



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

Revised Fiscal Plan

April 28, 2017



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Viable Fiscal Plan



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.



Revised Fiscal Plan

- On February 21, 2017 PRASA submitted a draft Fiscal Plan and on April 7, 2017 formal feedback and recommendations by the PROMESA Financial Oversight and Management Board (the “Oversight Board”) were received.
- 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.
- At the direction of the Oversight Board, PRASA has prepared this Revised Fiscal Plan which supersedes the ones presented in the past to comply with the Oversight Board’s recommendations as required for the Fiscal Plan certification.



Oversight Board recommendations

R1 Aligned Assumptions

Ensure baseline forecasts align between Board certified Fiscal Plan and PRASA's proposed plan

R2 Strong Governance

Certify strong corporate governance is in place to improve compliance and viability of plan

R3 Rate Increases

Adopt limited, but consistent rate increases to cover OPEX and avoid large one-time rate hikes

R4 Improved Collections

Improve collection rates to align with recent-term performance. Target collection rates of 96-98%

R5 Payroll Cost Reduction

Pursue more aggressive payroll reduction targets to ensure optimal operating structure

R6 Cost Control

Adopt measures to control non-payroll expenses to promote long-term cost controls

R7 Capital Improvements

Demonstrate how CIP targets align with best practices and PRASA needs

R8 Additional Measures

Provide further clarity on additional measures (e.g. P3, hydroelectric, etc.) to achieve additional savings

Revised Fiscal Plan for certification

The following presentation includes a Fiscal Plan which complies with the Oversight Board's requests for certification including:

- 1
Measures to eliminate structural deficits while allowing adequate financing for capital expenditures and outstanding obligations
- 2
A plan to assure a successful implementation of the proposed measures
- 3
Federal program financing based on current appropriations and regulations and excluding access to uncertain funds

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Viable Fiscal Plan

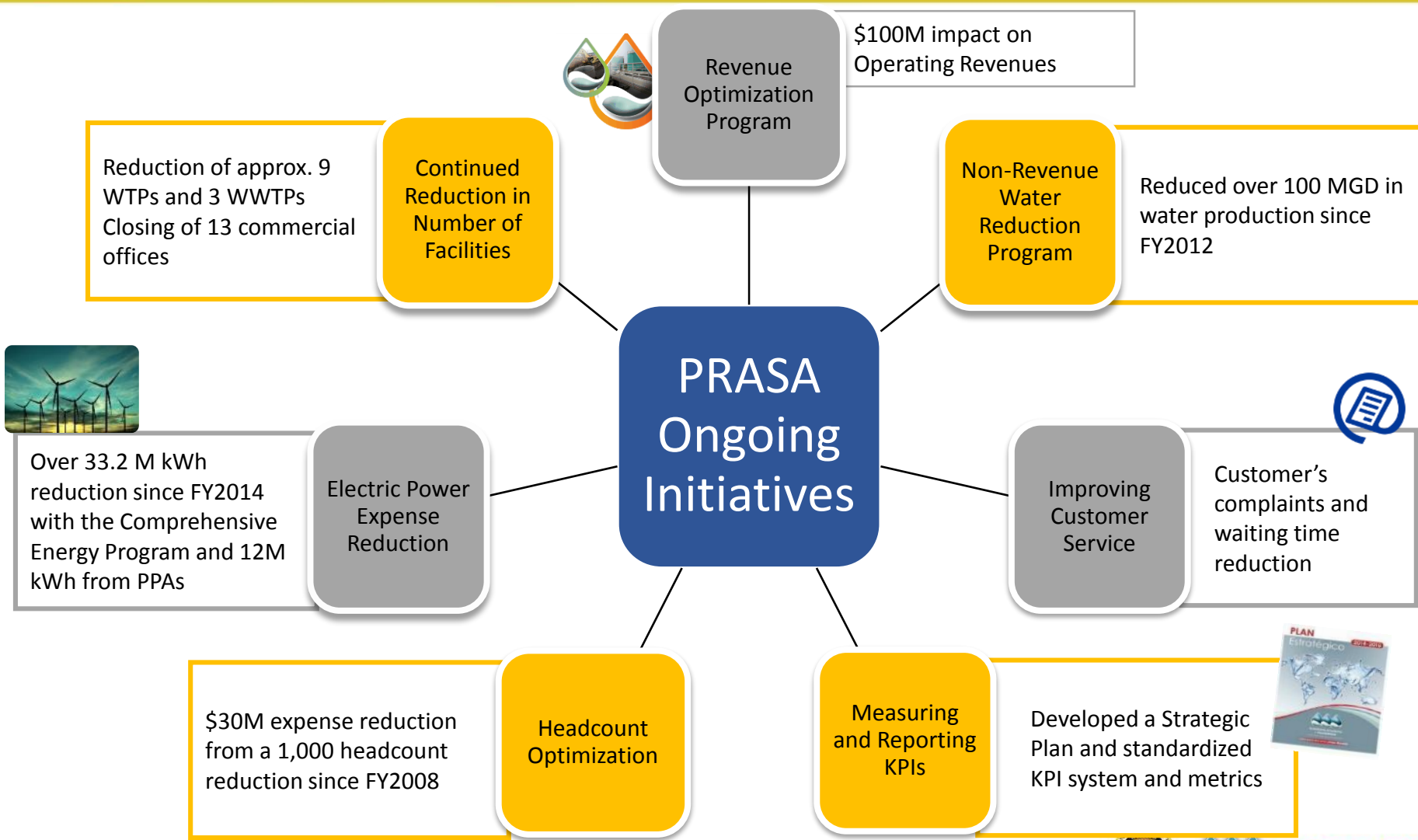


Proactive management

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



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



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

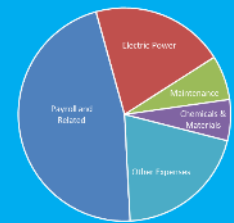
Ongoing Initiatives



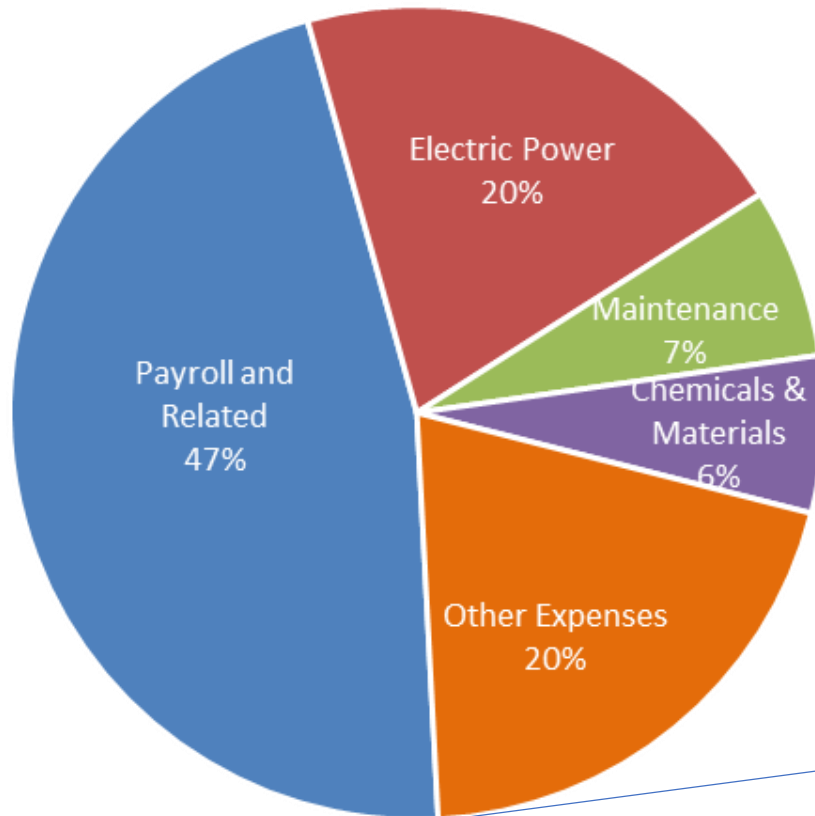
Measures to Control Expenses

R6

Cost Control

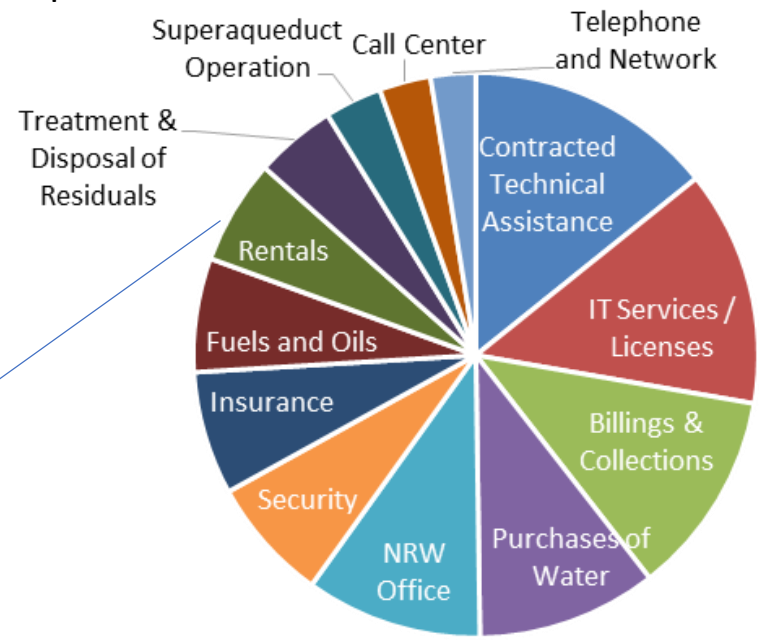


Operating Expenses (FY2018)



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

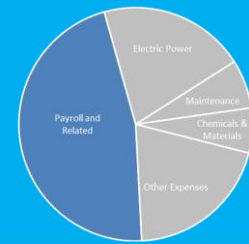


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*FY2018 presented to show expense breakdown including "Pay Go" for pension costs and eliminating contribution to the ERS.

Measures to reduce Payroll costs

R5 Payroll Cost Reduction



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

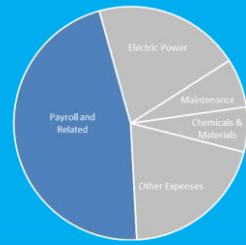
- A personnel compensation and classification study was performed to determine the level of PRASA's employees compensation compared to the market
 - ✓ Results showed that PRASA's salaries are below market
- Act 66-2014 has been implemented with annual savings of around \$30 million (in cash basis)
- 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

R5 Payroll Cost Reduction



Workforce Capacity Analysis

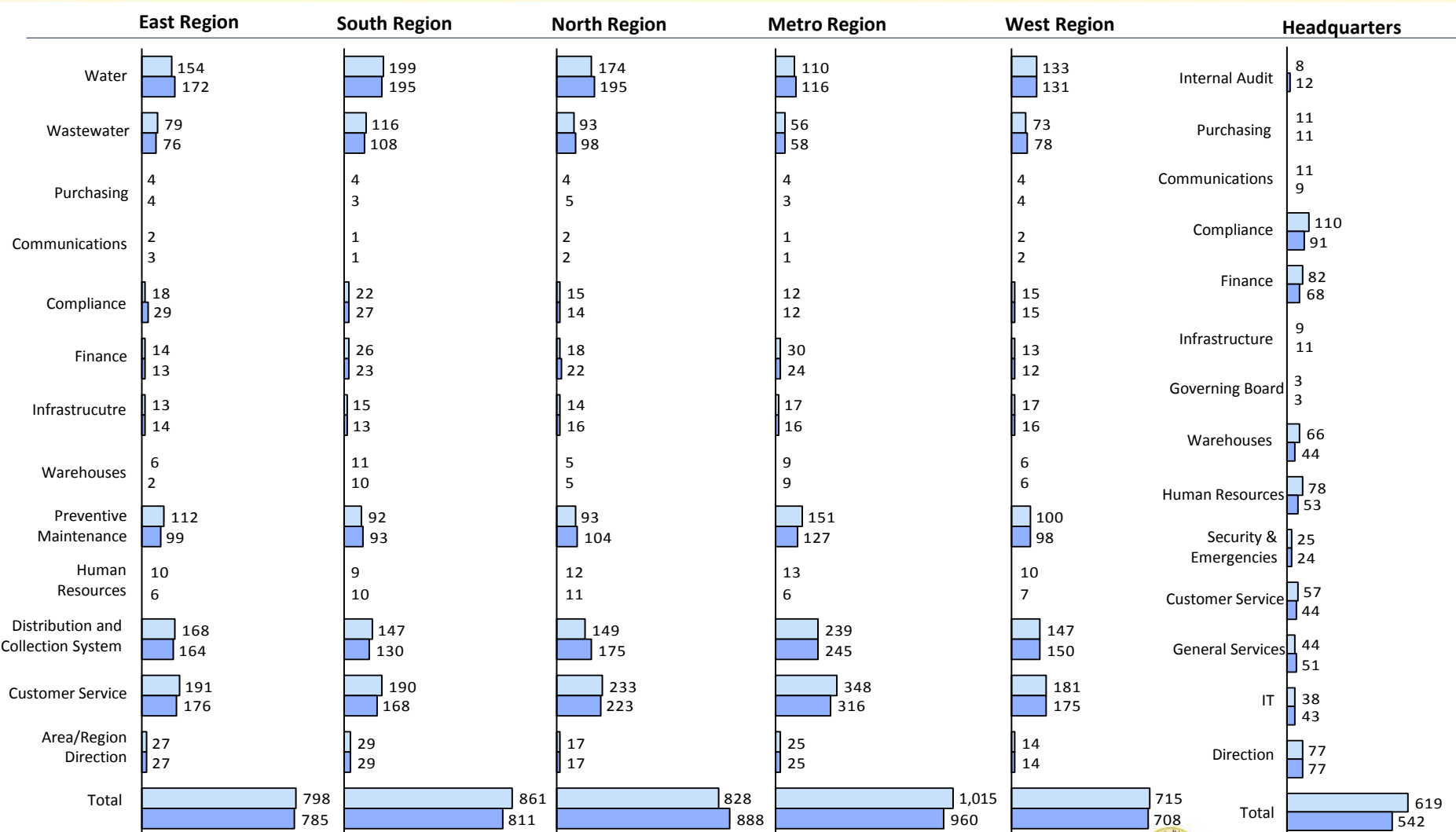
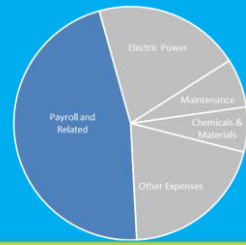
- In 2014, PRASA contracted the firm Vision to Action (“V2A”) to conduct an evaluation on the employment capacity of PRASA’s workforce, which determined the optimal headcount for every department based on workload and capacity.
- The analysis identified opportunities to enhance workforce productivity 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).

Ongoing Initiatives



Optimal level of FTE by area

R5 Payroll Cost Reduction



Ongoing Initiatives

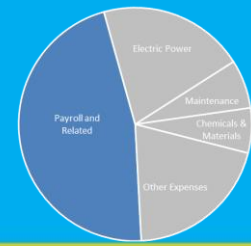
4,836 Actual FTEs for evaluated positions

4,694 Activity Based FTEs for evaluated positions



Optimal level of FTE determination

R5 Payroll Cost Reduction



- 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:

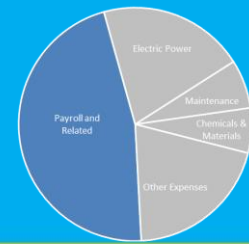
- V2A assisted PRASA on the implementation of SmartCap, a tool which provides instant visibility as to the needs and/or excess in human capital throughout different areas, skills, positions, etc.
- Since July 2015, determination for new hires is guided by this decision-making tool which analyzes the 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%

Ongoing Initiatives



Measures to reduce Payroll Cost

R5 Payroll Cost Reduction



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.

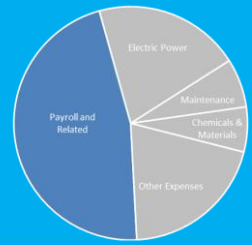
When comparing FY2011 payroll costs with FY2018 projected costs (if no PayGo is implemented) the increase due to this legislation changes increases PRASA's contributions to the ERS by \$47 million per year, fully offsetting the favorable impact of the initiatives previously included

Ongoing Initiatives



Measures to control Payroll costs

R5 Payroll Cost Reduction



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.



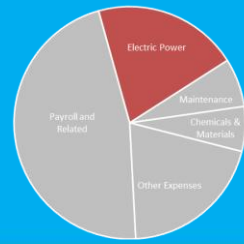
The Quarterly Accountability Reports ensure PRASA is complying with the regulations applicable not only for PRASA, but also to other agencies or corporations of the Government.

Ongoing Initiatives



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Measures to control Electricity cost



R6

Cost Control

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



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



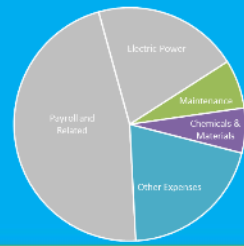
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Ongoing Initiatives

Measures to control Other Expenses

R6

Cost Control



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 these expenses were later adjusted to reflect the impact from the proposed initiatives explained in the following section:

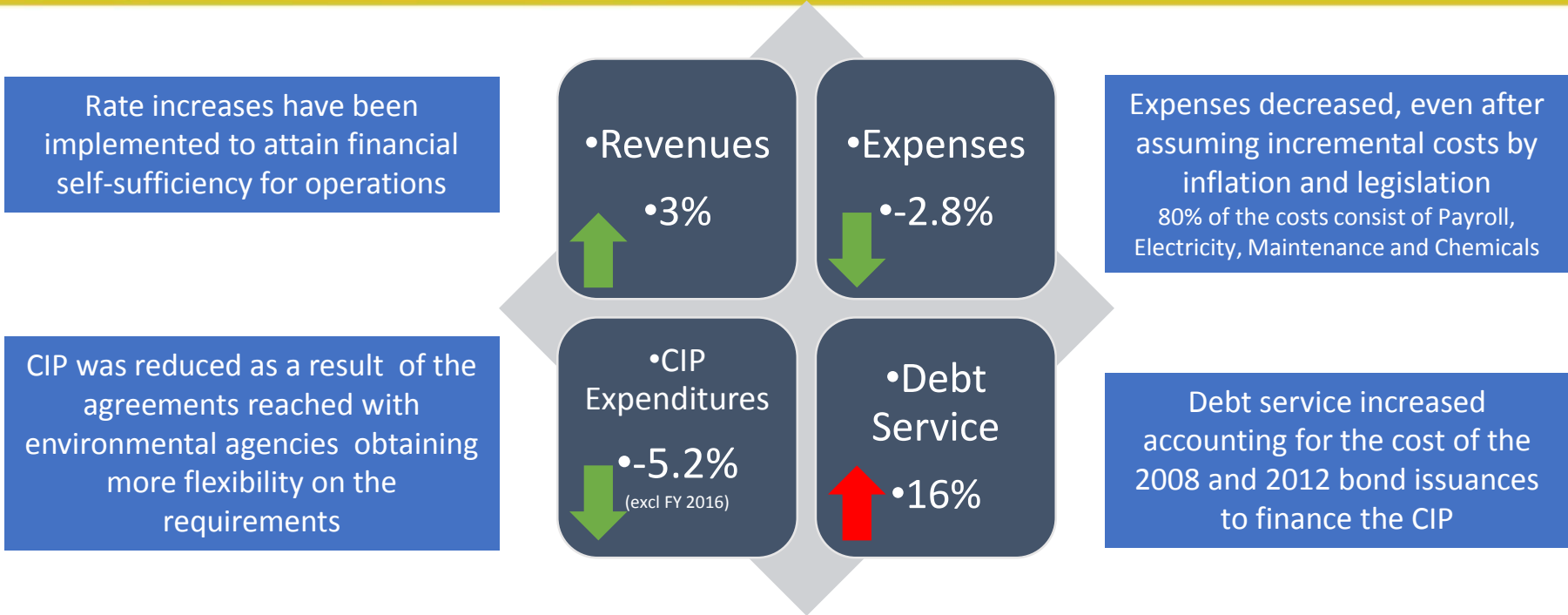
- ✓ Paper Bill
- ✓ Physical losses reduction
- ✓ Customer Service P3

Ongoing Initiatives



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Financial Performance Summary



% 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



- 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



- 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



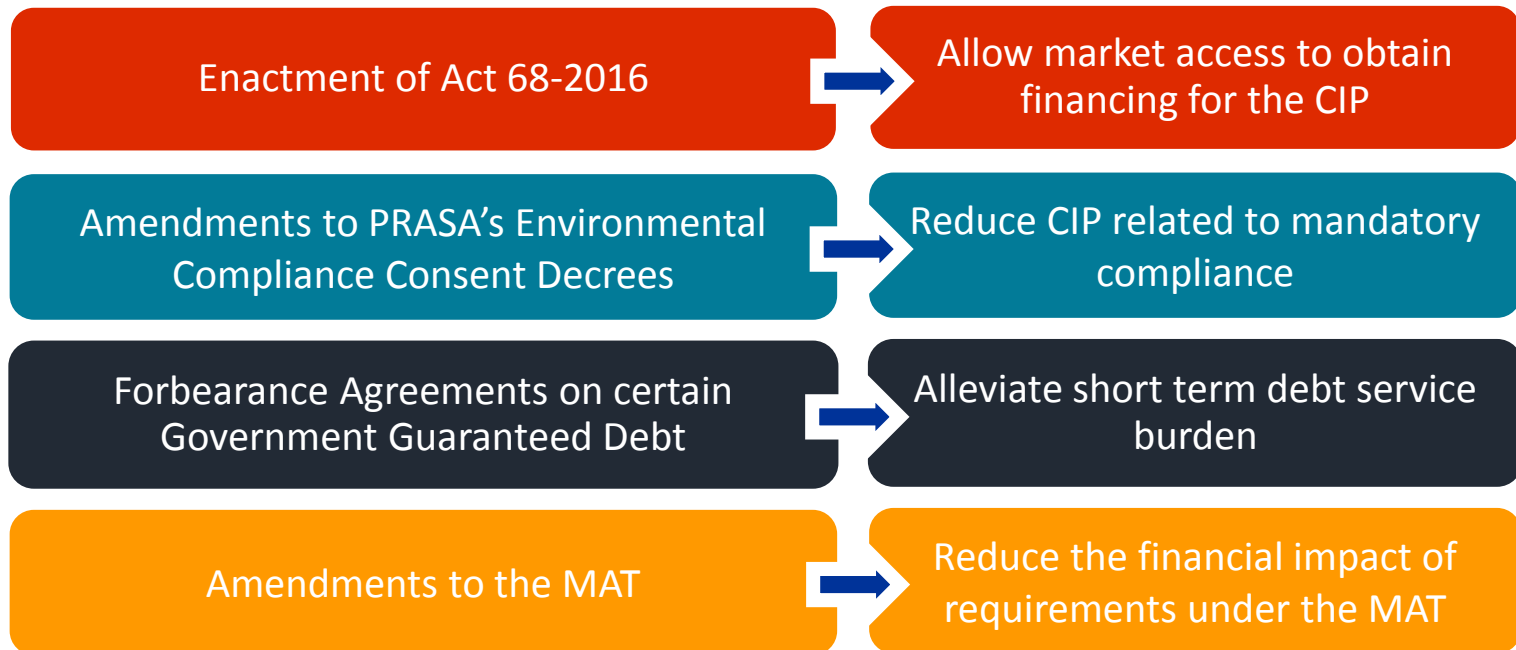
- In 2016, PRASA retained RFC to provide an assessment and recommendations on PRASA's management, operations, capital investments and financing
- RFC's assessment found that PRASA has undertaken necessary steps and has developed impressive programs to address its challenges
- Even when the RFC recommendations 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

R8

Additional 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:



Ongoing Initiatives



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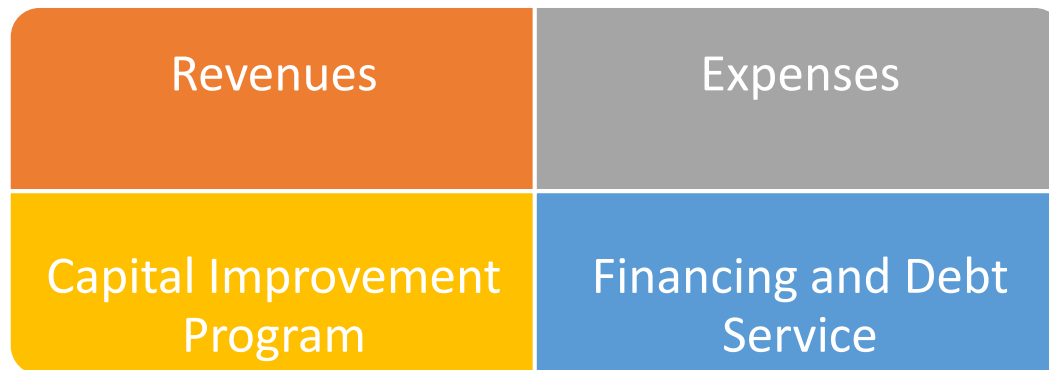
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Viable Fiscal Plan



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.



Revenue assumptions

Revenues	Expenses
Capital Improvement	Financing and Debt Service

		Submitted on Feb 21, 2017	Revised Apr 25, 2017	OB Request	Comment
REVENUES	BILLINGS Revenues will follow the Puerto Rico population trend	-1%	-0.25%	☑	R1 Aligned Assumptions Aligned with the Government Fiscal Plan
	COLLECTIONS Improved collection rates to align with past performance	94%	96%*	☑	Reflecting recent year collections trend R4 Improved Collections
	CENTRAL GOVERNMENT RATES Assumes Act 66-2014 "reduced rate" benefit for Central Government agencies expires on June 30, 2016 (\$30M)	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.

Baseline
Projections



Expense assumptions

Revenues	Expenses
Capital Improvement	Financing and Debt Service

		Submitted on Feb 21, 2017	Revised Apr 14, 2017	OB Request	Comment
EXPENSES	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	As per OMB Circular Letter, Act 3-2017 will not have impact on economic benefits
	PENSION COST	Pension cost funded on a PayGo basis, estimated based on information submitted by the ERS (2016 payments to PRASA's retirees)	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	Preliminary, PREPA to submit updated rates
	OTHER EXPENSES	Increased based on the projected inflation rate	2.0%	Avg 1.3%	Adjusted to be aligned with the Government Fiscal Plan

R1 Aligned Assumptions

Baseline Projections



Expense assumptions

Payroll

R5 Payroll Cost Reduction

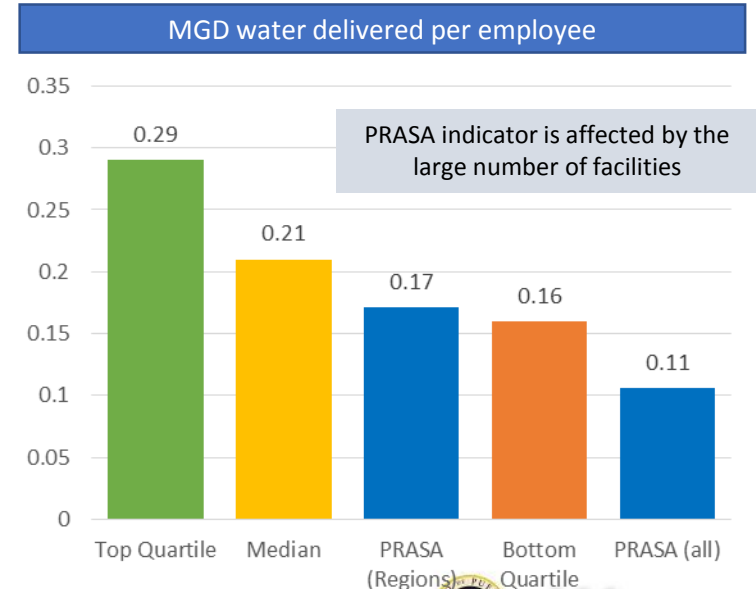
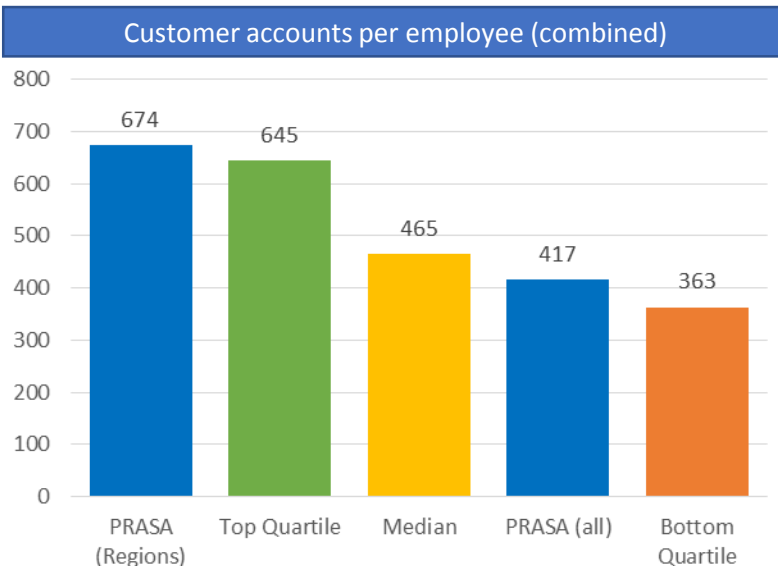
Revenues	Expenses
Capital Improvement	Financing and Debt Service

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



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



Baseline
Projections

Expense assumptions

Payroll

R5 Payroll Cost Reduction

Revenues	Expenses
Capital Improvement	Financing and Debt Service

Compensation and Benefits

- Act 3-2017 stops all wage increases and prohibits the granting of new benefits with economic cost until FY2021. Afterwards, minimum salary increases were included.
- Assumes Act 3-2017 allows PRASA to use its human resources in order to make the administration and operation of the corporation more cost effective, reducing overtime from around \$29M to \$25M (14% reduction).
- “Pay Go” for pension costs starting on FY2018, eliminating any contribution to the ERS.
- Based on PRASA’s Act 3-2017 interpretation, in the prior Fiscal Plan (February 21, 2017) a reduction of the Christmas Bonus benefit and of the maximum overtime factor was assumed. However, OMB’s Circular letter 145-17 states that those benefits shall remain as the ones negotiated applying Act 66-2014. Therefore, both reductions were eliminated.
 - **If in fact Christmas Bonus to all employees is reduced to \$600 and the maximum overtime factor to 1.5 times, savings of around \$10M per year may be achieved.**
 - **New legislation and/or regulation is required**

OPPORTUNITY



Expense assumptions

Payroll

R5 Payroll Cost Reduction

Revenues	Expenses
Capital Improvement	Financing and Debt Service

Other areas of opportunities

Addressed

Plant Automation

- Automation is already implemented in some facilities.
- However, a material headcount reduction was not possible due to the PR Department of Health's ("DOH") constraint which regulates that the plant shall not operate without operators for more than 4 hours (known as 4/8/4/8 shifts).



Implemented based on current DOH regulations modeled under the Baseline Projections

Meter Reading Team

- The meter reading team is currently composed of 2 employees.
- Reducing the team to 1 person presents an expense reduction opportunity and may be applied after the implementation of the Customer Service P3 Initiative.



P3 Initiative – Refer to Section 4 for impact on the number of FTEs

Overtime Reduction

- Areas of opportunity for overtime reduction include: plant operators and operational brigades.
- PRASA has a KPI for this parameter and expects to reduce to \$25M (7% of payroll cost) from its current level of around 10% of payroll, as included in the financial projections.



Reduction of around 15% in overtime costs modeled under the Baseline Projections

Baseline Projections



Expense assumptions – Electricity

R6

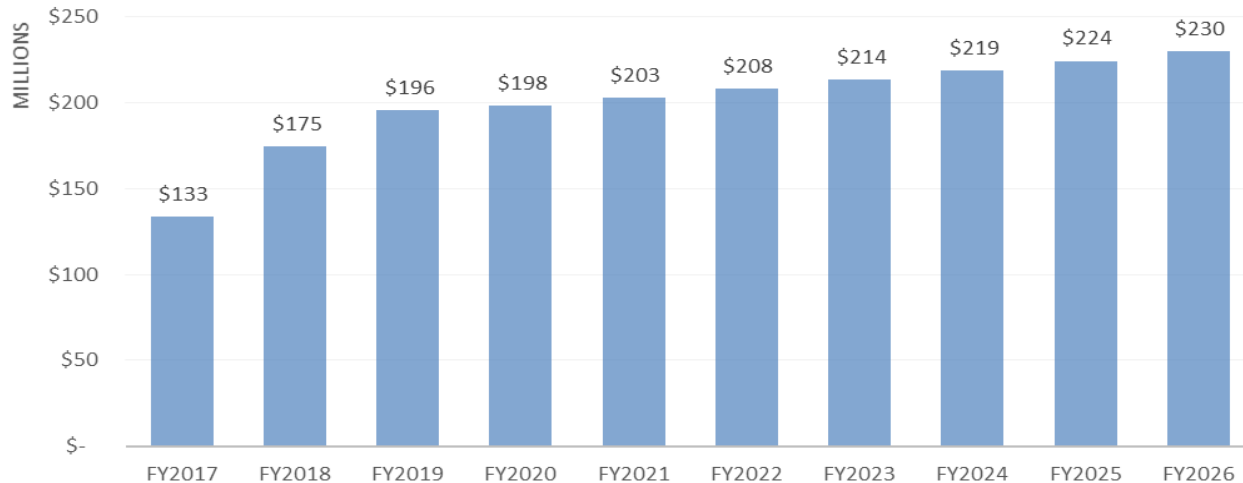
Cost Control

Revenues	Expenses
Capital Improvement	Financing and Debt Service

Key Assumptions:

- ✓ PREPA Rate:
 - Rate per kWh was projected at \$0.26 for FY 2018 and \$0.30 for 2019 and then consider a 3% increase each year thereafter.
 - The projected rate included an estimated Securitization charge and an assumed increase in the Fuel Adjustment
- ✓ 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



Rates used for the projections are subject to update, based on information to be submitted by PREPA

Does not include the impact from the hydroelectric generation initiative, which is estimated to reduce the electricity cost by an average of \$35 million per year



Expense assumptions

Other Expenses

R6

Cost Control

Revenues	Expenses
Capital Improvement	Financing and Debt Service

- 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

R7 Capital Improvements

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)



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

Capital Improvement Program

R7 Capital Improvements

Revenues	Expenses
Capital Improvement	Financing and Debt Service

- 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

Baseline Projections



Capital Improvement Program

R7 Capital Improvements

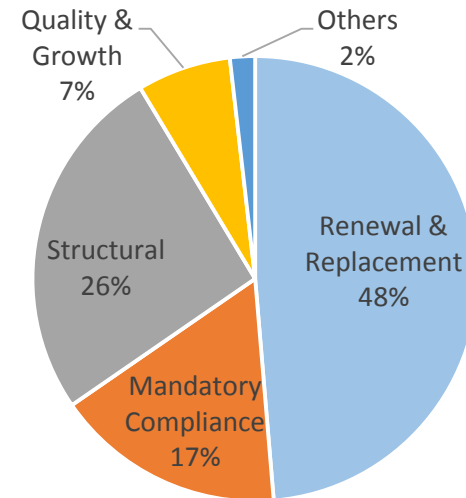
Revenues	Expenses
Capital Improvement	Financing and Debt Service

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 → \$2.4 Billion
FY2017-FY2026

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.



Capital Improvement Program

R7 Capital Improvements

Revenues	Expenses
Capital Improvement	Financing and Debt Service

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

R7 Capital Improvements

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.

Baseline
Projections



Financing

Revenues	Expenses
Capital Improvement	Financing and Debt Service

- 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. Additionally, a very important source of funding related to the Repayment Funds for the SRF Programs (around \$190 million) is currently being withheld by GDB due to its liquidity situation which is also affecting the possibility for the Authority to use such repayment funds from the SRF Program.



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



Financial Projections

The projected Financial Need for the projected period, including all PRASA outstanding obligations, amounts to \$3.6 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	(696.2)	(766.1)	(791.7)	(799.9)	(810.8)	(835.2)	(852.2)	(869.7)	(887.4)	(905.4)	(8,214.5)
Operating Reserve Fund	(34.8)	(41.8)	(42.1)	(41.2)	(42.7)	(6.1)	(4.3)	(4.4)	(4.4)	(4.5)	(226.4)
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)
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	(109.1)	(355.2)	(345.4)	(350.0)	(359.3)	(360.9)	(392.1)	(419.0)	(404.0)	(454.9)	(3,550.1)



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



Proposed Initiatives

R8

Additional Measures

Revenues

- 1 Rate Increase
- 2 P3 Project – Meters/Customer Experience
- 3 Charge for Paper Bill
- 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



1

Rate Increase

R3

Rate Increases

- 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

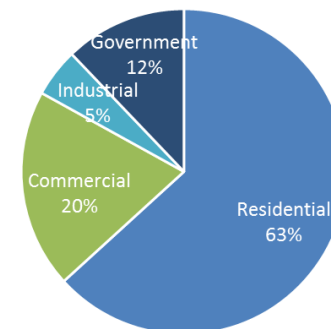
Rate Increase

R3

Rate Increases

- 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 40% may be required starting as soon as FY2018.
 - If all the other proposed initiatives are implemented a one-time rate increase of around 30% 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**)
- For the financial projections, and to minimize the impact on the population, the rate increase was assumed to be applied only to non-residential customers, as follows:
 - Industrial and Commercial: 7.75% per year (FY2018 through FY 2026)
 - Government: 4.5% per year (FY2018 through FY 2026)

FY 2016 Billings Distribution



1

Rate Increase

R3

Rate Increases

7.75% Rate Increase Impact on Commercial Customers Monthly Bill (Year 1)

Commercial Clients Distribution

Consumption Range (cubic meters)	% of Comm Accounts	# of Accounts
0-4	25%	11,977
5-15	25%	11,977
16-52	25%	11,977
>52	25%	11,977
		47,906

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

Cubic Meters for Bill Calculation	Current Bill Water Only	Monthly Increase	Current Bill W&S	Monthly Increase
4	\$ 38.05	\$ 2.95	\$ 67.83	\$ 5.26
15	\$ 70.17	\$ 5.44	\$ 126.57	\$ 9.81
52	\$ 178.21	\$ 13.81	\$ 324.15	\$ 25.12
100 (94%)	\$ 318.37	\$ 24.67	\$ 580.47	\$ 44.99

7.75% Rate Increase Impact on Industrial Customers Monthly Bill (Year 1)

Industrial Clients Distribution

Consumption Range (cubic meters)	% of Ind Accounts	# of Accounts
0-18	25%	205
19-67	25%	205
68-466	25%	205
>466	25%	205
		820

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

Cubic Meters for Bill Calculation	Current Bill Water Only	Monthly Increase	Current Bill W&S	Monthly Increase
18	\$ 265.20	\$ 20.55	437.24	\$ 33.89
67	\$ 451.89	\$ 35.02	\$ 772.89	\$ 59.90
466	\$ 1,972.08	\$152.84	\$ 3,506.04	\$ 271.72
2,400 (90%)	\$ 9,340.62	\$723.90	\$16,753.94	\$ 1,298.43



1

Rate Increase

R3

Rate Increases

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

Government Clients Distribution

Consumption Range (cubic meters)	% of Gov Accounts	# of Accounts
0-13	25%	2,523
14-70	25%	2,523
71-325	25%	2,523
>325	25%	2,523
		10,091

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

Cubic Meters for Bill Calculation	Current Bill Water Only	Monthly Increase	Current Bill W&S	Monthly Increase
13	\$ 64.33	\$ 2.89	\$ 115.89	\$ 5.22
79	\$ 257.05	\$ 11.57	\$ 468.33	\$ 21.07
325	\$ 1,168.87	\$ 52.60	\$ 2,118.72	\$ 95.34
360 (90%)	\$ 1,312.37	\$ 59.06	\$ 2,378.07	\$ 107.01

To minimize the impact on the population, the rate increase as required per the OB was assumed to be applied only to non-residential customers

1

Rate Increase

R3

Rate Increases

Rate Increase - Current Legal Process

Increase \leq 4.5%

Rate Resolution -
Automatic Increase

No further
requirements

PRASA's Governing
Board Approval

Increase $>$ 4.5%

Act 21-1985

Public Hearings
Requirement

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 OB, 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 for certain clients is more than 4.5% per year, Act 21-1985 process may be required (instead of the Automatic Increase allowed by the Rate Resolution in place, subject to final legal opinion), and in such case PRASA will seek, as well, for approval of the annual increases until FY2026 through the applicable procedure

1

Rate Increase

R3

Rate Increases

Rate Increase Process (Act 21-1985)

Public Hearing Announcement in 2 general circulation newspapers, 15 days in advance of the hearing date, notifying:

- Place, date and time of the hearings
- Current and Proposed Rate Structure
- Effective date of proposed change

Official Examiner Selection:

- Designated by PRASA to preside the hearings
- Knowledgeable of PRASA's rate structure
- No participation in the proposed rate structure change

Official Examiner Report :

- To be submitted to PRASA's Governing Board within 60 days of the hearings
- Content: objections, comments, opinions, documents, studies, conclusions and recommendations
- Available to the public for them to make submit comments to the Board within 10 days of being published

Governing Board Approval

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

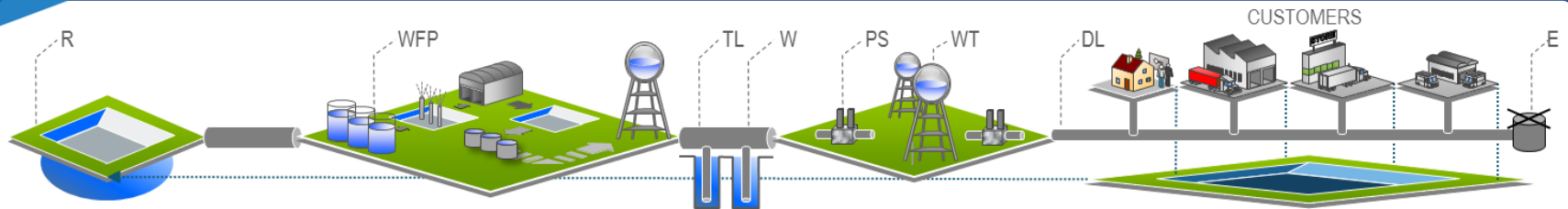
PRASA is now looking into entering a P3 partnership to leverage private sector capabilities and capital to improve the execution of its customer service operation

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:



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

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

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

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

Project Initiatives

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

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

2

P3 Project – Optimizing PRASA’s Metering System and Customer Experience

Service Revenue Collection Rate

R4

Improved Collections

- 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

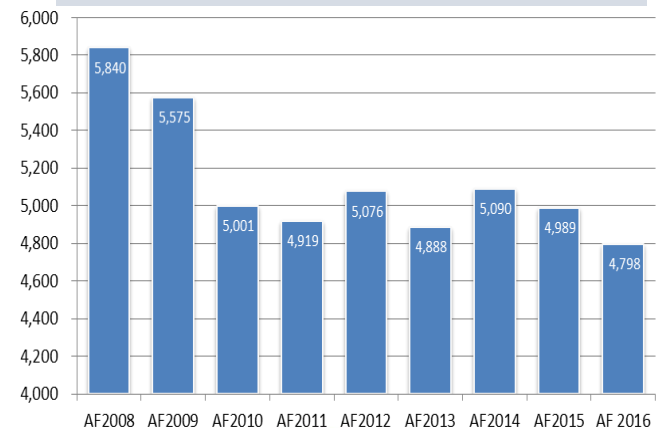
Payroll Cost Reduction

R5

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)
- 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

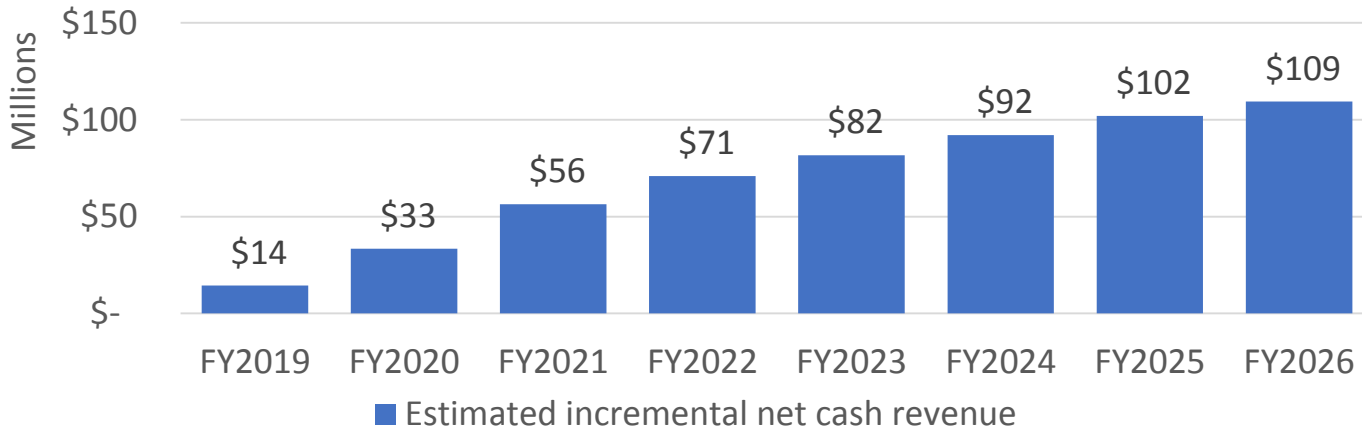


2

P3 Project – Optimizing PRASA’s Metering System and Customer Experience

Estimated Incremental Cash Revenues

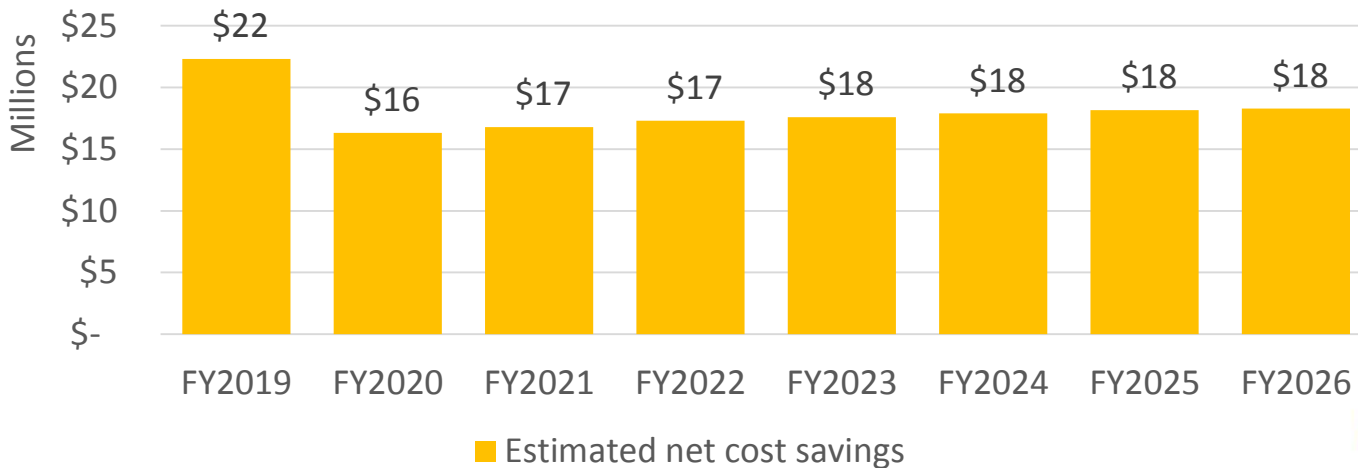
R4 Improved Collections



- ✓ Total Net Cash Revenue for FY2019-FY2026 = \$560M
- ✓ Net of uncollectibles

Potential Savings and Costs

R5 Payroll Cost Reduction



- ✓ Total Net Cost Savings for FY2019-FY2026 = \$145M
- ✓ Net of contract and contract administration costs

New Initiatives

2

P3 Project – Optimizing PRASA’s Metering System and Customer Experience

For this initiative to be successful, clear public policy needs to be established regarding the transfer of responsibilities from the public to the private sector; addressing all relevant labor issues.

Key Assumptions:

- Selected private partner(s) will retain most of the existing PRASA employees (currently, there are a total of 970 employees, dedicated to performing customer service activities).
- Some PRASA employees may transfer to other public sector agencies or corporations that provide large scale customer service operations (i.e. DTOP, PREPA, Hacienda). Opportunity for “Single Employer” Initiative.
- Contract will be performance-based (i.e., incentive/penalty structure) with both fixed and variable fee components.
- Selected private partner(s) will replace the existing meters with better quality meters with higher precision.
- Selected private partner(s) will also re-engineer PRASA’s customer service processes to ensure that any technological improvements are leveraged, resulting in better customer service to the PRASA’s customers.
- All improvements and capital investments related to meter replacement to be financed by private partner(s).
- PRASA will maintain an internal contract management structure.
- The assumption by private partners of most commercial and customer service related activities will minimize risk and allow for “single-point” accountability.



2

P3 Project – Optimizing PRASA’s Metering System and Customer Experience

Key Milestone Timeline

Q2 2017

Q3 2017

Q4 2017

Q1 2018

- P3 Authority’s Board of Directors commissions Desirability & Convenience (D&C) Study
- PRASA prepares D&C study
- Board reviews and evaluates D&C study; approves project to move forward
- Appoint Partnership Committee

- Prepare and issue Request for Qualifications (RFQ)
- Committee evaluates proponent qualifications
- Committee selects shortlist of proponents to continue to proposal stage

- Prepare and issue Request for Proposals (RFP)
- Committee evaluate proposal packages
- Select proponent to enter on Partnership

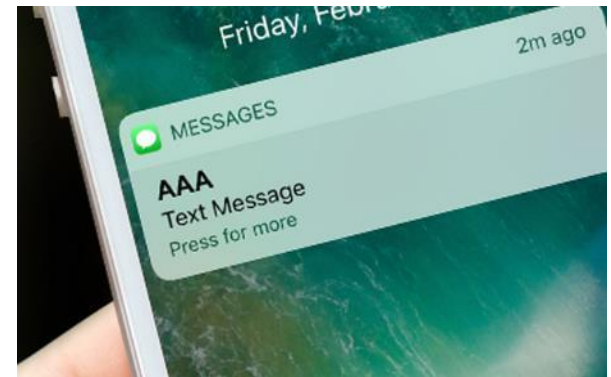
- Negotiate Partnership contract terms and conditions
- Prepare Partnership report
- Board of Directors approves report and contract
- Governor of PR signs Partnership contract



3

Charge for Paper Bill

- 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 is now ready and technologically capable of imposing a **Paper Bill Fee** of \$2.00 per month.
 - PRASA would first educate and promote the paperless billing method for all of its customers.
 - This type of fee is already being implemented by many other utilities, cable and credit card companies in Puerto Rico.



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



3

Charge for Paper Bill

Requirements:

- This initiative requires that PRASA comply with the rate setting process under Act 21-1985 as amended (Uniform Act for Revision and Modification of Rates).
- Likewise, it requires a supportive public policy regarding the imposition of the fee.

Expected financial benefits and key assumptions:

- The fee will be applied to all customers opting for paper bill, and may be not applicable to certain low-income groups.
- The fee is expected to be implemented in FY2018, starting to generate revenues on a gradual pace for the initial years and reaching a 75% participation rate in the electronic bill program by FY2026.

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	Total 10-year
Clients with electronic bills	10%	30%	40%	65%	70%	75%	75%	75%	75%	
Clients with paper bill	90%	70%	60%	35%	30%	25%	25%	25%	25%	
Modeled incremental revenues (\$2 per bill)	\$ 3.4	\$ 19.6	\$ 16.8	\$ 10.7	\$ 9.1	\$ 7.6	\$ 7.6	\$ 7.6	\$ 7.6	\$ 90.0
OPEX Savings (Printing/Distribution/Others)	\$ 0.1	\$ 1.7	\$ 2.3	\$ 4.0	\$ 4.3	\$ 4.6	\$ 4.6	\$ 4.6	\$ 4.6	\$ 31.0
Total Financial Benefit	\$ 3.5	\$ 21.3	\$ 19.1	\$ 14.7	\$ 13.5	\$ 12.2	\$ 12.2	\$ 12.2	\$ 12.2	\$ 121.0



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.

Fiscal Year	% of Current Disconnections	Projected Disconnections	Expected Revenue Increase (\$M)
FY 2018	75%	150,000	\$ 2.25
FY 2019	50%	100,000	\$ 1.50
FY 2020	40%	80,000	\$ 1.20
FY 2021	40%	80,000	\$ 1.20
FY 2022	30%	60,000	\$ 0.90
FY 2023	30%	60,000	\$ 0.90
FY 2024	20%	40,000	\$ 0.60
FY 2025	20%	40,000	\$ 0.60
FY 2026	20%	40,000	\$ 0.60
			\$ 9.75

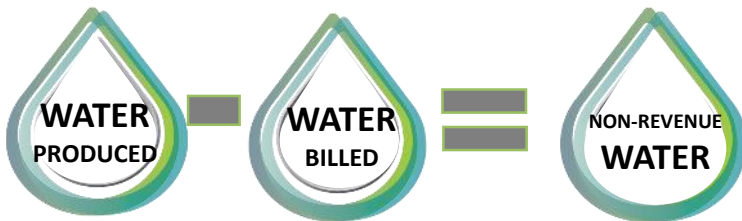
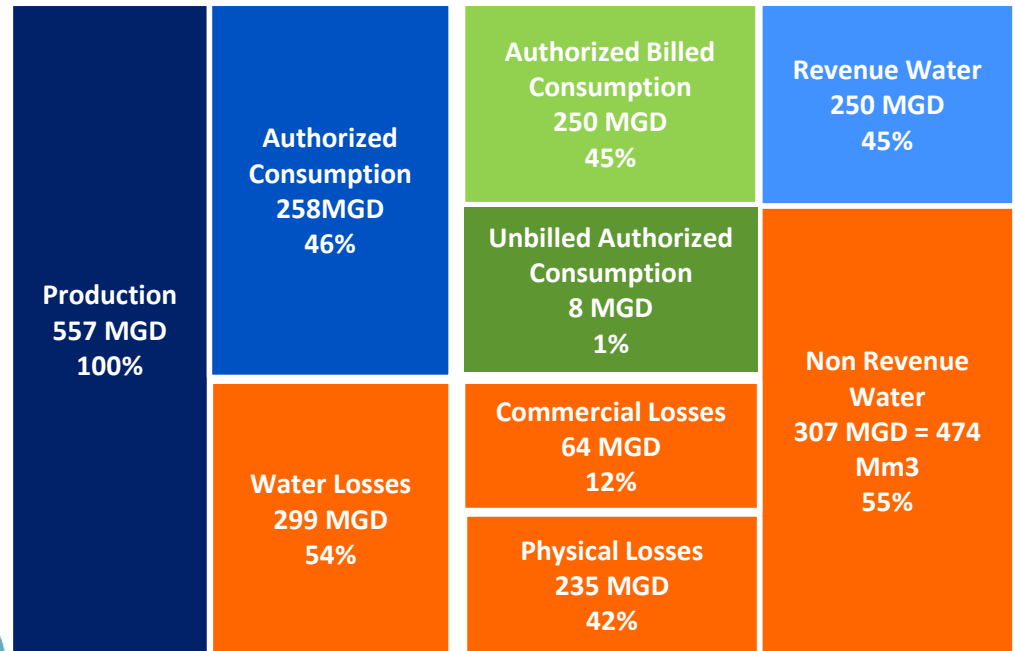


6

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



New Initiatives



6

Physical Losses Reduction

Physical Losses 235 MGD	Components and initiatives to reduce physical losses	Capital Investment Required	Financial Impact	Reasons for Inclusion/Exclusion
	Renewal and replacement of lines, valves, etc. 69 MGD	> \$120 million	None	Cost to replace lines exceeds benefit of reduced electricity and chemical costs
	Leak detection and reduce times to repair leaks 140 MGD	\$5.4 million	\$112 million 75 MGD	Benefit exceeds cost
	Increase # of tanks with telemetry, monitor tanks, reduce pressure, reduce overflows 26 MGD	\$1.5 million	\$12 million 14 MGD	Benefit exceeds cost

Initiatives
New



6

Physical Losses Reduction

Renewal and replacement of lines

- PRASA had been replacing about 1% of lines per year (industry standard recommended by AWWA) but recent financial difficulties have reduced pipe renewal and replacement below desired levels.
- Replacing all lines would require a capital investment of approximately **\$1 billion dollars**.
- Even with this level of investment, water loss due to leaks and breaks would not be fully eliminated, as it is not possible to eliminate all water loss in any water system.
- While this capital investment would result in cost savings, the cost savings are limited to only the **variable water production costs**, which are in turn limited to **chemical and electricity costs** (collectively representing about **25%** of PRASA's operating costs).
- Reducing water loss from breaks/leaks would **not** reduce any **fixed costs**, such as labor (which represents half of PRASA's operating costs).

PRASA has 14,000 miles of water pipeline. New York City and Los Angeles each have about 7,500 miles of pipe.



6

Physical Losses Reduction

Renewal and replacement of lines

- The value of **variable costs** is approximately **\$825 per million gallons**.
- Therefore, even if PRASA could afford to invest **\$1 billion** to replace all its waterlines, the theoretical cost savings it could achieve is **\$70.7 million per year** (235 MGD X 365 days X \$825/million gallon).
- As previously mentioned, physical losses cannot be completely eliminated in any water system so it is unrealistic that PRASA could ever reduce all 235 MGD of physical water losses or ever achieve \$70 million in cost savings per year.

Because the level of capital costs outweighs the benefits, impacts on non-revenue water (NRW) from line renewal/replacement initiatives are not reflected in the 10-year forecast; however, PRASA has identified operational initiatives that can reduce physical losses more economically, as explained next.

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 capital costs associated with these initiatives is **\$5.4 million**.
 - 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 and the impact of these initiatives is a reduction in non-revenue water of **75 MGD**.



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, projecting a reduction in non-revenue water of **14 MGD**.

38%

of tanks have
remote water
level monitoring

PRASA's Goal:

65%

by 2019



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**.

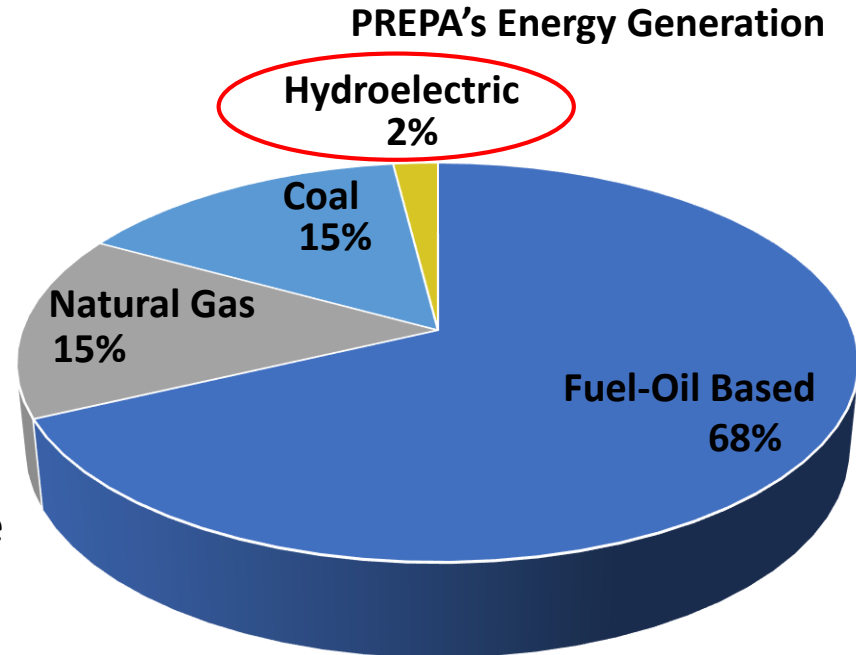


The net impact of reducing physical losses by 89 MGD through the leak detection and tank telemetry initiatives is estimated to generate a benefit of \$124.5M in cost savings through the 10-year projected period included in the Fiscal Plan.

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



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



7

Hydroelectric Power Generation

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

Operational and CIP improvements include:

Short-Term (Years 1-3)	Mid-Term (Years 4-5)	Long-Term (Year 6 and beyond)
Conduct water availability study	Equipment replacement	Penstock repairs
Control repairs	Comprehensive rehab of inactive units	Water reservoir dredging
Optimize operational curves		
Valve, pipeline and leak repairs		



7

Hydroelectric Power Generation

Benefits:



Lower energy costs for PRASA



Better control and management of water resources



Significant annual net 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



7

Hydroelectric Power Generation

Key assumptions for financial calculations:

- 1 PREPA will credit PRASA for all the power generated through the hydroelectric facilities in its monthly consumption invoice (no PPA)
→ “Aggregate Net-Metering”
- 2 PRASA will pay PREPA a \$0.02 per kWh for transmission and distribution (T&D) cost (which may be applied by PREPA to specific purposes)

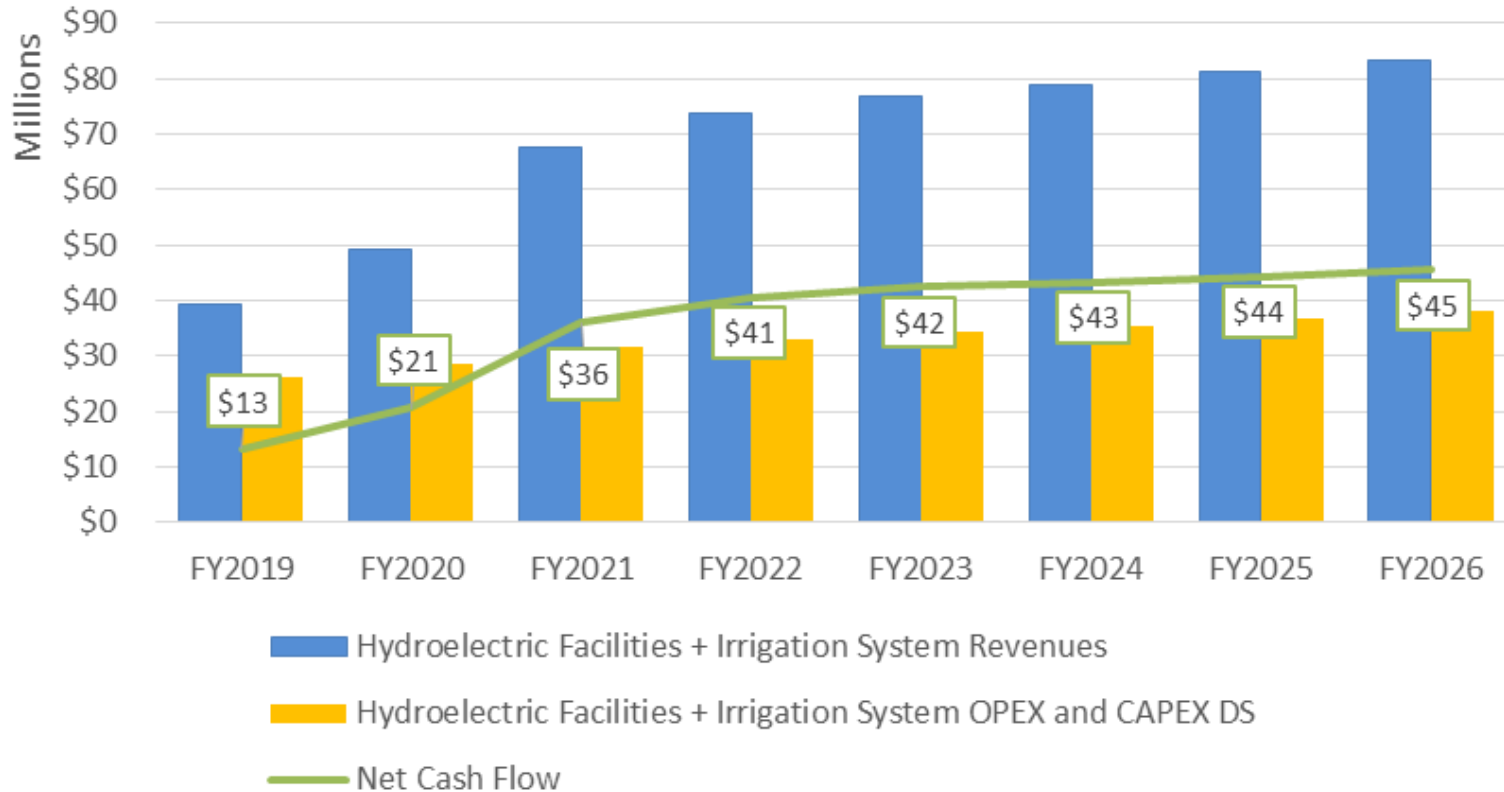
PREPA needs to be flexible. Scheme not regulated.

- O&M annual costs based on current PREPA costs (starting at \$5.8M); escalated at 2% per year over period
- Transaction (Purchase) Cost
 - \$50M - Financed over 25-year period
 - Financing cost of 10%
- CIP Investment Costs (Hydro & Irrigation systems)
 - Financed over 15-year period
 - Financing cost of 10%
- Savings per kWh based on electricity costs projections provided by PR Govt.:
 - Starting at 30 cents/kWh in year 1 (FY2019) and increasing by 3% each year thereafter
- PREPA securitization charge deducted from savings:
 - Starting at 3.1 cents/kWh year 1
 - Grow at 3% /year



7

Hydroelectric Power Generation



The estimated net cash flow (nominal amount) for FY2019-FY2026 is \$285 M



7

Hydroelectric Power Generation

For this initiative to be successful, there are several requirements and conditions that must be addressed, including:

Legislation to allow PRASA the operation of the hydroelectric facilities and for the distribution and usage of the electricity generated by them.

At a minimum, the following legal agreements must be reached:

- Asset purchase transaction or Operation Agreement
- Commercial agreement regarding the terms of the application of financial credit for power generated by PRASA
- Transition agreement for operation and maintenance of the facilities

PRASA must identify the necessary financing sources to carry out the necessary capital improvements to renovate and rehabilitate the hydroelectric facilities

Legislation

PREPA/PRASA
Agreement

Capital
Financing

7

Hydroelectric Power Generation

Key Milestone Timeline

Q2 2017

- PRASA and PREPA to agree on transaction terms
- Update transaction agreements
- Commission update of technical report detailing capital and operational improvements
- Determine project execution strategy – (i.e. DBOF, Via P3 process or other)

Q3 2017

- Prepare and drive legislation approval to enable hydro and irrigation systems asset transfer/operation
- Obtain legislation approval
- Validate project benefits with updated report
- PRASA and PREPA execute transaction

Q4 2017

- If P3, initiate process to commission D&C study
- Prepare and approve D&C study
- If not P3, prepare and issue procurement documents (RFQ/RFP)

Q1 2018

- Evaluate qualifications and proposal packages
- Select proponents with best offers and negotiate terms
- Finalize contract negotiations and execute partnership/provider agreement

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

- On June 30, 2016, PRASA entered into forbearance agreements related to both programs, which were later extended in various occasions and are currently due on **June 30, 2017**.
- The forbearance agreements grant PRASA a reduction of principal and interest on both programs of \$60 million per year, which was reduced from FY2017 debt service.
- No additional forbearance were modeled after FY2017.
- 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.



- 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.

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 a PRASA's costs and netted from the new funds.
- PRASA has also the ability to request funds from the Repayment amount (all funds paid by PRASA to the Revolving Program became available for qualified purposes), which currently amounts to around \$190 million.
- The repayment funds do not require state match, but are currently deposited at GDB by the Program. PRASA is considering that these funds will not be recovered in its financial projections.
- The new funds are projected net from the expected debt service calculated as 20-year 2% loans, which are the terms of the current outstanding loans.



Rural Development Bonds

- RD Bonds are expected to be issued at a level of \$15 million per year, which has been the historical average assigned to PRASA.
- The new funds are projected net from the expected debt service calculated as 40-year 4% loans, which are terms similar to the current outstanding bonds.



As both forbearance agreements expire on June 30, 2017, PRASA expects to have agreements on SRF and RD debt restructuring by then and start receiving funds in FY2018.

Proposed Initiatives Total Impact

The total impact of the proposed initiatives reduced the Initial Financial Need by around 65% or \$2.4B

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)	-	9.9	40.5	62.5	85.6	110.0	135.7	162.8	191.5	221.7	1,020.2
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 (\$2)	-	3.5	21.3	19.1	14.7	13.5	12.2	12.2	12.2	12.2	121.0
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	-	17.6	57.4	101.9	143.1	180.0	214.9	251.9	290.2	327.7	1,584.8
Physical Water Losses	8.2	10.2	11.8	13.5	13.5	13.5	13.5	13.5	13.5	13.5	124.5
Hydroelectric Transfer	-	-	13.3	20.6	35.9	40.5	42.4	43.3	44.4	45.5	285.9
Other Expense Reductions	41.8	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.3	60.6
Expense Savings	50.0	12.1	27.1	36.1	51.4	56.1	58.0	59.0	60.1	61.2	471.0
Forbearance Agreements	79.9	-	-	-	-	-	-	-	-	-	79.9
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	88.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	169.9
Federal Funds Net Impact	-	22.2	29.8	27.5	25.2	22.9	20.5	18.2	15.9	13.5	195.7
Initiatives Net Impact	138.9	60.9	123.3	174.6	228.7	267.9	302.4	338.1	375.2	411.4	2,421.4



Adjusted Financial GAP

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	(109.1)	(355.2)	(345.4)	(350.0)	(359.3)	(360.9)	(392.1)	(419.0)	(404.0)	(454.9)	\$(3,550.1)
Revenue Enhancing	-	17.6	57.4	101.9	143.1	180.0	214.9	251.9	290.2	327.7	1,584.8
Expense Savings	50.0	12.1	27.1	36.1	51.4	56.1	58.0	59.0	60.1	61.2	471.0
Debt Service Reduction	88.9	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	169.9
Federal Funds Net Impact	-	22.2	29.8	27.5	25.2	22.9	20.5	18.2	15.9	13.5	195.7
Initiatives Net Impact	138.9	60.9	123.3	174.6	228.7	267.9	302.4	338.1	375.2	411.4	2,421.4
Adjusted Financial Need	29.8	(294.3)	(222.1)	(175.5)	(130.6)	(93.0)	(89.8)	(80.8)	(28.9)	(43.6)	(1,128.7)

Still, after the implementation of all the proposed initiatives a \$1.1 billion remaining Financial Need is projected which is expected to be covered by:

- New Financing
- Debt Restructuring

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Viable Fiscal Plan



Restructuring

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

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total	Remaining gap
<u>Excluding federal funds</u>												
Cash flow available for debt service	\$352.2	\$5.1	\$69.5	\$117.5	\$172.0	\$212.0	\$217.5	\$231.8	\$286.2	\$272.6	\$1,936.4	
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)	\$29.8	(\$316.4)	(\$252.0)	(\$203.0)	(\$155.8)	(\$115.8)	(\$110.3)	(\$99.0)	(\$44.7)	(\$57.1)	(\$1,324.4)	\$1.3bn
% shortfall / debt service	n.a	102%	128%	63%	48%	35%	34%	30%	14%	17%	41%	
<u>Including federal funds</u>												
Cash flow available for debt service	\$352.2	\$27.3	\$99.3	\$145.0	\$197.2	\$234.9	\$238.0	\$250.0	\$302.0	\$286.1	\$2,132.0	
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)	\$29.8	(\$294.3)	(\$222.1)	(\$175.5)	(\$130.6)	(\$93.0)	(\$89.8)	(\$80.8)	(\$28.9)	(\$43.6)	(\$1,128.7)	\$1.1bn
% shortfall / debt service	n.a	92%	69%	55%	40%	28%	27%	24%	9%	13%	35%	

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, which will likely include some combination of the below financing / restructuring concessions:

- Principal and interest holiday
- Additional federal funding
- Interest reductions
- Debt forgiveness
- New capital injections

Any restructuring solution will need to reduce the debt service costs by ~35% over the Fiscal Plan Projection Period



Illustrative Debt Capacity

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: \$213m	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	(696.2)	(766.1)	(791.7)	(799.9)	(810.8)	(835.2)	(852.2)	(869.7)	(887.4)	(905.4)	(8,214.5)	
Operating reserve fund	(34.8)	(41.8)	(42.1)	(41.2)	(42.7)	(6.1)	(4.3)	(4.4)	(4.4)	(4.5)	(226.4)	
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)	\$213.3	(\$33.6)	(\$24.0)	(\$29.6)	(\$31.5)	(\$33.1)	(\$64.3)	(\$88.1)	(\$73.1)	(\$125.3)	(\$289.3)	
Initiatives net impact (incl. FF)	138.9	60.9	123.3	174.6	228.7	267.9	302.4	338.1	375.2	411.4	2,421.4	
	Cash flow available for debt service	\$352.2	\$27.3	\$99.3	\$145.0	\$197.2	\$234.9	\$238.0	\$250.0	\$302.0	\$286.1	\$2,132.0
Including Federal Funds: \$233M	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	\$352.2	\$49.5	\$129.2	\$172.5	\$222.3	\$257.7	\$258.6	\$268.2	\$317.9	\$299.6	\$2,327.7

Illustrative sustainable debt capacity sizing

Current weighted average coupon: 5.5%	Illustrative cash flow available	Sensitivity analysis: implied debt capacity					
		\$75	\$100	\$125	\$150	\$175	\$200
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%	Illustrative interest rate	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)



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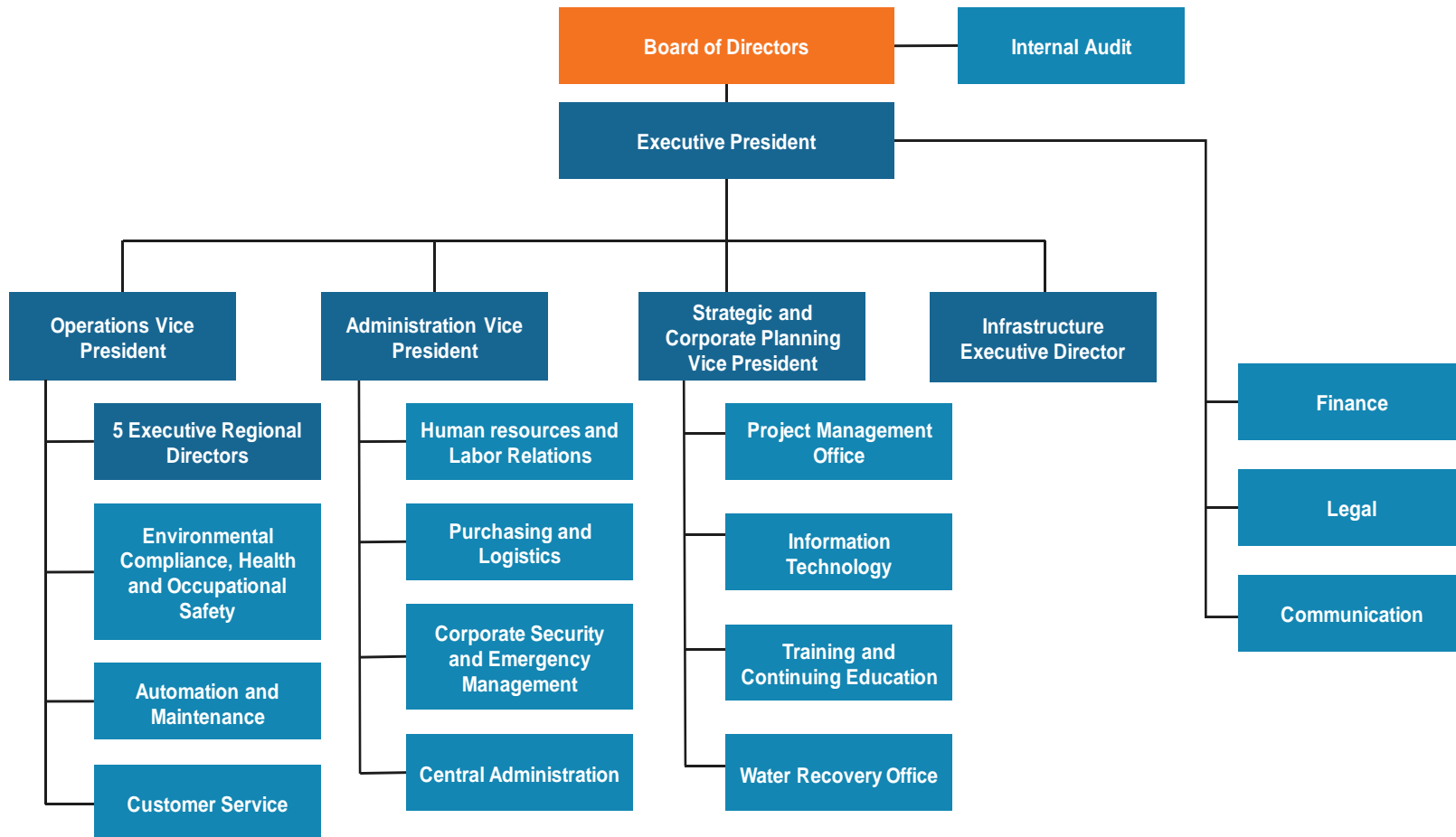
Viable Fiscal Plan



Organizational structure

R2

Strong Governance



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



Governing Board Composition

R2

Strong Governance

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

4 Independent directors appointed by the Governor of Puerto Rico

- 1 Professional engineering (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

R2

Strong Governance

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

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

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



Executive Officers

R2

Strong Governance

- 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

R2

Strong Governance

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 Reduction



Puerto Rico Aqueduct and Sewer Authority
GOVERNMENT OF PUERTO RICO

PMO Overview

R2

Strong Governance

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.



Key Performance Indicators

R2

Strong Governance

Top Revenue Increase KPI's

1 Collection vs. Net Billing

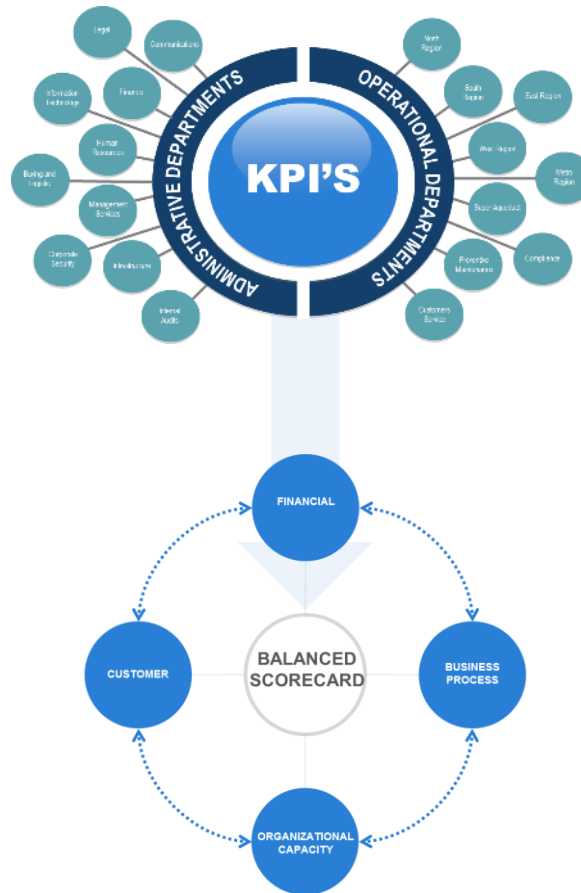
Looks to improve or increase the amount of actual collections in relationship with PRASA's Billing Budget.

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 performance 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.

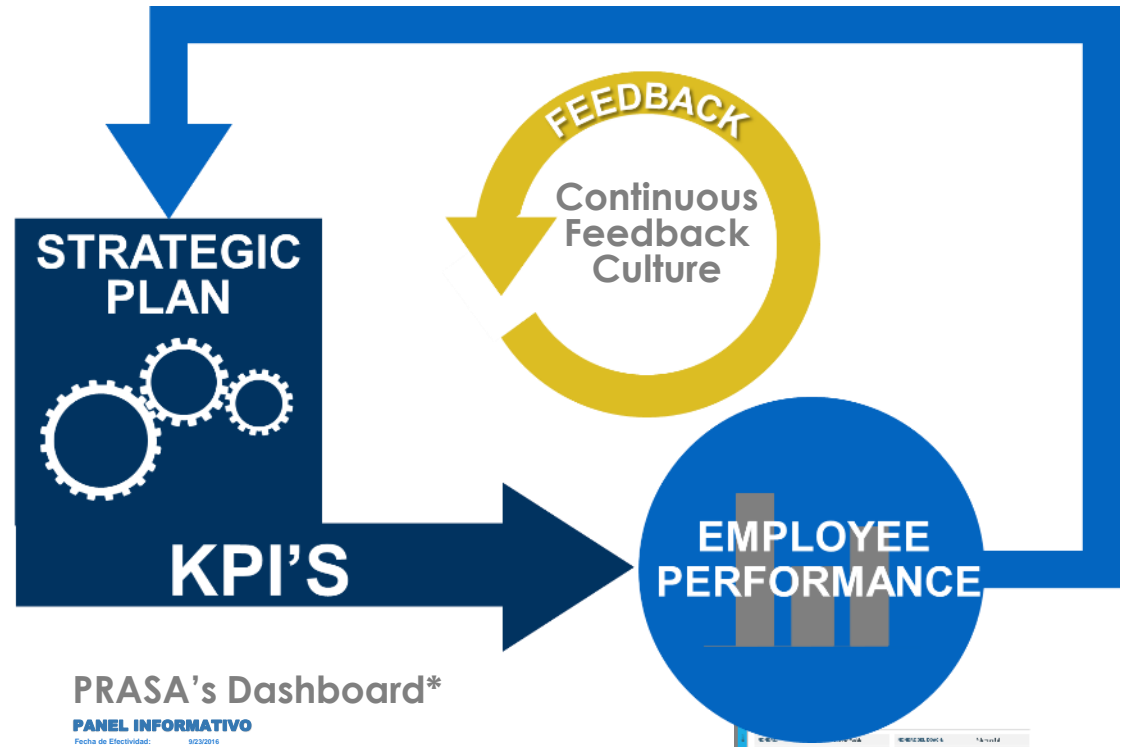
Accountability

R2

Strong Governance

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

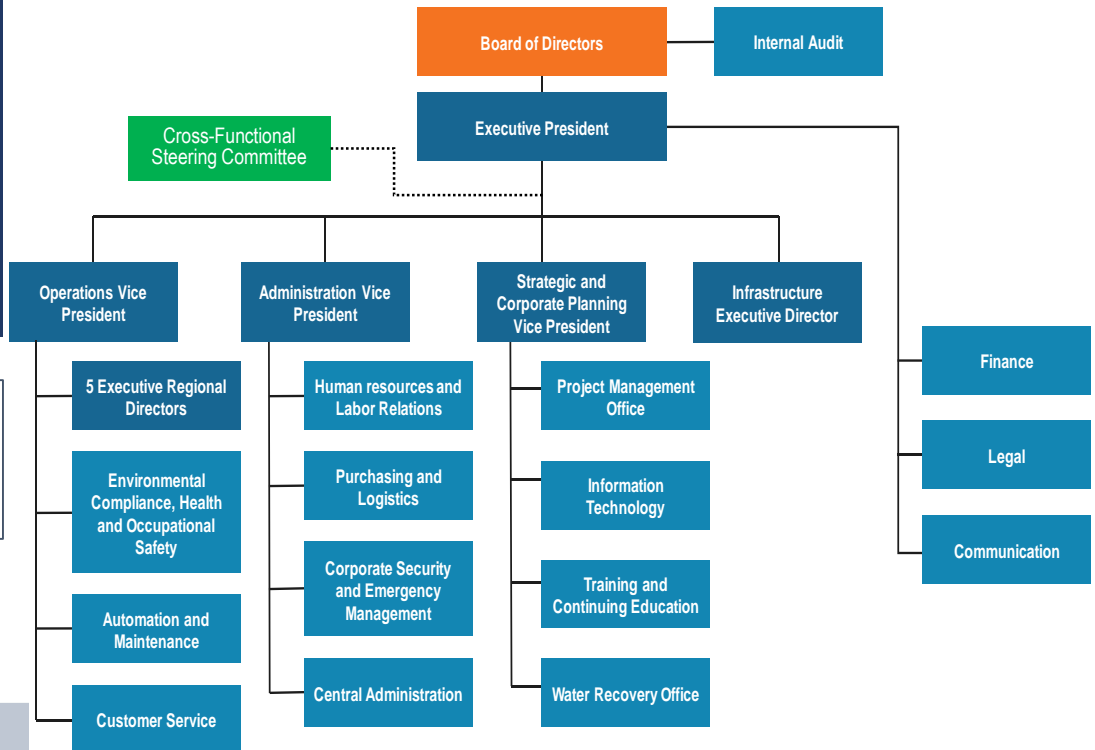
Cross-Functional Steering Committee

R2

Strong Governance

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



Cross-Functional Steering Committee
OVERVIEWING & MONITORING

Fiscal Plan Strategic Plan PMO KPI's



Ownership & Accountability throughout the organization



Fiscal Plan implementation

R2

Strong Governance

- 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



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Baseline Projections – Initial Financial Need

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Risks and Mitigation Strategies

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Viable Fiscal Plan



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	

Risks and Mitigation



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Viabie Fiscal Plan



Viabale Fiscal Plan

- 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 \$70 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/reneegotiate 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.**

