# The Puerto Rico Electric Power Authority's Flawed Fiscal Plan

## Budget Shortfalls and Weak Implementation Plan Create Substantial Risk

Institute for Energy Economics and Financial Analysis
IEEFA.org

May 2018

**Tom Sanzillo, Director of Finance IEEFA**
**Cathy Kunkel, Energy Analyst**

# Executive Summary

The five-year Fiscal Plan and budget for the Puerto Rico Electric Power Authority, as certified in April 2018 by the federal Financial Oversight and Management Board (FOMB) of Puerto Rico, is fraught with significant financial risks. The Fiscal Plan is designed to lay out a road map for the physical and financial transformation of PREPA, and to be the first step in restoring investor confidence in PREPA.

The certified budget for FY 2019 and Fiscal Plan through FY 2023 is out of balance in every year. The one-year budget starting on July 1, 2018 faces a $170 million shortfall, driven in large part by PREPA's overestimation of electricity demand. Besides that, the FY 2019 budget faces additional downsides risks related to labor savings, fuel efficiency and fuel prices. Budget gaps grow substantially for the remaining years. For the Fiscal Plan period 2020-2023, PREPA's budget faces the risk of average annual budget shortfalls of $1.0 billion. These are driven in large part by PREPA's inability to meet renewable energy targets, potential legacy debt payments, fuel costs, pension costs and lower than anticipated federal revenues.

Without recurring budget balance and the demonstrated discipline to achieve it over several years, none of PREPA's plans for new transmission, distribution or generation can be achieved.

PREPA faces daunting budget and operational challenges. In its FY 2019 budget PREPA ("the Authority") has acknowledged that its debt levels are unsustainable. It has provided for no payment for debt service from PREPA's revenues for the next five years. Similarly, the Authority has acknowledged that its overreliance on gas and oil is fatal to its fiscal recovery. There is an urgent need to increase investments in renewable energy and to diversify its generation portfolio.

PREPA's Fiscal Plan contains a series of ambitious management proposals to bring electricity rates to 20 cents/kWh; increase investments in renewable energy as part of a major overhaul of its generation, transmission and distributions assets; introduce efficiencies; improve contracting; and achieve labor savings through overtime, pension and medical reforms. PREPA's reform proposals take place against zero growth in the economy and declining demand for electricity over the Plan period. PREPA's FY 2019 revenues are estimated at $3.4 billion, an increase over last year, which saw service interrupted for most of the fourth quarter due to hurricane damage. Moving forward, revenues are expected to decline modestly through 2023.

PREPA is in a state of severe fiscal distress likely to continue for several years. The Authority must manage a complete overhaul of Puerto Rico's electricity grid at a time of fiscal insolvency for both PREPA and the Commonwealth government. IEEFA has identified five major risk areas that must be addressed if the Authority is to achieve a well-managed system.

- **Planning:** The agency has acknowledged the need to rework its Integrated Resource Plan (IRP) to help guide its investments in the future. The prior IRP process was marred by PREPA's inability to provide a fact-based plan that met professional standards. Substantively, PREPA's existing IRP Plan supported greater use of fossil fuels, weak provisions for renewable energy and energy efficiency, and relied upon an unsustainable financial model. The FY 2019 Fiscal Plan and recent management actions are seeking to correct many of these inadequacies, but the risk of failure is high. PREPA's financial and management challenges threaten to undermine progress. At the same time, the Governor of Puerto Rico has proposed— and the House of Representatives has passed— legislation that would privatize the generation system; effectively nullify the IRP; weaken collective bargaining agreements; and recreate an unpredictable and highly political investment climate. The outcome of PREPA's bankruptcy proceeding in Puerto Rico will also play a role in whether or not a successful IRP can be created and implemented.

- **Regulation:** In 2014, Puerto Rico's legislature passed Act 57-2014, which created the Puerto Rico Energy Commission (PREC) to regulate the Island's electrical system. The Commission has undertaken significant planning, ratemaking, financing and management activities. These regulatory activities have been met with hostility by PREPA, the Governor and the federal Financial Oversight and Management Board (FOMB). PREPA's Fiscal Plan calls for reform of the regulatory system. The conflict has created an air of uncertainty regarding the electricity regulator and its future. A recent reform plan was offered by the Governor in this session of the legislature, but was withdrawn for lack of support. The Governor's proposed privatization bill substantially weakens the regulatory authority of PREC. A constructive regulatory environment is essential to attracting new capital.

- **Finances:** PREPA's financial position is unsustainable. It currently carries $9.2 billion in debt and the current Fiscal Plan makes no provision to pay any debt service. How the legacy debt is ultimately settled will require the bankruptcy court, FOMB, Governor, PREC, PREPA and Puerto Rico's bondholders to come to an agreement. A proposal that would have required PREPA to pay 85% of the value of its bonds was rejected by the FOMB in 2017 as too burdensome. Any debt settlement that requires any repayment at all from PREPA ratepayers will necessarily drive up electricity rates at a time when most stakeholders— including PREPA and the FOMB— see the need for rates that are affordable for the future health of the entire Puerto Rican economy and PREPA itself.

- **Management:** PREPA suffers from poor management driven in part by political interference in its operation and a long-term loss of skilled employees. The organization lacks sound workforce management, has poor contracting processes and opposes any form of external review. The Authority needs a thoroughgoing internal reform. The plan to undermine collective bargaining agreements, change work rules and reduce benefits is poorly conceived and likely to prove counterproductive. The Fiscal Plan has offered several steps in this direction. The 2019 fiscal year is where the rubber hits the road.

- **Federal Aid:** PREPA anticipates reimbursement from the Federal Emergency Management Agency (FEMA) for generation, transmission and distribution costs related to hurricane damage. The Fiscal Plan identifies at least $7 billion in potential new revenue. The actual payment of the revenue to Puerto Rico has been the subject of controversy, and the size and timing of the funding is in question.

Left unattended, these major risk areas will insure that PREPA makes little progress toward the goals of its Fiscal Plan and grid transformation. Overall, the Plan suffers from many of the problems discussed above. As a technical document, the Plan lacks consistent definitions of budget items and initiatives. As a financial plan, the document is internally inconsistent and unreliable.

The Plan also is not accompanied by a Certified Annual Financial Audit for PREPA. The last one produced was for the Fiscal Year ending June 2014. The annual audit is a vital component of the Authority's financial presentation. Without the Audit, the Fiscal Plan evaluated in this report lacks integrity. The Commonwealth has recently committed to releasing back audits by August 2018.

PREPA's Fiscal Plan is a slow start on an urgent problem. The Authority has acknowledged having to change certain fundamental elements of its fiscal structure. It is a long way from executing the needed steps to reduce fuel costs, modernize the grid, lower rates and set its financial house in order. The public process now required under the PROMESA law makes reporting on the Commonwealth's financial progress a regular occurrence. Regular reporting of implementation achievements and challenges from PREPA and all of the other agencies and covered organizations is the only tool available to improve the Commonwealth's financial status.

The Institute for Energy Economics and Financial Analysis has produced this report to illustrate how the new budget process can be used to increase transparency and public debate on major budget issues. The overhaul of Puerto Rico's finances will take a long time. Outside commentary by any and all stakeholders needs to be based on good data and sound analysis, in order to hold everyone accountable.

# Fiscal Regulation of PREPA and Budget Oversight Under the Federal Control Board

On June 9, 2016, Congress passed a law that created a fiscal control board for Puerto Rico. Broadly stated, the purpose of the PROMESA law and the Financial Oversight and Management Board (FOMB) is the restoration of fiscal responsibility and access to the capital markets. The Board declared PREPA to be a covered organization, meaning that it must abide by the budgetary directives of the FOMB.

The PROMESA statute specifies a formal and informal process for the Governor and Legislature's submission of their respective budgets and Fiscal Plans. The oversight process for the Commonwealth as a whole is triggered by the submission of a budget by the Governor to the Board. The Board reviews and comments, and the Governor responds as often as necessary up until certain dates. Once the benchmark dates arrive, a decision on a final budget is made by the two entities jointly or by the Board on its own. The working collaboration between the Board and the Governor is essential for both the Commonwealth and PREPA.

PREPA must follow a very similar budget process to comply with the FOMB. The authority must submit a budget that must meet the broad statutory standards contained in the law. In the case of PREPA, among other items this means compliance with the rate and Integrated Resource Plan (IRP) orders of the Puerto Rico Energy Commission.[1] Compliance with PROMESA requires coordination between PREPA and PREC.

FOMB's responsibility is primarily fiscal, responding to the Commonwealth's need to develop budgets and financial plans that bring the government into budget balance and to do so in the context of establishing a climate of fiscal responsibility. FOMB's regulation is designed to ensure that Puerto Rico meets its budget goals over time and produces reliable accounting and fiscal reporting systems to restore market and public confidence. The cumulative impact of sound budgeting and planning will be instrumental to the Commonwealth (and PREPA) re-accessing the capital markets.

PREC regulates the Puerto Rico Electric Power Authority (PREPA) and other entities that provide power services to the Island. PREPA's primary area of activity (and PREC's primary area of regulation) is to achieve the Commonwealth's goals related to the operation of generation, transmission and distribution systems. PREPA's responsibility is to provide a reliable and resilient electricity system that is in a state of good repair, provides customer services that facilitate the use of electricity, and maintains just and reasonable customer rates. The practical regulation of PREPA consists of review and approval of the operational revenue and expense projections of the utility (including debt and debt service); rate design; energy generation and capital expenditure plans; and other customer service and administrative activities that are necessary.

# FY 2019 Budget: Major Risks and Deficiencies

On April 19, 2018 the FOMB certified PREPA's Fiscal Plan for the period 2019-2023.[2] The Plan includes the approval of the first year FY 2019 budget. The Fiscal Year 2019 (FY 2019) budget begins July 1, 2018 and ends on June 30, 2019.

Given what is in the Fiscal Plan and approved by the FOMB, the Board and PREPA (and its regulators) will have to exercise extraordinary diligence to achieve actual budget balance in 2019 and beyond.

The budget process was hindered by the Commonwealth's and PREPA's inability to produce a comprehensive audit since FY 2014. Without an audited statement for the prior year, key budget and Fiscal Plan quantitative representations rely upon a series of compensatory methods and assumptions to substitute for what otherwise would be independently audited financial data. This is a substantial departure from sound budgeting practice and diminishes the integrity of the budget presentation.

The problem is compounded by the findings in recent PREC orders that PREPA's past and current budget practices and internal systems of financial control are weak. From

[1] PROMESA Sec. 201(b)(1)(A)(i)

[2] https://juntasupervision.pr.gov/index.php/en/documents/New Fiscal Plan - PREPA – Certified, April 19, 2018. Referred to hereafter as the "Fiscal Plan" or the "Plan"

2015 to the present, PREPA had considerable difficulty responding to basic requests for information from PREC.

The current budget submission suffers from the same defects previously identified by the PREC.[3] Prior to the hurricane, PREPA's forecast of electricity demand, fuel consumption and oil prices were inaccurate, sometimes dramatically so.[4] PREC's consultants concluded that "PREPA's capital budget is poorly-supported and -documented and… PREPA's prioritization of capital projects has historically been misguided." However, they also noted the need for significant capital spending due to the obviously deteriorated condition of the infrastructure.[5] On the operations side, PREC's consultants found PREPA's operating budget to be "effectively unsupported."[6] In its rate case, PREPA had proposed operational savings initiatives that PREC's consultants found to be unsupported in PREPA's financial modeling.[7] These problems were well known among energy and finance officials. In the wake of the hurricane and the sustained period of power outage that claimed the lives of Puerto Rico residents and created losses to its population and economy, PREPA's problems became a matter of extreme public urgency.

PREPA's budgeting uncertainty is also compounded by the lack of information on the physical condition of PREPA's infrastructure. Prior to hurricane Maria, PREPA's system was in a state of extreme disrepair after years of deferred maintenance. PREPA's historic inability to produce a credible maintenance budget, coupled with the lack of published information on the current state of PREPA's system, makes it all but impossible to verify PREPA's forecast maintenance or reconstruction budget.

This budget and the subsequent years of the Fiscal Plan are at high risk of failure and complete collapse.[8] The level of uncertainty is one dimension of the risk. The uncertainty stems from the need to make fundamental changes to almost every part of the organization at the same time the Commonwealth goes through the same changes. Many of the necessary changes are dependent on the decisions of people and institutions outside of the control of Puerto Rico's budget officials.

The most glaring financial risks rest with PREPA's need to settle issues related to its legacy debt and its dependency on fossil fuels. Past debt practices have left the Commonwealth and PREPA with severely limited options. PREPA's reliance on fossil fuels is also part of its financial unsustainability. Unless a major savings can be achieved through investments in renewable energy and other low-cost energy alternatives, PREPA and the Commonwealth will suffer at the hands of a generation system where prices will continue to rise over time and where annual budget balance will be frustrated by volatile of commodity prices.

[3] http://energia.pr.gov/wp-content/uploads/2017/01/Final-Resolution-and-Order.pdf, see paragraph 50.

[4] In its final order on PREPA's rate case, PREC found that PREPA had under-budgeted for fuel by $461 million, or 41% of the final, Commission-approved fuel budget. (Case Number CEPR-AP-2015 -0001, Final Order, Attachment 1, January 10, 2017). http://energia.pr.gov/en/dockets/?docket=cepr-ap-2015-0001

[5] Expert report of Jeremy Fisher and Ariel Horowitz, Case Number CEPR-AP-2015-0001, November 23, 2016, p. 65. http://energia.pr.gov/en/dockets/?docket=cepr-ap-2015-0001

[6] Ibid, p. 186.

[7] Ibid., p. 187.

[8] See Fiscal Plan Disclaimer and Executive Summary, p. 2 and p. 6

Although the FOMB has been in operation for over a year, a weak political consensus regarding Puerto Rico's future persists. A control board is not designed to undermine elected leadership. It is designed to help forge a financial plan in difficult circumstances. Puerto Rico's Governor and the Board need to continue to resolve differences and strengthen the working consensus that resulted in the FOMB's recent approval of the Governor's Fiscal Plan. Judicial appeals political fiats, and external financial interventions cannot replace this leadership function.

The leadership function requires substantial attention to labor relations. The current Fiscal Plan leaves PREPA's workforce in limbo as privatization efforts are contemplated that appear to undermine or cancel existing collective bargaining agreements; weaken benefits; and leave open the question of whether or not Puerto Rico's residents will benefit from new jobs created by future investment in the grid. PREPA's current workforce is an asset of the corporation and a solid part of the Island's dwindling middle class. The plans being advanced for labor reform and privatization appear to be unsupported and short-sighted.

PREPA's budget analysis is limited by all of these technical and political risks, among others. We have relied upon publicly-available documents found on the FOMB website and supporting documents on other websites of Puerto Rico's government. Because the budget document is wholly defective, IEEFA has had to rely upon secondary materials to sometimes make assumptions and at other times to test the assumptions made by PREPA. Our best judgements are used in many places where the Fiscal Plan fails to provide a solid rendering of a problem or a substantiation for proposed budget action.

The Fiscal Plan is a slow start to an urgent problem. What is required now is intense attention to making progress against the first-year goals established in this document. Many of the long-term goals in this document are sound ideas. They are in search of an agency and political system with the will to carry them out.

# Analysis of PREPA's FY 2019 Budget

Over the last ten years, Puerto Rico's Gross National Product has declined by 20%.[9] This decade-long recession has resulted in lost population, lower incomes (40% of population lives in poverty) and lower electricity consumption.

Looking forward, PREPA anticipates that population will continue to decline 11% through 2023. PREPA projects economic stagnation throughout the plan period with some growth assumed as a result of an infusion of recovery aid.[10] PREPA anticipates a loss of 10% of load during the plan period due to population losses and customer defections.

[9] New Fiscal Plan for Puerto Rico, p. 7, April 19, 2018.

[10] Plan, p. 40. The Commonwealth Budget estimates a more robust economic outlook with strong growth in FY 2019 due to federal expenditures and a leveling off to approximately a 1.5% annual growth rate during the fiscal plan period. (New Fiscal Plan for Puerto Rico, April 19, 2018, p. 9). The Commonwealth's estimates of GDP appear to conflict with PREPA's table labeled "economic stagnation."

PREPA projects $12 billion in capital spending over the next five years to restore the grid and improve its resilience, as well as to plan and develop a new energy system with substantial changes in the size, quality and energy mix to support the grid.[11]

**Table I: FY 2019 Budget Gap (in $ billions)**

| FY 2019 Budget Gap | PREPA Budget | IEEFA Estimate | GAP |
|---|---|---|---|
| Sales (GWh) | 14939 | 14008 | |
| Rate | 0.230 | 0.230 | |
| Rate Revenue | 3.430 | 3.222 | -0.208 |
| Total Revenue | 3.430 | 3.222 | -0.208 |
| | | | |
| Fuel and Purchase Power | 1.872 | 1.810 | 0.062 |
| Labor Expense | 0.372 | 0.396 | -0.024 |
| Non-labor O&M | 0.431 | 0.431 | 0.000 |
| Maintenance Capex | 0.496 | 0.496 | 0.000 |
| CILT and Subsidies | 0.293 | 0.293 | 0.000 |
| | | | |
| Total Revenue Requirement | 3.464 | 3.426 | 0.038 |
| Other Income Adjustment | 0.034 | 0.034 | |
| Total Revenue Minus Expense (GAP) | | (0.170) | (0.170) |

Source: IEEFA analysis

## Revenue

PREPA estimates FY 2019 revenue of $3.43 billion (see Table I: FY 2019 Budget Gap), up from $2.92 billion in FY 2018 and comparable to pre-hurricane FY 2017 revenues of $3.40 billion.[12]

These revenues are based on projected sales of 14,940 GWh, a 12% decline from 16,996 GWh in FY 2017. PREPA presents lower bound and upper bound scenarios to represent the uncertainty around future electricity demand, ranging from 14,008 GWh to 15,697 GWh in FY 2019. The uncertainty comes from both the economic impact of the hurricanes (it is unknown how the consumption patterns of residential, commercial and industrial users have been affected) and the increase in grid defection, as customers invest more in distributed generation and energy efficiency and reduce their dependence on PREPA. The base case FY 2019 sales projection represents a reduction of 5% relative to PREPA's sales projection in its pre-hurricane Fiscal Plan.

---

[11] Plan, p. 85

[12] PREPA Monthly Operations Report for June 2017, https://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2017/June%202017.pdf, p. 8

For FY 2019, IEEFA estimates that PREPA's lower demand estimate of 14,008 GWh is the more likely outcome for the year. The lower level case decreases PREPA's estimated revenues by $208 million (see Table I: FY 2019 Budget Gap). Prior to hurricane Maria, Puerto Rico had lost 10% of its population over the past decade. Puerto Rico is estimated to lose 14% of its population in the two years after Hurricane Maria.[13] This, combined with the increase in grid defection resulting from hurricane Maria, suggests that the lower sales case is more reasonable.

PREPA's Fiscal Plan projects a rate of 23 cents/kWh in FY 2019. PREPA's rate includes a base and provisional rate, as well as fuel cost adjustment and purchased-power cost adjustment riders that are adjusted on a monthly basis to recover fuel and purchased power costs.[14] As a result, if fuel and purchased power costs in FY 2019 are more (or less) than expected, the actual rate charged to customers will be greater (or less) than 23 cents/kWh.[15] The volatility in this portion of the rate underscores the need for new investment in lower-cost renewable energy.

PREPA is currently operating with a base plus provisional rate of 7.4 cents/kWh to cover all costs not related to fuel, purchased power and CILT.[16] (The rate adjustments approved by the Puerto Rico Energy Commission in January 2017 have yet to be implemented. PREPA petitioned to delay implementation, and then operations were severely disrupted by the hurricanes[17]). Given lower sales, in order to achieve the FY 2019 base revenues (not related to fuel, purchased power and CILT) budgeted in the Fiscal Plan, the base rate would need to be increased to 9 cents/kWh.[18] PREPA does not have the authority to unilaterally raise this rate.

The Fiscal Plan references the need for a "bridge rate case" to update the rates, but does not specify a timeframe in which this would occur.[19] It would be nearly impossible to update the rates by the start of the 2019 fiscal year.

PREPA is also expected to receive significant revenues in FY 2019 that are not derived from customer rates. PREPA has identified $2 billion of approved FEMA dollars for FY 2019.[20] How these dollars will be applied to PREPA's FY 2019 budget and how this will affect the rates is not known, and so the budget and Fiscal Plan can be expected to be adjusted during the year.

13 https://centropr.hunter.cuny.edu/sites/default/files/RB2017-01-POST-MARIA%20EXODUS_V3.pdf
14 Plan, p. 56.
15 For example, the January 2018 rate is 24.3 cents/Kwh taking into account a 16.5 cent/kWh combined fuel and purchased power charge. (See PREPA Monthly Operations Report for January 2018 ) https://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2018/January%202018.pdf, p. 24.
16 Plan, p. 56.
17 Case No. CEPR-AP-2015-0001, Resolution on PREPA's Motion to Extend Rate Implementation Timeline, June 23, 2017. http://energia.pr.gov/en/dockets/?docket=cepr-ap-2015-0001
18 The fiscal plan budgets $1.265 billion for expenses not including fuel, purchased power, CILT and subsidies ($3.43 billion less $1.872 + $0.293 billion). At expected sales of 14,008 GWh, the base rate would need to be 9 cents/kWh.
19 Plan, p. 57.
20 Plan, p.39.

# Expenses

## Overall

PREPA estimates total expenses for FY 2019 at $3.464 billion (see Table I: FY 2019 Budget Gap).[21] PREPA projects that $1.87 billion or 54% of its total expenses will be for fuel and purchased power expenses, an increase of 25% from 2018. The FY 2019 approved budget does not specify the breakdown of Fuel and Purchased Power costs. In prior years with similar spending levels,[22] fuel expenditures contributed $1.2 billion of the total and purchased power $700 million.

## Fuel and Purchase Power Expense

The Fiscal Plan does not provide assumptions regarding the unit costs for oil and natural gas. The oil markets are currently on an upward trajectory. While PREPA has enjoyed relatively low prices[23] for oil last year,[24] we anticipate a $72 per barrel price of oil for FY 2019.

## Labor

Total labor expenses are estimated at $372-$400 million,[25] including a PREPA current headcount of 6,285[26] for FY 2019, which is held flat throughout the five-year period. The lower estimate is a slight reduction from PREPA's FY 2018 spending level of $396 million. Labor expenses account for approximately 11% of total expenses.

## Non-labor

Total non-labor operating expenses are estimated at $431 million,[27] an increase of $20 million from FY 2018 and an increase of more than $200 million from PREPA's FY 2014 actual expense.[28] Non-labor operating expense includes materials, property and casualty insurance, restructuring fees, retiree medical benefits, security expenses, maintenance, utilities and miscellaneous expenses.[29] In PREPA's rate case, the Energy Commission's consultants noted that while PREPA's non-labor operating expenses increased from FY 2010 through FY 2016, the entire increase was due to a $50 million increase in non-labor administrative costs. Non-labor operating costs allocated to generation, transmission and distribution, and customer service all declined.[30] The Fiscal Plan does not itemize the non-labor expenditures by function.

---

[21] Plan, p. 45.

[22] https://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2017/July%202017.pdf, p. 19

[23] For Fiscal Year 2017 PREPA paid $57.62 per barrel for oil. https://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2017/June%202017.pdf, p. 1.

[24] https://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2018/January%202018.pdf

[25] Plan, p. 43 (Historical and Projected Operating Expenses) lists PREPA salaries at $262 million and benefits and pensions at $138 million for a total of $400 million. Plan, p. 45 (Indicative Revenue Requirement Under Steady State Assumptions) lists FY 2019 labor expense at $372 million. The $28 million variance is unexplained.

[26] Plan, p. 43.

[27] Plan, p. 43 (Historical and Projected Operating Expenses) projects 2019 Total Other Operating Expenses at $318 million. The difference of $113 million is unexplained in the FY 2019 PREPA budget.

[28] Expert report of Jeremy Fisher and Ariel Horowitz, Case Number CEPR-AP-2015-0001, November 23, 2016, p. 190

[29] Plan, p. 43.

[30] Expert report of Jeremy Fisher and Ariel Horowitz, Case Number CEPR-AP-2015-0001, November 23, 2016, p. 198-199.

As part of a proceeding held by PREC related to PREPA's debt restructuring, PREC criticized PREPA for allowing "restructuring fees" to lawyers and financial advisors to rise beyond reasonable levels.[31] PREC suggested the need for an audit of these fees and better cost controls. Although professional fees are unspecified in the Fiscal Plan, IEEFA estimates that $25 to $30 million could be saved in this line through improved negotiations over fees paid to financial consultants. [See: Table II: Out Year Budget Gap (2020-2023)].

### Maintenance

Maintenance expenses are estimated at $496 million[32] for FY 2019, an increase of 26% over FY 2018. Elsewhere in the Fiscal Plan, FY 2019 maintenance expense is estimated at under $400 million.[33] Specific maintenance projects are not mentioned, although the Plan describes maintenance expenses as "majority of pre-hurricane forecasted maintenance capex" and "system operations upgrades".[34] The discrepancy in the maintenance budget is not explained. Historically, PREPA has underfunded maintenance.

## Savings Initiatives

The Fiscal Plan contains an ambitious program of cost savings and efficiencies across the PREPA enterprise to be achieved over the next 18 months. The name of the initiative is Work Plan 180.[35] The effort is managed by a team of employees and advisors. The Fiscal Plan identifies 23 initiatives: 15 non-fuel and purchase power (Non-FPP), and eight fuel and purchase power (FPP) initiatives. Overall, the initiatives are slated to provide quantitative budget benefits in the range of $585 to $805 million, most of it to be achieved over an 18-month period.

On the Non-FPP side of the program, seven initiatives specify savings with "Employee Benefits Expense Optimization" ($25-$40 million); "Non-Technical Losses" ($15-$20 million); and "Staffing Evaluation / Right Sizing" ($15-$20 million) carrying the bulk of the savings. Fuel and Purchased Power savings are anticipated mainly from "New LNG Supply Permits and Funding" ($200-$300 million); "Conventional PPOA Price Renegotiation" ($100-$130 million); "Reduce Forced Outages, System Heat Rate" ($90-$120 million) and "Renewable PPOA Price Renegotiation" ($45-$55 million).

### Savings Not Integrated Into FY 2019 or FY 2020 Budgets

Many of the initiatives do not have clear work scopes, specified values or time certain achievement dates (despite the broader claim of 18 months for most of the initiatives). It is therefore difficult to attribute savings to any given fiscal year, or to determine if savings are meant to be one-time or recurring. Generally, it is unclear how the $585 to $805 million values provided in the document are integrated into the FY 2019 and 2020 budgets. For example, fuel and purchased power initiatives that PREPA assumes are achievable in the 18-month period are estimated at $295-$420 million. This includes significant savings from increased LNG usage, but it is not explained which plants are to

31 http://energia.pr.gov/numero_orden/cepr-ap-2016-0001/, Final Order, June 21, 2016, paragraph 261
32 Plan, p. 45
33 Plan, p. 44
34 Plan, p. 85
35 Plan, p. 31-37 and further explained p.112-113.

be converted to LNG or how additional LNG will be brought to Puerto Rico (a question which has been the subject of intense controversy for the past decade). There is an additional set of Fuel and Purchase Power initiatives valued at $215 million to $290 million with unspecified timeframes included in the Plan. These initiatives are not clearly integrated into the budget assumptions of FY 2019 or any subsequent year. According to the Fiscal Plan, FPP expenditures are expected to rise by $17 million[36] between FY 2019 and the end of FY 2020 (and again by $46 million in FY 2021).[37] It is impossible to determine how this budget reflects (or does not reflect) the proposed fuel savings because PREPA provides no information about projected fuel prices or how much it plans to run individual power plants.

Regarding planned labor savings, the FY 2019 budget shows a labor savings of $24 million from FY 2018. This appears to be attributed to wage and benefit savings from headcount losses due to retirements/departures, as well as $10 million savings in overtime reductions. However, the FY 2018 headcount is 6,227[38] and headcount for FY 2019 is estimated at 6,285 and assumed to be flat throughout the plan period.[39] Absent a more specific plan around workforce changes including retirement rates, overtime controls and planned rehirings, it is uncertain how the $24 million in savings is achieved when the formal Plan shows that headcount is rising.

## High Degree of Slippage is Likely

PREPA is planning to introduce change at all levels of the Authority. It is likely that such a high number of initiatives occurring at once will result in management decisions to either delay or abandon some savings plans. For example, the Governor has withdrawn support for the pension reform portion of the labor package contained in the Fiscal Plan. PREPA has also acknowledged a delay in obtaining pension actuarial information. These delays may push back the savings date or change the Plan altogether.[40] What would improve confidence in such a situation is a high degree of oversight and monitoring, so that slippage (when it occurs) is immediately identified and corrective actions are initiated to bring the effort back to an on-time, on-budget trajectory. The Plan provides some attention to the need for enhanced oversight.[41]

The plan to create internal accountability for the Work Plan 180 effort is weak. There is no one identified who is in charge of the Work Plan 180. The Plan envisions a team approach. This is useful for implementation, not accountability. Accountability is limited to tight reporting on time frames during the formation of general plans (identification and sizing of initiatives) and unspecified reporting periods for ongoing implementation.[42]

[36] Plan, p. 40 – The Plan assumes a 10% annual increase in Fuel expenditures. Even assuming this offset to PREPA's proposed savings a 10% increase is approximately $110 to $120 million. The claimed savings initiatives at both lower and upper level are far higher than the estimated oil price increase. We also note that the EIA is projecting relatively flat oil and gas prices through 2019 https://www.eia.gov/outlooks/steo/data/browser/#?v=8; see also:https://knoema.com/infographics/yxptpab/crude-oil-price-forecast-2018-2019-and-long-term-to-2030

[37] Plan, p. 45

[38] Plan p.25

[39] Plan, p. 43

[40] A. Baez, "Puerto Rico's governor defies board, rejects pension cuts", CBS News, April 2, 2018. https://www.cbsnews.com/news/puerto-rico-governor-ricardo-rossello-defies-board-rejects-reform-pension-cuts/

[41] Plan, p. 75.

[42] Plan, p. 112-113.

What is needed is detailed reporting on each initiative with accountable, named individuals reporting on a monthly basis.[43]

## Debt

The Fiscal Plan identifies PREPA's current outstanding debt at $9.25 billion. The Plan allocates no payments for debt service in FY 2019 or throughout the plan period.[44] The Fiscal Plan contains scenarios where debt payback of 100% is included, and the upper limit impact on rates would be 4-5 cents/kwh, driving rates to nearly 30 cents/kwh in 2019 and future years.[45] Various other scenarios are entertained,[46] but rate levels are also projected to be unsustainable.

## Budget Gap for FY 2019

IEEFA's analysis of PREPA's FY 2019 budget identifies a gap of $170 million (see Table I: FY 2019 Budget Gap) driven in large part by lower than expected demand for electricity due to ongoing population loss, lower than anticipated collections and grid defections. IEEFA also projects higher than expected labor costs, as several factors will make it difficult to achieve planned savings.

IEEFA has estimated that while there will be lower demand for energy, fuel savings from lower operational costs are likely to be offset by short term oil price increases and slow implementation of Work Plan 180 initiatives (particularly the renegotiation of the PPA's).

IEEFA's projected FY 2019 budget gap is presented against a backdrop of a stressed financial system and a weak organizational structure. It is very likely that additional adverse events will occur to further undermine fiscal solvency. These quantified risks to the FY 2019 budget are based upon the values provided in the Fiscal Plan. The additional risks that we describe will likely have similarly adverse impacts on budget balance, but cannot be credibly quantified absent more information.

# Analysis of FY 2020-2023 Plan

The FOMB was presented with a defective Fiscal Plan from PREPA. While the months of negotiations and guidance offered by the FOMB produced some improvement, the certified Fiscal Plan contains many of PREPA's longstanding, fundamental defects. On April 27, 2018, less than one week after the FOMB Certification, the Board sent a letter to PREPA asking it to cure some fundamental defects in its presentation.[47]
The areas of risk to PREPA's five-year Fiscal Plan are well known. The financial value of each risk is less certain, as much of the underlying data to substantiate these estimates

---

[43] The management of program efficiency and savings initiative has been successful in other jurisdictions. See: http://policyatlas.org/wiki/Program_to_Eliminate_Gap_Procedures_(PEG)
[44] Plan, p. 45 and p.85.
[45] Plan, p. 47.
[46] Plan, p. 48.
[47] The Board set a date of May 30th for the Governor of Puerto Rico to submit "the proposed budget for fiscal year 2019 for Puerto Rico Electric Power Authority ("PREPA"). Together with the proposed budget, the Governor should provide: (i) the proposed resolution of PREPA's Governing Board authorizing its budget; (ii) a detailed reconciliation of such proposed budget to the latest Fiscal Plan for PREPA as certified by the FOMB; (iii) capital improvement plans and their supporting detail; and (iv) supporting detail that evidences consistency with historical actual expenditures or explaining if there is a significant difference".

is not presented in the public presentations. This section of the report seeks to identify and broadly define the risk areas and offer a quantitative assessment of the risk where possible. The actual numbers are illustrative, highlighting the significance of the risk area to PREPA's fiscal solvency. More precise analysis awaits additional public reporting by the Authority.

Overall IEEFA has identified annual average out-year budget gaps of $1.0 billion, presented in Table II: Out Year Budget Gap (2020-2023). These gaps are driven by risks associated with new renewable energy investment that is designed to reduce PREPA's fuel expenses; an uncertain outcome to bond negotiations and future legacy debt service costs; future borrowing costs passed through on purchased power agreement; levels of federal aid; successful implementation of Work Plan 180 and other savings initiatives; and uncertainty in PREPA's labor and pension reform proposals.

We have also included two potential offsets that would, if achieved, lower the out year deficits. If PREPA is able to achieve its renewable energy goals, then the Fiscal Plan will achieve substantial savings. Similarly, if PREPA negotiated lower fees from its financial consultants and advisors, additional savings could occur. See Table II: Out Year Budget Gap (2020-2023).

**Table II: Out Year Budget Gap (2020-2023) (in $ billions)**

| Risk | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|
| **Integrated Resource Plan** | | | | |
| a. Cost Overruns/Weak Procurement | .060 | .060 | .060 | .060 |
| b. Failure to Achieve Levels of Federal Reimbursement | .200 | .200 | .200 | .200 |
| | | | | |
| **Fuel and Purchased Power Expense** | .170 | .250 | .360 | .440 |
| Embedded Debt Service | .100 | .100 | .100 | .100 |
| **Total FPP** | .270 | .350 | .460 | .540 |
| **Adverse Outcome of Debt Settlement** | .300 | .300 | .300 | .300 |
| | | | | |
| **Pension Savings** | .100 | .100 | .100 | .100 |
| | | | | |
| **Medical Reforms** | .026 | .026 | .026 | .026 |
| | | | | |
| **Work Plan 180 - Non FPP** | .020 | .020 | | |
| **TOTAL SHORTFALL (GAP)** | .976 | 1.056 | 1.036 | 1.126 |
| **Potential Gap Offsets** | | | | |
| Fuel and Purchased Power | .100 | .200 | .300 | .400 |
| Financial Consultant Fee | .040 | .040 | .040 | .040 |

Source: IEEFA analysis

## Integrated Resource Plan (IRP) and Impact on Fiscal Plan

Changes in the IRP will require substantial adjustments to the Fiscal Plan assumptions. The key energy planning assumptions behind the Fiscal Plan contain significant risk. The Fiscal Plan assumes that: a) a new Integrated Resource Plan will be created over the next several months to replace PREC's Modified IRP[48]; b) new renewable investments will be the priority capital investment for PREPA, in large measure so it can control and reduce its fossil fuel costs which currently consume almost $2 billion per year; and c) new investments will occur according to a reformed procurement process.

a) The Fiscal Plan assumes that a new "utility-led" Integrated Resource Plan will be created. This is necessary because the 2015 PREPA IRP stands in stark contrast to the energy goals proposed in the Fiscal Plan. Most notably the Fiscal Plan calls for more renewable energy than that proposed by PREPA. The Fiscal Plan also calls into question the necessity of building the Aguirre Gas port, the linchpin of PREPA's 2015 IRP.

   Under current law, the PREC reviews and approves Puerto Rico's IRP, the blueprint for Puerto Rico's energy future. The Fiscal Plan appears to assume either no independent oversight from or a highly constrained role for PREC. PREC requires a deliberative, public process with discovery and assessment of PREPA's plans according to professional standards of utility management. During the proceedings regarding the 2015 IRP submitted by PREPA, PREC found that PREPA was essentially incapable of carrying out even the most rudimentary energy planning functions.[49]

   The new IRP process is moving forward[50] in a climate of regulatory uncertainty and a history of hostility between the FOMB, the Governor, PREPA and PREC. PREPA recently announced that it intends to complete its next IRP in September 2018, but has not decided whether or when it will submit this IRP to PREC.[51] IEEFA has frequently expressed its concern that many of the contracting and energy decisions being contemplated in the Fiscal Plan are likely to take place without regulatory oversight in the planning, development or commercial operations phases of anticipated investments.[52]

   Failure to adopt an IRP that is reviewed and approved by a strong, well-funded independent regulator creates the risk of repeating many flawed decisions and advancing many dysfunctional projects PREPA proposed in its 2015 IRP. The risk to the Fiscal Plan is that the IRP priorities that are adopted will lack financial viability,[53] resulting in expensive, highly risky projects that fail to achieve expenditure savings assumed in the Fiscal Plan.

---

[48] PREC rejected PREPA's proposed 2015 IRP and replaced it with its own Modified IRP.
[49] http://energia.pr.gov/numero_orden/cepr-ap-2015-0002/ Final Order and Resolution, September 26, 2017, paragraph 13.
[50] https://www.aeepr.com/Docs/IRP%20RFP%2020180310%20.pdf
[51] "Motion for Reconsideration of Final Resolution and Order," Case No. CEPR-AP-2017-0001, May 16, 2018.
[52] http://ieefa.org/ieefa-report-privatizing-puerto-ricos-electric-company-would-be-an-impediment-to-modernization/
[53] http://ieefa.org/ieefa-puerto-rico-aguirre-offshore-gas-port-unbankable/

b) The Fiscal Plan reflects the need to prioritize renewable energy. Achieving renewable energy investments will create a 25% to 30% reduction in fuel expenses, approximately $400 million annually, or $2 billion over the five-year plan period. [54] Time is of the essence. This imperative, however, is being systematically undermined by the Governor's and PREPA's proposal, via the Governor's privatization bill, to remove new projects from regulatory oversight, operational accountability, contract disciplines, collective bargaining and rate setting.

   One of the major contentions between PREPA and PREC has been the priority treatment of renewable energy— PREPA has opposed higher levels of renewable investment, and PREC has issued analysis and orders in support of renewable investment. We have assumed in our analysis a very limited achievement of the renewable energy development goals or estimated fuel savings. See Table II: Out Year Budget Gap (2020-2023).

c) The Fiscal Plan proposes procurement reforms that are unlikely to be implemented. The risk is higher construction costs and an unstable environment for investors and labor. The Fiscal Plan anticipates a multitude of large development and operations contracts. PREPA's new office for procurements and contracting and the recently established position of Chief Financial Advisor are meant to address the identified need for better management.[55] The Fiscal Plan assumes, however, that most of PREPA's larger contracts will be carried out under the Public Private Partnership law, pursuant to a proposed bill for the privatization of PREPA's assets. The Bill eliminates the need for competitive bidding; leaves sole authority for approval of privatization transactions with the Governor and his appointees, removing the FOMB and PREC from the process; eliminates PREC oversight of the contracts (including rate increases); leaves the contract monitoring to the P3 oversight authorities (working with PREPA); and eliminates labor protections for PREPA's employees.[56] In our analysis of the impacts on the Fiscal Plan we add 10% anticipated cost overruns to the portion of known costs attributed to PREPA's budget.

## Forward Looking Capital Expenditures, Sources of Funds and Future Debt

Going forward, the Plan assumes that PREPA will require $12 billion in new sources of capital through FY 2023. The new sources are split between private capital (22%), federal funds (58%) and PREPA/Concessionaire (20%). PREPA also notes that the federal funds ($7 billion) represent a minimum and that $13.7 billion of federal assistance would be required to meet the Puerto Rico Grid Resiliency Working Group's recommendations.[57]

[54] Plan, p. 50.
[55] Plan, p. 13-14
[56] http://ieefa.org/ieefa-report-privatizing-puerto-ricos-electric-company-would-be-an-impediment-to-modernization/
[57] Plan, p. 85 and 106.

The Fiscal Plan assumes five years of economic stagnation. A weak economy severely constrains Puerto Rico's ability to transform its grid. If the economy fails to perform at even these weak levels, then growth is likely to be negative and attracting private or bond investors would become more difficult. Similarly, if PREPA is required to absorb a significant portion of its current debt on its balance sheets, then the Island's fragile future economic growth will be used to pay off the legacy debt and not to reinvest in Puerto Rico's economy.

There are several additional risks to the Plan for legacy debt and future financings.

- **The bankruptcy court, FOMB or other stakeholders may determine that PREPA should be compelled to pay some or all of the $9.2 billion in legacy debt.[58]**

For the full five years of the Plan, PREPA makes no provision for the payment of any legacy debt service. PREPA projects that the annual debt service for its existing legacy debt of $9.2 billion would be $657 million, assuming an interest rate of 5% over 25 years.[59] PREPA's legacy debt structure is now the subject of a bankruptcy-like proceeding where creditor claims are being reviewed and will also be subject to future negotiations with other stakeholders in the Authority's budget process.

The FOMB's 2017 rejection of PREPA's original plan to repay 85% of its legacy debt was based on its analysis that Puerto Rico's recovering economy could not sustain this level of debt. The post-hurricane economic environment placed further downward pressure on any potential recovery rate for bond holders.

Although the Fiscal Plan sets a target rate of 20 cents per kwh[60] based upon the expectation of a highly successful implementation of PREPA's reform programs, the only budget presented in the Fiscal Plan holds rates in the 23 to 24 cents per kwh range (without debt service).[61] *Even if many of the savings and efficiency initiatives identified in the Plan were achieved (noting that the most significant initiatives require new capex spending), there would be insufficient surpluses in the Plan to make payments to retire the Authority's legacy debt obligations.*

IEEFA's Plan adjustments assume that the bankruptcy court proceeding, investor pressure, fee incentives for advisors and political interventions are likely to result in a refinanced legacy debt load for PREPA that is unsustainable and likely to add to out year gaps. We project that future legacy debt service costs will rise to approximately $300 million per year in debt service expenses and that the budget will be thrown out of balance. See Table II: Out Year Budget Gap (2020-2023).

- **Integrating new debt service required by capital funding sources may push electricity rates beyond the affordability levels identified in the Fiscal Plan.**

[58] Moody's Investor Service, *Puerto Rico Electric Power Authority,* Issue In Depth, December13, 2017.
[59] Plan, p. 27.
[60] Plan, p. 81.
[61] Plan, p. 45.

The Plan identifies future private, federal and concessionaire/PREPA investments to fund its $12 billion capital plan. Annual budgets in the Plan make no provision for direct debt service payments by PREPA during the five-year plan. Debt service, however, is carried in the electricity rate and budget through purchase power agreements and potentially through the concessionaire management agreements and federal fund agreements.

The size and terms and conditions of the debt service portion of the purchased power contracts are not disclosed in the Fiscal Plan. The Fiscal Plan does estimate that debt levels embedded in purchase power agreements will approach $2.9 billion.[62] IEEFA has adjusted annual debt service costs embedded in the purchase power agreements by $100 million, as any borrowing that takes place will likely come with a substantial penalty premium. See Table II: Out Year Budget Gap (2020-2023). In general, the lack of a clear financing plan creates a risk that these forms of capital may not be available on the terms and conditions anticipated by the Plan.

Similarly, the Plan appears to call for annual expensing of PREPA's maintenance expenditures, averaging $450 million in annual cash allocations.[63] Cost overruns from weak procurement practices could cause this line item to increase. IEEFA estimates that the line item will be $60 million more, to reflect higher than anticipated project costs stemming from weak procurement practices that eschew competitive bidding in favour of political control of the procurement process. See Table II: Out Year Budget Gap (2020-2023).

- **Inability to attract private capital, concessionaires or access to bond markets.**

PREPA cannot attract new capital because of the Authority's past indebtedness and a weak economic outlook. In the face of these challenges PREPA and the Commonwealth have taken steps that actually harm the process of rebuilding and recovery. The Commonwealth, FOMB and PREPA have not developed a constructive environment with PREPA's regulator, the Puerto Rico Energy Commission (PREC). Negative professional[64] and political attacks,[65] legal challenges[66] and legislative manipulations[67] undermine the ability of Puerto Rico's system of utility regulation to grow, mature and become a valued stakeholder in the Island's economic growth.

[62] Plan, p. 81
[63] The budget line item "maintenance expense" is elsewhere defined as transmission IRP expenditures. (Plan, p. 47)
[64] Plan, p. 58.
[65] G. Ibarra, "Strong opposition to consolidation of Puerto Rico Energy Commission," February 6, 2018. http://caribbeanbusiness.com/strong-opposition-to-consolidation-of-puerto-rico-energy-commission/
[66] D. Bases, "U.S. judge denies request for outsider to oversee Puerto Rico's PREPA," Reuters, November 13, 2017. https://www.reuters.com/article/us-usa-puertorico-prepa/u-s-judge-denies-request-for-outsider-to-oversee-puerto-ricos-prepa-idUSKBN1DD2MR
[67] See: http://ieefa.org/wp-content/uploads/2018/04/Privatization-Report_April-2018-FINAL.pdf for a detailed discussion of how current efforts to privatize PREPA undermine strong regulatory oversight of the Island's electricity system. Additionally, Governor Rosselló has proposed legislation that would consolidate PREC with multiple other regulatory commissions and make their decisions subject to review by a new regulatory board appointed by the Governor. (See: http://ieefa.org/ieefa-op-ed-now-is-not-the-time-to-roll-back-oversight-of-puerto-ricos-power-company/)

- **Federal support fails to materialize.**

The Plan offers a number of scenarios for federal support, ranging from $7 billion to $13.7 billion for rebuilding,[68] But this amount is at risk. The Governor and members of Congress have failed to establish a constructive working relationship.[69] In addition, recent statements by the Chairman of the House Natural Resources Committee suggests that future federal support will be contingent upon the repayment of PREPA's legacy debt and the continuation of an energy grid with high levels of expensive and highly volatile fuel costs.[70] The Fiscal Plan moves away from fossil fuels in favor of renewable energy and anticipates no payments for legacy debt. Any shortfalls to the Fiscal Plan will need to be expensed annually under the Plan. The congressman's intervention now creates a material risk that 50% of the Fiscal Plan's anticipated capital for its overall rebuild effort will not be available.

In addition, Puerto Rico suffered a severe backlash because of its decision to hire the Whitefish company to conduct emergency restoration activities. As a more reliable team was available to Puerto Rico through the American Public Power Association, the procurement process was flawed. The private contract proved expensive and poorly managed, and the vendor terminated. Since Puerto Rico has sought payment of this defective contract with federal funds, the Commonwealth's reputation as a solid manager was dealt a significant blow. The failure by Puerto Rico to release a planned audit of circumstances surrounding the contract also undermines the Commonwealth's attempt at reputational restoration.

PREPA is seeking a waiver of the 10% match requirement for federal funds. How the waiver is managed could add an additional $200 million to PREPA's annual budget expenditures. See Table II: Out Year Budget Gap (2020-2023).

Similarly, any slippage in private investment or concessionaire assumptions will also have to be expensed by PREPA in the annual budget.

## Fuel

In regard to Fuel and Purchase Power expenses, the Plan is contradictory.  The Plan assumes that Fuel and Purchased Power will remain relatively flat during the plan period, starting with an annual expenditure of $1.872 billion in FY 2019 ending with estimated expenditures of $1.959 billion in FY 2023.[71] The Plan identifies the need for PREPA to reduce its reliance on oil and natural gas by 25% to 30% over the plan period, resulting in an estimated annual savings of between $400 and $500 million.[72] It is contradictory to show $400-$500 million in savings and then show flat annual

[68] Plan, p. 106.

[69] N. Brown, "Puerto Rico governor slams congressman over 'dictatorial' letter," Reuters, April 2, 2018. https://www.reuters.com/article/us-puertorico-debt-letter/puerto-rico-governor-slams-congressman-over-dictatorial-letter-idUSKCN1H91Y1

[70] https://theintercept.com/2018/05/05/puerto-rico-hurricane-maria-natural-gas/ and letter from Tom Sanzillo, Director of Finance, IEEFA to Congressman Rob Bishop, Chairman U.S. House of Representatives, Committee on Natural Resources, April 3, 2018 and letter from Congressman Bishop to Chairman Jose Carrion, PROMESA Board, March 28, 2018.

[71] Plan, p. 45

[72] Plan, p. 50 and 52.

expenditures for the same item without additional explanation.

To achieve these savings, various renewable investments must take place, as well as renegotiation of existing PPA's and various technical initiatives. IEEFA has adjusted the fuel charges based upon the lower-case model, assuming no renewable energy, no savings from renegotiated PPA's and a 10% annual increase in oil prices. IEEFA estimates that by 2023 the price of fuel and PPA's will be $2.4 billion, or $440 million above the Fiscal Plan estimates. Absent a more detailed treatment of this item, it is unclear whether the $400-$500 million in anticipated savings is achievable. See Table II: Out Year Budget Gap (2020-2023).

## Revenues

One of the major risks of PREPA's five-year budget is the risk of lower than expected sales. If PREPA's low load scenario proves more accurate, the revenue gap will increase to approximately $390 million in FY 2023 relative to the base case scenario. It is likely that the Authority will experience persistent revenue shortfalls during the plan period.

A second risk, particularly in the early years of the Plan, is the grid's susceptibility to outages. The investment plan outlined for PREPA will take time and money to implement. During the recovery and rebuild period, continued outages are relatively certain, though the number and duration is unknown. Significant down time due to outages would reduce revenue.

## Labor and Pensions

The Fiscal Plan calls for labor reforms over the life of the Plan,[73] including annual savings of $58 million in pensions, $10 million in overtime and $26 million in medical benefits, a total of $386 million over the plan period.[74] The Governor has announced his opposition to the pension initiatives.[75]

In various places, the information provided in the Plan lacks transparency and consistency of definition, to the point where the Fiscal Plan presentation is unusable for analytical purposes. One chart, "Historical and Projected Operating Expenditures," shows the labor expenses (salaries and benefits) held roughly constant through the Fiscal Plan period: $400 million in FY 2019 and $416 million in FY 2023.[76] Another chart, "Indicative Revenue Requirements Under Steady State Assumptions," shows labor expenses declining from $372 million in FY 2019 to $303 million in FY 2023.[77] None of these financial projections explain how the various savings initiatives discussed as employee benefit reforms[78] are integrated into the future projections contained in either chart.

---

[73] UTIER has challenged the FY 2017-2018 Budget and Fiscal Plan see: Union De Trabajadores De LA Industrica Electrica y Riego, Inc., (UTIER) versus PREPA et. al., United States District Court, District of Puerto Rico, PROMESA Title III, No. 17BK 4780-LTS, Amended Adversary Complaint, December 12, 2017

[74] Plan, p. 35.

[75] N. Brown, "Puerto Rico governor withdraws labor reform proposal," Reuters, March 28, 2018. https://www.reuters.com/article/us-puertorico-debt-fiscalplan/puerto-rico-governor-withdraws-labor-reform-proposal-idUSKBN1H42YI

[76] Plan, p. 43.

[77] Plan, pp. 44-45.

[78] Plan, p. 35.

The Plan also states that the pension plan is underfunded by an estimated $3.6 billion. To its credit, PREPA and FOMB have elected to analyze and reform[79] the pension plan, estimating future costs of between $60 million and $147 million a year to support the estimated legacy deficit. The Plan also notes that PREPA and FOMB are awaiting an updated actuarial assessment of the pension plan, which will be the basis for an updated assessment of current and future costs.[80] The current Plan makes no provision for any annual payments, although it does note plans for pension fund savings of $58 million annually that will in part be achieved by the introduction of a defined contribution plan and a 10% reduction in benefits. The discussion of pensions in the Fiscal Plan is both unsupported and incomplete.

Similarly, the estimated $26 million annual savings in medical benefits requires more details in order to determine if the savings are likely to materialize. The Fiscal Plan offers an outline of the planning process[81] to be used by PREPA and the board. To date, the substantive changes to employee health plans have not been identified, and the estimated savings are without support.

We assume that, in their present form neither the pension nor medical savings will be achieved. See Table II: Out Year Budget Gap (2020-2023).

The Plan states that PREPA has lost experienced personnel[82] during the last several years. The re-establishment of PREPA as a functional organization and the attraction of any private companies to support the Island's electricity grid requires a labor force with appropriate skills to manage the administration, customer base and the physical plant. The Plan lacks any strategy for recruitment of the talent it acknowledges PREPA has lost. The Governor's recent privatization bill made no provision for local hiring of Puerto Rico residents, acknowledgement of organized labor or its Collective Bargaining Agreements, or development of a workforce development plan that included attracting new recruits.

- **Failure to develop a plan that provides an attractive set of working conditions and benefits to new recruits at many professional levels is likely to result in no or slower recruitment success.**

To its credit, there are places in the Fiscal Plan that bring labor into the process.[83] However, the approach is scattershot and usually done after decisions have been made. The history of political management at PREPA is also a history of workforce exclusion, including PREPA's labor organizations, in the day-to-day workings of the Authority. For example, Fiscal Plan Medical Benefits reductions are planned and finalized in the Fiscal Plan prior to meeting with labor.[84]

[79] Plan, p. 71.
[80] Plan, p. 35.
[81] Plan, p. 73.
[82] Plan, p. 21.
[83] Plan, p. 70 and 73.
[84] Plan, p. 73.

- **Failure to include PREPA's labor organizations in the development of the Plan for its future is likely to impair overall progress toward the goals of cost savings and grid modernization.**

Managing labor as a stakeholder asset is essential to the creation of a constructive working environment that induces confidence and investment. Over the last year, the Rosselló administration effectively took control of PREPA after blocking the FOMB's attempt to install its own "chief transformation officer" to run PREPA.[85] The Administration's initial efforts to use privatized contracts during the emergency ended in scandal. It then offered a plan for continued overreliance on fossil fuels; opposed renewable energy investments; weakened the regulatory structure and proposed an unworkable privatization bill that continues to undermine organized labor. So far, all of these initiatives have either failed or were not implemented due to fatal flaws.

The Fiscal Plan suggests that PREPA and the Governor may not honor the current Collective Bargaining Agreements. The Fiscal Plan states that labor contracts are "arguably in effect."[86] Going forward, future staff rehiring may be dependent on outsourcing contracts.[87] There are also statements in the Fiscal Plan that the current labor agreements have work rules that impair the ability of PREPA to achieve the Work Plan 180 goals.[88] The statements regarding work rules are unsubstantiated in the Fiscal Plan document.

On the other hand, PREPA's organized labor unions have supported aggressive increases in investment in renewable energy, a strong regulator and outside oversight; opposed the Governor's privatization bill;[89] and participated in the Island's recovery with resolve.[90]

## Work Plan 180

Work Plan 180 estimates an overall organizational savings of $585 to $805 million during the plan period.[91] To its credit, PREPA has acknowledged that the Authority's cost savings program cannot succeed if the generation system maintains its heavy reliance on old, inefficient oil and natural gas generation and fails to substantially increase financing for renewable energy.[92]

Under the currently proposed system, the estimated work plan savings are likely to experience substantial slippage, delay and underperformance in the initial years of the Plan.

If the savings are achieved, there is little chance they will be accurately recorded. The

85 D. Bases, "U.S. judge denies request for outsider to oversee Puerto Rico's PREPA," Reuters, November 13, 2017. https://www.reuters.com/article/us-usa-puertorico-prepa/u-s-judge-denies-request-for-outsider-to-oversee-puerto-ricos-prepa-idUSKBN1DD2MR
86 Plan, p. 68.
87 Plan, p. 69.
88 Plan, p. 32.
89 UTIER Press Release, January 23, 2018.
90 Ibid
91 Plan, p. 32.
92 Plan, see pages 26,32, 50, 52-54.

foundations for the work plan savings are weak. Specific initiatives are poorly articulated; budget baselines are non-existent; staff accountability is left to a team; and a process for integrating actual savings into the budget is haphazard. The process is hampered by a broader problem of inadequate standard budget reporting procedures, forms and definitions.

## Contracting

The Plan expects that PREPA will enter into numerous, large (over $100 million) contracts during the Fiscal Plan period. Though not all procurements are outlined at this point, the Plan has certified contract renegotiations for fossil fuel[93] and renewable generation,[94] and renegotiation of fuel procurements. The Plan contemplates a new IRP process and then at least $12 billion in new generation, transmission and distribution investments, including the leasing of the transmission and distribution system to a private concessionaire. Additional consultant and advisory fees for the bankruptcy and any new bond issuances are not specified. Work Plan 180 also includes a set of initiatives for "Optimizing Procurements and Logistics," although it does not specify the type, size, timing or purpose of any cost savings in this area.[95]

These contracts require strong regulatory oversight, as the risks for project delays and significant cost overruns are high. This is unlikely to occur, so we conclude that there will be at least $60 million in annual cost overruns attributed directly to PREPA's budget. See Table II: Out Year Budget Gap (2020-2023).

To carry out the procurements, PREPA has created the Office of Contract Procurements Compliance (OCPC)[96] designed to improve PREPA's ability to control costs and improve cash flow.[97] OCPC will plan and execute contracts above $500 million.

However, other recent government actions indicate that the Governor of Puerto Rico has learned little from PREPA's history of poor contracting. The recent experience with Whitefish, Cobra and D. Grimm Inc.[98] — all private companies— has, by most accounts, resulted in subpar performance. PREPA's procurements have resulted in an overreliance on poorly chosen and poorly supervised contractors and insufficient performance evaluations of these private companies. The Governor's recently proposed privatization bill would further weaken any oversight of these vital areas of procurement policy and practice.

- **Failure to curtail political interference with standard professional competitive bidding processes,[99] vendor selection[100] and evaluation of contractor**

[93] Plan, p.76. A report on the current status of PREPA's PPOAs is expected by the end of June 2018.
[94] Plan, p. 51
[95] Plan, p. 32.
[96] Plan, p. 14.
[97] Plan, p. 16.
[98] J. Wagner and F. Robles, "Puerto Rico is once again hit by an island wide blackout," New York Times, April 18, 2018. https://www.nytimes.com/2018/04/18/us/puerto-rico-power-outage.html
[99] C. Kunkel and T. Sanzillo, "Privatization bill will not solve Puerto Rico's Electricity Crisis," Institute for Energy Economics and Financial Analysis, April 2018. http://ieefa.org/wp-content/uploads/2018/04/Privatization-Report_April-2018-FINAL.pdf
[100] J. Glanz and F. Robles, "How storms, missteps and an ailing grid left Puerto Rico in the dark," May 6, 2018. (See discussion of Whitefish contract).

**performance[101] subverts PREPA's and the Governor's claims of improved executive leadership.**

At the same time, a review of PREPA's budget indicates that PREPA has overlooked potentially large savings through contract reforms. PREPA's non-labor operating budget remains steady, at approximately $380 million per year through the five-year period. No detail is provided on the breakdown of these expenses, despite the fact that this budget is nearly $200 million higher than PREPA's FY 2014 non-labor operating expense of $203 million. One of main categories of non-labor operating expense that has increased significantly since FY 2014 is consultant fees. In FY 2015 through FY 2017, for example, PREPA spent upwards of $100 million on fees for a debt restructuring deal that was ultimately rejected. In 2016, the Puerto Rico Energy Commission pointed out the inherent conflict of interest in the fee structure, in which the consultants benefitting from the fees were the same consultants determining the reasonableness of the fees.[102] There is no recognition of this problem in the Fiscal Plan. IEEFA estimates that PREPA could save $40 million annually by negotiating better fee arrangements. See Table II: Out Year Budget Gap (2020-2023).

Given the approach to procurement adopted by the Governor in the recent privatization bill and Congressman Bishop's intervention discussed above, it could be reasonably argued that political interference in the procurement process is likely to increase, not decrease, under the Fiscal Plan. For example, in October Governor Rosselló asked Puerto Rico's Comptroller to audit the Whitefish contract.[103] The contract brought negative national attention to Puerto Rico. A thorough review and a plan of corrective action are critical, given the high-profile nature of the scandal. The status of the audit is unknown.

## Governance Changes

PREPA has historically been run by individuals who lack the professional credentials to manage a modern utility. As a result of using the Authority as a source of political patronage, poor management in the areas of energy planning, finance, personnel and oversight have undermined public confidence.

The current administration has been slow to recognize the critical necessity to protect PREPA from politics and allow it to be run by professionals.

To its credit, this Plan broadly acknowledges the need for strong, well-funded, independent regulation of the electricity system. It acknowledges two significant budget realities: the need for PREPA to reduce its reliance on fossil fuels by investing in renewable energy and to settle its legacy debt on sustainable terms. A recently hired Executive Director with professional utility management experience is a step in the right

[101] See discussion in IEEFA Privatization Report on the failure of Puerto Rico's Comptroller's Office, which has not completed the Whitefish contract review six months after the announcement. (C. Kunkel and T. Sanzillo, "Privatization bill will not solve Puerto Rico's Electricity Crisis," Institute for Energy Economics and Financial Analysis, April 2018. http://ieefa.org/wp-content/uploads/2018/04/Privatization-Report_April-2018-FINAL.pdf)
[102] For a more expansive discussion of fee issues see: http://ieefa.org/wp-content/uploads/2017/12/PREPA-Debt-Restructuring-Deal-Wont-Restore-Agency-to-Financial-Health-August-2016.pdf, p. 22-27.
[103] http://www.fortaleza.pr.gov/content/government-puerto-rico-refers-whitefish-contract-audit-office-comptroller

direction. Similarly, PREPA has convened a Transformation Advisory Council[104] to assist with technical and professional efforts related to the grid transformation. It remains to be seen whether this group of industry professionals will be a successful force for change or succumb to the history of political meddling that has brought the Authority into fiscal decline and management chaos.

## Regulatory Approach

The Puerto Rico legislature established the Puerto Rico Energy Commission in 2014 to provide regulation of rates, energy and capital planning and administrative oversight of PREPA. Since its inception, PREC has been opposed by PREPA, the Governor and the FOMB, despite PREC being explicitly named in the PROMESA statute as requiring the support of the Board in achieving its goal of affordable rates.[105] There is litigation pending regarding the roles of each entity in the operations, planning and future investments in the grid. These ongoing conflicts do not create the kind of constructive relationship needed between utilities, government and regulators in order to spur investor confidence.

As pointed out numerous times in this report, PREC's administrative proceedings have provided PREPA and the FOMB with a fully vetted budget. This body of work, which would have improved the budget presentation to FOMB, is being ignored. The vetting carried out by PREC staff in its various proceedings far exceed the diligence conducted by the FOMB as it worked with PREPA to produce the FY 2019-2023 Fiscal Plan.

Continued failure of FOMB, PREPA and the Governor to support strong, well-financed, independent regulation will result in PREPA maintaining an undisciplined approach to fiscal solvency and will impede PREPA's ability to secure investment for the rebuilding the grid.

## Fiscal Accountability

At great risk to its own credibility, the FOMB approved the PREPA and Commonwealth Fiscal Plan[106] without seeing a publicly released certified financial statement for fiscal years ending June 30, 2015 and 2016.[107] The FOMB has formally asked the Commonwealth for a schedule of when these reports will be released, and the outstanding FY 2015 and 2016 reports are now expected to be completed by August 2018.[108]

A certified audit is usually a condition precedent to bond market access. A certified audit of a public organization headed by a duly elected official is the principal assurance offered to the public that their money is well spent, that the budget is presented honestly and that financial responsibilities are met squarely. As it is an

[104] Plan, p. 13.
[105] PROMESA Sec. 503 (a)(F)(vi)
[106] https://juntasupervision.pr.gov/index.php/en/documents/, Compliance Certification – Commonwealth, PREPA and PRASA Fiscal Plans, 24 Apr. 2018.
[107] https://juntasupervision.pr.gov/index.php/en/documents/, Letter – Due Date Request – Commonwealth Audit Financial Statements, 30 Apr. 2018.
[108] https://juntasupervision.pr.gov/index.php/en/documents/, FOMB-Letter-Puerto Rico Audited Basic Financial Statements, 5.7.18

independent rendering of the financial condition, in part serving as validation for the fundamental financial data and assumptions used to create an annual budget, it is separate from the budget process and budget documents, which are prepared internally. Without the successful and routine completion of this document, independently elected officials will effectively undermine their executive position and their standing with the voters.

Absent such an independently verified financial statement, there is no basis for analyzing the validity of the PREPA and the Commonwealth certified fiscal plans, their baseline assumptions, debt levels, pension costs, other liability and asset accountings or the historic basis for revenue and expense projections. Similarly, there is no valid basis for comparison with other jurisdictions, an increasingly important metric for PREPA as it plans its transformation.

# Conclusion

The budget presented by PREPA and approved by the FOMB in its certified Fiscal Plan for FY 2019 through FY 2023 is largely unsupported. The lack of audited financial data since 2014, coupled with the destruction from the September 2017 hurricanes, means that there is no credible baseline financial information. The Fiscal Plan itself is internally inconsistent, with poorly-supported assumptions, few details on major expense categories and savings presented without reference to a baseline. There are many technical, political and financial risks that make it unlikely that PREPA will achieve a balanced budget; some of these risks are within PREPA's control and others are not. The largest risks include: the risk that PREPA customers will be forced to pay some of PREPA's $9.2 billion in legacy debt; the risk that budgeted federal aid for reconstruction will not fully materialize and the risk that fuel and purchased power costs will be higher than expected. We estimate a likely budget gap of $170 million in FY 2019, growing to an average of $1.0 billion in future years.

That said, the certified Fiscal Plan is a necessary start. To their credit, PREPA and the FOMB have acknowledged two key fiscal realities for PREPA moving forward: (1) the legacy debt is unaffordable; and (2) PREPA will continue to be financially crippled until it reduces its dependence on fossil fuel imports.

PREPA's creditors should take note of these positions. As our analysis shows, the budget is likely to be stressed further than what is acknowledged in the Fiscal Plan, producing major budget gaps for the next several years. Budget gaps will mean that less capital will be available for investment in transmission and distribution resiliency and in renewable energy generation, so that the overall transformation of the system away from fossil fuels will take longer than planned. In this environment, bondholders have options for partial recovery of their investments, from bond insurers and from litigation against underwriters and financial advisors of PREPA's legacy debt.

Moving forward, the certified Fiscal Plan is a public document that PREPA can and should be held accountable to following. It creates a process for debating the interests of various stakeholders. Greater transparency and stakeholder input will be necessary to make future iterations of the Fiscal Plan better reflect the underlying realities of

PREPA’s infrastructure and finances. IEEFA sees this study as a first attempt to open up the public discussion on the budget and to encourage other stakeholders to undertake such analyses. The overhaul of Puerto Rico’s finances and economy will take time and it will require more participation from the public. These and other social, economic and fiscal studies can help focus the debate.

# About IEEFA

The Institute for Energy Economics and Financial Analysis conducts research and analyses on financial and economic issues related to energy and the environment. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy. http://ieefa.org

# About the Authors

## Tom Sanzillo

Tom Sanzillo, director of finance for IEEFA, is the author of several studies on coal plants, rate impacts, credit analyses, and public and private financial structures for the coal industry. He has testified as an expert witness, taught energy-industry finance training sessions, and is quoted frequently by the media. Sanzillo has 17 years of experience with the City and the State of New York in various senior financial and policy management positions. He is a former first deputy comptroller for the State of New York, where he oversaw the finances of 1,300 units of local government, the annual management of 44,000 government contracts, and where he had oversight of over $200 billion in state and local municipal bond programs and a $156 billion pension fund.

Sanzillo recently contributed a chapter to the Oxford Handbook of New York State Government and Politics on the New York State Comptroller's Office.

## Cathy Kunkel

Cathy Kunkel, Energy Analyst, is an independent West Virginia-based consultant focusing on energy efficiency and utility regulation. She has testified on multiple occasions before the West Virginia Public Service Commission for the nonprofit coalition Energy Efficient West Virginia. She has done graduate work for the Energy and Resources Group at the University of California-Berkeley and is a former senior research associate at Lawrence Berkeley National Laboratory. Kunkel has an undergraduate degree in physics from Princeton University and graduate degree in physics from Cambridge University.

# Important Information

This report is for information and educational purposes only. The Institute for Energy Economics and Financial Analysis ("IEEFA") does not provide tax, legal, investment or accounting advice. This report is not intended to provide, and should not be relied on for, tax, legal, investment or accounting advice. Nothing in this report is intended as investment advice, as an offer or solicitation of an offer to buy or sell, or as a recommendation, endorsement, or sponsorship of any security, company, or fund. IEEFA is not responsible for any investment decision made by you. You are responsible for your own investment research and investment decisions. This report is not meant as a general guide to investing, nor as a source of any specific investment recommendation. Unless attributed to others, any opinions expressed are our current opinions only. Certain information presented may have been provided by third parties. IEEFA believes that such third-party information is reliable and has checked public records to verify it wherever possible, but does not guarantee its accuracy, timeliness or completeness; and it is subject to change without notice.