Updating BPA's Financial Plan

Technical Workshop #1
Access to Capital

March 4, 2008

Purpose of the Financial Plan

- BPA committed to updating its Financial Plan in the Regional Dialogue Policy, stating that "it would be preferable to look broadly at long-term financial policy issues in its financial plan update, including the need for and sources of capital, BPA's overall debt structure, the appropriate Treasury Payment Probability standard for rate-setting, and the best uses of high net secondary revenues when they occur." (Long-term Regional Dialogue Policy, July 2007, pg. 7)

- The objective of this process is to create a foundation for policies and practices, by identifying long-term financial issues and providing strategies:
  - that address the issues
  - that can be built upon in future years
  - that will provide a sound underpinning for the financial policies that will guide BPA's decisions over time while maintaining BPA's flexibilities.

Background

- We held a workshop on November 26, 2007 to discuss and seek input on the major subjects to be addressed in this financial update.
- We proposed limiting the scope of this 2008 update to four high-priority issues, given the large number of other concurrent processes.
- We received no comments that suggested a different or more comprehensive approach for this year, so are proceeding with this limited scope.
- We expect to build on the 2008 plan with periodic updates and additions.
- We want to use this opportunity to set the tone for the Regional Dialogue period by regularly looking forward and anticipating financial concerns and challenges and addressing them before they become problems.

Timeline of the Update Process

- Technical workshops in March
  - March 4: Access to Capital
  - March 12: Financial Risk Metrics & Cost Recovery Policy
  - March 17: Good Year/Bad Year Planning
- Draft plan in mid-May followed by a comment period
- Final plan by the end of July

ACCESS TO CAPITAL

Financial Disclosure

- This information is provided for use in Financial Plan workshop discussions and is supplied for discussion or exploratory purposes only. The data included may be hypothetical in nature, does not represent in any manner the official position of BPA, and will not necessarily agree with externally released Agency Financial Information. Such information should be used only for the purpose for which it was provided and should not be re-communicated by the recipient without the foregoing qualification.

- Data for FY 2007 and earlier is being released externally by BPA as an ad hoc report or analysis generated for a specific purpose. The information provided is based upon data found in Agency Financial Information but may not be found verbatim in an External Standard Financial Report or other Agency Financial Information release.

Access to Capital Public Process Objectives

Today's objectives are:

- Share BPA's capital access objectives
- Share our latest capital access scenario results
- Share an approach to analyzing capital access
- Seek stakeholder ideas, preferences and direction, both near- and long-term, regarding capital access tools

Agenda

- BPA's Capital Access Objectives
- The Capital Access Challenge
- The Capital Access Approach
- Closing the Access to Capital Gap
- Other Non-Federal Considerations
- Next Steps

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BPA's Capital Access Objectives

BPA seeks to:

- Ensure that existing sources of capital funding are sufficient to meet capital investment requirements on a rolling 10-year basis;
- Develop strategies and tools that will sustain available Treasury borrowing authority over a rolling 20-year period;
- Ensure that BPA is able to meet its capital requirements at the least available cost.

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Capital Access Link to BPA's Strategic Objectives

SYSTEM RELIABILITY | **LOW RATES** | **ENVIRONMENTAL STEWARDSHIP** | **REGIONAL ACCOUNTABILITY**

STAKEHOLDER PERSPECTIVE

Policy & Regional Actions
BPA policies result in regional actions that ensure adequate, efficient and reliable regional transmission and power service

Transmission Access & Rates
Open, non-discriminatory transmission services are provided at rates that are kept low through achievement of BPA's objectives at the lowest practical cost

System Value
The value of the existing federal power system is preserved for the region for the long run, while ensuring obligations to federal taxpayers are met

FCRPS Operations
Operation of FCRPS power and transmission facilities meets availability and reliability standards in the most regionally cost-effective manner

FCRPS Expansion
Expansion of FCRPS power and transmission supplies results in regionally cost-effective incremental service

FINANCIAL PERSPECTIVE

Capital Access
BPA has sustainable capital access

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The Capital Access Challenge – Past and Present

The Capital Access Challenge – Past Responses

In the development of Financial Goals (1991) and the subsequent 10-Year Financial Plan (1993), BPA adopted strategies and goals for coping with growing capital funding requirements.

	Financial Goals	10-Year Financial Plan
Overall Capital Structure	Achieve a 90% total-debt-to-total-asset ratio by 2001 using customer revenues in lieu of bonds issued to Treasury.	Rely fully on debt financing where feasible.
Appropriations	No policy.	Use to finance Corps and Bureau capital investments.
Bonds issued to Treasury	Limited to incur no increase in Federal net debt.	Use to finance BPA capital programs and Corps and Bureau capital investments if timely and sufficient appropriations and/or third-party funding sources cannot be obtained.
Third-Party Sources	No policy.	Use to the extent feasible to finance resource acquisitions, long-lived CGS capital investments and capital investments that traditionally have been financed with bonds issued to Treasury.
Customer Revenues	Revenue finance BPA capital program investments to the extent needed to avoid increases in net Federal debt. Also use for all nuclear project replacements, capital additions and fuel acquisitions.	Use to finance CGS capital investments that are not debt financed.

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The Capital Access Challenge – Past Responses

- After completion of the 1993 Financial Plan, BPA continued to assess its Treasury borrowing authority situation.
- Based on projected capital spending and Federal principal repayment forecasts at that time, BPA forecasted it would run out of Treasury borrowing authority by 2004. The development of the Debt Optimization (DO) Program was a direct response to this Treasury borrowing authority challenge.
- Below is a summary of the advanced Treasury payments to date due to the DO Program.

Advanced Payments due to DO

($ in Millions)

	Generation	Transmission	Total
FY01	$ 98	$ -	$ 98
FY02	$ 266	$ -	$ 266
FY03	$ -	$ 315	$ 315
FY04	$ 141	$ 205	$ 346
FY05	$ 123	$ 190	$ 313
FY06	$ 133	$ 204	$ 337
FY07	$ 87	$ 202	$ 289
Total	$ 847	$ 1,117	$ 1,964

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The Capital Access Challenge Today

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The Capital Access Challenge – Today

- To better understand the Treasury borrowing authority challenge, we'll discuss the following:
  - The Capital Access Approach: Review BPA's approach to Treasury borrowing authority analysis and some of the major drivers that help to sustain available Treasury borrowing authority.
  - Closing the Treasury Borrowing Authority Gap: Share our ideas on potential ways to close the gap and seek stakeholder ideas, preferences and direction, both near- and long-term, regarding capital access tools.
- The next sections will:
  - Assume an intermediate level of knowledge about BPA's capital structure
  - Focus on sources of capital funding rather than particular capital projects or overall capital spending levels
  - Seek direction on general stakeholder preferences, both near- and long-term

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The Capital Access Approach

The approach to modeling and analyzing Treasury borrowing authority and capital access will cover the following:

- Analytical Tool: Discuss the tool used for the analysis, the repayment study
- Basic Inputs: Discuss the study's primary inputs
- Main Drivers: Discuss the main drivers behind each capital access scenario

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The Capital Access Approach: Analytical Tool

- The repayment study is the primary tool used to conduct Treasury borrowing authority analysis.
- The primary purpose of the repayment study is to determine a schedule of Federal principal payments that satisfies the statutory requirement to set rates to assure timely repayment of the Federal investment.
- Using the repayment study for Treasury borrowing authority analysis is useful because it:
    - Allows us to see the impacts of certain capital choices and assumptions on both Federal amortization levels and overall debt service levels.
    - Employs a complex binary iteration methodology for a consistent analytical approach that solves for the least cost interaction of Federal flexibility and fixed non-Federal requirements.
    - Features 20-year analytical capability. A 20-year study allows for an analytical look over multiple rate periods, producing a clearer picture of BPA's projected debt portfolio going forward.

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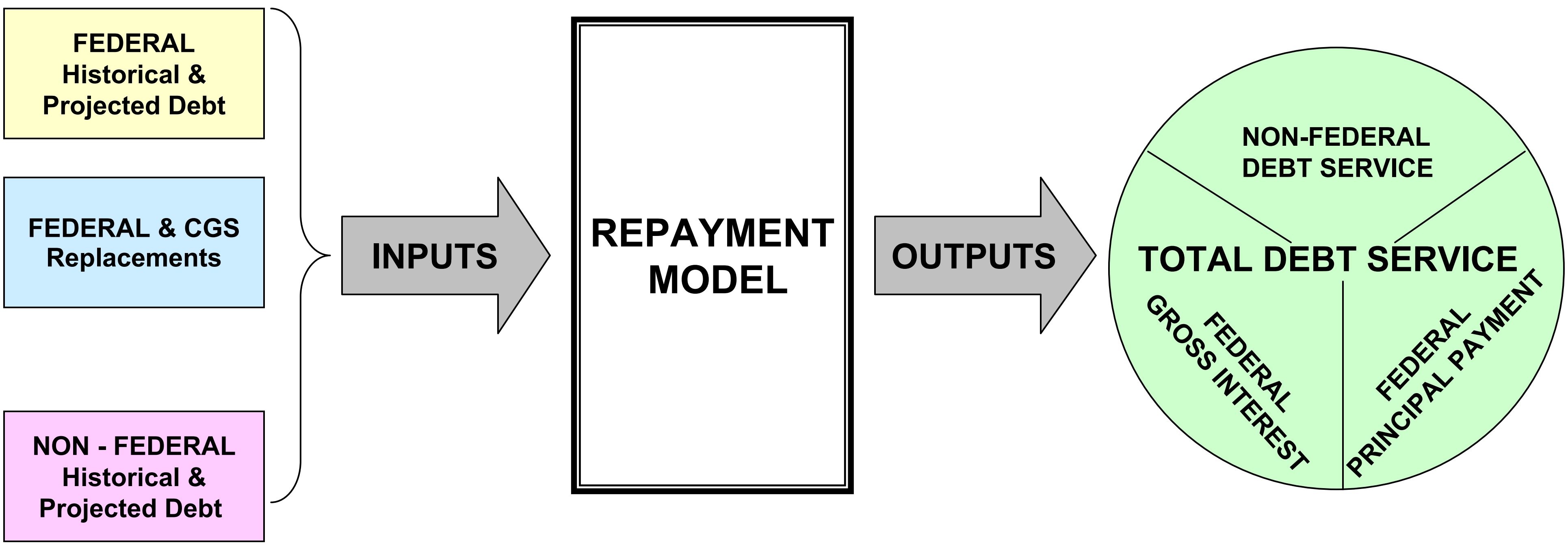
Inputs and Outputs of the Repayment Model



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The Capital Access Approach: Basic Inputs

- Basic inputs of each repayment study include:
  - Outstanding Federal debt/repayment obligations (bonds, appropriations, and irrigation assistance) as of the most recent year of actual data.
  - Debt service on outstanding non-Federal debt as of the most recent financing and/or refinancing transactions.
  - Projected capital funding forecasts (Treasury bonds and for Generation, some appropriations).
  - Debt service on projected non-Federal investments.
  - Funding for replacements projected during the repayment period, consistent with Federal repayment policy.
- The study schedules the repayment of Federal debt around the non-Federal obligations noted above, reflecting the priority of revenue application in both statute and policy in which non-Federal obligations have a higher priority of payment.
- That schedule, with the resulting Federal interest payments, non-Federal debt service requirements and, for Generation, Federal irrigation assistance, is the lowest, levelized combined debt service for the study year and over the ensuing repayment period.

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The Capital Access Approach: Main Drivers

- BPA’s capital access analysis produces a range of possible Treasury borrowing authority availability outcomes.
- This range is driven by assumptions regarding which “tools” are employed to help sustain Treasury borrowing authority and the degree to which each tool is relied upon, as well as by the “modeling choices” around a variety of standard inputs.
- The term “tools” means capital financing structures that BPA develops and uses in order to extend and preserve available Treasury borrowing authority. Currently, BPA incorporates the following tools into its analysis:
  - Debt Optimization
  - Master Lease/Lease Purchase
  - Revenue/Reserve Financing
- “Modeling choices” means parameters around the more standard inputs:
  - Financing assumptions, i.e. terms and conditions, debt maturities, etc.
  - Amounts and terms and conditions assumed for replacement forecasts
  - Inclusion/exclusion of certain projected non-Federal debt
  - Refinancing assumptions on outstanding debt

Treasury Borrowing Authority Modeling Scenarios

<u>**A**: FY 2008 BASE CASE ASSUMPTIONS</u>

- Capital forecast: 2008-13 consistent with 2009 President's Budget; 2014-27 forecast is a shaped and escalated forecast
- Under run factor applied to Federal capital forecast
- Debt Optimization: 2008 = $211M; 2009 = $216M. Amounts are consistent with information shared at the 2008 annual DO meeting, and include advance + current refinancings.
- Revenue finance: Transmission = $15M in 2008 and 2009; Power = $0
- CRFM projections: Power only, $577M in total through 2015
- CGS new capital: Power only, $677M in total through 2019; level debt service 2020-24
- CGS replacements: Power only, $4.7B plant, debt service starting in 2025
- Interest rates forecast: Official BPA forecast from 10/25/07

<u>**B**: BASE CASE + Master Lease (ML)</u>

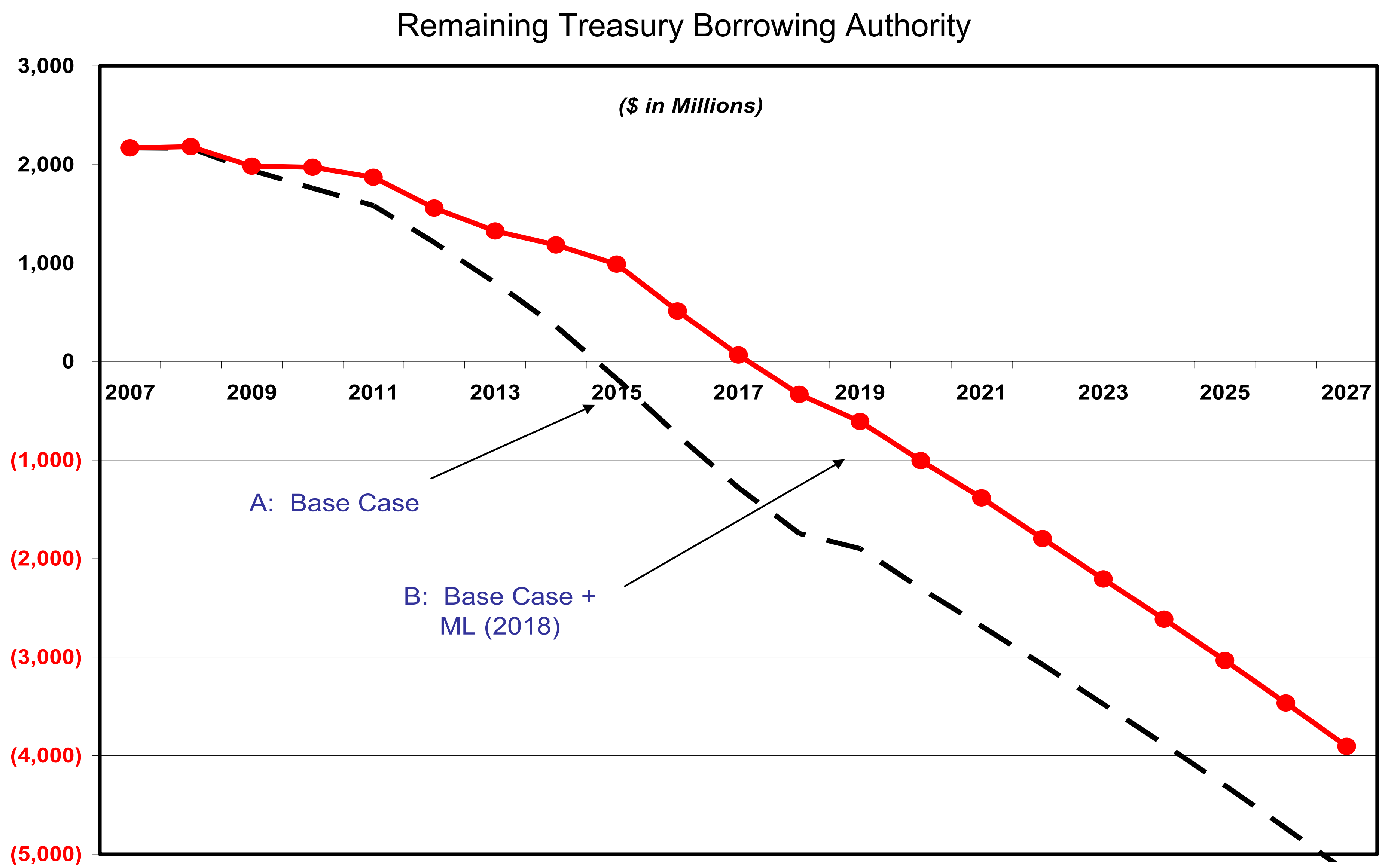
Same as above, except add Master Lease projections through 2018 totaling $1.4B

C: Federal Capital Reduced by 25% in 2014 – 2027 ($1.8B)

D: Federal Capital Increased by 25% in 2014 – 2027 ($1.8B)

Scenarios involving capital increases and decreases are not solutions to the Treasury borrowing authority challenge; rather these represent the uncertainty in projecting actual capital spending over 20 years.

The Capital Access Challenge – Today



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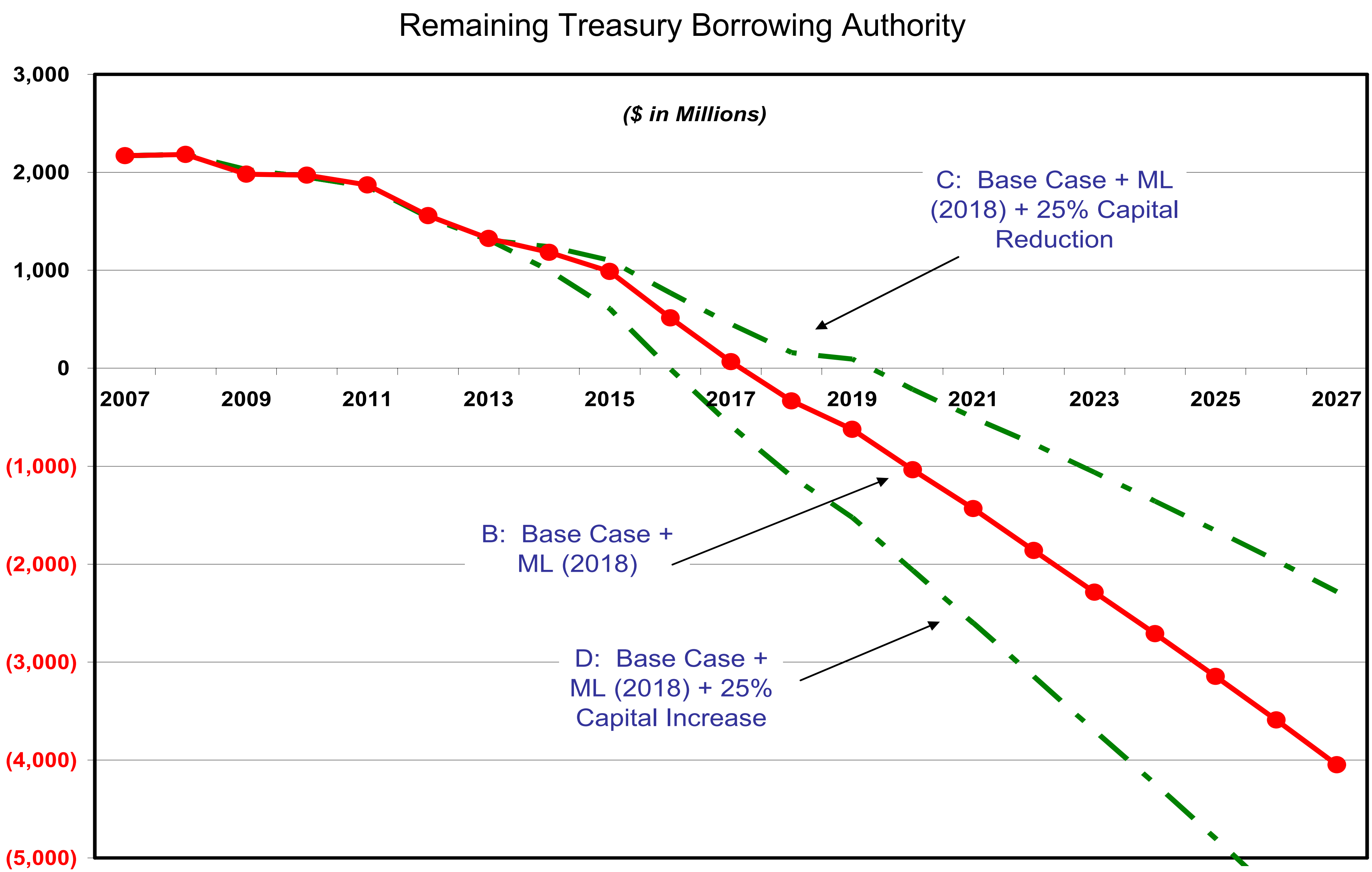
The Capital Access Challenge – Today (cont.)



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Closing the Access to Capital Gap

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Closing the Access to Capital Gap

- As noted earlier, two of BPA's capital access objectives are:
  - Ensure that capital needs are covered over a rolling 10-year period.
  - Develop strategies and tools that will extend BPA's Treasury borrowing authority over a rolling 20-year period.
- As the Treasury borrowing authority graphs shown earlier reveal, BPA is very close to meeting its first objective, just a year shy of meeting the target.
- On a rolling 20-year basis the scenarios show that the capital needs deficit ranges from $4.0B to $5.0B by 2027.
- The next pages will:
  - Provide more information around some of the tools and modeling choices used in recent Treasury borrowing authority scenarios that examine ways to close the gap or that we will further analyze this year.
  - Look at additional tools BPA plans to research/develop in order to provide better assurance of continued access to capital.

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Closing the Gap: the Debt Optimization Tool

Base Assumption (Scenario B): Includes DO as follows: FY08 DO = $210M and FY09 DO = $216M. All EN refinanced bonds are placed in 2013 – 2018.

Alternative Assumption:

- None modeled at this time.
- This year BPA may analyze extending CGS debt into FY20 – 24 for DO purposes. Previous analysis has showed the capacity to expand DO by approximately $500M more in total on the Transmission side during FY10 – 12.
- If completed and analytical results are positive, and BPA and Energy Northwest decide to pursue an expanded DO program, it will be discussed with customers and the Participants Review Board.

Impacts & Concerns/Issues:

- The Treasury borrowing authority impact should closely match the amount of additional DO.
- It is possible that expanded DO will not occur for various reasons (e.g. market conditions, politics, etc.).
- DO extends Treasury borrowing authority to a later date in time, but does not permanently preserve Treasury borrowing authority.

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Closing the Gap: the Master Lease Financing Tool

Base Assumption (Scenario B): Incorporates projected Master Lease (ML) financing of $1.4B through 2018.

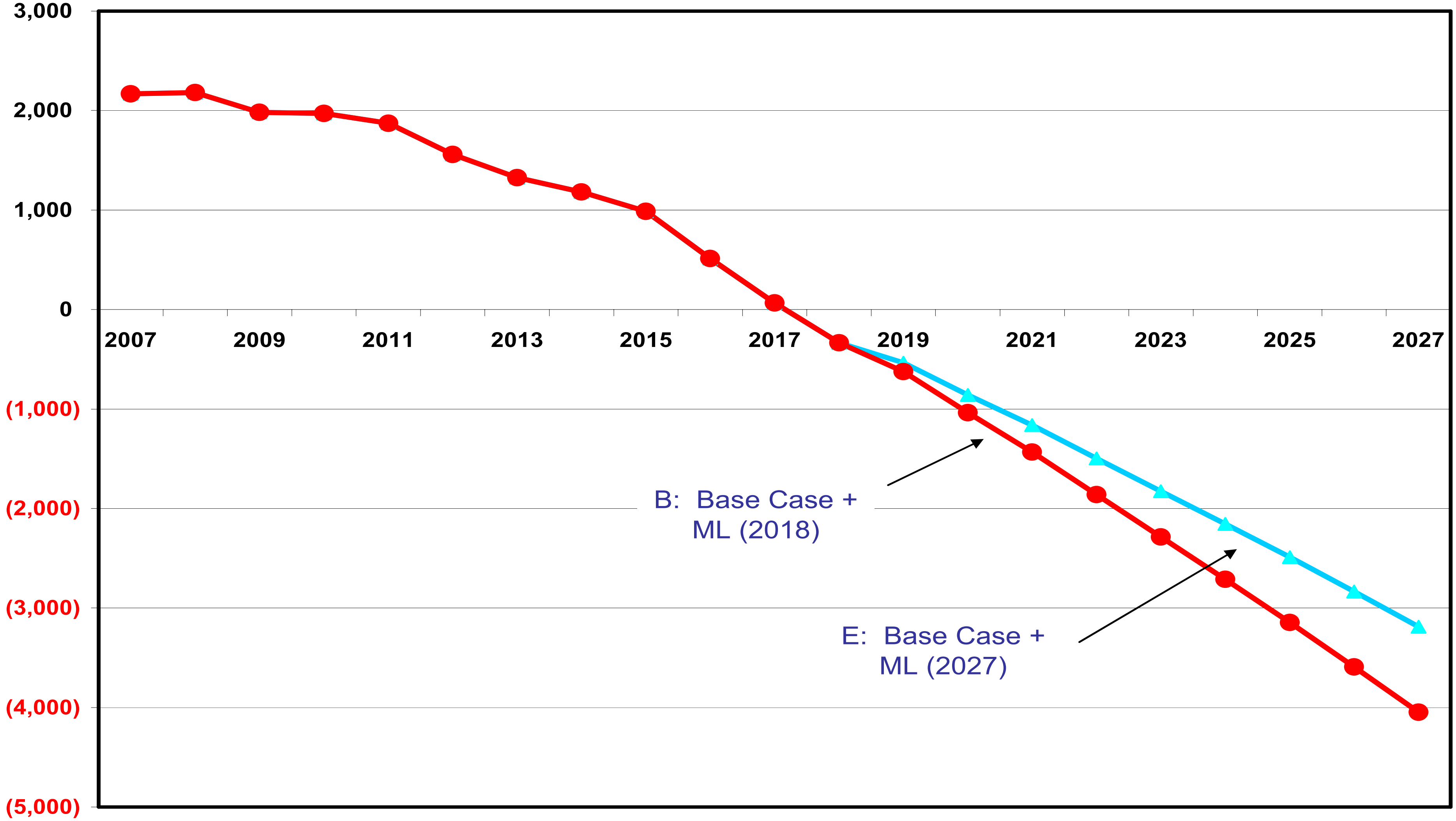
Alternative Assumption: Assume additional Transmission capital is financed via the ML construct. Scenario E (see next page) assumes a total of $2.3B of ML financing through 2027, averaging $114M per year.

Impacts & Concerns/Issues:

- ML financing preserves Treasury borrowing authority because financing is accomplished through a non-Treasury source.
- Assumes fairly significant reliance on non-Federal financing to extend Treasury borrowing authority.
- Volatile capital markets could prevent the non-Federal party from securing financing.
- Although not an issue this year, in the past legislation has been proposed that would cause BPA's non-Federal financing to be 'scored' against BPA's Treasury borrowing authority. Legislation of this nature would virtually nullify the benefits of using that source of financing.
- Although not expected, it is possible that third parties might be unwilling to serve as a conduit for BPA access to the capital markets.
- Expanded use of non-Federal financing may jeopardize bond ratings until after 2018, when much of the EN debt is paid off, which could result in limited access to capital and/or at a higher cost.

Expanding Master Lease to 2027

Remaining Treasury Borrowing Authority



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Closing the Gap: the Revenue Financing Tool

Base Assumption (Scenario B): Transmission - Based on the TR-08 rate case and the FY09 President's Budget submission, assumes $15M of revenue/reserve financing in each FY08 and FY09. Generation - Studies assume no revenue financing.

Alternate Assumptions:

- None modeled at this time.
- Transmission - Continue assumptions from the last three rate cases and at a minimum extend $15M/year revenue financing of Federal capital through FY27.
- For both, consider adding routine reserve financing (i.e. not budgeted for in a rate case), based on a “Good year/Bad year” policy and/or risk modeling.

Impact & Concerns/Issues:

- Revenue financing preserves Treasury borrowing authority; the slope of the Treasury borrowing authority line changes.
- When reserves are high, higher levels of revenue/reserve financing might be justifiable. Within the context of the “Good years/Bad years” Financial Plan arena, BPA is developing a policy to inform cash management decisions in times of high reserves, but currently no such policy exists.
- Revenue financing has the potential to impact rates.

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Closing the Gap: Appropriations Modeling Choices

Base Assumption (Scenario B): New appropriations are only forecasted for Columbia River Fish Mitigation (CRFM) program for Generation, and those forecasts end in FY15 ($653M total).

Alternative Assumption: Extend the CRFM appropriation forecast through the entire 20 year repayment projection period. Adding $72M per year (average of FY08 – 2015).

Impact and Concerns/Issues:

- The current scenario analysis showed no impact on Treasury borrowing authority compared to scenario B, therefore this scenario was not charted. Including an expanded forecast of CRFM is useful in terms of understanding amortization impacts, but appropriations are not a viable capital funding source as currently being used.
- The forecasted annual CRFM increments are highly variable. There is a strong possibility that these appropriations will continue beyond FY15 and at higher amounts. However, there is no basis for updating and extending the CRFM forecast given the current stage of BiOp discussions and there may not be any better information for input to the Financial Plan.
- The CRFM forecast is provided by Corps staff. BPA has not unilaterally changed the forecast in past repayment studies.

Closing the Gap: Columbia Generating Station (CGS) Replacement Modeling Choices

Base Assumption: CGS is treated similarly to Federal assets; debt service on the replacement of CGS is included repayment studies. Repayment modeling for CGS assumes that the plant ends operation in 2024 as the current license expires. In 2025 debt service on a replacement nuclear plant begins, costing $4.7B to construct, amortized on a mortgage style basis over 30 years.

Alternative Assumptions:

- CGS license is extended. Rather than debt service on a replacement plant, debt service on a capital stream needed to keep the plant going to 2044 is used. Scenario F (see next page).
- The alternative noted above results in a significant debt service drop post 2018. An alternative is to partially fill in the debt service drop with revenue financing of Federal Corps/Bureau projected capital investments from 2019 - 27, equal ~ $116M/year. Scenario F Prime (see next page).

Impacts and Concerns/Issues:

- Assuming license extension with no revenue financing results in decreased borrowing authority availability.
- For Generation, there is a considerable decrease in annual debt service projections post 2018, also known as the WPPSS Valley. How much of the debt service decrease should go directly to rate relief vs. long-term viability for capital funding vs. other cost obligations? Adding revenue financing to partially fill in the post FY18 debt service requirements will preserve borrowing authority.
- The Financial Plan is not the appropriate forum for discussing the future of CGS, but only the repayment model assumption to be made.
- The uncertainty regarding the future of CGS is difficult to capture in borrowing authority analysis.

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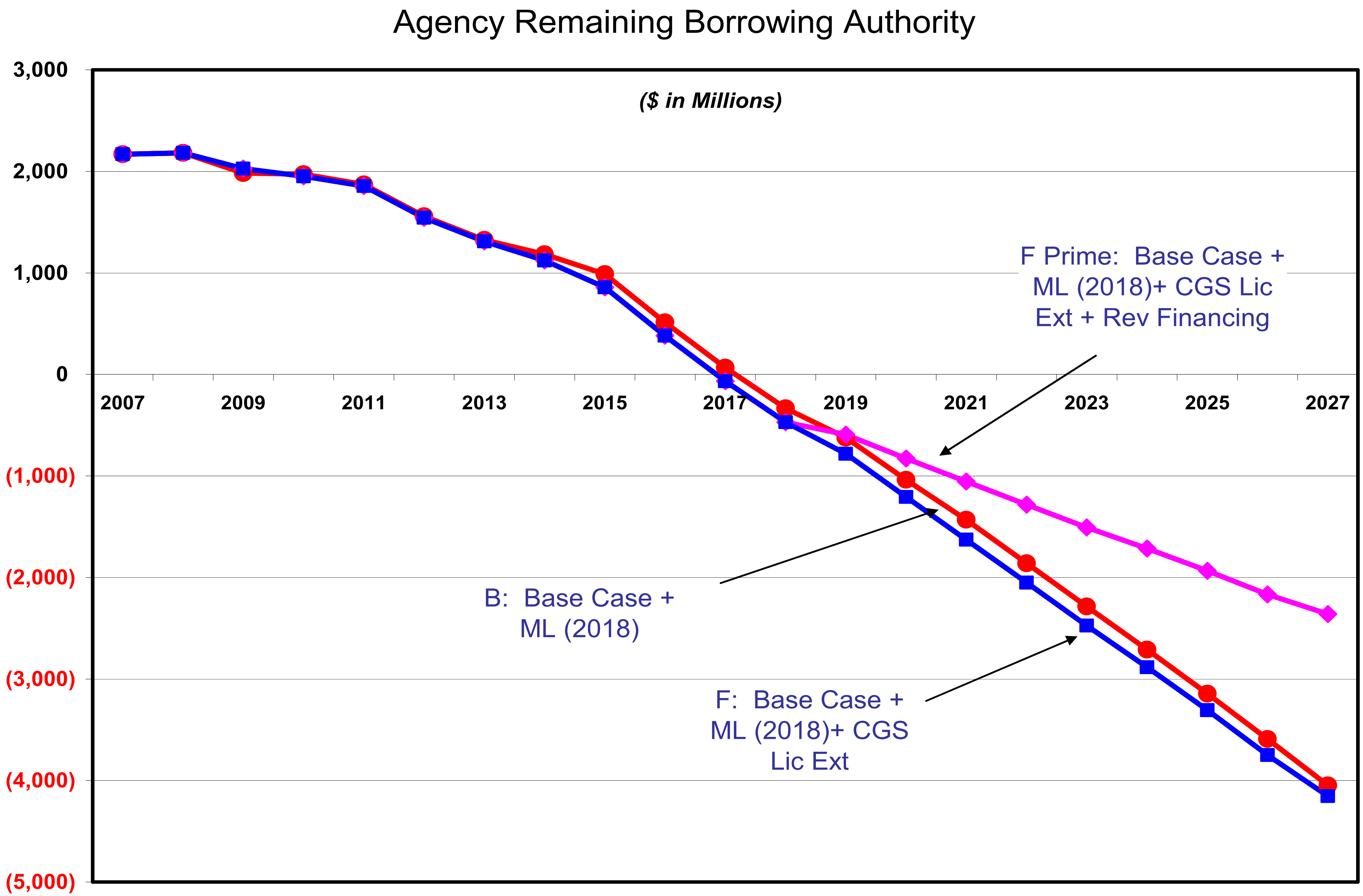
CGS Modeling Choices



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Other CGS Replacement Modeling Considerations

Issue: The replacement calculations are from the WP-97 rate case. The costs were based on the construction of a new nuclear plant. It was assumed construction costs would total $4.7B, equating to approximately $340M in annual debt service.

Alternative Assumptions:

- For scenarios assuming no license extension, keep a replacement for CGS in the study, but update the replacement assumption. What should the replacement be based on: a new nuclear plant, purchase power contracts?
- Eliminate CGS replacements with no expectation of license extension. BPA is not obligated to include a replacements forecast for CGS. If CGS is shut down, BPA would adjust customer High Water Marks to reflect reduced power production.

Note: Because of the level of debt due in 2017, i.e. the “tent pole”, removing CGS replacements from studies does not affect debt service levels until post 2017/18.

Closing the Gap: Tools to Explore

- BPA began to evaluate capital access beyond 2018 last year. Thus, work on ways to close the gap post 2018 is in its infancy.
- Below is a list of tools that BPA will explore and develop over the coming years to help close the gap. These tools are not ranked in any particular order.
  - Direct access to the capital markets
  - Increase in Treasury borrowing authority limit
  - Operating leases
  - Interfunctional loans
  - Customer prepays
  - Revenue and/or reserve financing
  - Expand use of third party borrowing beyond debt optimization and transmission lease purchases

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Other Considerations for Capital Access Analysis

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Repayment Studies in a Tiered Rates World

- Generation repayment studies currently include all debt service associated with acquired non-Federal resources in order to provide the lowest combined debt service over time.
- This is a benefit of a buy-and-meld approach to product pricing. All of the elements of the combined debt service are included in the same product cost of service.
- The extent to which BPA is required to reflect the annual costs of non-Federal resources in repayment studies is debatable.
- The current approach focuses only on the cash effect to the generation function. It does not consider that Federal and non-Federal debt service are treated differently in revenue requirements (all non-Federal debt service is an expense; Federal interest is expense, but principal is not).
- The current approach did not fully consider pricing implications when developed.

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Repayment Studies in a Tiered Rates World (continued)

How should non-Federal debt be treated within the repayment study for a Tiered Rates model?

- The Tiered Rates model is the opposite of the buy-and-meld approach to product pricing. Costs will be allocated based on cost causation.
- All of the current non-Federal projects debt service would remain linked with BPA debt as Tier 1 costs (or Tier 1 obligations if no power is actually produced, e.g. WNP-1) and included in the repayment study.
- Long-term contracts with non-Federal entities for Tier 2 energy or capacity would not be included in repayment studies. The associated debt service, if any, would need to be shaped accordingly (i.e., levelized on their own or with each other) to provide the lowest cost specifically for Tier 2.

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Next Steps

- As we find viable tools for closing the gap, we will present that information at appropriate customer forums.
- To provide feedback on the capital access topic for the development of the Financial Plan, please contact Alex Lennox.
  - Phone: 503-230-3460
  - Email: alennox@bpa.gov
- Additionally, based on information presented here, BPA will draft a chapter in the Financial Plan. Stakeholders will have an opportunity to comment on the draft document. We anticipate sending a draft out in May 2008 and publishing the final at the end of July 2008.