# Fiscal Plan Amended to Incorporate Modifications to Certified Fiscal Plan

**May 28, 2017**

Revised as of August 1, 2017

# Disclaimer

- The Puerto Rico Fiscal Agency and Financial Advisory Authority ("AAFAF"), the Puerto Rico Aqueduct and Sewer Authority ("PRASA"), the Government of Puerto Rico (the "Government"), and each of their respective officers, directors, employees, agents, attorneys, advisors, members, partners or affiliates (collectively, with AAFAF, PRASA and the Government the "Parties") make no representation or warranty, express or implied, to any third party with respect to the information contained herein and all Parties expressly disclaim any such representations or warranties.
- The Parties do not owe or accept any duty or responsibility to any reader or recipient of this presentation, whether in contract or tort, and shall not be liable for or in respect of any loss, damage (including without limitation consequential damages or lost profits) or expense of whatsoever nature of such third party that may be caused by, or alleged to be caused by, the use of this presentation or that is otherwise consequent upon the gaining of access to this document by such third party.
- This document does not constitute an audit conducted in accordance with generally accepted auditing standards, an examination of internal controls or other attestation or review services in accordance with standards established by the American Institute of Certified Public Accountants or any other organization. Accordingly, the Parties do not express an opinion or any other form of assurance on the financial statements or any financial or other information or the internal controls of the Parties and the information contained herein.
- Any statements and assumptions contained in this document, whether forward-looking or historical, are not guarantees of future performance and involve certain risks, uncertainties, estimates and other assumptions made in this document. The economic and financial condition of the Government and its instrumentalities is affected by various financial, social, economic, environmental and political factors. These factors can be very complex, may vary from one fiscal year to the next and are frequently the result of actions taken or not taken, not only by the Government and its agencies and instrumentalities, but also by entities such as the government of the United States. Because of the uncertainty and unpredictability of these factors, their impact cannot be included in the assumptions contained in this document. Future events and actual results may differ materially from any estimates, projections, or statements contained herein. Nothing in this document should be considered as an express or implied commitment to do or take, or to refrain from taking, any action by AAFAF, PRASA, the Government, or any government instrumentality in the Government or an admission of any fact or future event.
- Nothing in this document shall be considered a solicitation, recommendation or advice to any person to participate, pursue or support a particular course of action or transaction, to purchase or sell any security, or to make any investment decision.
- By accepting this document, the recipient shall be deemed to have acknowledged and agreed to the terms of these limitations.
- This document may contain capitalized terms that are not defined herein, or may contain terms that are discussed in other documents or that are commonly understood. You should make no assumptions about the meaning of capitalized terms that are not defined, and you should consult with advisors of AAFAF should clarification be required.

# Agenda

1. Introduction
2. Ongoing Initiatives
3. Baseline Projections – Initial Financial Need
4. New Initiatives – Closing the GAP
5. Debt Service Sustainability
6. Governance and Fiscal Plan Implementation
7. Risks and Mitigation Strategies
8. Viable Fiscal Plan

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Background



- The Puerto Rico Aqueduct and Sewer Authority ("PRASA") has not been a passive spectator of the financial constraints and setbacks it has endured in recent years, and has maintained its determination to become a World-Class Utility that delivers sustainable, high-quality services to its customers.

- Since 2009, PRASA has incorporated a series of initiatives to improve its revenues and better control its expenses. The results achieved are the product of PRASA's commitment to becoming a self-sustainable entity, even while the Government's economic situation keeps worsening. Faced with significant changes in regulations, a declining population with decreasing consumption, and even a critical drought period experienced in FY2015, PRASA has managed to sustain its revenues and control its expenses.

- Nonetheless, the lack of market access has severely affected PRASA's capacity to maintain its Capital Improvement Program ("CIP") running, and impaired its ability to comply with obligations to contractors and junior debt holders (guaranteed by the Government of Puerto Rico).

- PRASA's rate structure was designed to provide sufficient funds to cover all of its operating expenses and current and projected debt service, but the CIP has been historically funded with external financing, including federal funds. Since 2012 PRASA has not been able to access the capital markets, mostly as a result of the fiscal situation of the Central Government of Puerto Rico and actions taken by it during 2015 and 2016.

# Introduction



- This Fiscal Plan has been developed to guarantee:

  ✓ the provision of essential services, safe and reliable supply of drinking water and treatment of wastewater and comply with federal environmental regulations safeguarding the health of the population and the environment of the island and avoiding potential penalties and criminal charges (which are extensive to anyone who impede compliance with EPA regulations);

  ✓ the required investment in necessary infrastructure to ensure compliance with required standards while promoting a much needed economic growth throughout the island;

  ✓ the timely execution and implementation of its measures;

  ✓ PRASA's long-term financial self-sustainability; and

  ✓ an affordable service.

# Revised Fiscal Plan


Introduction

- On April 28, 2017, the Fiscal Oversight Management Board (FOMB) approved and certified PRASA's Fiscal Plan as modified by the following amendments:
  - Include multiyear permanent rate increases that are distributed broadly across all customer types and categories, including residential, taking into consideration income of such customers. Increase must be a preapproved measure effective from January 2018 through at least the following 5 years and be supported by a commitment from PRASA to a detailed implementation plan and schedule to be developed, including PRASA's Board led annual review of the rate increase and provide authority for revision as deemed necessary. The rate increase must be directed to achieve a structural balance and funding capital expenditure needs pre-debt service;
  - The existing analysis of the impact of the rate increase by customer type and category must be updated to reflect the above updated rate proposal;
  - The Fiscal Plan must include updated electricity savings in line with the Fiscal Plan submitted by PREPA and confirm the status of PREPA's involvement in, and collaboration with, the hydroelectric initiative.
- At the direction of the FOMB, PRASA and AAFAF has prepared this Revised Fiscal Plan which supersedes the ones presented in the past to incorporate the FOMB's required amendments to the certified Fiscal Plan and also to include updates to reflect the impact of recently enacted legislation and of changes to assumptions based on updated information

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Agenda

1. Introduction
2. Ongoing Initiatives
3. Baseline Projections – Initial Financial Need
4. New Initiatives – Closing the GAP
5. Debt Service Sustainability
6. Governance and Fiscal Plan Implementation
7. Risks and Mitigation Strategies
8. Viable Fiscal Plan

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Proactive management



PRASA has not been a passive spectator and during the last 10 years several measures were implemented to improve efficiency and minimize cost to assure we comply with our Mission:

**“Provide a quality water and wastewater service at the lowest possible cost”**

# Ongoing initiatives

## PRASA Ongoing Initiatives

**Revenue Optimization Program**
$100M impact on Operating Revenues

**Continued Reduction in Number of Facilities**
Reduction of approx. 9 WTPs and 3 WWTPs
Closing of 13 commercial offices

**Non-Revenue Water Reduction Program**
Reduced over 100 MGD in water production since FY2012

**Electric Power Expense Reduction**
Over 33.2 M kWh reduction since FY2014 with the Comprehensive Energy Program and 12M kWh from PPAs

**Improving Customer Service**
Customer's complaints and waiting time reduction

**Headcount Optimization**
$30M expense reduction from a 1,000 headcount reduction since FY2008


**Measuring and Reporting KPIs**
Developed a Strategic Plan and standardized KPI system and metrics

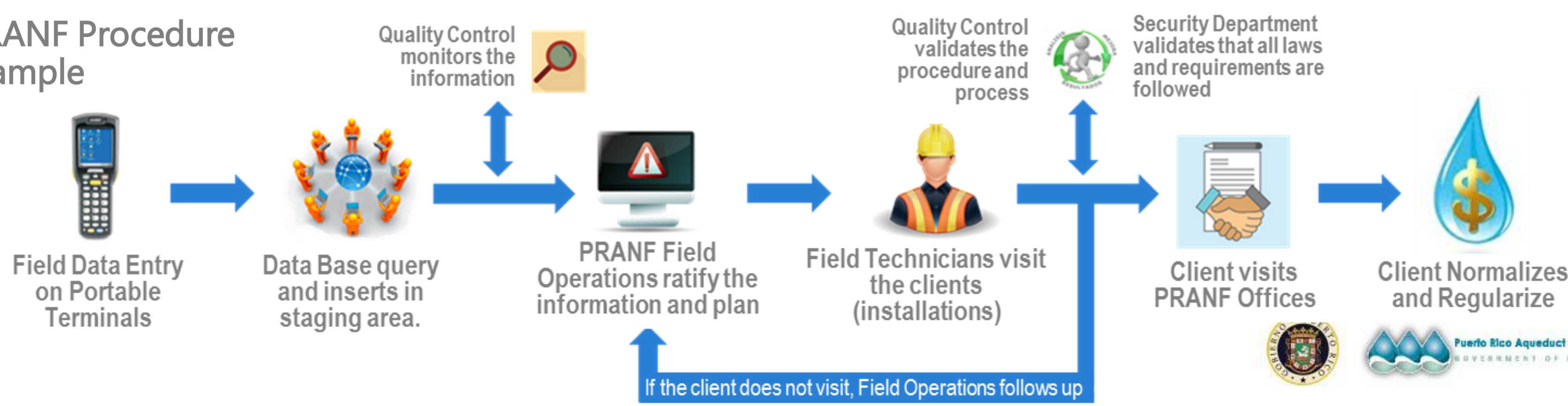


Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Measures to Increase Revenues

- Since 2009, PRASA has implemented a public-private effort (ORANF or "Oficina de Agua No Facturada") to increase revenues and optimize collections by reducing apparent losses related to its commercial operation through initiatives such as:
    1. Reducing water theft and non-registered usage
        - In the last seven years, PRASA has "normalized" (converted regular billings) over 77,000 accounts that were detected as having water theft
    2. Replacing obsolete or damaged customer's meters
        - Over 800,000 have been replaced during the last 7 years
    3. Reducing uncollectible accounts
    4. Auditing the customer billing system data to properly classify customers based on the installed meter size and on the customer-class designation, so that customers are billed appropriately.
- Approximately $100 million per year of PRASA revenues (or about 10% of total Operating Revenues) are generated from these initiatives.

ORANF Procedure Example

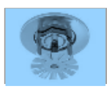



Ongoing Initiatives

Puerto Rico Aqueduct and Sewer Authority

# Measures to Increase Revenues

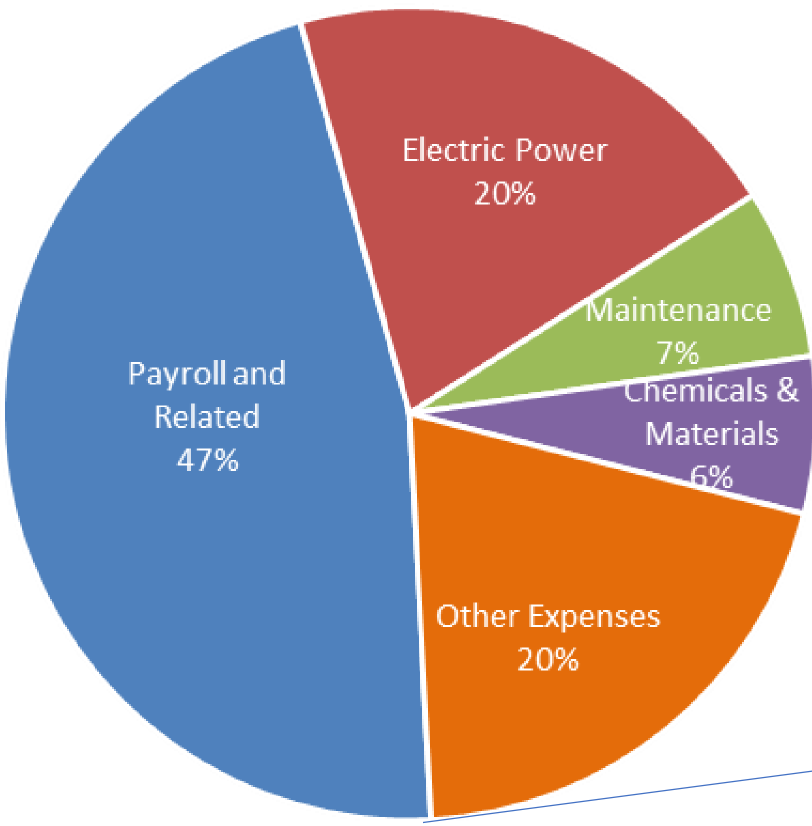
- During FY2016 PRASA increased its revenues by $111.7M through ORANF initiatives, as follows:

| Initiative | FY2016 Actual Results $ million |
|---|---|
|  Theft | 35.6 |
| Specialized Collections Management  | 11.5 |
|  Sprinklers | 2.3 |
| Rate Classification  | 1.7 |
|  Small Meter Replacements | 39.4 |
| Large Meter Replacements  | 14.5 |
|  Waste Water Services and Others | 6.7 |
| Total | 111.7 |

Ongoing Initiatives

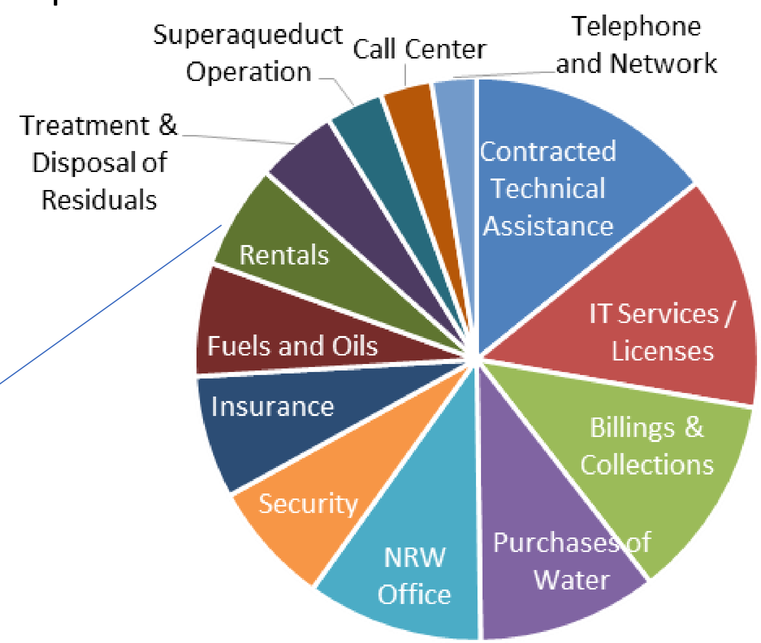
# Measures to Control Expenses

## Operating Expenses (FY2018)




## Other Expenses Breakdown (FY2018)

- Other Expenses are mainly focused on operations and 75% of the total includes:



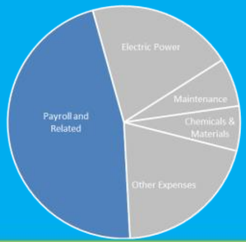

- The remaining 25% includes, amongst others, the cost of water transport, office supplies, chemicals and bacterial analyses costs

Ongoing Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

*FY2018 presented to show expense breakdown including "Pay Go" for pension costs and eliminating contribution to the ERS.

# Measures to reduce Payroll costs




Ongoing Initiatives

## Headcount

- PRASA aggressively reduced its headcount **by over 1,000 employees or around 20%** during the last 10 years to become more lean and efficient by:
  - ✓ System consolidation and optimization
  - ✓ Plant automation
  - ✓ Technology implementation
  - ✓ Personnel reclassification
- A workforce capacity analysis was recently performed and recommendations were implemented (see next slide for more detail)

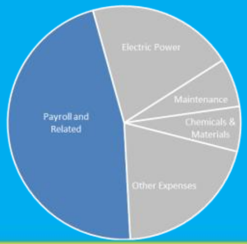
## Compensation and Benefits

- A personnel compensation and classification study was performed to determine the level of PRASA's employees compensation compared to the market
  - ✓ Results showed that PRASA's salaries are below market
- Act 66-2014 has been implemented with annual savings of around $30 million (in cash basis)
- Act 3-2017 does not guarantee material additional savings, as the labor agreement economic clauses must be honored based on the interpretation of the Office of Management and Budget (OMB)

Had these initiatives not been implemented, Payroll Cost would have been over $50 million more than currently estimated. The positive impact has been offset by incremental contributions to the Retirement System, as required per current regulations

Further FTE reductions are projected through the PRASA's Metering System and Customer Experience Optimization Project

# Optimal level of FTE determination



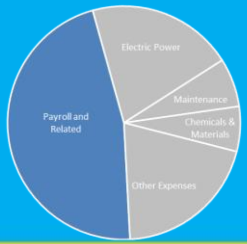



VISION TO ACTION

**Workforce Capacity Analysis**

- In 2014, PRASA contracted the firm Vision to Action ("V2A") to conduct an evaluation on the employment capacity of PRASA's workforce, which determined the optimal headcount for every department based on workload and capacity.
- The analysis identified opportunities to enhance workforce productivity and reduce labor costs as, for example: relocation of employees, improvement of scheduling and fleet/equipment availability.
- Since then, PRASA has implemented many of the opportunities identified by V2A.
- As a result, PRASA's determination for new hires are guided by a decision-making tool (SmartCap), which analyzes the position requested versus the need and potential personnel movements to cover the new position.
- V2A's findings indicate that the PRASA's optimal staff headcount is 4,694, however, the V2A's analysis did not consider staff from certain departments, such as Legal, Infrastructure, Compliance and Preventive Maintenance, since at the time these were undergoing organizational changes.
- Therefore, the target was adjusted to 4,935 employees and PRASA is projecting to reach a level of 4,900 employees by FY2022 (excludes any impact from the Customer Service P3 Initiative presented on a separate line as part of the proposed initiatives to reduce the financial GAP).

# Optimal level of FTE determination






▪ Based on the V2A Study results, PRASA projected a level of headcount of 4,900 employees starting on FY2022

| V2A Optimum FTE Level (Jul. 2014) | 4,694 |
|---|---|
| Legal Department | 28 |
| Infrastructure (Headquarter) | 42 |
| Compliance (Headquarter) | 43 |
| SSOMP | 5 |
| Preventive Maintenance (Headquarter) | 7 |
| Presidency | 19 |
| **TOTAL** | **4,838** |
| **TOTAL + 2% buffer** | 4,935 |

Positions in Departments not evaluated by V2A

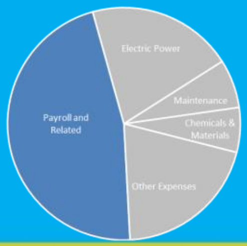
**PRASA's Projected Target**
**4,900**

**SmartCap - Organizational Management Capacity software:**

- V2A assisted PRASA on the implementation of SmartCap, a tool which provides instant visibility as to the needs and/or excess in human capital throughout different areas, skills, positions, etc.
- Since July 2015, determination for new hires is guided by this decision-making tool which analyzes the position requested versus the need and potential personnel movements to cover the new position, resulting in:
    - 16% reduction in excess and deficiencies (06/2014 – 07/2015)
    - Overtime cost reduction by 5% (FY2014 –FY 2015)
    - Overall headcount reduction by 4%

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Measures to reduce Payroll Cost



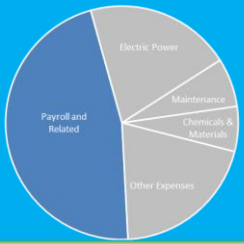



## Incremental Payroll Related Cost

- While PRASA has constantly been reducing headcount and payroll related costs, the increase on contributions to the Central Government Employees Retirement System (ERS), under which PRASA employees are covered, and some other changes in legislation have offset the benefit of the implemented initiatives on this area.
- Additional employer contributions due to measures taken by the ERS in order to fund deficiencies in the Retirement Plan System:
  - Cost of Living Allowance (COLA): The annual billed was increased from $6M in FY2011 to $15M for FY2018.
  - Act 116-2011: Increased employer contribution gradually from 9.275% in FY2011 to 15.525% in FY2017 with an estimated impact of approximately $10M when comparing FY2011 vs FY2017 annual contributions
  - Act 32-2013 implemented an Additional Uniform Contribution to reduce the ERS actuarial deficit which started on $4M on FY2014 and is $28M for FY 2018 (as per the latest invoice received by PRASA from the ERS)
- Minimum salary increase as established by the Federal Fair Labor Standards Act (FLSA) to $7.25.

When comparing FY2011 payroll costs with FY2018 projected costs (if no PayGo is implemented) the increase due to this legislation changes increases PRASA's contributions to the ERS by $47 million per year, fully offsetting the favorable impact of the initiatives previously included

# Measures to control Payroll costs

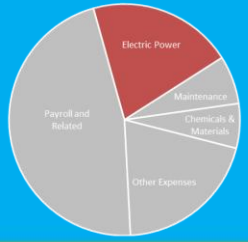



**Mechanism to ensure FTE benefits package is aligned with other Government executive agencies**

**Act 3-2017**

- ✓ Establishes due process regarding the administration of human resources and the benefits that are frozen during the validity of the Law.
- ✓ Requires all executive agencies and public corporations to report quarterly to the House of Representatives, the Senate of Puerto Rico and the Office of the Governor of Puerto Rico to ensure compliance with Act 3-2017.
- ✓ The Quarterly Accountability Reports ensure PRASA is complying with the regulations applicable not only for PRASA, but also to other agencies or corporations of the Government.

# Measures to control Electricity cost




**Due to PRASA's economic and fiscal situation, the Comprehensive Energy Program is currently on hold**

## Energy Performance Contracts – Demand Side

- Investment Grade Energy Audits (IGEAs) completed in 18 facilities
  - Resulted in 1 contract signed for 6 facilities
  - Three projects are completed
- Annual energy saving of 2.4 M kWh and $400k (from 3 completed projects)

## Power Purchase Agreements (PPAs) – Supply Side

- 7 MW of solar PV projects currently in operation:
  - 10 facilities
  - 2 PPAs - Energy prices: $0.12 and $0.154/kWh
  - $1.5 MM accumulated savings as of FY17
- 14 sites identified for additional solar PV projects:
  - Total capacity: 16 MW AC
  - Implementation: PPA or Turn-Key
  - Projected Saving at current PREPA rates
    - $800k/yr (assuming $0.13/kWh)
    - $4 MM/yr (Turn-key, self-funded)

## Regional Efforts – Energy Conservation Measures

- PRASA's Management Team has set a goal to achieve additional energy consumption reductions of 0.5% per year through:
  - Implementing additional energy conservation measures in its WTPs and WWTPs, leveraging the completed IGEAs and additional facility evaluations
  - Modeling analyses and optimization efforts to reduce energy consumption in the water distribution and wastewater collection systems

AGENCIA VERDE

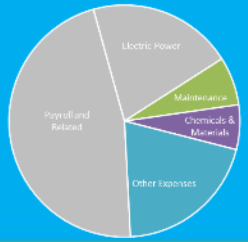
*As of FY2017, PRASA has reduced a total of 2.4 million kWh in annual Consumption through EPC Projects and 11 million kWh from Solar Energy at an Average Cost of $0.15/kWh*

***Further reductions included as part of the proposed Hydroelectric and Physical losses Reduction initiatives***

Ongoing Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Measures to control Other Expenses




## Maintenance

- Included a corrective program as well as the preventive maintenance program as required by regulatory agencies.
- Included the investment required to assure system sustainability on normal conditions.

## Chemicals

- Included changes in types of chemicals used to assure the protection of public health and the environment, while reducing costs.

## Other Expenses

- Included corrective program as well as the preventive maintenance program as required by regulatory agencies.
- Included the investment required to assure system sustainability on normal conditions.

All these expenses have already been reduced through system consolidation and simplification, technology improvements, plant automations and other measures.
All theses expenses were later adjusted to reflect the impact from the proposed initiatives explained in the following section:

- ✓ Physical losses reduction
- ✓ Customer Service P3

Ongoing Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Financial Performance Summary

Rate increases have been implemented to attain financial self-sufficiency for operations

CIP was reduced as a result of the agreements reached with environmental agencies obtaining more flexibility on the requirements

- Revenues
  - 3%
- Expenses
  - -2.8%
- CIP Expenditures
  - -5.2% (excl FY 2016)
- Debt Service
  - 16%

Expenses decreased, even after assuming incremental costs by inflation and legislation

80% of the costs consist of Payroll, Electricity, Maintenance and Chemicals

Debt service increased accounting for the cost of the 2008 and 2012 bond issuances to finance the CIP

% Values are CAGRs for the period of FY2012 to FY2016, except for CIP which excludes FY 2016 to eliminate the impact of the capital projects suspension

PRASA has managed to sustain its revenues and control its expenses and CIP expenditures in spite of: significant changes in regulating laws, a declining population with decreasing consumption, and even a critical drought period experienced in FY2015 and FY2016.

# Financial Performance Summary

Third parties have consistently evaluated PRASA's execution as positive

ARCADIS Design & Consultancy for natural and built assets

- PRASA's Consulting Engineer since FY2008 (as required by the MAT) and have assisted PRASA in other programs and projects including the CIP
- In general terms, FY2015 CER concluded that, although most facilities were classified as adequate or good condition, when compared to the prior year's results, there was a noticeable increase in facilities classified as poor condition
- Although PRASA's efforts to reduce NRW demonstrates a positive trend since 2012, significant capital investments and R&R are required

FTI CONSULTING

- In 2014, GDB retained FTI to provide financial advisory and consulting services for PRASA, focusing on PRASA's five-year forecast period, including the CIP
- FTI concluded that PRASA's historical financial information is a reliable base to future financial projections, which were concluded as reasonable by FTI
- FTI makes clear PRASA needs to access the capital market to finance its CIP and that a customer rate increase and additional expenses reductions may be needed

RAFTELIS FINANCIAL CONSULTANTS, INC.

- In 2016, PRASA retained RFC to provide an assessment and recommendations on PRASA's management, operations, capital investments and financing
- RFC's assessment found that PRASA has undertaken necessary steps and has developed impressive programs to address its challenges
- Even when the RFC recommendations are implemented, absent to the successful implementation of Act 68-2016, PRASA will likely require substantial revenue/rate increases over the next 10 years

# Other Recent Measures

- The following measures have been taken by PRASA to avoid an event of non-compliance or default with the current regulatory and financial agreements, as well as to improve its financial situation:

| | |
|---|---|
| Enactment of Act 68-2016 | Allow market access to obtain financing for the CIP |
| Amendments to PRASA's Environmental Compliance Consent Decrees | Reduce CIP related to mandatory compliance |
| Forbearance Agreements on certain Government Guaranteed Debt | Alleviate short term debt service burden |
| Amendments to the MAT | Reduce the financial impact of requirements under the MAT |

# Agenda

1. Introduction
2. Ongoing Initiatives
3. **Baseline Projections – Initial Financial Need**
4. New Initiatives – Closing the GAP
5. Debt Service Sustainability
6. Governance and Fiscal Plan Implementation
7. Risks and Mitigation Strategies
8. Viable Fiscal Plan

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Initiatives already implemented



- The Baseline Projections include the impact of all the ongoing initiatives presented in the prior Section, all of which were implemented during the past and are expected to be recurrent.

- The main assumptions used to determine the projections for the four components of PRASA's model are explained throughout this Section.

| | |
|---|---|
| Revenues | Expenses |
| Capital Improvement Program | Financing and Debt Service |

# Revenue assumptions

Revenues | Expenses | Capital Improvement | Financing and Debt Service

Baseline Projections

| REVENUES | | Submitted on Feb 21, 2017 | Revised Apr 25, 2017 | Revised May 28, 2017 | FOMB Request | Comment |
|---|---|---|---|---|---|---|
| BILLINGS | Revenues will follow the Puerto Rico population trend | -1% | -0.25% | -0.25% | ☑ | Aligned with the Government Fiscal Plan |
| COLLECTIONS | Improved collection rates to align with past performance | 94% | 96% | 96%* | ☑ | Reflecting recent year collections trend |
| CENTRAL GOVERNMENT RATES | Assumes Act 66-2014 "reduced rate" benefit for Central Government agencies expires on July 1, 2017 ($30M) | Yes | Yes | Yes | | |

Further improvements included as part of the proposed initiatives to 98%* (P3)

* Maximum collections rate at PRASA, which may be 100% for other utilities, was estimated at 98% based on the current situation which impedes to reach the 100% because of, for example: buried meters which can not be read or disconnected, inactivated or disconnected accounts that will never be reconnected and public housing clients. The 2% of "structural" uncollectibles may be decreased partially with investment and does not account for government account uncollectibles for certain accounts which are not being disconnected such as schools and hospitals.

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Expense assumptions

Revenues | **Expenses** | Capital Improvement | Financing and Debt Service

Baseline Projections

UPDATED

UPDATED

| EXPENSES | | Submitted on Feb 21, 2017 | Revised Apr 25, 2017 | Revised May 28, 2017 | FOMB Request | Comment |
|---|---|---|---|---|---|---|
| PAYROLL | Reduce headcount to 4,900 employees by 2022, as recommended per V2A | Full Impact of Act 3-2017 | Partial Impact of Act 3-2017 | Full Impact of Act 26-2017 | | Act 26-2017 (approved on April 29, 2017) impact was modeled to align assumptions with the Government and other covered instrumentalities Fiscal Plans |
| PENSION COST | Pension cost funded on a Pay Go basis, estimated based on information submitted by the ERS (2016 payments to PRASA's retirees) | PayGo | PayGo | PayGo | | The cost is increased assuming a personnel rotation of 3% and projections does not assume any contributions to the ERS will be required starting on FY 2018. |
| ELECTRICITY | 0.5% reduction in PREPA's electricity consumption per year | Avg $0.231 per kWh | Avg $0.311 per kWh | Avg $0.276 per kWh | ☑ | Rates as submitted by PREPA on May 24, 2017, except for FY 2017 (based on current experience) and FY 2018 (average of FY 2019 projected by PREPA and FY 2017 projected by PRASA) |
| OTHER EXPENSES | Increased based on the projected inflation rate | 2.0% | Avg 1.3% | Avg 1.3% | ☑ | Adjsuted to be aligned with the Government Fiscal Plan |

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Expense assumptions Payroll

R5 Payroll Cost Reduction

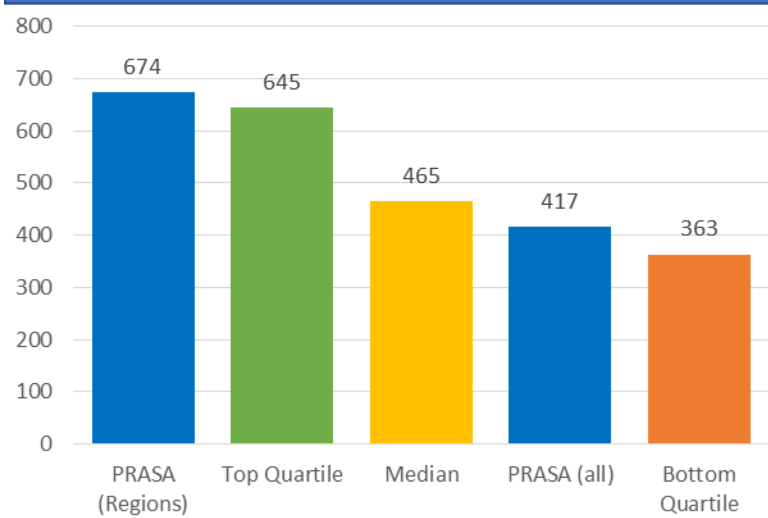
## Headcount

- Reducing active employees to 4,900 following workforce capacity analysis recommendations

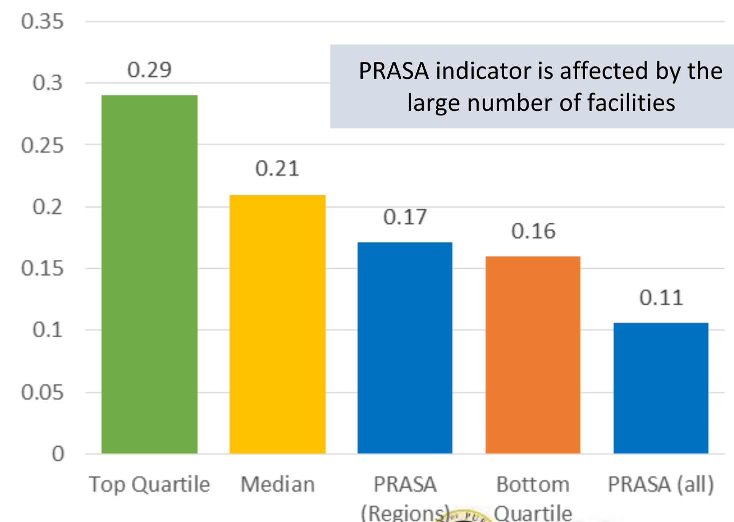
| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|---|---|---|---|---|---|
| Employees | 5,056 | 5,000 | 4,975 | 4,950 | 4,925 | 4,900 | 4,900 | 4,900 | 4,900 | 4,900 |

- Even when PRASA is considered one of the most complex systems in the world, it still compares favorably with the industry benchmarks, even prior to account for the reduction in headcount expected from the P3 initiative explained in Section 4

Customer accounts per employee (combined)




MGD water delivered per employee




*Source: Benchmarking Performance Indicators for Water and Wastewater: 2016 Edition (2015 Survey Data and Analyses Report) and current PRASA FTEs as of June 30, 2016*

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Expense assumptions
# Payroll

Revenues | **Expenses**
Capital Improvement | Financing and Debt Service

## Compensation and Benefits

UPDATED

- Implementation of Act 26-2017, including the following change in benefits:
  - FY 2018 through FY 2026:
    - Elimination of all bonuses, except for the Christmas Bonus, reduced to $600 for all employees
    - Maximum overtime factor of 1.5 times
    - Accrual of 15 days of vacation per year
    - Accrual of 18 days of sick leave per year, eliminating the payment of accumulated sick leave under any circumstance
  - FY 2019 through FY 2026:
    - Reduction of the employer contribution for the health medical plan to $125 per employee per month, except for employees (or employee's dependents) under a preexistent illness classified as catastrophic, chronic or terminal, for whom the employer contribution will remain unaltered during the time of their employment.
- "Pay Go" for pension costs starting on FY2018, eliminating any contribution to the ERS.
- Presented net of capitalized expenses at a 3.7% rate

# Expense assumptions – Electricity

UPDATED

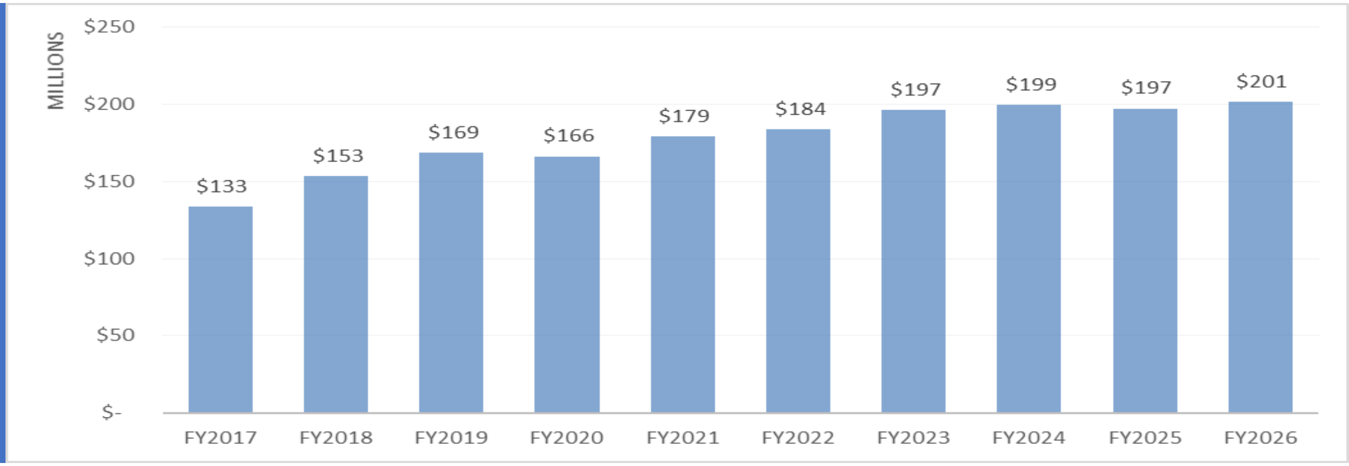
| Revenues | **Expenses** |
|---|---|
| Capital Improvement | Financing and Debt Service |

Baseline Projections

**Key Assumptions:**

- ✓ PREPA Rate:
    - FY 2017: $0.20 per kWh, based on the expected behavior of rates during FY2017
    - FY 2018: $0.23 per kWh, calculated as the average between PREPA projected rate for FY2019 and rate projected by PRASA based on current information for FY 2017
    - FY 2019 to 2026: $0.26 to $0.31 based on PREPA's projections of the blend of rates applicable to PRASA
- ✓ Internal energy savings initiatives result in an estimated total consumption reduction of 0.5% per year
- ✓ PPA initiative increases from 11.7 M kWh in FY2017 to 38 M kWh in FY2020 at an aggregated rate of $0.136/kWh

Projected Electricity Costs




The Baseline Projections does not include the impact from the hydroelectic genetration initiative

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Expense assumptions
# Other Expenses



- Other Expenses were annually increased using the inflation rate applied for the Government's Fiscal Plan which is an average of 1.3% for the period from FY2018 to FY2026.
- Historically, PRASA expenses behavior were favorably affected by the various initiatives mentioned earlier in this Section. This decreasing trend is expected to continue if the proposed initiatives are implemented.
- PRASA also included reductions in Other Expenses, which are higher in FY2017 due to delay and postponement of required maintenance works and physical losses detection programs, amongst others.
- Nevertheless, to obtain the proposed results, the system maintenance needs to be adequate and some postponed work as, for example, the cleaning of the Superaqueduct lagoons need to be completed.
- As the historic numbers show, PRASA has been implementing cost saving initiatives and will keep doing so going forward. Currently, the Physical Losses Reduction and the Customer Services P3 initiatives are included in PRASA's Fiscal Plan evidencing PRASA's strong focus in cost controls and expense reductions.

# Capital Improvement Program

| Revenues | Expenses |
| --- | --- |
| Capital Improvement | Financing and Debt Service |

**“Beginning shortly after the turn of the century and extending to 2040, the water utility sector will see a rapid increase in capital needs due to replacement of aging infrastructure, regulatory requirements and growth needs.”**
Improving Water Utility Capital Efficiency, Water Research Foundation & EPA (2009)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

AGING INFRASTRUCTURE

- RENEWAL & REPLACEMENT

MANDATORY ENVIRONMENTAL REGULATIONS

- 2015 EPA CONSENT DECREE (CLEAN WATER ACT)
- 2006 DRINKING WATER AGREEMENT, UNDER RENEGOTIATION (SAFE DRINKING WATER ACT)

SUSTAINABILITY

- QUALITY OF SERVICE
- COMPLIANCE
- GROWTH

Baseline Projections

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Capital Improvement Program





- The CIP is expected to be funded in its entirety with Operating Revenues for the Baseline Projections, and because of that reason PRASA has financial needs each year, as PRASA's current rate structure has not been designed to finance the CIP (only a minor portion of $35M through a Special Charge)
- For simplified presentation purposes, the CIP included in the Baseline Projections already incorporates:
  - ✓ Raftelis Financial Consultants recommendation regarding increase in the Renewal and Replacement Program
  - ✓ Elimination of the small meters replacement (as it will be financed by the Customer Service P3 Project as proposed in the following section)
- The total CIP presented in the baseline projections:
  - ✓ Is materially the same as presented in the draft Fiscal Plan dated February 21, 2017
  - ✓ Includes the payment of $100M owed to contractors during FY 2017 and 2018

# Capital Improvement Program

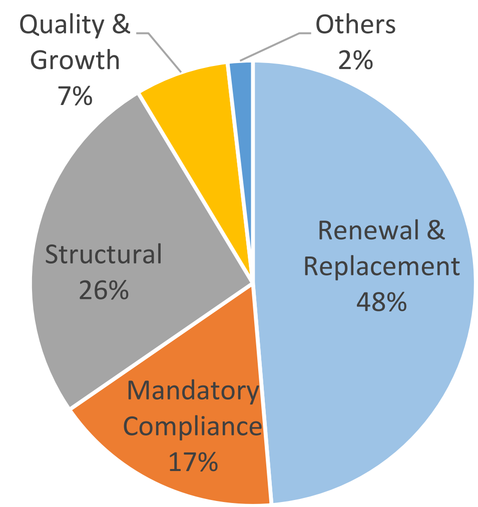
| Revenues | Expenses |
|---|---|
| Capital Improvement | Financing and Debt Service |

**PRASA's CIP incorporates the necessary investment to ensure an adequate operation and sustainability of the System**

| Category | Investment ($' Million) |
|---|---|
| Renewal & Replacement | $1,153 |
| Mandatory Compliance | $396 |
| Structural: | |
| Non Mandatory Compliance | $227 |
| Fleet & IT | $162 |
| Meter Replacement | $41 |
| Optimization & Emergencies | $186 |
| Quality & Growth | $161 |
| Others | $43 |

CIP FY2017-FY2026 → $2.4 Billion

## CIP FY2017 to FY2026 (in $' Million)




**Structural projects** are essential to maintain the system and generate revenues including Non Mandatory Compliance projects, optimization, meters, fleet, IT, etc.

Baseline Projections

Puerto Rico Aqueduct and Sewer Authority
Government of Puerto Rico

# Capital Improvement Program



## Risks

- The occurrence of forced major situations and/or major emergencies that will require capital expenditures not contemplated in the CIP.
- CIP has been on hold for almost two years with minimum renewal and replacement. If the situation continues for a prolonged period of time, higher investments than the ones projected may be required.
- If the projected sources of funds are not obtained, the execution of the proposed CIP will need to be revised and time extensions will need to be requested for mandatory projects.
- Investment of meter replacement assumes the execution of the Customer Service P3 which will include small meter replacement.
- Higher project costs due to the history of late payment from PRASA to its contractors and suppliers.

## Opportunities

- Further renegotiation of existing regulatory requirements may allow for additional investments in other category projects (i.e., increasing renewal and replacement rate).

*PRASA has already renegotiated consent decree requirements with the EPA and is in negotiation with PR Department of Health regarding the Transactional Agreement.*

*Additionally, PRASA has implemented a CIP prioritization process to objectively rank projects.*

*Finally, PRASA has reduced its projected CIP and is projecting to implement ROI CIP projects, limited to its investment capacity.*

# Capital Improvement Program – Cost controls

| Revenues | Expenses |
| --- | --- |
| Capital Improvement | Financing and Debt Service |

Use of high qualified personnel and consulting firms for the development and management of the CIP projects.

Use of Key Performance Indicators and Metrics to continuously oversee performance and ensure projects are developed on schedule and within the estimated cost.

The use of a Change Order Committee that reviews and recommends change orders that may arise during project construction. PRASA's 10-year average change order costs has been 3-6% of total construction costs.

# Financing



- Since PRASA has recently been unable to access capital markets to obtain financing for its CIP due to external factors, no additional financing for the CIP (including federal funds) are projected to determine the Initial Financial Need or Baseline Financial Projections.
- As previously discussed, in the past, the Authority received $60 million in federal funds per year, on average, to fund its CIP from USEPA State Revolving Fund (SRF) and from USDA Rural Development Programs.
- Currently, the availability of such funds is frozen, as PRASA's debts with both programs are subject to Forbearance Agreements.

# Debt Service

Revenues | Expenses | Capital Improvement | Financing and Debt Service

- The Baseline Financial Projections assume the full payment of all the current debt outstanding, except for the GDB Term Loan:

| Lien Level | Debt | Balance as of June 30, 2016 | % | FY 2017 Debt Service | % |
|---|---|---|---|---|---|
| Senior and Sr Sub | 2008 Revenue Bonds - Series A | $ 1,291.3 | 27.1% | $ 89.2 | 0.0% |
| | 2008 Revenue Bonds - Series B | 22.4 | 0.5% | 1.4 | 0.0% |
| | 2012 Revenue Bonds - Series A | 1,768.4 | 37.1% | 128.5 | 39.9% |
| | 2012 Revenue Bonds - Series B | 264.2 | 5.5% | 11.7 | 3.6% |
| | Popular Auto Loan | 4.3 | 0.1% | 2.7 | 0.8% |
| | | **3,350.7** | **70.2%** | **233.5** | 72.4% |
| Commonwealth Guaranteed Indebtedness | Rural Development Bonds [1] | 394.2 | 8.3% | 25.3 | 7.8% |
| | State Revolving Fund [2] | 580.0 | 12.2% | 37.4 | 11.6% |
| | 2008 Ref Bonds - Series A&B | 284.8 | 6.0% | 17.2 | 5.3% |
| | | **1,259.0** | **26.4%** | **79.9** | 24.8% |
| CSO* | Superaqueduct Debt [3] | **162.7** | **3.4%** | **9.0** | 2.8% |
| | **Total prior PFC & GDB** | **4,772.3** | **100%** | **322.4** | **100%** |
| Debt not covered by MAT | GDB Term Loan [4] | 65.5 | | - | |
| | PFC Debt [5] | 248.5 | | - | |
| | **Total Debt** | **$ 5,086.4** | | **$ 322.4** | |

(1) Debt held by US Department of Agriculture

(2) Debt held by the Environmental Protection Agency

(3) PRASA agreed to pay this debt, issued by Public Finance Corporation (PFC) if sufficient funds were available. However, this is not a general obligation of the Authority and is otherwise payable from appropriations received from the Government

(4) GDB term loan is subordinated to all other PRASA's debt and therefore no payment was considered for the Baseline Projections. At the same time, PRASA has $14.3M deposited at GDB, mainly restricted funds, which are also not considered to be available under the Fiscal Plan

(5) Debt issued by PFC not paid by the Authority and is serviced directly by PFC. PRASA accounts its portion for accounting purposes only, but has no responsibility for its payment

Baseline Projections

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Financial Projections

UPDATED

The projected Financial Need for the projected period, including all PRASA outstanding obligations, amounts to $3.1 billion, mainly driven by the funding required for the CIP

| in $'Millions | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | 2017/ 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Operating Revenues | 1,041.5 | 1,078.6 | 1,075.0 | 1,068.8 | 1,066.1 | 1,063.5 | 1,060.9 | 1,058.2 | 1,055.6 | 1,053.0 | 10,621.2 |
| Senior and Senior Sub Debt | (233.5) | (232.2) | (230.8) | (230.8) | (230.8) | (230.8) | (230.8) | (230.8) | (230.8) | (230.8) | (2,312.0) |
| Total Net Operating Expenses [1] | (698.4) | (738.1) | (747.3) | (750.8) | (769.1) | (784.1) | (808.3) | (823.4) | (833.7) | (850.1) | (7,803.2) |
| Operating Reserve Fund | (34.9) | (38.9) | (38.3) | (38.1) | (42.1) | (3.7) | (6.1) | (3.8) | (2.6) | (4.1) | (212.5) |
| Capital Improvement Fund [2] | (97.2) | (304.3) | (265.2) | (257.2) | (244.1) | (255.3) | (268.7) | (272.3) | (236.9) | (268.4) | (2,469.7) |
| Commonwealth Payment Fund | (88.9) | (89.4) | (90.7) | (89.6) | (97.0) | (97.1) | (97.0) | (100.0) | (100.1) | (98.9) | (948.7) |
| **Initial Financial Need** | **(111.4)** | **(324.3)** | **(297.2)** | **(297.7)** | **(317.0)** | **(307.5)** | **(350.1)** | **(372.1)** | **(348.4)** | **(399.2)** | **(3,124.9)** |

[1] Please refer to breakdown included on Page 39
[2] Please refer to breakdown included on Page 40

Baseline Projections

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

INCLUDED

# Operating Expenses Breakdown

| *in $'Millions* | Projected | | | | | | | | | | 10-year |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | Total |
| Payroll and Related, Net of Capitalization | $301.0 | $325.2 | $316.5 | $319.7 | $322.4 | $329.1 | $336.5 | $344.4 | $352.5 | $360.5 | $3,307.8 |
| Electricity | 140.8 | 153.3 | 168.6 | 166.3 | 178.9 | 183.7 | 196.5 | 199.5 | 197.3 | 201.4 | 1,786.3 |
| Maintenance & Repair | 52.3 | 52.9 | 53.4 | 53.9 | 54.5 | 55.3 | 56.1 | 56.9 | 57.8 | 58.7 | 551.8 |
| Chemicals | 32.2 | 32.6 | 32.9 | 33.2 | 33.6 | 34.0 | 34.5 | 35.1 | 35.6 | 36.2 | 339.9 |
| Other Expenses | 172.1 | 174.2 | 175.9 | 177.6 | 179.6 | 182.0 | 184.7 | 187.5 | 190.4 | 193.4 | 1,817.4 |
| **Operating Expenses** | **$698.4** | **$738.2** | **$747.3** | **$750.7** | **$769.0** | **$784.1** | **$808.3** | **$823.4** | **$833.6** | **$850.2** | **$7,803.2** |
| | | | | | | | | | | | |
| **Other Expenses Detail** | | | | | | | | | | | |
| Professional Services | 29.5 | 29.9 | 30.2 | 30.5 | 30.8 | 31.2 | 31.7 | 32.2 | 32.7 | 33.2 | 311.9 |
| Third Party Vendors | 17.6 | 17.8 | 17.9 | 18.1 | 18.3 | 18.6 | 18.8 | 19.1 | 19.4 | 19.7 | 185.3 |
| Technical Assistance | 16.7 | 16.9 | 17.0 | 17.2 | 17.4 | 17.6 | 17.9 | 18.2 | 18.5 | 18.8 | 176.1 |
| Materials & Supplies | 16.0 | 16.2 | 16.3 | 16.5 | 16.7 | 16.9 | 17.1 | 17.4 | 17.7 | 17.9 | 168.6 |
| IT Services / Licenses | 15.8 | 16.0 | 16.2 | 16.3 | 16.5 | 16.7 | 17.0 | 17.2 | 17.5 | 17.8 | 167.1 |
| Billings & Collections | 13.7 | 13.9 | 14.0 | 14.2 | 14.3 | 14.5 | 14.7 | 15.0 | 15.2 | 15.4 | 145.0 |
| Water Purchase | 12.1 | 12.2 | 12.4 | 12.5 | 12.6 | 12.8 | 13.0 | 13.2 | 13.4 | 13.6 | 127.6 |
| Security | 8.3 | 8.4 | 8.5 | 8.6 | 8.7 | 8.8 | 8.9 | 9.1 | 9.2 | 9.4 | 87.9 |
| Insurance | 8.3 | 8.4 | 8.5 | 8.5 | 8.6 | 8.7 | 8.9 | 9.0 | 9.2 | 9.3 | 87.3 |
| Fuels and Oils | 7.6 | 7.7 | 7.8 | 7.9 | 8.0 | 8.1 | 8.2 | 8.3 | 8.5 | 8.6 | 80.7 |
| Rentals | 7.0 | 7.1 | 7.2 | 7.3 | 7.3 | 7.4 | 7.5 | 7.7 | 7.8 | 7.9 | 74.2 |
| Waste Treatment & Disposal | 5.4 | 5.5 | 5.6 | 5.6 | 5.7 | 5.8 | 5.8 | 5.9 | 6.0 | 6.1 | 57.4 |
| Superaqueduct Operation | 3.8 | 3.9 | 3.9 | 4.0 | 4.0 | 4.1 | 4.1 | 4.2 | 4.3 | 4.3 | 40.5 |
| Telephone and Network | 3.0 | 3.1 | 3.1 | 3.1 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 31.9 |
| Minor purchases | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 16.8 |
| Water Transport | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 14.0 |
| Office Supplies | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 14.0 |
| Other Expenses | 2.9 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 | 3.2 | 3.2 | 3.3 | 3.3 | 31.3 |
| **Total Other Expenses** | **172.1** | **174.2** | **175.9** | **177.6** | **179.6** | **182.0** | **184.7** | **187.5** | **190.4** | **193.4** | **1,817.4** |

Note: PRASA may reclassify expenses between the above presented categories, as needed

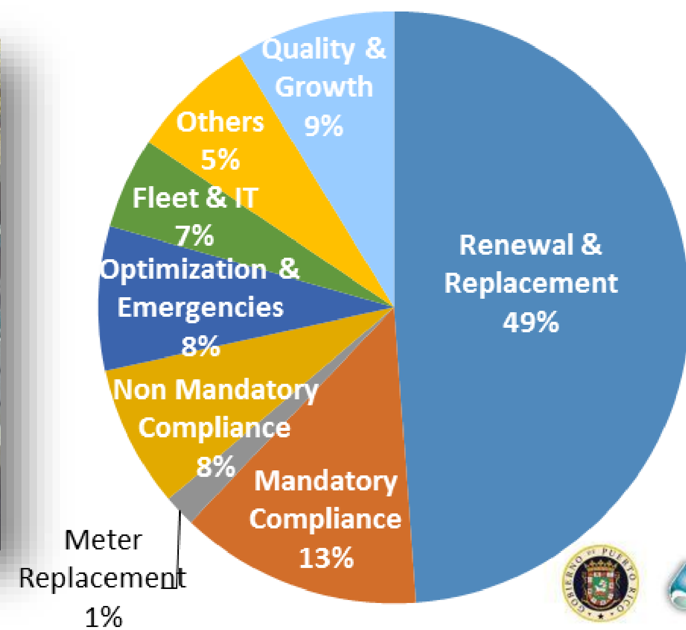
Baseline Projections

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

INCLUDED

# CIP Breakdown

| **Project Type** (Figures expressed in $'000) | FY2017 | FY2018 | FY2019 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 | FY2026 | 2017/ 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Renewal & Replacement | $ 16.1 | $ 84.2 | $ 71.1 | $ 89.7 | $ 91.7 | $139.0 | $158.2 | $165.3 | $145.1 | $196.8 | 1,157.2 |
| Mandatory Compliance | 17.4 | 68.6 | 59.8 | 29.8 | 17.8 | 23.3 | 33.0 | 22.4 | 19.4 | 22.0 | 313.4 |
| Meter Replacement | 0.1 | 5.0 | 4.6 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 41.2 |
| Non Mandatory Compliance | 9.2 | 23.5 | 40.7 | 39.8 | 29.7 | 16.7 | 8.3 | 6.4 | 6.1 | 3.5 | 183.9 |
| Optimization & Emergencies | 5.5 | 22.2 | 22.5 | 20.9 | 19.1 | 20.5 | 20.7 | 19.2 | 18.5 | 17.2 | 186.3 |
| Others | 1.3 | 10.7 | 18.2 | 25.5 | 27.3 | 11.8 | 8.2 | 8.1 | 4.6 | 2.9 | 118.6 |
| Fleet & IT | 9.7 | 20.5 | 18.4 | 18.2 | 17.0 | 16.1 | 16.0 | 16.0 | 16.0 | 13.8 | 161.7 |
| Quality & Growth | 2.8 | 9.6 | 24.9 | 28.9 | 37.0 | 23.4 | 19.8 | 30.4 | 22.8 | 7.7 | 207.4 |
| **Total FY 2018 CIP** | **$ 62.2** | **$244.3** | **$260.2** | **$257.2** | **$244.1** | **$255.3** | **$268.7** | **$272.3** | **$236.9** | **$268.4** | **$ 2,369.7** |
| Payables to contractors | 35.0 | 60.0 | 5.0 | - | - | - | - | - | - | - | 100.0 |
| **Total FY 2018 CIP Needs** | **$ 97.2** | **$304.3** | **$265.2** | **$257.2** | **$244.1** | **$255.3** | **$268.7** | **$272.3** | **$236.9** | **$268.4** | **$ 2,469.7** |




Baseline Projections

# Agenda



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Proposed Initiatives

UPDATED

**Revenues**

1. Rate Increase
2. P3 Project – Meters/Customer Experience
3. Charge for Paper Bill/Electronic Bill Discount
4. Adjustment Policy Revision
5. New Disconnection Fee

**Expenses**

6. Physical Losses Reduction
7. Hydroelectric Power Generation
8. Other Expenses Reduction

**Debt Service and New Financing**

9. Forbearance Agreements
10. Superaqueduct Debt
11. Federal Funds

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 1 Rate Increase

- The Oversight Board required PRASA's fiscal plan to include a series of consistent, but moderate rate increases in order to be certified.
- In the Draft Fiscal Plan submitted on February 21, 2017 no rate increases were included.
- Given the Oversight Board's direction, PRASA's management evaluated different rate increases scenarios based on the current **Rate Resolution**.

***In 2005, PRASA incorporated into its standing rate resolution the ability to increase rates by 4.5% annually (maximum % after applying the adjustment coefficient calculation), until a cumulative 25% rate revenue increase is reached, without the need to go through the Act No. 21 process. This ability was also incorporated into PRASA's current rate resolution, adopted in 2013.***

# 1 Rate Increase

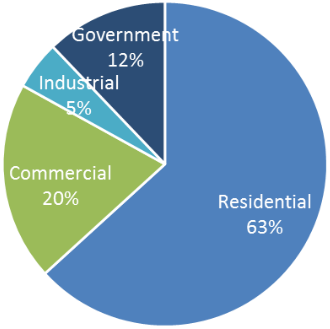
UPDATED

- The required rate increases to cover all operating expenses, the capital improvement program and the current debt service, assuming no debt restructuring or new external financing, is estimated as follows:
  - If no initiatives are implemented a one-time rate increase of around 35% may be required starting as soon as FY2018.
  - If all the other proposed initiatives are implemented a one-time rate increase of around 25% may be required on FY2018.

- This revised Fiscal Plan incorporates the Oversight Board's request to:
  - Include moderate but consistent rate increases, therefore the projections assume $1B in revenue increase throughout the 10-year period (on **average 2.5%** in annual incremental revenues each year, starting on **January 2018**)
  - Distribute the impact amongst all customer categories

- For the financial projections the following annual rate increase were assumed to be applied starting FY2018 through FY2026:
  - Residential: 2.5%
  - Commercial: 2.8%
  - Industrial: 3.5%
  - Government: 4.5%

FY 2016 Billings Distribution




New Initiatives

Puerto Rico Aqueduct and Sewer Authority
Government of Puerto Rico

# 1 Rate Increase

UPDATED

## 2.5% Rate Increase Impact on Residential Customers Monthly Bill (Year 1)

Residential Clients Distribution | Calculated for 5/8" meters

| Consumtion Range (cubic meters) | % of Accounts | Accum Bills | # of Accounts | Cubic Meters for Bill Calculation | Current Bill Water Only | Monthly Increase | Current Bill W&S | Monthly Increase Year #1 | Electronic Bill Discount | Net Change for Clients subscribed to Electronic Bill |
|---|---|---|---|---|---|---|---|---|---|---|
| 0-10 | 38% | | 408,736 | 10 | $ 13.60 | $ 0.34 | $ 23.71 | $ 0.59 | $ (1.00) | $ (0.41) |
| 11-15 | 19% | 57% | 204,368 | 15 | $ 25.35 | $ 0.63 | $ 46.06 | $ 1.15 | $ (1.00) | $ 0.15 |
| 16-20 | 23% | 80% | 247,393 | 20 | $ 39.30 | $ 0.98 | $ 71.96 | $ 1.80 | $ (1.00) | $ 0.80 |
| >20 | 20% | 100% | 215,124 | 25 (90%) | $ 49.25 | $ 1.23 | $ 89.86 | $ 2.25 | $ (1.00) | $ 1.25 |
| | | | 1,075,621 | | | | | | | |

Based on a proposed credit of $1 per month to clients who subscribe to electronic bill (instead of the paper bill charge originally proposed), almost **40% of PRASA's residential** clients will see a **reduction of the monthly invoice** of $0.41 on the first year of the increase. Also almost an additional 20% will pay an increase of only $0.15 after applying the electronic bill credit

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 1 Rate Increase

UPDATED

## 2.8% Rate Increase Impact on Commercial Customers Monthly Bill (Year 1)

**Commercial Clients Distribution** | **Calculated for 5/8" meters (85% of Commercial Clients)**

| Consumtion Range (cubic meters) | % of Accounts | # of Accounts | Cubic Meters for Bill Calculation | Current Bill Water Only | Monthly Increase | Current Bill W&S | Monthly Increase Year #1 |
|---|---|---|---|---|---|---|---|
| 0-4 | 25% | 11,977 | 4 | $ 38.05 | $ 1.07 | $ 67.83 | $ 1.90 |
| 5-15 | 25% | 11,977 | 15 | $ 70.17 | $ 1.96 | $ 126.57 | $ 3.54 |
| 16-52 | 25% | 11,977 | 52 | $ 178.21 | $ 4.99 | $ 324.15 | $ 9.08 |
| >52 | 25% | 11,977 | 100 (94%) | $ 318.37 | $ 8.91 | $ 580.47 | $ 16.25 |
| | | 47,906 | | | | | |

## 3.5% Rate Increase Impact on Industrial Customers Monthly Bill (Year 1)

**Industrial Clients Distribution** | **Calculated for 2" meters** (84% of Industrial Clients = meters of 2" or less)

| Consumtion Range (cubic meters) | % of Accounts | # of Accounts | Cubic Meters for Bill Calculation | Current Bill Water Only | Monthly Increase | Current Bill W&S | Monthly Increase Year #1 |
|---|---|---|---|---|---|---|---|
| 0-18 | 25% | 205 | 18 | $ 265.20 | $ 9.28 | 437.24 | $ 15.30 |
| 19-67 | 25% | 205 | 67 | $ 451.89 | $ 15.82 | $ 772.89 | $ 27.05 |
| 68-466 | 25% | 205 | 466 | $ 1,972.08 | $ 69.02 | $ 3,506.04 | $ 122.71 |
| >466 | 25% | 205 | 2,400 (90%) | $ 9,340.62 | $326.92 | $16,753.94 | $ 586.39 |
| | | 820 | | | | | |

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 1 Rate Increase

UPDATED

## 4.5% Rate Increase Impact on Government Customers Monthly Bill (Year 1)

**Government Clients Distribution** | **Calculated for 5/8" meters (55% of Government Clients)**

| Consumtion Range (cubic meters) | % of Accounts | # of Accounts | Cubic Meters for Bill Calculation | Current Bill Water Only | Monthly Increase | Current Bill W&S | Monthly Increase Year #1 |
|---|---|---|---|---|---|---|---|
| 0-13 | 25% | 2,523 | 13 | $ 64.33 | $ 2.89 | $ 115.89 | $ 5.22 |
| 14-70 | 25% | 2,523 | 79 | $ 257.05 | $ 11.57 | $ 468.33 | $ 21.07 |
| 71-325 | 25% | 2,523 | 325 | $ 1,168.87 | $ 52.60 | $ 2,118.72 | $ 95.34 |
| >325 | 25% | 2,523 | 360 (90%) | $ 1,312.37 | $ 59.06 | $ 2,378.07 | $ 107.01 |
| | | 10,091 | | | | | |

The rate increase assumes to incorporate the benefit expected to be received from the Paper Bill Charge ($120M) as included in the Fiscal Plan certified on April 28, 2017, which is proposed to be eliminated through this revised Fiscal Plan and replaced by a credit for clients who subscribe to electronic bill instead

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 1 Rate Increase

UPDATED

## Rate Increase - Current Legal Process

| Increase =< 4.5% | Increase > 4.5% |
|---|---|
| Rate Resolution - Automatic Increase | Act 21-1985 |
| No further requirements | Public Hearings Requirement |
| PRASA's Governing Board Approval | PRASA's Governing Board Approval |

PRASA Governing Board has the legal authority to enact a multi-year, permanent rate increase

## Rate Increase Proposed Process

- Once the Fiscal Plan is certified by the FOMB, any rate increase included in such plan will be presented to PRASA's Governing Board to obtain an approval for the proposed rate increase for each of the years included in the Fiscal Plan.
- As the proposed rate increase is less than 4.5% per year PRASA is expecting to implement the change through the Automatic Increase allowed by the Rate Resolution in place (subject to final legal opinion)
- PRASA will seek for approval of the annual increases until FY2022 to comply with the Fiscal Plan projections

New Initiatives

# 2 P3 Project – Optimizing PRASA's Metering System and Customer Experience

## Project Drivers:

### Significant Non-Revenue Water

While PRASA has made some recent progress reducing its non-revenue water ("NRW") challenges, the utility continues to lose a significant amount of revenues due to physical and commercial water losses

### Need for Efficiency and Customer Service Optimization

PRASA has identified several areas in the execution of its Customer Service operation that could be improved to capture a good portion of this lost revenue and also operate more efficiently

### Need of Funds for Meter Replacement

PRASA also has an urgent need to improve metering accuracy and replace customer water meters, but currently has no capital to do so

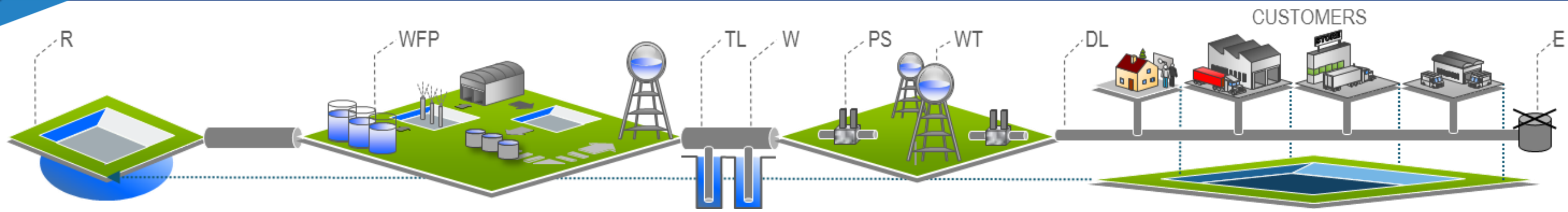
### P3 Potential

PRASA is now looking into entering a P3 partnership to leverage private sector capabilities and capital to improve the execution of its customer service operation

# 2 P3 Project – Optimizing PRASA's Metering System and Customer Experience

PRASA

**Project Concept:**




WATER PRODUCTION AND DISTRIBUTION AND WASTEWATER COLLECTION AND TREATMENT

P3 CONTRACT ADMINISTRATION

…to allow PRASA to focus on their core activities….

P3


…and achieve PRASA's **objectives** through performance based incentives

- HIGHER CUSTOMER SATISFACTION
- HIGHER CASH REVENUES
- LOWER OPERATIONAL COST
- LOWER NON-REVENUE WATER
- FINANCING FOR METER REPLACEMENTS

New Initiatives

# 2 P3 Project – Optimizing PRASA's Metering System and Customer Experience

The private partner's scope of work shall consist of four main areas:

### Customer Service

Manage and perform most customer service activities ensuring a high level of **efficiency and customer satisfaction**.

### Billings and Collections

Support PRASA in improving the **effectiveness of its billings and collections processes** to maximize cash revenue generation.

### Meter Replacement & Maintenance

Develop and implement customer **meter replacement and maintenance program** according to PRASA's new performance specs and requirements.

### Non Revenue Water (NRW)

Manage and implement all efforts directed towards **reducing NRW**; including the operation of the NRW Recovery Office and updating customer geodatabase, **sharing benefits with PRASA**.

# 2 P3 Project – Optimizing PRASA's Metering System and Customer Experience

## Project Benefits

1. Revenue Recovery/Increase
2. Reduction of Non Revenue Water
3. Financing for Capital Investments
4. Higher Efficiency at Lower Operational Cost
5. Customer Satisfaction

**Total Estimated Net Cash Flow Benefit to PRASA for FY2017-FY2026 Period: $416M (Nominal Amount)**

## Project Initiatives

- Meter Replacement
- Theft
- Missing Customers (Cadaster)
- Derivations
- Wastewater Phase 3
- Proactive Collections

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 2 P3 Project – Optimizing PRASA's Metering System and Customer Experience

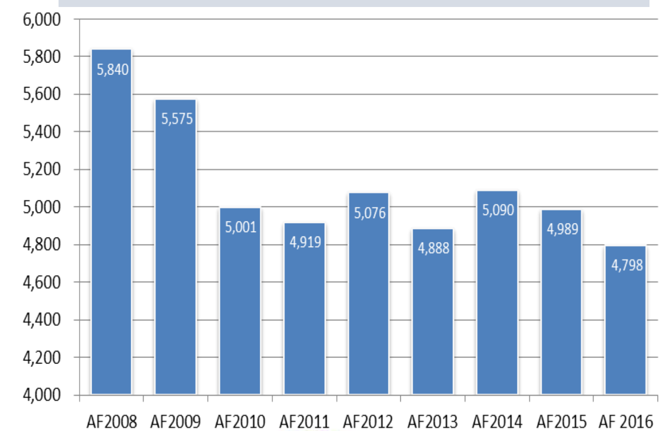
## Service Revenue Collection Rate

- The collections rate is expected to be improved by 2% for non-government accounts
  - Increasing from 96% (Baseline Projections) to 98% (excluding government accounts)
  - The total impact is estimated at $121M from FY 2019 to FY 2026
  - The annual increase in collections reaches $18M by FY 2021

## Payroll Cost Reduction

- PRASA is expecting to reduce its FTE's by around 900 employees (customer service employees net of staff to administer government accounts and the P3 contract estimated at 80 FTEs), via transfer to the private operator or to the single employer program
- Therefore PRASA will reduce its headcount by approximately 20% to around 4,000 employees by FY 2019
- Net Savings on Payroll cost are included as part of the P3 benefit

**Historic Headcount Reduction**



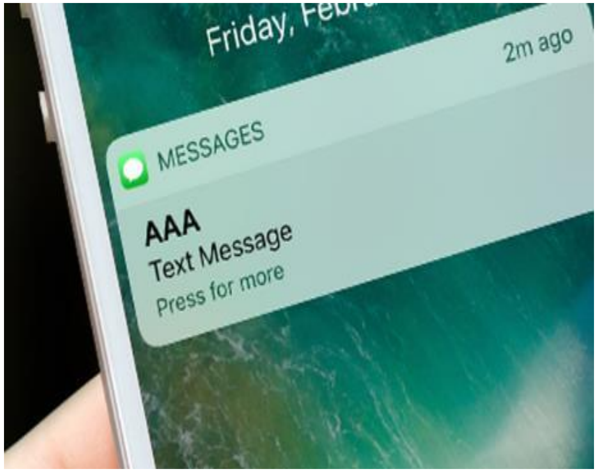

New Initiatives

Puerto Rico Aqueduct and Sewer Authority

# 3 Charge for Paper Bill/Electronic Bill Discount

UPDATED

- PRASA has created a "virtual office" allowing customers to now perform all of their transactions via the internet. Additionally, a mobile application for smart phones has been developed.
- Also, PRASA has developed the capacity to send electronic bills to customers.
- PRASA originally proposed to implement a Paper Bill Fee which under this revised Fiscal Plan is proposed to be replaced by a discount of $1 per month to each client subscribed to the electronic bill
- PRASA would first educate and promote the paperless billing method for all of its customers.




Over 70,000 "paperless" customers have been recruited in less than a year.

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 3 Charge for Paper Bill/Electronic Bill Discount

UPDATED

***Expected financial benefits and key assumptions:***

- The discount will be applied to all customers opting for electronic bill
- The discount is expected to be implemented in January 2018
- Based on the proposed rate increases for residential customers under Base Charge (almost 40%) of $0.59, if the client subscribes to the electronic bill, the bill will be reduced for the first year of the rate increase

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 4 Adjustment Policy Revision

PRASA's Governing Board has already approved a regulation that will soon be implemented, which states that adjustments made for bills where a hidden leak is detected will only apply to the sewer bill portion (not water and sewer) as the water has already been consumed or lost and PRASA has already incurred in its production cost.

- In the past, both the water and sewer charges were adjusted. With the new regulation, only the sewer portion will be adjusted.

This type of adjustment amounts to approximately $3.5M per year. The adjustment is expected to reduce current adjustments by 60% or $2M per year starting on FY2018.

# 5 New Disconnection Fee

- PRASA currently disconnects approximately 200,000 accounts per year.
- This initiative consists on the implementation of a new $15 charge for the cost of disconnecting the service (in addition to the reconnection fee already in place).

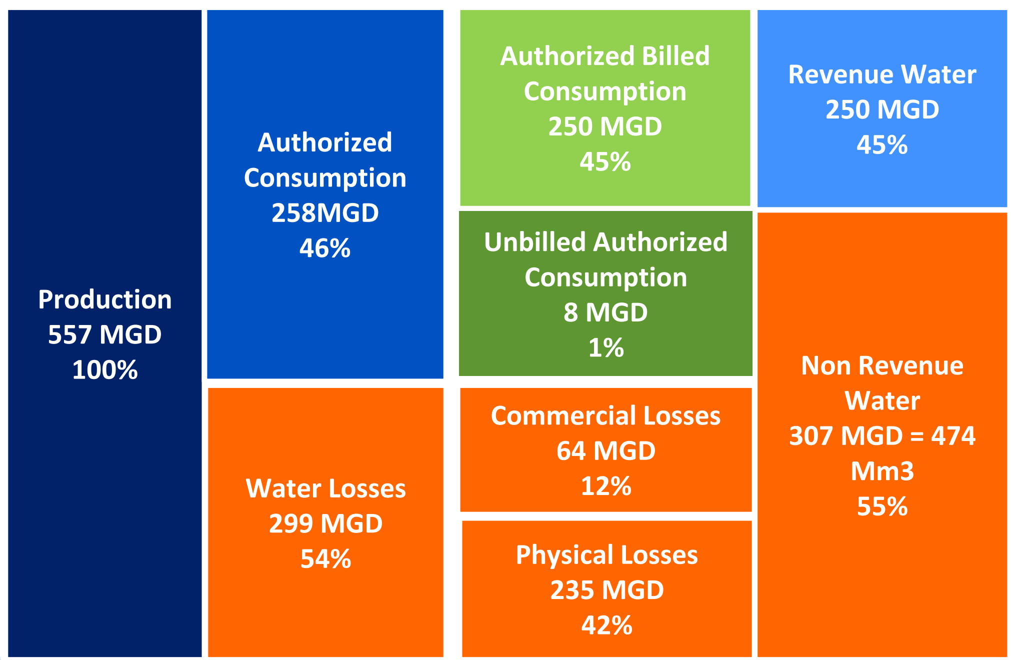
***Expected financial benefits and key assumptions:***

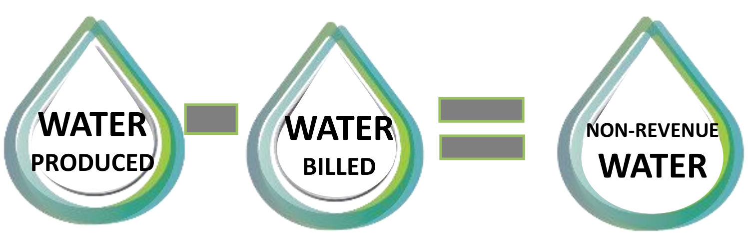
- The fee is expected to be implemented in FY2018.
- The maximum revenue with current disconnections was estimated at $3M per year (200,000 disconnection multiplied by the $15 charge)
- Projections show a lower number of disconnections as this new fee is expected to discourage the need of disconnections as presented in the table.

# 6 Physical Losses Reduction

- Reducing NRW continues to be a high priority objective for PRASA as it will have both a revenue enhancing impact and an expense reduction (as water production needs are reduced) impact to PRASA's finances.
- Combined, physical and commercial losses make up the system's water losses.
- Physical losses are a result of the leaks/breaks throughout the water system or tank overflows.
- Physical losses represent water that is produced but never reaches the customer's residence/ establishment.
- Reducing physical losses can result in cost savings associated with variable water production costs.

**FY 2015 Audit Results**



# 6 Physical Losses Reduction

## Water leaks detection and reduction in repair time

- NRW can be reduced by implementing operational tactics such as reactive leak detection efforts (by using equipment to detect leaks) and shortening repair times for addressing/repairing leaks.
- PRASA is currently using leak detection techniques to proactively identify leaks, is monitoring system pressure to optimize flows, and is reducing the number of days required to repair leaks.
- PRASA has estimated the cost savings from these initiatives by analyzing average flow rates for leaks and the impact on water loss from reducing repair time.
- The cost savings reflect the net benefit since PRASA will incur in labor costs and other operating costs to detect and address leaks sooner, but will save chemical and electricity costs for water that is no longer produced and lost.

- The cost savings associated with these operational initiatives is **$112 million** over the 10-year forecast period (approximately half of these savings have already been realized through PRASA's on-going leak detection initiatives).
- The costs and benefits of these initiatives are included in the 10-year forecast

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 6 Physical Losses Reduction

## Tank telemetry, monitor and pressure reduction

- PRASA has undertaken initiatives to install telemetry monitoring equipment at tanks.
- This initiative will require a capital investment in monitoring/communication equipment of approximately **$1.5 million**, but will result in the reduction of overflows, reducing physical water losses.
- PRASA expects cost savings of approximately **$12 million** over the 10-year forecast period (approximately half of these savings have already been realized through PRASA's monitoring of tanks with existing telemetry equipment).
- The net benefit of these non-revenue water initiatives are included in the 10-year forecast

**38%**

of tanks have remote water level monitoring

**PRASA's Goal:**

**65%**

by 2019

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 6 Physical Losses Reduction

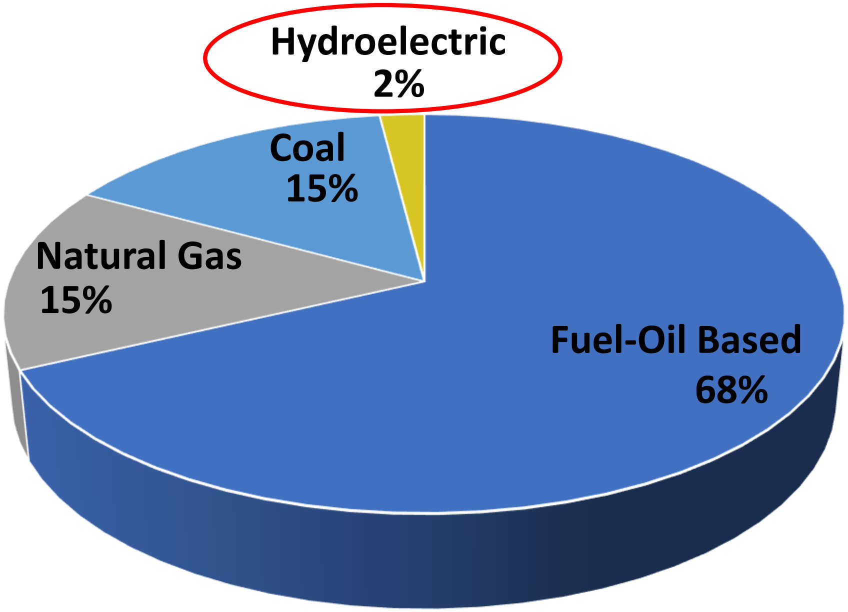
- The NRW office has a goal of reducing the system water production to **450 MGD by 2020.**
- For conservative purposes, the 10-year forecast period assumes that PRASA will be able to achieve water system input of approximately **485 MGD**.
- Since achieving this goal will reduce the amount of water produced, PRASA will be able to reduce its operational costs.
- The total cost savings from reducing physical losses is estimated to be approximately **$124.5 million**, or an average of **$12.5 million per year**.

The net impact of reducing physical losses through the leak detection and tank telemetry initiatives is estimated to generate a benefit of $124.5M in net cost savings through the 10-year projected period included in the Fiscal Plan

# 7 Hydroelectric Power Generation

- Hydroelectric facilities currently owned and operated by PREPA
  - 21 hydroelectric units (at 11 sites) and 3 irrigation systems
  - Capacity of 100 MW
  - Operational status and asset condition vary across facilities
- PRASA expects to upgrade and maximize hydroelectric generation through:
  - Optimization of operations
  - Capital improvements

**PREPA's Energy Generation**




***Source: PREPA Website www.prepa.com***

Between 2009-2013, hydroelectric facilities generated an average:
**129 M kWh/yr**

= **20%**

of PRASA's current energy consumption

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 7 Hydroelectric Power Generation

UPDATED

**Active** facilities include:

- Yauco 1 & 2 (35 MW)
- Dos Bocas (15 MW)
- Caonillas (23 MW)
- Garzas (12 MW)
- Rio Blanco (5 MW)
- Toro Negro (10.5 MW)

**Inactive** facilities include:

- Patillas (1.4 MW)
- Isabela (3 MW)
- Carite (3 MW)
- Comerio (4 MW)

PRASA is expected to assume the operation of the hydroelectric generation units (including reservoirs and irrigation systems) and all of their related equipment

The structure, terms and conditions are still under consideration by PREPA and PRASA management

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 7 Hydroelectric Power Generation

UPDATED

**Benefits:**

- Lower energy costs for PRASA
- Better control and management of water resources
- Cost savings
- Leverages existing infrastructure
- Reduces the amount of future water/sewer rate increases

**Opportunities:**

Annual production could potentially be increased by **67% to approximately 216 million kWh** (most likely scenario) with the possibility of increasing up to 328 million kWh (depending on results of water availability study)

Opportunities

Preliminary studies show that there are opportunities to optimize the system operation **to increase energy generation**

Potential

40%

of PRASA's current energy consumption

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 7 Hydroelectric Power Generation

UPDATED

**Key assumptions for financial calculations based on current conversations with PREPA:**

1. For all the power generated through the hydroelectric facilities PREPA will only bill PRASA for in its monthly invoice the base charge, the CILT, the securitization charge and subsidies.

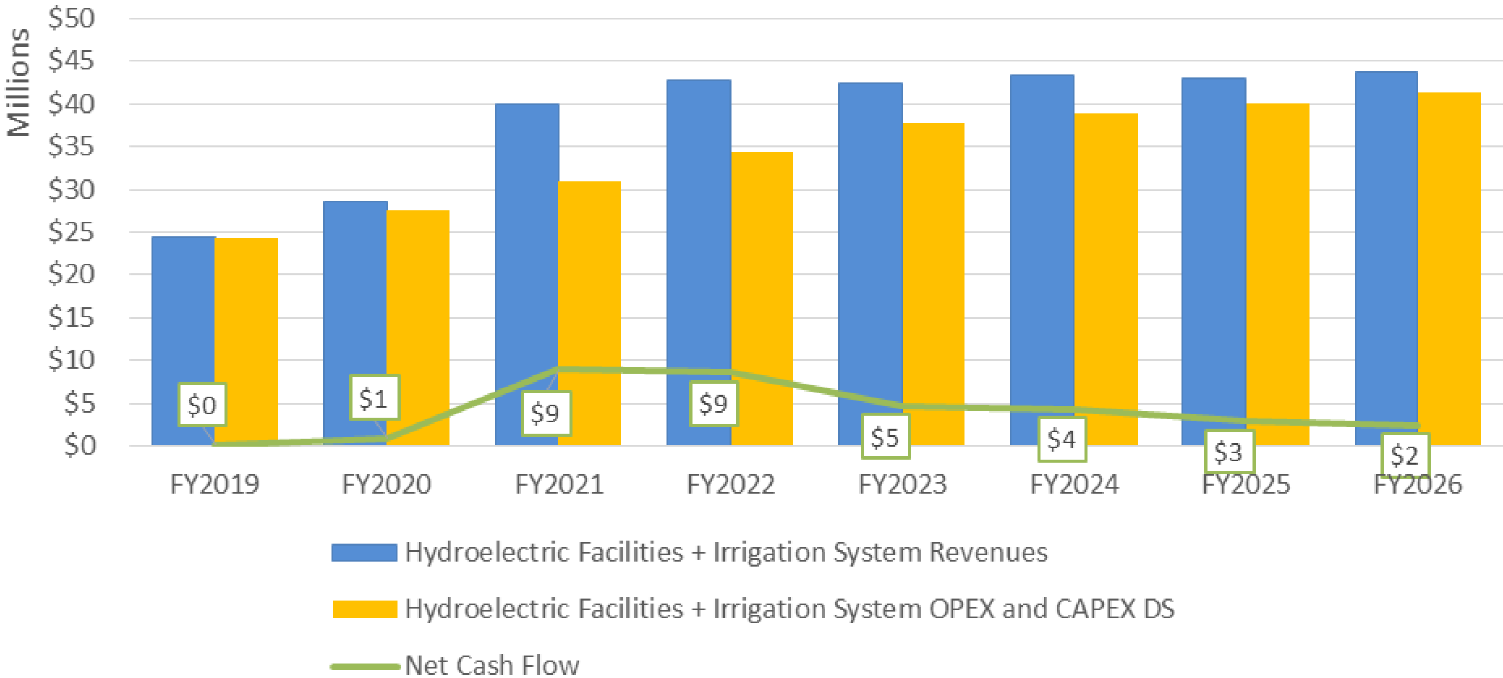
   → The oil and energy purchase charges will not be billed to PRASA

2. The final structure of the transaction to be executed between PREPA and PRASA is still under discussion

- O&M annual costs based on current PREPA costs (starting at $5.8M); escalated at 2% per year over period plus the expected cost for renting the facilities
- CIP Investment Costs (Hydro & Irrigation systems)
  - Financed over 15-year period
  - Financing cost of 10%

# 7 Hydroelectric Power Generation

UPDATED




The estimated net cash flow (nominal amount) for FY2019-FY2026 is $33M

New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 8 Other Expenses Reduction

- An additional reduction to the one already embedded in the Baseline Financial Projections for Other Expenses (excluding Payroll and Electricity) is projected as part of the additional proposed initiatives.
- The proposed reduction is higher in FY2017 due to the current delay and postponement of required maintenance works and physical losses detection programs, amongst others.
- The Other Expenses reduction is projected at around $2M per year for FY2018 and every year thereafter.
- To obtain the proposed results, the system maintenance needs to be adequate and some postponed work, as for example the cleaning of the Superaqueduct lagoon, need to be completed.
- Also, the expense reductions associated to other proposed initiatives (mostly associated to customer service, chemicals and electricity) are presented and considered in each of the initiatives respectively to avoid double counting of their impact.

# 9 Forbearance Agreements

- Historically, PRASA has received federal funds for its CIP through:

State Revolving Fund (SRF) Loans: Granted by the Clean Water State Revolving Fund Programs (CWSRF) and the Drinking Water State Revolving Fund Programs (DWSRF), administered by the Government's Environmental Quality Board and PRDOH, respectively.

Rural Development (RD) Bonds: Bond proceeds from the USDA Rural Development Program by issuing revenue bonds as authorized under the PRASA's Resolution No. 1224, adopted by PRASA on August 12, 1986, as amended.

- The SRF Loans and the RD Bonds are secured by a guaranty from the Government under Act No. 45 of the Legislative Assembly of Puerto Rico, approved on July 28, 1994, as amended.
- The current balance outstanding is around $580 million for SRF loans and $390 million for RD Bonds, with an annual debt service of around $60 million.

# 9 Forbearance Agreements

UPDATED

- On June 30, 2016, PRASA entered into forbearance agreements related to both programs, which were later extended in various occasions and are currently due and will terminate on **June 30, 2017.**
- The forbearance agreements grant PRASA a reduction of principal and interest on both programs of approximately $60 million per year, which was reduced from FY2017 debt service.
- Forbearance parties remain in ongoing discussions
- The payment of the balances owed since June 30, 2016 up to June 30, 2017 are expected to be included as part of a potential debt restructuring and were not included as incremental debt service for financial projections purposes.


New Initiatives

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# 10 Superaqueduct Debt

- PRASA's debt balance includes a portion of the 2011 Series B Bonds issued by the PFC on December 2011 to refinance certain outstanding debt related to the construction cost of the North Coast Superaqueduct.
- In the past, PRASA agreed with the Government to pay the debt service on the portion of this debt related to the Superaqueduct ($162.7 million) if sufficient funds were available for such purpose.
- However, this is not a general obligation of PRASA and is otherwise payable solely from appropriations received from the Government.
- PRASA has been unable to make such payments in recent years. As provided in the MAT, if PRASA is unable to make these payments, the obligation is not cumulative, and therefore does not carry forward to future periods.
- Since PRASA is not legally required to make this payment, PRASA eliminated the related debt service payments from its financial projections creating savings of $9 million per year.

The Superaqueduct is one of the main assets owned and operated by PRASA, producing around 100 MGD or around 20% of water production.

New Initiatives

# 11 New Federal Funds

UPDATED

**State Revolving Funds**

- SRF funds are received through annual grants assigned to the EPA by the US Congress, in an amount of around $30 million for DWSRF and DWSRF Programs, requiring a state match of 20% of the annual grant included as PRASA's costs and netted from the new funds.
- The new funds are projected at $27M per year starting on FY 2018
- The new funds are presented net from the cost of debt service (calculated as 30-year 1% loans, as recently proposed by EPA) and from a 20% state match expected to be provided by PRASA

Protect Our Health from Source to Tap • Drinking Water State Revolving Fund •

UNITED STATES • ENVIRONMENTAL PROTECTION AGENCY •

Clean Water
State Revolving Fund

# 11 New Federal Funds

UPDATED

**<u>Rural Development Bonds</u>**

- RD Bonds are expected to be issued at a level of $10 million per year starting on FY2019
- The new funds are projected net from the expected debt service calculated as 40-year / 4% bonds, which are terms similar to the current outstanding bonds.

# Proposed Initiatives Total Impact

UPDATED

The total impact of the proposed initiatives reduced the Initial Financial Need by almost 70% or $2.1B

| in $'Millions | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | 2017/ 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rate Increase (Net Impact) | - | 5.1 | 44.0 | 70.4 | 96.6 | 124.4 | 153.9 | 184.2 | 215.3 | 247.3 | 1,141.2 |
| P3 for Commercial Services | - | - | (7.9) | 17.2 | 39.6 | 53.6 | 64.0 | 74.2 | 83.9 | 91.1 | 415.8 |
| Charge for paper bill (included) | - | - | - | - | - | - | - | - | - | - | - |
| Revise adjustment policy | - | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 18.0 |
| Add dis-connection Fee | - | 2.3 | 1.5 | 1.2 | 1.2 | 0.9 | 0.9 | 0.6 | 0.6 | 0.6 | 9.8 |
| **Revenue Enhancing** | **-** | **9.4** | **39.6** | **90.7** | **139.4** | **180.9** | **220.8** | **261.1** | **301.9** | **341.1** | **1,584.8** |
| Physical Water Losses | 8.0 | 10.1 | 11.9 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 13.5 | 124.5 |
| Hydroelectric Transfer | - | - | 0.1 | 0.9 | 8.9 | 8.5 | 4.6 | 4.3 | 2.9 | 2.4 | 32.7 |
| Other Expense Reductions | 41.9 | 1.8 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 59.7 |
| **Expense Savings** | **49.9** | **12.0** | **13.9** | **16.3** | **24.3** | **24.0** | **20.2** | **19.9** | **18.4** | **18.0** | **216.8** |
| Forbearance Agreements | 58.8 | - | - | - | - | - | - | - | - | - | 58.8 |
| Superaqueduct debt (PFC) | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 90.0 |
| **Debt Service Reduction** | **67.8** | **9.0** | **9.0** | **9.0** | **9.0** | **9.0** | **9.0** | **9.0** | **9.0** | **9.0** | **148.7** |
| **Federal Funds Net Impact** | **-** | **20.6** | **29.0** | **27.5** | **25.9** | **24.4** | **22.8** | **21.3** | **19.7** | **18.2** | **209.3** |
| **Initiatives Net Impact** | **117.7** | **50.9** | **91.5** | **143.4** | **198.6** | **238.3** | **272.8** | **311.2** | **349.0** | **386.3** | **2,159.7** |

# Adjusted Financial GAP

UPDATED

| in $'Millions | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 | 2017/ 2026 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Initial Financial Need | (111.4) | (324.3) | (297.2) | (297.7) | (317.0) | (307.5) | (350.1) | (372.1) | (348.4) | (399.2) | $(3,124.9) |
| Revenue Enhancing | - | 9.4 | 39.6 | 90.7 | 139.4 | 180.9 | 220.8 | 261.1 | 301.9 | 341.1 | 1,584.8 |
| Expense Savings | 49.9 | 12.0 | 13.9 | 16.3 | 24.3 | 24.0 | 20.2 | 19.9 | 18.4 | 18.0 | 216.8 |
| Debt Service Reduction | 67.8 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | 148.7 |
| Federal Funds Net Impact | - | 20.6 | 29.0 | 27.5 | 25.9 | 24.4 | 22.8 | 21.3 | 19.7 | 18.2 | 209.3 |
| Initiatives Net Impact | 117.7 | 50.9 | 91.5 | 143.4 | 198.6 | 238.3 | 272.8 | 311.2 | 349.0 | 386.3 | 2,159.7 |
| Adjusted Financial Need | $ 6.2 | $ (273.4) | $ (205.7) | $ (154.3) | $ (118.4) | $ (69.2) | $ (77.3) | $ (60.8) | $ 0.6 | $ (12.9) | $ (965.2) |

Still, after the implementation of all the proposed initiatives a $965 million remaining Financial Need is projected which is expected to be covered by:

- New Financing
- Debt Restructuring



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Agenda



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Restructuring

UPDATED

The Fiscal Plan (post measures and initiatives) indicate that the current debt structure is not sustainable:

| ***Excluding federal funds*** | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Total | Remaining gap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cash flow available for debt service | $328.7 | $26.0 | $86.0 | $138.6 | $184.2 | $235.8 | $230.0 | $251.8 | $315.6 | $303.2 | $2,099.9 | |
| Current debt service | (322.4) | (321.6) | (321.5) | (320.4) | (327.8) | (327.9) | (327.8) | (330.8) | (330.9) | (329.7) | (3,260.7) | |
| **Surplus / (Shortfall)** | **$6.2** | **($295.6)** | **($235.5)** | **($181.8)** | **($143.5)** | **($92.1)** | **($97.8)** | **($79.0)** | **($15.3)** | **($26.4)** | **($1,160.8)** | $1.2bn |
| *% shortfall / debt service* | *n.a* | *109%* | *136%* | *57%* | *44%* | *28%* | *30%* | *24%* | *5%* | *8%* | *36%* | |

| ***Including federal funds*** | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Total | Remaining gap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cash flow available for debt service | $328.7 | $48.2 | $115.8 | $166.1 | $209.4 | $258.6 | $250.6 | $270.0 | $331.5 | $316.7 | $2,295.6 | |
| Current debt service | (322.4) | (321.6) | (321.5) | (320.4) | (327.8) | (327.9) | (327.8) | (330.8) | (330.9) | (329.7) | (3,260.7) | |
| **Surplus / (Shortfall)** | **$6.2** | **($273.4)** | **($205.7)** | **($154.3)** | **($118.4)** | **($69.2)** | **($77.3)** | **($60.8)** | **$0.6** | **($12.9)** | **($965.2)** | $965M |
| *% shortfall / debt service* | *n.a* | *85%* | *64%* | *48%* | *36%* | *21%* | *24%* | *18%* | *(0%)* | *4%* | *30%* | |

In order to address the remaining shortfall, PRASA intends to engage with its creditors to bridge the remaining gap through a consensual restructuring, if possible

DS Sustainability

# Illustrative Debt Capacity

UPDATED

The table below summarizes the annual cash flow available for debt service, and provides an illustrative debt capacity based on a range of interest rates and assuming net zero amortization

*Average annual cash flow available for debt service:* ***$230M***

*Including Federal Funds:* ***$249M***

## Cash flow available for debt service

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Operating revenues | $1,041.5 | $1,078.6 | $1,075.0 | $1,068.8 | $1,066.1 | $1,063.5 | $1,060.9 | $1,058.2 | $1,055.6 | $1,053.0 | $10,621.2 |
| Total net operating expenses | (698.4) | (738.1) | (747.3) | (750.8) | (769.1) | (784.1) | (808.3) | (823.4) | (833.7) | (850.1) | (7,803.2) |
| Operating reserve fund | (34.9) | (38.9) | (38.3) | (38.1) | (42.1) | (3.7) | (6.1) | (3.8) | (2.6) | (4.1) | (212.5) |
| Capital improvement fund | (97.2) | (304.3) | (265.2) | (257.2) | (244.1) | (255.3) | (268.7) | (272.3) | (236.9) | (268.4) | (2,469.7) |
| **Initial financial need (pre-debt service)** | **$211.0** | **($2.8)** | **$24.3** | **$22.7** | **$10.8** | **$20.4** | **($22.3)** | **($41.2)** | **($17.5)** | **($69.5)** | **$135.8** |
| Initiatives net impact (incl. FF) | 117.7 | 50.9 | 91.5 | 143.4 | 198.6 | 238.3 | 272.8 | 311.2 | 349.0 | 386.3 | 2,159.7 |
| **Cash flow available for debt service** | **$328.7** | **$48.2** | **$115.8** | **$166.1** | **$209.4** | **$258.6** | **$250.6** | **$270.0** | **$331.5** | **$316.7** | **$2,295.6** |
| *Memo: net impact of federal funds* | *–* | *22.2* | *29.8* | *27.5* | *25.2* | *22.9* | *20.5* | *18.2* | *15.9* | *13.5* | *195.7* |
| **Cash flow available post federal funds** | **$328.7** | **$70.3** | **$145.6** | **$193.7** | **$234.6** | **$281.5** | **$271.1** | **$288.2** | **$347.3** | **$330.3** | **$2,491.2** |

## Illustrative sustainable debt capacity sizing

*Current weighted average coupon:* ***5.5%***

| | | Sensitivity analysis: implied debt capacity | | | | | |
|---|---|---|---|---|---|---|---|
| **Illustrative cash flow available** | | **$75** | **$100** | **$125** | **$150** | **$175** | **$200** |
| **Illustrative interest rate** | 4.00% | $1,875 | $2,500 | $3,125 | $3,750 | $4,375 | $5,000 |
| | 5.00% | 1,500 | 2,000 | 2,500 | 3,000 | 3,500 | 4,000 |
| | 6.00% | 1,250 | 1,667 | 2,083 | 2,500 | 2,917 | 3,333 |
| | 7.00% | 1,071 | 1,429 | 1,786 | 2,143 | 2,500 | 2,857 |
| | 8.00% | 938 | 1,250 | 1,563 | 1,875 | 2,188 | 2,500 |

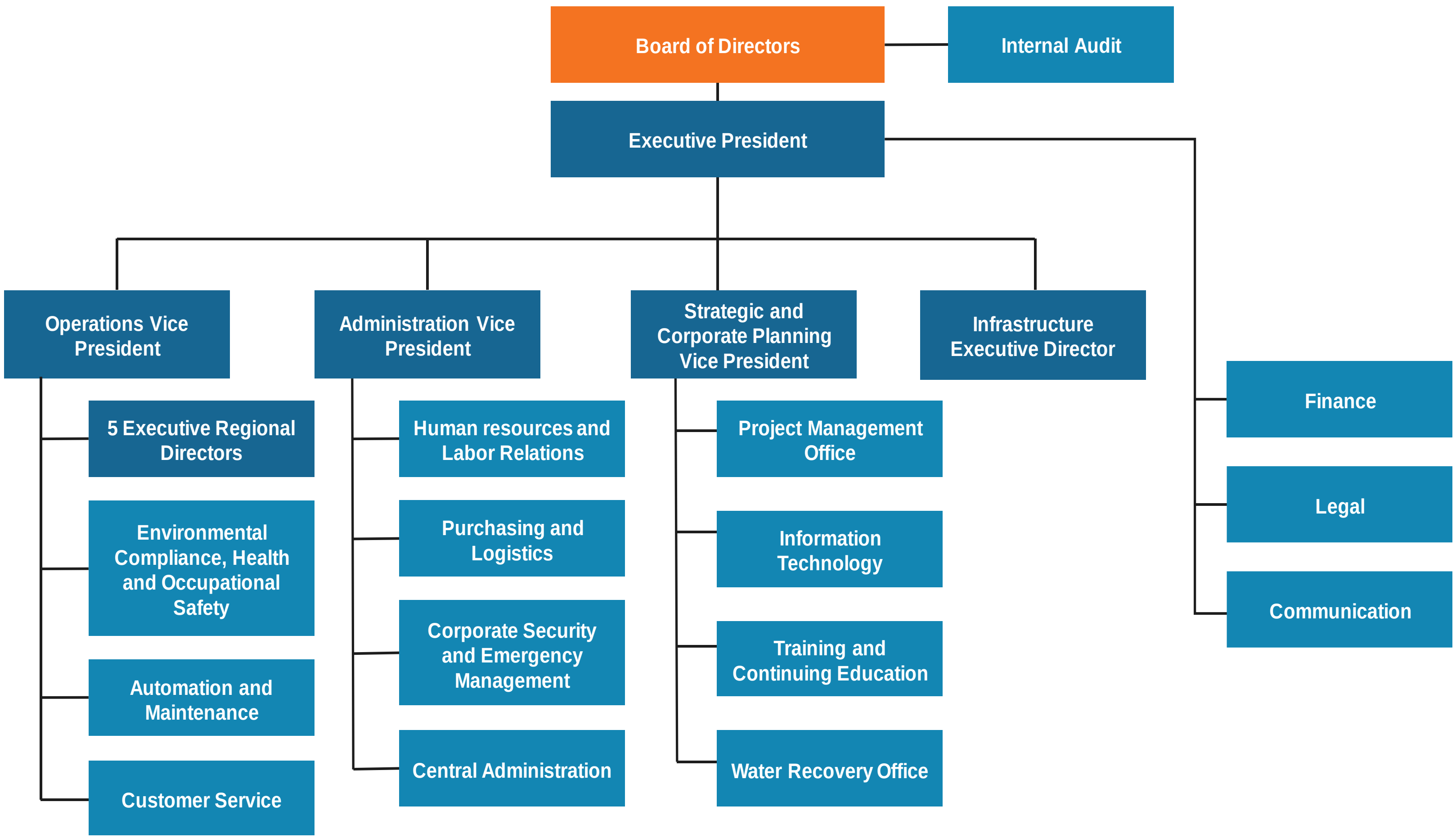
**Note:**
Above current outstanding debt excluding PFC and other ($4.6bn)

# Agenda



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Organizational structure




Each position at PRASA has specific requirements regarding education, qualification and experience which should be complied with to cover the position

# Governing Board Composition

- Act 68-2016 structured PRASA's Board of Directors with 7 members:

**4** Independent directors appointed by the Governor of Puerto Rico

**1** Professional engineer (PR licensed) with 10 years of practice experience
**1** Attorney with 10 years of practice experience within PR
**1** Person with vast knowledge and experience in corporate finance
**1** Professional with expertise in any fields related functions delegated to PRASA

**1** Customer representative* selected by election supervised by Department of Consumer Affairs

**1** Executive Director of the Mayors Association

**1** Executive Director of the Mayors Federation

Act 68-2016 provides for a **diversified** and **professionalized** Governing Board

- Act 2-2017 provides that the Executive Director of the Puerto Rico Fiscal Agency & Financial Advisory Authority, or his designee, shall be a member of any Board of the entities considered "covered territorial instrumentalities" under PROMESA.

* Act 68-2016 provides that the 2 current Board members representing customer interests shall remain in their office until the terms for which they were elected expire (June, 2020). Then, the member elected shall represent the interests of all customer types shall serve for a three (3)-year term.

# Governing Board selection and terms

***SELECTION PROCESS***

- Independent directors shall be selected from a list of at least 10 candidates to be prepared and submitted to the Governor by a recognized executive search firm for board of director recruitment for institutions of similar size, complexity, and risks as PRASA.
- The identification of candidates by such firm shall be based on objective criteria such as educational and professional background, and at least 10 years of experience in their field.

***TERMS***

- Act 68-2016 establishes staggered terms for the independent directors to avoid political influence:
  - ✓ 2 members with 5-year term
  - ✓ 2 members with 6-year term
  - ✓ As the terms expire, the successors term will be for 5 years
- The other members are ex-officio or selected by the consumers

Current legislation assures an **independent** selection process and determines **staggered terms** to isolate the Board from political cycles, granting **continuity** to PRASA's strategies implementation

***REQUIREMENTS***

- A detailed set of prohibitions and requirements is included in Act 68-2016 applicable to PRASA's Governing Board members, as well as Executive Directors, all employees and contractors to ensure independence and elimination of political influence

# Executive Officers

- PRASA's Executive Officers shall be those appointed by the Board and shall include:
    - An Executive President, who shall be the chief officer, based solely on experience, ability, and other qualities that especially enable them to achieve the purposes of the Authority
    - An Infrastructure Executive Director who shall be a Professional Engineer's licensed with experience in activities related to the development and management of infrastructure projects
    - 5 Regional Executive Directors, from the Metro, North, South, East and West Regions
    - 3 Vice Presidents: Operations, Administration and Strategic & Corporate Planning
- Main functions are established by PRASA's Enabling Act, in addition to those delegated by the Board.
- All Executive Directors, except the Vice Presidents will have a 5-year terms

**An experienced Management Team has reflected in the past a successful internal career succession plan**

# Strategic Plan

**2014** PRASA developed its first **Strategic Plan**

which started with the establishment of the **MISSION VISION** from which **5** STRATEGIC INITIATIVES were created

- Fiscal Health
- Operational Excellence
- Infrastructure Sustainability
- Technological Innovations
- Organizational Transformations

**PMO**

centralize all management, planning, and execution of its Strategic Plan and related initiatives and programs, data control, and KPI monitoring.

moving ahead **2017**

PRASA is developing a revised version of the **Strategic Plan**, to be aligned with **"Plan para Puerto Rico"**

maintaining the main basic elements, but focusing in **3** MAIN AREAS OF INTEREST

- Revenue Increase
- Cost Reduction
- Debt Service Reductio


Governance

# PMO Overview

PRASA's Project Management Office resides within the Strategic & Corporate Planning division.

The PMO's framework setup is based on the integration of the Effective Utility Management 5 keys to management success and their ten attributes.

Under its structure, the PMO will serve as a liaison between the departments and the Key Performance Indicators set up within the Strategic Plan, thus, providing transparency, control, and accountability throughout the organization.

The economic results achieved will be reinvested within the corporation in route to fiscal sustainability.


GROUNDWORK → PLANNING → BUSINESS CASE → EXECUTION → MEASURING SYSTEM → LESSONS LEARNED

Governance

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Key Performance Indicators

### Top Revenue Increase KPI's

## 1 Collection vs. Net Billing

Looks to improve or increase the amount of actual collections in relationship with PRASA's Billing Budget.

## 2 Billing Adjustments

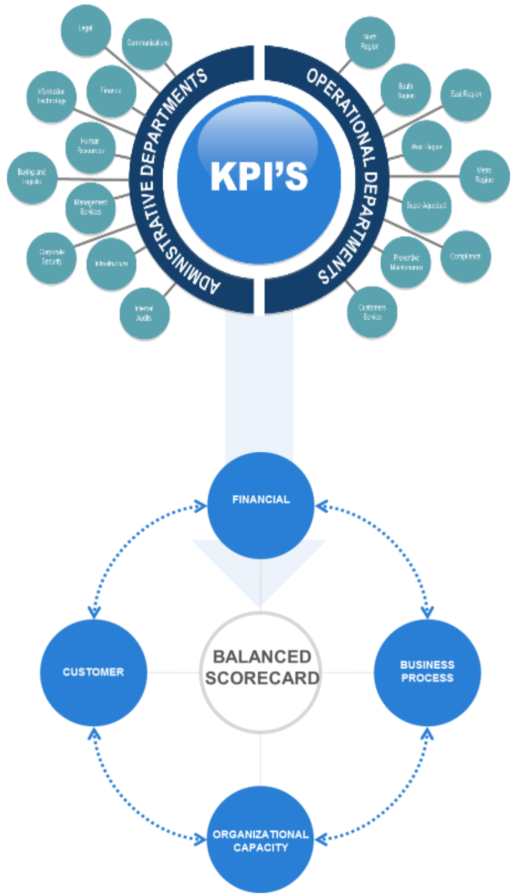
Looks for ways to diminish the amount of gross billing adjustments carried out every month.

## 3 Service Interruptions

Looks for ways to reduce the amount of service interruptions and to achieve a better excellence in service.

The KPI Manual details the 25 performanc indicators that PRASA has been using for the past years. It specifies for each KPI:

- Name
- Strategic Initiative
- Description
- Variables
- Mathematical Expression
- Delivery Deadlines




### Top Cost Reduction KPI's

## 1 Employees per Connection

Measures the efficiency of the employee's usage per every connection within the Island

## 2 Overtime

Compares the amount paid in overtime with the amount paid in payroll

## 3 Customer Service Complaints

Looks to reduce the amount of customer service complaints

## 4 System Water Volume Input (MGD)

Looks to report and reduce the average amount of water produced in millions of daily gallons during the period studied

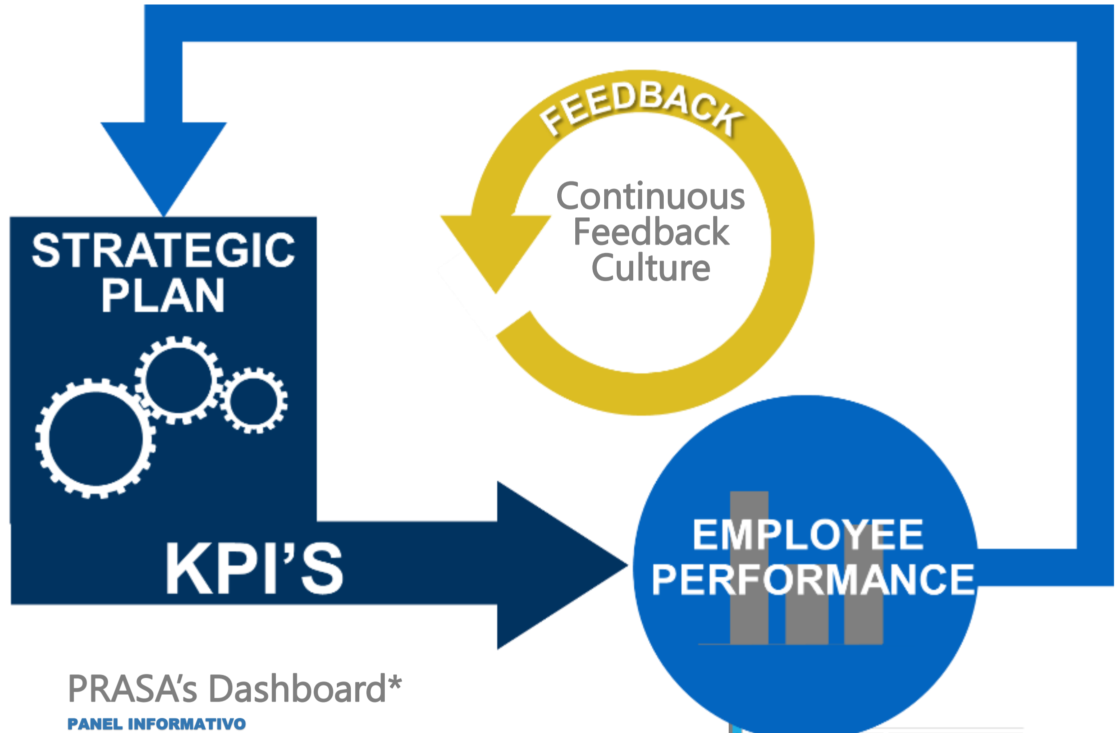
## 5 Electrical Consumption

Looks for ways to reduce the electrical consumption within PRASA's facilities

# Accountability

Employee's responsibilities will be directly related to the Strategic Plan and PRASA's KPI's and closely monitored to assure accountability

Creating an organizational culture of measuring results and sustainable responsibility spread throughout the organization




PRASA's Dashboard*


PRASA's Employee Evaluation*

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

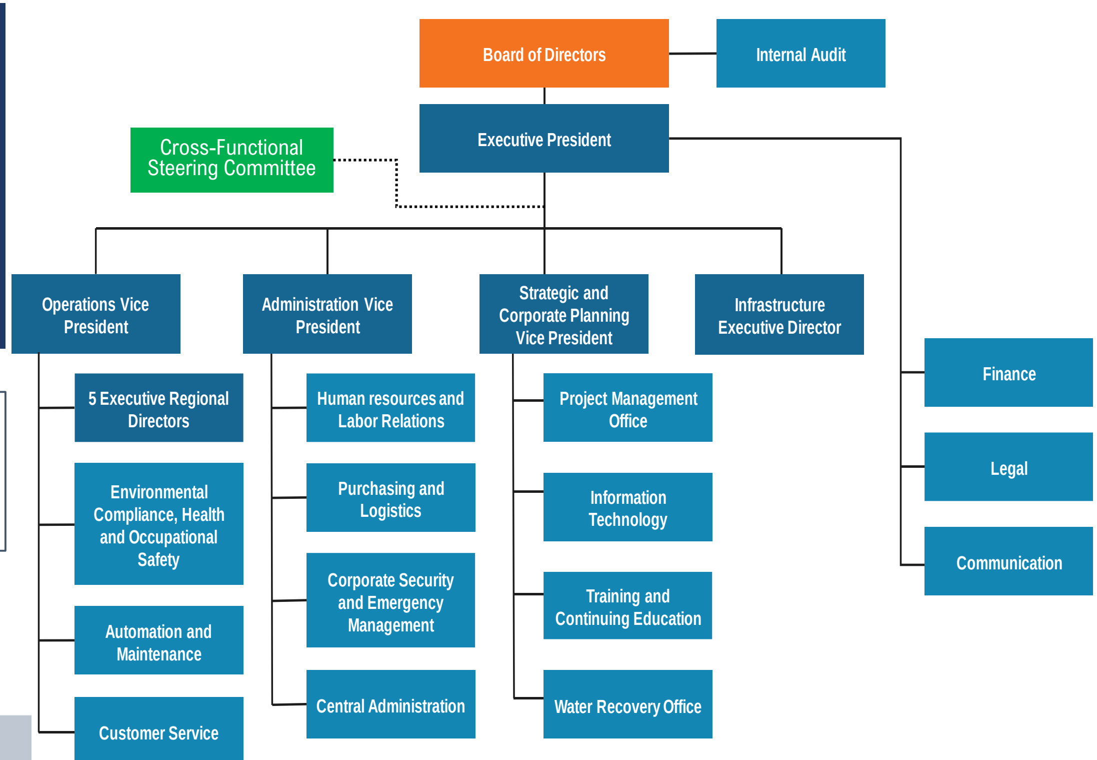
*examples

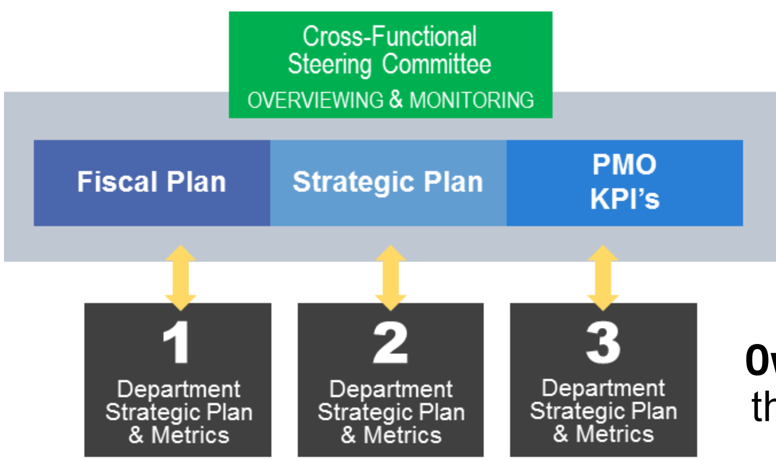
Governance

# Cross-Functional Steering Committee

The Cross-Functional Steering Committee (CFSC) will consist of upper management professionals from different functional areas tasked with overseeing the implementation, and monitoring any deviation of the Fiscal Plan and Strategic Plan

By analyzing current risk factors, the CFSC will recommend actions to meet the goals established




**Ownership & Accountability**
throughout the organization

Governance

Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Fiscal Plan implementation

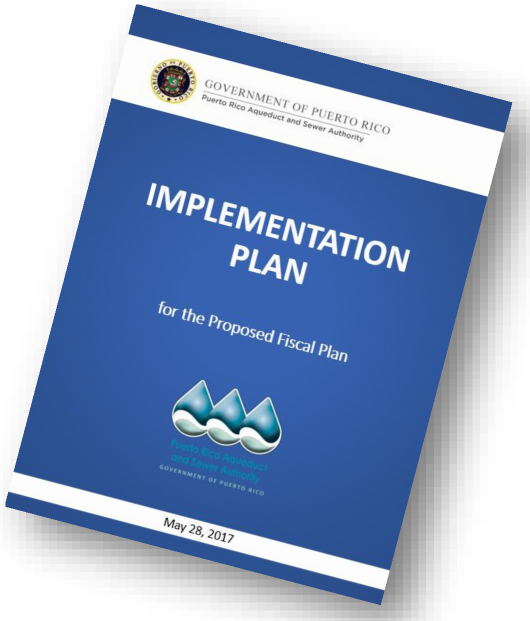
- PRASA has in place an independent and professional Governing Board and Management, capable to implement the proposed Fiscal Plan.
- In the past, PRASA has demonstrated it is capable of complying with its goals and has already in place a KPI system to evaluate the results of the key strategies and take opportune actions when needed.
- The PMO office, which is under the Vice President of Strategic & Corporate Planning, is a key component for the implementation and monitoring of the Fiscal Plan Initiatives.
    - The KPIs to be defined to monitor and ensure the Fiscal Plan objectives are achieved will be periodically updated and published to assure accountability and transparency of PRASA's actions and execution.
- Also, a successful succession plan has proven to be possible at PRASA, which will grant the continuity regarding the execution of its goals and initiatives as defined in both, its Fiscal Plan and its Strategic Plan.

PRASA will set a team, coordinated by the PMO, to assure the timely and successful implementation of each of the Fiscal Plan initiatives, creating a specific set of KPIs to monitor the compliance with the plan and defining the adjustments to make to ensure the projected results are attained if deviations to the objectives arise

# Implementation Plan

NEW

- A detailed implementation plan is being submitted to the FOMB under a separate document, which will include the following detail for each initiative:
  - Summary, including the description of the initiatives, responsible and related KPIs
  - Detailed financial impact calculation
  - Implementation schedules including milestones and detailed activities and due dates




Governance

# Agenda



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

# Key risks and mitigation strategies

| Potential risks in implementing the Fiscal Plan | Mitigation Strategies |
| --- | --- |
| Lack of political will to increase rates as needed and recover planned and approved costs | Specific requirements to increase rates by the Master Agreement of Trust (rate covenant) and environmental regulation imposing criminal charges on the ones who impede compliance with the Consent Decree. Also moderate rate increases are less likely to face strong opposition. |
| Limited ability to access the capital markets to finance the Capital Improvement Program (CIP) | Limitation of the CIP to the minimum possible to maintain the system operating. Increase rates to self-finance the CIP |
| Under-delivery of CIP to address infrastructure needs and comply with EPA requirements | Environmental Agreements (Consent Decree and Agreement with the PR Department of Health) amendments |
| Under-delivery of planned non-payroll OPEX savings | CIP reduction, debt restructuring and or changes in the rate structure |
| Limited ability to renegotiate labor agreements or achieve other payroll savings | Projected payroll savings are based on headcount reduction, not labor negotiations, while Act 3-2017 protects PRASA from incremental labor costs |
| Insufficient corporate governance efforts to drive changes outlined in the Fiscal Plan | Performance evaluation tied to each initiative will be a key element to guarantee a successful implementation of the Fiscal Plan |

# Key risks and mitigation strategies

| Potential risks in implementing the Fiscal Plan | Mitigation Strategies |
|---|---|
| Consumption and collection rates lower than projected | Aggressive collection strategy and performance incentives or penalties will be included in the private operators compensation structure (under P3 Project) based on performance and metrics |
| Natural events like drought or hurricane | Emergency (temporary) rate increase (allowed by Act 21 for a limited period of time) |
| Delayed or no interest in the main two initiatives of the Plan: P3 Project – Metering/Customer Experience and Hydros | Revaluation of the Fiscal Plan, including potential CIP reductions and changes in the rate structure |
| Potential changes in legislation affecting PRASA's financial projections | |
| Lack of willingness from investors to restructure debt | |
| Electricity cost increase over projected prices | |

# Agenda



Puerto Rico Aqueduct and Sewer Authority

GOVERNMENT OF PUERTO RICO

# Viable Fiscal Plan

UPDATED

- PRASA must maintain its system to assure the provision of an essential service and comply with federal environmental regulations, safeguarding the health of the population and the environment of the island and avoiding potential penalties and criminal charges (which are extensive to anyone who impede compliance with EPA regulations)
- PRASA currently owes over $60 million (after payments already made during FY2017) to contractors and the CIP has been completely stopped with a negative impact on the economy of Puerto Rico
- PRASA has identified several measures to develop a viable fiscal plan, guaranteeing an affordable cost of service and reducing the dependency on external financing
- A certified Fiscal Plan will create confidence in PRASA's financial projections allowing the much needed market access and investors' interest to:
    - Obtain funds to finance the CIP
    - Restructure/renegotiate PRASA's outstanding debt
    - Partner with PRASA to implement operational initiatives as for example the P3 for Commercial Services activities
- **Provided that PRASA is able to access the market and restructure its debt, PRASA will be able to implement a viable Fiscal Plan based on rates affordable to its customers.**