



Debt Management Public Discussions

Agency Strategic Objective:

**BPA has sustainable capital access.*

**BPA maintains adequate cash flow for liquidity.*



Debt Management Workshop Agenda

Slides 3 through 24 represent material to be covered in the Morning Session.

Morning Session: Foundational Background

9:00 – 9:05	Welcome and introductions
9:05 – 9:15	Process timeline
9:15 – 10:30	Debt and BPA – Background <ul style="list-style-type: none"> - Fundamentals of leverage - Funding sources, Federal vs. Non-Federal sources - Outstanding debt profile
10:30 – 10:45	Break
10:45 – 12:00	Debt management framework <ul style="list-style-type: none"> - Statutory requirements - Repayment policy and practices - Rate-setting - Financial plan - Capital financing philosophy
12:00 – 1:00 pm	Lunch

Afternoon Session: Strategy Discussion

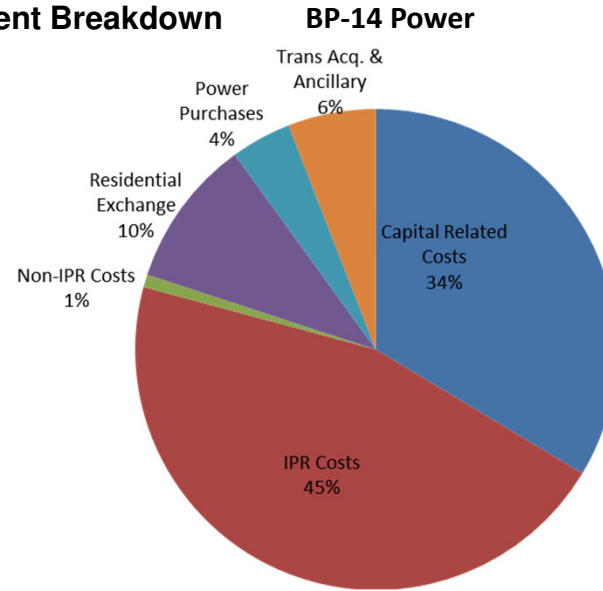
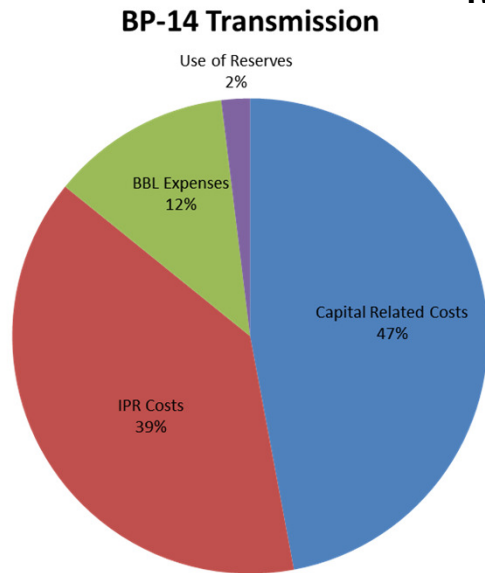
1:00 – 1:30	Repayment model update
1:30 – 2:15	Debt management status <ul style="list-style-type: none"> - Access to Capital update - Base case: Final Proposal - Base case evolution and potential future revenue requirement - Integration with the debt management framework
2:15 – 2:30	Break
2:30 – 3:45	Debt management strategies <ul style="list-style-type: none"> - Potential strategies - Integration with the debt management framework
3:45 – 4:00	Request for feedback <ul style="list-style-type: none"> - Debt and revenue financing - Revenue requirement long-term output - Integration with Capital Investment Review



Why is Debt Management Important?

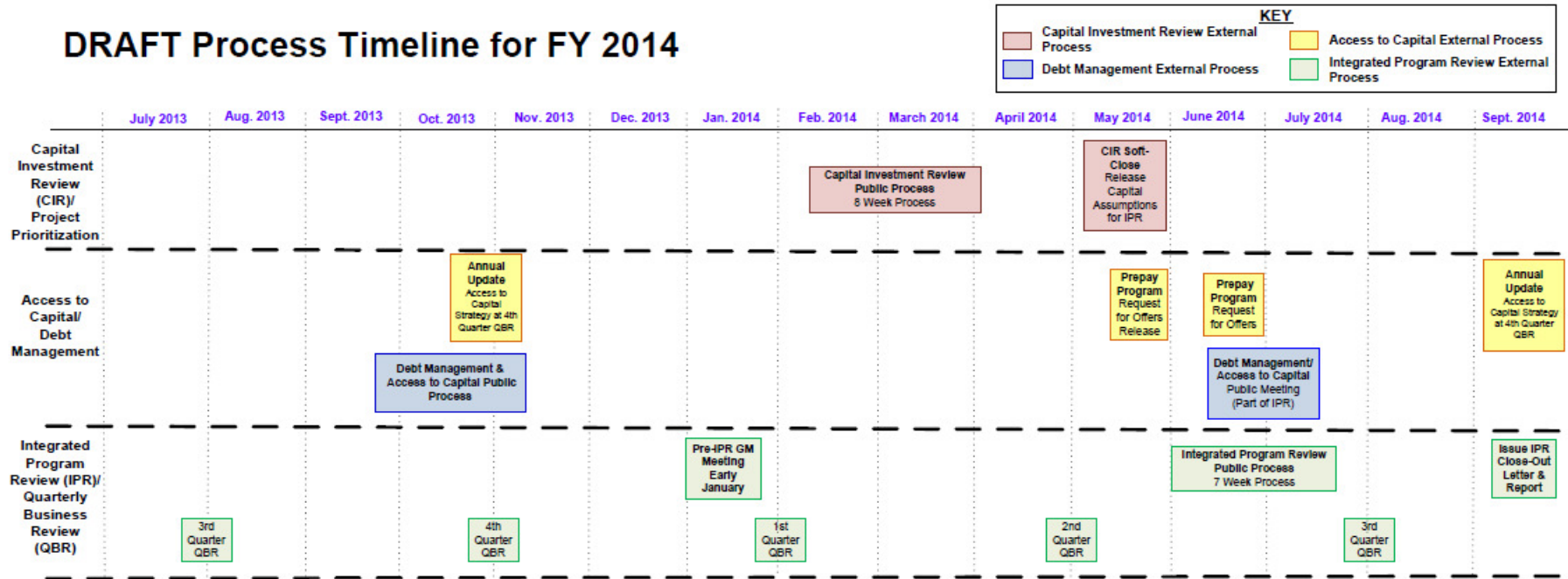
- The costs associated with BPA’s capital investment and debt portfolio are significant. They make up about one-third of Power’s revenue requirement and about one-half of Transmission’s.
- Capital related costs consist of non-Federal debt service, depreciation/amortization, net interest expense and, as necessary, minimum required net revenue.
- BPA has three goals for this process:
 - **Access to Capital:** Develop solutions that provide BPA with sustainable access to capital, at a minimum, over the next 10 years.
 - **Credit Rating:** Reduce BPA’s outstanding regulatory assets and maintain current credit ratings.
 - **Business Strategy:** Define Power and Transmission future debt service in the context of each business units’ strategic goals.
 - Mature, stable Power sales at Tier 1 rates.
 - Expanding Transmission responsibilities to meet regional needs.
 - Re-invest in aging infrastructure, assure reliability.

Revenue Requirement Breakdown





DRAFT Process Timeline for FY 2014



- **Debt Management and Access to Capital** – reviews the Agency’s capacity to finance capital investment projections over a 10-year horizon given available financing tools. The review considers financing costs, risks and availability of tools.
- **Capital Investment Review (CIR)** - presents for discussion and comment BPA’s draft Asset Strategies. Asset strategies chart the course for achieving the agency’s long-term outcomes for assets by setting asset performance objectives, prioritizing risks, developing strategies and forecasting costs and cost uncertainties.
- **Integrated Program Review (IPR)** – provides participants with an opportunity to review and comment on expense and capital spending levels prior to inclusion in the upcoming rate cases.



Goals for the day

- Present information on BPA's historic debt management practices.
- Access to Capital update.
- Share information on the latest update of the repayment model.
- Discuss future strategies to inform proposals we will present in Summer 2014 debt management discussions that occur in IPR. Specifically seeking feedback on:
 1. Power Prepay Program:
 - 1.1 General feedback on FY13 program, financing results and process.
 - 1.2 Looking forward: Identical rates vs. identical incentives and taxable vs. tax-exempt financing.
 - 1.3 Should BPA offer the program again?
 - 1.4 Feedback on use of the Power Prepay Program versus revenue financing.
 2. Transmission Lease Purchase Program
 - 2.1 General feedback on the program
 - 2.2 Future financing targets (percentage of capital, currently at 50%).
 3. Energy Northwest (EN) Columbia Generation Station (CGS) debt extension
 - 3.1 General feedback on CGS debt extension principle: debt extension for debt management purposes (i.e. repay an equal amount of debt over a specified time period).
 4. Revenue Financing
 - 4.1 What is the right framework to have a sustainable program over time?
 - 4.2 How much revenue financing phased in gradually over next 10 years for Power and Transmission (\$100m, \$200m, \$400m)?
 - 4.3 How is the revenue financing amount estimated? (i.e. percentage of all capital vs. replacements vs. regulatory assets)?
 - 4.4 Is there a balance of revenue financing versus debt financing that customers could support?



How we plan to use your feedback?

- Feedback on access to capital instruments, amounts, timing and implementation will guide the development of potential strategies (combination of such instruments) that will define a long-term stable and low cost revenue requirement for each business line.
- With current capital levels^{1/} as a fixed assumption, your feedback on these debt management discussions will inform the shape of the capital-related revenue requirement.
- The 2014 CIR process will inform the level of the capital spending over the next ten years that will directly affect capital-related cost.
- Feedback from both processes will help develop strategies that optimize the shape and minimize the level of the capital-related revenue requirement. These strategies will be presented at the Debt Management (IPR) workshops in the Summer 2014.

Future debt management sessions?

- Additional discussions on Debt Management this fall may be available, if requested.
- Summer 2014 debt management /access to capital public meeting (IPR process).

1/ Information on capital investment assumptions is included on slides 41 and 42.



Debt and BPA - Background

- Debt financing generalized
 - An entity typically issues debt based upon the principles of leverage; that the entity would not be able to make the investment without the ability to borrow. For example, if BPA was a start-up enterprise and wanted to build a dam to generate electricity, how could that be done without borrowing?
- BPA's primary sources of capital financing
 - Appropriations:
 - BPA's existence began by Congress authorizing the building of certain Federal Hydroelectric projects and associated transmission facilities. The funding for those projects came from appropriations that BPA pays back in full, on time and with interest.
 - BPA receives no new annual appropriations from congress but the Corps of Engineers and the Bureau of Reclamation receive some appropriations that BPA is responsible for paying back.
 - US Treasury Bonds:
 - BPA now issues debt to US Treasury to fund investments in Federal Hydro Projects, Fish and Wildlife, Conservation, IT, Environment, Transmission Construction and other small capital investments.
 - US Treasury financing is limited by statute to \$7.70 billion and is not anticipated to be increased again in the near future.
 - Non-Federal financing:
 - BPA counts certain debt issued by Non-Federal entities as "Non-Federal debt", meaning debt secured by BPA:
 - EN, to fund new investments for CGS and to refinance the original construction debt for CGS and two terminated EN projects, in each case under "net billing agreements".
 - Project lessors to fund Transmission construction projects under lease-purchases.
 - Conservation and generation resource project sponsors under resource acquisitions (e.g., Northern Wasco, Cowlitz Falls, etc.)
 - The amount of Non-Federal debt issued is not limited by statute like US Treasury bonds but by BPA's ability to meet its obligations to third parties to make debt service payments. The cost of Non-Federal debt is directly related to our credit rating. The higher the percentage of annual debt service compared to revenues and principal debt outstanding to assets, the lower our credit rating which in turn increases the borrowing cost and restrictions of Non-Federal borrowing.
 - Customer Financing:
 - Transmission Credit Projects: Transmission customers advance fund the construction of certain network or intertie facilities and receive transmission credits in return (i.e. LGIA and COI).
 - Power Prepay Program: Power customers prepaid revenues in return for revenue credits.
 - Reserve Financing:
 - \$15 million per year from 2006 through 2013.
 - Revenue Financing to date:
 - \$30 million in 1996, \$15 million per year in 2004 & 2005.



Debt and BPA - Background

- Approximately half of BPA's total debt portfolio is comprised of Non-Federal municipal debt issued over several years for the EN nuclear projects^{1/}, plus some smaller portions of debt for BPA conservation projects, small generating resources, and lease purchasing debt^{2/}.
- The other half of BPA's total debt portfolio is comprised of Federal^{3/} debt, Congressional Appropriations^{4/} and US Treasury bonds^{5/}.
 - Appropriations represent principal outstanding on the Federal Hydro Projects and Columbia River Fish Mitigation (CRFM) on the Power side and Transmission Construction Projects on the Transmission side.
 - Federal Bonds represent debt outstanding for both Power and Transmission to fund Federal Hydro Projects, Fish and Wildlife, Conservation, IT, Transmission Construction and Environment capital programs.
 - Federal Bonds outstanding is limited by statutory authority to revolving \$7.70 billion, of which \$750 million is reserved for liquidity management purposes in the rate setting process.
 - As of 2012 available US Treasury Borrowing Authority was \$4.28 billion.

1/ page 11, BPA Liabilities to Energy Northwest, \$5,941 million

2/ page 11, BPA Liabilities to Other Non-Federal Parties, \$803 million

3/ page 11, Total Federal Liabilities, \$7,241 million

4/ page 11, Total Appropriations, \$3,820 million

5/ page 11, Total Bonds issued to Treasury, \$3,421 million



Debt and BPA - Background

- BPA repays^{1/} debt as well as issues ^{2/} new debt annually.
 - As an example, BPA issued \$632 million in US Treasury capital related debt in FY2013 and repaid \$224 million (\$168 m in US Treasury bond principal and \$56 in appropriations).
- When debt matures, meaning it's at the end of its contractual life, BPA typically repays it, but can often restructure^{3/} it.
- Debt management strategies can fall within one or a combination of these categories: issuance, repayment, or restructuring.
 - Repayment^{1/} strategies typically focus on repaying the highest interest rate bonds or appropriations available (callable or maturing) given borrowing authority constraints.
 - Issuance^{2/} strategies typically focus on the maturity selection of the bond.
 - Shorter maturities for interest savings but higher interest rate risk if not planned to repay.
 - Restructuring^{3/} strategies typically focus on projected principal repayment shape and effect on the revenue requirement and/or borrowing authority.
 - Debt may be moved from one period to another to achieve a more stable revenue requirement over time or increase US Treasury Borrowing Authority if necessary.

1/ Repay: to extinguish, to pay back.

2/ Issue: issuing debt raises funds by promising to repay the lender at a certain point in the future and in accordance with the terms of the contract.

3/ Restructure: To extinguish and simultaneously re-issue new debt with a different maturity than previously held, as long as the proposed final maturity is within the useful life of the financed assets.



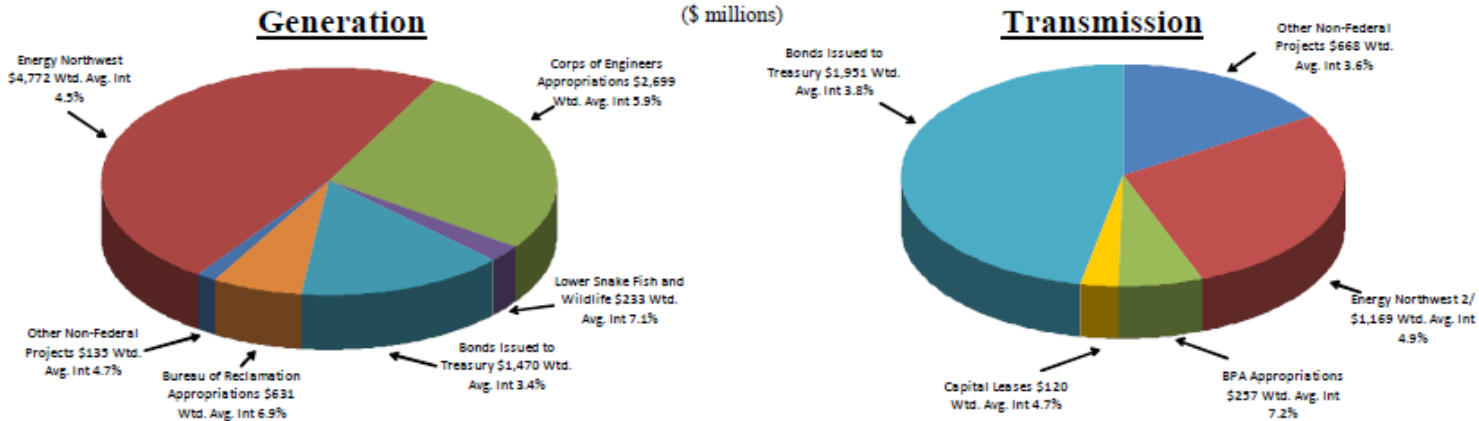
Debt and BPA - Background

- Rate Mitigation and US Treasury Borrowing Authority – Debt Management Actions
 - The “high-to-low” traditional refinancing for interest savings that began in the late 1980’s and continued into the mid-1990’s (hundreds of millions in savings).
 - The “Accelerated Front-end Savings” program in the early 1990’s that shaped Non-federal debt service to glean significant savings in the early years and back-end loaded Non-federal debt (~ \$300 million up front savings for rate relief).
 - The “Debt Optimization Program” from 2001-2012 extended maturing EN debt each year and repaid equivalent amounts of US Treasury bonds instead to restore US Treasury Borrowing Authority (~\$2.2 billion in US Treasury Borrowing Authority improvement).
 - Continued debt restructurings/extensions for Power rate relief in 2011/2012 (~ \$104 million rate relief per year) and the proposed debt extension of CGS maturing debt in 2014/2015 (~\$85 million rate relief per year).
 - Uranium Fuel Financing in FY2012 provided ~\$22 million in Power rate relief per year (2014/2015).



Debt and BPA - Background

**Federal Columbia River Power System (FCRPS)
Total Liabilities to Federal and Non Federal Parties
as of 9/30/2012
(\$ millions)**



\$ millions	Generation		Transmission		Total	
	Liabilities Outstanding	WAI Rate	Liabilities Outstanding	WAI Rate	Liabilities Outstanding	WAI Rate
Total Appropriations ^{1/}	\$3,563	6.1	\$257	7.2	\$3,820	6.2
Total Bonds Issued to Treasury	1,470	3.4	1,951	3.8	3,421	3.6
Total Federal Liabilities	\$5,033	5.3	\$2,208	4.2	\$7,241	5.0
BPA Liabilities to Energy Northwest	\$4,772	4.5	\$1,169 ^{2/}	4.9	\$5,941	4.6
BPA Liabilities to Other Non Federal Parties	135	4.7	668	3.6	803	3.7
BPA Liabilities for Capital Leases ^{3/}			120	4.7	120	4.7
Total Non Federal Liabilities	\$4,907	4.5	\$1,957	4.5	\$6,864	4.5
Total FCRPS Liabilities	\$9,940	4.9	\$4,166	4.3	\$14,105	4.8

^{1/} Federal Appropriation amounts are less than the amount per the FCRPS financial statements because the repayment obligation does not begin until the related assets are placed in service. Appropriation amounts exclude appropriations for construction work still in progress (CWIP), which was \$217 million in FY 2012. Unspent appropriations received by the COE and BOR as well as some adjustments are also excluded.

^{2/} Transmission Services (TS) principal is different from the Non-Federal repayment obligation due to: 1) premium bonds issued, 2) timing differences, and 3) transactions costs. TS is assigned the repayment obligation for these items, which equals the additional Federal prepayment made on TS' behalf.

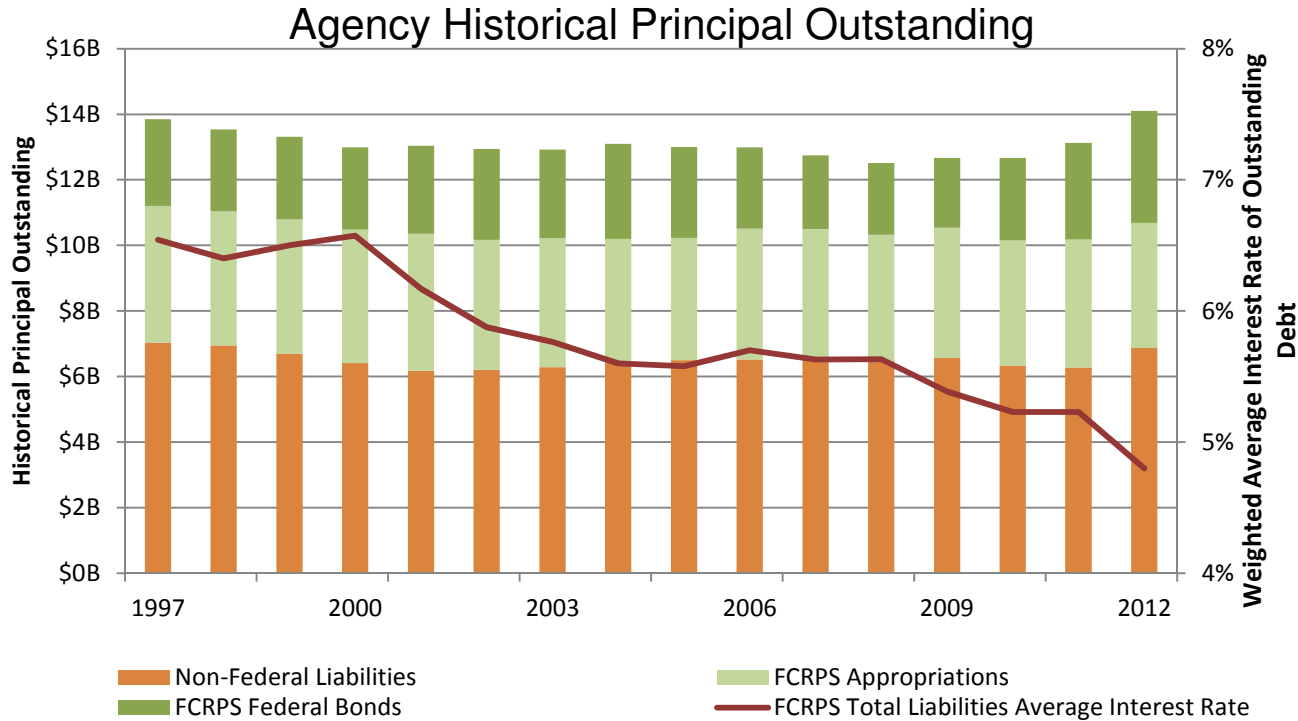
^{3/} Beginning in the BPA 2012 Annual Report, capital leases were included as a part of Nonfederal Financing. In prior years the capital leases were reported under Deferred credits and Other.

NOTE: This data does not include irrigation assistance liability of \$665.9 million at zero percent interest.

This information made publicly available by BPA in November 2012.



Debt and BPA - Background



- Decreasing total principal through 2010.
- Stable Non-Federal with repayment of EN WNP-1 and WNP-3 offset by increased Lease Purchasing.



Debt Management Framework

Access to Capital Strategy

BPA's access to capital strategy goals (January 2013) established three goals:

1. Ensure that capital financing needs are covered over a rolling 10-year period.
2. Develop strategies and tools that extend BPA's period of sufficient access to capital.
3. Ensure that BPA is able to meet its capital requirements at low cost.

<http://www.bpa.gov/Finance/FinancialPublicProcesses/AccessstoCapital/Access%20to%20Capital%20-%20Final%20Strategy.pdf>

Financial Plan

BPA's most recent Financial Plan (July 2008) further described the access to capital goal to:

“Ensure that capital financing needs are covered over a rolling 10-year period with the ultimate goal of ensuring access to Treasury borrowing authority on a rolling 20-year basis. As BPA continues to develop a capital funding plan to sufficiently meet capital requirements over the next 20 years, it will consult with interested stakeholders through public workshops and/or other forums.”

<http://www.bpa.gov/Finance/FinancialInformation/FinancialPlan/Documents/BPA-financial-plan.pdf>



Debt Management Framework

Capital Financing Philosophy

- Power Debt Service Profile
 - FY12 – FY28 Regional Dialogue contracts identify the power available for sale at Tier 1 rates as output from the Federal Base System.
 - Tier 1 sales are capped and are based on aging infrastructure, therefore the challenge will be to maintain a flat or downward trending debt service forecast.
- Transmission Debt Service Profile
 - The Transmission system is evolving and growing and also has aging infrastructure.
 - High investment level forecast results in a potential doubling of debt service costs in the next 20 years.
 - The challenge is to invest in the system at the right time, matching expected system growth while minimizing rate effects over time.
- Credit Rating
 - BPA would be better positioned in the view of the rating agencies by reducing outstanding debt.
 - Moody's views BPA's large capital program and reliance on debt as a "growing concern" and they will continue to monitor BPA's long term debt profile.
 - BPA's downgrade by Moody's in 2011 was primarily due to "credit quality deterioration driven by rising non-federal debt service, total reserves for risk dropped a cumulative 36% over a 2 year period ending FY2010 and non-federal debt service coverage dropped to around 1.8-1.9 times in 2009 and 2010 compared to 4.4 times average in 2004 to 2008."



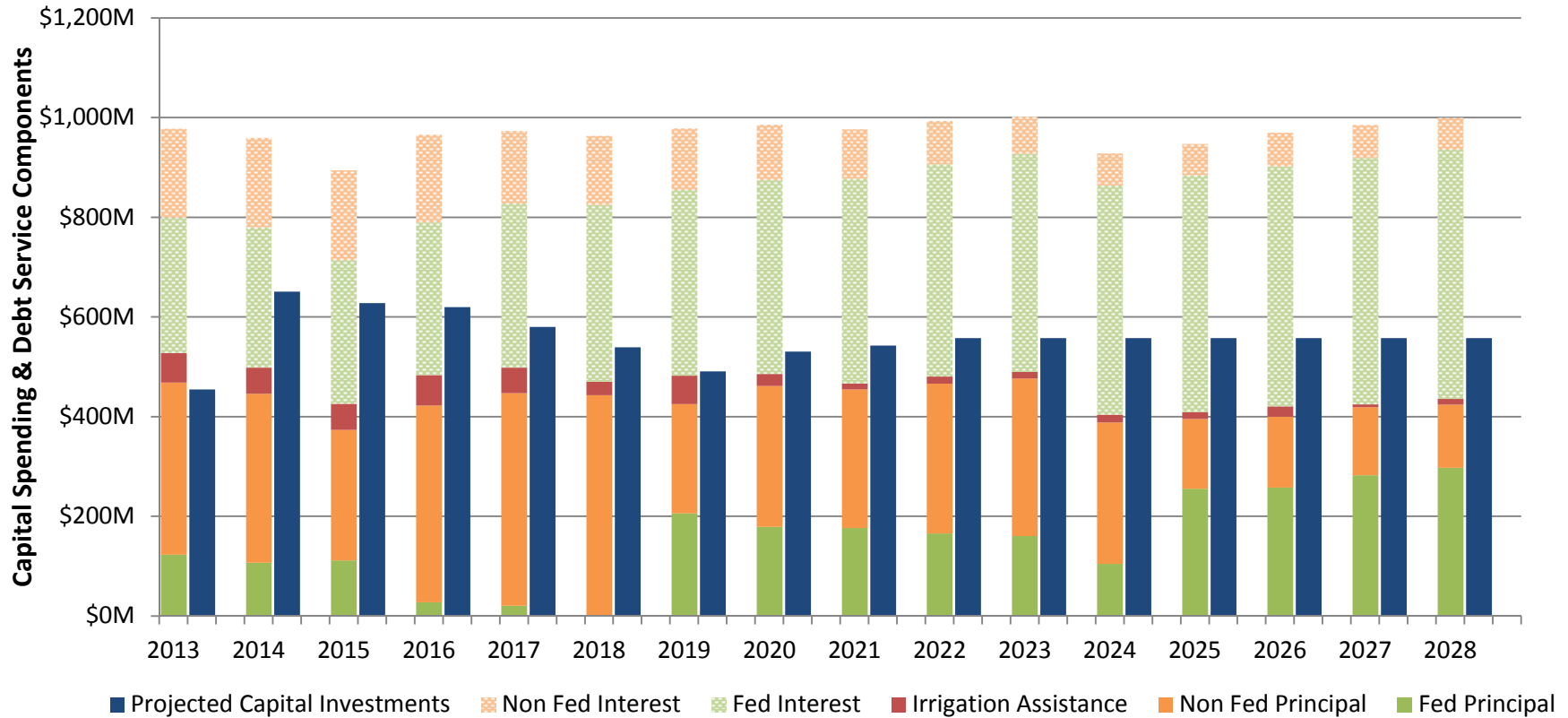
Recap Debt Management Framework

Capital Financing Considerations

1. Align capital structure and debt repayment with business cycles
 - Power & aging infrastructure, Transmission growing revenue as well as new and aging infrastructure.
2. Long term view of BPA's debt portfolio
 - BPA issues US Treasury bonds with maximum 30-year maturities.
 - Balance near term cost with long term targets of stable , low cost revenue requirement.
 - Use of lowest cost of capital financing tools.
3. Strong credit rating.
 - Commensurate with peer utilities (Aa1, AA Credit).
 - Consider debt and coverage ratios.
 - Consider regulatory assets (e.g. WNP plants -1 and -3, fish & wildlife, conservation).
 - Improve liquidity position.
4. CGS debt extension
 - Repay an amount of Federal debt/Revenue Finance equivalent to the CGS extended debt over a reasonable period of time.



Power Debt Service Profile¹



- Projected annual debt service is estimated to be double the amount needed for annual capital investments through FY28.

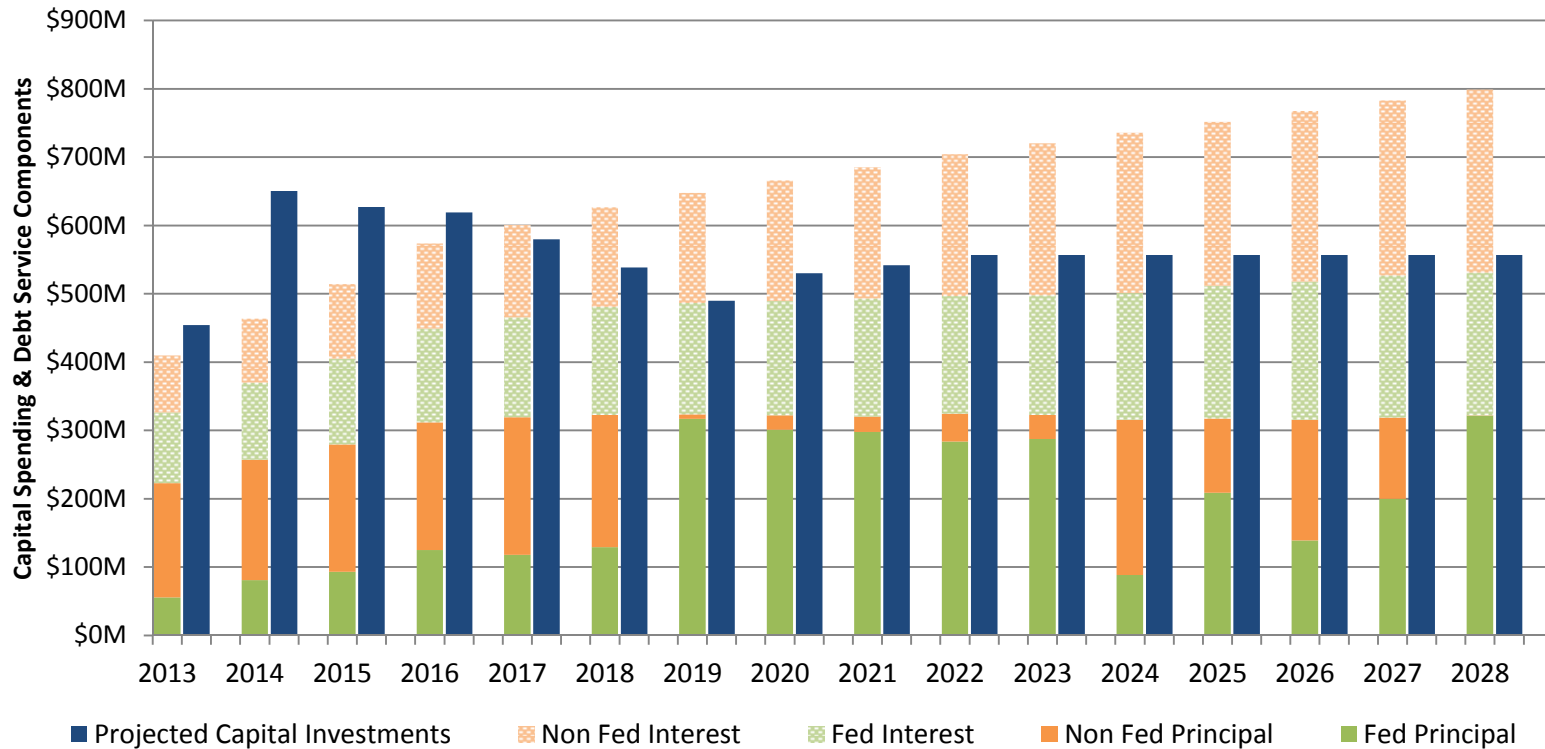
Note 1: Capital projections from 2012 CIR with 10 year projection horizon.

Note 2: Repayment study based on BP14 final proposal.

Note 3: Debt service and capital investment in the graph above excludes \$340 million of Prepay.



Transmission Debt Service Profile



- Projected annual debt service is estimated to grow to be one-third higher than the amount needed for annual capital investments by FY2028.

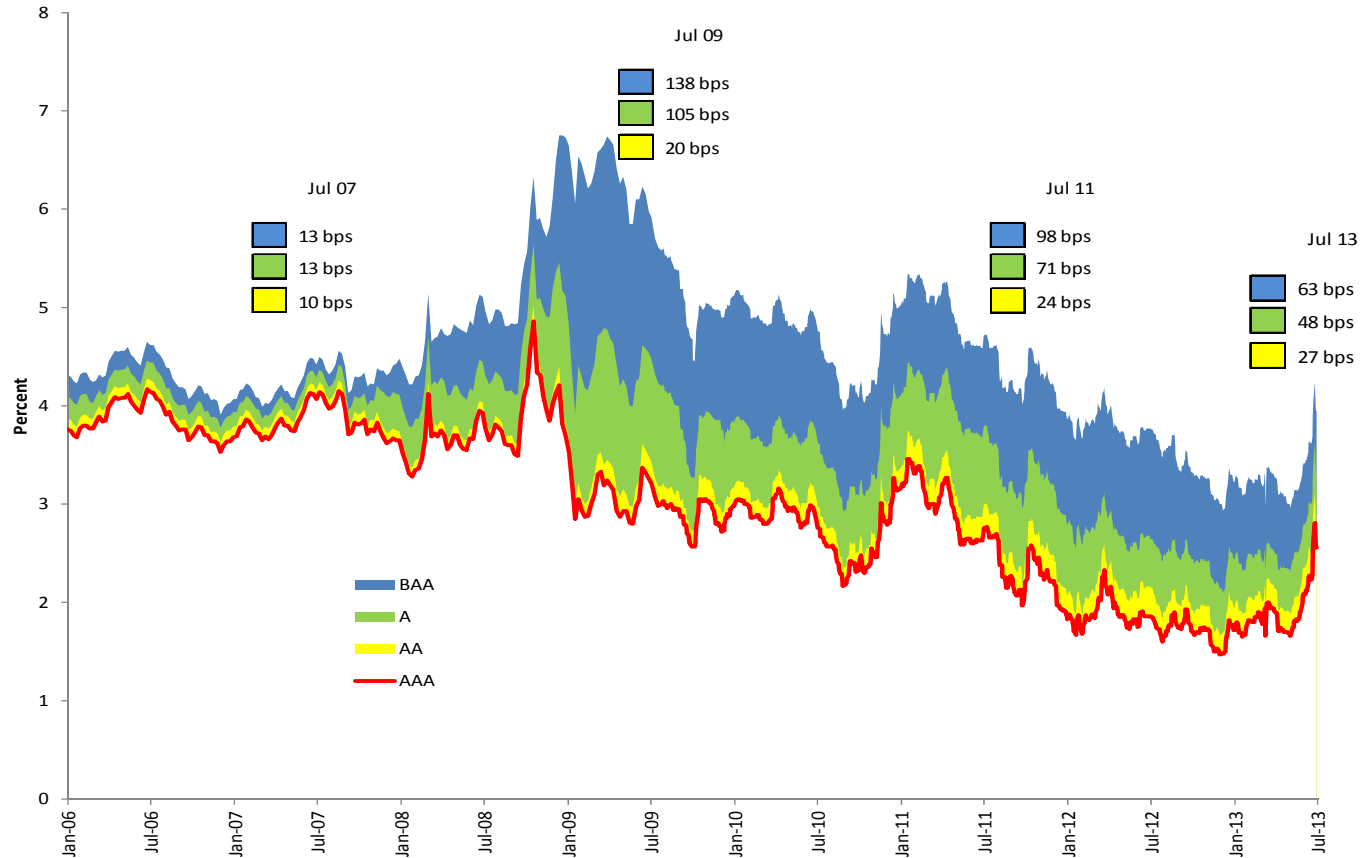
Note 1: Capital projections from 2012 IPR with 2013-2015 reductions reshaped between FY2016-2021. Capital spending straight-lined after FY2021. \$15 million of reserve financing assumed from FY2013-2021.

Note 2: Repayment based on BP14 final proposal with inclusion of 50% Lease Purchasing.



Credit Rating

Tax Exempt Municipal Market Database Index by credit type (10-year maturity)



- Graph takeaways
 - The interest rate spread between the credit ratings has widened.
 - Lower credit rating results in much higher in borrowing costs.
 - Interest rates have not gone down for lower credit ratings as much as they have for higher credit rating.



BPA Credit Rating



- Graph takeaways
 - Both Moody's and Standard & Poor's lowered BPA's credit rating in 2011 to AA+ and AA-, respectively.
 - Fitch currently rates BPA AA.



Cost of Capital by Tools

Financing Tools ^{/1}	10 Year	30 Year
Agency Rate (BPA Treasury Borrowing)	3.4%	4.7%
Lease Purchasing	3.7%	5.2%
Power Prepay	5.3%*	n/a
Treasury Rate	2.7%	3.7%

^{1/} as of 10/15/13, estimated



Debt Management Framework

- BPA's Statutory Cost Recovery Requirements
 - Recover total system costs.
 - Repay Federal investment within a reasonable period of years^{1/} including irrigation assistance.
 - Lowest possible rates to consumers consistent with sound business principles.

^{1/}DOE policy defines reasonable period as 50 years or actual expected average service life, whichever is less. Average service life for Hydro projects is 75 years and the Transmission system is an average of 45 years.



Debt Management Framework

- Repayment Policy
 - Bonneville’s policy for the repayment of the Federal investment in the Federal Columbia River Power System (FCRPS) is based on statutory provisions, DOE policy, FERC orders and precedent.
 - This policy requires that FCRPS revenues be sufficient to:
 - Cover the cost of the net-billed projects under the agreements (EN);
 - Pay the cost of operating and maintaining the power and transmission systems;
 - Pay the cost of obtaining purchase and exchange power and transmission services;
 - Pay interest on and repay outstanding bonds issued to the US Treasury to finance transmission system construction, Corps of Engineers (COE) and Bureau of Reclamation (BOR) direct funding, conservation, and fish and wildlife projects;
 - Pay interest on the unpaid investment in power and transmission facilities financed with appropriated funds;
 - Pay, with interest, any outstanding deferred annual expenses (such expenses are currently direct-funded by BPA);
 - Repay the power investment in each Federal hydroelectric project within 50 years of going into service;
 - Repay each increment of the investment in the Bonneville transmission system financed with appropriated funds within the average service of the transmission facilities (35 years);
 - Repay the investment in each replacement at a Federal hydroelectric project within its service life;
 - Repay construction costs at Federal reclamation projects which are beyond the ability of the irrigators to pay.



Debt Management Framework

- Repayment Practices
 - FCRPS capital investments include COE, BOR, Lower Snake Fish and Wildlife (LSFW), BPA capital investments and third Party resource investments for which debt is secured by BPA.
 - Bonds issued to US Treasury are used to finance BPA capital program investments and COE and BOR investments that BPA has agreed to direct-fund.
 - BPA also repays the power portion of COE and BOR capital investments of the FCRPS that have been financed by Federal appropriations as well as outstanding BPA appropriations received prior to self-financing for transmission system construction. BPA is also required to recover through power revenues irrigation capital costs that are beyond the ability of the irrigators to repay.
 - The maximum maturities on US Treasury bonds and appropriations are based on the average service lives of the associated assets. Bonneville's practice in recent years has been to issue bonds with maturities far less than the allowable maximum terms. A bond-rollover feature has been incorporated in the repayment model to accurately represent interest expense and to utilize, as necessary, the maximum allowable repayment period for the short-term bonds.
 - Projected US Treasury bonds in BPA repayment studies have the following typical maturities:
 - COE/BOR Direct-Funding – typically 30 years
 - BPA Fish & Wildlife – 15 years
 - Conservation – 12 years (it has ranged from 5 to 20 years)
 - Transmission Construction – typically 30 years
 - BPA Capital Equipment – 6 years



Debt Management Framework

▪ Rate Setting

- In BPA rate cases, the revenue requirement establishes the level of revenues necessary from rates to recover the costs associated with the production, acquisition, marketing and conservation or the transmission of electric power.
- The generation revenue requirement includes recovery of the Federal investment in hydro generation, fish and wildlife and conservation; COE and BOR operations and maintenance (O&M) expenses allocated to power; capitalized contract expenses associated with Non-Federal power suppliers such as EN; other power purchase expenses, such as short-term power purchases; power marketing expenses; cost of transmission services necessary for the sale and delivery of FCRPS power; and all other generation-related costs incurred by the Administrator pursuant to law.
- Transmission revenue requirements include recovery of the Federal investment in transmission and transmission-related assets; the operations and maintenance (O&M) and other annual expenses associated with the provision of transmission and ancillary services; the cost of generation inputs for ancillary services and other inter-business-line services necessary for the transmission of power; some net-billed bond debt service as a result of the Debt Optimization Program and all other transmission-related costs incurred by the Administrator.
- Typically, repayment studies are performed as the first step in determining revenue requirements. The studies establish a schedule of annual US Treasury repayment for the rate period and the resulting interest payments. In addition, the full results of BPA's repayment study are incorporated in Revenue Requirement Studies as the tables "Revenue from Current Rates – Results through Repayment Period" and "Revenue from Proposed Rates – Results through Repayment Period."
- These results are driven by outstanding past capital investments and projections of future capital requirements and financing assumptions.



Debt Management Strategy Meeting – Afternoon Session

1:00 – 1:30	Repayment model update
1:30 – 2:15	Debt management status <ul style="list-style-type: none"> - Access to Capital update - Base case: Final Proposal - Base case evolution and potential future revenue requirement - Integration with the debt management framework
2:15 – 2:30	Break
2:30 – 3:45	Debt management strategies <ul style="list-style-type: none"> - Potential strategies - Integration with the debt management framework
3:45 – 4:00	Request for feedback <ul style="list-style-type: none"> - Debt and revenue financing - Revenue requirement long-term output - Integration with Capital Investment Review



Repayment Model Upgrade



Repayment Model Function

- The primary purpose of the repayment model is to determine a schedule of Federal principal payments that satisfies the statutory requirement of setting rates to assure timely repayment of the Federal investments at the lowest cost to consumers consistent with sound business principles.
- All outstanding historical debt is considered as well as projected Federal and Non-Federal debt for assumed capital needs.
- Traditionally, Non-Federal debt is assumed fixed and Federal debt is placed around it to find the lowest level total debt service schedule for a given year.
- The repayment model has also been used while considering BPA's future financing options, for example, the access to capital scenarios published in January 2013 were modeled using this method.



Updates to the Repayment Model

- BPA has made updates to its repayment model to improve the accuracy of calculations, better allow for scenario analysis and increase the clarity of reporting results.
 - Several calculations including interest, call premiums and debt offsets are now more accurate.
 - Non-Federal debt may now be considered flexible and able to be placed alongside Federal debt in accordance with priorities set by the user.
 - Report output from the repayment model has been increased drastically in both clarity and scope allowing for a more robust and in-depth analysis.
- These improvements not only allow for more accurate and precise output for official purposes but also increase the ability to model and understand possible future finance scenarios.



Repayment Model Modes

- Regulatory/Statutory
 - This will be used for all official rate making purposes and conforms to all regulatory and statutory requirements.
 - More accurate calculations and expanded reporting will help ensure results are correct.
- Scenario Analysis
 - Proposed financing strategies such as Non-Federal conservation, additional Prepays, and CGS restructures can now be modeled and analyzed within the repayment model with increased flexibility.
 - This could help inform BPA about decisions regarding possible financing options.
 - Priorities, rankings and restrictions in this mode are not fixed and may be tuned differently depending on the objective.



Summary

- Limited ability to consider all of BPA's increasingly complex debt portfolio prompted BPA to upgrade the repayment model.
- The upgraded repayment model was developed to be robust, accurate and flexible to assist with scenario analysis and debt management.
- The upgraded repayment model will continue to support statutory and regulatory mandates during official processes.



Access to Capital Update

- BPA's Strategy includes the following tools
 - Lease Purchasing of Transmission Capital:
 - Update: BPA is assuming 50% Lease Purchasing.
 - Power Prepays:
 - Update: On March 29, 2013, BPA accepted an aggregate amount of \$340 million received on March 29, 2013. The imputed rate was ~4.5%.
 - Conservation Financing
 - Update: Further development of conservation 3rd-party financing is on hold until regional discussions are held regarding the post-2011 conservation check-in and BPA's overall role in the Conservation Program. In addition, more precise access to capital financial strategies currently being developed may influence the implementation of this financing tool. The earliest potential implementation of 3rd-party conservation financing would be FY 2016.
 - Reserve Financing (Transmission)
 - \$15 million per year through FY 2021.
 - Revenue Financing
 - Discussions ongoing.
- Targets
 - In the Access to Capital Strategy, BPA focused on level or declining debt service for Power and targeted growing debt service for Transmission.
 - To strengthen and clarify this target, BPA would like to restate that the focus is on targeted capital related costs in the revenue requirements which includes: Non-Federal debt service, depreciation and amortization, net interest expense and minimum required net revenue.



Access to Capital FY13 Plan

(Original-Updated-Revised)

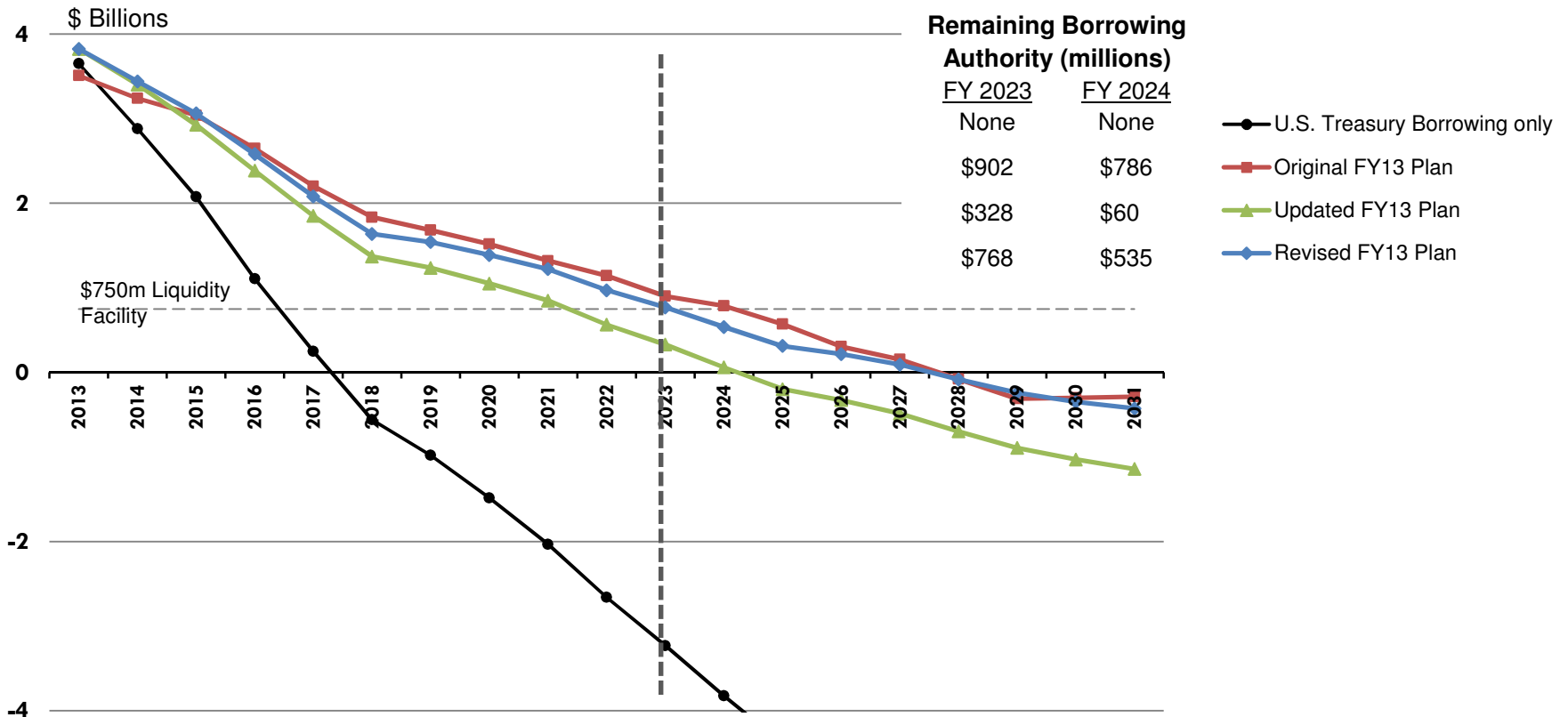
Strategy includes the following tools to meet the 10-year target (amounts in parenthesis are cumulative from FY2016 to FY2025):

	<u>Original FY13 Plan</u>	<u>Updated FY13 Plan</u>	<u>Revised FY13 Plan</u>
Lease Purchasing of Transmission Capital:	Ongoing 50% starting in FY13	Ongoing 50% starting in FY13	Ongoing 50% starting in FY13 (\$2.6 billion)
Power Prepays:	\$500m in FY14/15	\$340m in FY13	\$340m in FY13 \$160m in FY14/15
Conservation Financing	70% starting in FY15	70% starting in FY16	70% starting in FY16 (\$704 million)
Reserve Financing (Transmission)	\$15m/year through FY21	\$15m/year through FY21	\$15m/year through FY21 (\$75 million)
Revenue Financing	None	None	\$35m/year starting FY16 (\$350 million)



Access to Capital Update

Remaining US Treasury Borrowing Authority (EOY)



■ 2008 Financial Information Plan:

- Ensure that capital financing needs are covered over a rolling 10-year period.
- Develop strategies and tools that extend BPA's period of sufficient access to capital.
- Ensure that BPA is able to meet its capital requirements at low cost.

<http://www.bpa.gov/Finance/FinancialInformation/FinancialPlan/Documents/BPA-financial-plan.pdf>



Debt Management Framework

Capital Financing Philosophy

- Power Debt Service Profile
 - FY2012 – FY2028 Regional Dialogue contracts identify the power available for sale at Tier 1 rates as equal to the output from the Federal Base System.
 - Power capped Tier One sales and have aging infrastructure, therefore the challenge will be to maintain a flat or downward trending debt service forecast.
- Transmission Debt Service Profile
 - The Transmission system is evolving and growing and also has aging infrastructure.
 - High investment level forecast results in a potential doubling of debt service costs in the next 20 years.
 - The challenge is to invest in the system at the right time, matching expected system growth while minimizing rate effects over time.
- Credit Rating
 - BPA would be better positioned in the view of the rating agencies by reducing outstanding debt.
 - Moody's views BPA's large capital program and reliance on debt as a "growing concern" and they will continue to monitor BPA's long term debt profile.
 - BPA's downgrade by Moody's in 2011 was primarily due to "credit quality deterioration driven by rising non-federal debt service, total reserves for risk dropped a cumulative 36% over a 2 year period ending FY2010 and non-federal debt service coverage dropped to around 1.8-1.9 times in 2009 and 2010 compared to 4.4 times average in 2004 to 2008."



Recap Debt Management Framework

Capital Financing Considerations

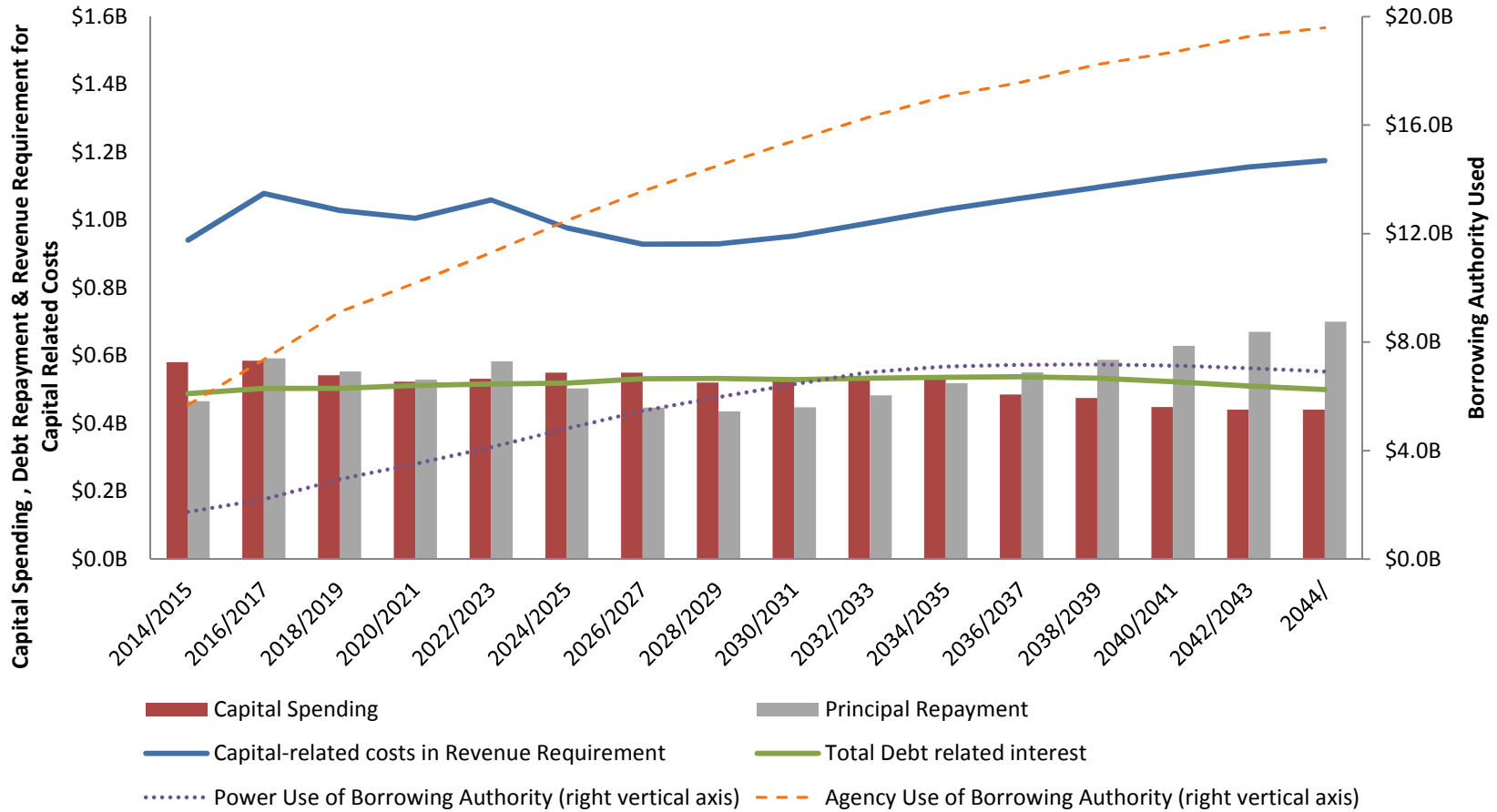
1. Align capital structure and debt repayment with business cycles
 - Power capped Tier 1 sales & aging infrastructure, Transmission growing revenue as well as new and aging infrastructure.
2. Long term view of BPA's debt portfolio
 - BPA issues US Treasury bonds with maximum 30-year maturities.
 - Balance near term cost with long term targets of stable , low cost revenue requirement.
 - Use of lowest cost of capital financing tools.
3. Strong credit rating
 - Commensurate with peer utilities (Aa1, AA Credit).
 - Consider debt and coverage ratios.
 - Consider regulatory liabilities (e.g. WNP plants -1 and -3, fish & wildlife, conservation).
 - Improve liquidity position.
4. CGS debt extension
 - Repay an amount of Federal debt/Revenue Finance equivalent to the CGS extended debt over a reasonable period of time.



Scenarios



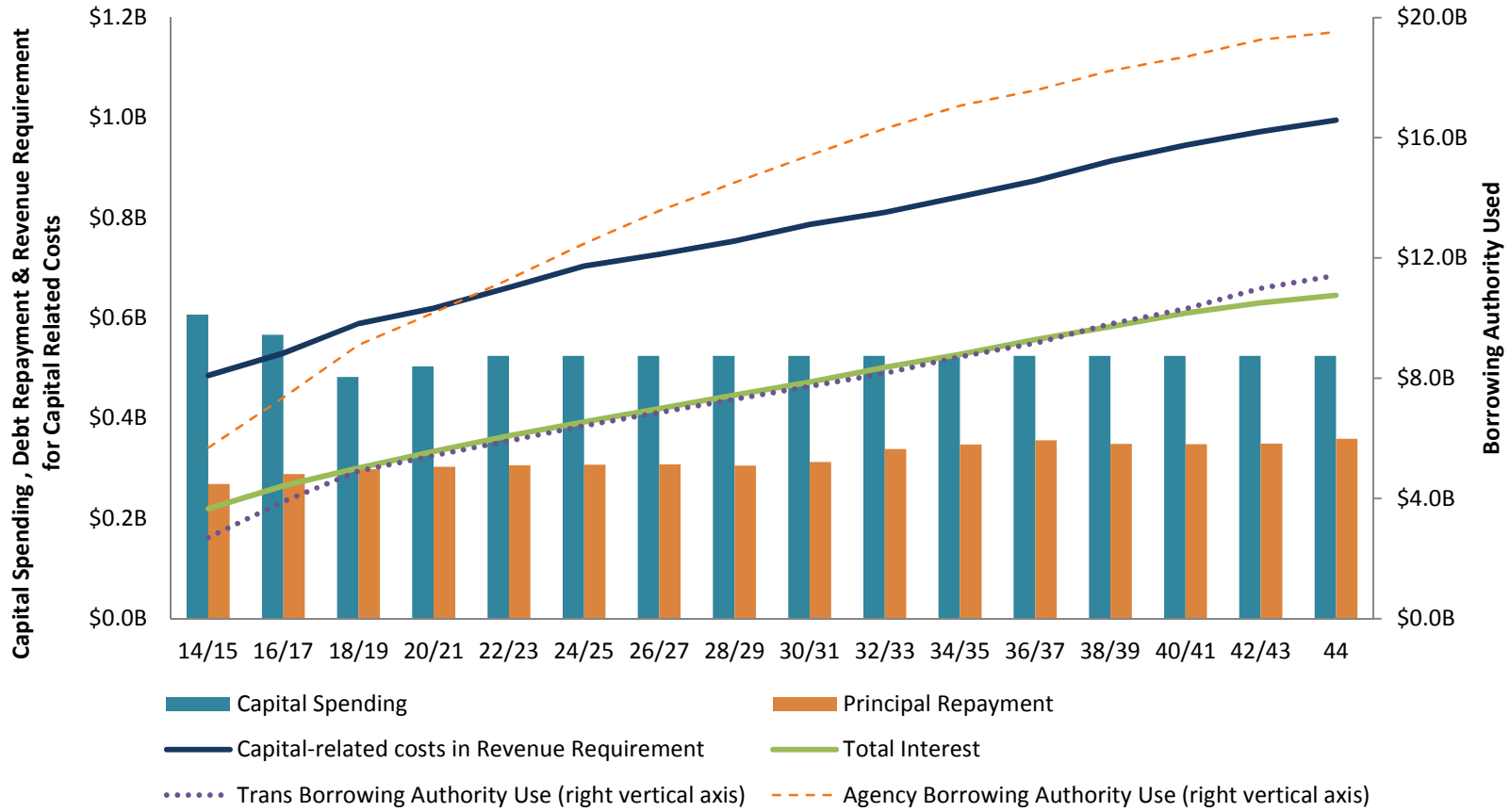
Power Services Revenue Requirement for Capital Related Costs: Status Quo



- Assumes all new Federal investments financed with US Treasury bonds at maximum maturity and no new financing tools.
- Mostly level interest with slightly increasing revenue requirement in the out-years.
- Assumes unlimited low cost US Treasury Borrowing Authority.



Transmission Services - Revenue Requirement for Capital Related Costs: Status Quo



- Assumes all new Federal investments financed with US Treasury bonds at maximum maturity and no new financing tools
- Mostly level capital spending with increasing interest costs
- Continuously adding more debt than paid off



Current Status

- BPA has limits on financing programs and rate mitigation strategies
 - Necessary capital investments.
 - Capped US Treasury Borrowing Authority and no anticipation of future increases.
 - Limited additional third-party financing alternatives.
 - 50% lease purchasing.
 - \$15m/year reserve financing.
 - 70% Conservation starting in 2016 assumed in Access to Capital



Capital Assumptions - Power

The following table represents the capital investment assumptions used in the following debt management scenarios. It is for discussion and illustrative purposes only. Capital investment discussions are scheduled to occur in February 2014 as part of the CIR process.

Power Capital assumed in all scenarios

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fed Hydro (Lapsed)	226	228	227	236	232	237	238	239	241	241
Columbia Generating Station	115	116	135	156	121	113	71	78	76	83
Columbia River Fish Mitigation	142	99	39	69	57	51	57	47	21	27
Conservation	75	76	92	95	98	101	104	107	110	110
Corporate	23	19	19	20	20	20	20	20	20	20
Fish and Wildlife	60	60	51	37	31	29	45	45	44	44
Total Power Capital	641	598	563	612	558	550	535	535	510	524

Except for CGS:

Source for 2013-2015 capital: Integrated Program Review 2 (June 2013).

Source for 2016-2022 capital: 2013 Capital Investment Review.

Source for 2023 and thereafter: Level with 2022



Capital Assumptions - Transmission

The following table represents the capital investment assumptions used in the following debt management scenarios. It is for discussion and illustrative purposes only. Capital investment discussions are scheduled to occur in February 2014 as part of the CIR process.

Transmission Capital assumed in all scenarios

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Expand Total (AFUDC, loaded, Lapsed)	219	323	295	305	282	227	163	200	213	213
Sustain (AFUDC, loaded, lapsed, 1.5m Reserve)										
Other Misc TS Capital	39	52	33	28	28	31	29	27	22	22
Reserve Financing	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	(15)	-
Sustain	<u>233</u>	<u>260</u>	<u>282</u>	<u>269</u>	<u>252</u>	<u>262</u>	<u>280</u>	<u>286</u>	<u>289</u>	<u>289</u>
Sustain Total (AFUDC, loaded, lapsed, 1.5m Reserve)	258	296	300	282	265	279	295	297	296	311
Total Sustain/Expand "Construction Costs"	477	619	595	587	547	506	458	498	509	524
Environment	6	5	5	5	5	5	5	5	5	5
Corporate Capital (IT, Facilities, Security)	33	24	24	25	25	25	25	25	25	25
Total Transmission Capital	516	648	625	617	577	536	488	528	540	555

Source for 2013 capital : Second Quarter End-of-Year forecast.

Source for 2014-2015 capital: Integrated Program Review 2 (June 2013).

Source for 2016-2022 capital: Capital Investment Review re-shaped to include capital reductions in 2013-15 from CIR to Integrated Program Review 2 (IPR2), in 2013 dollars.

Source for 2023 and thereafter: Level with 2022.



Potential Strategies

To illustrate the margins we will present two scenarios as follows:

a) One scenario relies entirely on third-party debt financing sources when US Treasury Borrowing Authority is depleted. For Power, this is modeled either as a series of Prepay offers or as an unspecified form of Non-Federal financing.

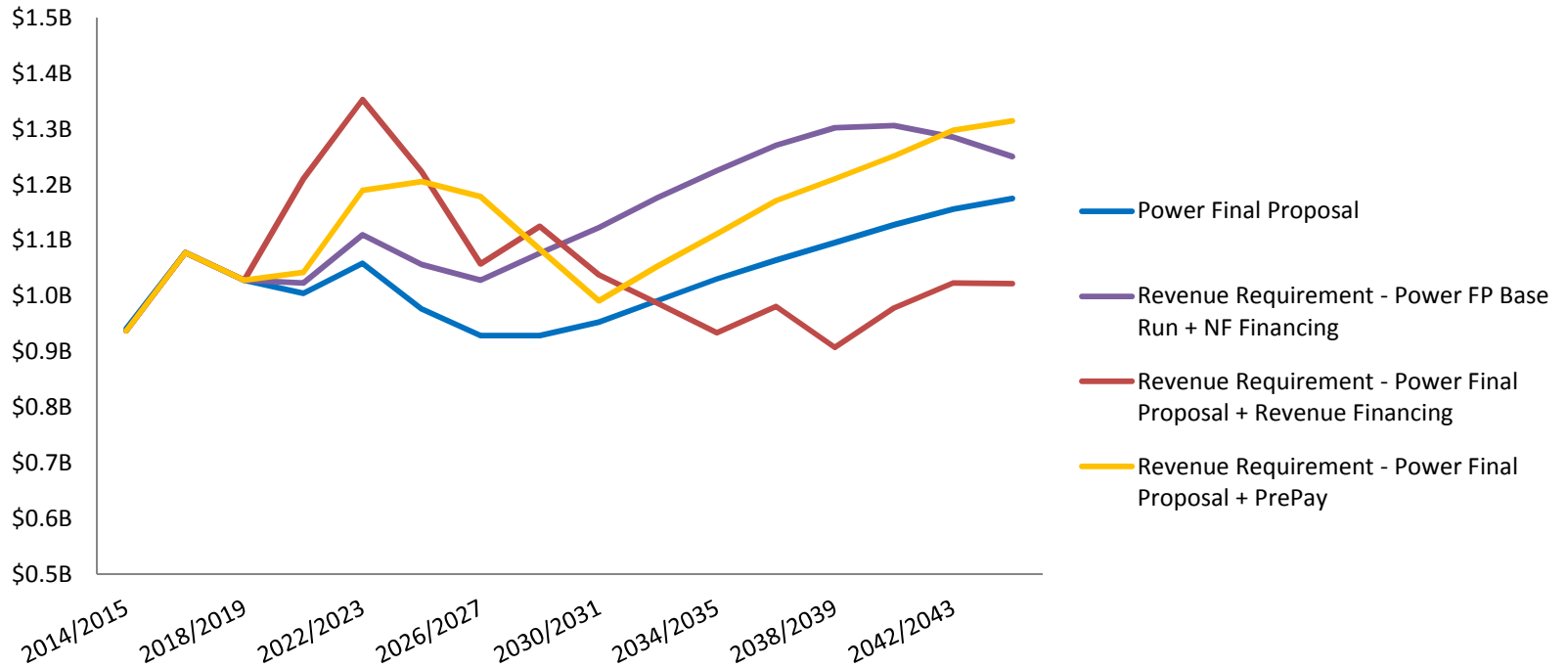
b) Another scenario relies entirely on revenue financing (or transitioning capital to expense) when US Treasury Borrowing Authority is depleted.

The following scenarios are presented for illustrative purposes only and are to be considered book-end scenarios.



Power Scenarios

Estimated Power Revenue Requirement Capital Related Cost Component
(Rate Period Average, FY 2014-2044)



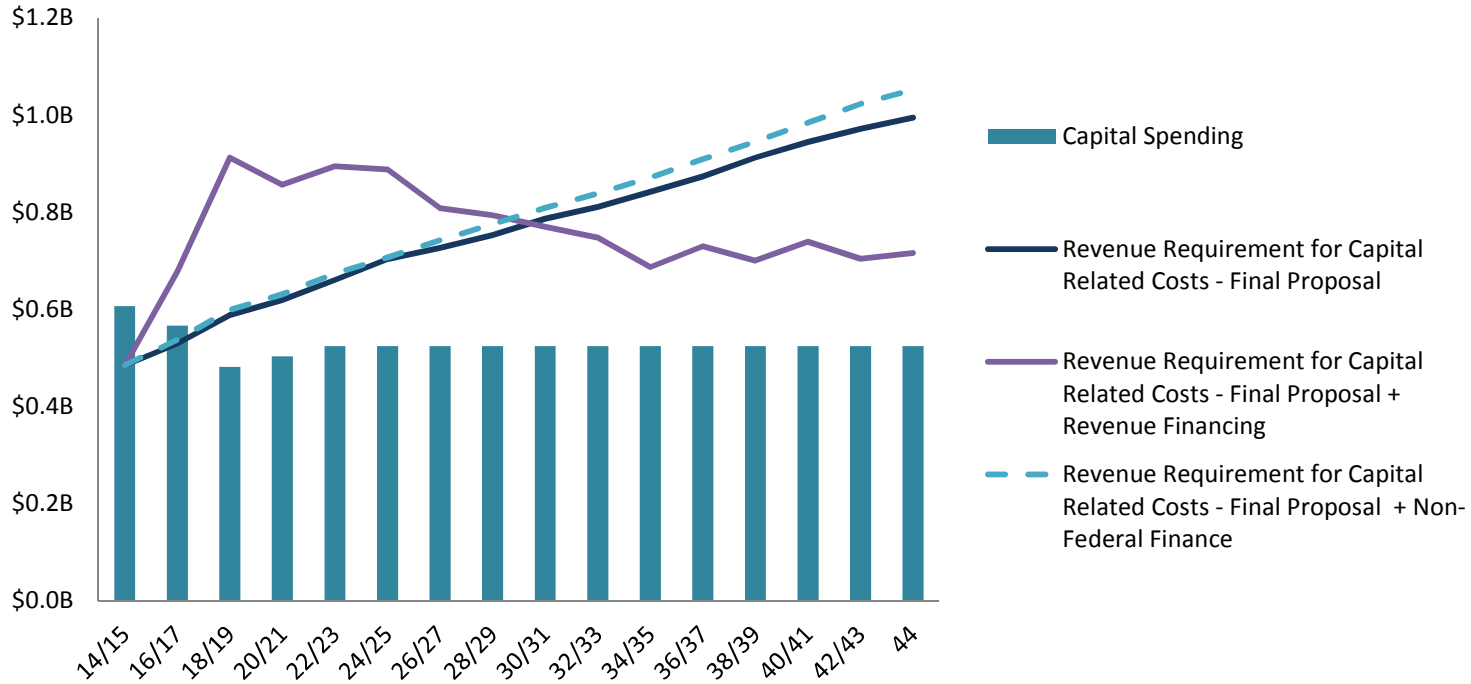
■ Graph Takeaways

- Revenue financing offers cost reductions over time but puts upward pressure on rates in the near-term.
- 100% debt financing is costly and not sustainable on a long-term basis.
- Reliance on more Non-Federal debt pressures credit rating resulting in increased interest cost.
- Revenue requirement trend out of line with business cycle.



Transmission Scenarios

Transmission Revenue Requirement Capital Related Cost Component
(Rate Period Average, FY 2014-2044)



■ Graph Takeaways

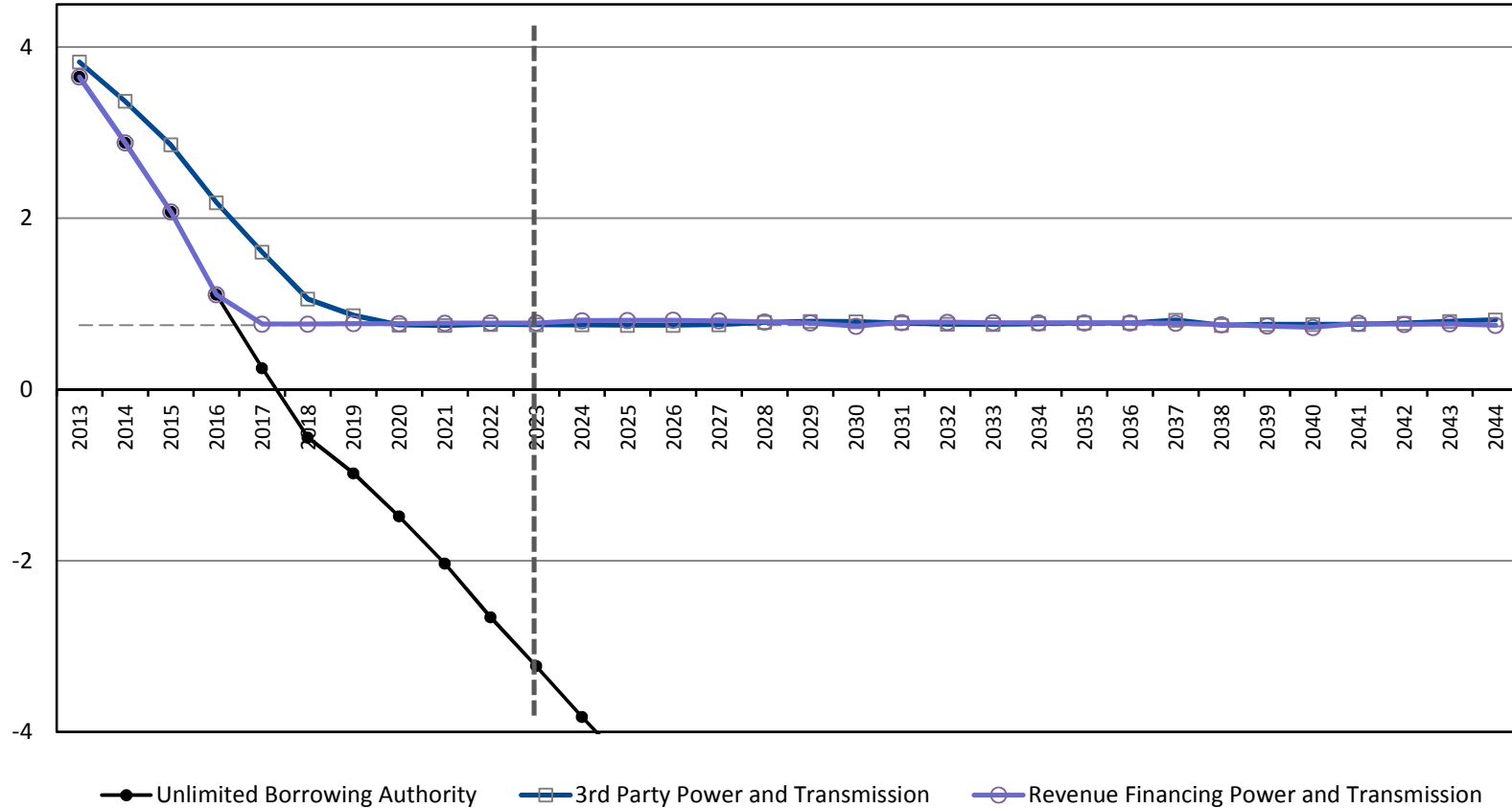
- Revenue financing now versus revenue financing in the future (~\$2.3B from FY2016-2029 versus ~\$2.9B from FY2030-2044 in nominal dollars).
- Reliance on more Non-Federal debt pressures credit rating.
- Revenue requirement trend in line with business cycle for the next few years but out of line in the long-term.



Revenue Financing and Borrowing Authority

Remaining Borrowing Authority (EOY)

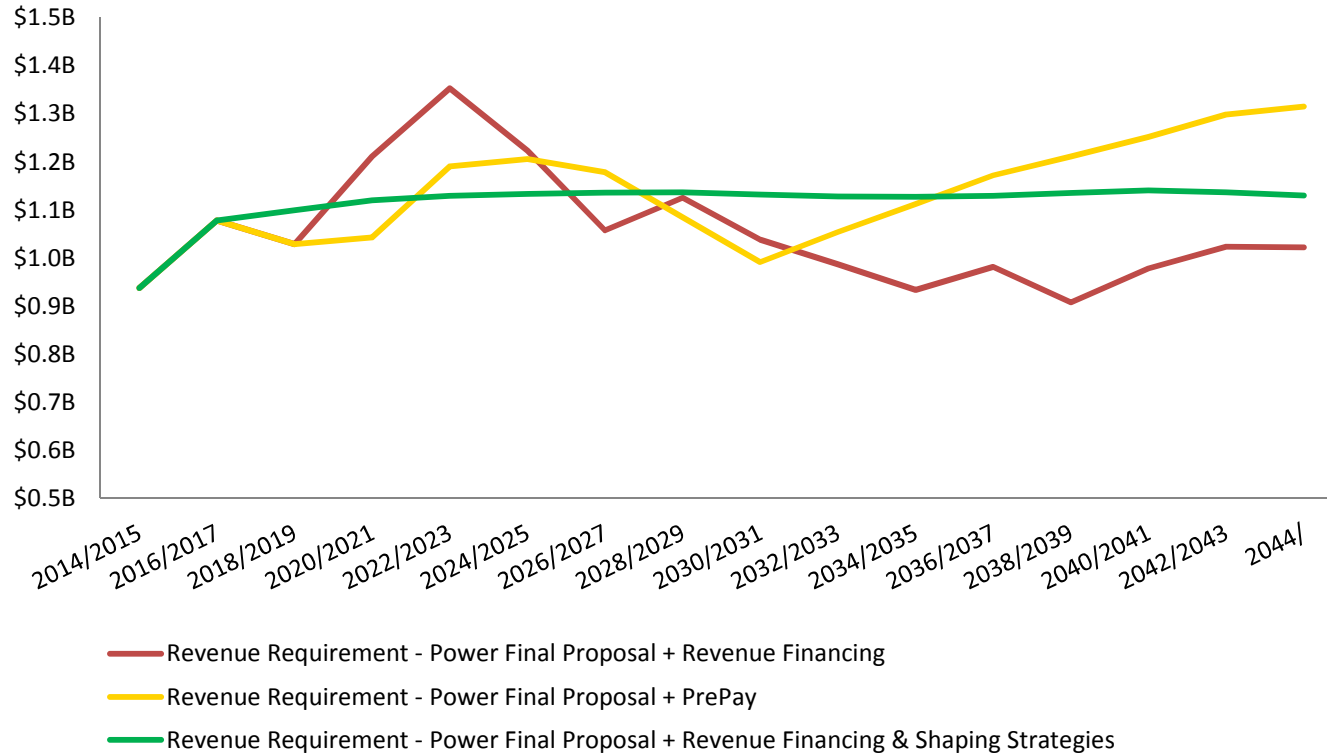
Billions





Power Potential Solutions

Power Revenue Requirement Capital Related Cost Component
(Rate Period Average, FY 2014-2044)



■ Graph Takeaways

- Revenue Financing + Shaping Strategies can produce a stable revenue requirement with adequate US Treasury Borrowing Authority over time.



Power Strategies for Borrowing Authority and Rate Stabilization

- CGS Extension
 - Extend available CGS debt.
 - Strategic placement.
 - CGS Extension Principle – repay like for like or greater.
 - Extend US Treasury Borrowing Authority.

- Stable Federal Repayment levels.
 - Minimizing lumpy Federal principal payment reduces revenue requirement volatility.
 - Requires strategic Federal and Non-Federal debt placement.



2013 Power Prepay Summary

Prepay Statistics

Principal: \$340m
 Issued: 3/19/2013
 Yield: 4.54%
 Average Term: ~10 Years

Comparable Transactions

US Treasury Rates

Date: 3/19/2013
 Term 10 Years
 Agency: 2.37% (rate using US Treasury Borrowing Authority)
 Treasury: 1.96%

Issuer: New York City, NY

Principal: \$1 Billion
 Issued: 3/19/2013
 Yield: 2.46%
 Term: 10 years
 Credit Rating: Aa2 Moody's, AA S&P

Issuer: New Orleans, LA

Principal: \$1 Billion
 Issued: 3/01/2013
 Yield: 3.40%
 Term: 9 years
 Credit Rating: BBB S&P

– Takeaways

- Prepay extended US Treasury Borrowing Authority and spread costs over roughly 10 years.
- 2013 Prepay Program priced higher than BBB rated taxable municipal issuers.
- Future programs may price more competitively depending on customer participation levels.



Power Prepay Alternatives

Context:

- The 2013 Prepay program raised \$340 million.
- The cost will be repaid fully through credits to participating customer power bills by 2028 (end of regional dialogue contracts).
- Any new Prepay offering would require completion by 2028.
- Prepay is probably viable for only one or two more periods because of repayment inflexibility and constraints on how much could be raised.

Alternatives:

1. Annual Prepay solicitation
 - 1a. Capped amount e.g. \$50 million/year, \$100 million/year, other amount.
 - 1b. No Cap on amount - economics of customer bids determines cap.
2. Once per Rate Period Prepay solicitation
 - 2a. Capped amount e.g. \$100 million/rate period, \$200 million/rate period, other amount.
 - 2b. No Cap on amount – pricing of customer bids determines cap.
3. No Prepay solicitation
4. Other



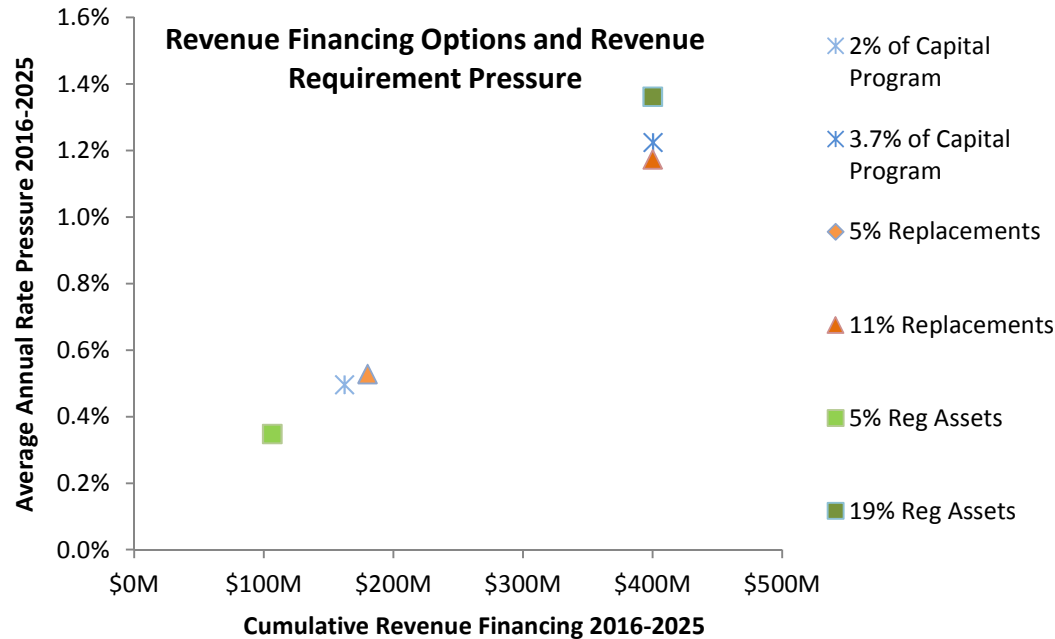
Power Revenue Financing Alternatives

We examined different ways of scaling a possible Power revenue financing program.

- Percent of total annual capital program: Revenue finance 1% or 2.5% per year up to 40%.
 - Revenue financing increases at specified rate (e.g. 1%) per year up to 40% of total capital program.
 - Offsets 20-year US treasury bonds at average rate of 5%.
 - Rate effects shown are average annual.
- Percent of specific capital program – IT, Replacements, Regulatory Assets (Conservation, Fish and Wildlife).
 - Replacements – 5% or 11% per year up to 100%.
 - Offsets 30-year US Treasury bonds at average rate of 6%
 - Regulatory Assets – 5% or 19% per year up to 100%.
 - Offsets 12 and 15-year US Treasury bonds at average rate of 4.5%.



Power Revenue Finance - % of Annual Capital Program



Graph Takeaways

- Replacements provide best tradeoff between revenue requirement pressure and revenue financed amounts – a result of having the longest repayment term versus the alternatives.
- Revenue financing 11% of replacements results in ~1.17% average rate pressure and \$400m offset borrowings from FY2016-2025.

Rate Period Avg. Revenue Requirement Effect

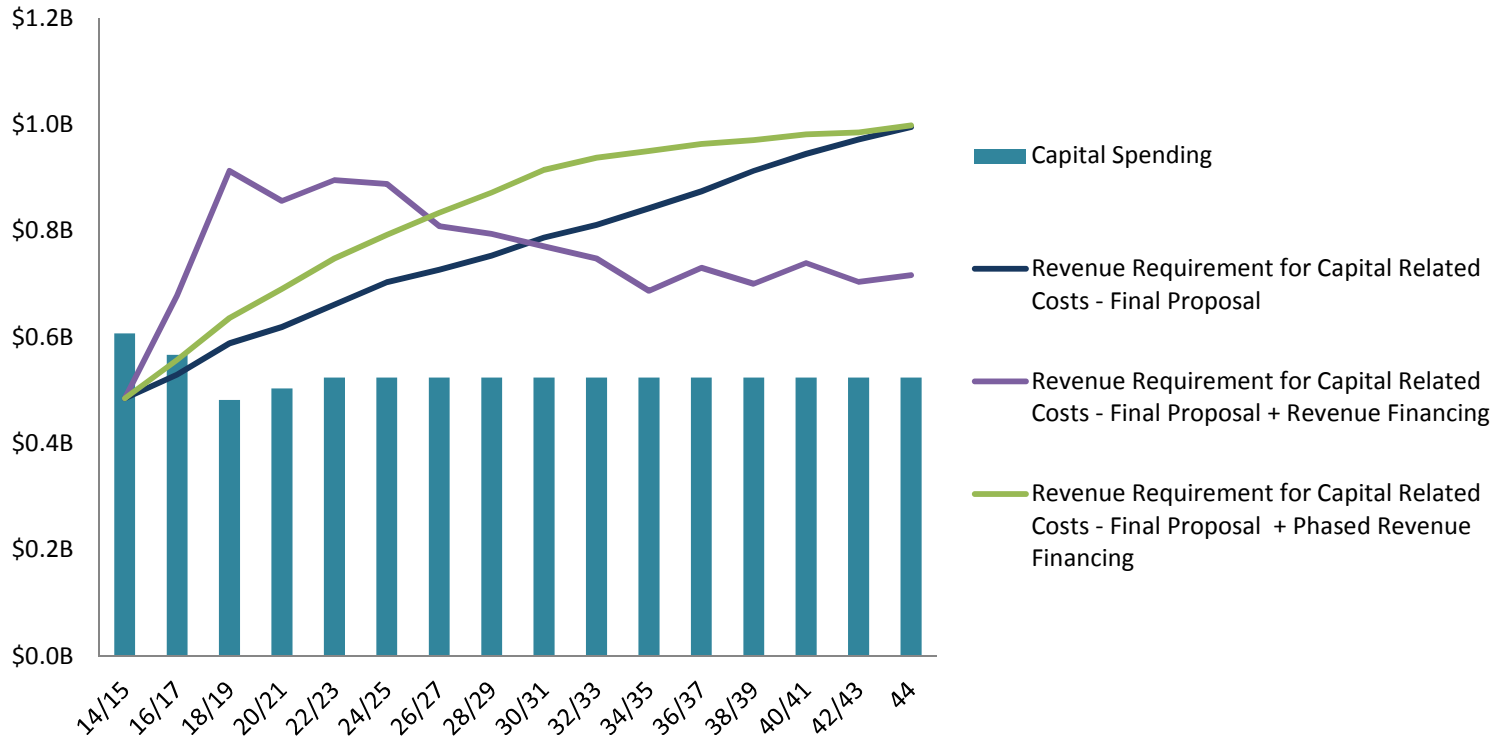
Summary Statistics

	2016/2017	2018/2019	2020/2021	2022/2023	2024/2025		2016-2025 Average Rate Pressure	2016-2025 Total Revenue Financing		2026-2044 Average Rate Pressure	2026-2044 Total Revenue Financing
1% of Capital Program	0.59%	0.47%	0.43%	0.48%	0.52%		0.50%	\$162m		0.15%	\$1021m
2.5% of Capital Program	1.44%	1.16%	1.06%	1.19%	1.27%		1.22%	\$400m		-0.26%	\$1897m
5% Replacements	0.30%	0.86%	0.53%	0.49%	0.46%		0.53%	\$180m		0.26%	\$1260m
11% Replacements	0.67%	1.92%	1.17%	1.09%	1.01%		1.17%	\$400m		-0.11%	\$2240m
5% Reg Assets	0.33%	0.30%	0.30%	0.47%	0.35%		0.35%	\$106m		0.28%	\$806m
19% Regulatory Assets	1.23%	1.07%	1.18%	1.85%	1.48%		1.36%	\$400m		0.05%	\$1535m



Transmission Potential Solutions

Transmission Revenue Requirement Capital Related Cost Component
(Rate Period Average, FY 2014-2044)



Graph Takeaways

- Green line shows phased revenue financing starting in 2016 of 2.5% of the capital program per year up to 40% of the capital program year (40% reached in 2032).
 - Scenario generates \$400 million in revenue financing from 2016-2025.
- The slope of the revenue requirement line changes from positive to neutral.
- Should the slope of the line change from positive to neutral when the system stops expanding i.e. capacity stops increasing?



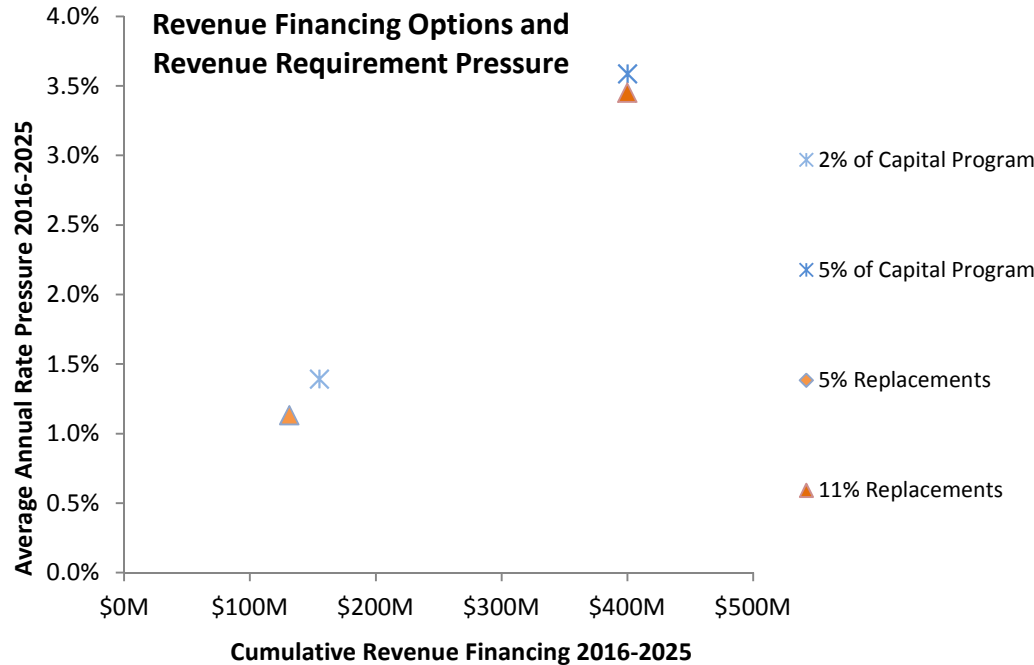
Transmission Revenue Financing Alternatives

We examined different ways of scaling a possible Transmission revenue financing program.

- Percent of total annual capital program: Revenue finance 1% or 2.5% per year up to 40%.
 - Revenue financing increases at specified rate (e.g. 1%) per year up to 40% of total capital program.
 - Offsets 30 year bonds at average rate of 5%.
 - Rate effects shown are average annual.
- Percent of Specific capital program – Replacements.
 - Replacements – 5% or 15% per year up to 100%.
 - Offsets 30 year bonds at average rate of 5%.



Transmission Revenue Finance - % of Annual Capital Program



Graph takeaways:

- Replacements slightly outperform % of Capital Program on 10 Revenue Requirement Pressure - a result of having the longest repayment term versus total Capital program.
- Interest savings do accumulate and reduce rate pressure – increases with amount of revenue financing

Rate Period Avg. Revenue Requirement Effect

Summary Statistics

	2016/2017	2018/2019	2020/2021	2022/2023	2024/2025		2016-2025 Average Rate Pressure	2016-2025 Total Revenue Financing		2026-2044 Average Rate Pressure	2026-2044 Total Revenue Financing
1% of Capital Program	1.67%	1.09%	1.46%	1.50%	1.23%		1.39%	\$155m		0.82%	\$1101m
2.5% of Capital Program	4.30%	2.80%	3.78%	3.88%	3.18%		3.59%	\$400m		-0.34%	\$2029m
5% Replacements	0.64%	1.85%	1.13%	1.06%	0.98%		1.13%	\$131m		0.55%	\$919m
15% Replacements	1.96%	5.65%	3.45%	3.22%	2.98%		3.45%	\$400m		-0.88%	\$1735m



Summary

■ General

- BPA is not expecting to receive additional US Treasury Borrowing authority at this time.
- Expanding the 10-year Access to Capital view to 30-year for Debt Management Strategies provides:
 - Complete view of costs over time - BPA issues up to 30 year debt.
 - Focuses on longer term trend of BPA's revenue requirement and alignment with business cycles – mature revenue for power but aging infrastructure, growing revenue, new and aging infrastructure for transmission. Maintains regional competitiveness in the long-run.

■ Power

- Reliance on US Treasury borrowing growing
- Power Prepay Program provided an additional financing tool.
- Modest revenue financing now versus significantly higher in the future (~\$1.3B from FY2016-2023 will save ~\$4.5B from FY2024-2044).

■ Transmission

- Lease Purchasing is already providing long-term stability to the revenue requirement.
- Continuously adding debt faster than we pay it off, revenues must keep pace or greater.
- Revenue financing would control interest costs in the revenue requirement.
- Revenue financing now (\$2.3B from FY2016-2029) to control interest costs in the long-term (\$2.9B from FY2013-2044).



Goals for the day (Recap)

- Present information on BPA's historic debt management practices.
- Access to Capital update.
- Share information on the latest version of the repayment model.
- Discuss future strategies to inform proposals we will present in Summer 2014 debt management discussions that occur in IPR. Specifically seeking feedback on:
 1. Power Prepay Program
 - 1.1 General feedback on FY13 program, financing results and process.
 - 1.2 Looking forward: Identical rates vs. identical incentives and taxable vs. tax-exempt financing.
 - 1.3 Should BPA offer the program again?
 - 1.4 Feedback on use of the Power Prepay Program versus revenue financing.
 2. Transmission Lease Purchasing Program
 - 2.1 General feedback on the program.
 - 2.2 Future financing targets (percentage of capital, currently at 50%).
 3. Energy Northwest CGS debt extension
 - 3.1 General feedback on CGS debt extension principle: debt extension for debt management purposes (i.e. repay an equal amount of debt over a specified time period).
 4. Revenue Financing
 - 4.1 What is the right framework to have a sustainable program over time?
 - 4.2 How much revenue financing phased in gradually over next 10 years for Power and Transmission (\$100m, \$200m, \$400m)?
 - 4.3 Which capital programs? (i.e. percentage of all capital vs. replacements vs. regulatory assets)?
 - 4.4 Is there a balance of revenue financing versus debt financing that customers could support?



Next Steps

- Comment period (October 24 – November 12, 2013).
<http://www.bpa.gov/applications/publiccomments/OpenCommentListing.aspx>
- Communicate outcome.
- Capital Investment Review – Public Process (February through March 2014).
- Release capital assumptions for IPR (May 2014).
- Debt Management / Access to Capital Workshop - IPR (June 2014).



How We Plan to Use Your Feedback?

- Feedback on access to capital instruments, amounts, timing and implementation will guide the development of potential strategies (combination of such instruments) that will help define a long-term stable and low cost revenue requirement for each business line.
- With current capital levels as a fixed assumption, your feedback on these debt management discussions will inform the shape of the capital-related revenue requirement. Release capital assumptions for IPR (May 2014).
- Capital discussions in the CIR process will inform the level of the capital-related revenue requirement.
- Feedback from both processes will help develop strategies that optimize the shape and minimize the level of the capital-related revenue requirement. These strategies will be presented at the Debt Management (IPR) workshops in the Summer 2014.

Future Debt Management Sessions

- Additional workshops before the Summer 2014 will be available, if requested.
- Summer 2014 debt management /access to capital public meeting (IPR process).

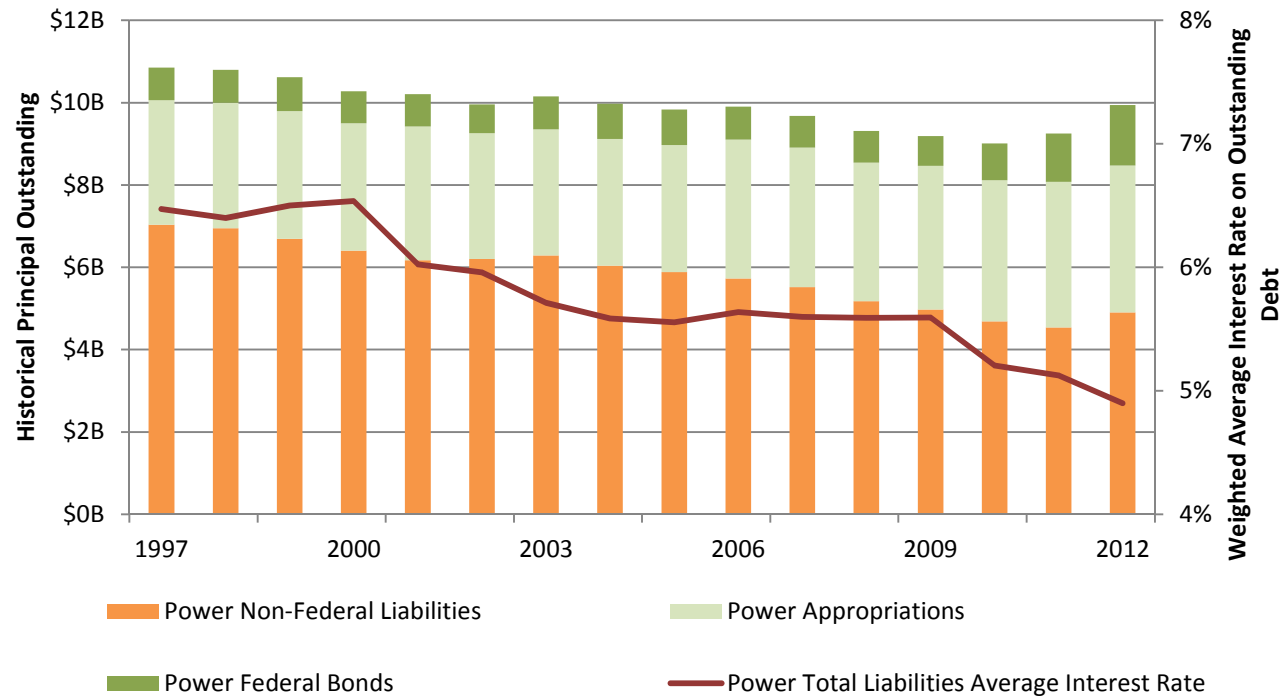


Appendix



Debt and BPA - Background

Power Historical Principal Outstanding

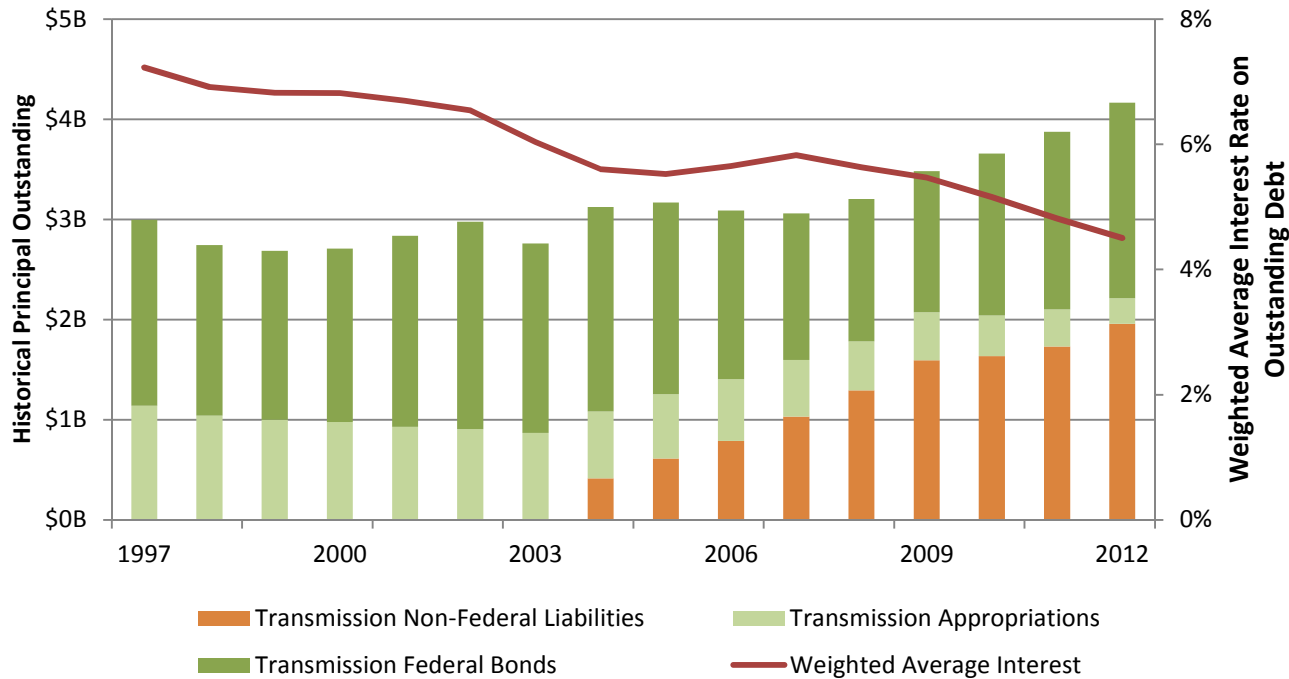


- Decreasing total principal through 2010.
- Increase in 2012 principal amount mainly due to Depleted Uranium Enrichment Program financing.



Debt and BPA - Background

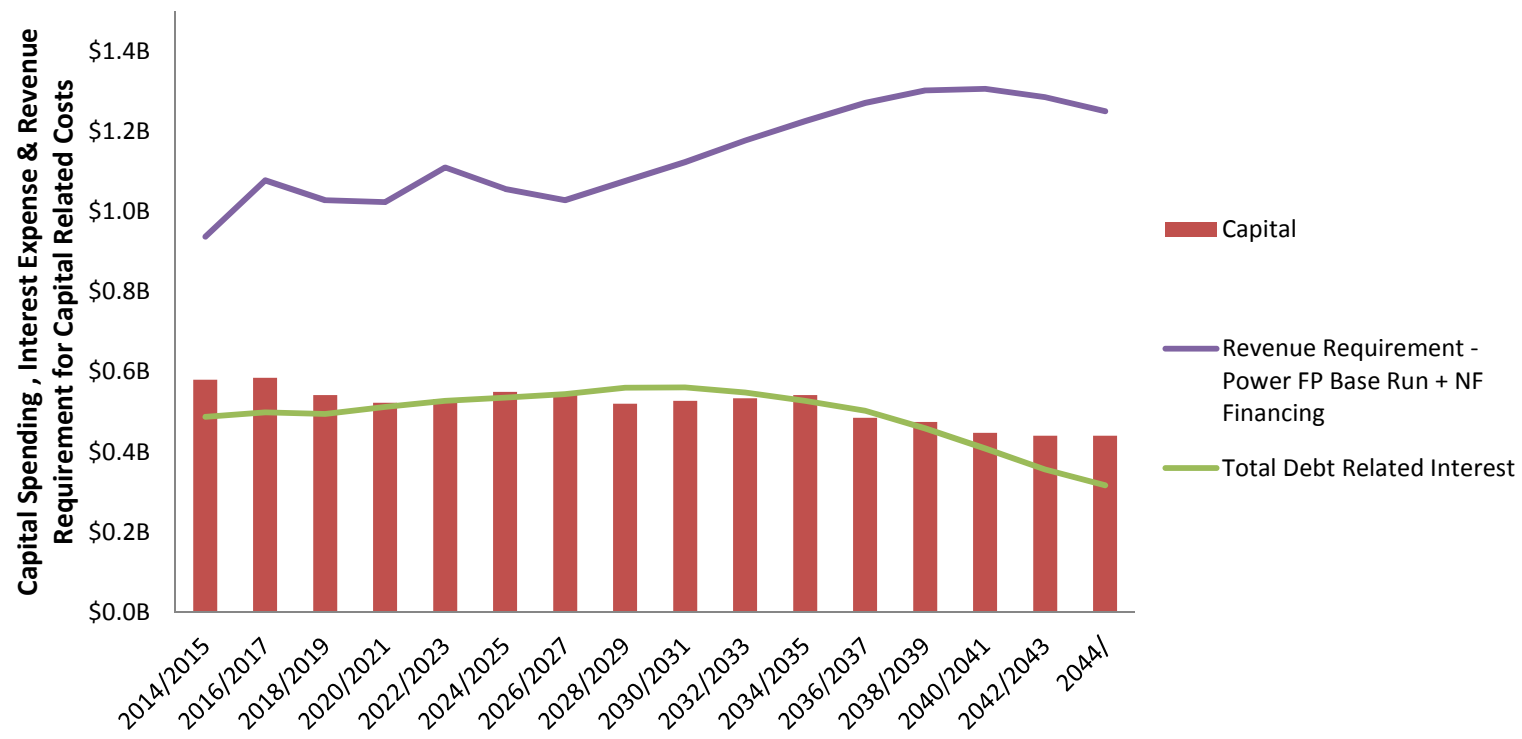
Transmission Historical Principal Outstanding



- Increasing total debt outstanding
- Stable Federal liabilities at onset of lease purchasing.
- EN debt accounts for ~\$1.17 billion of Non-Federal principal through debt service reassignment.
- Increasing Non-Federal principal due to lease purchasing.
- Appropriations near fully repaid - \$257 million remaining scheduled to be paid by FY2017.



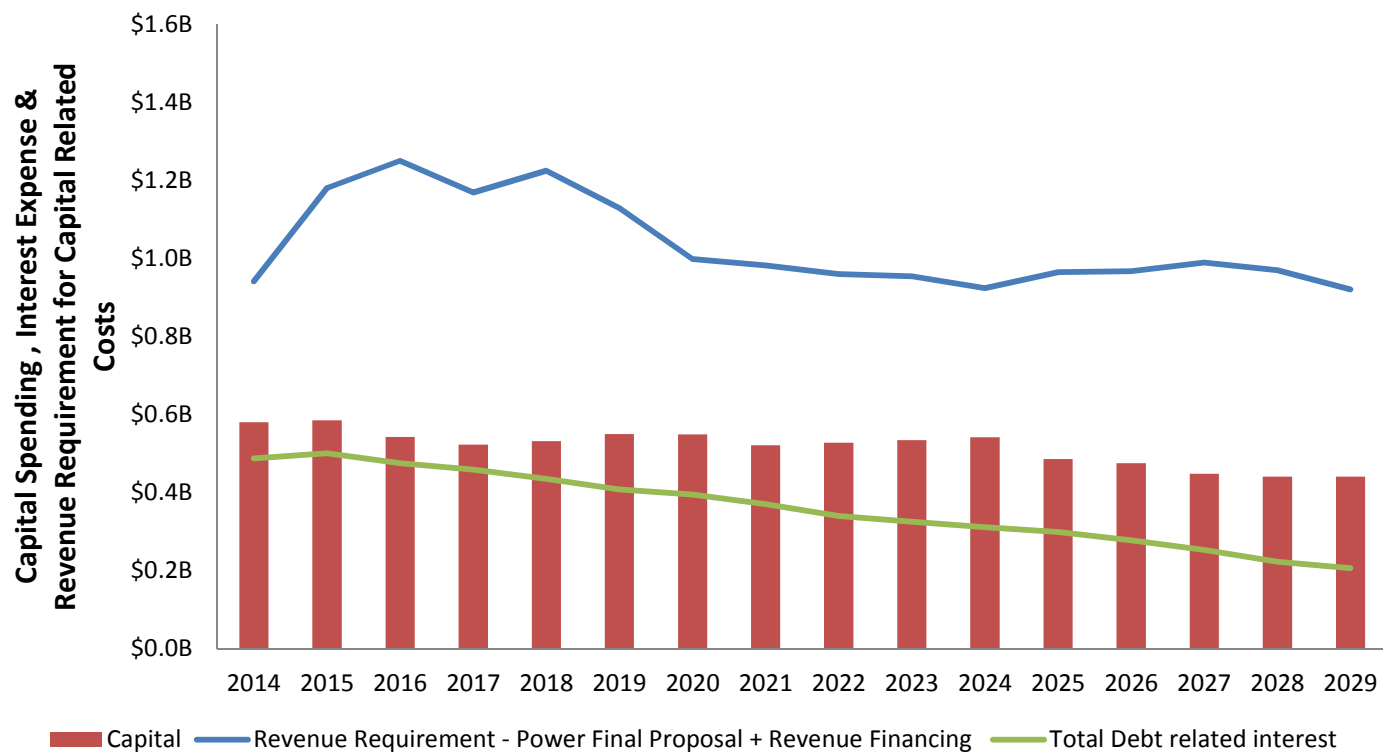
Power Services Revenue Requirement for Capital Related Costs: Status Quo & Non-Federal Finance US Treasury Borrowing Authority Shortfall



- Non-Federal finance borrowing authority shortfall.
 - Paired with Transmission Non-Federal scenario.
- Requires sourcing over \$3 billion in additional Non-Federal financing.
- Increasing revenue requirement and decreasing interest cost due to accelerated repayment of additional non-federal debt (assumed additional Non-Federal repaid like Prepay i.e. level 20-year issuances with a weighted average maturity of 10 years).



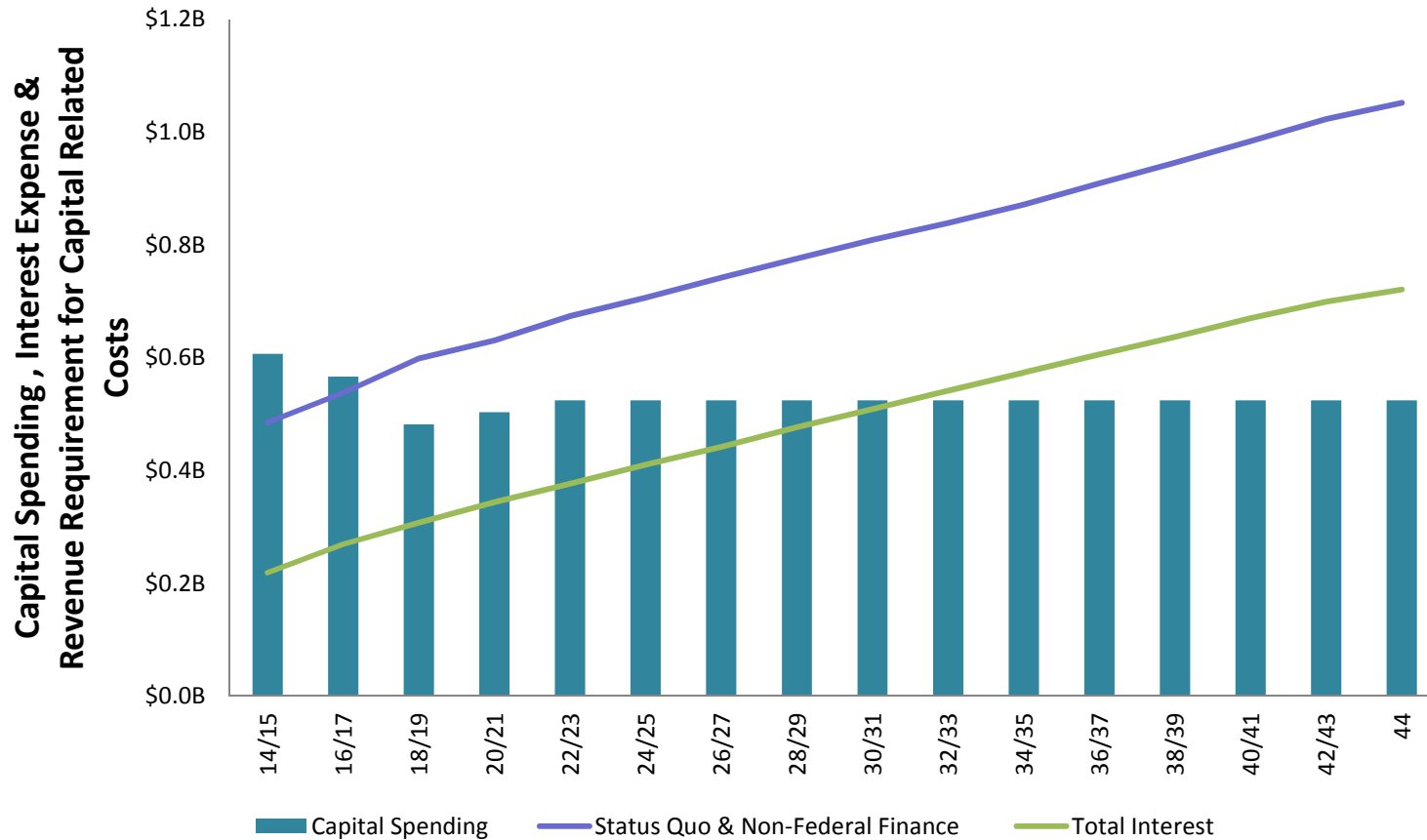
Power Services Revenue Requirement for Capital Related Costs: Status Quo & Revenue Finance US Treasury Borrowing Authority Shortfall



- Revenue Finance 40% of US Treasury Borrowing Authority shortfall.
- Increasing near term revenue requirement with decreasing over time.
- Decreasing interest costs over time.



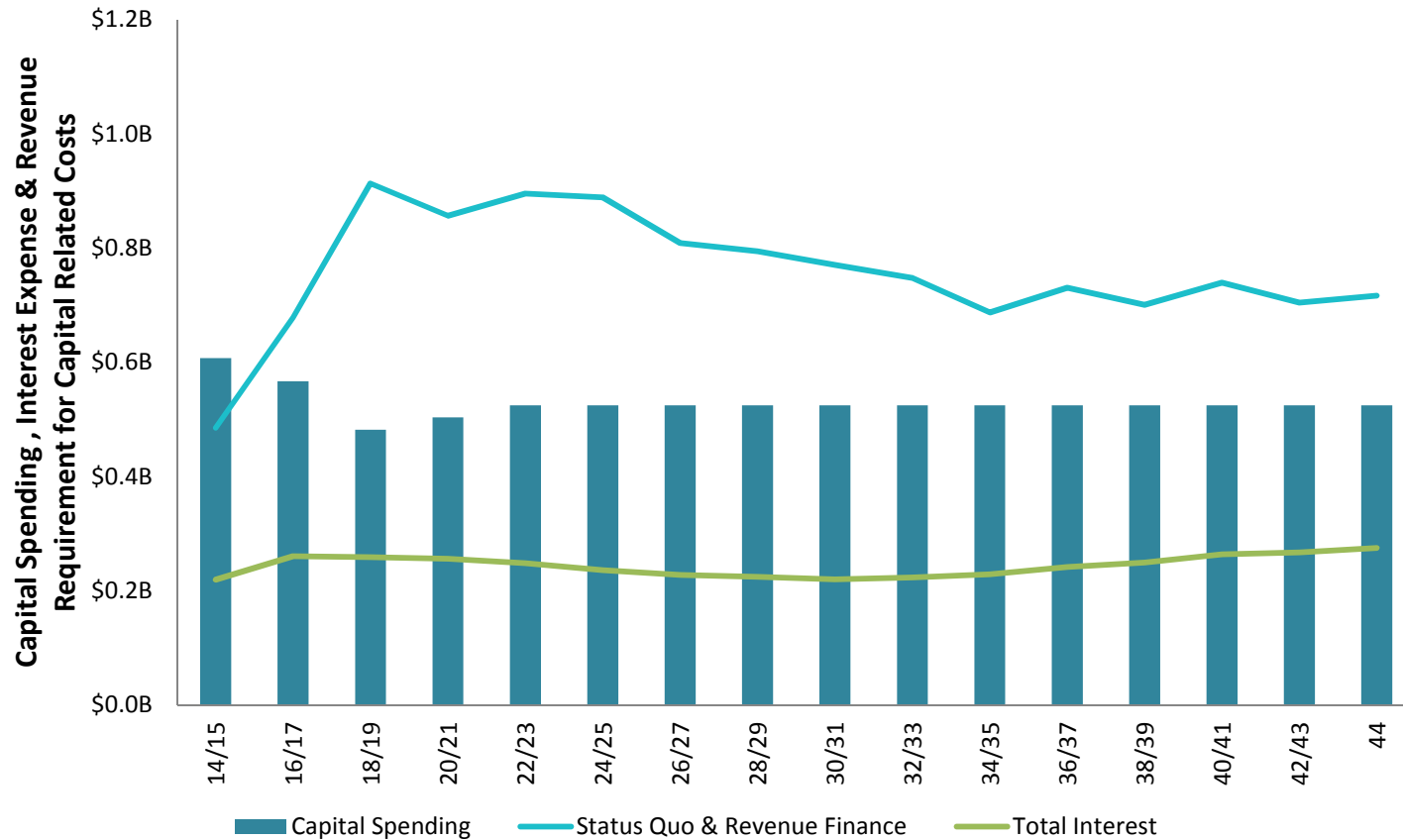
Transmission Services Revenue Requirement for Capital Related Costs: Status Quo & Non-Federal Finance US Treasury Borrowing Authority Shortfall



- Mostly level capital spending with increasing interest costs.
- Continuously adding more debt than is being amortized.



Transmission Services Revenue Requirement for Capital Related Costs: Status Quo & Revenue Finance US Treasury Borrowing Authority Shortfall



- Revenue finance US Treasury Borrowing Authority shortfall.
- Controlled interest costs and level revenue requirement over time.



Financial Disclosure

This information has been made publicly available by BPA on October 18, 2013 and contains information not reported in Agency financial statements.