1,266,756 active accounts, of which over 95% were residential. Residential customers accounted for almost 60% of the Authority's revenues during FY2023. Exhibit 1-2 (included in Chapter 1) provides the breakdown of customers by category. Billings by customer type for FY2023 are presented in Exhibit 2-2.

EXHIBIT 2-2: FY2023 REVENUE BREAKDOWN BY CUSTOMER CATEGORY



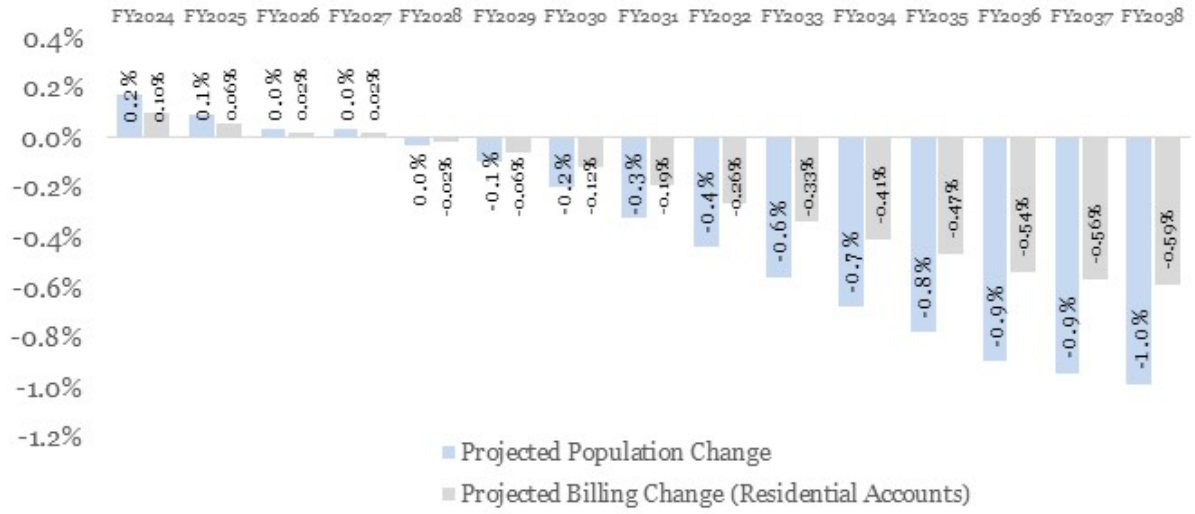
2.3.2 Service Revenue

The Authority's service revenues (base fee and service charges) are derived from water and wastewater service billings and are presented net of current subsidies (i.e., PAN, TANF, ASES and Public Housing). Service revenue projections are based on FY2024's actual and projected billings and based on the simplified rate structure as implemented on July 1, 2022. The minimum annual adjustments already approved by PRASA's Governing Board (by 2% per year for FY2025 and thereafter) are included as a New Measure as further described in Chapter 3.

2.3.2.1 Billing Trend

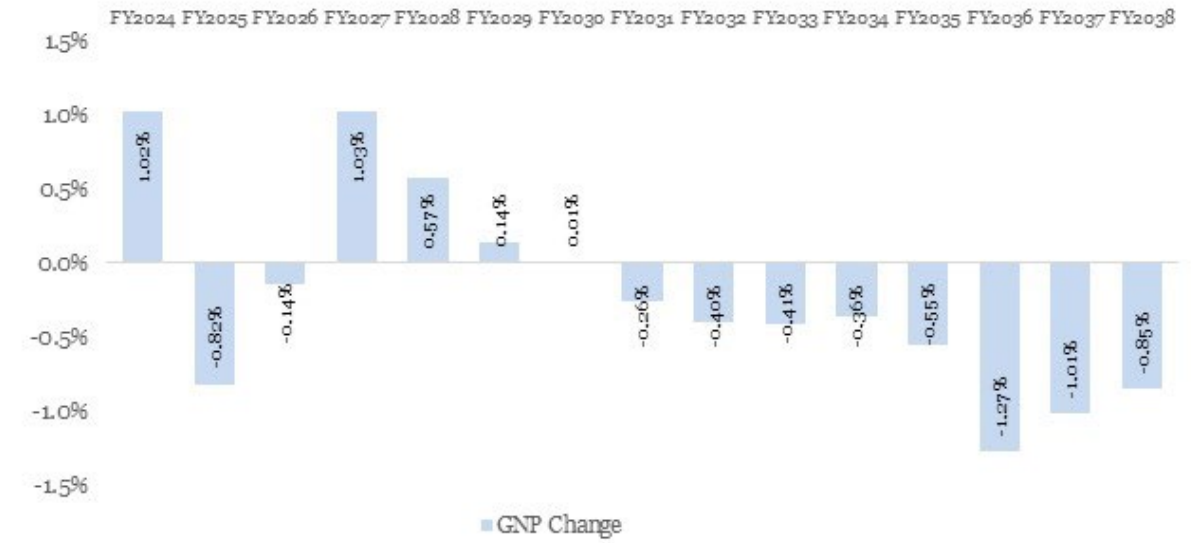
The billing trends for residential, commercial, and government accounts are projected based on expected population changes for Puerto Rico. Exhibit 2-3 illustrates the projected population decline as well as the expected reduction in billings.

EXHIBIT 2-3: POPULATION AND RESIDENTIAL BILLINGS TREND[13]



Billings for Industrial accounts are projected using the real Gross National Product (GNP) forecast as included in Exhibit 2-4.

EXHIBIT 2-4: GNP GROWTH RATES[14]



[13] Based on macroeconomic indicators as provided by the Oversight Board on May 2, 2024.
[14] Ibid.

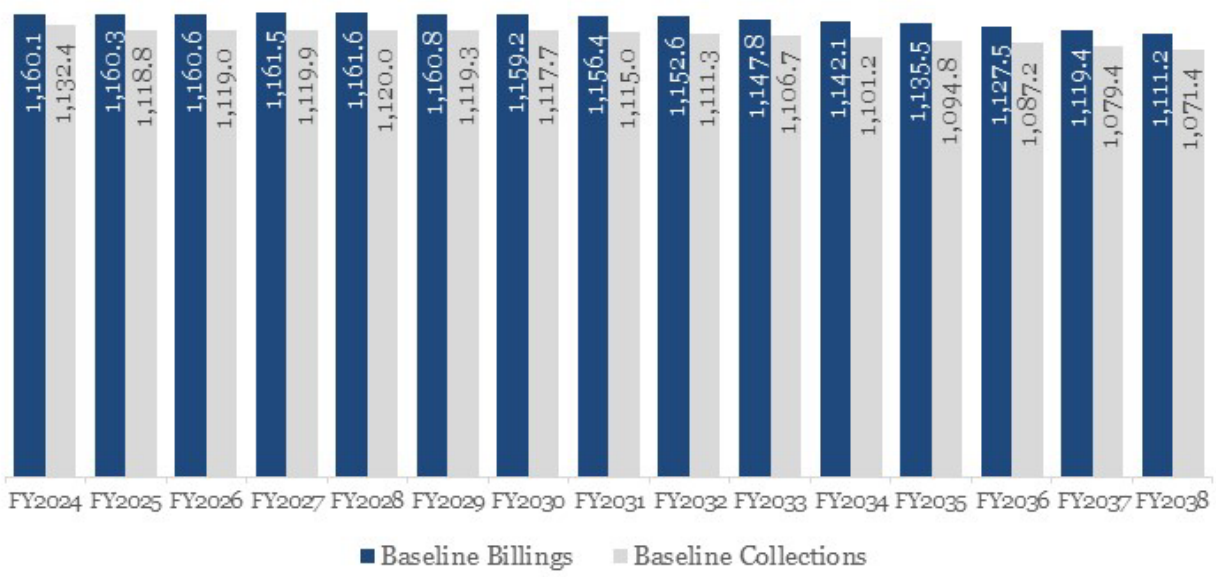
2.3.2.2 Collections Rate

Historically, PRASA's collection rate averaged 96% under ordinary conditions. Situations such as the 2017 Hurricanes, the 2020 Earthquakes and the COVID-19 pandemic resulted in reduced service collections. However, during FY2022 and FY2023, the collection rate returned to levels of over 97%. Therefore, for FY2024 collections are projected at 97.5%, and for subsequent years PRASA projects to maintain the collection rate at 96.5%.

2.3.2.3 Projected Service Revenues

Based on the assumptions set forth above, PRASA's projected service revenue and collections are presented in Exhibit 2-5.

EXHIBIT 2-5: PRE-MEASURES BILLINGS AND COLLECTIONS (IN $ MILLIONS)



2.3.3 Miscellaneous Income

Miscellaneous income includes revenues received mainly from interest income and Developers' Contributions.[15] Based on historical results, miscellaneous income is projected at $4.5 million per year.

2.3.4 Transfers to and from the Rate Stabilization Account

The MAT stipulates the Authority can deposit into the Rate Stabilization Account amounts in its Surplus Fund, after covering all obligations as required under the MAT.

Operating Revenues will include the amounts paid from the Rate Stabilization Account into the Operating Revenue Fund in any fiscal year minus the amounts, if any, paid from the Operating Revenue Fund into the Rate Stabilization Account during the same Fiscal Year.

[15] Fees paid by developers to connect their projects to the Authority's Systems.

The intention of the RSA is to minimize or eliminate the need for rate adjustments to cover temporary needs. As of December 31, 2023, PRASA had $31 million deposited into the RSA. Additionally, PRASA is projecting to deposit an additional $36 million during FY2024 into the RSA. The RSA is projected to be used during fiscal years 2025 and 2026 to cover for the increase in electricity, maintenance and payroll costs while the benefit of the measures proposed in Chapter 3 starts to materialize.

2.3.5 Summary of Projected Pre-Measures Revenues

Table 2-5 summarizes projected pre-measures revenues for the Fiscal Plan Period, presented on a cash basis.

TABLE 2-5: PRE-MEASURES PROJECTED REVENUES (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Service Collections	1,132.4	1,118.8	1,119.0	1,119.9	1,120.0	1,119.3	1,117.7	1,115.0
Transfer (to) RSA	(36.0)	-	-	-	-	-	-	-
Transfer from RSA	-	35.0	32.0	-	-	-	-	-
Miscelaneous Income	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Total Service Revenues	1,100.9	1,158.3	1,155.5	1,124.4	1,124.5	1,123.8	1,122.2	1,119.5

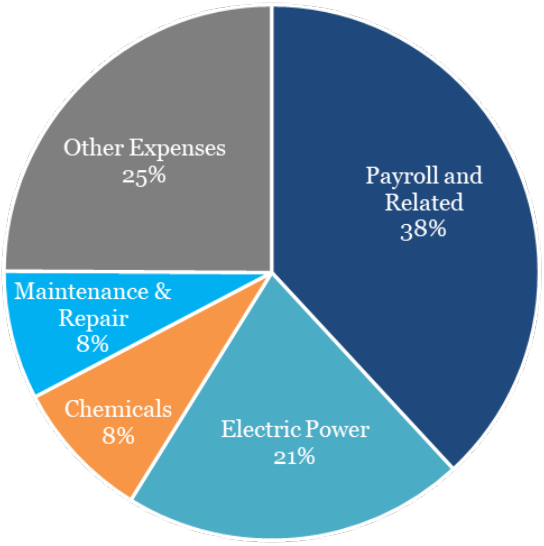
in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Service Collections	1,111.3	1,106.7	1,101.2	1,094.8	1,087.2	1,079.4	1,071.4	16,614.0
Transfer (to) RSA	-	-	-	-	-	-	-	(36.0)
Transfer from RSA	-	-	-	-	-	-	-	67.0
Miscelaneous Income	4.5	4.5	4.5	4.5	4.5	4.5	4.5	67.5
Total Service Revenues	1,115.8	1,111.2	1,105.7	1,099.3	1,091.7	1,083.9	1,075.9	16,712.5

The benefit for projected rate adjustments to be implemented in the future is included in Chapter 3 under Revenue Enhancement Measures.

2.4 Expenses

Approximately two-thirds of PRASA's expenses are made up by payroll and electricity costs. Including the costs of maintenance & repairs, as well as and chemicals, these four cost categories represent approximately 75% of total expenses. Other expenses consist largely of costs directly related to operations, including rentals, security services, insurance, billings and collections related costs, water purchase, sludge disposal, and water transport, among others. Exhibit 2-6 provides the operating expense breakdown by category.

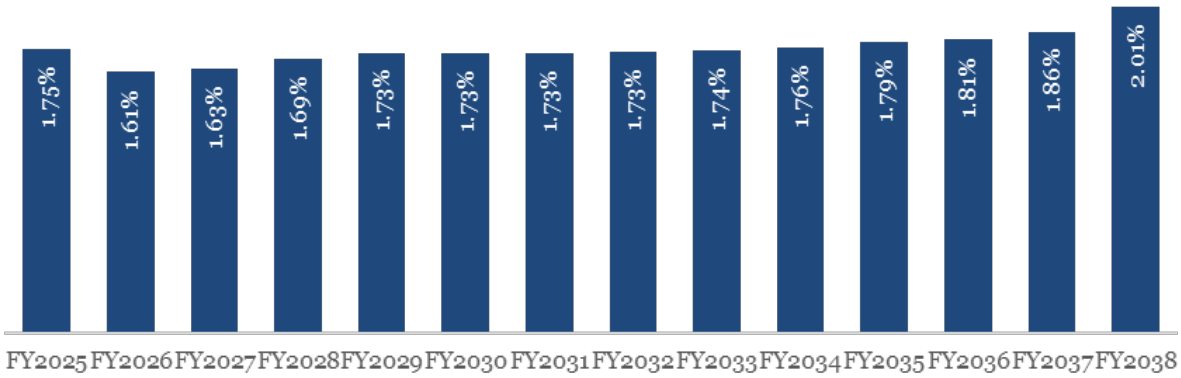
EXHIBIT 2-6: EXPENSE BREAKDOWN BY CATEGORY (FY2024), %



For the Pre-Measures Financial Results, the updated FY2024 projections and the needs identified for FY2025 were used as the baseline for the following years financial projections. Most of the expenses were then increased year-over-year to account for projected inflation and adjusted for non-recurring needs. For payroll and related costs and electricity expenses, different assumptions are applied, illustrated below.

Inflation rates used to project most of the operating expenses are included in Exhibit 2-7.

EXHIBIT 2-7: PROJECTED INFLATION RATE[16]



[16] Based on macroeconomic indicators as provided by the Oversight Board on May 2, 2024.

2.4.1 Payroll and Related Costs

PRASA's largest expense category, representing around 40% of its annual operating budget, is Payroll and Related Costs. This cost category includes direct labor costs and associated benefits, such as healthcare and pension obligations, and is then presented net of capitalized labor costs related to capital projects (estimated at 2.7% of total operational expenses[17]).

The following main assumptions were applied to develop the Payroll and Related Costs projections:

- Headcount of 4,625 employees for FY2024, increasing gradually until reaching 4,800 employees by FY2026.
- Salaries based on current legislation and as projected to increase based on the preliminary updated Job Classification and Compensation Plans.
- Current benefits:
  - Maximum overtime factor of 1.5 times the normal pay
  - Accrual of a maximum of 15 days of vacations and 18 days of sick leave per year, respectively.
  - Healthcare plan. Costs based on proposals received for FY2025, increased by projected healthcare cost inflation thereafter.
- Pension costs paid through "PayGo" based on the projections provided by the Employees Retirement System (ERS).

2.4.2 Electricity

The cost of electricity represents PRASA's second largest expense and is highly sensitive to fluctuations in electricity rates, which are established by the Puerto Rico Energy Bureau (PREB). To illustrate, a ±$0.01 variation in the cost per kWh may represent an impact of over $6 million per year in PRASA's annual operational budget.

The expected cost of electricity purchased from PREPA/LUMA is based on rates applicable to PRASA during the Fiscal Plan Period. For FY 2024, the cost was based on actual rates billed by LUMA as of February 2024. The expected cost of electricity for the remaining months of FY 2024 was based on (i) the rate approved by PREB until March 31, 2024 and (ii) the projected rates for the last quarter of the fiscal year. For subsequent fiscal years the electricity rate was projected applying the following components and assumptions:

a) Base Charge: forecast is based on the 2023 PREPA Fiscal Plan base rate revenue requirement and rates for commercial and industrial customers. For FY2025, the base rate is assumed to be updated from its current level to the higher fiscal plan rate on January 1, 2025. For FY2026 through the end of the forecast period, the base rate is updated every three years, consistent with regulatory cycle for rate review processes.

b) Purchase of fuel (Fuel Cost Adjustment or "FCA"): FCA is projected based on fuel price forecasts from the U.S. Energy Information Administration and an hourly generation dispatch model forecast that is consistent with the PREB approved IRP and Modified Action Plan. These costs are expected to decline in the long run to around 5% in FY2040,

[17] Source: Arcadis, Fiscal Year 2022 Overhead and Capitalization Rate Study dated August 2022.

as PREPA's generation mix shifts from owned and operated fossil-fuel-powered generation to third-party-provided renewable power.

c) Purchase of power (Purchased Power Cost Adjustment or "PPCA"): PPCA is projected using a capacity expansion model and hourly generation dispatch model forecast that is consistent with the PREB approved IRP and Modified Action Plan, and updated contract and market pricing for fuel and renewable power.

d) Contribution in Lieu of Taxes and Subsidy Riders: forecasts are based on LUMA cost projections that incorporate the base rate, FCA and PPCA projections.

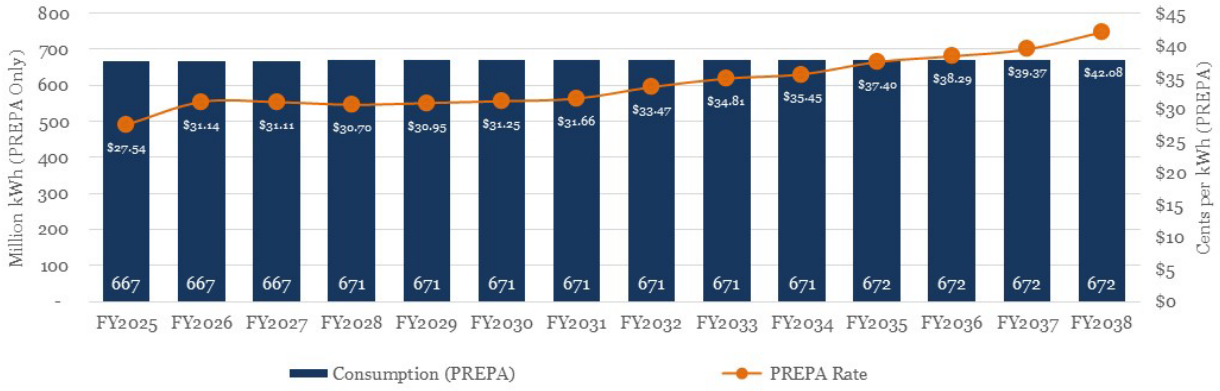
e) Energy Efficiency Rider: cost projections are based on LUMA estimates for annual energy efficiency program costs.

f) Pension Charge: based on projected expenses to fund PAYGO pension benefits and other post-employment benefits for retirees as included in the 2023 PREPA Fiscal Plan and assumed to be implemented in FY2025 starting on October 1, 2024.

g) Debt service charge: projected based on the Legacy Charge structure outlined in PREPA Plan of Adjustment filed in December 2023 with the Title III court and assumed to be implemented in FY2025 starting on December 1, 2024.

Exhibit 2-8 below includes the total projected electricity rates for energy supplied by PREPA/LUMA (based on the assumptions previously discussed) and PRASA's projected annual consumption for such energy supplied by PREPA/LUMA during the Fiscal Plan Period.

EXHIBIT 2-8: PROJECTED ELECTRICITY COSTS AND CONSUMPTION (PRE-MEASURE)



The increase in rates starting in FY2026 reflects the incorporation of additional charges stemming from potential PREPA Title III outcomes to cover legacy debt service and pensions during the 12-months of each fiscal year.

As described in Section 2.1.2.2, PRASA has entered into PPA agreements that set electricity cost at $0.15 per kWh. Currently, PRASA consumes around 10 million kWh per year produced through such PPAs, representing approximately 2% of its total annual energy consumption.

2.1.3 Maintenance and Repair

Maintenance and repair costs represent PRASA's third largest expense category within its operating budget. The maintenance cost includes contracted services for both corrective and preventive maintenance, and incremental costs to comply with the SSOMP requirements by the USEPA. FY2024 and FY2025 costs have been projected based on identified operational needs. For subsequent years, PRASA has included an annual increase for this cost category based on the projected annual inflation rate (see Exhibit 2-7, above) as adjusted by non-recurring expenses.

2.4.3 Chemicals

PRASA's chemical expense has steadily risen since 2015, mainly due to increased chemical costs and consumption to ensure compliance with environmental and health standards.

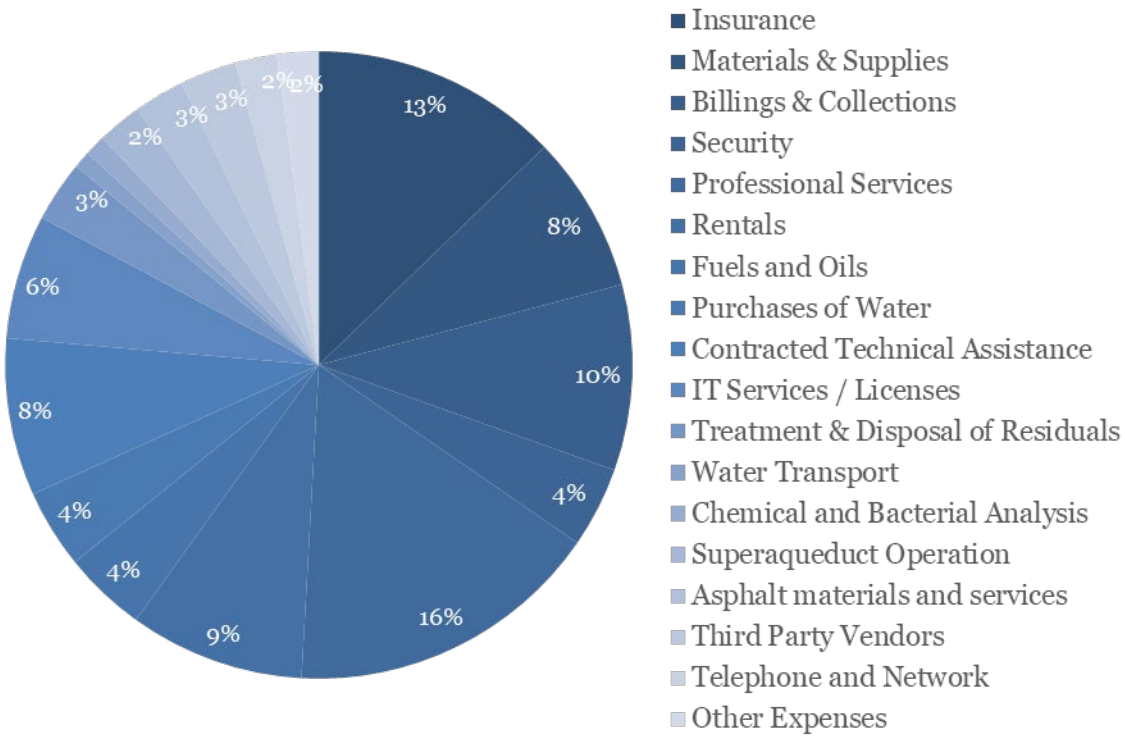
PRASA's chemical expense includes costs for coagulants, flocculants, chlorine, and other chemicals required to properly treat water and wastewater. This expense is projected based on the requirements for treatment and disinfection at PRASA's treatment plants and wells, which is necessary to comply with environmental standards and regulations set by federal and local agencies (e.g., EPA and PRDOH).

PRASA's FY2025 projected chemical cost is based on actual identified needs as a base to project future costs. For subsequent years, the Authority has included an annual increase for this cost category based on the projected inflation rate (see Exhibit 2-7 above).

2.4.4 Other Expenses

This expense category includes all other Operating Expenses, representing around 25% of the total operating budget, which is not covered in the previously discussed categories. This category of "other" Operating Expenses increases over time at the projected inflation rate (see Exhibit 2-7, above). Exhibit 2-9, included below, presents the dispersed nature of the Other Expenses category.

EXHIBIT 2-9: OTHER EXPENSES BREAKDOWN (FY2024 PROJECTION)



2.4.5 Summary of Projected Pre-Measures Expenses

Total operating expenses during the Fiscal Plan Period are summarized in Table 2-6.

TABLE 2-6: PRE-MEASURES PROJECTED EXPENSES (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Payroll and Related	330.1	356.3	363.3	364.9	366.6	369.1	373.6	377.1
Electric Power	163.1	185.4	209.4	209.2	207.7	209.3	211.4	214.1
Chemicals	73.7	76.1	77.4	78.6	80.0	81.3	82.7	84.2
Maintenance & Repair	70.7	88.8	84.3	85.6	87.1	88.6	90.1	91.7
Other Expenses	217.2	219.3	222.9	226.5	230.3	234.3	238.4	242.5
FEMA Reimbursement	(21.4)	(1.0)	-	-	-	-	-	-
Capitalized Expenses	(23.1)	(25.0)	(25.8)	(26.1)	(26.2)	(26.5)	(26.9)	(27.3)
Operating Expenses, Net	810.3	900.0	931.3	938.8	945.4	956.1	969.3	982.3

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Payroll and Related	380.7	383.2	386.9	389.7	392.6	394.6	396.8	5,625.4
Electric Power	226.3	235.3	239.6	252.7	258.7	266.0	284.2	3,372.4
Chemicals	85.6	87.1	88.7	90.2	91.9	93.6	95.5	1,266.7
Maintenance & Repair	93.3	94.9	96.6	98.3	100.1	101.9	104.0	1,376.1
Other Expenses	246.7	251.0	255.4	260.0	264.7	269.6	275.0	3,653.8
FEMA Reimbursement	-	-	-	-	-	-	-	(22.4)
Capitalized Expenses	(27.9)	(28.4)	(28.8)	(29.5)	(29.9)	(30.4)	(31.2)	(413.0)
Operating Expenses, Net	1,004.7	1,023.1	1,038.3	1,061.4	1,078.0	1,095.4	1,124.3	14,858.9

2.5 Capital Improvement Program

One of PRASA's main priorities is the successful and efficient execution of its CIP projects. In the aftermath of the 2017 Hurricanes and the 2020 Earthquakes, and more recently Hurricane Fiona in 2022, a material portion of the CIP was designated for the reconstruction of all critical infrastructure required to achieve compliance with industry standards, protect public health, and the environment. Additionally, the CIP includes projects aimed at meeting mandatory compliance with the 2015 USEPA Consent Decree, as recently amended, and the 2006 Drinking Water Settlement Agreement. The CIP also includes projects to renew and replace aging infrastructure, optimize and simplify the System, and address mitigation, resiliency, and technology modernization projects, among others.

Specific funding matters for CIP reconstruction projects as provided by FEMA are discussed in greater detail in Chapter 4. Given the large number of PRASA's assets eligible for funding, FEMA developed FAASt, an accelerated award strategy, using the cost estimates of a sample of assets to extrapolate the results to the total population of assets. As a result of FAASt, PRASA agreed to a total award of $4.1 billion with a net obligation of $3.66 billion of FEMA funds for the System's recovery. The corresponding cost share of $400 million is expected to be met with CDBG-DR funds, of which $200 million has already been obligated and an additional $200 million is currently under CDBG evaluation. This federal obligation process required a detailed review of the CIP with the objective of maximizing the award by including new projects and consolidating others for the benefit of the System. Additional funds for mitigation and resiliency projects are also expected and incorporated into the financial projections.

The Pre-Measures Financial Results do not include any future bond issuance or external financing for the CIP. Instead, for the baseline projections, the CIP is expected to be financed exclusively through operating revenues and funds from FEMA, ARPA, and CDBG-DR programs. Additional funding from SRF (including BIL and SAHFI funds) and USDA-RD Programs are incorporated under Section 3.1.3 - New Financing for CIP.

2.5.1 CIP Projects Classification and Prioritization

PRASA's CIP projects are classified into the following main categories:

- **Reconstruction & Recovery Projects:** Projects to repair capital infrastructure impacted by the 2017 Hurricanes, 2020 Earthquakes, and 2022 Hurricane Fiona to industry standards and, for the FAASt portion projects to address the impact of the 2017 Hurricanes, based on a workplan submitted to FEMA on April 8, 2021, as subsequently updated every 90-days.
- **Renewal and Replacement (R&R):** Projects aimed at renewing or replacing required infrastructure (e.g., pipelines, pumps, motors, etc.).

- **Compliance (Mandatory/Non-mandatory):** Projects required by agreements—including USEPA Consent Decree, PRDOH Drinking Water Settlement Agreement, civil actions, administrative orders, court orders, and other mandatory projects—or those projects that may result in non-compliance in the future if not addressed.
- **Mitigation and Resiliency:** Mitigation projects aim (i) to reduce risks posed by natural disasters and disaster losses, and (ii) to protect life and property from future disasters. Resiliency projects are planned to create an infrastructure to withstand and adapt to changing conditions and recover promptly from shocks and stresses.
- **Quality:** Projects aimed at increasing the quality of the water and wastewater service provided to customers.
- **Fleet and IT:** Replacement of vehicles in PRASA's fleet and IT infrastructure improvements.
- **Optimization and Emergencies:** Projects to increase efficiency and to address emergency and contingency needs.
- **Safety and Growth:** Projects to allow for System growth and to increase security at PRASA's facilities.

A clear and objective project prioritization process is key to identifying critical projects across the CIP portfolio and ensuring the most important projects are prioritized.

Currently, PRASA's prioritization methodology is focused on mandatory compliance projects. Based on its updated 2024 Master Plan, PRASA expects to develop a prioritization methodology for all projects in PRASA's CIP. The implementation schedule for future long-term projects will then be subject to its prioritization position and funds availability.

2.5.2 CIP Projects Status

By mid-March 2024, PRASA had 292 active projects in different stages for a total investment of $6,928 million as included in Table 2-7.

TABLE 2-7: ACTIVE PROJECTS BY STAGE

Stage	# Projects	Investment ($M)	%
Pre-Planning	2	$ 1,251	18%
Planning	40	1,206	17%
Design	64	2,121	31%
Bidding/Contracting	70	1,018	15%
Construction	72	1,179	17%
Completed	44	153	2%
Total	292	**$ 6,928**	**100%**

2.5.3 CIP Main Projects

Projects included in Table 2-8 are the top ten major projects – based on impact – currently under construction.

TABLE 2-8: MAIN PROJECTS UNDER CONSTRUCTION

Project	Funding Source	Investment ($M)
Rehabilitation of Enrique Ortega WTP	FEMA/ CDBG-DR	$159
Carraízo Dredging	FEMA	110
Rehabilitation of Guayama WWTP	FEMA / CDBG-DR	95
Rehabilitation Camuy Trunk Sewer	FEMA / CDBG-DR	76
Trunk Sewer Patillas-Guayama	CWSRF	47
New Dorado Trunk Sewer	CWSRF	43
Rehabilitation Isabela-Aguada Trunk Sewer	FEMA/CDBG-DR	42
Caguas Laboratory	FEMA/CDBG-DR	40
Rehabilitation Morovis Sur WTP	FEMA 406/ CDBG-DR	39
Rehabilitation Caguas Trunk Sewer	FEMA/CDBG-DR	34

Some of the most impactful projects currently under the design or bidding phases are included in Table 2-9 below.

TABLE 2-9: MAIN PROJECTS UNDER BIDDING OR DESIGN PHASES

Project	Funding Source	Investment ($M)
Meter Replacement	FEMA	$790
Sanitary/Water Distrib System Com. Buena Vista Santurce	ARPA	156
Rehabilitation Superaqueduct WTP	FEMA / CDBG-DR	125
Mayaguez WWTP Improvement	FEMA / CDBG-DR	123
Rehabilitation Sergio Cuevas WTP	FEMA / CDBG-DR	117
Rehabilitation Guaynabo WTP	FEMA/ CDBG-DR	105
Super Aqueduct Microgrid	FEMA 406	98
Carolina WWTP	FEMA / CDBG-DR	82
Rehabilitation Caguas Norte WTP	FEMA/ CDBG-DR	80
Rehabilitation Santa Isabel WWTP	FEMA/ CDBG-DR	75

2.5.4 CIP Projections

The projected CIP spending during the Fiscal Plan Period is included in Table 2-10 below.

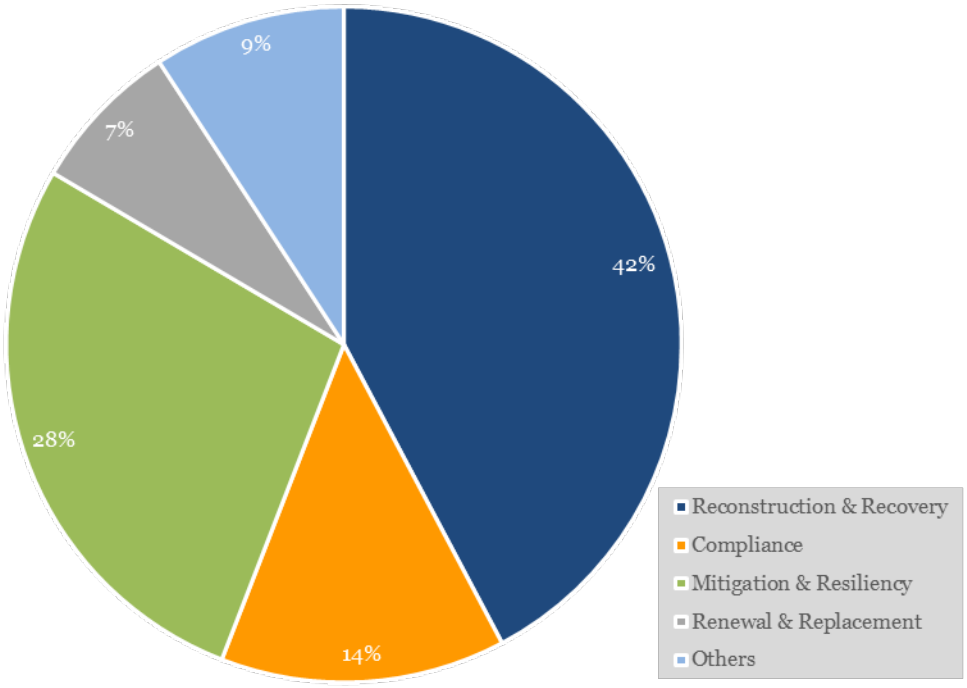
TABLE 2-10: PROJECTED CIP (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Reconstruction & Recovery	239.6	880.7	1,319.4	1,132.9	610.4	220.9	115.6	96.2
Mandatory Compliance	32.3	99.9	169.7	107.8	24.7	8.9	18.7	10.5
Mitigation & Resiliency	18.2	96.3	480.2	846.3	369.2	167.8	102.6	183.9
Electric Generators and Meters	10.7	14.8	2.5	0.7	3.5	35.5	40.5	34.0
Renewal & Replacement	74.9	70.8	43.2	35.0	40.0	40.0	40.0	60.0
Non-Mandatory Compliance	75.8	146.7	266.6	234.2	61.1	24.4	33.3	24.2
Quality	22.1	45.7	67.9	22.0	3.3	2.5	7.8	0.6
Fleet and IT	18.1	11.5	5.0	5.0	8.0	8.0	8.0	8.0
Others	36.0	15.3	26.2	29.8	31.2	30.9	24.3	15.9
Total	527.7	1,381.8	2,380.6	2,413.7	1,151.4	538.8	390.8	433.3

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Reconstruction & Recovery	48.8	23.2	21.7	23.7	11.9	10.6	10.6	4,766.0
Mandatory Compliance	1.8	1.8	12.7	16.3	9.8	8.3	3.5	526.8
Mitigation & Resiliency	390.8	340.9	113.4	2.0	0.2	-	-	3,111.8
Electric Generators and Meters	34.0	34.0	39.0	64.0	64.0	69.0	59.0	505.2
Renewal & Replacement	60.0	60.0	60.0	60.0	60.0	60.0	60.0	823.9
Non-Mandatory Compliance	64.9	40.8	17.3	8.3	5.4	6.6	4.3	1,013.8
Quality	-	-	-	-	-	-	-	171.9
Fleet and IT	8.0	8.0	8.0	8.0	8.0	8.0	8.0	127.6
Others	9.1	3.0	3.0	2.7	2.7	2.7	2.7	235.5
Total	617.4	511.6	275.0	185.1	162.0	165.3	148.1	11,282.6

The total CIP of $11.3 billion includes $430 million to gradually fund a reserve for meter replacement and other infrastructure needs. Exhibit 2-10 illustrates that over 80% of the CIP is related to Reconstruction & Recovery, Mitigation & Resiliency, and Compliance projects (mandatory and non-mandatory).

EXHIBIT 2-10: CIP BREAKDOWN BY CATEGORY (FY2024-FY2038)



For the baseline financial projections included in this Chapter, the CIP is assumed to be fully funded by PRASA's operating revenues and reserves in addition to insurance, FEMA, CDBG and ARPA proceeds.

A summary of the pre-measures projected required sources for the CIP spending over the Fiscal Plan Period is included in Table 2-11 below:

TABLE 2-11: REQUIRED SOURCES FOR CIP (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Beginning Cash Balance Use	93.3	50.5	15.2	4.0	-	-	-	-
FEMA/CDBG DR	274.3	888.7	1,319.5	1,132.3	609.2	215.9	114.2	96.2
Mitigation (404/406/CDBG MIT)	18.5	101.9	493.2	847.2	369.2	167.8	102.6	183.9
ARPA and Other Funds	16.4	60.5	135.5	80.7	14.5	0.0	-	-
DSRF Release	-	44.0	25.0	19.0	-	-	-	-
Operating Revenues	125.2	236.1	392.3	330.5	158.5	155.1	173.9	153.2
Total	527.7	1,381.8	2,380.6	2,413.7	1,151.4	538.8	390.8	433.3

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Beginning Cash Balance Use	-	-	-	-	-	-	-	162.9
FEMA/CDBG DR	48.8	23.2	21.7	23.7	11.9	10.6	10.6	4,800.7
Mitigation (404/406/CDBG MIT)	390.8	340.9	113.4	2.0	0.2	-	-	3,131.5
ARPA and Other Funds	-	-	-	-	-	-	-	307.6
DSRF Release	-	-	-	-	-	-	-	88.0
Operating Revenues	177.8	147.5	139.9	159.4	149.9	154.7	137.5	2,791.7
Total	617.4	511.6	275.0	185.1	162.0	165.3	148.1	11,282.6

Additional sources of funds for the CIP, such as SRF and RD funding, are included as the results of the new measures, as further described in Section 3.1.3 - New Financing for CIP.

PRASA requested from FEMA an increase in the funds committed for PRASA under the FAASt appropriation to cover for the incremental costs of the CIP in light of the cost increases the US and Puerto Rico are experiencing with infrastructure projects and the impact such increases may have on future CIP projections. Based on FEMA responses to PRASA's request and the revised needs of funds for the CIP to be reviewed at least annually, PRASA expects to (i) maximize the use of federal funds, (ii) prioritize its projects, and (iii) determine the need for additional sources of funding. Currently, based on actual costs and the updated CIP, PRASA is not considering the need for additional external sources of funds, but the need will be reevaluated at least, on an annual basis.

2.6 Debt Service and Other Deposits Required Under the Master Agreement of Trust (MAT)

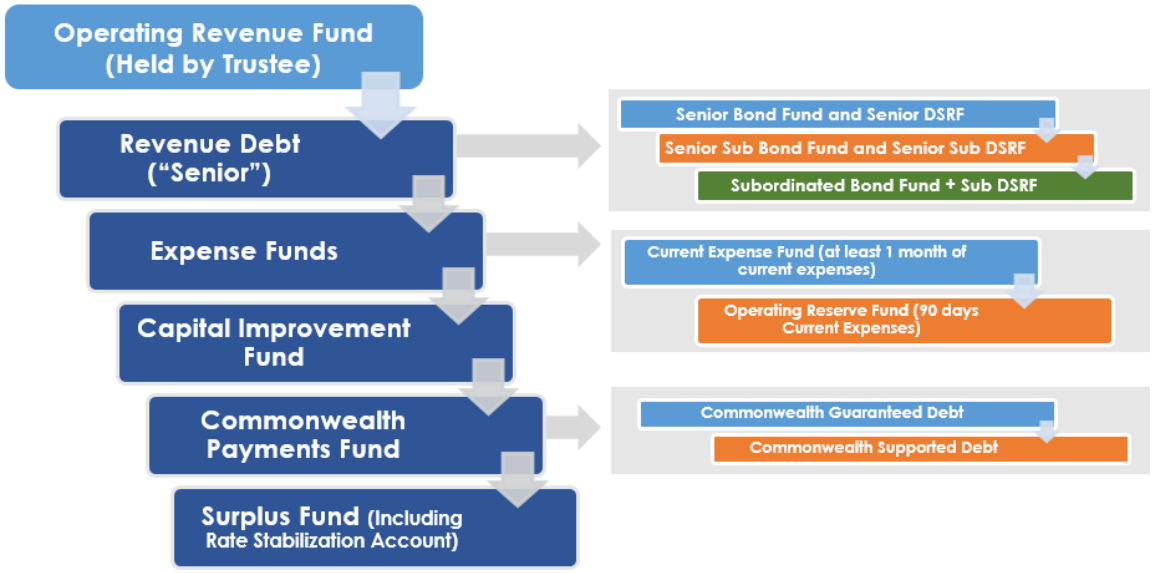
Debt service costs included in the Pre-Measures financial results reflect PRASA's current debt structure and contractual obligations, incorporating the benefits from the Federal Debt modification completed in July 2019, the refunding of a substantial portion of the 2008 Senior Bonds and all of the 2008 Guaranteed Bonds, completed in December 2020, and the refunding of the 2012 Senior Bonds completed in August 2021 and June 2022.

2.6.1 MAT Payment Priorities

The MAT, executed in 2008, as subsequently amended, establishes the way that PRASA's revenues are to be applied to the payment of debts and the lawful priorities for payment thereof, among other things.

The payment priority for the different levels of debt service and other required deposits under the MAT is presented in Exhibit 2-11.

EXHIBIT 2-11: MAT PAYMENT PRIORITIES[18]



The payment priority established by Article V of the MAT is outlined below:

- **Revenue or Senior Debt**: Currently, all of PRASA's debt consists of Senior Debt—including Other System Indebtedness held by the Federal Lenders—which is paid from operating revenues prior to the payment of current expenses.
    - Senior debt service includes payments related to the 2008 Senior Bonds (CABs), 2020 Senior Bonds, 2021/2022 Bonds, and the Federal Debt.
    - The remaining 2008 Senior Bonds outstanding are entitled to the benefits of a Debt Service Reserve Fund that is currently funded in full and is expected to be released on or before July 1, 2024, subject to certain conditions. The remaining senior debt does not have the benefit of a debt service reserve fund.
- **Expense Funds:** Accounts for two funds to cover operating expenses:
    - Current Expense Fund: On a monthly basis, after the payment of debt service, the Trustee deposits in the Current Expense Fund, at PRASA's request, at least one month and up to three months (90 days) worth of current expense needs.
    - Operating Reserve Fund: PRASA is required to maintain an Operating Reserve Fund equal to three months of current expenses. The Operating Reserve Fund is currently fully funded.
- **Capital Improvement Fund:** The amount to be deposited in the Capital Improvement Fund is set forth in PRASA's annual budget and is used to pay for the portion of CIP funded from the Authority's revenues. Under the Pre-Measures Financial Projections, as the total amount required for the CIP (net of FEMA, CDBG and ARPA proceeds) is expected to be funded solely by PRASA's cash balances and operating

[18] Bondholders consented to amend the MAT to change the revenue pledge from a gross revenue pledge to a net revenue pledge, to become effective when and if the holders of all senior indebtedness, including the Federal Lenders, consent to the amendment.

revenues, the requirements are higher than available funds. The benefit of expected additional funds for the CIP from SRF and USDA-RD Programs is included in Chapter 3, under Section 3.1.3, "New financing for CIP" to allow for balanced projections.

- **Commonwealth Payments Fund**: Currently, PRASA has no outstanding balance from debts to be paid from this fund, which are the CGI and CSO.
    - **Commonwealth Guaranteed Indebtedness (CGI)**: CGI is debt issued by PRASA guaranteed by the Commonwealth. After the modification of the Federal Debt and the issuance of the 2020 Senior Bonds that refunded all of the 2008 Revenue Refunding Bonds guaranteed by the Commonwealth, there is no outstanding debt under this category.
    - **Commonwealth Supported Obligations (CSO):** CSO is a portion of the 2011 Series B Bonds issued by PFC in December 2011 to refinance certain outstanding debt related to the construction cost of the North Coast Superaqueduct.

      On January 20, 2022, AAFAF, on behalf of PFC, entered into a Restructuring Support Agreement (the "PFC RSA") with holders of a majority of those certain Series 2011A, Series 2011B, and Series 2012A Commonwealth Appropriation Bonds (the "PFC Bonds"). The PFC RSA provided for a restructuring and discharge of the PFC Bonds under a Title VI Qualifying Modification (the "PFC Qualifying Modification"). The PFC RSA further provided that the Notes, including Notes owed by the Authority, for the repayment of the PFC Bonds would be cancelled and extinguished under the PFC Qualifying Modification and the Authority would be discharged from any liability arising from or related to such promissory notes.

      On October 25, 2022, AAFAF, on behalf of PFC, and the Oversight Board launched solicitation of the PFC Qualifying Modification. On October 28, 2022, the Oversight Board, as the Title VI Administrative Supervisor, commenced a Title VI proceeding in the U.S. District Court for the District of Puerto Rico.

      On December 30, 2022, the District Court entered an order approving the PFC Qualifying Modification. On January 12, 2023, the PFC Qualifying Modification went effective. The PFC Bonds and Notes were thus discharged and extinguished. Therefore, as of January 2023, PRASA does not have any outstanding CSO debt or obligations thereunder.
- **Surplus Fund:** After making all required deposits to the funds set forth above and any other fund required under the terms of the MAT, any excess cash can be deposited into the Surplus Fund to be used at the discretion of PRASA. As part of the Surplus Fund, a Rate Stabilization Account (RSA) can be created to cover any operating needs in the future and minimize the need for rate increases.

In connection with the issuance of the 2020 Senior Bonds and the 2021/2022 Bonds, as further explained in Section 1.3.2, PRASA has proposed certain amendments to the MAT to, among other things, change the current order of payments. The amendment, when and if effective, will result in revenues being applied for the payment of current operating expenses ahead of deposits for debt service on outstanding Senior Debt and Other System Indebtedness. The holders of the 2020 Senior Bonds and the 2021/2022 Bonds have consented to these amendments. The amendments will become effective when and if written consent of all the holders of Senior Debt, including the Federal Lenders, is obtained.

2.6.2 Contractual Debt Service

PRASA's debt as of March 31, 2024, is presented in Table 2-12.

TABLE 2-12: OUTSTANDING LONG-TERM DEBT AS OF MARCH 31, 2024 (IN $ MILLIONS)

In $ Millions	**Mar 31, 2024**
Senior Bonds	
2008 Series A Bonds (CAB)	$ 23.8
2020 Series A Bonds	1,292.2
2020 Series B Bonds	16.1
2021 Series A Bonds	85.3
2021 Series B Bonds	827.5
2021 Series C Bonds	107.1
2022 Series A Bonds	527.7
	2,879.7
Other Senior Indebtedness	
2019 State Revolving Fund Loans	550.7
New State Revolving Fund Loans*	79.4
2019 Rural Development Loans	392.4
	1,022.5
Total Senior Debt	$ 3,902.1

* Since August 2020, the Authority has closed on $291.8 million in new SRF loans. The balance shown reflects amounts drawn down under the new SRF loans as of March 31, 2024.

The Authority's Pre-Measures projected debt service, excluding new SRF funds received after the 2019 debt modification, during the Fiscal Plan Period is included in Table 2-13:

TABLE 2-13: PROJECTED PRE-MEASURES DEBT SERVICE (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Senior Debt	246.5	243.7	246.2	245.0	245.7	245.5	270.2	270.2
Commonweatlh Payment Fund	-	-	-	-	-	-	-	-
Projected Debt Service	246.5	243.7	246.2	245.0	245.7	245.5	270.2	270.2

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Senior Debt	270.2	270.2	270.2	242.3	242.3	242.3	242.4	3,792.6
Commonweatlh Payment Fund	-	-	-	-	-	-	-	-
Projected Debt Service	270.2	270.2	270.2	242.3	242.3	242.3	242.4	3,792.6

2.6.3 *Other Deposits Required by the MAT*

Deposits under the baseline scenario that are projected to fund a portion of PRASA's CIP and to maintain the Operating Reserve Fund balance required under the MAT (varying based on the projected level of operating expenses) are included in Table 2-14:

TABLE 2-14: OTHER DEPOSITS REQUIRED BY THE MAT (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Operating Reserve Fund	5.8	7.7	5.6	-	-	-	0.0	0.8
Capital Improvement Fund	125.2	236.1	392.3	330.5	158.5	155.1	173.9	153.2
Total Other Deposits	131.0	243.8	397.9	330.5	158.5	155.1	174.0	154.1

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Operating Reserve Fund	3.1	2.1	1.2	3.2	1.5	1.6	4.5	37.3
Capital Improvement Fund	177.8	147.5	139.9	159.4	149.9	154.7	137.5	2,791.7
Total Other Deposits	181.0	149.6	141.2	162.6	151.4	156.3	142.0	2,829.0

Projected deposits to the ORF assume that PRASA does not make any withdrawals from such reserve throughout the Fiscal Plan Period. The ORF is projected to be fully funded at the end of each fiscal year during the Fiscal Plan Period.

Deposits to the Capital Improvement Fund reflect the amount required to be deposited in such fund from operating revenues, after using funds available for the CIP and projected federal funds for Reconstruction and Recovery and for Mitigation projects. The deposits are presented prior to considering the projected inflow of additional federal funds for the CIP such as SRF and RD funding.

2.7 Pre-Measures Financial Projections Summary Pre-Measures Financial Projections for FY2025 through FY2038.

Table 2-15 summarizes the major assumptions discussed above and used for the development of the Pre-Measures Financial Projections for FY2025 through FY2038.

TABLE 2-15: PRE-MEASURES FINANCIAL PROJECTIONS ASSUMPTIONS

Revenues	Average Annual Billing Change (Residential)	-0.25%
	Average Collections Rate	96.5%
	Average Annual Rate Increase	2%
CIP	Average Annual CIP (in $'M)	$768
CIP Funding	Operating Revenues, FEMA, CDBG and ARPA	

Expenses	Headcount by FY 2026 and afterwards	4,800
	Average Electricity Cost (cents/kWh)	$ 33.94
	Average Expenses Growth (inflation)	1.76%
	Expense Capitalization Rate	2.70%
Debt Service	Contractual debt as reprogrammed and refunded	

Table 2-16 included below presents a summary of the Pre-Measures Financial Projections for FY2024-FY2038. Total pre-measures projections reflect financial needs on an annual average basis of around $318 million. In majority, it is attributable to CIP needs, assuming no external funding or additional federal funds beyond the forecasted funds for Recovery and Reconstruction projects, including FEMA, CDBG and ARPA.

TABLE 2-16: PRE-MEASURES FINANCIAL PROJECTIONS (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Authority Revenues	1,101	1,158	1,156	1,124	1,124	1,124	1,122	1,120
Senior Debt Service	(246)	(244)	(246)	(245)	(246)	(245)	(270)	(270)
Net Operating Expenses	(810)	(900)	(931)	(939)	(945)	(956)	(969)	(982)
Operating Reserve Fund	(6)	(8)	(6)	-	-	-	(0)	(1)
Capital Improvement Fund	(125)	(236)	(392)	(331)	(158)	(155)	(174)	(153)
Pre-Measures Financial Need	(87)	(229)	(420)	(390)	(225)	(233)	(291)	(287)

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Authority Revenues	1,116	1,111	1,106	1,099	1,092	1,084	1,076	16,712
Senior Debt Service	(270)	(270)	(270)	(242)	(242)	(242)	(242)	(3,793)
Net Operating Expenses	(1,005)	(1,023)	(1,038)	(1,061)	(1,078)	(1,095)	(1,124)	(14,859)
Operating Reserve Fund	(3)	(2)	(1)	(3)	(1)	(2)	(4)	(37)
Capital Improvement Fund	(178)	(148)	(140)	(159)	(150)	(155)	(138)	(2,792)
Pre-Measures Financial Need	(340)	(332)	(344)	(367)	(380)	(410)	(433)	(4,768)

This Fiscal Plan, as further discussed in Chapter 3, identifies several measures, including but not limited to the already approved rate increase for future years and the metering optimization program which are projected to generate additional revenues. Additionally, this Fiscal Plan includes new funding for the CIP and measures to reduce operating expenses, which are expected to eliminate the projected baseline financial need, resulting in balanced projections and ensuring PRASA's financial responsibility, as further explained and detailed in the following Chapter.

3 Fiscal Plan Measures and Post-Measures Financial Projections

One of PRASA's primary financial objectives is to achieve fiscal responsibility while ensuring continued investments in the System. Achieving fiscal responsibility through the elimination of structural deficits and the implementation of the measures set forth herein ensures the Authority has the necessary resources to provide safe, reliable, and affordable water and wastewater services to the people of Puerto Rico. PRASA has already made significant strides toward achieving these goals, completing the following milestones: (i) implementing moderate, annual rate increases since 2018 and a new revised and simplified rate structure implemented on July 1, 2022; (ii) modifying of the terms of the Federal Debt in 2019; (iii) reducing annual debt service through the refunding of a substantial portion of the 2008 Bonds, and all of the 2012 Bonds in 2020 and 2021/2022, respectively; and (iv) securing $3.66 billion in FEMA funds in 2021 for Systems recovery and reconstruction after the 2017 Hurricanes. These improvements in PRASA's financial condition have now paved the way for the Authority to invest additional resources in upgrading key operational areas and its infrastructure.

PRASA is now focusing on investments to ensure delivery of essential public services, including: (i) reducing Non-Revenue Water (NRW) through initiatives to reduce commercial and physical water losses and (ii) investing in critical upgrades to the System with the available federal funding.

This Chapter summarizes a set of measures across categories, such as revenue enhancement, cost savings, and new funding for infrastructure projects. In addition to measures that will contribute to PRASA's fiscal improvement, several enabling measures have been identified that will help improve operational performance and project delivery.

PRASA must implement these measures. If successfully implemented and maintained, the measures outlined in this Chapter will further improve PRASA's financial situation along with its operational performance and capital delivery.

3.1 New Measures Summary

PRASA has identified certain measures to ensure continued progress in PRASA's long-term fiscal condition and to ensure the Authority can continue to provide safe, reliable, and affordable water and wastewater service that the people of Puerto Rico deserve ("New Measures"). Four broad categories of measures are incorporated in the Post-Measures Financial Results:

1. **Revenue Enhancement Measures:** targeting adequate cost recovery levels executed through future rate adjustments and improvements in billing accuracy.
2. **Expense Reduction Measures**: reducing PRASA's overall expenditures through operational optimization, mostly by reducing physical water losses and electricity costs.
3. **New Financing for CIP:** securing additional federal funding to finance the CIP.
4. **Enabling Measures**: enacting measures to facilitate the successful implementation of the Fiscal Plan key measures and to provide for operational sustainability throughout the organization.

A summary of the expected net benefit for each individual measure is included in Table 3-6, at the end of this chapter.

3.1.1 Revenue Enhancement Measures

PRASA is pursuing two major measures directed at increasing revenues:

- **Rate Adjustments**: the new simplified rate structure provides for a minimum annual adjustment of 2% with a maximum annual cap of 5%, subject to actual projected needs. These moderate adjustments are consistent with standard utility practices to allow PRASA to increase revenues to meet rising operational costs, while ensuring the people of Puerto Rico can afford the cost of water and wastewater services provided by PRASA.
- **Metering and Customer Service Optimization**: replacing old meters with modern, accurate and reliable meters, addressing theft, improving data quality, and improving customer experience and satisfaction, and ultimately reducing commercial water losses.

3.1.1.1 Rate Structure Simplification and Adjustments

Best practices in the water sector[19] suggest that through the implementation of moderate annual rate increases, water utilities should be able to stabilize their service revenues and be better positioned to deliver capital projects.

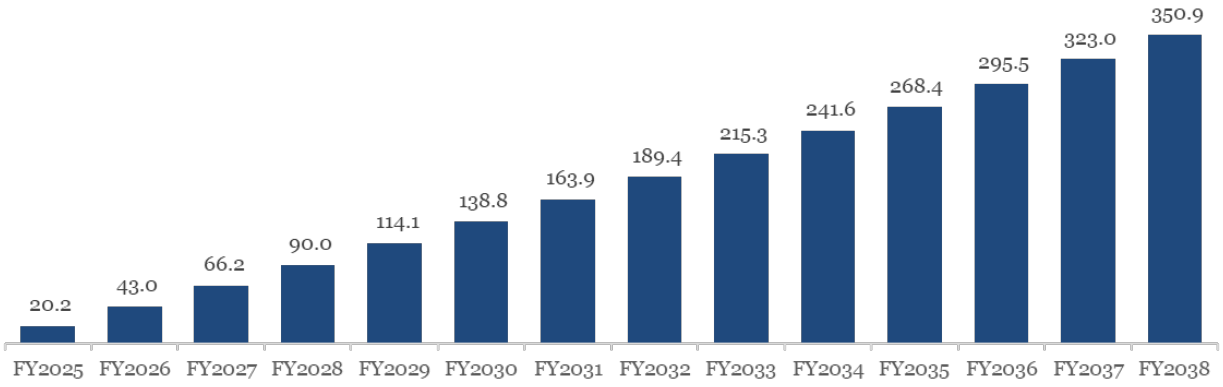
On July 1, 2022, PRASA implemented a new simplified rate structure which incorporated minimum annual adjustments for subsequent years. For FY2024 and beyond, PRASA is projecting 2% annual rate adjustments across all customer segments. The new rate structure provides for a minimum of 2%, however the rate may be adjusted up to a maximum of 5% per year, subject to actual needs, with a cumulative rate increase cap of 30%. The scope and magnitude of future rate adjustments will therefore be dynamic and guided by PRASA's fiscal needs to finance its operations and capital requirements, as well to comply with the reserves required by the MAT. These rate adjustments are not only necessary for PRASA to balance budgets and keep up with rising operating costs but are also critical to maintain sufficient liquidity for PRASA to fund its CIP, as described in Section 2.5.

As a result of the new, minimum rate adjustments, PRASA should have sufficient funding to meet all of its current obligations (operational & deposits), while deploying capital as projected for its CIP work schedule and maintaining healthy levels of cash reserves.

The accumulated projected impact of future rate increases is illustrated in Exhibit 3-1.

[19] For best practices, PRASA consults the study on rate increases by water and wastewater utilities of 37 of the top 50 U.S. cities as conducted by Bluefield Research in August of 2021.

EXHIBIT 3-1: RATE ADJUSTMENT PROJECTED BENEFITS (IN $ MILLIONS)



The following table outlines the key future action items for successful and timely delivery of this measure.

EXHIBIT 3-2: ACTION PLAN FOR RATE ADJUSTMENT MEASURE

Action Item	Deadline	Owner
Review of actual need for FY2025	31-May-24	Finance
Implementation of applicable Rate Adjustment	1-Jul-24	VP of Strategic Planning
Provide status to the Oversight Board on the analysis to assess financial needs for FY2026	31-May-25	Finance

3.1.1.2 Metering Optimization

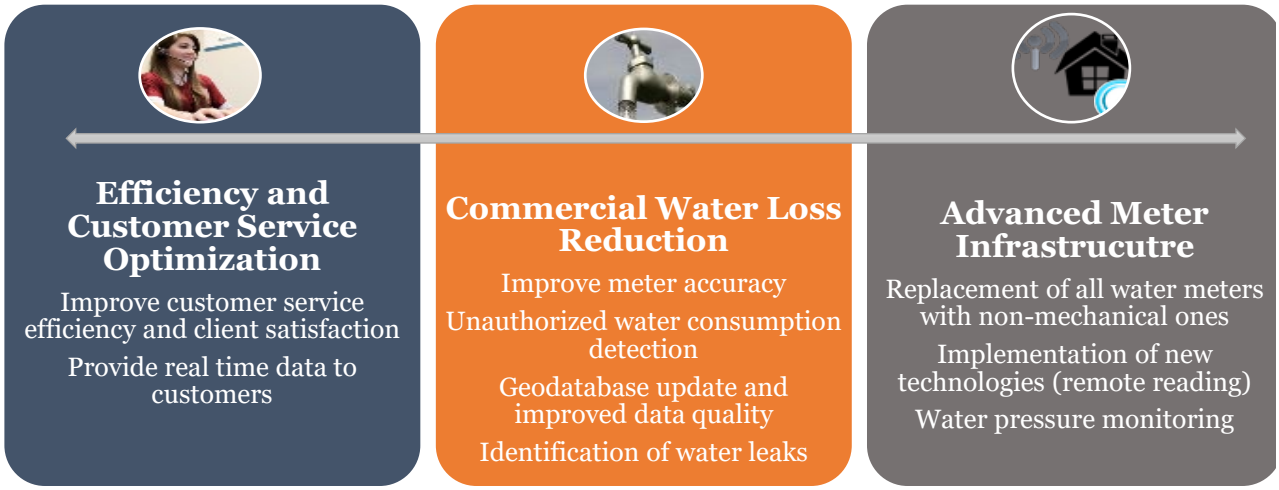
With respect to NRW reduction the major potential and recovery opportunity is to reduce commercial water losses which will also result in improving customer experience and satisfaction through an Advanced Metering Infrastructure project (the "AMI Project").

The AMI Project aims to (i) install new, non-mechanical meters in order to implement real-time smart meter technologies, (ii) identify physical water loss sources and implement plans to decrease commercial water losses, and (iii) improve customer service operation and efficiency.

Replacing mechanical meters with ultrasonic technology provides multiple benefits for PRASA. Ultrasonic meters do not require a filter, are not affected by water quality or wear and tear over the years and provide accurate readings for the life of the equipment, which is estimated to be 20 years. The Advanced Metering Infrastructure (AMI) will complement the new meters by enabling remote reading capabilities and providing real-time water flow information, allowing PRASA to anticipate potential breakdowns and dispatch maintenance crews promptly.

The main objectives of this measure for PRASA are summarized in Exhibit 3-3.

EXHIBIT 3-3: GOALS FOR METERING & CUSTOMER SERVICE OPTIMIZATION MEASURE



In summary, the AMI Project is expected to (i) improve meter accuracy and precision and therefore increase revenues, (ii) increase the detection and remediation of unauthorized water consumption, and (iii) improve customer service by allowing for remote reading, which will enable PRASA to focus resources on NRW loss reduction.

By increasing the accuracy of water meters, PRASA will be able to transition away from estimated commercial losses and achieve a greater level of precision in its measurements. Moreover, by reducing the uncertainty of the System's apparent losses (commercial losses), PRASA will be able to recover revenues lost to theft (especially in active accounts) and unmetered usage, as well as determine with greater accuracy the volume of actual physical water losses. Ultimately, through this measure, PRASA will be able to appropriately plan its CIP needs and intelligently address the renewal and replacement of its linear (pipe) assets to reduce physical losses.

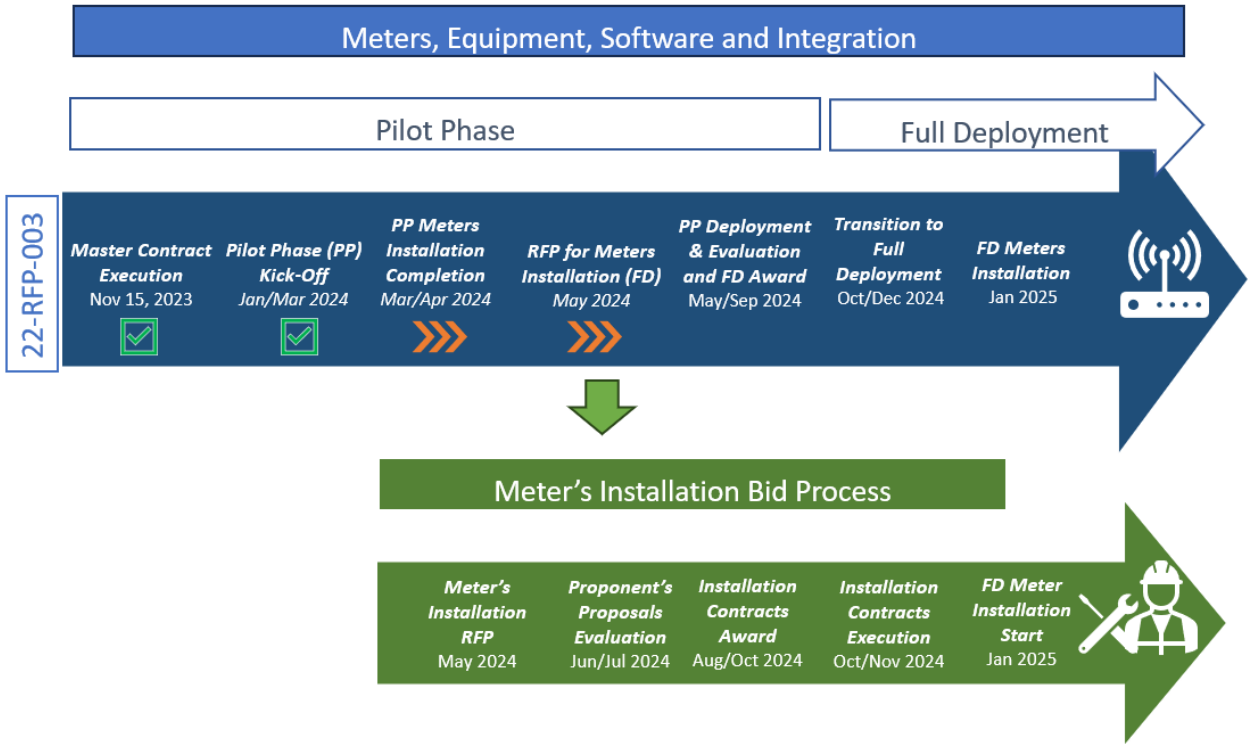
On January 4, 2022, PRASA, with the support of its technical advisor for this project, published an RFP for water meters and advanced metering infrastructure (AMI). Master Contracts were executed on November 15, 2023, with the two selected proponents for the pilot phase (the "Pilot Phase"), which is currently under development.

As a first step, the metering pilot projects will be completed, including the installation of approximately 3,000 meters (with different diameters of up to 2") by the selected proponents. The results of the pilot projects will be evaluated and used to award the selection of the type of water meters and data gathering technology that will be deployed across the island. The Master Contracts will be used, among other things, to purchase water meters, and meter reading technology, to implement integration measures, and to secure specialized services for the island-wide meter replacement program for the full deployment phase. The contractors for the water meter installation services after the Pilot Phase will be selected separately.

As presented in Exhibit 3-4, the pilot projects are expected to be completed by July 2024, with the transition to full deployment expected to commence thereafter. After the pilot completion and prior to the commencement of full island-wide smart meter deployment and installation, PRASA will work to ensure its infrastructure, including communications and warehouses, are ready for integration between the selected proponent of the Advanced Meter Infrastructure ("AMI) system, PRASA's SAP ISU (billing system), and applicable PRASA information systems.

The full deployment phase is expected to have a duration of approximately 5 to 7 years.

EXHIBIT 3-4: METER REPLACEMENT PROCUREMENT TIMELINE



During the Pilot Phase the proponents should complete the Integration and the Network Design for the project to be presented and approved by PRASA.

The Integration Design should establish the exchange of data between the selected proponent AMI system, and PRASA's billing system and other applicable information systems. The Integration Design, which shall be PRASA's property, will include, at a minimum, an overall system integration framework, functional and technical requirements for all integrations, identification of all software components, implementation approach and timelines, dependencies, maintenance requirements, resources required, level of effort, and cost to implement the integrations.

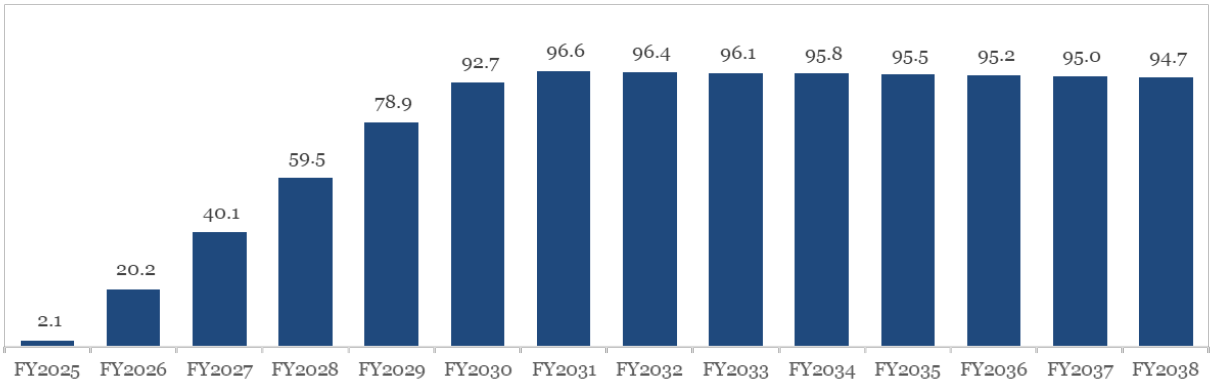
The Network Design will involve a technical assessment of the data collection equipment needed for the Island-wide deployment stating key design parameters. This network design will include a final island-wide propagation study and network design for the full deployment as a deliverable during the Pilot Phase. The network design will also establish the performance criteria for the system and the associated system acceptance testing to be performed throughout the full deployment.

A Full Deployment Implementation Plan should be agreed on its content no later than twenty (20) days from completion of the Pilot Phase and before awarding the Full Deployment Phase. The Full Deployment Implementation Plan for the selected proponent shall be revised at least annually or more frequently as may be agreed by the Parties in good faith, and may include, but not be limited to, demand forecast for delivery of goods (which forecast may be revised on a 12-month rolling basis), inventories to be maintained by PRASA, on-going installation planning, schedules for training, network deployment and integration, and related services. The Full Deployment

Implementation Plan shall also take into account the necessary steps and actions to implement the Network Design and Integration Design as approved by PRASA during the Pilot Phase.

Exhibit 3-5 illustrates the projected impact of this measure.

EXHIBIT 3-5: METERING OPTIMIZATION BENEFITS (IN $ MILLIONS)



On April 11, 2024, FEMA announced the award of $790 million for the AMI Project, with a federal portion of $711 million and a required state match of $79 million. The obligation of the funds will protect and modernize PRASA's infrastructure, but it also will protect the federal investment, as mitigation works add resiliency against future events. The allocation includes nearly $580 million in HMGP funding to replace all meters, to avoid the risks associated with partial infrastructure repair, including their AMI infrastructure.

The proposed Action Plan for this measure is included in Exhibit 3-6.

EXHIBIT 3-6: ACTION PLAN FOR METERING OPTIMIZATION MEASURE

Action Item	Deadline	Owner
RFP for Meter Installation Publication	31-May-24	Infrastructure
Network and Integration Design	31-May-24	Selected Proponents
Pilot Phase Completion	31-Jul-24	Selected Proponents
Report to the Oversight Board the Full Deployment Implementation Plan	31-Aug-24	Selected Proponents
Pilot deployment evaluation and acceptance	30-Sep-24	VP of Strategic Planning / Technical Advisor
Conclusion of Pilot Evaluation and Proponent Selection for Full Deployment	31-Oct-24	VP of Strategic Planning / Technical Advisor
Meter installation contract award	30-Nov-24	VP of Strategic Planning / Legal

Transition to Full Deployment Completion	31-Dec-24	PRASA / Selected Proponents
Integration Implementation - AMI and SAP ISU (Phase I)	15-Jan-25	Awarded Proponent and PRASA IT Department
Network Implementation (Phase I)	15-Jan-25	Awarded Proponent
Meter Installation Start (Full Deployment)	15-Jan-25*	Selected Proponents

(*) Date dependent on "Full Deployment Implementation Plan" approval and/or lead time for meters and equipment required for the Full Deployment Phase.

3.1.2 Expense Reduction Measures

PRASA is pursuing the following measures to reduce operating expenses:

1. **Electricity expense reduction:** analyzing alternate energy options and implementing new renewable energy and off-grid projects.
2. **Physical water loss reduction:** reducing physical water loss through leaks reduction, pressure management, and maximizing the benefits of key information provided by the AMI Project.

3.1.2.1 Electricity Expense Reduction

The electricity expense is PRASA's third largest operating cost. Given unpredictable and often rising energy prices, PRASA identified measures to improve efficiency and implement alternate sources of energy.

As explained in Section 2.1.2, PRASA has already implemented energy conservation measures throughout its facilities reducing its annual electricity consumption by over 10% or approximately 80 million kWh.

PRASA is now focusing on projects or alternatives to reduce the unit cost per kWh through additional renewable/alternate energy projects maximizing the availability of federal funds.

These projects will be evaluated and ranked on a case-by-case basis taking into account: (i) the most convenient economic performance, (ii) viability, (iii) purpose (savings vs. resiliency), (iv) PRASA's prior experience with different technologies, (v) applicable regulatory framework and other requirements and limitations (such as PREPA/LUMA requirements and/or PREB regulations), (vi) the all-in life cycle cost of the project (which must be lower than the avoided utility electricity cost), and (vii) the financing source (with priority given to projects qualifying for available reconstruction funds or other federal grants).

Based on the funding availability and project status, this Certified Fiscal Plan expects the following four microgrid projects will be implemented and will be financed with hazard mitigation funds (FEMA-HMGP 406)

1. Superaqueduct raw water pump station: The project consists of implementing a microgrid for the raw water pumping station, with an annual energy consumption of approximately 60 million kWh, or approximately 10% of PRASA's yearly consumption. This pumping station would operate totally off-grid and would be powered by liquid natural gas and photovoltaic energy as the main energy source combined with BESS. This project would

increase resiliency for one of PRASA's main facilities, which pumps 100MGDs to one of PRASA's main water filtration plants that processes 20% of the island's total water production. The project is expected to be operational starting in FY2029.

2. Superaqueduct WTP: Project for the implementation of a microgrid at the Superaqueduct Water Treatment Plant, with a current annual energy consumption of approximately 2.2 million kWh. This microgrid will be powered by photovoltaic energy (existing PPA photovoltaic system plus additional photovoltaic panels) combined with BESS. This microgrid project is expected to be operational starting in FY2029.
3. Santa Isabel WWTP: Project for the implementation of a microgrid at the Santa Isabel Wastewater Treatment Plant, with an annual energy consumption of approximately 3 million kWh powered by photovoltaic energy combined with a BESS and, eventually, wind power (if viable). The project is expected to be operational starting in FY2030.
4. Maunabo WWTP and WWPS: Assumes the implementation of a microgrid at the Maunabo Wastewater Treatment Plan that will be converted to a Wastewater Pump Station with an estimated annual energy consumption of 0.3 million kWh. This microgrid would be powered by photovoltaic energy combined with BESS and is expected to be operational starting in FY2029.

Based on the projected costs for operating and maintaining these four microgrids and assuming they are funded with mitigation funds, the resulting costs per kWh for such projects is estimated to range between $16 and $24 cents per kWh for the initial years, increased by inflation afterwards. The total capital cost for the 4 projects listed above is estimated at around $125 million and will result in an additional 10% of PRASA's energy being produced by natural gas combined with renewable energy.

The actual electricity cost savings produced by these measures will largely depend on the funding availability, the cost of electricity supplied by PREPA/LUMA, the implementation timing, and the regulatory framework (for instance, impact of the new net-metering framework to be defined by PREB in the future).

Based on current projected electricity rates, the financial impact of the measure described herein is illustrated in Exhibit 3-7.

EXHIBIT 3-7: PROJECTED ELECTRICITY EXPENSE REDUCTION (IN $ MILLIONS)

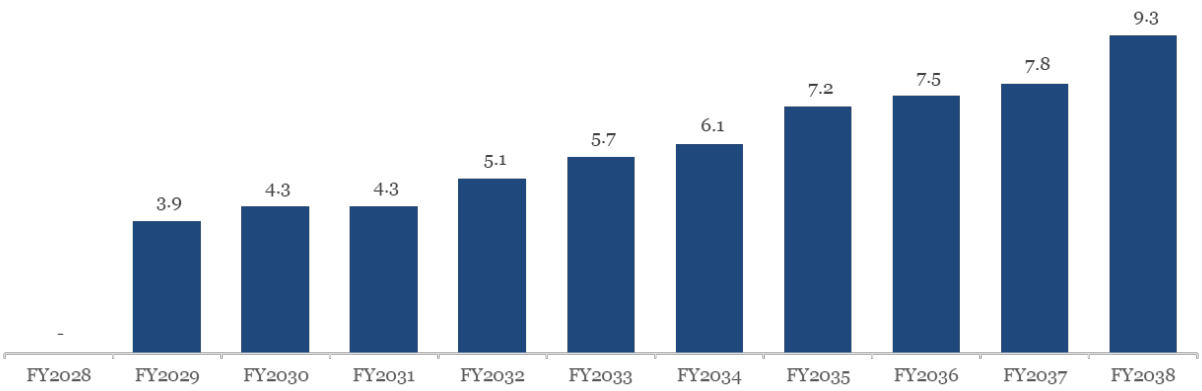


Exhibit 3-8 outlines the required key action items for successful and timely delivery of this measure.

EXHIBIT 3-8: ACTION PLAN FOR ELECTRICITY EXPENSE REDUCTION MEASURE

Action Item	Deadline	Owner
Present to the Oversight Board the deployment plan for energy projects based on the 2024 Master Plan guidance	30-Sep-24	Infrastructure
Superaqueduct, Maunabo and Santa Isabel microgrid projects design completion	30-Apr-25	Infrastructure
Superaqueduct, Maunabo and Santa Isabel microgrid projects bidding process completion and award	31-Dec-25	Infrastructure
Superaqueduct and Maunabo microgrid projects completion	1-Jul-2028	Infrastructure
Santa Isabel microgrid Project completion	1-Jul-2029	Infrastructure

The 2024 Master Plan, as further described in Section 3.2.1, identified additional efficiency and renewable/alternate energy projects. Based on such guidelines, funding availability and projects priorities, PRASA expects to reach a production of one third of its consumption from renewable/alternate energy sources in 28 sites already identified. To reach this level of energy source diversification, including resiliency through grid-tied projects with off-grid capability in case of outage, a total investment of around $1 billion (including the 4 projects underway) is required. Subject to funding availability PRASA will continue implementing additional microgrid projects during the following years.

3.1.2.2 Physical Water Loss Reduction

High levels of physical water losses continue to be one of PRASA's major challenges. Physical losses are due to leaks and breaks throughout the water system which fail to deliver the water to the customer. By addressing physical water losses, PRASA can adjust water production requirements and water pressure throughout its system, thus reducing the strain on its infrastructure and lowering water treatment costs such as electricity and chemical expenditures as a benefit of treating less water. These actions would also potentially reduce the amount of water extracted from the environment, benefiting the preservation of broader water resources of the Island.

The three components of leakage include (1) reported, (2) unreported, and (3) background leakage. Reported leakage is the type which surfaces and is identified and called in to the utility for isolation and repair. Unreported is the type which does not surface, yet is detectable using existing leak finding technology such as acoustic listening equipment (which PRASA owns and utilizes). The third type is background leakage, which is the very small weeps and seeps that occur at joints and connections and is undetectable using acoustic listening technology.

The only way to reduce or eliminate background leakage is through pressure reduction or pipeline replacement. PRASA implemented several practices to reduce real losses, including a Pressure Management program, which reduces the amount of volume that leaks through the existing unreported and background leaks that exist, and an active Leak Detection program that searches unreported leaks to isolate and repair them. These practices have a measurable impact on reducing leakage and improving service to PRASA's customers.

In addition to the Visualization and Hydraulic Control Center (VHCC) further explained below, the Certified Fiscal Plan introduces a new factor impacting PRASA's water losses. This new factor is the **Natural Rate of Rise of Leakage (NRRL)**, that can be described as the rate at which unreported leakage increases with time because of pipe deterioration and environmental effects. The NRRL is not necessarily linear, as it can vary based on seasonal temperature changes, water pressure transients, land movement, and other impacts, such as ground movements from subsurface groundwater and climate events, and other impacts[20]. Therefore, as the WRO is actively reducing leakage, there is additional leakage increasing elsewhere in the distribution system.

The NRRL in PRASA's system is currently unknown. Presumably, it is very high, as the NRW level has not gone down materially even though PRASA made extensive efforts to reduce NRW over the last 30 years. This is probably due to a combination of the factors listed above that affect the NRRL, including the hurricanes and earthquakes suffered in Puerto Rico. Due to the differences in system configuration throughout the Island, the NRRL probably varies across the System. This NRRL is conflicting with the WRO's efforts to reduce production. Nevertheless, the WRO is succeeding at reducing leakage year after year. In fact, the NRW level would be much higher than it is, and as a result production would be much higher without the continued efforts of the WRO.

Based on this concept and the advice of an external expert on NRW, water production reduction is not directly impacted by water losses recovered through this initiative and therefore should not be the KPI and goal of the WRO. Rather, the goal should be continued reduction of NRW, and the NRW components, such as leakage, through specific efforts like pressure management and leak detection. Therefore, the approach and KPIs for physical water losses were updated in this Fiscal Plan based on the advice from an external independent expert in this area.

3.1.2.2.1 NRW Plan

The Water Recovery Office (WRO) is responsible for designing and implementing the strategies to reduce NRW. Specifically, WRO oversees the developing and execution of initiatives that mitigate the Real or Physical loss portion of the Water Balance Audit.

The initiatives are designed based on the four pillars for Physical Water loss management as established by the American Water Works Associations (AWWA):

- Pressure Management
- Active Leakage Control
- Infrastructure Management
- Speed & Quality of Repairs

PRASA's WRO is responsible for guiding the Authority's three programs to identify and reduce physical water losses through the following key measures:

1. **Master Meters**: accurately measuring water production by the installation, calibration and maintenance of water meters at critical water treatment facilities;
2. **Pressure Management**: incorporating pressure management best practices across the distribution network addressing pressure zones optimization and tanks overflow; and

[20] American Water Works Association. 2016. *Manual of Water Supply Practices – M36. Water Audits and Water Loss Control Programs. 4th Edition*. Denver, Colorado, USA.

3. **Leak Detection and Reduction**: improving identification, prioritization, and resolution of unreported leaks across PRASA's System.

Leaks are the system's "natural way" to control pressure. A new leak can easily appear after a previous one is repaired. Leaks are a continuous and recurring reality for any water system that must be addressed on a consistent basis. As such, the key to maintaining a low NRRL is to maintain adequate levels of pressure by permanently installing Pressure Reducing Valves (PRV) throughout the system. Leakage is directly dependent on pressure. The higher the pressure, the higher the leakage throughout the system. To control pressure and thus lower the NRRL, the system needs to be divided into smaller areas or District Metering Areas (DMAs). Chances of finding unreported leaks increase within an enclosed and controlled DMA, where flow, pressure, and frequency of leakage can be permanently measured. This will be possible once the AMI projects start providing information on consumption and water pressures throughout the island and its comparison with water production for such areas.

PRASA has already succeeded in applying the traditional method of acoustic leak detection and repair. The WRO success rate for such methods increased in the past 2 years to 70% if compared with satellite technology approach with stands for 30% accuracy. But the levels of NRW require additional measures to be implemented such as the VHCC and the AMI Project, both currently underway.

The NRW Plan is now oriented to activities that complement the Pressure Management water loss control pillar, and go beyond the traditional leaks detection and reduction efforts with the introduction of the VHCC. The VHCC serves as a holistic solution to operate in both a reactive and proactive environment regarding "where the water goes". The NRW Plan will provide the WRO with tools to:

1. Find leaks, support traditional leak activities by creating opportunities to establish new and more precise Point of Interest (POI).
2. Control leak levels by monitoring them through DMAs, vDMAs, and PMA.
3. Reduce production by evaluating the potable water system's behavior to ensure a proper measurable and real distribution pattern without the ability to react to network changes.

In principle, the estimated recovered water resulting from WRO efforts, will eventually result in a water production reduction. However, since water production levels are affected by multiple variables, it is assumed that the ratio between water recovered, and production reduction is not 1:1.

3.1.2.2.1.1 Master Meters Program

The validation, calibration, or replacement of the meters at water treatment plants and wells (master meters) enables PRASA to obtain accurate information on water production for evaluating and adjusting the System's performance and performing water balance calculations.

The goal of this program is to increase the percentage of the Authority's water production that is accurately and reliably measured. As of January 31, 2024, the program replaced or validated/calibrated 181 master meters at 146 facilities measuring around 93.5% of the total potable water throughout the Water System. Currently, the master meters are providing reliable and valuable information on real water production. This is a key

component to define the amount of water losses more accurately and consequently, identify reduction opportunities.

The WRO will continue with the efforts of getting to 100% of visualization of master meters by FY2027.

A total of 35 additional master meters are expected to be installed and/or calibrated from FY2025 to FY2027 to increase the actual production measured to 100%.

3.1.2.2.1.2 Pressure Management Program

Pressure management is one of the most basic and effective tools available to address total water losses. Lowering the water pressure within the System promotes a healthy infrastructure, extends physical life expectancy of the distribution lines, reduces leakages, and thereby minimizes water production requirements. Therefore, implementing a robust pressure management program is an essential effort to significantly reduce water losses.

Most of the pressure zones on the Island are designed to operate with a focus on minimum pressure requirements and not maximum pressure limits. This results in numerous areas operating with higher than optimal pressure. In an effort to align operational approaches with the execution of the pressure management initiative, the WRO has been working on defining NRW Pressure Zones (NRWPZ).

This program spearheads and unifies all physical water loss recovery efforts while PRASA continues identifying adjustment opportunities throughout pressure zones in conjunction with the operational regions.

WRO will pay special attention to the valves along the system, creating an inventory of all valves within the Island including their condition, exact location, among other parameters. While doing the inventory, the telemetry needs for each valve will be identified to be gradually included in the VHCC visualization and modelling.

PRASA already identified 45 potential pressure zones on which to focus its pressure monitoring efforts and adjust pressure zones. The WRO will keep visiting and monitoring the adjusted pressure zones that are required to achieve the MGD reduction goals under this initiative as presented in Exhibit 3-12 below.

From FY2025 to FY2038 PRASA expects to visit approximately 90 pressure zones each year to determine additional areas of improvement.

Visualization and Hydraulic Control Center (VHCC)

To identify and address areas of opportunity, during the upcoming years, WRO will focus on implementing virtual hydraulic modeling and visualization using software for modeling, simulation, and predictive analyses. Further, this solution centralizes infrastructure asset visibility to optimize capital and operational expense. The final goal is to develop the WRO Visualization and Hydraulic Control Center (VHCC). The center will provide insights by comparing pressure and flow levels seamlessly through the System benefitting all the WRO initiatives.

In summary, the VHCC will allow PRASA to systematically identify potential areas of water losses across the system and proactively address them without the need for increasing production. The goal is to challenge the operational water system's behavior based on automated predictive analysis. PRASA recently implemented an initiative to visualize and document tank overflows throughout the regions to create awareness through the organization.

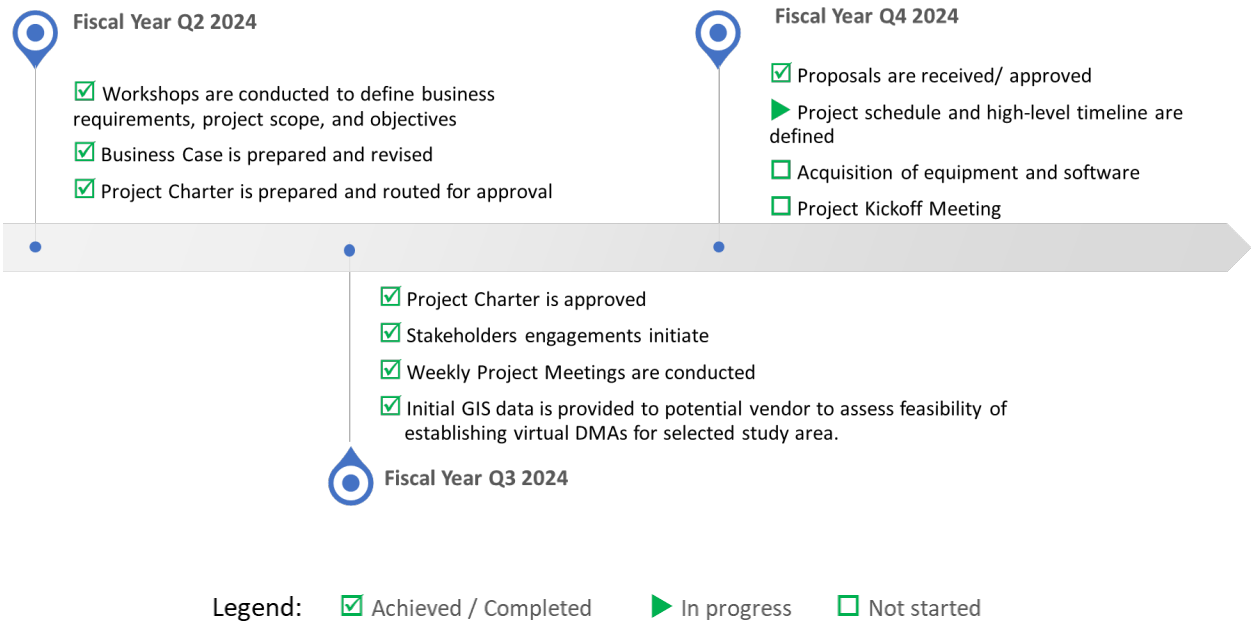
The VHCC will provide real-time data of changes in pressures and/or flow within the measured pressure zones. By analyzing the delta (changes) obtained from pressure or flow, potential unreported leaks can be identified in a proactive manner, thus, improving field team efficiency.

The VHCC will establish a basic layer of events response and customized alarms based on predefined parameters providing information for proactive leak detection and for possible production reduction adjustments. Also, the VHCC will simulate the operation of the real network, thus helping to optimize the current system operations.

Through VHCC the system will be divided into smaller areas, and it will facilitate the visualization of several hydraulic scenarios consisting of flow level and pressure to understand water behavior within a specific sector. By comparing the analysis with the hydraulic modelling of the sector, leakage occurrence can be predicted and measured. With the information, PRASA will create more precise points of interest (POI) and effectively repair the leaks. Afterwards, the system can be measured to find if the leakage level was reduced.

The VHCC can eventually be used for controlling the elements within the pressure zones with the objective to mitigate the risk of line bursting or just controlling the flow during low-consumption hours. However, initially, it will serve as a visualization tool that will serve to virtually model scenarios with possible adjustments to physical components that in turn, will serve as guidelines for the field teams to physically make the proper changes. The steps taken by the Authority regarding VHCC aiming to start the project by the end of FY2024 are included in Exhibit 3-9.

EXHIBIT 3-9: VHCC PROJECT STATUS

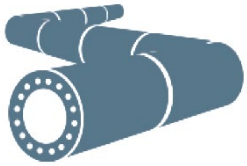


Moving forward, the first step of the VHCC is to develop the implementation plan to start the installation of components through the selected pressure zones by the end of calendar year 2024. This is a long-term project that will take several years to its complete implementation.

3.1.2.2.1.3 Leak Reduction Program

Water leaks are one of the main reasons for physical water losses. Leaks can occur in transmission or distribution lines, tanks, and service connections up to the customer meter. An active leak detection program paired with prompt repair is an essential component for lowering and controlling NRW levels.

PRASA has service contracts with external contractors to identify leaks and prioritize underground infrastructure repairs and replacements. Moreover, PRASA has specialized equipment used to support this initiative, not only to identify existing unreported leaks, but for emergency responses to effectively identify affected distribution pipelines. The WRO is responsible for collecting field data on leak occurrences and guiding regional teams to make repairs.



For the past years, WRO has been working proactively to identify unreported hidden leaks throughout PRASA's five (5) regions. Each year brings more recovered water than the previous one. WRO will continue to identify leaks throughout the regions using field brigades' personnel. However, with the implementation of the VHCC, the system will provide real time flow or pressure variance information throughout the system and thus, proactively identify areas of interest, which in turn the field brigades will reduce to a Point of Interest ("POI"), and finally pinpoint the exact unreported hidden leak location.

Once the VHCC is deployed, the hydraulic displays, combined with flow and pressure data, will indicate locations or control points where acoustic detection (sound loggers) should be installed at fixed locations. During FY2025, WRO is planning to execute a proof of concept (POC) with the intent of investing in sound loggers by FY2027.

3.1.2.2.2 Physical Water Loss Reduction Projected Financial Impact

The projected savings and costs of the physical water loss initiatives is included in the following Table 3-1.

TABLE 3-1: PROJECTED BENEFITS AND COSTS (IN $'THOUSANDS)

In $'Thousands	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Benefit / Cost Savings							
Pressure Management	$ 30.7	$ 61.6	$ 115.9	$ 155.0	$ 194.5	$ 234.2	$ 274.2
Leak Detection	210.2	421.8	793.8	1,062.1	1,332.2	1,604.3	1,878.2
Total Savings	240.9	483.4	909.6	1,217.1	1,526.7	1,838.5	2,152.4
Incremental Costs							
Master Meter	-	-	-	-	-	-	-
Pressure Management	(469.2)	(531.3)	(533.3)	(535.4)	(537.4)	(539.5)	(541.6)
Leak Detection	(3.0)	(105.0)	(105.0)	(105.0)	(106.0)	(106.0)	(106.0)
Total Incremental Costs	(472.2)	(636.3)	(638.3)	(640.4)	(643.4)	(645.5)	(647.6)
Net Benefit Initiative	**$ (231)**	**$ (153)**	**$ 271**	**$ 577**	**$ 883**	**$1,193**	**$ 1,505**

In $'Thousands	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	Total
Benefit / Cost Savings								
Pressure Management	$ 314.4	$ 355.0	$ 395.8	$ 436.8	$ 478.2	$ 519.8	$ 561.7	$ 363.2
Leak Detection	2,154.0	2,431.6	2,711.1	2,992.4	3,275.7	3,560.7	3,847.7	2,487.9
Total Savings	2,468.4	2,786.6	3,106.9	3,429.3	3,753.8	4,080.5	4,409.4	2,851.0
Incremental Costs								
Master Meter	-	-	-	-	-	-	-	-
Pressure Management	(543.6)	(545.7)	(547.7)	(549.8)	(551.8)	(553.9)	(555.9)	(7,536.1)
Leak Detection	(106.0)	(107.0)	(107.0)	(107.0)	(107.0)	(107.0)	(107.0)	(1,384.0)
Total Incremental Costs	(649.6)	(652.7)	(654.7)	(656.8)	(658.8)	(660.9)	(662.9)	(8,920.1)
Net Benefit Initiative	**$1,819**	**$2,134**	**$2,452**	**$2,773**	**$3,095**	**$3,420**	**$3,746**	**$ 23,483**

All three initiatives were designed following the guidelines set forth by the AWWA which require continuous efforts through Leak Detection and Pressure Management to proactively identify water losses, correct them, and maintain adjustments to the System.

During the Certified Fiscal Plan Period an investment of $18 million in equipment, sound loggers, valves, sensors, and other hydraulic components is projected to provide the WRO with more tools, technology, and knowledge to keep improving current results.

Considering the benefit of each initiative under the WRO and the AMI projects, PRASA expects to reduce its NRW by 55 MGDs, or approximately 10% of the water production.

The chart included under Exhibit 3-10, presents the expected behavior on water loss reduction and increase in revenue water through FY2038. These projections may change materially, subject to the progress of the WRO initiatives, and the final impact of the AMI project in water consumption.

EXHIBIT 3-10: WATER LOSS AND NRW PROJECTIONS (IN MGDS)

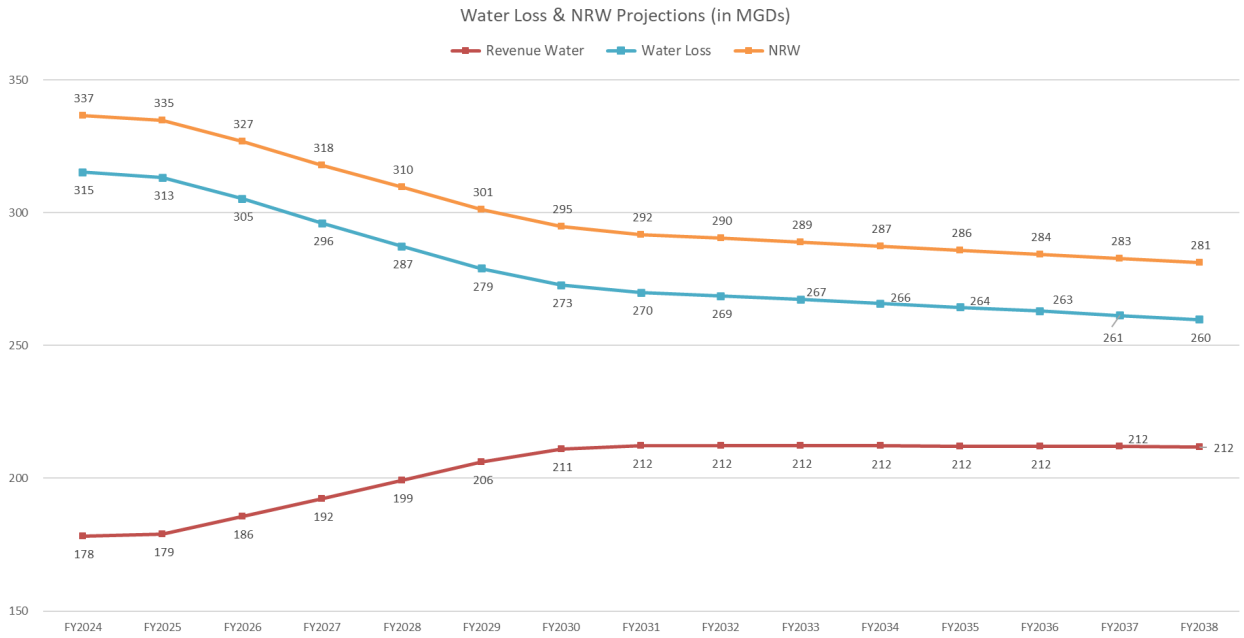
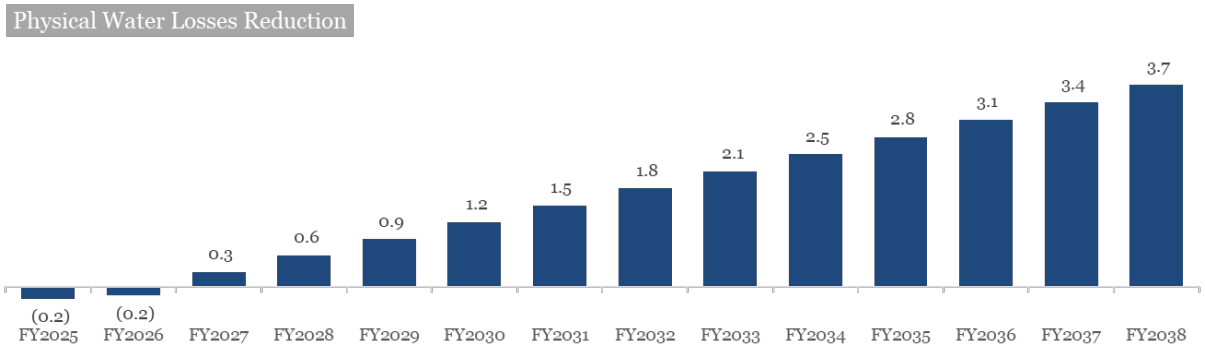


Exhibit 3-11 illustrates the total estimated financial impact from this measure during the Fiscal Plan Period. Depending on the unit cost of chemicals and electricity, total projected savings by FY2038 are estimated to be up to $3.7 million per year, net of the measure's costs.

EXHIBIT 3-11: PHYSICAL WATER LOSS REDUCTION PROJECTED NET IMPACT (IN $ MILLIONS)



3.1.2.2.3 NRW Investment

In addition to the costs of the WRO operation and investment on equipment, PRASA incorporated in its CIP over $350 million to replace over water pipelines and additional system improvements to reduce water pressure and tanks overflow. In addition, around $25 million of its annual renewal and replacement projects address pipeline replacements, for an estimated projected investment of an additional $375 million during the Certified Fiscal Plan Period.

In summary, adding the $725 million for improvements to the distribution system, (addressing physical losses) and the $790 million for meter replacement (addressing commercial losses), PRASA expects to invest a material amount of funds for NRW related projects.

3.1.2.2.4 Milestones and Action plan

To effectively implement these NRW reduction measures, PRASA established specific goals for each fiscal year, which are summarized in Exhibit 3-12. Chapter 6 of this Fiscal Plan includes a list of KPIs applicable to this initiative to ensure completion of the goals on a timely basis.

EXHIBIT 3-12: GOALS FOR PHYSICAL WATER LOSS MEASURE

	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Master Meters (MM):							
Installed / Calibrated Meter by year	7	20	8	0	0	0	0
Additional Production Measured (in MGD)	10	10	9	0	0	0	0
Measured Production (Accum %)	96.2%	98.1%	100.0%	100.0%	100.0%	100.0%	100.0%
Pressure Management (PM):							
New Pressure Zones Visits	83	83	84	85	85	86	86
Projected MGDs Recovery	1.9	1.9	1.9	1.9	2.0	2.0	2.0
Leak Detection (LD):							
Potential Annual Mile Coverage (miles)	988	988	988	988	988	988	988
Estimated Annual Leaks	272	274	276	277	279	281	283

	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038
Pressure Management (PM):							
New Pressure Zones Visits	87	87	88	89	89	90	90
Projected MGDs Recovery	2.0	2.0	2.0	2.0	2.1	2.1	2.1
Leak Detection (LD):							
Potential Annual Mile Coverage (miles)	988	988	988	988	988	988	988
Estimated Annual Leaks	285	287	289	291	293	295	297

Exhibit 3-13 lays out the actions required for timely and effective delivery of the overall NRW reduction measure.

EXHIBIT 3-13: ACTION PLAN FOR PHYSICAL WATER LOSS REDUCTION MEASURE

Action Item	Deadline	Owner
Define pressure zones to be optimized and monitored during FY2025	31-Jul-24	WRO
Complete a plan to achieve the leak detection goal for FY2025	31-Jul-24	WRO
FY2024 Water Balance Submission to FOMB	31-Oct-24	WRO

Report to the Oversight Board the VHCC Implementation Plan	31-Dec-24	WRO
Complete Master Meters calibration and installation goal for FY2025	30-Jun-25	WRO

3.1.3 New Financing for CIP

In addition to the funds obligated by FEMA, CDBG-DR, and ARPA, PRASA expects to obtain new financing for CIP from SRF and USDA-RD Programs.

After the modification of the Federal Debt, PRASA recovered access to new funding from SRF and USDA-RD Programs. Table 3-2 describes the two federal funding programs.

TABLE 3-2: FEDERAL FUNDING PROGRAMS

Program	Description
State Revolving Funds (SRF) Loans	• Annual grants from USEPA of around $25 million from DWSRF and CWSRF Programs. • Commonwealth match of 20% of annual grants provided by PRDOH and PRDNER. • Repayment Funds not committed may also be available through the assignment of new loans for qualifying projects without a state match requirement. • Additionally, BIL and SAHFI will grant new funding for water and wastewater infrastructure projects as further described in Chapter 4.
Rural Development (RD) Program	• Based on qualifying projects, annual allocations for Puerto Rico are expected. • The funds are expected to be assigned through grants and loans.

As further detailed in Section 4.5, new funding was assigned recently under the BIL Act and the Consolidated Appropriations Act of 2023 to improve water and wastewater infrastructure in Puerto Rico, most of which is expected to be assigned for PRASA's projects. Table 3-3 presents the total available funds under these two appropriations and the estimated annual amount of the allocation.

TABLE 3-3: BIL AND SAHFI FUNDS (IN $'MILLIONS)

Program	Funding	Category	Approx Annual Appropriation	Total Expected Appropriation
Bipartisan Infrastructure Law (BIL)	Emerging Contaminants	100% grant	7.5	37.5
	Lead (DW)	49% grant/51% loan	28.0	140.0
	Supplemental CW	49% grant/51% loan	40.0	170.0
	Supplemental DW	49% grant/51% loan	13.0	40.0
Supplemental Appropriation for Hurricanes Fiona and Ian (SAHFI)	Supplemental CW	Grants/Loan Forgiveness/Negative Interest Loans		333.0
	Supplemental DW			222.0
TOTAL BIL / SAHFI				**$ 942.5**

PRASA's opportunities for funding are limited to the cost of qualifying projects and capped at Puerto Rico's share of the funds available through these programs.

The new funds are projected net of the expected debt service for the loan portion of such funds, calculated assuming 30-year loans at 1% for the SRF Program and 40-year loans at 4% for the USDA-RD Program. Table 3-4 presents the expected federal funding and corresponding costs during the Fiscal Plan Period.

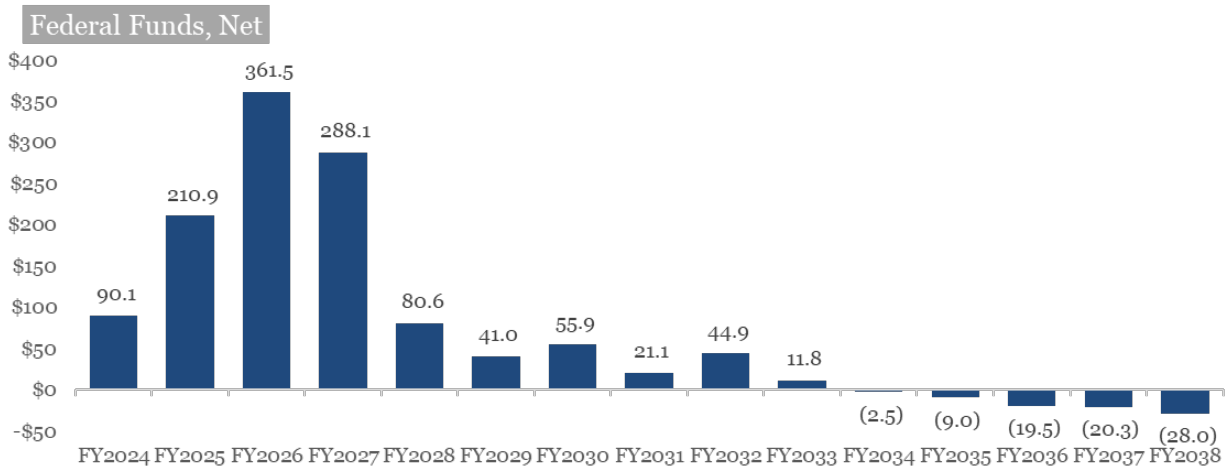
TABLE 3-4: EXPECTED FEDERAL FUNDING AND COST (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
SRF Funds	90.9	206.0	349.0	296.5	102.8	65.0	76.1	42.0
RD Funds	1.8	10.7	24.8	11.0	1.0	0.5	5.3	6.5
SRF DS	(2.6)	(5.4)	(11.0)	(17.3)	(20.8)	(22.0)	(22.9)	(24.5)
RD DS	(0.0)	(0.4)	(1.3)	(2.2)	(2.5)	(2.5)	(2.6)	(2.9)
New Federal Funds, Net	90.1	210.9	361.5	288.1	80.6	41.0	55.9	21.1

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
SRF Funds	69.9	42.6	30.0	24.7	15.2	15.0	7.8	1,433.4
RD Funds	3.2	0.0	-	-	-	-	-	64.8
SRF DS	(25.0)	(27.5)	(29.2)	(30.4)	(31.4)	(32.0)	(32.6)	(334.6)
RD DS	(3.2)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(3.3)	(37.1)
New Federal Funds, Net	44.9	11.8	(2.5)	(9.0)	(19.5)	(20.3)	(28.0)	1,126.4

A total of $1.5 billion of additional SRF and RD funds are projected to be received during the Fiscal Plan Period with a net impact after debt service, when applicable, of $1.1 billion as presented in Exhibit 3-14.

EXHIBIT 3-14: NET IMPACT OF PROJECTED NEW FEDERAL FUNDS MEASURE (IN $ MILLIONS)



The projections included herein may change based on the projects and progress of federally funded capital improvements and annual funding appropriations and availability.

Exhibit 3-15 outlines the key action items for successful and timely delivery of this measure.

EXHIBIT 3-15: ACTION PLAN FOR NEW FINANCING FOR CIP

Action Item	Deadline	Owner
Execute Financial Assistance Agreement for new CWSRF funds – FY2022 Appropriations	31-Jul-24	Finance
Execute Financial Assistance Agreement for new DWSRF funds – FY2022 Appropriations	31-Mar-25	Finance
Execute Loan Agreements for USDA RD funds (as needed)	TBD	Finance

3.2 Enabling Measures

Beyond the measures discussed above, PRASA is developing additional measures with the goal of achieving organizational optimization, ensuring CIP delivery, and allowing the successful and timely implementation of the initiatives included in this Fiscal Plan. The enabling measures are listed below:

- **2024 Master Plan**: providing a long-term roadmap to transform PRASA's System, making it simpler, safer, more operationally efficient, and sustainable.
- **Asset Management**: effectively managing assets and the implementing best practices for asset maintenance.
- **Chemical Expense Stabilization**: conducting an independent assessment of the current challenges, risks, and opportunities within chemical consumption. Identify a remediation plan to optimize chemical-related expenditures.
- **CIP Delivery:** revitalizing infrastructure, executing capital projects on-time and on-budget, while leveraging Federal funding for recovery and reconstruction projects stemming from the 2017 Hurricanes, as well as from the approved funding to address the coronavirus pandemic (CARES and ARPA), Hurricane Fiona in 2022, and aging water and wastewater system infrastructure (BIL Act and SAHFI).
- **Organization Optimization and Efficiency:** optimizing organization through proper staffing, increasing efficiency, and motivating and retaining valuable, and high performing resources.
- **Procurement Best Practices:** adopting regulations that ensure a transparent competitive process for the acquisition of goods, works, and non-professional services.

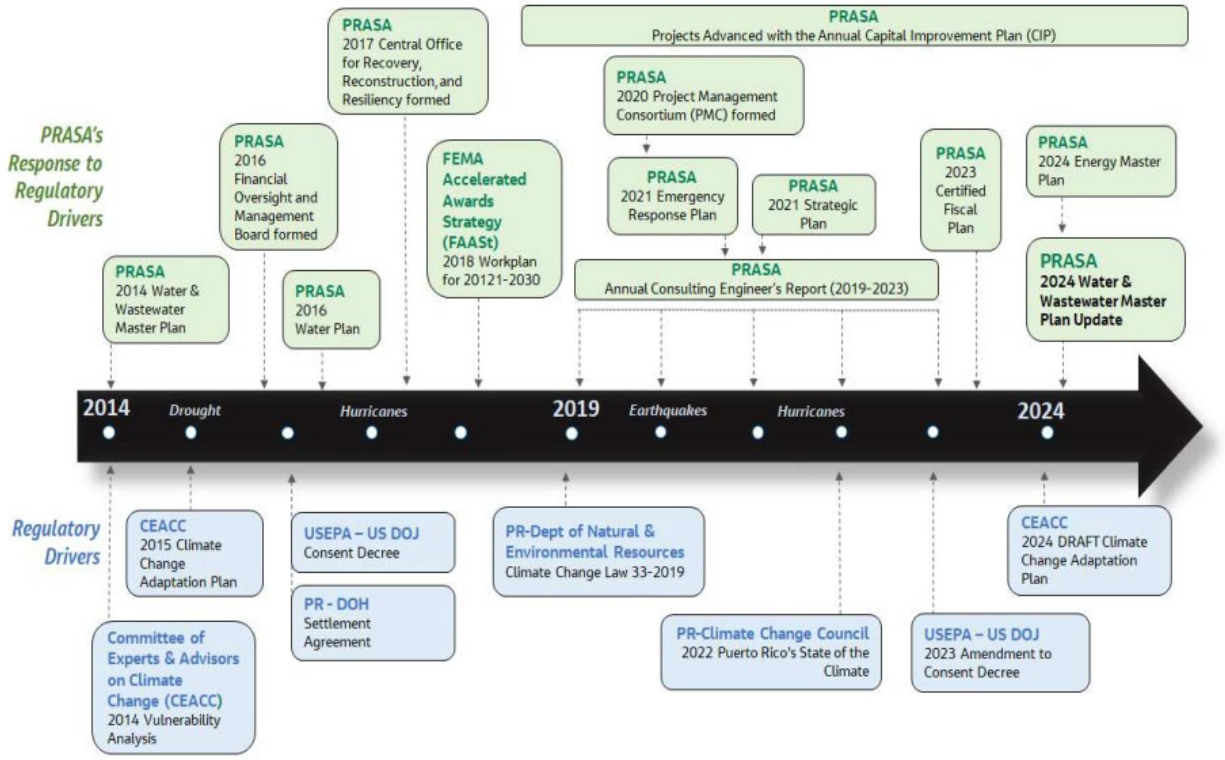
3.2.1 2024 Master Plan

Approximately every ten years, PRASA updates its Water and Wastewater Master Plan. PRASA's most recent update to its Master Plan (the "2024 Master Plan") was completed on April 30, 2024.

The 2024 Master Plan provides PRASA with an implementation roadmap that addresses each of the challenges included in Section 1.6 of this Fiscal Plan, while also preparing for future conditions. The 2024 Master Plan refines the alignment with utility infrastructure needs and the long-term CIP, setting the basis for achieving long-term system reliability, and ensuring the Island's water and wastewater is clean, affordable, and safe. A summary of the drivers influencing the 2024 Master Plan and CIP is presented on Exhibit 3-16. **Most of the water and wastewater plants' challenges identified in the 2024 Master Plan have already been**

addressed under the Authority's CIP as part of the regulatory and condition requirements. Since entering into the Consent Decree and PRDOH Settlement Agreement, PRASA has continued to implement mandated projects and system improvements. The projects included in the 2015 Consent Decree, as amended, are underway and will reconstruct damaged systems, rehabilitate aging assets, and improve operational efficiency.

EXHIBIT 3-16: ACTIONS LEADING TO THE 2024 MASTER PLAN



The 2024 Master Plan focuses on the following key assessments:

- **Water Demand Satisfaction:** Assessment considering water supply resources and projections aligned with the projected water demand. This effort provides guidance on priority areas, insights into alternatives to evaluate efforts to reduce non-revenue water (NRW) and identify opportunities to transfer surplus water to areas experiencing water deficits.
- **Infrastructure and Water Supply Resilience Evaluation:** This effort provides initial identification of relevant climate change stressors for PRASA's System and a roadmap to increase the resiliency of its infrastructure as well as to ensure sustainable and long-term water supply.
- **Wastewater balance evaluation:** Identifying treatment needs and prioritizing infiltration and inflow control to optimize Capex and Opex. Additionally, explore opportunities for consolidating wastewater treatment facilities, building on the efforts previously identified by PRASA.

In addition to the assessments listed above, the 2024 Master Plan also includes additional assessment of PRASA's Drinking and Wastewater Systems such as Water Treatment Plants

(WTP) and Wastewater Treatment regulatory compliance, WTP sludge treatment system assessment, water storage tank assessment, and biosolid management strategies review.

In addition to recommending the continuation of the CIP Delivery, the 2024 Master Plan update includes recommendations for technical evaluations, studies, and detailed assessments. These will provide information and criteria to quantify and improve the scope of work for existing and new projects, to optimize water availability, water quality, regulatory compliance, and operational efficiency. The 2024 Master Plan recommendations will be evaluated by PRASA based on its priorities, changes in circumstances, and funding availability.

Prioritization of Water Supply System Needs

The water supply availability is affected by climate hazards. A strategic hydrology monitoring integrated with a digitally resilient response system is recommended along with complementary technical evaluations. The data and information from these efforts will be a critical component for charting a path forward.

Prioritization of Drinking Water System Needs

PRASA's near-term and long-term drinking water CIP includes projects to improve, rehabilitate, or replace WTPs. The 2024 Master Plan includes a recommended roadmap for drinking water projects, which involves continuing to advance the projects in the CIP forecast while incorporating a focus on resilience and climate change. In the near-term, the 2024 Master Plan update recommends reassessing the performance of the sludge treatment systems (STS) and WTP water quality trends to confirm reliable compliance with water quality standards. The 2024 Master Plan also recommends the strategies for balancing water demand by transferring surpluses to adjacent facilities with water deficits. This approach will protect existing water supplies and increase PRASA's resilience to climate change stressors. The NRW Program continues to be a high priority for PRASA; therefore, the 2024 Master Plan recommends using new artificial intelligence and machine learning technology to locate leaks and manage pressure changes. Combined with the meter replacement program, this is expected to accelerate NRW reductions.

Prioritization of Wastewater System Needs

The 2024 Master Plan emphasizes the priority of consolidating wastewater services by eliminating aging and/or noncompliant WWTPs. Centralizing WWTPs also provides an opportunity to prepare for climate change stressors and enhance the resilience of the entire wastewater system. Another wastewater priority is the Island-wide biosolids assessment. Future regulations may significantly impact landfill operations making it essential to evaluate alternative biosolids management and disposal strategies. Finally, flow to the WWTPs can be reduced by expanding implementation of the inflow and infiltration (I/I) mitigation program.

CIP Update

PRASA's CIP projects will be updated in accordance with the 2024 Master Plan recommendations, and afterwards, the CIP will be periodically reviewed to be aligned with the System's needs and resources availability. Exhibit 3-17 outlines the key action items for the successful and timely delivery of this measure.

EXHIBIT 3-17: ACTION PLAN FOR 2024 MASTER PLAN MEASURE

Action Item	Deadline	Owner
Submit to the Oversight Board the complete updated 2024 Master Plan	31-Jul-24	Infrastructure
Submit findings to be incorporated from the 2024 Master Plan into the CIP	30-Sep-24	Infrastructure
Incorporate findings from the 2024 Master Plan into the CIP	31-Oct-24	Infrastructure

3.2.2 Asset Management

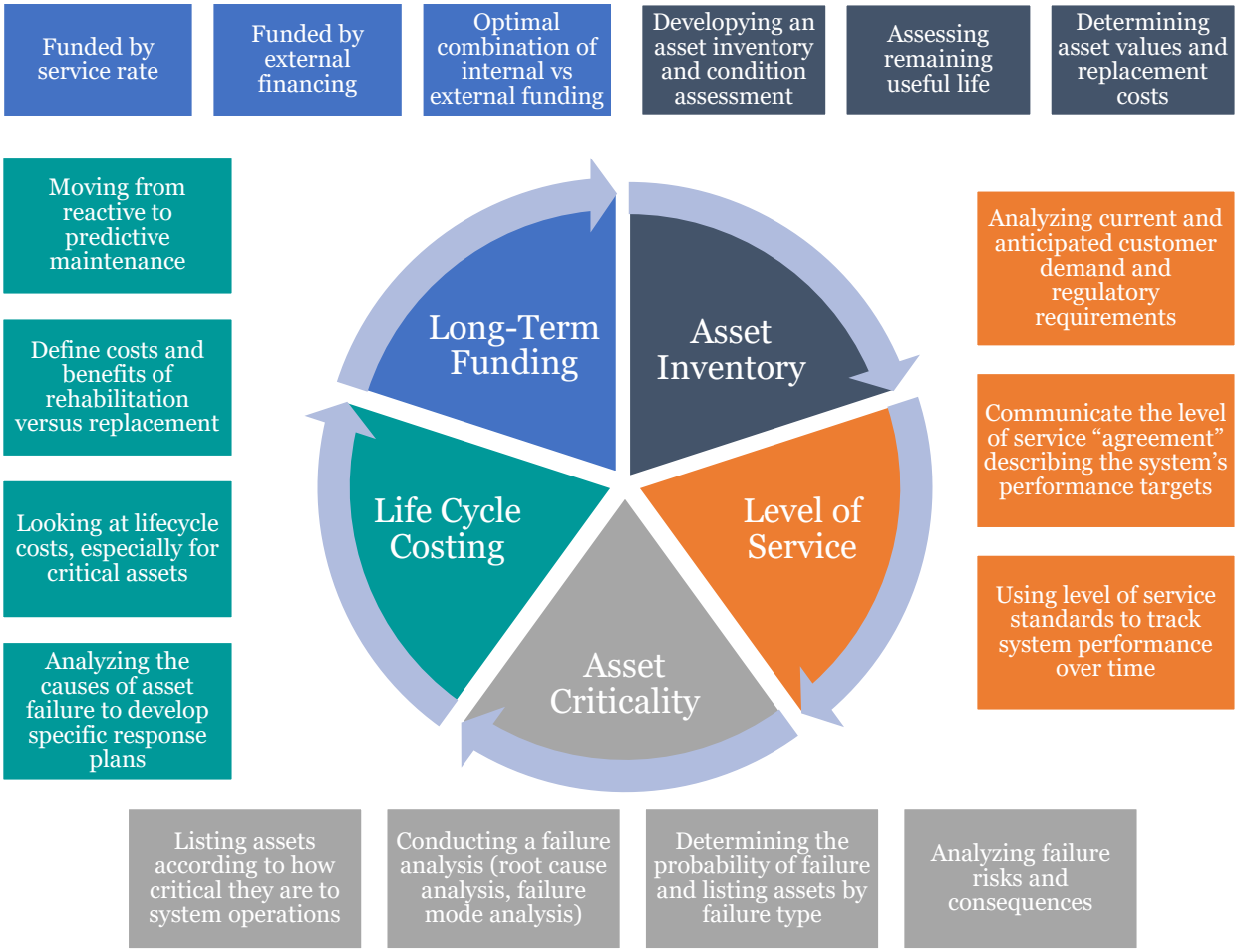
Asset management is the practice of managing capital assets to minimize the total cost of ownership and operation while achieving sustainable infrastructure delivering the expected service levels customers.

Implementing an asset management framework offers many benefits including increased efficiency, improved knowledge management, and the optimal use of limited finances. Asset management provides guidance on scheduling O&M tasks and determining when to replace versus repair assets to minimize service interruptions.

PRASA expects to gradually shift from its current primarily corrective maintenance strategy to a program that emphasizes systematic, data-driven, and preventive measures. This shift aims to prolong asset life, reduce operating and capital expenditures, enhance security and safety, and shorten response times for maintenance and repair needs.

The asset management framework, as defined by the USEPA, consists of five core concepts with related activities as included in Exhibit 3-18 below:

EXHIBIT 3-18: ASSET MANAGEMENT FIVE CORE CONCEPTS AND BEST PRACTICES



Adequate metrics, coupled with up-to-date cost data, will enable the Maintenance Department to make more informed, data-driven decisions on whether to repair or replace underperforming or failing assets.

A third-party consultant recently completed an evaluation of PRASA's current Asset Management policies and practices, issuing a technical memorandum with its findings and recommendations. The technical memorandum encompasses the outcomes of the Maturity Assessment and Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis conducted as part of the "Diagnostic Towards the Implementation of an Asset Management Program". PRASA aimed to evaluate its existing asset management (AM) processes and practices, assess asset maturity, and identify initiatives to bridge gaps between current processes and industry best practices. The assessment of PRASA's current asset management practices compared to best practices using one of the leading industry frameworks: the Institute of Asset Management (IAM) Self-Assessment Methodology (SAM+) tool and based on the SAM+ Scoring Scale included in Exhibit 3-19.

EXHIBIT 3-19: SAM+ SCORING SCALE

The gap analysis has identified that PRASA is progressing towards AM competency, with an overall score of 1.62, placing the between "Aware" and "Developing" levels. This score is typical for an organization starting its AM effort when compared to other utilities. Undertaking an AM gap assessment is a crucial initial step for PRASA to identify strengths and areas needing improvement in its current AM practices.

The consultant has identified high-level initiatives to bridge the gap between PRASA's current AM practices and a state of competency, considering the strengths and weaknesses identified. Key weaknesses include limited staff availability to perform AM's tasks, a large quantity of assets, regional budget allocation not aligned with specific regional needs, budgeting process not leveraging asset data fully, and a lack of standardization across the agency.

To address these weaknesses, the consultant proposes several initiatives:

- Develop a policy, SAMP and AMPs
- Establish an AM governance function
- Complete key planned and ongoing IT initiatives
- Communicate effectively with staff about their role in the larger program to align with the program's objectives
- Integrate improvements with other programs, such as the PMO and the 2024 Master Plan

Below are some high-level initiatives that will be considered in developing the AM Implementation Roadmap, grouped into three main categories – People, Processes, and Systems/Data.

People:

1. **Create an Internal PRASA AM Organization**: Building upon the current Steering Team organization, establish a formalized AM organizational structure with work teams responsible for driving improvement initiatives across the organization.
2. **Upskill Internal Resources**: Facilitating the transfer of AM responsibilities and knowledge from external consultant to PRASA staff, ensuring long-term sustainability and self-sufficiency in AM practices.
3. **Foster a Future Ready Organizational Culture**: Fostering an organizational culture aligned with both overall organizational objectives and those specific to AM. Encourage proactive collaboration and a commitment to continuous improvement in AM practices.

Processes:

1. **Formalize AM Processes**: Standardize key AM processes such as strategic planning, asset definition and hierarchy, data management, performance monitoring, condition and risk assessment, cost estimating, capital planning, project prioritization, and more across all asset types and groups.
2. **Develop SAMP and Other Key Program Documentation**: Formulate a SAMP that outlines the overall objectives, management approaches, and alignment with the organizational strategy.
3. **Develop Program Governance and Continuous Improvement Processes**: Implement formal governance structure to monitor the effectiveness of the AM program. Develop processes for continuous improvement, including aperiodic program reviews and assessments
4. **Implement Asset Management Planning Activities**: Conduct activities to implement detailed AMPs that outline specific activities, resource requirements, responsibilities, timelines, and risk management strategies. Communicate changes effectively to minimize disruption.

Systems/Data:

1. **Address Systems and Data Concerns**: Establish minimum asset data requirements and standards to ensure data collection supports PRASA's AM objectives. Enhance data quality for vertical assets stored in SAP and develop and maintain key AM data for linear assets in GIS.
2. **Alignment of Systems/Data to Support AM**: Adding fields, codes, and data to support AM activities. This includes specific maintenance types, condition and risk data, asset hierarchy, and other essential attributes.
3. **Configuration of AM Systems to Support Performance Management**: Ensure SAP and GIS systems are configured with accurate data fields to enable future tracking of service levels and key performance indicators.

Based on the findings and recommendations included above, PRASA expects to prepare a roadmap for the implementation of specific initiatives prioritized based on its importance and resources availability.

Exhibit 3-20 outlines the high-level action plan to address the areas of opportunities identified in the consultant's report.

EXHIBIT 3-20: ACTION PLAN FOR ASSET MANAGEMENT MEASURE

Action Item	Deadline	Owner
Define the Asset Management Governance Structure and meetings cadence	30-Jun-24	VP of Operations
Establish plans to address areas of improvement and to implement the consultant's recommendations, subject to financial and other resources limitations	30-Sep-24	Maintenance Director
Report to the Oversight Board plans to address areas of improvement and discuss the potential inclusion of technological advancements to implement the consultant's recommendations	30-Sep-24	Maintenance Director

3.2.3 Chemical Expense Stabilization

Chemical expenditure is PRASA's fourth largest operating expense. Despite PRASA's efforts to reduce overall chemical costs through non-capital-intensive initiatives such as enhanced chemical usage, rising input costs associated with chemical production coupled with heightened compliance requirements for water quality, have precluded PRASA from generating savings.

The recent sharp increase in chemical costs is driven primarily by market factors, including supply and demand, which are beyond PRASA's control. However, PRASA continues to work on options to change chemical consumption at its plants in search of savings while ensuring water quality and compliance with environmental regulations. Furthermore, PRASA must pursue periodic procurement assessments in an effort to promote higher market participation and in turn, seek better pricing options.

PRASA issued an RFP to have a third-party evaluate the chemical dosage process and inventory. The benefit of such initiative, if any, cannot be determined at this time and therefore no benefits are projected herein. If the evaluation results in the identification of potential benefits, PRASA must then evaluate potential measures to be included in future Fiscal Plans. PRASA is in the process of executing the contract to identify opportunities to optimize chemicals application with the selected proponent. Exhibit 3-21 outlines the high-level action plan to address chemical expense stabilization.

EXHIBIT 3-21: ACTION PLAN FOR CHEMICAL EXPENSE STABILIZATION

Action Item	Deadline	Owner
Report to the Oversight Board progress on all the efforts to manage chemical expenses – inventory management, on-going and future procurement processes, and other relevant efforts	31-Oct-24	VP of Operations
Evaluation of current chemical management practices and provide recommendations (Phase 1)	31-May-25	VP of Operations

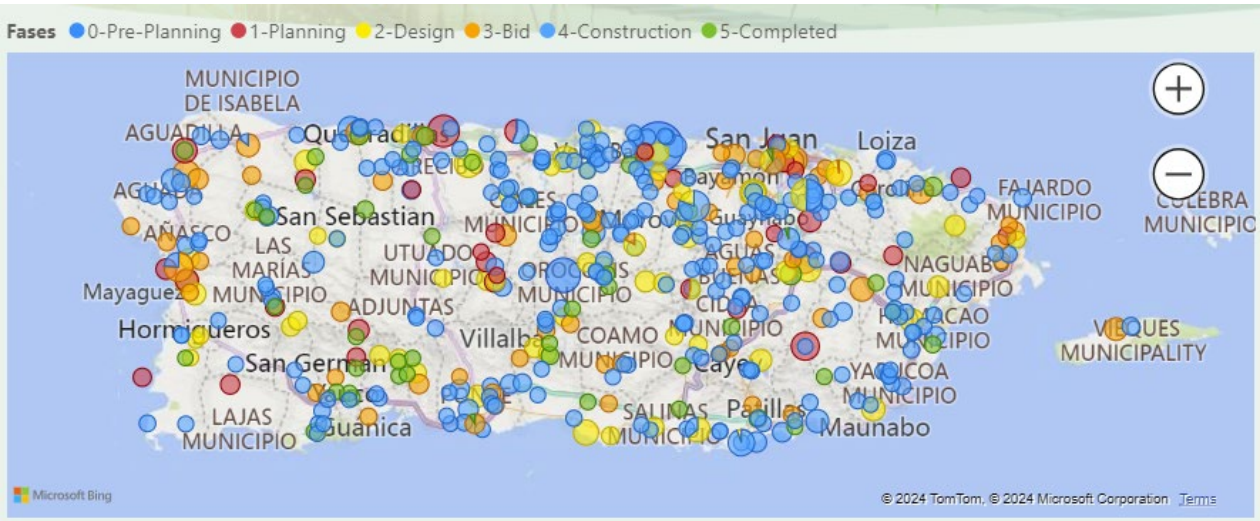
Evaluation of current chemical management practices and provide recommendations (Phase 2)	31-May-26	VP of Operations
Complete assessment and report to the Oversight Board on areas of opportunity with potential benefits	31-Aug-26	VP of Operations
Develop strategies for implementation as recommended in the consultant's report	30-Nov-26	VP of Operations

3.2.4 CIP Delivery

A timely and budget conscious execution of the CIP is essential in order to take advantage of the multibillion-dollar grant and other funding available for recovery and reconstruction projects following the 2017 Hurricanes and 2022 Hurricane Fiona, as well as the funding to address the coronavirus pandemic (CARES and ARPA), and an aging water and wastewater infrastructure (BIL Act).

The total CIP consists of around 600 projects with an estimated investment of $11 billion during the Certified Fiscal Plan period. Currently PRASA has 292 active projects across the island as presented in Exhibit 3-22, with an estimated investment of $7 billion.

EXHIBIT 3-22: ACTIVE PROJECTS BY REGION



The work needed to complete the projects and their level of investment, from their planning phase to completion, requires both internal and external personnel. For such purposes the Infrastructure Department structure has been redefined, updated, and provided with external support from major multinational engineering firms currently under contract.

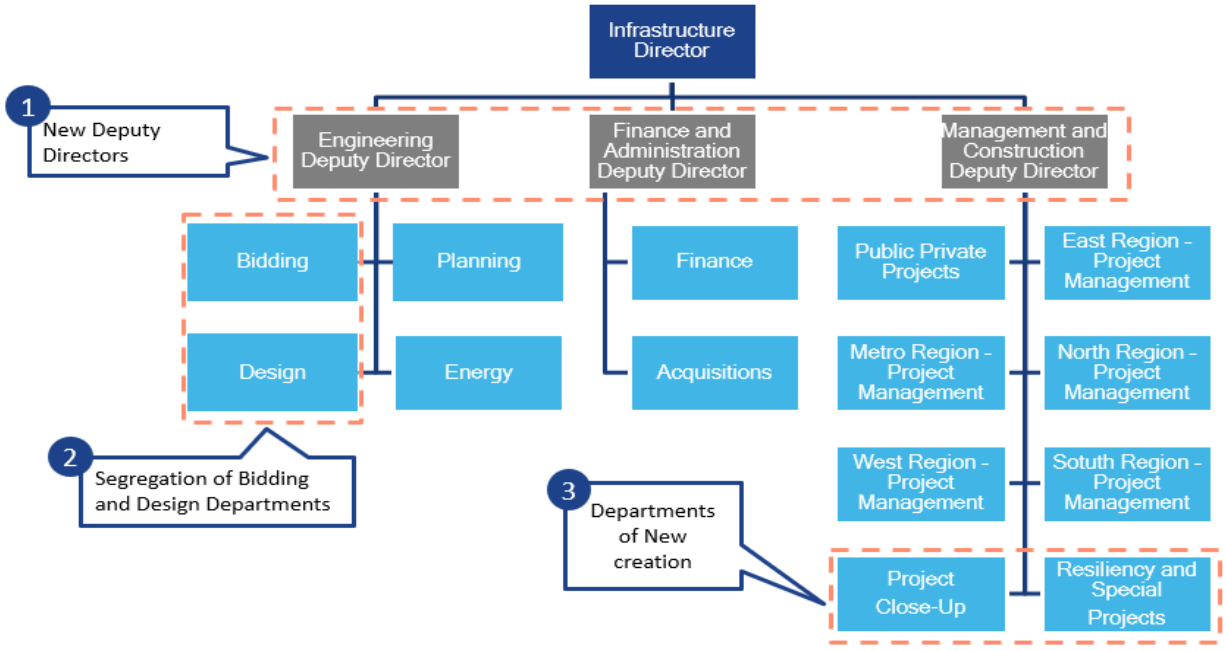
PRASA's Infrastructure Department reorganization was approved during November and December 2021, aimed at addressing the incremental needs of the CIP.

The new structure includes three main changes:

1) Creation of three sub-directorates (Engineering, Administration and Finance, and Management and Construction) under supervision of the Infrastructure Director;
2) Separation of Design and Biddings into two directorates (Directorate of Design and Directorate of Bidding); and
3) Creation of two new directorates related to Project Management (Directorate for Closing Projects and Directorate for Resiliency & Special Projects).

These main changes are focused on effectively monitoring and managing the implementation of a revitalized and expanded use of PMCs. This revised structure is included in Exhibit 3-23.

EXHIBIT 3-23: INFRASTRUCTURE REVISED STRUCTURE



With the changes to the infrastructure structure in place, covering the required positions for the department, and with the support of the PMCs, PRASA expects to successfully deliver an aggressive CIP to maximize available funding and revamp Puerto Rico's water and wastewater infrastructure.

Project Management Consortiums

Following an RFQ/RFP process, PRASA selected and contracted with four firms to serve as a PMC and assist the Authority in the execution of its CIP. The contracted firms are Black & Veatch Puerto Rico PSC, CH Caribe Engineers PSC (now Jacobs Caribe Engineers P.S.C.), Arcadis Caribe PSC, and CSA-Louis Berger JV, LLC (now CSA Architects & Engineers, LLP & WSP Puerto Rico PC). Currently, each PMC has been assigned projects as set forth in

Exhibit 3-24.

EXHIBIT 3-24: CIP PROJECTS ASSIGNED BY PMC & ESTIMATED CIP INVESTMENTS

BLACK & VEATCH	Contracted on: November 2020 Assigned CIP Projects: 64 Estimated CIP Investment: $1,760M
ARCADIS	Contracted on: February 2021 Assigned CIP Projects: 63 Estimated Investment: $1,494M
CH Caribe	Contracted on: April 2021 Assigned CIP Projects: 106 Estimated CIP Investment: $2,344M
wsp CSA Louis Berger JV LLC	Contracted on: July 2021 Assigned CIP Projects: 45 Estimated CIP Investment: $1,309M

A total of 278 CIP projects have been assigned to the PMCs with a total CIP investment estimated at $6.9 billion. PRASA is directly managing 14 construction projects with a total investment of $17 million.

Partnering with the PMCs allows PRASA to focus on project administration and financing with the PMCs supporting the design through construction phases.

CIP Execution Tracking

Through a CIP tracking tool, PRASA tracks CIP execution by looking at established project metrics and monitoring compliance and execution of the capital works. Moreover, PRASA implemented a new module in SAP (its enterprise operating system) to enable the review and update of its current tracking tool to enhance compliance with expected execution schedules and costs.

The established metrics allow for high level planning and management of the CIP, while the tracking tool provides a detailed tracking of CIP compliance against what was planned.

Typically, the construction phase includes the highest potential for deviations in cost and time. To maintain control of this phase, PRASA keeps a monthly tracker of two industry standard KPIs:

- **Cost Performance Index** (CPI): Measures the cost efficiency of resources committed to the project, evaluating whether the project will be completed on budget.
- **Schedule Performance Index** (SPI): Measures the relationship between the earned value of the executed work versus the planned work, assessing whether the project will be completed on time.

Metrics have also been established to monitor compliance with all requirements in each project phase, including four Pre-Construction Metrics, two Construction Metrics, and one Closeout Metric. Through this monitoring, PRASA can track the project status and take actions as needed.

CIP Impact

The impact of the projected CIP on PRASA's operations and financial projections will be evaluated and incorporated gradually, while the projects are being designed or completed.

For the design phase, PRASA will require an evaluation of such impact for future projects. In the short-term, PRASA will perform an analysis of the impact of two completed projects, Rio Grande

Estates WWTP elimination and Hatillo-Camuy water intake improvements. Such analysis must determine the real impact on the projected operational costs, which may result in cost increases (due to, for example, additional electricity costs) or decreases.

Given that PRASA's main mission is to provide safe reliable water and wastewater services and to protect the health and environment in Puerto Rico, a cost-benefit analysis of a project should consider other relevant factors, such as increased water supply, increased reliability and resiliency of the System. Ensuring a sustainable service, providing service to remote areas, and improving water quality for both drinking and treated wastewater discharges.

Therefore, the analysis of the impact of the CIP is important to adjust the financial projections but not necessarily to determine a project's feasibility. The financial impact of the project important must be considered along with the socioeconomic, health and environmental benefits, including water availability.

Another important factor to consider is the impact on water losses for certain projects addressing NRW. In some cases, the analysis is simpler than others, for example the benefit from meter replacements in water losses can be easily determined but the benefit of pipeline replacement will depend on the leaks of the replaced pipeline, which may result in an unknown or difficult to determine physical water losses.

Exhibit 3-25 below includes the short-term action plan to complete the evaluation of two specific completed projects to then define the methodology to evaluate the impact of CIP projects in operations, when and if needed starting with major capital projects.

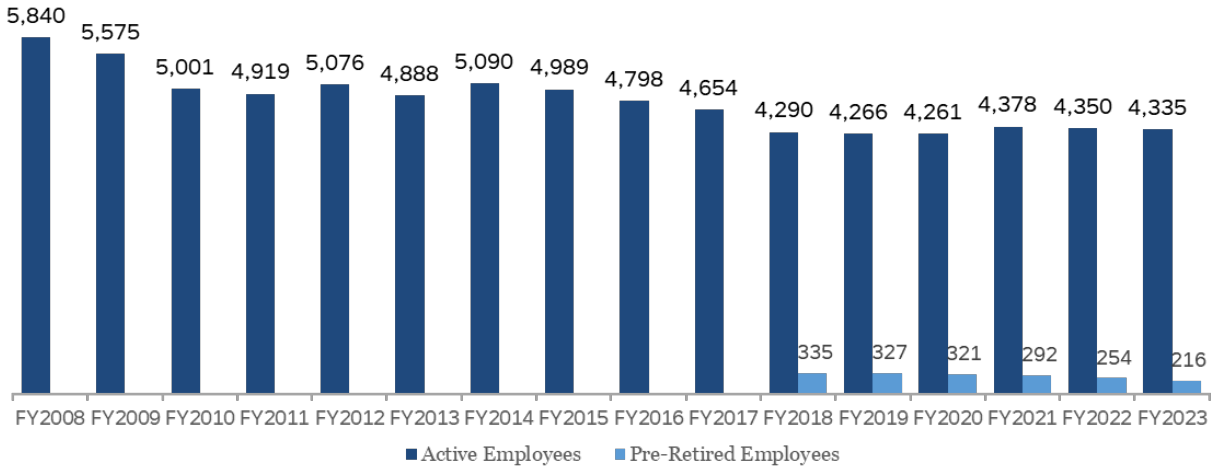
EXHIBIT 3-25: ACTION PLAN FOR CIP IMPACT EVALUATION

Action Item	Deadline	Owner
Evaluation of the impact in operations of Rio Grande Estates WWTP elimination	31-Aug-24	Infrastructure / VP of Operations
Evaluation of the impact in operations of Hatillo-Camuy intake improvements	30-Sep-24	Infrastructure / VP of Operations
Report to the Oversight Board the gross results of the impact evaluation in operations for Rio Grande Estates WWTP elimination and Hatillo-Camuy intake improvements	31-Oct-24	Infrastructure / VP of Operations
Define the methodology to evaluate, when and if needed, the potential impact of the major capital projects in PRASA's operations	31-Mar-25	Infrastructure
Report to the Oversight Board the defined methodology to be applied on the impact of capital projects in PRASA's operations	30-Apr-25	Infrastructure

3.2.5 Organization Optimization and Efficiency

Since FY2008, the Authority has experienced a headcount reduction of over 1/5 of its personnel. In part, this reduction was exacerbated between FY2016 and FY2017 with over 300 employees accepting the terms[21] of the Pre-Retirement Program. As part of the program, participants do not render any services to the Authority despite being on the payroll.

EXHIBIT 3-26: PRASA HEADCOUNT FY2008-FY2023



During FY2021, PRASA engaged an external consultant to perform a labor capacity and productivity assessment study to determine PRASA's optimal staffing levels. In January 2022, the selected firm presented its final recommendations. The study found (including amendments to incorporate updates on Customer Service and Infrastructure Departments), a need of 5,030 employees, compared with PRASA's actual headcount of 4,551 as of June 30, 2023, of which 216 employees were under the Pre-Retirement Program. Based on the initiatives PRASA is currently implementing, the optimal headcount is expected to be lower than established in 2021 by approximately 200 employees. PRASA expects to reach its revised optimal headcount level of 4,800 FTEs by FY2026 and to maintain it at that level afterwards, as presented in the Table below.

TABLE 3-5: HEADCOUNT PROJECTION

	2024	2025	2026	2027	2028
Base Employees	4,335	4,335	4,335	4,335	4,335
PreRetired Employees	166	124	82	53	30
Accum Net Additions	124	291	383	412	435
Employees by the end of FY	4,625	4,750	4,800	4,800	4,800
Annual Additions	**124**	**167**	**92**	**29**	**23**

[21] Incentives include: 60% payment of average salary, payout of unused vacation and sick days (as per Act 66-2014) and maintaining health insurance coverage for a term of two years. These incentives are applicable to pre-retired employees and payable by PRASA until the eligible employee reaches full retirement age under ERS's rules.

PRASA expects to gradually recruit employees to reach the headcount goal by:

- Recruiting key technical and operating personnel, such as plant operators, electro-mechanics, and other workers for operations.
- Progressively recruiting personnel for positions left open as the pre-retired employees reach full retirement age.
- Filling headcount needs in the Infrastructure, Customer Service and Compliance Departments, among others.

PRASA's recruitment will be prioritized based on positions criticality and System needs.

3.2.5.1 Competitive Compensation

To maintain a motivated and efficient workforce during FY 2023, PRASA reviewed its pay scales and implemented incentives for some critical operating positions, such as plant operators and electro-mechanics. An additional in-depth review and update to the pay scales is currently underway to align the same, when and if possible and necessary, with the OATRH pay scales (following the Government Civil Service Reform) or other representative comparable data such as the salaries published by the AWWA, ERI or BLS. This analysis will result in a revised Job Classification Plan and an updated Compensation Plan.

Based on a preliminary analysis, the incremental costs of this review were incorporated in PRASA's financial projections included herein and the final analysis is expected to result in proper and competitive compensation levels for Authority employees. After final review and approval of the pertinent parties, the final impact of the new Compensation Plan will be reviewed and amendments to the Fiscal Plan projections included herein may be required.

3.2.5.2 Efficiency

Improving personnel performance is of utmost importance, not only to maintain compliance with increasing regulatory and investment requirements, but also to efficiently tend to customers' demands, including shorter response times at minimal cost. However, the changing demographics and high demand in the labor market, among other factors, have proven difficult to identify skilled personnel.

To that end, improving workforce management through the inclusion of digitalization and automation tools, and measuring personnel efficiency are essential for addressing current personnel challenges proactively.

Certain projects like AMI and automation/technology projects are expected to result in increased productivity and maximization of available resources by adding value functions. The use of mobile data terminals (MDTs) should likewise result in increased productivity.

PRASA is designing an evaluation system geared towards assisting the corporation to track and analyze employees' productivity in the workplace by identifying strengths and areas for improvement and providing constructive feedback. In summary, the objective is to develop employees' skillset through direct and honest constructive feedback from supervisors. This should also have the added benefit of not only improving, but also encouraging effective manager-employee engagement.

The new system will be implemented with a calibration process aimed at making reviews fair and consistent across managers, supervisors, departments (when applicable), and even job levels. Generally, a calibration process entails a multi-evaluator appraisal, which provides a comprehensive view of an employee's performance. Specifically, it includes employees' self-assessments, while also gathering anonymous feedback on employee performance from their

inner circle, including fellow peers, subordinates (when applicable), and managers. This approach ensures that every employee receives feedback that is both fair and designed to support their growth at PRASA.

Accordingly, this new system should be helpful with the organization's retention goals as well as the transfer of knowledge to employees in new roles or newly hired employees.

It should be noted that PRASA currently uses a manual evaluation system for performance reviews of employees during their initial probation period and for temporary workers under contract. Specifically, these evaluations take into account performance measures such as: productivity, efficiency, knowledge of work, ability to learn, assistance, reliability, integrity, sociability, cooperation, and proactivity or creativity.

PRASA aims to switch from traditional, manual employee performance evaluations to an automated performance evaluation system that standardizes the review process, ensures recurrent performance reviews, improves employee satisfaction, and increases productivity.

The use of technology in combination with the evaluation system and tracking metrics such as absenteeism and overtime should result in increased efficiency and productivity of PRASA's workforce.

3.2.5.3 Labor Relations

To maintain labor relations in good order despite the present environment of limited resources and increasing operating costs, PRASA and its largest union, the UIA, reached a Negotiation Agreement ("Negotiation Agreement"). As a result of the Negotiation Agreement, the Collective Bargaining Agreement ("CBA") with the UIA (which expired in 2015 and was extended until June 30, 2021 pursuant to Act 3-2017) was further extended to June 2024 or until the negotiations of a new labor agreement is reached as provided by Act 9-2021. The Negotiation Agreement provides for the continuing negotiation of revised pay scales, as well as of several incentives for the benefit of both parties, subject to compliance with PROMESA and PRASA's Fiscal Plan.

On March 31, 2023, the UIA requested the negotiation of several economic and non-economic clauses. On September 15, 2023, the Authority reached a negotiation agreement with the UIA to negotiate the referenced clauses of the CBA that are of interest for both, the UIA and the Authority (including the implementation of the upcoming New Classification Plan). The first topics negotiated were UIA's request for an adjustment of meal allowances, and the Authority's request for use of information collected by technological equipment used by UIA's employees. Additional negotiations are pending.

On November 17, 2023, the Authority reached an agreement related to the two initial topics negotiated (meal allowance and the use by PRASA of information from technology devices). The Agreement was approved by both the UIA Executive Committee and the Authority's Governing Board. Subsequently, it was also approved by the Oversight Board in January 2024.

The Authority continues negotiations with the UIA at the DOL regarding other topics that were included in the Negotiation Agreement signed on September 15, 2023.

3.2.5.4 Action Plan for Human Resources Measures

The main milestones to implement this measure are presented in Exhibit 3-27.

EXHIBIT 3-27: ACTION PLAN FOR HUMAN RESOURCES MEASURES

Action Item	Deadline	Owner
Complete and submit for the Oversight Board's review the New Job Classification Plan and Updated Compensation Plan	30-Jun-24	Human Resources
Define the workforce efficiency evaluation system to be implemented, including areas to be measured	31-Dec-24	Human Resources
Implement a workforce evaluation system	31-Jul-25	Human Resources
Continue tracking absenteeism and overtime levels to identify areas of opportunities	Ongoing	Human Resources

3.2.6. Procurement Best Practices

PRASA each year spends budgeted monies to purchase a wide variety of goods and services provided by different contractors and suppliers. Which calls for PRASA to leverage its technological platforms to conduct procurement procedures that incentivize market participation and promote transparency. For the applicable goods and services, it is key for PRASA to adopt uniform purchasing and procurement rules aligned with Act 73-2019 ("Act 73") dispositions. Uniform regulations could in turn reduce public spending by strategically allocating financial resources through procurement processes that maximize market participation.

From a regulatory perspective, in April 2021, the Puerto Rico General Services Administration ("PRGSA") approved PRASA's procurement procedures on a provisional basis, pending a final determination by the agency. Since then, PRASA has been conducting its procurement practices for certain goods and services with a provisional permit. However, as a result of a fine imposed by PRGSA on PRASA, for allegedly not submitting a draft of the regulation, the parties are now in an adjudicative hearing process before the PRGSA. The ongoing process will determine the applicability of Act 73 dispositions to PRASA and assess its compliance moving forward.

On the other hand, regarding PRASA's current procurement practices for certain goods and services, the Oversight Board notes that the Authority does not conduct periodic procurement efforts consistently. For instance, for the supply of chemicals (Polymer - coagulants) by Gulbrandsen Puerto Rico, the last RFP was completed on March 23, 2011 while the contract was lastly renewed from October 2023 through January 2024.[22] In parallel, PRASA has been trying to complete an RFP process for several treatment plants. But the efforts have not rendered cost savings due to regulatory complexities. Another example illustrating opportunities for better

[22] Refer to the Comptroller of Puerto Rico website for details. PRASA's latest contract (2023-000044), valued at $4.4 million, stems from an RFP issued on March 23, 2011. Prior to this contract, PRASA awarded the following contracts under the same 2011 RFP: 2015-000193 for $11.2 million, 2019-000026 for $7.0 million, 2020-000051 for $7.0 million, 2021-000172 for $16.0 million, and 2023-000044 for $12.4 million.

procurement practices is for services provided by Cortes Industrial Organization, Inc for the repair of submersible pumps. Under the original contract (2023-000048) that stems from a competitive procurement process issued on May 19, 2014, the maximum payable amount was $4.6 million, after four amendments, the maximum payable amounts have turned to $14.5 million. In turn, PRASA has initiated new competitive procurement process for such services with an expected award date in October 2024.[23]

While PRASA and PRGSA finish the ongoing adjudicative process, the Authority can still improve its procurement efforts. Specifically, for those purchasing procedures that do not require complete adherence with Act 73's dispositions. As a procurement leading practice, PRASA's purchasing department must be proactive in conducting comprehensive market sounding procedures prior to executing new competitive purchases. This will ensure a thorough understanding of current market conditions and help identify potential suppliers, leading to more informed procurement decisions and potential cost savings. All to better document those instances in which PRASA awards contracts without new competitive processes for the purchase. However, the norm should be to always conduct competitive purchases, with sole-sourced acquisitions reserved as exceptions only when required in specific situations.

3.3 Summary of Proposed Measures

A summary of projected net benefit from the New Measures is set forth in Table 3-6.

TABLE 3-6: NEW MEASURES PROJECTED BENEFIT (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Rate Adjustment	-	20.2	43.0	66.2	90.0	114.1	138.8	163.9
AMI Incremental Revenues	-	2.1	20.2	40.1	59.5	78.9	92.7	96.6
Electricity Savings	-	-	-	-	-	3.9	4.3	4.3
Physical Water Loss Reduction	-	(0.2)	(0.2)	0.3	0.6	0.9	1.2	1.5
AMI Impact in OpEx	-	(3.0)	(3.7)	(3.3)	(2.8)	(2.1)	1.0	3.3
Federal Funds, Net	90.1	210.9	361.5	288.1	80.6	41.0	55.9	21.1
Impact in OH and ORF	-	(0.7)	(0.0)	0.1	0.1	(0.1)	(0.1)	0.6
Measures Benefit	90.1	229.3	420.9	391.4	227.8	236.6	293.6	291.3

[23] See the following link for the Oversight Board's determination pursuant to the Contract Review Policy: https://docs.oversightboard.pr.gov/n/id6ek3qs8yrm/b/CR_PUBLIC/o/4908_PRASAandCortesIndustrial(SubmersiblePumps).pdf?_gl=1*s4nmlc*_ga*MTQ0NjIwODg0MS4xNjg0MDExMDE1*_ga_LVK7G3FFVG*MTcxNzE5NzQwMS4xNDIuMS4xNzE3MTk5MDExLjAuMC4w

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Rate Adjustment	189.4	215.3	241.6	268.4	295.5	323.0	350.9	2,520.3
AMI Incremental Revenues	96.4	96.1	95.8	95.5	95.2	95.0	94.7	1,058.7
Electricity Savings	5.1	5.7	6.1	7.2	7.5	7.8	9.3	61.1
Physical Water Loss Reduction	1.8	2.1	2.5	2.8	3.1	3.4	3.7	23.5
AMI Impact in OpEx	4.2	5.0	4.9	4.8	4.7	4.5	4.4	22.0
Federal Funds, Net	44.9	11.8	(2.5)	(9.0)	(19.5)	(20.3)	(28.0)	1,126.4
Impact in OH and ORF	2.5	0.0	(0.3)	(0.1)	(0.3)	(0.3)	(0.1)	1.2
Measures Benefit	344.3	336.1	348.1	369.5	386.2	413.2	434.9	4,813.2

3.4 Post-Measures Financial Projections

Implementation of the measures outlined in this Chapter will allow PRASA to improve both its financial and operational positions.

Table 3-7 presents the Post-Measures Financial Projections during the Fiscal Plan Period.

TABLE 3-7: POST-MEASURES FINANCIAL RESULTS (IN $ MILLIONS)

in $'Millions	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Authority Revenues	1,100.9	1,180.6	1,218.7	1,230.7	1,273.9	1,316.8	1,353.7	1,380.0
Senior Debt Service	(249.1)	(249.4)	(258.4)	(264.4)	(269.0)	(270.0)	(295.7)	(297.6)
Net Operating Expenses	(810.3)	(903.1)	(935.1)	(941.8)	(947.6)	(953.6)	(963.0)	(973.5)
Operating Reserve Fund	(5.8)	(8.5)	(5.7)	-	-	-	-	-
Capital Improvement Fund	(32.6)	(19.4)	(18.5)	(23.0)	(54.7)	(89.6)	(92.6)	(104.7)
Financial Result	3.1	0.2	1.0	1.4	2.6	3.6	2.4	4.2

in $'Millions	FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY24/38
Authority Revenues	1,401.6	1,422.6	1,443.1	1,463.2	1,482.4	1,501.8	1,521.5	20,291.5
Senior Debt Service	(298.3)	(300.9)	(302.7)	(275.9)	(276.9)	(277.5)	(278.3)	(4,164.3)
Net Operating Expenses	(993.9)	(1,010.6)	(1,025.2)	(1,047.1)	(1,063.2)	(1,080.0)	(1,107.4)	(14,754.7)
Operating Reserve Fund	(0.3)	(1.7)	(1.1)	(2.9)	(1.4)	(1.5)	(4.1)	(33.2)
Capital Improvement Fund	(104.7)	(105.0)	(110.0)	(134.7)	(134.7)	(139.7)	(129.7)	(1,293.6)
Financial Result	4.3	4.4	4.1	2.5	6.2	3.1	2.0	45.1

In summary, the projections included herein reflect a balanced budget in all years of the Fiscal Plan Period, which is consistent with PROMESA Section 201(b)(1)(d). The projections ensure proper maintenance of the system and provide for gradual improvement in PRASA's financial condition, as the full benefits of proposed measures are realized by the end of the Certified Fiscal Plan Period.

4 Federal Funds for Disaster Recovery and Resiliency

As a result of the damages to PRASA's infrastructure caused by the 2017 Hurricanes, 2020 Earthquakes, Hurricane Fiona, and the operational disruptions and health challenges from the COVID-19 pandemic, the Authority qualified for federal funding for disaster recovery efforts and disaster relief. This federal funding is further described in this Chapter.

4.1 Disaster Recovery Programs

PRASA's main sources of federal funding identified for disaster recovery are: (1) FEMA's Public Assistance Program; (2) the HUD's Community Development Block Grant – Disaster Recovery (CDBG-DR) Program; (3) COVID-19 recovery funds; and (4) EPA and RD supplemental or special programs. A brief description of these programs is included below with a summary of the funding identified, obligated, and received by PRASA.

FEMA's Emergency and Permanent Work Program: Under the Stafford Disaster Relief and Emergency Assistance Act (SA), PRASA receives FEMA funds through COR3, the officially designated recipient of the Federal grant funding. COR3 is a division of the P3 Authority and was created to ensure adequate management and use of federal funds for Puerto Rico's recovery and reconstruction. FEMA's Public Assistance Program addresses both emergency work (e.g., debris removal and emergency protective measures), and permanent work (e.g., post-disaster reconstruction of the Authority's System to current industry standards). In addition, FEMA's Hazard Mitigation Grant Program (HMGP) provides funding to improve resiliency for facilities not damaged by a declared disaster.

Type of Works	Relevant Legislation
Emergency Work	Section 403 of SA (Cat A&B)
Permanent Work	Section 406 of SA (Cat C-G) Section 428 of SA (Cat C-G)
Hazard Mitigation	Section 406 of SA (PA HM) Section 404 of SA (HMGP) Section 20601 of BBA

HUD CDBG-DR Programs: The Community Development Block Grant – Disaster Recovery (CDBG-DR) Program provides annual grants on a formula basis to U.S. states, as well as Puerto Rico, cities, and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons. The program is authorized under Title 1 of the Housing and Community Development Act of 1974, Public Law 93-383, as amended, 42 U.S.C. 5301 et seq.

PRDOH is the designated grantee of CDBG-DR funds, while PRASA is the subrecipient, meaning that funds are managed by HUD.

COVID-19 Recovery Funds: On December 27, 2020, the CAA was enacted, providing coronavirus emergency response and relief funds as approved under ARPA.

Section 533 of the CAA provides $638 million to eligible recipients for the prevention, preparation, and response to the coronavirus pandemic. This includes necessary expenses to carry out the LIHWAP to assist low-income households that pay a high proportion of household income for drinking water and wastewater services. LIHWAP does so by providing funds to owners or operators of public water systems or treatment works to reduce arrearages of and rates charged to such households for such services.

The funds are allocated to recipients (including Puerto Rico) based on the following (1) the percentage of households in the State with income equal to or less than 150 percent of the Federal poverty line, and (2) the percentage of such households in the state that spend more than 30 percent of monthly income on housing.

4.2 FEMA's Public Assistance and Hazard Mitigation Programs

4.2.1 Emergency Work

Under the Public Assistance Program, FEMA is authorized to provide funding for Emergency Works[24], including emergency protective measures and debris removal. Emergency Works are performed immediately after a disaster to:

- Save lives;
- Protect public health and safety;
- Protect improved property; and
- Eliminate or lessen an immediate threat of additional damage.

Emergency Work is comprised of work that addresses immediate threats: Category A for debris removal, and Category B for emergency protective measures.

4.2.2 Permanent Work

Funding for permanent work applies to projects related to repairing or restoring to pre-disaster design, function, and capacity in accordance with codes or standards. This work is typically completed under Section 406 of the SA, which requires project worksheets to be submitted by qualifying sub-recipients for qualifying work. If the repairs or restoration is under the Alternative Procedures Program (Section 428 of the SA), FEMA funds all large permanent work projects based on fixed cost estimates. This is applicable to projects submitted under Hurricane Maria and could include other projects in other declared events if PRASA chose to enter the Alternative Procedures Program.

[24] 44 CFR § 206.201(b).

In light of the damage caused by the 2017 Hurricanes, the BBA allows FEMA to provide assistance to restore the disaster-damaged facilities to current industry standards without regard to pre-disaster conditions.

FEMA may approve projects developed based on codes and standards that are widely accepted and used, or best practices that are generally accepted by experts in the industry as long as standards are reasonable. The BBA allows for the repair or replacement of components not damaged by the disaster if the work connected to those components is required to restore the critical service function of the facility or system to an approved industry standard or standards. The pre-disaster condition of damaged or undamaged components is not a factor in determining the eligible scope of work.

PRASA, FEMA, and COR3 have been working collaboratively for years to adequately define the full need of reconstruction projects after the 2017 Hurricanes, size the cost estimates, and determine an efficient way of disbursing and utilizing pertinent federal funding to reconstruct the System.

On January 5, 2021, the President of the United States announced a net award of $3.66 billion for infrastructure projects to rebuild PRASA's System from the devastation caused by the 2017 Hurricanes. The total amount obligated for permanent work projects has been agreed to by PRASA, COR3, and FEMA pursuant to the FAASt Initiative. This obligation of funds from FEMA does not constitute an authorization for construction, and each project must be submitted to FEMA for eligibility determination and formulation.

As a requirement associated with this funding obligation, FEMA and COR3 required PRASA to submit a work plan (called PRASA's FAASt Workplan) within 90 days of the funding obligation date. PRASA submitted the initial work plan on April 8, 2021, outlining PRASA's proposed investments in its System over the next ten years. The Authority has been updating and submitting the work plan to COR3 and FEMA every 90 days, as required by FEMA.

4.2.3 Public Assistance Hazard Mitigation (Section 406 of the SA)

Section 406 mitigation measures are funded under the Public Assistance Program. This program provides funding for cost-effective measures that would reduce or eliminate the threat of future similar damage to facilities previously damaged by a disaster. Section 406 funding provides discretionary authority to fund mitigation measures in conjunction with the repair of the disaster-damaged facilities and is limited to eligible damaged facilities. Section 406 funds should be applied to work on the disaster-damaged facilities when the mitigation measure directly reduces the potential of future, similar disaster damage to the eligible facility. The projects expected to be funded under this program (as of April 30, 2024) are included in Table 4-1.

TABLE 4-1: DISASTER RELATED HAZARD MITIGATION (406) PROJECTS (IN $ MILLIONS)

Disaster Related Hazard Mitigation - Section 406 Projects			
Projects	FEMA (406)	FAASt	Approved $'M
Dorado-Barceloneta	$ 792.0	$ -	$ -
AMI Project	$ 580.0	$ 210.0	$ 790.0
San Sebastian	$ 17.1	$ -	$ -
RehabTrunk Sewer 42" Barceloneta	$ 17.1	$ 25.8	$ 42.9
WTP Morovis Sur Water Intake	$ 3.9	$ 40.5	$ 44.3
WTP Morovis Sur Rehabilitation	$ 0.9	$ 1.9	$ 2.7
Rehabilitation E. Ortega WTP	$ 2.3	$ 124.5	$ 126.8
Membranes Isabela Lake	$ 6.9	$ 9.7	$ 16.6
Rehabilitation of Lares Espino WTP	$ 1.8	$ 22.9	$ 24.7
	$ 1,422.0	**$ 435.2**	**$ 1,048.1**

The most recent award from HMGP funds has been announced by FEMA on April 11, 2024 to replace all water meters across the island with resilient smart meters and implementing remote meter reading. This mitigation funding is the highest to date obligated under Hurricane María. For more detatil on the AMI project please refer to Section 3.1.1.2.

4.2.4 Hazard Mitigation Grant Program (Section 404 of the SA)

Funds under Section 404 can be used to provide mitigation funding to undamaged parts of a facility or to prevent or substantially reduce the risk of damage caused by future disasters. Section 404 mitigation measures are funded under the HMGP.

A percentage (20%) of the total federal share of the declared disaster damage amount Puerto Rico receives, may be used to fund projects anywhere in Puerto Rico, regardless of where the declared disaster occurred or the disaster type.

Federal grants provided under Section 404 may be used in conjunction with Section 406 mitigation funds to bring an entire facility to a higher level of disaster resiliency, but only when portions of the facility were damaged by the current disaster event.

As of April 30, 2024, PRASA has submitted HMGP Section 404 Applications requesting $423.0 million in assistance as shown in Table 4-2.

TABLE 4-2: HMGP (404) APPLICATIONS (IN $ MILLIONS)

Non Disaster Related (HMGP) - Section 404 Projects				
Projects	Requested $'M		Approved $'M	
Valenciano	$	417.5	$	18.5
EGUs La Plata - Phase I	$	1.4	$	1.4
Salinas WTP - Phase I	$	2.7	$	2.7
	$	**421.6**	**$**	**22.6**

4.3 HUD CDBG Programs

HUD provides flexible grants to help U.S. cities, counties, territories and states to recover from Presidentially-declared disasters, especially in low-income areas, subject to the availability of supplemental appropriations. In response to Presidentially-declared disasters, Congress may appropriate additional funding for the CDBG Program through Disaster Recovery grants to rebuild the affected areas and provide financial assistance to start the recovery process. Financial assistance from CDBG-DR will fund a broad range of recovery activities allowing HUD to help communities and neighborhoods that otherwise might not recover due to limited resources.

Each CDBG-DR activity, including CDBG-MIT (Mitigation), must meet the following criteria: (1) address a disaster-related impact (direct or indirect) in a Presidentially-declared disaster area; (2) be a CDBG-DR eligible activity; and (3) meet a CDBG-DR national objective. The CDBG-DR national objectives include: (1) benefiting low-and moderate-income persons; (2) aiding in the prevention or elimination of slums or blight; and, (3) meeting urgent community development needs. The Puerto Rico Department of Housing has been designated by the Government of Puerto Rico as the agency responsible for administering CDBG-DR funds. Under the commitment to administer the funds in an efficient and transparent manner, PRHUD built its “Action Plan” to govern the recovery and reconstruction of the Island, after receiving multi-sector recommendations. The latest version of the Action Plan is available on the Department of Housing’s website.

4.3.1 HUD CDBG-DR Program

CDBG-DR funding supplements other Federal recovery assistance programs administered by FEMA, the Small Business Administration (SBA), and USACE. CDBG-DR funds cannot duplicate funding available from federal, state or local governments, private and non-profit organizations, insurance proceeds, or any other source of assistance. CDBG-DR funds can be applied to fund the local match requirement – NFMP (Non-Federal Match Program). NFMP uses CDBG-DR funds to provide a separate grant to meet the local cost share requirement for other federal programs, including FEMA and consists of three sub-programs:

- FEMA Public Assistance (PA) Match;
- FEMA Individual Assistance (IA) Match; and
- HMGP Global Match.

Most FEMA funding for permanent works requires the recipient to match 10% of the total amount. The Authority plans to meet its cost-share portion with CDBG-DR Program funds, as they become

available and as designated in accordance with the Department of Housing's Action Plan. Under the NFMP, the Authority has $406.9 million in eligible costs from the FAASt obligation and additional costs from the Section 404 and Section 406 programs to cover the state match needs for funding under FEMA Programs.

In the event that these funds are not available or otherwise not designated in the Action Plan, PRASA must identify alternate options to cover the required local cost share obligation.

On September 2, 2021, PRHUD and the Authority entered into a sub-award agreement for $200 million under the CDBG-DR NFMP to fund the state match of the FEMA FAASt award.

Under CDBG-DR Program, in June 2021, $2 billion was appropriated for electric power system enhancements and improvements for Puerto Rico and the U.S. Virgin Islands. CDBG-DR funds for electrical power system improvements provide a unique and significant opportunity for Puerto Rico and the USVI to carry out strategic and high-impact activities to address necessary expenses and mitigate disaster risks to their electrical power systems; improve system reliability, resiliency, efficiency, and sustainability; and address each system's long-term financial viability. On June 22, 2021, HUD published Federal Register Vol. 86, No. 117 (June 22, 2021), 86 FR 32681, which governs the use of the $2 billion CDBG–DR allocation for enhanced or improved electrical power systems in Puerto Rico and the U.S. Virgin Islands. Of those $2 billion, $1,932,347,000 was allocated to Puerto Rico to enhance the Puerto Rico electrical power system.

4.3.2 HUD CDBG-MIT Program

CDBG-MIT Program is a unique and significant opportunity for eligible grantees to use this financial assistance to support areas impacted by recent disasters to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

The program defines mitigation as activities that increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship by lessening the impact of future disasters.

The CDBG-MIT Program applies for costs not covered or in excess of funding available from the FEMA Public Assistance Non-Disaster Related Hazard Mitigation (Section 404) Program. Therefore, availability of these funds will be subject to Congressional appropriation under Section 404.

Table 4-3 lists the CDB-MIT Applications that PRASA has submitted as of April 30, 2024.

TABLE 4-3: CDBG-MIT APPLICATIONS (IN $ MILLIONS)

CDGB MITIGATION PROJECTS			
Projects	CDBG	FEMA (404)	Approved $'M
EGUs La Plata - Phase II	$ 19.8	$ 1.4	$ 21.2
Bauta	$ 257.4	$ -	$ 26.4
Salinas WTP - Phase II	$ 24.3	$ 2.7	$ 27.0
San Lorenzo Distrib System	$ 85.0	$ -	$ 85.0
	$ 386.5	**$ 4.1**	**$ 159.6**

4.4 American Rescue Plan Act (ARPA)

ARPA was signed into law on March 11, 2021. It provided additional relief to respond to the impact of the COVID-19 pandemic in the United States and its territories.

ARPA provided $1.9 trillion in total stimulus, building upon the $2.2 trillion provided under the CARES Act and the $910 billion provided under CAA Act.

A summary of the ARPA provisions that are relevant to the Authority is included below.

4.4.1 State and Local Assistance

Under Subtitle M, Section 9901 of ARPA, Coronavirus State and Local Fiscal Recovery Funds of $350 billion were allocated to state, territorial and local governments support their response to and recovery from the COVID-19 public health emergency.

The funds should be obligated by December 31, 2024, spent by December 31, 2026, and must be used for the following purposes:

- Respond to the public health emergency caused by COVID-19 and its negative economic impacts;
- Provide premium pay to eligible workers performing essential work during the COVID–19 public health emergency;
- Replace revenue that was lost, delayed, or decreased as a result of the COVID-19 public health emergency; and
- Make necessary investments in water, sewer, or broadband infrastructure.

ARPA aid to the U.S. Territories[25] amounted to $6.67 billion ($4.5 billion for the Territories and $2.17 billion for local governments) And was allocated as follows:

- 50% to be allocated equally among the territories, and
- 50% to be allocated to each territory proportionally based on population.

A total of $2.47 billion was allocated to Puerto Rico's central government (allocation as a U.S Territory) and $1.5 billion was allocated to Puerto Rico's municipalities (allocation for local governments).

Table 4-4 details PRASA's projects to be funded with ARPA funds.

[25] Includes American Samoa, Guam, Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands

TABLE 4-4: ARPA FUNDS ALLOCATED FOR PRASA PROJECTS – (IN $ MILLIONS)

Project	Municipality	Allocation Date	Allocation to PRASA
Naranjito WTP	Naranjito	01-Dec-21	$ 54.9
Improvements Santa Rita Sanitary Sewer System	Fajardo	01-Dec-21	6.4
Ceiba Norte and Gurabo Abajo Juncos Sanitary Sewer System	Juncos	01-Dec-21	1.3
Improvements to La Piedra & Pasto Viejo Distribution Systems	Cayey	01-Dec-21	2.5
Improvements to Pajita Falcon Water Supply System	Aguas Buenas	01-Dec-21	0.4
WWPS Hacienda Las Lomas, Ceiba	Ceiba	18-Dec-23	2.0
D&B of Cruzadas Well and Improvements to Piazza Tank	Yauco	11-Oct-23	3.0
Replacement of El Yunque WWTP with El Yunque WWPS (Las Picuas)	Rio Grande	20-Apr-23	11.3
Caño Martin Peña Program	San Juan	15-Feb-22	130.0
Total ARPA Allocation for Infrastructure			**$ 211.7**

PRASA must pursue additional funding to complete these projects, and any other projects, but there is no guarantee that any additional funds will be received. Only the funds required for the listed projects were included in the Fiscal Plan projections.

4.4.2 Water and Sewer Utilities

Allocation of funds under ARPA specifically for water and sewer utilities included $500 million for water assistance grants to states and territories (including Puerto Rico) "to assist low-income households, particularly those with the lowest incomes, that pay a high proportion of household income for drinking water and wastewater services". The Government will provide the funds under this provision to "owners or operators of public water systems or treatment works to reduce arrearages of, and rates charged to such households for such services" under the LIHWAP.

PRASA requested funding allocated to Puerto Rico for the benefit of qualifying low-income households through the Office of Administration for the Families Socioeconomic Development (ADSEF by its acronym in Spanish). ADSEF received notification that the LIHWAP State Plan for Puerto Rico was approved and $4.5 million was received by PRASA and applied to low-income customers' debt relating to water and wastewater services.

2.1.1 Emergency Rentals Assistance Program

Additionally, Section 501 of the 2021 CAA provides up to $25 billion to assist households that are unable to pay rent or utilities under the Emergency Rental Assistance Program (ERAP). Subsequently, on March 11, 2021, ARPA increased the amount for such program by $21.55 billion. As of April 30, 2024, PRASA received $23.1 million and applied it to outstanding balances for water and wastewater services of qualifying beneficiaries through the PRHUD.

4.4.3 Other Provisions

ARPA provided additional funding of up to $9.96 billion for relief to the most vulnerable homeowners under the Homeowner Assistance Fund (HAF) to prevent mortgage delinquencies and defaults, foreclosures, loss of utilities or home energy services, and displacement of homeowners experiencing financial hardship after January 21, 2020. Funds from the HAF may be used for assistance with mortgage payments, homeowner's insurance, utility payments, and other specified purposes. The law prioritizes funds for homeowners who have experienced the greatest economic hardships, leveraging local and national income indicators to maximize the impact.

In April 2021, $75.6 million was assigned to Puerto Rico. As of December 31, 2023 PRASA had received $3.2 million for the benefit of its clients.

4.5 Supplemental SRF Programs

4.5.1 Bipartisan Infrastructure Law (BIL)

In November 2021, the Bipartisan Infrastructure Law (BIL), was signed into law. BIL allocates $550 billion in new spending over the next five years, destined for the improvement of the surface-transportation network (including roads and bridges, public transit, and electric vehicles) and core infrastructure, which includes water infrastructure. BIL will provide more than $50 billion to address aging water infrastructure, provide funding to replace lead pipes, upgrade water treatment facilities, address emerging contaminants in small and disadvantaged communities, and ensure that water systems are resilient.

The funding will be administered through programs managed by USEPA, and will be divided as follows:

- $20+ billion for safe drinking water
- $15 billion to replace lead pipes
- $12+ billion to ensure clean water for communities and
- $1.8 billion to protect regional waters, including $135 million for additional water improvements.

TABLE 4-5: TOTAL BIL FUNDS FOR WATER PROJECTS – (IN $ BILLIONS)

Program	Objective	Funding Source	Grant	Loan	State Match	Amount ($B)
Drinking Water	Lead Service Line Replacement	DWSRF	49%	51%	No	$ 15.0
	Drinking Water Infrastructure	DWSRF	49%	51%	10%	11.7
	Addressing Emerging Contaminants	DWSRF	100%	0%	No	4.0
Clean Water	Waste and Storm Water Infrastructure	CWSRF	49%	51%	10%	11.7
	Addressing Emerging Contaminants	CWSRF	100%	0%	No	1.0
						$ 43.4

BIL also provides for an additional $2 billion in funding for regional water protection, including estuaries and other specific projects.

The funds allocated (FY2022 and FY2023) and expected to be allocated for Puerto Rico, under the CW and DWSRF are included in the following table:

TABLE 4-6: BIL FUNDS FOR PUERTO RICO – (IN $ MILLIONS)

	Actual Allocation		Projected Allocation			
Program	**FY2022**	**FY2023**	**FY2024**	**FY2025**	**FY2026**	**Total**
DWSRF						
Supplemental	$19.79	$23.16	$23.00	$23.00	$23.00	$111.95
Lead Service Line Replacement	28.35	28.65	28.50	28.50	28.50	142.50
Emerging Contaminants	7.55	7.64	7.5	7.5	7.3	37.49
Total DWSRF BIL	**55.69**	**59.45**	**59.00**	**59.00**	**58.80**	**291.94**
CWSRF						
Supplemental	25.50	29.90	30.00	30.00	30.00	145.40
Emerging Contaminants	1.20	2.77	2.50	2.50	2.50	11.47
Total DWSRF BIL	**26.70**	**32.67**	**32.50**	**32.50**	**32.50**	**156.87**
Total BIL Funds	**$82.39**	**$92.12**	**$91.50**	**$91.50**	**$91.30**	**$448.81**

The final appropriation under BIL for Puerto Rico for FY2024 through 2026 is subject to final allocation.

2.1.2 Supplemental Appropriation for Hurricanes Fiona and Ian (SAHFI)

The Consolidated Appropriations Act, 2023, signed into law on December 29, 2022, assigned approximately $1.1 billion in disaster relief supplemental funding for the SRF programs: $665.2 million CWSRF programs and $402 million for DWSRF programs, available only to states or territories in EPA Regions 2 and 4 for wastewater treatment works and drinking water facilities impacted by Hurricanes Fiona or Ian. Only the State of Florida and Puerto Rico are eligible to apply for these DWSRF and CWSRF supplemental funds.

Puerto Rico must apply for and receive SAHFI capitalization grant award(s) from EPA by the end of federal government fiscal year 2024 (September 30, 2024). The awarded funds must be committed (i.e., sign assistance agreements) by the recipient (PRDNER or PRDOH) within one year after the receipt of each capitalization grant payment from EPA.

For projects to be eligible under the SAHFI, they must be SRF eligible and have the purpose of reducing flood or fire damage risk and vulnerability or enhancing resiliency to rapid hydrologic change or natural disaster.

The allocation for Puerto Rico was $556 million, $334 for the CWSRF and $222 for the DWSRF. PRASA and EPA are in conversation to determine eligible projects to be funded with these funds. Most of the funding under DWSRF is expected to be allocated to PRASA and the CWSRF appropriation is expected to be distributed among various qualifying recipients throughout Puerto Rico, including PRASA.

4.6 Supplemental RD Programs

RD has recently allocated additional funds for eligible rural areas to address past or future emergencies, such as hurricanes, flooding and earthquakes.

4.6.1 Emergency Community Water Assistance Program (ECWAG)

The ECWAG program provides grants to eligible communities for preparation or recovery from an emergency that threatens the availability of providing safe, reliable drinking water in rural areas with a population of 10,000 or less.

PRASA requested $3.6 million under this program to cover costs associated with the impact of Fiona, which were received in December 2023.

2.1.2 Disaster Water Grants (DWG)

The calendar year 2022 Disaster Water Grants program helps eligible communities pay expenses related to damages to rural water systems as a result of events (Presidentially - Declared Disasters) that occurred between January 1, 2022, and December 31, 2022. For the purposes of this program, the term "water" refers to all water resource infrastructure, including drinking water, wastewater, stormwater drainage, and solid waste facilities. These funds will be used by PRASA to supplement the ECWAG funds, which were only for water projects, to cover incremental costs as a result of Hurricane Fiona in its wastewater infrastructure, which were not covered under the FEMA programs. The preliminary estimated amount to be requested under this program during 2024 amounts to $5.6 million.

4.7 Funding Status

The total federal funds for (i) Reconstruction and Recovery projects after the 2017 Hurricanes and 2020 Earthquakes, (ii) Coronavirus relief, and (iii) water and wastewater infrastructure funds identified, obligated and received as of March 31, 2024 are presented in Table 4-7.

TABLE 4-7: IDENTIFIED, OBLIGATED AND RECEIVED FEDERAL FUNDS (IN $ MILLIONS)

	Program	Funding Source	Identified Amount ($M)	Obligated/ Approved ($M)	Received ($M)
Reconstruction and Recovery	Emergency Work (Cat A&B Hurricanes/	FEMA (PA)	$ 229.5	$ 229.5	$ 224.7
	Permanent Work (FAASt, Sec 428)	FEMA (PA)	3,663.0	3,663.0	47.3
	Disaster Related Hazard Mitigation	FEMA (406)	1,422.0	1,048.1	-
	Non Disaster Related (HMGP)	FEMA (404)	421.6	22.6	4.6
	CDBG - MIT	HUD	386.5	159.6	-
	CDBG – DR (Non Federal Match)	HUD	406.9	200.0	4.4
	Direct Administrative Costs (DAC)	FEMA (PA)	203.5	-	-
	Working Capital Advance (Perm Work)	FEMA (PA)	-	-	309.4
	SRF - SAHFI	EPA	555.0	-	
	RD - Harvey, Irma and Maria Grant	RD	24.7	24.7	24.7
	Emergency Communities Water Assist.	RD	3.6	3.6	3.6
	Disaster Water Grants	RD	5.6	-	-
	Reconstruction & Recovery Funds		**$ 7,321.9**	**$ 5,351.2**	**$ 618.7**
Coronavirus Relief Funds	Cares Act	ARPA/OMB	$ 2.1	$ 2.1	$ 2.1
	Naranjito, Sta Rita & Other Projects	ARPA	65.0	65.0	65.0
	Caño Martin Peña	ARPA	129.1	129.1	129.1
	Calle Loiza	ARPA	7.7	7.7	7.7
	Las Picuas - Rio Grande	ARPA	11.3	11.3	11.3
	Other Infrastrucuture Projects	ARPA	9.6	9.6	9.6
	Premium Pay	ARPA	12.1	12.1	12.1
	LIHWAP	ARPA/CAA	5.0	5.0	5.0
	ERAP – Emergency Rental Assistance	HUD	23.1	23.1	23.1
	Mortgage Assistance Program	HFA	3.2	3.2	3.2
	Total Coronavirus Relief Funds		**$ 268.2**	**$ 268.2**	**$ 268.2**
Infrastructure Funds	CWSRF - Regular + BIL	EPA	282.1	237.8	89.8
	DWSRF - Regular + BIL	EPA	157.8	127.9	42.7
	Total Funds for Infrastructure Projects		**$ 439.9**	**$ 365.7**	**$ 132.5**
	TOTAL		**$ 8,030.0**	**$ 5,985.1**	**$ 1,019.5**

A total of $8 billion of federal funding has been identified, of which $6 billion has been obligated and $1 billion has been received.

As of March 31, 2024, the funds for infrastructure projects received by fiscal year are included in Table 4-8.

TABLE 4-8: FEDERAL FUNDS RECEIVED FOR INFRASTRUCTURE (IN $ MILLIONS)

Program	FY2020	FY2021	FY2022	FY2023	FY2024	Total
Permanent Work (FAASt, Sec 428)	$ -	$ 0.9	$ 15.2	$ 13.9	$ 17.3	$ 47.3
Non Disaster Related (HMGP)	-	-	-	-	5	5
CDBG – DR (Non Federal Match)	-	-	2	3	0	4
Working Capital Advance (Perm Work)	-	-	-	233	77	309
RD - Harvey, Irma and Maria Grant	-	-	23	1	-	25
Emergency Communities Water Assist.	-	-	-	-	4	4
Reconstruction & Recovery Funds	**-**	**1**	**40**	**251**	**102**	**394**
Naranjito, Sta Rita & Other Projects	-	-	65	-	-	65
Caño Martin Peña	-	-	-	-	129	129
Calle Loiza	-	-	-	8	-	8
Las Picuas - Rio Grande	-	-	-	11	-	11
Other Infrastrucuture Projects	-	-	-	6	4	10
Total Coronavirus Relief Funds	**-**	**-**	**65**	**25**	**133**	**223**
CWSRF - Regular + BIL	19	11	17	21	22	90
DWSRF - Regular + BIL	7	3	11	9	13	43
Infrastructure Projects	**26**	**14**	**28**	**30**	**34**	**133**
TOTAL	**$ 26.2**	**$ 14.9**	**$ 132.9**	**$ 305.3**	**$ 269.9**	**$ 749.2**

The federal fund inflow for capital projects expected during the Certified Fiscal Plan period is presented in Table 4-9, included below.

TABLE 4-9: PROJECTED FEDERAL FUNDS NEEDS FOR INFRASTRUCTURE (IN $ MILLIONS)

Program	Funding Source	2024	2025	2026	2027	2028	2029	2030	2031
Permanent Work/CDBG DR	FEMA (PA)/HUD	$ 244.3	$ 873.7	$ 1,304.5	$ 1,117.3	$ 594.2	$ 200.9	$ 99.2	$ 81.2
Disaster Related Hazard Mitigation	FEMA (406)	12.1	67.6	413.5	657.7	132.3	28.9	25.4	158.6
Non Disaster Related (HMGP)	FEMA (404)	2.9	21.4	57.5	155.3	178.1	72.4	20.7	-
CDBG-MIT	HUD	3.5	12.9	22.2	34.1	58.8	66.5	56.4	25.3
Direct Administrative Cost	FEMA (PA)	30.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Disaster Recovery Funds		**292.8**	**990.7**	**1,812.7**	**1,979.4**	**978.4**	**383.7**	**216.9**	**280.1**
Coronavirus Relief Funds (ARPA)		**13.5**	**53.2**	**121.2**	**74.2**	**13.1**	**-**	**-**	**-**
SRF Regular	EPA	73.3	114.5	119.1	63.9	22.4	21.8	36.8	18.3
SRF - BIL Act	EPA	14.5	64.6	66.1	41.0	15.2	3.5	5.3	0.9
SRF - SAHFI	RD	3.0	26.9	163.8	191.6	65.3	39.7	34.1	22.7
SRF and RD Funds		**90.9**	**206.0**	**349.0**	**296.5**	**102.8**	**65.0**	**76.1**	**42.0**
Projected Funds for CIP		**$ 397.1**	**$ 1,249.8**	**$ 2,282.9**	**$ 2,350.1**	**$ 1,094.2**	**$ 448.7**	**$ 292.9**	**$ 322.1**

Program	Funding Source	2032	2033	2034	2035	2036	2037	2038	2024/2038
Permanent Work/CDBG DR	FEMA (PA)/HUD	$ 33.8	$ 12.6	$ 11.1	$ 13.1	$ 1.3	$ -	$ -	$ 4,587.0
Disaster Related Hazard Mitigation	FEMA (406)	382.1	340.9	113.4	2.0	0.2	-	-	2,334.5
Non Disaster Related (HMGP)	FEMA (404)	-	-	-	-	-	-	-	508.4
CDBG-MIT	HUD	8.7	-	-	-	-	-	-	288.6
Direct Administrative Cost	FEMA (PA)	15.0	10.6	10.6	10.6	10.6	10.6	10.6	213.7
Disaster Recovery Funds		**439.5**	**364.1**	**135.1**	**25.7**	**12.1**	**10.6**	**10.6**	**7,932.3**
Coronavirus Relief Funds (ARPA)		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**275.1**
SRF Regular	EPA	62.3	42.6	30.0	24.7	15.2	15.0	7.8	667.5
SRF - BIL Act	EPA	-	-	-	-	-	-	-	211.0
SRF - SAHFI	RD	7.7	-	-	-	-	-	-	554.8
SRF and RD Funds		**69.9**	**42.6**	**30.0**	**24.7**	**15.2**	**15.0**	**7.8**	**1,433.4**
Projected Funds for CIP		**$ 509.5**	**$ 406.7**	**$ 165.0**	**$ 50.4**	**$ 27.3**	**$ 25.6**	**$ 18.4**	**$9,640.8**

The amounts presented in this section are subject to projects' final needs, eligibility, cost-benefit analysis and program funds availability and distribution among qualifying recipients.

5 Risks and Mitigating Strategies

As a large and complex utility operating in an uncertain environment, PRASA's implementation of its key measures is subject to risks and unforeseen events, many of which are outside of the Authority's control. Table 5-1 summarizes an analysis of the key risks that have been identified as having the potential to impact or delay PRASA's Fiscal Plan implementation and the corresponding mitigation strategies. However, it is worth noting that this outlook is based on the best information available as of the date of preparation of this Fiscal Plan and, over time, PRASA may become aware of additional existing risks or new risks may arise that could significantly affect the Authority's financial and/or operational performance, including actions by Local or Federal Government and/or the US Congress.

TABLE 5-1: RISKS TO FISCAL PLAN IMPLEMENTATION AND MITIGATING STRATEGIES

Risk Category	Potential Impacts	Mitigating Strategies
Natural Disasters & Climate Vulnerability	**Catastrophic natural disasters** – Events such as droughts, floods, pandemics, hurricanes, and earthquakes could have significant financial and operational impacts, including system failures, water rationing, and environmental noncompliance. The severity of some of these events and their impacts on the Authority may be exacerbated over time due to climate change.	• Emergency Response Plans and a Climate Change Vulnerability Study and Adaption Plan are integrated into operations and into the 2024 Master Plan to be considered for PRASA's infrastructure investments. • Maintain a fully funded Operating Reserve Fund equivalent to 3-month of operating expenses.
Revenue risks	**Decreased demand –** Decreases in population and reduced consumption among customers are expected to reduce revenues during the Fiscal Plan Period.	• Meter replacement program focused on resiliency and increasing the precision of billed water consumption.
	Lower collections rates – Collections rates may be lower than forecast due to overall inability of customers to pay for services, resulting in decreased revenues.	• Maintain a fully funded Operating Reserve Fund equivalent to 3-month of operating expenses. • Increased and enhanced digital payment options and collection capabilities. • Payment plans available for eligible customers. • Performance of service disconnection following PRASA's procedures and policies.
Expenditures and Regulatory Risks	**Major change in Systems performance** – A decrease in Systems performance (e.g., major infrastructure failure, water quality crisis) due to deteriorating Systems conditions may significantly increase operating and capital expenses to address issues.	• Maintain a fully funded Operating Reserve Fund equivalent to 3-month of operating expenses. • Ensure CIF is funded to appropriate levels to address CIP project outlays such as renewal and replacements and potential emergency projects. • Maximize federal funding to materially improve the Systems condition.

Risk Category	Potential Impacts	Mitigating Strategies
	Changes in payroll legislation – Payroll expenses account for around 40% of projected operating expenses. Changes in payroll legislation, including changes to the state or federal pay scales and minimum wages, will materially impact PRASA's largest cost component, the execution of right-sizing measures, capacity, and PRASA's salary competitiveness and employee retention in a high demand labor market.	• New Job Classification and Compensation Plan aligned with OATRH and other applicable benchmarks. • The impact of the updated Compensation Plan incorporated into the financial projections included herein.
	Changes in electricity rate costs – Electricity accounts for around 20% of projected operating expenses. Variations of $0.01/kWh can lead to annual expense variances of over $6 million.	• Closely monitor the implemented energy efficiency and electricity consumption reduction measures. • Implement renewable energy alternatives as described in the Certified Fiscal Plan.
	Increase in chemicals costs – As a result of the current market prices and chemicals availability, material changes may impact PRASA's financial projections.	• Increased costs were incorporated into the financial projections. • Continuous analysis and implementation of efficiency measures. • Competitive process for chemicals acquisitions when applicable (for non-exclusive suppliers of chemicals).
	Availability of contracted resources to execute the CIP as planned – The recent inflow of FEMA and other federal funds will increase demand of contractors and materials which will create challenges to execute the CIP as planned, regarding both timing and cost. Additionally, changes to salaries in the construction industry and increased prices of commodities and other raw materials may further increase the CIP projected costs and therefore create incremental financing needs.	• Attract contractors to PRASA projects through timely payment and long-term contracting. • Closely monitoring the CIP implementation and timely correction of deviation when possible. • Frequent revisions to reflect material CIP changes to adjust timing or the required needs of funding, when applicable.
	More stringent environmental regulations – Changes in environmental legislation (e.g., more stringent drinking water standards) may increase overall expenses for chemical and lab usage, in addition to possible requirement of mandated project costs.	• Prioritize projects to address environmental compliance and agreement of the modified Consent Decree, adapted to PRASA's updated situation and condition. • Frequent revisions to reflect material CIP changes to adjust timing or the required needs of funding, when applicable. • Identify federal funds to cover incremental cost of compliance with new potential regulations and quality parameters.

Risk Category	Potential Impacts	Mitigating Strategies
Financing Risks	**Reduction in federal funds availability or timing delays – either** would require additional self-funding for the CIP or interim financing to cover any shortfalls or delays in the federal funding disbursement process	• Maintain a healthy liquidity to allow for the required payments to contractors prior to receipt of federal funds. • Proper and efficient management of federal funds requests and documentation, including the reorganization of the Infrastructure Department to address the increased volume of projects federally funded. • Access the capital market for interim financing, as and if needed.
Operational Risks	**Management capability –** Lack of capability to execute and fully deliver on assigned measures in the Fiscal Plan. If benefits are not achieved and/or fall short of targets that could negatively affect the financial projections included herein.	• Ensure PMO has a clear oversight role over the Fiscal Plan measures and the ability to escalate problems to the appropriate decision-making parties. • Ensure continuous and consistent monitoring of KPIs and milestones for all measures identified in the Fiscal Plan, so that the PMO has the ability to measure and report progress, identify roadblocks, and address them in a timely manner.
	Coordination gaps – Some measures require coordination across many functional groups, agencies, and stakeholders. There is a risk that a lack of coordination prevents the full implementation of measures in a timely manner, which would delay the Fiscal Plan objectives of long-term financial and operational sustainability.	• Assign clear owners for each measure and establish an operating model for cross-department collaborations under the PMO. • Maintain fluid and continued communication with federal and local agencies, such as FEMA, EPA, PRDOH, PRDNER, PRHUD, and RD.
	Workforce availability – Personnel recruiting challenges due to the lack of resources and below market salary levels can impact PRASA's operations and the provision of adequate service.	• Gradually achieve appropriate headcount level based on PRASA's needs. • Adjust the Compensation Plan to allow for competitive salaries, reduce employee turnover and improve competitiveness of PRASA in the labor market.

6 Long-Term Fiscal Responsibility and Operational Sustainability

As presented under Section 2.1.3 of this Certified Fiscal Plan, PRASA has executed several debt modification transactions that have resulted in significant debt service savings. The debt service reduction measures coupled with other revenue enhancement and cost savings measures, as outlined under Sections 2.1.1 and 2.1.2 of this Certified Fiscal Plan, have been critical to set the foundation for PRASA to focus on addressing its main challenges which require a long-term solution to achieve fiscal responsibility and operational sustainability. For example, PRASA has identified that many of the operational and infrastructure initiatives included in this Certified Fiscal Plan, such as addressing NRW – both physical and commercial water losses – and reducing electricity costs, are long-term initiatives. Efforts that will require significant resources and longer timelines for both implementation and the materialization of its benefits. Furthermore, although PRASA has consistently been paying its operating expenses, debt service obligations, and the non-federally funded portion of CIP projects with operating revenues, the Certified Fiscal Plan projects the use of cash reserves under the RSA for both FY2025 and FY2026.[26] Which in turn underscores the importance of implementing the measures included in the Certified Fiscal Plan.

The capital-intensive nature of water utility operations will require, in the long term, accessing the capital markets to raise the necessary funding for CIP costs not covered by federal grants and low-cost loans. Although no additional long-term debt issuance, other than debt to Federal Lenders, is forecasted during the Fiscal Plan Period, in future years PRASA's CIP may be partially financed through the issuance of long-term debt, as needed. Such debt issuances could be considered if they enable the distribution of the financial burden of major capital works on customers across a longer period and sustain affordable water and wastewater rates while funding essential works on the System. Following the January 5, 2021 FEMA obligation that provides $3.66 billion for recovery projects and the availability of other significant federal grants and other funding described in Chapter 4, the need to access credit markets for CIP financing is not expected to be required in the near- to medium-term. This funding has placed PRASA in a stable financial situation, in the short and medium term, that should allow it to continue improving the condition of the System and the Authority's operations for the benefit of the people of Puerto Rico.

6.1 Plan for Maintaining Long-Term Fiscal Responsibility

To achieve long-term fiscal responsibility, PRASA must (a) implement the measures outlined in Chapter 3 to build on improvements made in financial and operational performance to mitigate future demographic, economic, environmental/climate, and fiscal challenges and (b) maximize federal funding from the programs described in Chapter 4 and from any additional funding that may become available.

[26] The use of the cash reserves in the RSA is pursuant to the dispositions in the MAT – which allows PRASA the use of prior year surpluses to avoid increasing rates beyond the already projected 2% rate increase effective July 1, 2024 as stated under Section 3. 1.1.1 of this Certified Fiscal Plan.

PRASA is committed to building on its past financial accomplishments particularly in improving the conditions and operational efficiency of its System through a timely, on-budget execution of its CIP. These areas are expected to be properly addressed with the projected inflow of federal funds to cover (with appropriate contributions from PRASA's internal funds) its CIP needs. Table 6-1 sets forth key steps that are being and must continue to be taken by PRASA which demonstrate its commitment to long-term fiscal responsibility through meaningful and measurable actions.

TABLE 6-1: ACTIONS TAKEN TO MAINTAIN LONG-TERM FISCAL RESPONSIBILITY

Authority action plan		STATUS
Implementation of Fiscal Plan Measures	• Ensure implementation of measures discussed in Chapter 3 through the management and oversight of the Steering Committee.	On going
Federal Funds Maximization	• Maximize FEMA funds for Systems recovery and reconstruction in a manner consistent with best industry practices. • Maximize use of low-cost funding resources, such as SRF program or USDA RD bonds, by ensuring project compliance with these programs. • Identify and maximize funding of other federal program as described in Chapter 4 and any additional funding that may become available.	On going
Systems health, service area, and economy	• Ensure long-term planning by updating the Authority's Master Plan, 15-year CIP, and Emergency Response Plan. While also including the plan recommendations into PRASA's CIP.	On going
Financial strength of operations	• Budgeting to comply with or exceed MAT covenant requirements, including proper funding for operating expenses, debt service, reserves, and CIP. • Publish long-term financial projections (Fiscal Plans). • Quarterly interim financial results and key operational information. • Maintain 90-day cash balance in the ORF.	Completed
Rate setting process and regulatory compliance	• Timely, systematic annual rate increases from FY2024 and onward, consistent with industry best practices, economic factors, and feedback from key stakeholders. • Ensure rate affordability.	On going
Strength and independence of governance	• Limit turnover of key decision makers by continuing current succession process. • Compliance with Act No. 68-2016: (i) a diversified, independent, and professionalized Governing Board; (ii) Executive Officers appointed by the Governing Board complying with specific requirements; and (iii)	Completed

Authority action plan		STATUS
	specific terms for non-ex-officio Governing Board members and key executive officers.	
Operational and financial management assessments	• Develop and implement disclosure best practices, including: ○ Operational and financial measure tracking; ○ Timely publication of audited financial statements; ○ Quarterly interim operating reports; and ○ Annual consulting engineer reports.	Completed
CIP delivery	• Ensure efficient execution of capital projects through capital delivery optimization.	On going

6.2 Debt Sustainability Analysis (DSA)

The DSA provides a framework to assess PRASA's long-term capacity to pay debt service under the terms of the MAT and future market access needs. PRASA's debt levels need to be consistent with industry standards to ensure market access for future borrowing to fund, when and if needed, ongoing infrastructure investment.

As described in this Fiscal Plan, PRASA is focused on continuing to execute a set of financial, operational, and non-financial measures to ensure continued access to capital markets at reasonable rates. The annual projected debt service is presented in Exhibit 6-1 included below.

EXHIBIT 6-1: PROJECTED ANNUAL DEBT SERVICE (IN $ MILLIONS)

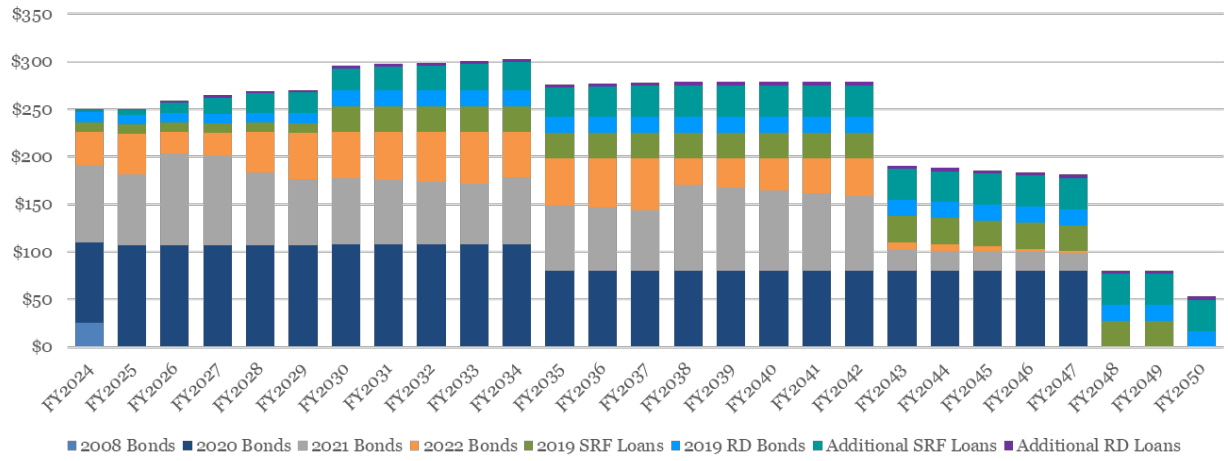
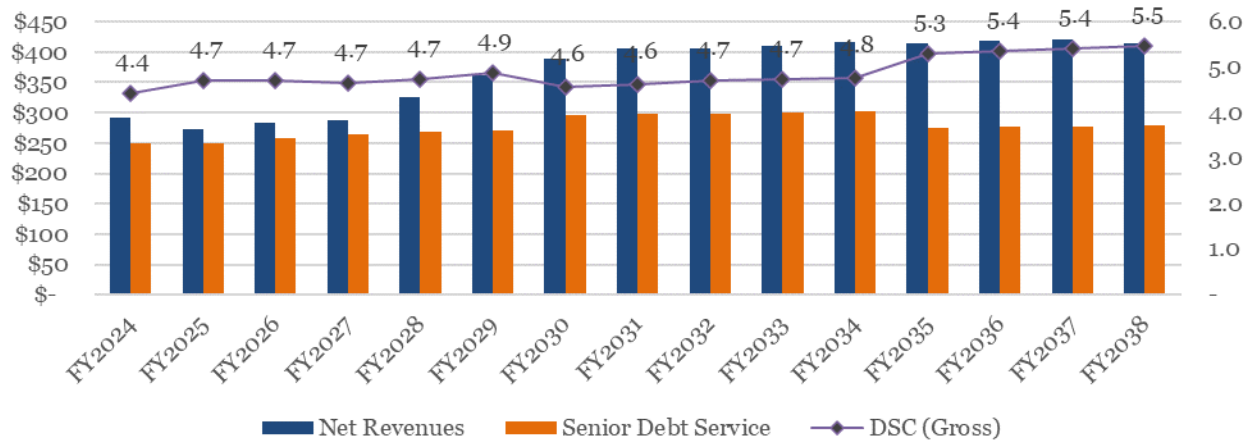


Exhibit 6-2 below illustrates PRASA's capacity to pay current and projected debt within the constraints of the current MAT (gross revenue pledge) during the Certified Fiscal Plan Period.

EXHIBIT 6-2: DEBT SERVICE COVERAGE (GROSS REVENUE PLEDGE), (IN $ MILLIONS)



As explained in Section 2.6.1 herein, the proposed MAT amendment will modify the revenue pledge from a gross revenue pledge to a net revenue pledge. This amendment will become effective when and if the Federal Lenders consent to the change. As of the date of this Certified Fiscal Plan, PRASA has not formally requested consent from the Federal Lenders.

6.3 PRASA's Creditworthiness

PRASA asserts its creditworthiness, and that market access is possible based on the following: (i) the execution of debt refunding transactions as detailed in Section 2.1.3 of this Certified Fiscal Plan, (ii) market data on PRASA's bonds trading activity and yields, and (iii) the profile of the Senior Bond holders. The Oversight Board continues to work closely with PRASA to ensure that the Authority achieves one of PROMESA's purposes access to, and the trust of, the credit markets at reasonable rates. To ensure that PRASA has adequate access to short and long-term credit markets, among other things, the Oversight Board will evaluate the Authority's ability to achieve and maintain investment grade credit rating characteristics on its indebtedness obligations.[27] For further information, please refer to Section 4.1 of the Commonwealth Certified Fiscal Plan. In the upcoming fiscal years, PRASA, the Government, and the Oversight Board will work together to assess the Authority's creditworthiness.

[27] As of October 23, 2023, Fitch Ratings upgraded PRASA's Issuer Default Rating (IDR) to "CCC" from "RD". According to Fitch Ratings, "CCC" stands for substantial credit risk, whereas "RD" indicate an issuer that in Fitch's opinion has experienced an uncured payment default or distressed debt exchange on a bond, loan or other material financial obligation, but has not entered into bankruptcy filings, administration, receivership, liquidation, or other formal winding-up procedure, and has not otherwise ceased operating.

7 Reporting Requirements

As part of monitoring progress of the Fiscal Plan measures, PRASA is required to submit periodic reports to the Oversight Board and, on occasion, to the public. Table 7-1 lists these reports and their frequency.

TABLE 7-1: REPORTS TO BE PRESENTED

Report Type	Details	FOMB Reporting Timing	Public Reporting Timing
Budget to Actuals (B2A)	Tracking of budget to actual spend per budget certification agreement with the Oversight Board: • Explanation for material variances for YTD (>10% and >$1 million or > $10 million) • Accounts receivable by type of client (residential, commercial, industrial, and governmental) • Schedule with amounts owed by each government client • Government collections and payment plans (for all govt. customers) • Collections by customer segment • Monthly headcount roll forward by function • Monthly profit and loss statement	• Monthly reporting after budget is certified • Quarterly, PROMESA Section 203 reporting after budget is certified	• Quarterly
Liquidity	Cash flow report: • Actual and projected cash flows for the FY, including Current Expense Fund beginning and ending balances • Total cash balance by account, available upon FOMB request	• Monthly	• Monthly (cash flow actuals)

Report Type	Details	FOMB Reporting Timing	Public Reporting Timing
Measures	Status, schedule, and fiscal impact of Fiscal Plan measures	• Based on each measure's due date as established in this Fiscal Plan	• N/A
CIP: implementation tracking	CIP monthly progress reports and actual spend to date	• Project-level reporting: monthly	• N/A
Water quality KPIs and environmental compliance	• Summary of compliance KPIs • Detailed compliance reports, by plant, available upon the FOMB's request	• KPI reports: quarterly	• Annual Consumer Confidence Report
Water Balance	Publish water balance in accordance with AWWA M36 standards to include the following components: • Water supply; • Water consumption; and • Water losses.	• Annual	• Annual
FEMA	Provide updates on FEMA Federal funding, particularly on the summary of YTD FEMA disbursements for permanent works • Summary of YTD FEMA disbursements for permanent works	• Quarterly FAASt status and summary of disbursements	• Quarterly

7.1 Monthly KPIs for Measures

Table 7-2 identifies the critical KPIs to be tracked monthly and the start date for tracking such measures. All start dates are assumed to be August 15 of the indicated Fiscal Year, unless otherwise listed or modified by agreement between PRASA and the FOMB.

TABLE 7-2: NEW MEASURE KPIs

Measure	KPI	Frequency	Start Date
Rate Adjustment	Financial Impact of Measure	Monthly	FY2025
	AMI meters installed	Quarterly	FY2025

Measure	KPI	Frequency	Start Date
Metering Optimization	Increase in revenues due to meter replacement	Semi-Annually	FY2025
Electricity Expense Reduction	Energy from new PPAs	Monthly	FY2029
Physical Water Loss Reduction-Overall	Annual Water Balance including real and apparent losses	Annual 60 days after FY end	FY2025
	Infrastructure Leakage Index (ILI)	Annual 60 days after FY end	FY2025
	Benefit of the initiative	Quarterly	FY2025
Physical Water Loss Reduction-Master Meters	Measured and estimated water production (in MGDs)	Quarterly	FY2025
	Master Meters to be replaced and number replaced / installed	Quarterly	FY2025
	Water production measured (as % of total water production)	Quarterly	FY2025
Physical Water Loss Reduction-Pressure Management	Number of pressure zones visited	Monthly	FY2025
	MGDs saved due to pressure management	Monthly	FY2025
Physical Water Loss Reduction-Leaks Detection	Unreported Leaks Pre-Located	Monthly	FY2025
	Unreported Leaks Pinpointed	Monthly	FY2025
	Average Leak Cost per Day (identified leaks)	Monthly	FY2025
	Leak Mean Time to Repair	Monthly	FY2025
	MGDs saved due to leaks repaired	Monthly	FY2025
	Percentage (%) of Identified Leaks Repaired	Monthly	FY2025
CIP tracking	Cost Performance Index	Monthly	FY2025
	Schedule Performance Index	Monthly	FY2025
New Federal Funds	Federal Funds Received (SRF and RD)	Monthly	FY2025

8 Conclusion

This Certified Fiscal Plan reflects PRASA's financial and operational goals, complying with PROMESA's requirements to ensure fiscal responsibility and operational sustainability while prioritizing the delivery of reliable, safe, and affordable water and wastewater services to the people of Puerto Rico. In providing these essential services, the Authority prioritizes compliance with applicable federal and local environmental and other regulations, safeguarding public health, and protecting the environment.

As demonstrated throughout this Certified Fiscal Plan, PRASA has made significant progress in stabilizing its finances. However, PRASA recognizes there are still areas of opportunity to address NRW, stabilize rising operational costs, and ensure proper CIP execution while properly maintaining Systems' infrastructure.

For an entity that is reliant on capital-intensive works to maintain, and potentially improve, its performance, the inflow of federal funds for critical CIP projects and PRASA's improved financial condition provide a unique opportunity to the Authority. With the execution of reconstruction and resiliency projects made possible as a result of the funds received through federal programs, PRASA will be well equipped for uncertainties and natural disasters in the future. Thus, enabling the Authority's continued progress in fiscal responsibility, operational sustainability, and ensuring its infrastructure is reliable and resilient in the long-term.

All in, to facilitate PRASA's transformation into a sustainable water and wastewater utility the full implementation of the comprehensive fiscal and operational measures outlined in this Fiscal Plan is essential. Provided that all the Certified Fiscal Plan measures are implemented in an efficient and timely manner, PRASA will be on path towards complying with its long-term objectives on fiscal responsibility and operational sustainability, all while engaging with Oversight Board to develop a comprehensive framework to effectively assess the requirements set forth under Section 209 of PROMESA.

Appendix

Consolidated Action Plan

Measure	Action Item	Deadline	Owner
Rate Adjustment	Review of actual need for FY2025	31-May-24	Finance
Metering Optimization	RFP for Meter Installation Publication	31-May-24	Infrastructure
Metering Optimization	Network and Integration Design	31-May-24	Selected Proponents
Asset Management	Define the Asset Management Governance Structure and meetings cadence	30-Jun-24	VP of Operations
Human Resources	Complete and submit for the Oversight Board's review the New Job Classification Plan and Updated Compensation Plan	30-Jun-24	Human Resources
Rate Adjustment	Implementation of applicable Rate Adjustment	1-Jul-24	VP of Strategic Planning
Metering Optimization	Pilot Phase Completion	31-Jul-24	Selected Proponents
Physical Water Loss Reduction	Define pressure zones to be optimized and monitored during FY2025	31-Jul-24	WRO
New Financing for CIP	Execute Financial Assistance Agreement for new CWSRF funds – FY2022 Appropriations	31-Jul-24	Finance
Master Plan	Submit to the Oversight Board the complete updated 2024 Master Plan	31-Jul-24	Infrastructure
Metering Optimization	Report to the Oversight Board the Full Deployment Implementation Plan	31-Aug-24	Selected Proponents
CIP Delivery	Evaluation of the impact in operations of Rio Grande Estates WWTP elimination	31-Aug-24	Infrastructure / VP of Operations
Metering Optimization	Pilot deployment evaluation and acceptance	30-Sep-24	VP of Strategic Planning / Technical Advisor

Electricity Expense Reduction	Present to the Oversight Board deployment plan for energy projects based on the 2024 Master Plan guidance	30-Sep-24	Infrastructure
Asset Management	Report to the Oversight Board plans to address areas of improvement and to implement the consultant's recommendations, subject to financial and other resources limitations	30-Sep-24	Maintenance Director
CIP Delivery	Evaluation of the impact in operations of Hatillo-Camuy intake improvements	30-Sep-24	Infrastructure / VP of Operations
Master Plan	Submit to the Oversight Board findings to be incorporated from the 2024 Master Plan into the CIP	30-Sep-24	Infrastructure
Metering Optimization	Conclusion of Pilot Evaluation and Proponent Selection for Full Deployment	31-Oct-24	VP of Strategic Planning / Technical Advisor
Physical Water Loss Reduction	FY2024 Water Balance Submission to FOMB	31-Oct-24	WRO
Master Plan	Incorporate findings from Master Plan into the CIP	31-Oct-24	Infrastructure
Chemical Expense Stabilization	Report to the Oversight Board progress on all the efforts to manage chemical expenses – inventory management, on-going and future procurement processes, and other relevant efforts	31-Oct-24	VP of Operations
CIP Delivery	Report to the Oversight Board the gross results of the impact evaluation in operations for Rio Grande Estates WWTP elimination and Hatillo-Camuy intake improvements	31-Oct-24	Infrastructure / VP of Operations
Metering Optimization	Meter installation contract award	30-Nov-24	VP of Strategic Planning / Legal
Metering Optimization	Transition to Full Deployment Completion	31-Dec-24	PRASA / Selected Proponents
Physical Water Loss Reduction	Report to the Oversight Board the VHCC Implementation Plan	31-Dec-24	WRO

Human Resources	Define the workforce efficiency evaluation system to be implemented, including areas to be measured	31-Dec-24	Human Resources
Metering Optimization	Integration Implementation - AMI and SAP ISU (Phase I)	15-Jan-25	Awarded Proponent and PRASA IT Department
Metering Optimization	Network Implementation (Phase I)	15-Jan-25	Awarded Proponent
Metering Optimization	Meter Installation Start (Full Deployment)	15-Jan-25	Selected Proponents
New Financing for CIP	Execute Financial Assistance Agreement for new DWSRF funds – FY2022 Appropriations	31-Mar-25	Finance
CIP Delivery	Define the methodology to evaluate, when and if needed, the potential impact of the major capital projects in PRASA's operations.	31-Mar-25	Infrastructure
Electricity Expense Reduction	Superaqueduct, Maunabo and Santa Isabel microgrid projects design completion	30-Apr-25	Infrastructure
CIP Delivery	Report to the Oversight Board the defined methodology to be applied on the impact of capital projects in PRASA's operations	30-Apr-25	Infrastructure
Rate Adjustment	Provide status to the Oversight Board on the analysis to assess financial needs for FY2026	31-May-25	Finance
Chemical Expense Stabilization	Evaluation of current chemical management practices and provide recommendations (Phase 1)	31-May-25	VP of Operations
Physical Water Loss Reduction	Complete Master Meters calibration and installation goal for FY2025	30-Jun-25	WRO
Human Resources	Implement a workforce evaluation system	31-Jul-25	Human Resources

Electricity Expense Reduction	Superaqueduct, Maunabo and Santa Isabel microgrid projects bidding process completion and award	31-Dec-25	Infrastructure
Chemical Expense Stabilization	Evaluation of current chemical management practices and provide recommendations (Phase 2)	31-May-26	VP of Operations
Chemical Expense Stabilization	Complete assessment and report to the Oversight Board on areas of opportunity with potential benefits	31-Aug-26	VP of Operations
Chemical Expense Stabilization	Develop strategies for implementation as recommended in the consultant's report	30-Nov-26	VP of Operations
Electricity Expense Reduction	Superaqueduct and Maunabo microgrid projects completion	1-Jul-28	Infrastructure
Electricity Expense Reduction	Santa Isabel microgrid Project completion	1-Jul-29	Infrastructure
Physical Water Loss Reduction	Complete a plan to achieve the leak detection goal for FY2025	31-Jul-24	WRO
Human Resources	Continue tracking absenteeism and overtime levels to identify areas of opportunities	Ongoing	Human Resources
New Financing for CIP	Execute Loan Agreements for USDA RD funds (as needed)	TBD	Finance