PREPA Debt Restructuring Deal Won't Restore Agency to Financial Health

Fundamental Flaws in Deal Will Lead to Higher Electric Rates, Burden the Economy, and Prevent the Development of Renewable Energy

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Executive Summary

The Puerto Rico Electric Power Authority is the first government agency in Puerto Rico to attempt to restructure its debt as a public-finance crisis continues to envelope the economy of the U.S. commonwealth. PREPA carries approximately $9 billion of Puerto Rico's $72 billion in debt.

PREPA's problems have come about as the unnecessary result of poor fiscal practices, unwise acceptance of increasingly risky bond deals, ill-advised political interference in decision-making, an outdated agency framework, and an onerous rate design.

In February 2016, Puerto Rico enacted the Electric Power Authority Revitalization Act to allow for the restructuring of PREPA's debt and to reform PREPA's operations and rate structure. The law also effectively reduced regulatory oversight of PREPA by the Puerto Rico Energy Commission, an agency created two years ago to improve oversight of PREPA.

While the resulting deal is aimed ostensibly at preparing PREPA for a healthier financial future, it fails abysmally to do so. The Institute for Energy Economics and Financial Analysis (IEEFA) finds it will most likely have the opposite effect and that the process of restructuring is being mismanaged.

IEEFA Sees Five Core Flaws In The Deal:

- **Transparency is lacking and the restructuring is weighted too heavily in favor of bondholders and consultants.** An ineffective law, secretive bond negotiations, and inconsistent and opaque reporting on the refinancing are working collectively to impair the ability of the Energy Commission to ensure that electricity rates in Puerto Rico are just and reasonable. Additionally, PREPA lacks the financial expertise to participate in bond negotiations on its own behalf, meaning that much of the restructuring has been done by outside bond consultants.
- **The deal won't meet its goal of restoring PREPA to fiscal stability.** The arrangement is supposed to lower debt and debt service costs and allow PREPA to re-enter the bond market as a healthy, solvent, creditworthy institution. While PREPA claims it is reducing debt levels by 15 percent, that assertion distorts the truth. At the outset of the deal, it reduces PREPA's indebtedness by 11%. But over the life of the deal, due to additional borrowings and activities, PREPA's indebtedness will fall by only about 1%. While the underlying operations budget that supports the debt deal relies on a number of new savings initiatives at PREPA, the outcome of these initiatives is in question because the purported savings are poorly documented and PREPA's track record is one of frequently missed budget targets. Further, fees being charged by financial consultants and lawyers are excessive, harming PREPA ratepayers and damaging the integrity of the deal.

- **The debt deal does not include a viable plan for getting PREPA back into the bond market.** The absence of a re-entry strategy—which is crucial if PREPA is to achieve fiscal health—will place additional stress on PREPA either to produce new revenue from ratepayers or to abandon new investments.
- **The deal will impose increasingly unaffordable electricity rates on Puerto Rico's struggling economy.** While PREPA itself estimates that electric rates will increase by 55% over the next five years, reaching 25.6 cents/kWh in 2021, rates will most likely increase more than that for a number of reasons. First, PREPA's forecasted operational savings are not likely to materialize. Second, electricity sales in Puerto Rico will continue to fall as the economy contracts. Third, PREPA ratepayers are on the hook for far more bond consultant and lawyer fees than they should be paying. Fourth, PREPA may be entirely unable to access the bond markets, putting it in the position of having to raise rates to pay its bills.
- **The deal is hindering Puerto Rico's transition to renewable energy.** PREPA's finances are in dire condition at a time in which the utility is also in violation of federal air quality regulations and is under a mandate to make substantial capital investments in modernizing its electric system. PREPA, principally dependent on oil-based power generation, is planning now to turn almost entirely to natural gas by way of a new $2.4 billion investment that gives renewable energy exceptionally short shrift and that undermines energy security by relying on one source of fuel. Despite a legislative mandate to diversify Puerto Rico's energy mix by increasing investment in renewables, PREPA's plans include no timeline or financing for developing specific renewables projects. The centerpiece of PREPA's investment strategy is a proposed offshore liquefied natural gas (LNG) import terminal and related infrastructure. This commitment will merely convert the island's power system from over-reliance on imported oil to over-reliance on imported natural gas. The cost of this program, combined with the high levels of legacy debt imbedded in unsustainable rates, will crowd out any potential future investment in renewable energy.

Electricity rates are already too high in Puerto Rico, an island that has one-third the median income of the handful of U.S. states that have similarly high electric rates. Rates in most states are about half what they are in Puerto Rico.

For PREPA to achieve true financial stability, bondholders must accept a more significant reduction in principal, and the agency must adopt sound, auditable financial practices.

I. Overview of PREPA's Debt Burden, Legislation, and Debt-Restructuring Reforms

The Puerto Rico Electric Power Authority (PREPA) has over $9 billion in debt and is in fiscal crisis. PREPA narrowly avoided a default on current debt service obligations on July 1, 2016.[1] In recent years, PREPA has had difficulty refinancing its debt because of impaired access to credit markets. PREPA's debt has grown to its unmanageable level through a combination of unsound fiscal practices (including borrowing to pay for certain operating expenses), political interference in PREPA's budget, and declining electricity sales. PREPA's revenue position has been weakened as a result of Puerto Rico's overall economic decline, deindustrialization, and depopulation, as well as an outdated rate structure. Puerto Rico as a whole has over $72 billion in debt, and the debt-to-GDP ratio is nearly 70%.

Lenders continued to invest in Puerto Rican bonds despite the obvious risks. Puerto Rico made its interest payments on its triple tax-exempt bonds, elected officials needed the money to keep the government afloat, and all turned a blind eye to Puerto Rico's sagging fiscal and economic fortunes.

In addition to its debt problems, PREPA owns an outdated and inefficient fossil fuel-based generation system that is out of compliance with federal air quality regulations, and it charges among the highest rates in the United States. As acknowledged in the 2016 Electric Authority Revitalization Act, PREPA's credibility has been undermined by too much influence from partisan politics.

A. Goal of Electric Authority Revitalization Act of 2016: Return PREPA to Stability

In January 2016, PREPA reached a Restructuring Support Agreement with some of its creditors. The execution of this agreement required action by the Puerto Rico legislature to grant PREPA the legal tools needed to restructure its debt in the manner contemplated in the Agreement.

The Puerto Rico legislature passed the Electric Authority Revitalization Act ("the Act") in February 2016. The goal of the Act is to give PREPA the tools it needs to restructure its debt so that it can regain fiscal stability while maintaining fair and reasonable rates and modernizing its generation system.

The Act purports to move PREPA toward a sustainable financial condition using new investment for generation grounded in integrated resource planning, financial reform, public oversight of rates and operations, and improved governance.

[1] R. Slavin, "PREPA Borrows $264 Million to Avoid Friday Default," The Bond Buyer, June 30, 2016, http://www.bondbuyer.com/news/regionalnews/prepa-borrows-264-million-to-avoid-friday-default-1107438-1.html

The Act states that PREPA needs to: 1) implement savings initiatives; 2) reduce debt and debt service;[2] 3) implement "reasonable and accessible rates"; 4) promote public private partnerships; 5) comply with federal environmental requirements and 6) lay the groundwork for $2.4 billion in investment to usher in a new era of renewable energy.

B. Restructuring Reforms Included Creation of the PREPA Revitalization Corporation and New Rate Cases to be Heard by the Energy Commission

To operationalize this strategy, the Act focused on restructuring PREPA's debt structure and rate design.

To enable the restructuring of PREPA's debt, the Act creates a new entity, the PREPA Revitalization Corporation ("the Corporation"). The Corporation is empowered to issue new bonds to retire, defease or refinance PREPA's existing legacy debt. Those new borrowings remove most of PREPA's debt and debt-service obligations from the agency's balance sheet and transfers them to the balance sheet of the Corporation. The Corporation's job is to design the restructured bond borrowings to achieve debt reduction.

The purpose of setting up the Corporation as a separate entity, with separate books and records and separate assets and liabilities and first lien claim on PREPA's revenues, is to enhance investor confidence that the debt will be repaid through the securitized Transition Charge revenue stream.

The debt service on the new borrowings is to be paid through a specific charge (the "Transition Charge") on PREPA electric bills. This revenue stream is pledged as security for the new bonds. The Corporation has first lien on all PREPA revenues and sets the Transition Charge (with limited review by PREPA's regulator, the Puerto Rico Energy Commission). All customers of PREPA must pay the Transition Charge, and the debt is considered non-bypassable. The fact that the Corporation has first lien on PREPA's revenues establishes payment of restructured debt service as PREPA's first priority, coming before PREPA's operational needs, PREPA's remaining legacy debt, and new investment.

The Act identifies a series of bonds that the Corporation is empowered to issue as part of its strategy to restructure and reduce debt. The multiple bond types are purportedly structured to lower debt and debt service expenses and broadly to pave the way for PREPA's re-entry into the bond market. The bonds described in the statute are used variously to: 1) buy out existing debt holders at reduced principal; 2) fund new replacement reserves for new borrowings related to the buyouts; 3) settle existing bond insurance matters to ensure future insurance company participation in Puerto Rico's bond market; 4) secure lower interest

[2] Debt Service is defined as the amount paid by the issuer of bonds (PREPA and the Corporation) in principal and interest. In concept this is very much like a standard mortgage for a home. In practice public finance experts have a wide range of choices when structuring how bond debt service payments are applied to principal and interest. Principal deferment and balloon payments later on are quite common. Front and back loaded interest payments are also quite common. Debt service reserves, the amount of cash set aside to insure payment of debt in the event of revenue problems are also usually folded into the bond as additional principal.

payments; and 5) authorize the professional fees necessary to close the planned transactions.

The Act has bearing on three pending proceedings before the Puerto Rico Energy Commission, an administrative agency established in 2014 as part of an earlier legislative initiative to reform PREPA.

First, the Corporation was required to apply to the Commission to enshrine the new Transition Charge in rates and provide specific assurances that the debt service (in the form of the Transition Charge) will be paid in full and on time.[3] The Corporation Transition Charge case covers the securitization transactions, debt service implications and rate impacts for the newly established Transition Charge. The Commission issued a final order approving the charge (the "Restructuring Order[4]") in June 2016.

Second, the Act provided for a separate rate proceeding before the Commission where PREPA will operationalize the "reasonable rate provisions" of the Act. The PREPA rate case is currently pending and attempts to integrate into the rates the Transition Charge and all of the savings assumptions offered thus far, as well as the Authority's remaining debt after the Corporation transaction takes place. The PREPA rate case is also supposed to make provision for financing PREPA's approximately $2.4 billion in capital needs over the next five years. The result is a new rate design that adds together the Transition Charge, PREPA's operational needs (including remaining debt) and new investment.

Third, the statute requires that actions taken under the Act comport with PREPA's Integrated Resource Plan, the Authority's twenty-year plan for building out its infrastructure.[5] The IRP case is expected to identify the specific capital projects and timing that will assure system reliability and compliance with federal environmental regulations. Both rate cases are expected to set rates that comport with the IRP. The Integrated Resource Plan is currently pending before the Energy Commission.

In summary, the Act redesigns the rates and sets the stage for the Corporation to impose the Transition Charge and go to market with the new Securitized Bonds. The Energy Commission proceedings specify how the various business and financial plans turn into budget inputs and rates.

In this report, IEEFA analyzes the process by which PREPA's debt restructuring has occurred and the likely impacts of this restructuring on ratepayers and on the modernization of PREPA's generation system. Section II discusses the process by which the debt restructuring has been conducted and reported, a process that has disadvantaged PREPA ratepayers. Sections III, IV, and V argue that the restructuring is unlikely to result in the Act's stated goal of restoring PREPA to sound fiscal condition because (1) it is based on savings initiatives that are unlikely to fully materialize; (2) it does not provide for a sufficient reduction in PREPA's debt principal; (3) it does not include a viable plan for PREPA to re-enter the bond market; and (4) it will result in high electricity rates that the economy will be unable to support. The final section, Section VI, finds that the failure of the restructuring agreements to significantly reduce PREPA's legacy debt will crowd out PREPA's ability to invest in a renewable energy future.

[3] Electric Authority Revitalization Act No. 4-2016 ("Revitalization Act"), Section 6.25A, (b)(1)

[4] Restructuring Order, Puerto Rico Energy Commission Case No. CEPR-AP-2016-0001, June 21, 2016, http://energia.pr.gov/wp-content/uploads/2016/06/21-junio-2016-Restructuring-Order-English-1.pdf

[5] Revitalization Act, Section 6.3(n)

II. The Manner In Which the Debt Restructuring Has Been Conducted Is Not Transparent and Is Weighted Too Heavily in Favor of Bondholders and Consultants

Puerto Rico's decision-makers require complete, clear and understandable information from their consultants and advisors in order to set PREPA on a sound path. In vital respects, however, the flow of such information has grown murky. The problem is pervasive. Although those looking from the outside are placed at an even greater distance from crucial information than Puerto Rico's decision-maker, it is still possible nonetheless to draw some conclusions from what has been made public.

Still, the process by which PREPA and its bondholders have negotiated and reported on the debt restructuring lacks transparency. This impairs the ability of the Energy Commission and other interested parties to determine whether negotiations have been conducted in a way that is likely to lead to just and reasonable rates for PREPA customers.

Furthermore, the apparent lack of financial expertise at PREPA and PREPA's over-reliance on outside bond consultants have advantaged bondholders and impaired the ability of both PREPA and the Commission to defend the interests of Puerto Rico ratepayers.

A. Financial Statements Are Unaudited

PREPA has failed to make public an audit for FY 2014-2015. Much of the data relied upon by PREPA's consultants is unaudited. Some of the information from PREPA's 2013-2014 audited statement[6] is used in PREPA's filings with the Energy Commission. However, due to significant changes in PREPA's operating environment since June 2014, that information is outdated. The use of the audit as the basis for some financial benchmarks decreases the transparency of PREPA's current financial profile.[7] Its use also distorts the nature of financial changes occurring at the authority and the purported benefits of the plan.

[6] http://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Annual%20Reports/Financial%20Statements,%20Required%20Supplementary%20Information%20and%20Supplemental%20Schedules%202014.pdf. This document was released in January 2016, fully eighteen months after the close of the June 30, 2014 fiscal year.

[7] For example there is a considerable drop in fuel oil prices during this period. The figures for fuel used in the Transition Charge proceeding, Schedule F are much lower in 2015 than 2014 but the 2015 data is not audited. Similarly there are significant changes ($133 million) in various Bad Debt expenses that are carried forth by PREPA in its filing from 2014 to 2015. PREPA's inability to rely on an up to date audit as its baseline distorts the revenue requirements, expense assumptions and ultimately the impact of the rate proposed.

B. Reporting is Inconsistent

IEEFA's findings and analysis are the result of a review of three separate Energy Commission dockets—the Integrated Resource Plan (CEPR-AP-2015-0002), the Rate Case (CEPR-AP-2015-0001) and the Transition Charge Case (CEPR-AP-2016-0001)—a dozen forbearance agreements,[8] various SEC filings[9] and PREPA's unaudited monthly[10] reports. These documents lack transparency. They do not present a cogent, transparent profile of PREPA's finances. The documents often conflict with each other and require cumbersome and inherently error prone cross-walking in order to derive quantitative and qualitative data that can support external review and analysis. IEEFA has relied upon several data sources to independently test many of the assumptions used by PREPA and its consultants. We have turned to comparative industry peer groups on selected financial measures, industry standards where applicable, practices by other budget-making and energy public and private authorities, and basic economic data from sources internal to and external to PREPA . We have noted where information is especially lacking and noted how such information should be provided.

Basic information is difficult to find in PREPA's filings. The debt level that PREPA owes is presented in an elusive manner. The consultant fees embedded in the transaction are high and there is little transparency about the total amount of the fees, the apportionment of fees between PREPA and the Corporation, or the classification of certain costs as fees. Basic planning data, such as how much and when PREPA proposes to undertake future capital investments, is presented in vague and conflicting ways across the Energy Commission proceedings and even within the same docket. These differences are material to matters under review.

C. Bond Negotiations are Secretive

Debt negotiations have been highly secretive in nature, a clear detriment to the public interest. A series of negotiations have taken place since 2014 between PREPA and its bondholders (Donahue Transition Testimony, Lines 37-54[11]) and have produced a plan that is discussed at length below. The public process outlined in the Revitalization Act and the attendant public processes assumed by the various Energy Commission dockets are impaired by the lack of a transparent accounting of the bondholder negotiations and the critical documents that are used to facilitate them.

Published reports suggest PREPA officials and bond holders are negotiating the financing of generation projects not yet approved by the Commission, for example, and not discussed in either the Transition Charge or Rate dockets.[12] In addition, although the Rate and Transition documents contemplate several billion dollars in future bond authorizations, the use of these proceeds lacks a specific rationale and the benefits to PREPA's ratepayers are vague.

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[8] http://www.gdb-pur.com/investors_resources/prepa.html
[9] http://www.gdb-pur.com/investors_resources/prepa.html
[10] http://www.aeepr.com/INVESTORS/FinancialInformation.aspx
[11] Direct Testimony of Lisa Donahue, Case No. CEPR-AP-2016-0001, April 7, 2016 ("Donahue Transition Testimony")
[12] R. Slavin, "PREPA's Expected Default is Now Avoidable," The Bond Buyer, April 1, 2015, http://www.bondbuyer.com/news/regionalnews/no-default-for-prepa-1071897-1.html

Finally, neither the Commission nor the public have access to a full and complete listing of the bondholders, the size of their holdings, transaction history of the bonds,[13] payment history by PREPA to the bondholders and a series of other financial documents related to these negotiations.

D. PREPA Employees Have Insufficient Control Over Bond Transactions, Budget Initiatives and Rate Design

The financial plans set forth in the Transition Charge and Rate proceeding are dominated by PREPA's outside consultants and other non-PREPA employees, as shown by the following tables. There is no testimony offered by a PREPA official acting on his or her own which would demonstrate that PREPA has a detailed knowledge of the complex debt transactions.

No PREPA official acting alone and unaided by consultants attests to the reasonableness and prudence of the detailed Savings plan in the rate case.[14] No PREPA official appears in the Transition Charge case to testify to the details of the Restructuring Plan.[15] Similarly, the attestations from PREPA employees in the rate case as to the reasonableness of the overall rate occur only at an overview level and rely wholly on the detailed assessments of consultants.[16] The all-important description of operational and debt savings initiatives in the rate case is also dominated by outside consultants and, as shown below, is not consistent with a uniform, transparent system of reporting.

[13] http://www.wsj.com/articles/puerto-ricos-hedge-fund-deal-may-be-first-of-many-twists-and-turns-1462301729 A considerable amount of attention has been paid to the role of hedge funds in supplying Puerto Rico's liquidity needs and supporting its credit structure. How this has occurred and its impact when assessing the size and significance of PREPA's outstanding debt is missing in the financial discussion of rate setting for PREPA's customers.

[14] One piece of testimony in the rate case contains a joint analysis of the rate and savings with a PREPA employee, Sonia Miranda Vega, Director of Planning for PREPA. Ms. Vega testifies with two representatives of Alix Partners. This testimony provides details of the savings and revenue enhancement initiatives. http://aeepr.com/Documentos/Ley57/Tarifa/02%20Attachment%20A%20-%20Direct%20Testimony%20and%20Exhibits/PREPA%20Ex.%203.0%20Miranda%20Sales%20Sosa%20-%20Signed.pdf,

[15] Jaiver Quintana, the Executive Director of PREPA filed testimony (Exhibit 2.00 – "Quintana Testimony") that attests to PREPA's agreement with the Securitization Plan. His testimony in support consists of eighteen lines, general and vague as to the ability of the plan to achieve the Authority's financial goal. Mr. Quintana is an electrical engineer by training. Mr. Gil-Olabaz, Secretary of PREPA's board is an employee of another Puerto Rico authority. He testifies as PREPA Secretary attesting to the filings of appropriate resolutions that PREPA needed to file to be in compliance with the statute. He offers no testimony beyond procedural issues. Exhibit 3.00. http://energia.pr.gov/wp-content/uploads/2016/04/TransitionCharge-2.pdf . The substantive testimony in the Transition case is provided by consultants: Ms. Donahue and Messrs. Mace, Stathos and Zarumba, Exhibits 1.00. 4.00. 5.00 and 6.00 respectively

[16] See Quintana Rate Testimony, Lines 103-112

Table I: Witnesses Testifying on Behalf of the Corporation in the Transition Charge Case

Witness	Affiliation
Lisa Donahue	AlixPartners
Javier Quintana-Mendez	PREPA
Gerard Gil-Olazabal	Government Development Bank of Puerto Rico, PREPA Revitalization Corporation
Michael Mace	PFM
Dan Stathos	Navigant
Ralph Zarumba	Navigant

Table II. Witnesses Testifying on Behalf of PREPA in the Rate Case

Witness	Affiliation
Lisa Donahue	AlixPartners
Javier Quintana-Mendez	PREPA
Sonia Miranda, Antonio Perez Sales, Virgilio Sosa	PREPA, AlixPartners, AlixPartners
Dan Stathos, Francis Pampush, Lucas Porter	Navigant
Ralph Zarumba	Navigant
Lawrence Kaufmann	Navigant
Ross Hemphill	RCHemphill Solutions LLC
Ralph Zarumba and Eugene Granovsky	Navigant

Whether PREPA staff and management have exercised control over the process is unclear. It is problematic that individuals and companies that may not be part of the implementation process are making promises to the Energy Commission and implicitly the people of Puerto Rico. This is particularly troubling on the level of the securitization transactions. The transactions will have implications that last 25 years, yet PREPA officials appear to be totally beholden to consultants and investment advisors as the transactions move beyond closing and into the operational phase.

E. PREPA and Its Consultants Have Not Exercised Sufficient Diligence Over the Reasonableness of the Proposed Savings Initiatives

Lisa Donahue is the Managing Director and the Leader of the Turnaround and Restructuring Practice at Alix Partners, LLP, a New York-based business-consulting firm. She has also been the Chief Restructuring Officer for PREPA since 2014, although she is not a PREPA employee. Her testimony in the rate case offers perhaps the most significant illustration of PREPA's over-reliance on outside consultants and the conflicts that weaken the likelihood of success of the restructuring effort.

Ms. Donahue outlines three separate challenges faced by PREPA: operational deficiencies, failure to implement best practices, and political interference (Donahue Rate Testimony Lines 95- 97). She then states that her work does not include a detailed diligence review of PREPA and its operations (Lines 113-114). Such a prudence review is outside the scope of services Alix Partners provides and would be expensive for PREPA (Lines 115-116). Ms. Donahue then, because of PREPA's challenges, qualifies her judgment that the costs incurred are reasonable and prudent (Lines 135-135).[17] Ms. Donahue nevertheless expresses satisfaction that the proposed bond transaction and operational savings will be successful (Lines 139-143). Thus, despite her acknowledgement both of PREPA's ongoing operational problems and her own lack of prudence review of PREPA's operations, she is confident that the financial mechanisms being put in place are reasonable and prudent.

III. The Debt Deal Will Not Meet the Goal of Restoring PREPA to Fiscal Stability

PREPA is operationalizing a series of savings initiatives designed to reduce costs. These savings, in combination with the debt service savings discussed in Section IV, underpin the positive forward-looking outlook promised by PREPA and its advisors. The savings initiative is outlined in the Creditors Agreement (January 27, 2016) and more specifically in the Transition Charge and Rate case dockets.

[17] "Nonetheless, to the extent applicable, I can state from No. CEPR-AP-2015-0001 PREP A Ex. 2.0 my perspective as CRO that it is my professional view that the costs sought to be incurred through PREPA's proposed rates generally are reasonable and prudently incurred, but that such conclusion must be tempered by my testimony about PREP A's challenges and recovery." (Lines 132-135) http://aeepr.com/Documentos/Ley57/Tarifa/02%20Attachment%20A%20-%20Direct%20Testimony%20and%20Exhibits/PREPA%20Ex.%202.0%20Donahue%20-%20Signed.pdf, For full context of quote see lines 128-145 inclusive.

The savings initiatives are offered in joint testimony from PREPA's consultants and the Director of Planning for PREPA.[18] No PREPA official signed off on the scope of the savings initiatives or the validity of the savings assumptions on his or her own, meaning that PREPA is not providing an independent assessment of the savings. As discussed in Section IV.B below, the Energy Commission has faulted these same consultants for mismanagement of advisory-fee expenditures and has questioned "the quality of oversight of those fees."[19]

The Commission's concerns over the fees suggest that PREPA's organizational culture could easily be swayed in a way that supports improper contractor behavior. The consultants are overseeing the financial reform of PREPA, including a series of budget savings and a large debt restructuring. They also design and measure the initiatives and the benchmarks used to measure successful achievement of financial goals. The initiatives require rigorous application of cost control principles, but the process governing the fees paid to the consultants does not. It has established no upper limits on fees, has a weak rationale for cost allocation within the Corporation and between PREPA and the Corporation, has no competitive bidding, and is not subject to independent verification.

The presentation of the savings initiatives provides insufficient information, overstates the amount of the claimed savings, and lacks transparency. In IEEFA's view, most of the budget savings and enhanced revenues identified by PREPA in PREPA's budget assumptions are unlikely to materialize.

A. PREPA's Budget Planning Process is Weak and Runs a High Risk of Missing its Targets for Savings and Revenue

PREPA's proposed budget savings and revenue enhancements take place against a backdrop of weak budget planning. PREPA misses significant budget targets frequently as a result of poor estimating in fundamental areas of financial planning. Recent financial events suggest very little has improved. For example: Fuel expenditures account for 58 percent of all operational expenses in PREPA's 2015-2016 budget.[20] The approved budget allocated $2.0 billion for this expense for the first 11 months of the fiscal year. Actual expenditures were $1.1 billion, a variance of 45 percent.[21]

PREPA's budget, which is based on a set of assumptions about both revenue and operating expenses, is tightly balanced. There is little room for slippage without causing rates to go up.

[18] Direct Panel Testimony of Sonia Miranda, Antonio Perez Sales, and Virgilio Sosa, Case No. CEPR-AP-2015-0001, May 27, 2016. ("Miranda/Sales/Sosa Testimony")

[19] Restructuring Order at paragraph 261.

[20] We refer to here to PREPA's unaudited budget report for May 2016 which accounts for eleven of the twelve months of PREPA's fiscal year. http://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Monthly%20Reports/2016/May%202016.pdf. P. 17.

[21] As a result of this poor estimate revenues and expenses both came in significantly under budgeted amounts, This during a period when a team of outside consultants was advising PREPA and when the agency is under maximum scrutiny for its fiscal practices. See: Robert Slavin, *PREPA Performed Twice as Bad as Expected in first 10 Months of Fiscal Year,* Bond Buyer, July 14, 2016.

Budget assumptions used in the rate documents include a host of savings initiatives and revenue enhancements related to Fuel and Related Fuel Performance Improvements and Non-Fuel Related Performance Improvements. However, if those plans do not fully materialize, and either expenditures rise or revenues decline, both revenue requirements and rates will be driven up.

The Revitalization Act requires that:

> The Commission shall ensure that all rates are just and reasonable and consistent with **sound fiscal and operational practices** that provide for a reliable and adequate service at the lowest reasonable cost.[22] [emphasis added]

Typically when public agencies are involved in a large series of initiatives to bring a budget into balance, the actions are coordinated in what is sometimes called a "program to eliminate the gap" (PEG).[23] The program creates a uniform system of accountability that identifies specific budget and organizational initiatives and shows how the initiatives save money or generate additional revenue, sets out financial targets, creates standards of accounting for the measurement of the benefit, assesses related risk, establishes timelines and benchmarks to measure progress toward objectives, and assigns responsibility to specific administrators for achievement of objectives and corrective-action plans.

The PEG initiatives are integrated on a budget-wide basis into the budgeting process of the specific agencies or government units in question and are integrated into executive-level budget documents. A careful tracking[24] is maintained to monitor agency progress and to take action when early warning signs show slippage in meeting performance-improvement objectives.

In contrast, PREPA's presentation of savings initiatives and revenue-producing actions identified in the rate docket do not present a uniform system that is transparent, easily understandable, or usable for the kind of rigorous budget monitoring that one would expect given the size of PREPA's budget imbalance.[25] The initiatives that do provide sufficient information to draw tentative conclusions suggest that claimed revenue enhancement and savings targets are overstated.

The Hemphill rate case testimony draws a structural link between adverse consequences from unplanned expenses and the consequence for planned capital spending.

> First, these [government-owned] utilities do not have owners' equity. Thus they are considerably more sensitive to the fluctuations that are business as usual for any utility or business for that matter. A swing in expenses outside its control can wreak havoc on the utility's business plan. For PREPA, this means real delays in rebuilding and implementing investment that ultimately makes them a more efficient utility. (Lines 338-343)

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[22] Revitalization Act, Chapter III, Section 4(d)(3)

[23] http://policyatlas.org/wiki/Program_to_Eliminate_Gap_Procedures_(PEG)

[24] Often outside groups with specific budget interests monitor these initiatives as well. http://www.cbcny.org/category/tags/program-eliminate-gap

[25] Here we contrast the proposed systems for monitoring operational expenses with the monitoring system used to insure that revenues are collected and debt service is paid. The revenue collection system is elaborate with significant attention paid to accountability, internal control accounting and revenue disbursement. See entire Direct Testimony of Michael Mace, Transition Docket (Case No. CEPR-AP-2016-0001), with summary chart at Line 1558.

Hemphill concludes that upward pressure on expenditures forces publicly owned utilities to postpone capital expenditures when costs increase beyond financial-plan estimates. The same budgetary impact occurs when planned revenues fail to materialize.

The new PREPA structure introduces significant, simultaneous changes across all major areas of PREPA's physical plant, operations and financing. The potential for slippage is high—a fact that is apparent to PREPA and its consultants.[26] To manage the changes, PREPA has proposed a streamlined rate review process for the second and third years covered by the rate proceeding. The new process is called Formula Rate Making (FRM).[27] The rate docket requests that the Commission agree not only to the first year but also to a three-year rate with adjustments made in subsequent years using a streamlined process.

In short, if savings initiatives or revenue enhancements are not achieved, rate increases can be put into place to make up for the deficit that would otherwise confront management. The current rate and Transition Charge proceedings bear significant weight for how program design will be implemented. The proceedings support the bond deal and three years of rate increases, the last two based on a streamlined process. They also lock in place a new management structure that is expected to last 25 years.

B. Two Major Savings Initiatives Are Fraught with Problems and Unlikely to Produce Desired Results

Two major categories of savings initiatives (Fuel-Related Performance Improvements and Non-Fuel Related Performance Improvements) and their likelihood of generating the budgeted level of savings, are discussed in detail below:

1. Claims of Fuel Related Performance Improvements Are Poorly Supported

Cost savings in this area are critical to PREPA's efforts to bring down overall expenditures. However, several of the proposed Fuel Related Performance Improvements offer weak or no methodological explanation to validate savings claims.

Fuel costs were $2.3 billion in 2014, constituting 52% of PREPA's overall expenditures. They are forecast to be $763.7 million in 2017.[28] The Authority's proposed fuel related savings are a supplement to the extraordinary $1.575 billion in fuel oil savings that resulted from a dramatic decrease in the price of oil on the global markets between 2014—the benchmark year—and 2017, the first year of the rate.

[26] The debt service structure that creates a first lien on PREPA's revenues provides added insurance to bondholders that payments will be on time and according to budget. This security for bond investors also increases operational risk to PREPA's rate payers in the event planned budget initiatives fail to materialize.

[27] The new process is detailed in the Direct Testimony of Ross C. Hemphill, Ph.D., Case No. CEPR-AP-2015-0001, May 27, 2016 ("Hemphill").

[28] Schedule F, Attachment C to the Petition for Approval of Permanent and Temporary Rates, Case No. CEPR-AP-2015-0001, May 27, 2016. ("Rate Case Schedule F")

Fuel Related Performance Improvements generated by PREPA's managerial actions are identified in the joint testimony of Sonia Miranda, Antonio Perez Sales and Virgilio Sosa in the rate case ("Miranda/Sales/Sosa rate case testimony," lines 356 through 407). Schedule F, attached to the rate case filing, estimates Fuel Related Performance Improvements at $116 million in 2017.

The Miranda/Sales/Sosa testimony outlines in narrative form a series of initiatives undertaken by PREPA to achieve fuel related savings, summarized as follows: "To the date of this filing, the work under the Business Plan has generated fuel related improvements have generated annual run rate savings of approximately $135 million as well as one time liquidity improvements of $86 million (Lines 379 to 381)." The testimony offers individual paragraphs describing the initiatives (Lines 417-751). Some of these descriptions identify the amount of budget benefit and some do not. Table III reconciles the budget initiative with stated budget benefits where they are clear. IEEFA concludes that the fuel related budget initiatives described in the testimony are valued at $164 million for the first year of the rate plan.

Table III: Fuel Related Performance Improvements

Savings Initiative	Recurring/ One Time[29]	Amount of Savings ($ in millions)	Timing[30]	Line Item Miranda/ Sales/ Sosa panel Testimony
Fuel Adder	One Time	$50	Achieved	397
Forecast/Inventory Savings	One Time	$36	Achieved	385
New Natural Gas Prices	Recurring	$33	Achieved	401
Coordination/Fuel Efficiency	One Time	$23	Achieved	404
Fuel Adder	Recurring	$22	Achieved	397
Additional Fuel Adder	One Time	$15	Future	399
Additional Fuel Adder	One Time	$9	Future	358
Total		**$188**		
Total (minus future savings)		**$164**		

It should be noted that the savings initiatives listed in the table do not add up to the same amounts as either the testimony of "annual run rate savings of approximately $135 million as well as one time liquidity improvements of $86 million" or the $116 million in 2017 savings presented in Schedule F. The testimony does not link each budget initiative to clear

[29] This categorization flows from the narrative testimony. The authors sometimes make a clear distinction between "recurring savings" where the savings flows through to future years and "one-time" savings where the savings is produced based usually on a single or bundled transaction.

[30] These categorizations are based upon the narrative and largely determined by the author of the testimony claiming savings to date or discussing the savings in the past tense.

financial targets. Nor does it show how they are integrated into the general categories offered in the income statement presented in Schedule F. The lack of a clear description of budgetary initiatives—and/or a crosswalk between the initiatives, values and the presentations in Schedules A and F—make it difficult to assess the validity of the aggregate savings claimed in the rate requirements and weakens the benefit claims made about budget initiatives.

Additionally, the claimed savings in the Fuel Related Performance Improvements may not be the result of management actions. The savings claims for fuel adders[31]and natural gas occur at the same time that there has been a substantial decline in the market price of natural gas and oil. The testimony does not address how management initiatives, as opposed to the significant drop in market prices, are the cause of the savings.

Second, the Miranda/Sales/Sosa testimony creates two categories of savings that are related to improved information flow between various segments of the fuel, generation and dispatch functions. The Miranda/Sales/Sosa Testimony, (line 383-392) discusses inventory savings from improved fuel forecasting, which have resulted in $36 million savings in inventory. Lines 402-407 show $23 million in additional savings from the information coordination. These savings appear to accrue from arbitrage and fuel efficiency savings. As presented, these initiatives are indistinguishable. Whether these savings are market based or derive from managerial actions is unclear. Would these savings remain if natural gas and oil prices rose?

Finally, PREPA's budget presentation bundles a disproportionate level of Fuel Related Performance Savings into Fiscal Year 2017, the first year of the increase in rates. The 2017 Performance Improvement is $116 million. By contrast, the savings from these initiatives are estimated at $52 million for 2016 and $42 million for 2018.[32] The budget presentation appears to artificially spin up the savings and depress expenses for the Revenue Requirements projected for 2017. If these savings were smoothed out there would be upward price pressure on the 2017 rate.

2. Non-Fuel Performance Improvements Are Difficult to Evaluate—and Are Dubious

The major non-fuel performance Improvement initiatives are grouped in Schedule A and Schedule F as "Customer Service," "Procurement" and "Other, net," and tally to $102.7 million in 2017. In addition, both Schedules show improvement in the level of bad debt expensed since 2014. From 2014 to 2017 bad debt expenses have declined from $191.5 million to $85.4 million, or a performance improvement of $106.1 million. In general, the description of these initiatives (Miranda/Sales/Sosa testimony Lines 422-642) is in narrative form and covers revenue enhancements and savings. There are no charts or tables that link these initiatives in a transparent manner to the Schedule A and Schedule F revenue requirement valuations. The specific savings categories are discussed in turn below:

- Customer Service: the Miranda/Sales/Sosa testimony (lines 422-437) addresses Customer Service initiatives that result in enhanced collections. They include:

[31] The difficulty of accounting for fuel adders as a separate component of fuel prices in energy production reporting requires additional diligence and explanation. Paul Vinson, Guidelines for Verification of Review Specific Adders, ercot.com, June 28, 2013, see page 3 of 10.

[32] Rate case Schedule F

improvements in customer delinquency rates, public housing non-payments, new public housing subsidies to PREPA of $4.8 million annually (Lines 468-470), revenue collections from dispute resolution and long-term past due collection efforts. But information is not provided on how each of these initiatives and the value added to the budget are integrated into the financial presentations in Schedule A and Schedule F. Are these collection efforts included in the financial presentations as Bad Debt expensing, additional revenues or Customer Service improvements?

In addition, considerable effort is made in the testimony (Miranda/Sales/Sosa Testimony (Lines 498-537) to describe collection efforts related to theft and other non-technical losses. A claim is made in the testimony that $25 million of recurring savings have been achieved. It is unclear where this initiative is integrated into the Schedule A and Schedule F financial presentation.

- Procurement: Schedules A and F identify $55 million in procurement savings in 2017. The testimony does not clarify whether the $55 million stems from new revenues or savings from marketplace competition or other methods used to enhance agency procurements. The testimony (Miranda/Sales/Sosa panel lines 611 to 625) identifies no specific current or future contracts that produce the savings. The full $55 million lacks any substantiation.
- Other, net: Schedule F also identifies savings of $24 million in the category of "Other, net" in 2017. The description in the testimony (lines 560-579) lists a series of management initiatives. One initiative (lines 567-568) identifies $5 million in savings from recycling meters. None of the other initiatives carry a specific savings or revenue value.
- Bad debt expense: Bad debt improvements are shown in Schedule F declining from $191.5 million in 2014 to $85.4 million in 2017. This is a savings of $106.1 million against the 2014 audited baselines. Although the 2017 bad debt expense estimate is down from 2014, it is actually up from the 2016 figure of $55.7 million. The 2017 figure reflects, after a one-year sharp decline in bad debt expenses, a return to historically high, and unacceptable levels. The actions taken by PREPA to secure the claimed savings from 2014 through 2016 appear to have diminishing value over time. The value of the budgetary actions is therefore uncertain absent further clarification. There is also no discussion of whether bad debt levels might increase in response to the proposed large rate increases.

We have serious doubts about the testimony and budget presentation related to Bad Debt Expenses. The budget presentation and testimony indicate significant activity in this area and some degree of success. On the other hand, Schedule F includes a line item within the Securitization Charge for "Gross-up for Collections Lag and Uncollectible Revenue." This line is estimated at $109 million against the revenue requirement of $500 million for the Securitization debt service. PREPA and the Authority appear to be projecting an uncollectible rate of 20% of revenue requirement for the Transition Charge costs but a 2.8% bad debt expense write off against the Total Operating Expense portion of the Revenue Requirement. Since the bills to consumers will not discriminate between PREPA's rate and transition charges such a wide variation in the size and rate of uncollectible revenues requires further explanation to account for the disparity.

Additionally, the question of whether some of the non-fuel performance savings have accrued due to management actions or due to other factors is not sufficiently addressed. For example, the claims made related to bringing down delinquency rates (Miranda/Sales/Sosa panel line 454 and chart) show the level of delinquencies declining during a period when the price of electricity to consumers has also decreased. It is unclear whether the price decline brought more customers forward to pay past delinquencies or management actions achieved the savings.

C. Claimed Savings and Revenue Enhancements Have Significant Risks of Slippage

The testimony cited above claims that some savings initiative and revenue enhancement actions have already provided benefits. The testimony, however, does not link the Schedule A and Schedule F financial presentations to the narrative of program improvements also included in the testimony. No clear substantiation is offered for these representations, and no risk analysis is presented to assess the likelihood of success of the initiatives. Where there is a somewhat clear link between the Miranda/Sales/Sosa testimony and the financial presentations, as in the case of the Procurement and Other Improvements, the documentation does not substantiate the level of financial benefit claimed.

Table IV summarizes the foregoing discussion of risks to the savings and revenue enhancements proposed by PREPA in the fuel related and operations area. The "amount at risk" column represents IEEFA's estimate of claimed savings that may not materialize, either because they appear to be due to factors other than management actions or because they are insufficiently documented in the testimony. IEEFA concludes that of the $398 million in savings claimed in the Miranda/Sales/Sosa testimony, nearly $350 million is at risk of not materializing.

Table IV: Claimed Savings, Risks and Potential Slippage from 2017 Savings and Revenue Claims ($ in millions)

Savings Initiative	Amount Claimed	Amount At Risk	Adjusted Claim	Reason for IEEFA adjustment	Line Number Reference in Miranda/Sales /Sosa Panel Testimony
Bad Debt	$107	$60	$46	Decline in Price of Electricity explains some savings. Adjusted for Price of	Schedule F
Procurement	$55	$55	$0	No Specific Contracts cited	Lines 611-625
Fuel Adder	$50	$50	$0	Oil Price Decline may have caused savings	Line 397
Forecast/Inventory Savings	$36	$36	$0	Oil Price Decline may have caused savings	Line 383-385
New Natural Gas Prices	$33	$33	$0	Oil Price Decline may have caused savings	Line 400-401
Customer Service	$24	Uncertain		Insufficient Data to verify	Line 422-437
Other, net	$24	$19	$5	One initiative cited	Lines 560-579
Coordination/Fuel Efficiency	$23	$23	$0	Oil Price Decline may have caused savings	Line 402-407
Fuel Adder	$22	$22	$0	Oil Price Decline may have caused savings	Line 397
Additional Fuel Adder	$15	$15	$0	Oil Price Decline may have caused savings	Line 399
Additional Fuel Adder	$9	$9	$0	Oil Price Decline may have caused savings	Line 399
Total	**$398**		**$51**		

There is a high risk of slippage in the successful implementation of so many initiatives at once. This is especially likely due to the factors outlined in Donahue's testimony, including a history of failure to implement best practices and a history political interference (Lines 95- 97). This criticism raises the broader question of the Authority's management culture and whether it has the capability to successfully implement the series of savings initiatives proposed in the docket. As described in more detail in the next section, the Commission has expressed concern over the management of the fees for the Transition Charges and the inability to control the fees charged by outside consultants.

IV. The Debt Deal Will Not Restore PREPA to Fiscal Health Because It Does Not Reduce the Principal Sufficiently

A. Deal Does Not Reduce Debt to Levels That Meet Basic Industry Benchmarks for Distressed Public Power Organizations

IEEFA finds that, despite the existence of a statutory "Savings Test," the debt deal does not contain a sufficient reduction in the principal of PREPA's debt. This, combined with the likelihood of slippage in savings initiatives described in the previous section, will result in rates that are unaffordable. In addition, because the structure of the debt deal makes the payment of the legacy debt service the top priority for PREPA, the high level of debt going forward will impede PREPA's ability to adequately fund operations and make necessary capital expenditures.

In this section, we describe in detail the level of principal reduction embedded in the debt deal, and then explain how PREPA's claim that the debt deal meets a statutorily mandated "Savings Test" is misleading.

The only principal reduction in the bond deal is a 15% reduction of the principal of the uninsured bonds where owners of those bonds have agreed to participate. This sale of the bonds covered under the bond exchange represents $4.934 billion[33] of PREPA's total outstanding debt of $9.5 billion. The purported 15% savings represents $740 million and is triggered by a bond closing slated for 2016. A 15% reduction on PREPA's full outstanding balance would be $1.425 billion. As described in more detail later, the principal reduction over the life of the debt deal is even lower.

PREPA incurred debt over decades. The management of PREPA made a series of highly questionable decisions to use debt for operating expenses, to not raise rates, and to allow political interference in its operations. PREPA's financial decline was well known to investors. The Corporation's proposed 15% reduction of the principal and bondholders acceptance of this step is an acknowledgement by the investors that they took a risk and lost. Bondholders

[33] Attachment 3.03 to the Petition, Transition Charge Docket – Case No. CEPR-AP-2016-0001, April 7, 2016 (See: Principal Balance as of 7/1/2016, Status Quo Principal Balance). This constitutes 52% of all of PREPA's current outstanding debt of $9.5 billion.

who own 87% of the value of the uninsured bonds have acknowledged the need to accept losses.[34]

Despite a clear acknowledgement by a significant number of PREPA's uninsured investors that losses are necessary, a rationale for how the 15% principal reduction was established is not provided in any of the rate cases (or any other public document provided in this matter)[35] because the bondholder negotiations were conducted in secret.

In July 2015, Moody's published a FAQ on Puerto Rico's debt crisis[36] that includes a model with the recovery amounts that bondholders would most likely achieve under a bankruptcy scenario. Moody's assumptions about recovery on default are driven in large measure by the explicit contractual and legal protections in the bond covenants. The credit agency also takes into account economic and population trends, Puerto Rico's pension fund status, the potential for a federal bailout, Puerto Rico's sovereignty status and the Governor's policy positions regarding debt. Moody's overall assessment is that Puerto Rico's "main hurdle will likely be the ability to show its economy has transcended the structural impediments to growth that have largely weighed on it since 2006."[37]

Moody's assumes that PREPA's investors would lose between 20% and 35% (or 65% to 80% recovery rate) of the face value of total indebtedness of $9.056 billion.[38] PREPA's stated savings at the 15% level based upon a portion of the agency's overall debt level creates a principal reduction that does not meet even the most generous recovery rates under Moody's estimates.

B. Actual Principal Reduction Over the Life of the Plan Amounts to 1 Percent

In the Transition Charge and rate cases before the Energy Commission, PREPA provides more information about the initial principal reduction and the overall reduction in principal payments over the life of the transaction (2016-2043). This is summarized in Table V below. In her testimony in the rate case (lines 278-281), Lisa Donahue states:

> "Holders of uninsured bonds exchanging their existing outstanding bonds for new securitization bonds at 85% of the face value of their existing bonds, with a 5-year principal holiday and a fixed interest rate that is lower than the rates of the existing bonds."

[34] The Securitization transaction assumes a current value of $4.9 billion in uninsured bondholder participants prior to the closing. The current outstanding balance of all uninsured bonds is $5.6 billion. http://energia.pr.gov/wp-content/uploads/2016/04/25abril2016-Prepas-Rev.-Corp.-Information-Submission.pdf, p. 3.

[35] The Commission makes specific reference to its inability to review the appropriateness of the size of the principal bond reduction. Restructuring Order, paragraph 26.

[36] Moody's, "Frequently Asked Questions about Puerto Rico's Fiscal and Debt Crisis", July 22, 2015, p. 2.

[37] Ibid, p. 7

[38] Ibid, p. 2. Moody's principal outstanding balance is presumed to represent only the bonds outstanding and not the other lines of credit and other liabilities included in other formulations of PREPA's debt levels.

Table V identifies the "Original Affected Principal Balance" as of July 1, 2016 (figures taken directly from Exhibit 3.03). The "affected bonds" are those that are covered by the securitization transaction and will be paid for through the Transition Charge. The Transition Charge exhibit shows a reduction in principal on the affected bonds of 13.6%, as a result of a 15% principal reduction (85% exchange value) on the principal of the participating uninsured bondholders. The remainder of PREPA's bond obligations will need to be paid back at 100%.

PREPA's consumers are responsible not only for the "affected bonds"—the debt covered under the securitization transaction—but also for any remaining PREPA legacy debt, which according to the plan is paid back at 100% of face value. The legacy debt has been estimated at $1.595 billion.[39] Therefore the bond restructuring agreement only reduces the total principal balance owed by PREPA ratepayers at the time of the closing (July 1, 2016) by 11.1% lower than current levels. If the 15% reduction were applied to all of PREPA's debt, it would result in a reduction of $1.43 billion, not $1.07 billion.

Table V: Original Bond Principal at Initial Closing Versus Adjusted Principal Balance at Closing and Bond Savings Over Life of Transaction (Dollars in Billions)

	Status Quo[40] ($ in billions)	Restructured ($ in billions)	Savings ($ in billions)	Savings (%)	Source
Original Affected Principal Balance 7/1/2016[41]	$7.921	$6.846	$1.075	13.6%	Transition Docket, Exhibit 3.03
Total PREPA Principal Balance adjusted for remaining Legacy Debt 7/1/2016	$9.516	$8.441	$1.075	11.1%	IEEFA Adjustment
Principal Paid on Affected bonds from 2016-2043 (Life of Transaction)	$7.281[42]	$7.205[43]	$0.076	1.0%	Transition Docket, Exhibit 3.03

Documents in the Transition Charge case also present a long-term, 25-year life-of-transaction estimate of PREPA's debt. The estimate compares PREPA's long-term principal and interest payments under the new securitization scenario and under the existing system (Table V). After all principal and interest payments are made on the 2016 affected bond principal through 2043, the net impact of the principal reduction between the Status Quo scenario

[39] http://energia.pr.gov/wp-content/uploads/2016/04/25abril2016-Prepas-Rev.-Corp.-Information-Submission.pdf

[40] This scenario developed by the Corporation represents a refinancing of some of the debt (in order to avoid default) with no principal reduction. Attachment 3.03 to the Petition, Transition Charge (Case No. CEPR-AP-2016-0001), April 7, 2016, p. 1 (see "Benefits of Restructuring", Footnote b.)

[41] Transition Charge Docket, Attachment 3.03, p. 1 of 4

[42] Transition Charge Docket, Attachment 3.03, Total Principal, p. 3 of 4

[43] Transition Charge Docket, Attachment 3.03, Total Principal, p. 4 of 4.

and the Securitization scenario is $76 million, or 1.0% (see Table VI). When the Legacy Debt ($1.595 billion) is added, the net principal reduction is reduced to less than 1%.

The principal reduction is so small over the entire life of the transaction apparently because of additional borrowings that are assumed over the life of the transaction.[44] The Transition Charge documents state that the amount of principal to be paid off over the 25-year life of the transaction is $7.2 billion, which is higher than the $6.8 billion identified at closing in 2016. This appears to reflect future borrowings of $359 million.[45]

Thus, the actual debt reduction achieved by PREPA's restructuring both at the outset of the deal in 2016 and over the life of the deal is far less than the Moody's estimate of 20% to 35%.

IEEFA notes that the Energy Commission is prohibited from assessing the reasonableness of the Securitization Bond deal, specifically whether the reduction of 15% of principal on a portion of PREPA's debt is reasonable.[46]

C. Fees Being Charged by Financial Consultants and Lawyers Are Excessive and Are Not Properly Controlled

In addition to failing to generate sufficient principal reduction on PREPA's legacy debt, the deal imposes new financing costs on PREPA ratepayers. These include both upfront financing costs and ongoing financing costs over the life of the transaction. Upfront financing costs presented in the Transition Charge application include $79.6 million in debt service reserve and $44.7 in advisor fees (a total that inexplicably does not include the fee for AlixPartners, publicly listed as up to $37 million).[47] In its restructuring order, the Commission called into question this estimate of advisor fees and published a listing of some of the actual charges thus far.[48] For example, the Corporation originally listed the Millstein law firm at $2.48 million, but the Commission shows actual charges to date of $9 million. The original document listed $2.5 million for the Sidley firm, and the Commission order shows actual expenses of $8.5

[44] The Corporation's proposal contained a request for $12 billion in bond authorizations even though the initial offerings would require only $6.8 billion. The Corporation provides a list of bond types and briefly describes the financial function that each type will serve in the overall securitization plan. The submission identifies $6.8 billion in refinanced PREPA debt obligations by the Corporation. (Transition Charge petition, Attachment 3.03, p. 1 of 4). The Corporation's submission to the Commission identifies a list of bond types and requests bond level authorization levels for: Securitization/Exchange Bonds; Mirror Bonds; Upfront Financing Bonds; SIF Bonds; Cash Offer Bonds; Lender Bonds; and PREPA Bonds. The cumulative value of the bond level authorization requested in the Commission filing for these categories is in excess of $12 billion. The Commission asked why the Corporation requires bond authorization of $12 billion when its budget identifies only $6.8 billion in funding needs. The Corporation stated: (1) additional borrowings are anticipated for bondholders that may sign on after the closing date; 2) additional borrowing to settle creditor claims; 3) additional borrowings to fund reserve requirements and 4) the $12 billion actually assumes overlap in bond category functions such that the final balance of the borrowings would never approach $12 billion. (http://energia.pr.gov/wp-content/uploads/2016/04/25abril2016-Prepas-Rev.-Corp.-Information-Submission.pdf., p.20) The Corporation does say that an upper limit, which it says would be highly unlikely, would be $9.5 billion. The specifics of the $9.5 billion scenario are not detailed. (http://energia.pr.gov/wp-content/uploads/2016/04/25abril2016-Prepas-Rev.-Corp.-Information-Submission.pdf., p.8)

[45] Whether this $359 million is used to reduce PREPA's legacy debt or pay off costs associated with Securitization financing is not disclosed.

[46] Restructuring Order, Paragraph 15 and 26.

[47] Attachment 2.01 to the Petition in the Transition Charge case (Case No. CEPR-AP-2016-0001) carries a list of upfront financing costs, typically referred to as Issuance Costs.

[48] Restructuring Order, paragraph 259.

million. These two vendors alone have raised the cost of the fees by 27% (to $56 million and counting). The addition of AlixPartners' fees would raise the level of fees to at least $93 million. Ongoing financing costs total an additional $19 million in the first 12 months. As described below, IEEFA finds this level of fees unreasonable. Additionally, if further negotiations are needed because the current deal fails to restore PREPA to fiscal health, an outcome that appears likely, yet more fees will be incurred and charged to ratepayers.

The PREPA transaction poses a particular challenge to establishing and maintaining cost controls over bond issuance fees. First, the Corporation and PREPA are separate entities. Each has separate financial considerations, but the existing debt is also intermingled. Second, there are several tranches of bonds anticipated to be the basis of the "original transaction," including a bond exchange, issuance of mirror bonds and several other smaller bond issuances to fund debt service reserves and issuance costs. Third, the business structure has little transparency.

Added to this level of complexity is the Revitalization Act, which fails to provide an upper limit cap for the fees, a problem that has been noted by the Puerto Rico Energy Commission. The fees being charged require a greater degree of diligence precisely because the deal is so complex.

IEEFA sees the following red flags related to the fees: the level of fees relative to other bond deals, the lack of transparency in the presentation of fees, the conflicts of interest within the governance structure that is supposed to oversee the fees, the lack of competitive bidding in establishing the fees, and clear evidence that the Servicer's Fee is excessive. All of these factors point toward, in the words of the Puerto Rico Energy Commission, the "concern that PREPA's customers will be exposed to fees without limit."[49]

- ## Level of fees in comparison to other bond deals

A 2013 study by the Haas Institute[50] compiled an analysis of issuance fees and found them to be approximately 1 percent of the face value of the bonds issued. The percentages would typically be higher for smaller issuances and lower for larger issuances. The study also utilized an IRS analysis that put issuance costs at 0.83 percent and a State of California study that pegged them at 0.74 percent.

If we assume that the face value of all the bonds contemplated in the original closing is $6.8 billion, then the fees should be $68 million at the high end and $50 million on the low end. Instead, the fees total at least $93 million and rising.

We also note that the Haas Institute study does not include the costs associated with a debt service reserve in its definition of issuance costs. A "Reserve Account Deposit" of $72 million is included inappropriately in the Corporation's upfront financing costs.

[49] Restructuring Order, Paragraph 266
[50] http://haasinstitute.berkeley.edu/sites/default/files/haasinstituterefundamerica_doublybound_cost_of_issuingbonds_publish.pdf

• Lack of transparency in presentation of fees

The Revitalization Act requires that PREPA and the Corporation maintain separate liabilities. Yet nowhere in the rate case or Transition Charge case testimony is there a clear accounting of which fees are liabilities of PREPA and which are liabilities of the Corporation. Some consulting firms are testifying for both PREPA and the Corporation in different cases before the Energy Commission, reflecting dual responsibilities; it is unclear that any accounting treatment allocates these costs. The Commission's final order in the Transition Charge case contains a list of consultants and their fees, as provided by the Corporation, and notes that these fees "relate only to work in the Transition Charge" but that, contradictorily, "some of these fees reflect services unrelated to the securitization which will not be reimbursed by the Corporation or included in the Transition Charge" such as charges for work on PREPA's integrated resource plan.[51] In other words, there has been no transparent presentation of which fees are being billed to PREPA versus the Corporation and for what pieces of work.

The example of AlixPartners' fees showcases the extent of the transparency problem. Several representatives of AlixPartners, including Lisa Donahue, the Chief Restructuring Officer for PREPA (who is an employee of AlixPartners), appear in both the Transition and Rate Dockets at the Energy Commission. Ms. Donahue is the key strategist and public face[52] for the bond restructuring effort. Ms. Donahue testifies on behalf of the Authority in the rate case and on behalf of the Corporation in the securitization case (see Section II.D above).

Yet, despite AlixPartners' central role in the Corporation, the securitization case does not appear to include any of AlixPartners' fees in the Transition Charge. In the original filing submitted on April 7, 2016, AlixPartners is included on a list of firms whose fees could be included in the Upfront Financing Costs that are rolled into the Transition Charge,[53] but they are not [54](Attachment 2.01). The final restructuring order issued by the Commission (paragraph 110) retains the $44.67 million figure provided in the original financing documents, which do not include any fees for AlixPartners.

According to published reports, AlixPartners is under contract to PREPA with an upper limit payment of $37 million.[55] If this amount were included in the securitization case, it would nearly double the upfront costs. But it appears that this $37 million will remain a liability of PREPA, despite the central role that AlixPartners has played in the Corporation and in the securitization case. This violates the provision of the Revitalization Act that requires the Corporation to maintain its liabilities separate from PREPA.

In addition to AlixPartners, consultants from Navigant and PFM also appear in both the rate case and the securitization dockets on behalf of PREPA and the Corporation and there is no discussion of cost allocation between PREPA and the Corporation.

[51] Restructuring Order, Footnote 92, p. 67.
[52] http://democrats-naturalresources.house.gov/download/testimony_lisa-donahue
[53] Transition Charge petition, Attachment 1.00 Schedule D, April 7, 2016.
[54] Transition Charge petition, Attachment 2.01, April 7, 2016.
[55] http://caribbeanbusiness.com/prepa-extends-contract-with-alixpartners/

• Conflicts of interest within governance structure to oversee fees

Many of the fees are, or should be, liabilities of the Corporation. Yet the Corporation has no staff and depends upon the services of outside consultants. This poses a conflict of interest as far as keeping fees reasonable. In the Transition Charge docket, for example, a consultant from PFM (Mace) provides the testimony in support of the reasonableness of the expenditures for Upfront costs, a category which includes PFM's fees.[56] As stated by the Energy Commission:

> That the Corporation has no personnel or infrastructure of its own, sheds doubts on whether it is able to protect consumers through the establishment of procedures designed to keep costs reasonable or engage in arm's-length bargaining with its contractors and with PREPA. As described by Mr. Gil-Olazabal during the Technical Hearing, the Corporation's "decisions" will be made by "the team," meaning the restructuring team—which includes the very advisors whose fees are in question. If the decision-makers for the Corporation are the same as the decision-makers for PREPA and if those decision-makers are the same people who are charging the very fees at issue, that is not the arm's-length relationship necessary to protect consumers from excess fees (Paragraph 271).

• Lack of competitive bidding to establish fees

Another issue that calls into question the reasonableness of the fees is the fact that many of the consultants were engaged without a competitive bidding process, a concern that has also been raised by the Energy Commission.[57]

• Evidence of unreasonably high "Servicer's Fee"

In addition to the Upfront Financing Costs and Ongoing Financing Costs described previously, the debt deal also makes provision for PREPA to act as the "servicer" for the Corporation, the entity which bills customers, collects payments and directs the Transition Charge portion of those payments to bondholders. In exchange for providing this service, PREPA receives a "Servicer's Fee." The ongoing payment for the Servicer's Fee, which was allegedly negotiated[58] between PREPA and the Corporation, amounts to 0.05% of the initial principal of the bonds covered by the Transition Charge, or $3.4 million a year. This is 19 times larger than the Corporation witness' estimate of the actual ongoing cost of providing these services ($184,830 per year).[59]

This excess fee should not have a negative impact on PREPA ratepayers because the Energy Commission has ordered PREPA to refund to ratepayers the excess that it collects

[56] Direct Testimony of Michael Mace, Transition Charge Case (Case No. CEPR-AP-2016-0001), April 7, 2016, lines 616-885. ("Mace Testimony")

[57] Restructuring Order, paragraph 262.

[58] "This fee could not have been 'negotiated' since … at the time the fee was determined, the Corporation had only a three-person Board of Directors and no Administrator." Restructuring Order, paragraph 234.

[59] Restructuring Order, paragraphs 232-234.

from the Corporation.[60] However, the unreasonable amount of this fee, the apparent lack of diligence in setting the fee, and the questionable "negotiations" between PREPA and the Corporation, all raise doubts about the other fees that do impact PREPA ratepayers.

The Corporation's costs for fees are beyond the authority of the Commission because they are part of the Securitization Bonds, and the Commission has no power to adjust the rates produced by the securitization.[61] However, it has nevertheless expressed its views on the fees as follows:

> The Commission, along with the Independent Consumer Protection Office ("ICPO") has concerns about the amount spent so far, the absence of effective limits on the fees, the lack of competitive bidding in the selection of the contractors, the quality of oversight of those fees, and the possibility of duplicative effort among the companies charging the fees. While the Commission has no regulatory power to limit the fees, it will use its investigate power to monitor the fees and to expose any breach of the Corporation's fiduciary duties, which breach can trigger judicial action.[62]

IEEFA shares these concerns and finds that, in the absence of stronger oversight, PREPA ratepayers will be exposed to high and increasing fees. Moreover, the issues surrounding the fees raise broader questions surrounding the integrity of the debt deal itself. For example, the lack of transparency around the accounting and oversight of the fees raises questions about the management culture at PREPA and its ability to control costs in other areas, including the savings initiatives that are integral to the deal. Additionally, the inter-mingling of fees between the Corporation and PREPA, without clear distinction as to which entity is being charged for what work, appears to violate the provision of the Revitalization Act that the Corporation and PREPA maintain separate books and liabilities, a provision that is critical to ensuring that the Corporation and PREPA are viewed by the bond market as separate legal entities.

D. Savings Test Does Not Meet Acceptable Accounting Standards

PREPA officials have stated—and the Energy Commission[63] has agreed—that the Securitization transaction has met the "Savings Test" required by the Revitalization Act. The statute requires that the present value of the total debt service of the restructured bonds (which represent only a portion of the securitized bonds) is at least $725 million less than the present value of the total debt service of PREPA's Bonds outstanding on December 31, 2015. It is worth noting that this savings test applies only to bonds whose current total principal (before the securitization transaction) is $4.934 billion; the present value of the debt service on these bonds is $5.21 billion.[64] A $725 million in present value debt service savings would represent a 14% savings on bonds that make up only a little more than half of PREPA's total

[60] Restructuring Order, paragraph 235.
[61] Restructuring Order, paragraph 16.
[62] Restructuring Order, paragraph 261.
[63] Restructuring Order, Savings Test, paragraphs 79 and 80.
[64] Attachment 3.01 to the Petition, Transition Charge case (Case No. CEPR-AP-2016-0001), April 7, 2016.

outstanding debt. Even if this savings test were met, it would not result in a sufficient principal reduction, for the reasons described in the previous two sections.

However, IEEFA finds that the Corporation's analysis and the Energy Commission's approval are defective because the Corporation is only able to meet the test because the Commission has accepted a series of inappropriate accounting treatments. The Revitalization Act provides as follows:

> The Corporation may issue Restructuring Bonds to retire, defease, or refinance revenue bonds of the Authority that have been issued on or before December 31st, 2015 ("Revenue Bonds") only if, as a result of the issue of the Restructuring Bonds, the current value of the total debt service of said Restructuring Bonds is at least seven hundred twenty-five million dollars ($725,000,000) less than the current value of the total debt service of the Revenue Bonds of the Authority that have been issued on or before December 31st, 2015. For this calculation, the yield of the Restructuring Bonds shall be used, which bonds shall be issued as determined by the Corporation using typical assumptions, as determined by the Corporation in consultation with the advisors thereof … For clarification purposes, any Restructuring Bond issued to defray the incidental costs of the initial issuance of Restructuring Bonds or to defease the Revenue Bonds of the Authority shall not be subject nor included in the previous calculation.[65]

Unlike the overall rate that is approved by the Energy Commission, the Transition rate is neither reviewed by the Energy Commission nor subject to the just and reasonable standard required of the Commission for the general rate. The sole measure of the validity of the Transition Charge under the Revitalization Act is the "Savings Test."

The Corporation's net present value (PV) savings test presentation derives a savings of $867 million[66] over the 25-year life of the transaction. This exceeds the $725 million threshold by $142 million and is the foundation upon which the Corporation rests its case for compliance with the Revitalization Act. The Corporation's savings calculation is achieved by comparing the difference between a Refinanced Scenario for PREPA under its current debt portfolio and a Restructured Scenario under the Securitization (adjusted) Scenario. Attachment 2:01 of the Verified Petition is a one-page spreadsheet and the Testimony in support contains a two-page description in support of the test. The debt service savings calculation is expressed in terms of the discounted value of the principal and interest over a 25-year year period. Overall, the PV Savings Test calculation has limited transparency.

The objectionable accounting treatment excludes certain costs from the principal bond balance used in the PV savings test. This has the effect of artificially lowering the overall cost of the Securitization transaction, allowing it to meet the Savings Test requirements of the statute. The lower the principal (and related interest charges), the smaller the overall debt service burden.

[65] Revitalization Act, Section 33(a)(3)

[66] Attachment 3.01 to the Petition, Transition Charge case (Case No. CEPR-AP-2016-0001), April 7, 2016. The attachment is supported by the Mace Testimony (see "Section 5, Savings Test").

Table VI: Revitalization Corporation Claimed Savings versus IEEFA Adjustments

Cost Items	Principal Amount ($ millions)	Interest ($ millions)	PV Calculation ($ millions)[67]
Claimed PV Savings			$867
Statutory Threshold			$725
Compliance Margin			$142
IEEFA Adjustments			
1. Upfront Finance Fees	$44	$35	$42
2. Alix Partners	$38	$31	$37
3. Upfront Debt Reserves	$79	$64	$76
4. Ongoing Finance Debt Reserves	$441	$364	$435
Total	$610	$494	**$590**
Adjusted Total Savings			**$277**

IEEFA finds that the Corporation has shifted $610 million in principal costs and $494 million in interest charges out of the Savings Test calculation. This is accomplished by excluding two sets of costs that should be included in the principal balance calculation from the principal bond balance used for the Savings Test (Table VI, Principal Amount Column). First, the financial presentation exempts certain fees and other costs as "incidental" without appropriate accounting explanations of what part of these fees are rightly assigned to capital and what part incidental and what standards are used to cap the size of expenditures. In short, there is no operational definition of "incidental." Second, the financial presentation concludes that certain debt service reserve costs are also incidental. All of these costs are either folded into actual principal balances of bond issuances or charged to the Transition rate as part of a cash adjustment. They are non-bypassable costs passed along to consumers and integral to the success of the bond transaction. **If these costs were included, the net present value calculation would decrease from the Corporation's claim of $867 million to $277 million.** The Securitization transaction would not meet the Savings Test if not for these cost shifts.

[67] PV Calculations performed here use the same assumptions as the PV claimed savings included in Attachment 3.01. While IEEFA would have preferred greater transparency in the PV calculations we are able to replicate the conclusions of the calculation in consistent apples to apples manner.

Following are the costs that are inappropriately excluded:

1) **Upfront finance charges**: The Corporation exempts $44.7 million in Upfront Finance Charges[68] (Upfront Non-Deposit Costs) from the principal of the bonds used for the Savings Test. These charges include expenditures for financial service vendors (lawyers, accountants, financial advisors, consultants, and underwriters), as well as an insurance premium and other fees. The Corporation folds these upfront costs into the Securitization Bond transaction[69] but exempts them from the Savings Test calculation, arguing that they are incidental costs under the statute.[70] The lack of transparency around the presentation of these fees, as discussed in the previous section, makes both the size of these payments and their classification as incidental costs unconvincing.

   Furthermore, the $44.7 million estimate provided by the Corporation to the Commission appears to be off by more than 85% because it does not count the $37 million paid to Alix Partners.[71] AlixPartners, the lead consulting firm on the PREPA work (which employs Lisa Donahue) has received a contract extension, bringing its contract for financial advisory services to $37 million.[72]

   The Mace Transition Charge Testimony (Line 906-921) states that the fees are essential to the transaction. Thus the fees are not incidental – they are necessary for the deal to take place.[73] In addition the exclusion of AlixPartners from the list of actual costs distorts the amount to be paid for these costs.

2) **Upfront Deposits:** The Corporation also includes $79.6 million in Upfront Costs (Upfront Deposits) in Transition Charge Attachment 2:01 for the payment of a debt service reserve. Like the $44.7 million, these upfront deposits to support debt service reserve accounts are folded into the Securitization Bonds as part of the principal payment. For purposes of the Savings Test, they are excluded as an incidental cost.

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[68] "'Upfront Financing Costs' means the Financing Costs related to obtaining the Restructuring Order, the design, marketing, and issuance of Restructuring Bonds, except to the extent that the Corporation determines to pay said costs as Ongoing Financing Costs payable from Transition Charge Revenues. Upfront Financing Costs include, without limitation, Trustee (or similar fiduciary) fees and expenses, legal fees and expenses, accounting fees and expenses, Servicer set-up rates or expenses, calculation agent, depository or other manager or fiduciary placement fees and expenses, underwriting fees and expenses, printing and marketing fees, filing or listing and compliance fees, fees and expenses of the Corporation's other consultants, if any, credit rating agency fees, collateral fees and expenses, and any other cost approved by the Board of the Corporation as necessary or desirable to achieve the purposes of this Chapter and shall include reimbursement to any Person of amounts paid in advance to cover such costs." (Revitalization Act, Section 31(14)).

[69] See Rebuttal Testimony of Michael Mace (Case No. CEPR-AP-2016-0001, May 20, 2016), Lines 157-161 for rationale for the Upfront Costs and rationale for folding them into the Bond issuance.

[70] For an explanation of the assumptions used in the PV Savings Test, see Attachment 3.01 footnotes (unnumbered). The fourth footnote states (quoting the Act): "For the avoidance of doubt, any Restructuring Bonds issued to pay expenses incident to the initial issuance of such Restructuring Bonds for such purpose or to defease PREPA Revenue Bonds shall not be subject to, or included in, the above calculation."

[71] See Attachment 1.00 Schedule D to the Transition Charge Petition, Case No. CEPR-AP-2016-0001, April 7, 2016. On this list the amounts paid to each vendor or assigned to each category is not filled in. This list includes Alix Partners as a firm that will receive Advisors fees.

[72] It is uncertain how much of these payments are attributable to the Authority and how much to the Corporation. The dual role played by Alix Partners, Navigant Consulting and PFM is discussed elsewhere.

[73] Rebuttal Testimony of Michael Mace, Transition Charge Case (Case No. CEPR-AP-2016-0001), May 20, 2016, Lines 136-143.

The Mace Testimony (Lines 478-492) outlines the role played by the debt service reserve. Reserves are essential to ensure full and timely payment on the bonds in the event of cash shortfalls, required by credit agencies and are of particular concern to PREPA given its distressed financial state. Mace also notes that the debt service *requirements* for the Securitization Bond transaction are higher than for typical bond deals due to PREPA fiscal distress (Lines: 483-488).

IEEFA finds that the use of the Upfront costs category for a debt service reserve is questionable; a debt service reserve is not incidental to the transaction. In the Mace Testimony and Rebuttal Testimony[74] no specific rationale is provided for this cost (lines 676-708) as an upfront cost.

3) **Transaction to Fund Debt Service Reserves**: A separate transaction to fund debt service reserves is part of the Financing Plan. PREPA's insurers provide a debt service reserve of $441 million to meet financing requirements. For the first two years (2017 and 2018), this liability will not appear on the books of the Corporation and the Corporation will pay quarterly fees[75] that are included in the financial presentation as Ongoing Finance Charges.[76] Starting in 2019, the debt service reserve requirement becomes the full responsibility of the Corporation. The obligation reappears in the finances of the Corporation as a $49 million per year charge necessary to replace the reserves. This will be paid out of cash adjustments to the Transition Charge.

This arrangement is not included in the principal balance for the Savings Test.

The obligation to finance a $441 million debt service reserve is integral to the financial plan that is underwritten by the Transition Charge and the Securitization Bonds. It is a long-term obligation that would typically be absorbed in a routine debt issuance. It is separated in this transaction and it is exempted from inclusion in the bond principal for the Savings Test, it is nevertheless a debt cost that is passed along to consumers.

The Energy Commission stated generally that it has no power to review the classification or payments of these debt service reserve requirements as part of Upfront Costs.[77] The Commission offered no comment on the structure or appropriateness of the debt service reserve financing.

[74] In Rebuttal Testimony Mace does not describe the rationale for using the Upfront category. The reference in the Rebuttal Testimony is used to refute the idea that the Upfront Costs are high and driven by professional fees. Mace notes that the total Upfront Costs are not only professional fees, but also used for the reserve account. (Lines 143-154)

[75] This term Quarterly Fees is misleading. The Corporation appears to be carrying some or all of the debt service on the $441 million bonds issued by PREPA's insurers. This is a debt service cost even though the debt is on the books of the insurance companies.

[76] Verified Petition (Transition Charge), Paragraph 49 demonstrates that the classification of funds between Ongoing Finance Charges (paid out annually from the Transition Charge) and the Upfront Charges (paid out of bond issuances) is a discretionary matter on the part of the Corporation. "Upfront Financing costs may be paid from the proceeds of the New Money Bonds or the Cash Offer Bonds (as the case maybe), provided that any Upfront Financing Costs approved for recovery that cannot be paid from the proceeds of the sale of the Bonds shall be recoverable as Ongoing Finance Charges."

[77] Restructuring Order, paragraphs 15, 16, 26, 261, 269.

V. The Debt Deal Will Not Restore PREPA to Fiscal Health Because it Does not Include a Viable Plan for Getting PREPA Back into the Bond Market

The testimony and documentation provided in the rate case provide conflicting predictions for when PREPA will be able to re-enter the bond market.

The Balance Sheet filed with the rate case (Schedule F) identifies $1.6 billion in 2018-2021 for "New Issue Capex Financing," i.e. new bond issues by PREPA to cover capital expenditures. To achieve the projected bond issuances PREPA would need to regain access to the bond markets by 2018. The testimony which sponsors Schedule F[78] (the Revenue Requirements testimony) contains no direct reference to Schedule F's new issuances starting in 2018, and no assurance that PREPA will be likely to regain access to the bond market by 2018.

The Revenue Requirements testimony does make three general references to PREPA's ability to re-enter the market. Each reference raises questions regarding the validity of the financial projections used in Schedule F that PREPA will return to the bond market in 2018.

1) The Revenue Requirements[79] testimony offers a lengthy discussion of PREPA's current bond market access prospects (Revenue Requirements, Lines 969-996). It then assesses the financial metrics that typically are necessary to establish and maintain market access. The Revenue Requirements Panel states that it does not have a specific date for PREPA to re-enter the bond market (Line 971). It is uncertain as to how the various savings initiatives, new debt structure and rate increases will be assessed by credit rating agencies and received more generally by investors.

2) The testimony states that factoring in the securitization deal and the reforms outlined by PREPA in the rate docket, the Authority should be able to get back into the markets in 2020 (Line 995). If this 2020 scenario is achieved, PREPA would not be able to borrow in 2018 and 2019 as specified in Schedule F—or it would have to borrow at an unreasonably high cost. This creates an $816 million hole in PREPA's capital expenditure financial plan. In 2017, PREPA's Capital Expenditures are funded directly through cash from the rate increase. Should PREPA fail to be able to borrow from 2018 through 2021, the Authority's revenue requirements would need to be adjusted by over $400 million per year to maintain its commitment to its modernization plans. This would increase rates beyond what is projected in the proceeding.

3) Line 981 of the testimony states that the validity of PREPA's overall financial plan rests upon whether investors accept the Special Vehicle (SV), the Corporation, as separate and independent from PREPA, or whether the debt secured by the Corporation is seen as a liability of PREPA. The Securitization Bonds would be advantaged in the bond markets if the markets received PREPA and the Corporation as separate entities

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[78] Direct Panel Testimony of Francis X. Pampush, PhD, CFA, Lucas D. Porter, CFA., Dan T. Stathos, CPA, Case No. CEPR-AP-2015-0001, May 27, 2016 ("Revenue Requirements")

[79] Ibid.

with clear, transparent and discernible underwriting revenues and expenses.[80] Conversely, PREPA's ability to regain access to the bond market would be further impaired if the Corporation's debt is viewed as a PREPA liability.

One factor militating against investors accepting this interpretation of the Bond Securitization financial structure is the inherent institutional conflict between the Corporation's ability to establish and adjust the Transition Charge in an unfettered manner, and the Energy Commission and PREPA's need to maintain rates that are both affordable and provide adequate funding for PREPA's operations and new investment in its modernization plan. The Corporation maintains it has the sole authority to set the Transition Charge to insure that full and timely payment is made on the Securitized debt. The Corporation argues repeatedly that the Transition Charge is considered separately from the Energy Commission's rate considerations. The Transition Charge therefore constitutes an unalterable amount of money that the Commission must incorporate into PREPA's overall rates, and revenues from rates must be directed towards paying the Transition Charge before any other expenses.[81] Yet when considering PREPA's future access to the bond market, no attention is paid to the issue of PREPA's subordinated lien position. How will investors view PREPA's new bond issuances to fund its capital needs if payments on those notes are legally subordinated to the Transition Charge and, as is suggested by the Hemphill Testimony (Lines 338-343), effectively subordinated to the Authority's operating budget and its routine maintenance investments?

In short, the Revenue Requirements testimony is inconclusive on when PREPA can borrow again or whether the reforms will be successful.

In addition, the discussions of bond market access offered in both the Rate Case[82] and the Transition Case[83] do not address one significant admonition from a credit agency, Moody's:

> The criteria for an eventual restoration of Puerto Rico's market access for new bond offerings will also likely differ from sovereigns that re-enter the market following default. While many national governments in restructuring cases face challenges from devaluation of their currencies, Puerto Rico's main hurdle will likely be the ability to show that its economy has transcended the structural impediments to growth that have long weighed on it since 2006.[84]

While the bond analysis by PREPA's consultants compares the Authority's performance to many of the standard credit metrics by which other issuers are judged, PREPA's re-access to the bond markets will not be based solely on these quantitative mechanisms. In IEEFA's assessment these measures are essential, but they are also subject to manipulations given the weak budgetary and financial internal control environment at PREPA. Therefore, the

[80] See Section IV C for a discussion of the fees paid by the Corporation, including conflicts of interest and accounting treatment. This goes to this broader point of whether the two Corporations are indeed separate or selectively intermingling procurement processes, contractors, payments and reporting.

[81] See Rebuttal Testimony of Ralph Zarumba, Transition Charge Case (Case No. CEPR-AP-2016-0001), May 20, 2016, p. 2-4. (http://energia.pr.gov/wp-content/uploads/2016/05/D-Corporation-Ex-9-00-Zarumba-Rebuttal.pdf)

[82] Direct Panel Testimony of Francis X. Pampush, PhD, CFA, Lucas D. Porter, CFA., Dan T. Stathos, CPA, Case No. CEPR-AP-2015-0001, May 27, 2016, Lines 988-1561.

[83] Direct Testimony of Michael Mace, Transition Charge Case (Case No. CEPR-AP-2016-0001), April 7, 2016, lines 1595-1627

[84] Moody's, "Frequently Asked Questions about Puerto Rico's Fiscal and Debt Crisis", July 22, 2015, p. 7.

fundamental measure for PREPA remains Puerto Rico's economic growth.[85] There is no analysis in either case of Puerto Rico's economy and its relationship to the assumptions and measures contained in the testimony and support information.

Although PREPA states that a central element of the plan is to return PREPA to the bond market so that it can finance its future modernization plan,[86] nowhere do the securitization transaction and its attendant budgetary actions offer a plan with a clear path to that objective.

VI. The Debt Deal Will Not Restore PREPA to Fiscal Health Because It Imposes Rates That Are Unaffordable

IEEFA finds that the debt restructuring will lead to PREPA ratepayers still paying a large fraction of their electric bill toward debt service costs. Furthermore, total rates as projected by PREPA will be unaffordable given the state of Puerto Rico's economy. And rates are likely to be higher than PREPA projects because of the likelihood of (a) planned savings initiatives not materializing; (b) electric sales falling more than anticipated; (c) fees coming in higher than anticipated; and (d) PREPA failing to re-enter the bond market by 2018. If higher electricity rates cannot be paid, PREPA will be unable to recover from its weak fiscal position.

A. Portion of Electric Rate Devoted to Debt Service Is Unsustainably High

PREPA's proposed rate of 20.1 cents per kWh in 2017 contains a very high level of debt service and debt service related expenses. The 20.1 cents per kWh rate includes 3.1 cents per kWh from the imposition of the Transition Charge. But if all debt service charges required to support the transaction are taken into consideration, the proportion of the rate going towards debt service will be much higher.

Beyond the securitization charge, PREPA's debt service related expenses include legacy debt service and new capital expenditures. PREPA's legacy debt service costs (the debt remaining at PREPA after the Securitization Bonds are issued by the Corporation) are a necessary part of the rate under the proposed construct because not all of PREPA's debt is

[85] The Krueger report is one study that places the fiscal problems in an economic context. http://www.bgfpr.com/documents/puertoricoawayforward.pdf
[86] Legal Brief of the PREPA Revitalization Corporation, Case No. CEPR-AP-2016-0001, June 14, 2016, p. 4. http://energia.pr.gov/wp-content/uploads/2016/06/14junio2016-PREPA-RC-Legal-Brief.pdf

covered by the Corporation's securitization transaction. Although most of PREPA's current debt becomes the responsibility of the Corporation after the securitization transaction, [87] PREPA is still responsible for the remaining debt service. PREPA's cash outlays for capital expenditure investments in 2017 are also included here as a debt service- related expense because, under normal circumstances, PREPA would be financing these investments by taking on more debt.[88]

Although all of these charges are included in the new PREPA 2017 rate design, less than half of them are part of the Transition Charge. IEEFA includes them as actual costs of financing for the securitization deal because consumers must pay them.

In Table VII, we adjust the Transition Charge to include PREPA's Legacy debt service and 2017 cash outlays for Capital Expenditures. Additionally, we break out Uncollectible Revenues on Transition Charge collections as a separate cost.[89] Together, these charges taken as a whole represent an accurate accounting of the size of the bond obligation presented by PREPA and its consultants to the Commission.

Table VII: 2014-2017 Debt Service Cost Comparison and Rate Impact: IEEFA Adjusted for 2017 Debt Service Related Costs

	2014	2017	Rate Impact	Source
Electricity Consumption (kWh)	17,560,011,746	17,268,325,180		Schedule F
Debt Service Cost	$635,300,000		3.7 cents/kwh	Schedule A
Debt Service (Legacy (L) plus Securitization Debt (SD))		$708,000,000	4.1 cents/kwh	Schedule A
Debt Service (L+SD) plus Capital Expenditure (CE)[90]		$1,045,184,747	6.1 cents/kwh	IEEFA Adjustment
Debt Service (L+SD+CE)+Uncollectible (U)[91]		$1,154,211,778	6.7 cents/kwh	IEEFA Adjustment

[87] For PREPA's formal presentation as to how the bond indebtedness liabilities are likely to be apportioned see: http://energia.pr.gov/wp-content/uploads/2016/04/25abril2016-Prepas-Rev.-Corp.-Information-Submission.pdf, p. 2-4.

[88] Schedule A, Attachment C to the Petition for Approval of Permanent and Temporary Rates, Case No. CEPR-AP-2015-0001, May 27, 2016. Line Item Capital Expenditures (Maintenance and Investment), A000001 ("Schedule A"). See also page 6 of Schedule F which shows that no new bond issue is anticipated for FY 2017, implying that the $336.6 million must be financed with cash

[89] According to Attachment 3.03 (p.4 "Restructured Debt Service") to the Petition (Transition Charge Case, Case No. CEPR-AP-2016-0001, April 7, 2016), the debt service for 2017 is $394 million, the amount the Corporation needs to pay to cover the newly issued bonds and other liabilities related to the restructuring. In order to calculate the Base Rate, Schedule A includes the $394 million for debt service for the securitization and adds another $109 million as a Gross up for collection lag and uncollectible revenues. This amount is added to reduce the risk to bondholders. It is a cost of the deal. Together, the $394 million and the $109 million for collection lag and uncollectibles translate into the 3.1 cents/kWh Transition Charge rate.

[90] Capital Expenditure for 2017: $336,557,808.00 (Schedule A and also PREPA Exhibit 5.04 to the Petition for Approval of Permanent and Temporary Rates, Case No. CEPR-AP-2015-0001, May 27, 2016)

[91] Uncollectible Revenues for 2017: $109,027,031.00 (Schedule A and also PREPA Exhibit 5.04 to the Petition for Approval of Permanent and Temporary Rates, Case No. CEPR-AP-2015-0001, May 27, 2016)

PREPA states that the Transition Charge established under the Revitalization Act adds an additional 3.1 cents per kilowatt hour to the 2017 rate.[92] This is a misleading characterization. According to Table VII, IEEFA estimates that consumers must also absorb an additional 3.6 cents per kilowatt hour for costs integral to the success of the financial restructuring held separately from the Transition Charge. Under this accounting, debt service and debt service related payments are 6.7 cents per kilowatt hour and absorb 33% of the consumer's monthly payment.

There is no clear standard to determine whether a public power utility has a high proportion of debt service built into its rates. To determine PREPA's relative position we selected a peer group of some of the largest public power utilities in the United States by revenue size. Using PREPA's projections going forward for 2017 and information gathered from the most recent annual reports, budget documents, official statements and financial statements of the peer group, we determined that PREPA's debt service burden, as a percentage of revenues, is between 2 and 3.8 times higher than that carried by its peers. And PREPA's rates carry between 2 and 5 times the debt service burden of its peers.

Table VIII: Comparison of PREPA Debt Service as Percentage of Revenue and Electricity Rates with Peer Group[93]

	Revenues (R) $ billions	Debt Service (DS) $ billions	DS as % of Revenue	Generation Billions/kwh	Debt Service Cents/ kwh	Rate Cents / kwh	DS as % of Rate
PREPA	2.99	1.15	38%	17.27	6.7	20.1	33%
LIPA[94]	3.4	0.6	18%	20.4	2.9	18.0	16%
Santee Cooper[95]	1.8	0.28	16%	26.5	1.0	7.3	14%
AMP[96]	1.1	0.14	13%	14.0	1.0	7.9	13%
LAWPD[97]	3.3	0.46	14%	25.4	1.8	11.1	16%
Salt River Project[98]	3	0.30	10%	33.6	0.9	11.3	8%
CPS Energy [99]	2.6	0.33	13%	33.2	1.0	17.0	6%

[92] The original rate amounts are included in the Rate Docket, Schedule F, Proposed Rates, Income Statement, F 000003. , April 7, 2016. During the course of negotiations changes were made to the rate design. Those changes have no impact on the 3.1 cents per kWh established in the original submission. See Zarumba updated modeling of rate design changes that occurred during the proceeding. The design changes do not affect the rate charged to residential households. Zarumba Transition Rebuttal Testimony. See footnote 2 for explanation and the Corporation Supplemental Exhibit 11.01, Tabs 5-9, pages 5-9/63 for restated calculations of design changes and rate impacts.

[93] https://www.publicpower.org/files/PDFs/100LargestPublicPowerUtilitiesbyElectricRevenues.pdf. We took the top five public power utilities by revenues and added Santee Cooper and AMP to establish Peer Group.

[94] Long Island Power Authority (LIPA) http://www.lipower.org/profile/2016%20APPROVED%20BUDGET.pdf , p. 5 rates, p. a-2 Revenue and Generation, p. A, Debt Service.

[95] Santee Cooper: https://www.santeecooper.com/pdfs/about-santee-cooper/2015ar/2015AR_FINAL.pdf, Revenues and Interest, p. 13 and Generation p. 6.

[96] http://www.amppartners.org/docs/default-source/investors/financial-reports/2015/amp_consolidated_fs_2015.pdf?sfvrsn=2, p. 5.

[97] Los Angeles Power and Water Department (LAPWD): http://emma.msrb.org/ER970367-ER758976-ER1160417.pdf 6/30/15.. Revenues and Debt Service, p. 52 and Generation page 54.

[98] Salt River Project: http://emma.msrb.org/EP863182-ER690004-ER1091632.pdf, Revenues and Generation, p. 31, Rates p. 32, Debt Service, p. 38

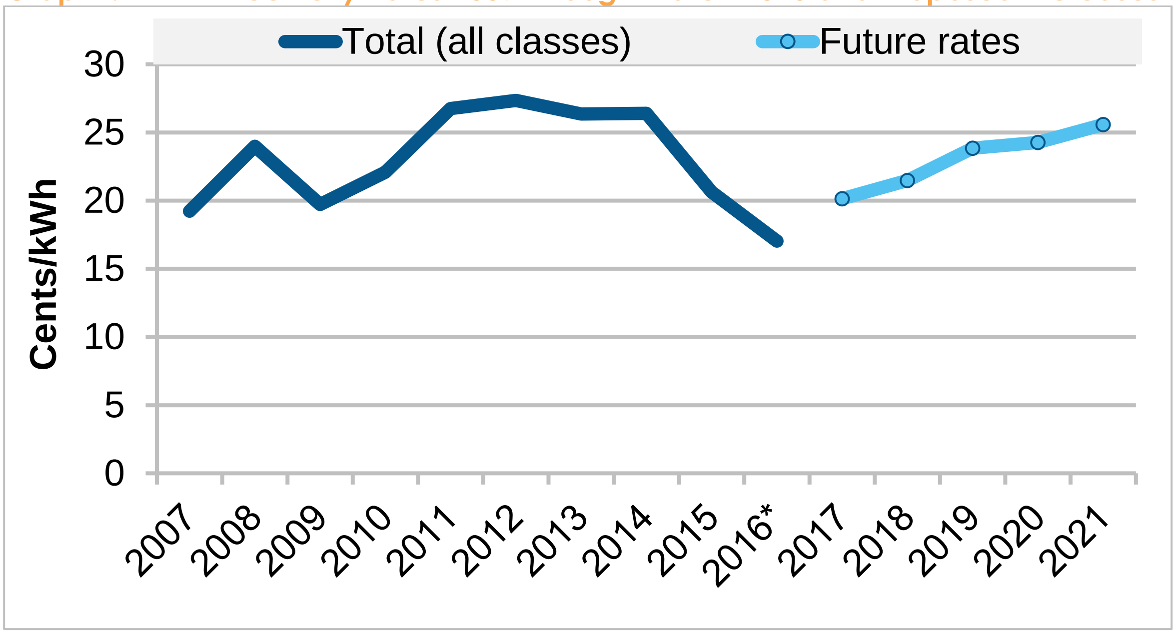
[99] CPS Energy: https://www.cpsenergy.com/content/dam/corporate/en/Documents/Finance/FY_2015_Annual_Report.pdf, Three Year Highlights Unaudited, electronic page 17, all data.

B. PREPA's Projections of Future Rates Are Not Affordable in Puerto Rico's Economy

The average electricity rate for Puerto Rico from 2007 through 2015 was 23.6 cents per kilowatt hour (see Graph I). The rates hit a peak of 31.6 cents per kilowatt hour in February 2013. Since 2015, rates have declined and are now in the 17 cents per kilowatt hour range. Residential rates hit 16.5 cents per kilowatt hour in January 2016, the lowest rate since 2007 (see Graph I).

The proposed rates will increase to 20.1 cents per kilowatt hour in 2017 and then continue to rise to 25.58 cents per kilowatt hour in 2021. The proposed 20.1 cents per kilowatt hour rate represents a 22% increase over 2016. The rate rises to 23.8 cents per kilowatt hour in 2019 the last year of the proposed rate plan, an increase of 44%. By 2021 the rates will continue to rise and are expected to be 25.6 cents per kilowatt hour, a 55% increase from 2016 to 2021 (Graph I).[100]

Graph I: PREPA Electricity Rates 2007 through March 2016 and Proposed Increases



* First 3 months of 2016

The main driver of the price decrease in Puerto Rico since 2014 was the declining price of oil, the primary fuel used to produce electricity. In 2012, PREPA paid $2.9 billion for fuel. In 2017, PREPA estimates it will pay $764 million for fuel, a 74% decrease in 5 years. PREPA's electricity rates fell 29% through the same period. IEEFA estimates that the price of oil will remain low through 2017, a year, however, when PREPA's electricity prices are expected to increase 22%.

100 Projected rates provided in Rate Case Schedule F.

Table IX: Comparison of Highest State Electricity Rates, Median Incomes and GDP Growth Rates With Puerto Rico

State[101]	Electricity Rates (cents/kWh)	Median Incomes[102] 2014	GDP (Annual Average 2011 through 2014)[103]
Hawaii	33.43 ¢	$71,223	2.4%
Puerto Rico	**20.10 ¢**	**$19,183**	**(0.75%)**[104]
Alaska	17.46 ¢	$67,629	0%
Connecticut	17.05 ¢	$70,161	1.8%
New York	16.25 ¢	$54,310	3.0%
U.S. Total[105]	10.44 ¢	$53,657	2.7%

Table IX compares Puerto Rico to a peer group of other states with high electricity prices. Under PREPA's projected rates, Puerto Rico will pay twice the price for electricity as the rest of the United States. Puerto Ricans have, on average, one-third the median income of households in states with high electricity rates. In addition, and unlike any of the above-listed states with comparably high electricity rates, Puerto Rico had negative GDP growth for the period 2011-2014, and economic contraction is expected to continue, with GDP projected to decline by 2.0% over the next year.[106]

The proposed rates significantly exceed the governor's and legislature's ad hoc standard for improved electricity prices in Puerto Rico. The Statement of Purpose to the Revitalization Act contains the following language:

> During said period (December 2011 through January 2013), the actual price per kilowatt-hour reached 30 cents. This Administration corrected said manipulation and has achieved an average reduction of over 18% in the actual energy price.[107]

IEEFA recognizes that this is a political statement included in the introductory section to this legislation. It nevertheless serves as the only measure available that could serve as a standard for what and what is not an affordable price of electricity according to Puerto Rico's decision-makers (no discussion of affordability issues are provided in the various cases). During the 14-month period from December 2011 through January 2013 cited in the Statement of Purpose, the price of electricity averaged 25.37 cents per kilowatt hour. An 18% reduction from this level is 20.7 cents per kilowatt hour. The rates proposed by PREPA going forward start at 20.1 cents per kilowatt hour, a rate that, based on IEEFA's interpretation of

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101 Electricity rates by state: http://www.eia.gov/electricity/state/
102 For all states see: http://www.advisorperspectives.com/dshort/updates/Household-Incomes-by-State and the Commonwealth see: https://www.census.gov/content/dam/Census/library/publications/2014/acs/acsbr13-02.pdf
103 http://lwd.dol.state.nj.us/labor/lpa/industry/gsp/gsp_index.html
104 http://www.tradingeconomics.com/puerto-rico/gdp-growth-annual
105 Of the 50 states Mississippi has the lowest median income in 2014: $35,521.
106 The 2014 Audit highlights the disparity between United States GDP and Puerto Rico's. http://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Annual%20Reports/Financial%20Statements,%20Required%20Supplementary%20Information%20and%20Supplemental%20Schedules%202014.pdf, p. 27.
107 Revitalization Act, Statement of Motives, p. 4

the above paragraph, would appear to be marginally acceptable to the state legislature and governor. The price of electricity then rises to 21.5 cents per kilowatt hour in 2018 and to 25.8 cents per kilowatt hour in 2021, considerably higher than the more acceptable rates implied in the Statement of Purpose.

C. Electricity Rates Run the Risk of Being Higher than Projected

IEEFA identifies the following risks as likely to materialize, further driving up rates:

1. **The risk of lower-than-expected savings**. As described in Section III, the rates have been proposed based on the assumed success of a number of operational savings initiatives that are poorly documented. In the past, PREPA has not been successful in meeting budget targets. IEEFA finds it likely that the proposed savings initiatives will not materialize, possibly costing PREPA up to $350 million in 2017. Lost revenues from unsuccessful savings initiatives will ultimately be recovered through rates, driving rates higher.

2. **The risk of lower-than-expected electricity sales**. PREPA offers a misleading picture of its energy consumption, a factor that distorts the current and projected financial condition of the Authority. When IEEFA corrects the misleading numbers there is upward pressure on the proposed rates.

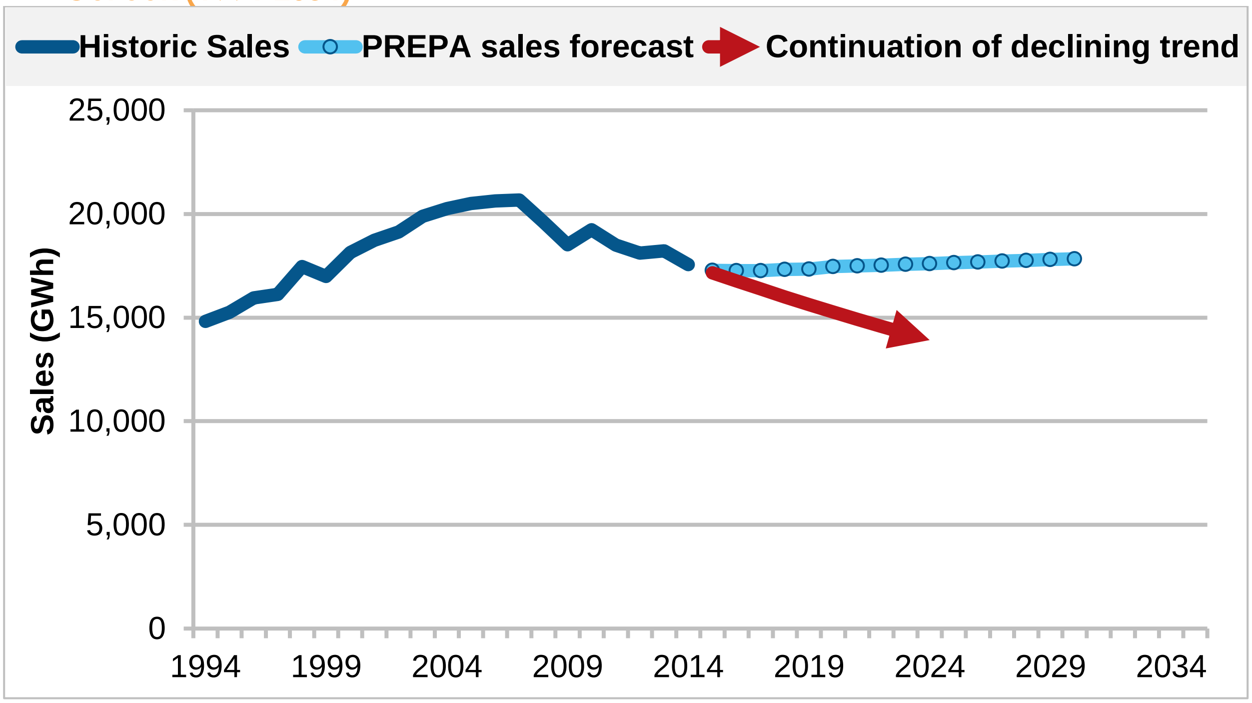
   PREPA's assumptions regarding future electricity consumption are not consistent. The statute directs the Corporation to use historic consumption data that reflects the last twelve months of PREPA's operations as a basis for setting the Transition Charge.[108] The Corporation relies upon a study by Navigant Consulting for this portion of the data.[109] Navigant uses FY 2015 (July 2014 to June 2015) to meet the test of using the last twelve months of energy usage. Navigant's research shows that during this period the total consumption of electricity was 16.519 billion kilowatt hours.

   Yet Schedule F, a document submitted in support of rate case,[110] relies on an estimate of electricity use in 2017 of 17.2 GWh—approximately 5% higher than PREPA's own consulting report.

[108] Revitalization Act, Section 6.25A, d (2)
[109] Attachment 6:00 to submission, Testimony of Ralph Zarumba, Report on Transition Charge (attached to testimony), April 7, 2016, p.3.
[110] Rate Case Schedule F, Line Item "Sales GWh"

Of greater concern, however, is PREPA's forecast that electricity consumption in Puerto Rico will remain essentially flat through 2030, as shown in Graph II.[111]

Graph II: PREPA Actual and Projected Sales of Electricity With IEEFA Adjustment to PREPA Outlook (1994-2034)



As shown in Graph II, PREPA has faced declining electricity consumption for the past several years.[112] From 2007 through 2015 the trend line is down. Overall PREPA's actual sales declined during this period from 20 billion kilowatt hours to 16.619 billion kilowatt hours, or 20%.

This long-term trend is likely to continue, with energy consumption declining in the near term. The economy is expected to further deteriorate through 2017.[113] Population is also expected to continue to decrease during this period.[114] We have adjusted Graph II to create a scenario based upon a continuation of PREPA's declining consumption trend. The PREPA forecast does not appear to estimate the impact on electricity consumption from significant price increases. PREPA's overly optimistic energy consumption estimates are unlikely to materialize. Lower electricity consumption would require PREPA to spread the costs of production over a smaller sales base (kWh sold). PREPA's high fixed costs resulting from its debt levels will require that these costs be spread over fewer sales of kilowatt hours. The net effect is upward pressure on rates.

[111] Rate Case Schedule F.

[112] Declining electricity sales are cited as a challenge for the Authority in its 2014 Audited statement. http://www.aeepr.com/INVESTORS/DOCS/Financial%20Information/Annual%20Reports/Financial%20Statements,%20Required%20Supplementary%20Information%20and%20Supplemental%20Schedules%202014.pdf, p. 7.

[113] http://cb.pr/planning-board-puerto-rico-economy-to-drop-2-in-fiscal-2017/

[114] http://www.tradingeconomics.com/puerto-rico/forecast

3. **The risk of higher-than-expected fees.** The factors that exert upward pressure on consultant fees—lack of transparency around magnitude and accounting treatment of fees, conflicts of interest, and lack of competitive bidding—have been discussed in Section IV. IEEFA shares the Commission's "concern that PREPA's customers will be exposed to fees without limit" (Restructuring Order at paragraph 266).

4. **The risk that PREPA will not access bond markets in 2018**. The financial plan offered by the Corporation assumes that PREPA will borrow $411 and $405 million in 2018 and 2019 for capital needs. PREPA's access to the bond market in 2018 is unlikely. To meet its capital needs it may elect to provide direct cash (as it has chosen to do in the 2017 budget). Finding an additional $400 million in 2018 and 2019 will place upward pressure on revenue requirements and rates.

In short, under PREPA's forecast, rates will increase 55% over the next five years. IEEFA finds it likely that rates will increase even faster as a result of PREPA's unrealistic assumptions regarding savings initiatives and electricity demand, as well as conflicts of interest that will drive up the fees embedded in the Transition Charge and an unworkable assumption of PREPA's return to the bond market. These rates will not be affordable given the current and projected state of the Puerto Rican economy.

VII. The Debt Restructuring Will Hinder PREPA's Transition to Renewable Energy

In addition to its fiscal crisis, PREPA faces an urgent need to re-invest in and modernize its electricity infrastructure. PREPA's current generation system is dominated by oil-, gas-, and coal-fired power, and PREPA is out of compliance with the federal Mercury and Air Toxics Rule. PREPA's system therefore has significant capital investment needs.

PREPA's preferred scenario, as described in its integrated resource plan, is to construct a new Liquefied Natural Gas (LNG) import terminal and to convert most of its generation system to natural gas, with minimal reliance on renewable energy. IEEFA has previously questioned PREPA's integrated resource plan and argued that the plan is biased against renewable energy, demand response and efficiency.

In this section, IEEFA finds that the cost of PREPA's near-term planned capital investments, combined with the high levels of legacy debt imbedded in rates through the debt restructuring, will crowd out potential future investment in renewable energy.

A. PREPA's Lack of Commitment to Renewable Energy is Evident in Recent and Pending Energy Commission Proceedings

The Revitalization Act's commitments to renewable energy are stated in an indirect manner with no core commitments: 1) New renewable energy resources are mentioned in general in prefatory language to the Revitalization Act, but not carried through in the body of the legislation; 2) The Act empowers PREPA to implement the Integrated Resource Plan;[115] 3) In general the statute intends to pave the way for PREPA's re-entry into the bond market so that it can again borrow to meet its own needs, including renewable projects; 4) The statute links PREPA's Business Plan and IRP generally but not specifically to financial resources for renewable goals.

Neither PREPA nor the Corporation identifies any specific renewable projects in the Transition Charge case or the rate case at the Energy Commission. The rate and Transition Charge documents lack detail and state only vague plans for renewable energy. Lisa Donahue, the lead witness in both rate cases, offers no awareness of the need for renewables investment (beyond references to energy efficiency), and Javier Quintana,[116] executive director of PREPA, does not include renewable energy in PREPA's vision statement in the rate proceeding (Quintana Testimony, Lines 192-210).

Though limited, the integrated resource plan (IRP) provides the most detail on PREPA's renewable energy plans. The Commission held a technical conference on the IRP in April 2016 and heard oral arguments in May 2016. The Commission must decide whether to approve or modify the plan.[117]

During the IRP process, the Commission required PREPA to do additional analysis of energy efficiency, demand response and renewable energy, as well as a sensitivity analysis of lower future fuel prices. The agency filed two supplemental IRPs in April 2016. IEEFA criticized[118] PREPA's IRP for using outdated costs for renewable energy and for not evaluating the capital costs of renewables and fossil fuel infrastructure on a consistent basis, both of which biased PREPA's analysis. The result is that the agency's proposed renewables program is weak and likely to be ineffective. PREPA's preferred scenario[119] calls for increasing renewable energy generation from 3% in 2015[120] to 12% in 2025, falling short of Puerto Rico's Renewable Portfolio

[115] Revitalization Act, Section 5B(dd). "Conduct competitive request for proposals processes or execute Public-Private Partnership agreements, in accordance with this Act, to develop, finance, build, operate, and provide maintenance, in whole or in part, to the electric power grid and the power plants and other facilities and infrastructure thereof, as well as to promote new generation, transmission, distribution, customer service optimization projects and any other necessary project consistent with the Integrated Resource Plan."

[116] Javier Quintana, Executive Director Puerto Rico Electric Power Authority, Testimony in Support of Petition, CEPR-AP-2015 (Rate Case Docket), May 27, 2016.

[117] Act 57-2014 ("Puerto Rico Energy Transformation and RELIEF Act"), Section 6.23

[118] http://ieefa.org/wp-content/uploads/2016/04/Comments-on-the-Puerto-Rico-Electric-Power-Authoritys-Integrated-Resource-Plan-April-2016.pdf

[119] PREPA's preferred scenario, as identified in the April 19, 2016 Supplemental IRP (page 10-1) is scenario P3F1, developed in the August 2015 IRP.

[120] August 2015 IRP at p. 4-2.

Standard mandate of 15% by 2025.[121] Even under the unfavorable capital cost assumptions used in PREPA's analysis, the supplemental IRP found that full compliance with Puerto Rico's renewable portfolio standard, combined with more aggressive energy efficiency, would require less capital investment through 2035 than PREPA's preferred natural gas-based scenario.[122]

It is clear that Puerto Rico and PREPA's priority for near-term capital investment is the Aguirre Offshore Gas Port, a Liquefied Natural Gas (LNG) import terminal. This is the only project mentioned explicitly in the Revitalization Act, and it is a key piece of Puerto Rico's preferred investment scenario in its IRP. In its IRP PREPA evaluated a generation expansion plan with AOGP (the preferred plan) and another without AOGP. Initial modeling in August 2015 showed a 9% cost advantage to the plan with AOGP.[123] However, when PREPA ran a sensitivity analysis in April 2016 with a lower, more realistic fuel price forecast, the cost advantage of the plan with AOGP went down to 1% over 25 years.[124] These modeling results show that the cost advantage of AOGP is highly sensitive to future fuel prices. Additionally, PREPA assumes that this large infrastructure project will not experience any cost overruns.[125] There is significant risk to ratepayers that no cost benefit will be realized by building AOGP according to PREPA's preferred plan.

Despite the risks of AOGP, it is clear that PREPA favors a scenario based on constructing AOGP and retrofitting existing power plants to run on natural gas. In contrast, the IRP does not offer any specificity around the timing of the development of any particular renewable energy projects.[126]

Additionally, despite the fact that the IRP case is still pending before the Commission, published reports suggest PREPA officials and bond holders are negotiating the financing of natural gas generation projects not yet approved by the Commission and not discussed in either the Transition Charge or Rate dockets.[127] In short, the documents provided in the Transition Charge and Rate cases, as well as the Integrated Resource Plan, show that PREPA's priority is to modernize its electricity system based on imported natural gas, rather than transition to renewable energy.

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[121] See: Act 82-2010 ("Public Policy on Energy Diversification by Means of Sustainable and Alternative Renewable Energy in Puerto Rico Act") and August 2015 IRP at page 4-2.

[122] However, the preferred scenario requires less capital investment through 2025. See April 19, 2016 supplemental IRP at p. 1-6. (comparing P3F1 and P3MF1M_S5).

[123] August 2015 IRP, Table 1-3 (comparison of P3F1 and P3F2).

[124] April 19, 2016 Supplemental IRP, Table 9-2 (comparison of P3MF1MFuel and P3MF2MFuel).

[125] PREPA performed no sensitivity analysis in which AOGP came online at a later date and/or with a higher cost. This despite the fact that it only has 14 months in which to construct and bring online the project in order to meet its July 2017 date – which is itself another delay from the mid-2014 in-service date projected in 2013. (See http://www.platts.com/im.platts.content/productsservices/conferenceandevents/2013/pc302/presentations/mike_trammel.pdf) And in 2014, PREPA estimated AOGP would have $66 million in fixed operating expenses. ("First Stage Integrated Resource Plan", prepared for PREPA by Leidos, November 28, 2014, page 3-1). It now says the cost will be $77 million a year. (August 2015 IRP at page 5-7).

[126] The IRP includes a chart of possible future solar projects but there is no timeframe provided for developing these projects nor any explanation of financing (see April 19, 2016 supplemental IRP Table 5-6).

[127] R. Slavin, "PREPA's Expected Default is Now Avoidable," The Bond Buyer, April 1, 2015, http://www.bondbuyer.com/news/regionalnews/no-default-for-prepa-1071897-1.html

B. PREPA's Near-Term Capital Investment Plan Does Not Include any Provision for Renewables and Is Unlikely to Be Fully Funded

PREPA's rate case filings show 2017 capital expenditures are financed with cash payments of $336.6 million, not debt.[128] These cash payments in 2017 are carried as expenditures and financed fully through the cash received from PREPA's consumers in 2017. These 2017 payments do not include any funding for renewable generation projects, as shown in the following table.

Table X: Identified Use of Funds for 2017 (in $ millions) [129]

Use of Funds for 2017	Amount	Source of Funds
Maintenance	$232.1	Cash
Investment	$104.5	Cash
a. AOGP Gasport ($56.3)		
b. T & D Investment ($48.2)		
Total	**$336.6**	

PREPA's integrated resource plan provides a 5-year (through 2021) "Action Plan," which lays out planned capital expenditures related to generation, as shown in the next table. PREPA's integrated resource plan identifies $2.33 billion in investment for necessary transmission upgrades and various projects related to the Island's new natural gas generation and infrastructure and retirement of existing capacity. None of this $2.33 billion is earmarked for renewable energy projects. While a list of renewable energy projects is provided in the Integrated Resource Plan, no information is provided as to which of them are likely to be developed, nor any timeline for their development, nor any source of financing.[130]

Table XI: Identified Capital Needs Through 2021 (in $ billions)

Item	Amount	Source
Transmission[131]	$1.18	IRP
Generation [132]	$1.15	IRP
Total	$2.33	

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128 Schedule A, Attachment C to the Petition for Approval of Permanent and Temporary Rates, Case No. CEPR-AP-2015-0001, May 27, 2016. (See Line Item "Capital Expenditures (Maintenance and Investment)", p. A000001). See also page 6 of Rate Case Schedule F which shows that no new bond issue is anticipated for FY 2017, implying that the $336.6 million must be financed with cash.

129 Miranda/Sales/Sosa Rate Testimony, Line 893

130 April 19, 2016 Supplemental IRP Table 5-6.

131 Spreadsheet P3F1 provided March 1, 2016 in response to the Commission's third request for information in the IRP case (Case No. CEPR-AP-2015-0002).

132 IRP Proceeding, Table 9-1 of April 1, 2016 Supplemental IRP, P3F1, (Base IRP), Near Term Capital Expenditures, (Generation and AOGP).

The funding need identified in the Integrated Resource Plan is not matched by planned new capital expenditure funds budgeted in the rate case. The following table summarizes "new issue capex financing," the only new borrowings identified in the rate case. Together with the $337 million cash investment for 2017 described above, these sum to $1.94 billion.

Table XII: Unidentified Uses and Proposed New Sources of Capital Expenditure Funds 2018-2021

Use of Funds	Amount	Source of Funds
2018 Unspecified Use	$411.3	PREPA New Bond Issue (Rate Case Schedule F)
2019 Unspecified Use	$404.7	"
2020 Unspecified Use	$397.7	"
2021 Unspecified Use	$390.5	"

These future PREPA bond issuances identified in Schedule F are speculative and not discussed in the accompanying testimony. No specific renewable generation resources are included in PREPA's plans through 2021. To the degree that provision is made for future capital spending in Schedule F: 1) no specified projects are offered in the testimony beyond the Aguirre Offshore Gas Port and certain new natural gas generation and retirements; 2) at best PREPA could re-enter the capital markets in 2020 which suggests that the 2018 and 2019 issuances referenced in Schedule F are unlikely to materialize.

In short, PREPA's near-term capital expenditure plans as identified in the Integrated Resource Plan do not include any provision for financing renewables. The new borrowings identified in the rate case, which may or may not materialize depending on PREPA's ability to access the bond market, would result in less capital investment than the need identified in the IRP and similarly contain no provision for renewable energy financing. The proposed securitization transaction does not free up sufficient financial resources to allow PREPA to achieve its overall capital investment plans.

C. Renewable Energy Projects Will be Crowded Out by the Restructuring

In order to achieve renewable energy goals, PREPA must identify future projects as part of the IRP, present achievable timelines for project development and start-up, and provide a mechanism to finance the investments at an affordable rate. Yet, as discussed in Section B, above, PREPA's near-term budgeted borrowings for capital expenditure do not meet the capital expenditure needs identified in its Integrated Resource Plan, which includes no provision for renewable energy investment. And even if PREPA is successfully at re-entering the bond market by 2020, it is unlikely the total rate could sustain new bond issuances along with the remaining 23-year legacy debt and securitization charges contemplated by the Rate and Transition dockets.

An alternative to capital investment in renewables that PREPA has employed in the past is the Purchase Power Agreement (PPA). Under a PPA, PREPA pays a dollar per megawatt-hour price to a third party power supplier. This would appear as a cost under future PREPA revenue requirements. Since the generation assets would not be owned by PREPA there would be no direct impact on budgeted operating or debt service costs to PREPA. Those costs, plus a return for a third party supplier, would be embedded in the dollar per megawatt-hour charge paid by PREPA under contract with the power generator. It would be essentially an off balance sheet debt obligation of PREPA.

Either way, the high level of existing debt service, plus plans for new capital expenditures, will crowd out renewable energy. Ratepayer dollars that are invested in the next couple years in AOGP, for example, are dollars that cannot be invested in renewable energy or used to pay for PPAs. Rates are already set to rise 55% over the next 5 years, and IEEFA finds it likely that they will increase even faster. With paying the securitized debt legally established as PREPA's top priority, operational needs will likely come second and new debt and capital expenditure third. It seems likely that operational needs and capital expenditures will be underfunded due to pressure to maintain affordable rates. PREPA simply will not have the resources to achieve its long-term goals of increasing renewable energy.

Conclusion

The debt deal to restructure PREPA will not achieve its stated goals of bringing the agency to fiscal health. It will result in higher electric rates for Puerto Ricans, further destabilize the economy, and severely hamper the development of affordable renewable energy for the island. The deal will inordinately benefit financial consultants, lawyers, and bondholders, and the lack of transparency around the transactions raises serious questions about its integrity. If financial stability is to be achieved, bondholders must accept a more significant reduction in principal and the agency must adopt sound, auditable financial practices.

Institute for Energy Economics and Financial Analysis

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