B O N N E V I L L E   P O W E R   A D M I N I S T R A T I O N

Strengthening Financial Health
Capital Financing Workshop

May 22, 2018
9am-12pm
BPA Rates Hearing Room, 1201 Lloyd Blvd, Suite 200
Portland OR
Phone Bridge: 415-527-5035

WebEx: Join the meeting
Meeting Number: 902 948 122
Meeting Password: SXYpqHgE

#1 STRENGTHEN FINANCIAL HEALTH

Agenda

- Review the Financial Plan and the 10-Year Capital Financing goal
- Defining the Access to Capital Financing Challenge
- Review “All of the Above” Identified Individual Options
- Potential Combination Solutions

Financial Plan and the 10-Year Capital Financing Goal

Financial Health Objectives

COST MANAGEMENT

Maintain low rates; enhance asset value and reliability

DEBT UTILIZATION

Reduce interest expense; maintain financial flexibility

DEBT CAPACITY

Maintain access to secure and low-cost debt financing

LIQUIDITY

Maintain financial reserves for solvency and stability

THE THREE KEY FINANCIAL HEALTH OBJECTIVES ARE:

Financial Health Objective	Purpose	Metric
Cost Management Discipline:		
• Program Costs	Lowest possible rates	Rate-period change in program costs
• Capital Investments	Maintain value and reliability of assets	Leading industry-standard asset management
Financial Resiliency:		
• Liquidity	Solvency and stability	Days cash on hand and Treasury payment probability
• Debt Utilization	Low interest expense and financial flexibility	Debt-to-asset ratio
• Debt Capacity	Secure and low-cost debt financing available to fund capital program	Remaining borrowing authority
Independent financial health assessment	Maintain high investment-grade credit ratings	Credit rating

Financial Health Priorities

- Cost Management Discipline

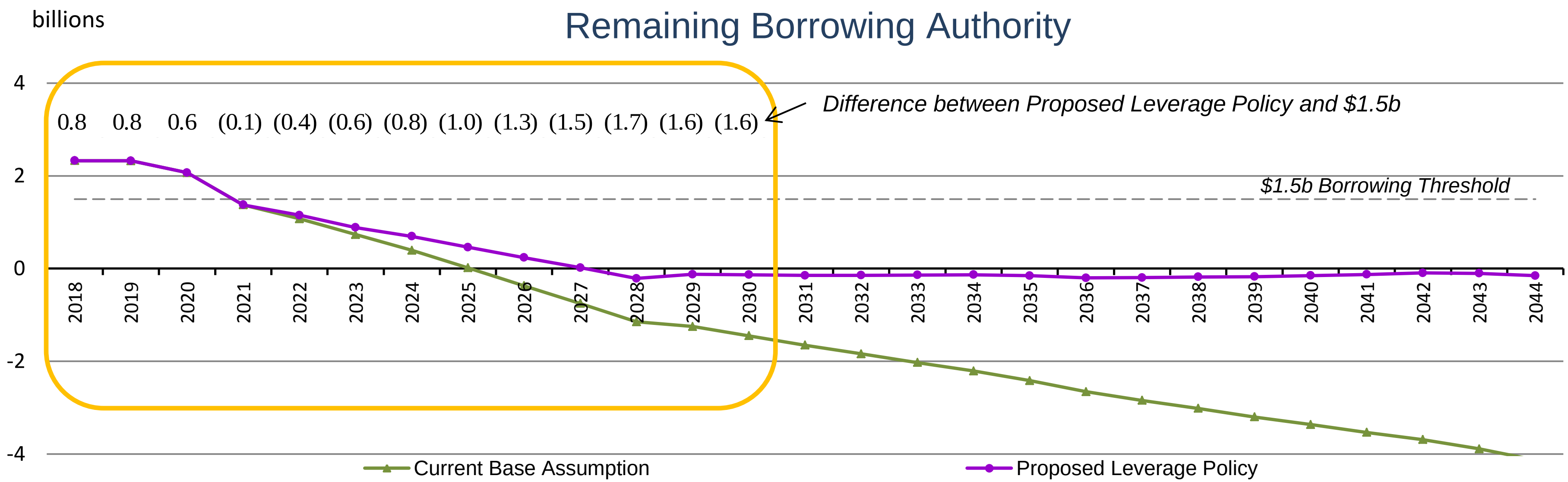
- Financial Resiliency
  - Liquidity
    - Increase Power reserves to minimum 60 days cash on hand, maintain Transmission and Agency financial reserves at minimum 60 days cash on hand.
    - Maintain a minimum of 95% Treasury payment probability when setting Power and Transmission rates.
    - Repurpose excess Transmission reserves as the Agency attains a healthy level.
  - Debt Utilization (Leverage)
    - Decrease debt-to-asset ratio from 90% to 75%-85% by 2028, longer-term goal of 60%-70%.
    - Would require the Transmission business line to increase the amount of planned debt repayment or revenue financing.
  - Debt Capacity
    - Source remaining debt as needed to fund the capital program, within leverage goals
    - Maintain $1.5 billion in available borrowing authority.

Strategic Plan Debt Capacity Objective

- “...needs are met on a rolling 10-year basis...”
- “...intends to preserve $1.5 billion of available borrowing authority...”
- “...look beyond its traditional financing sources and consider ‘all of the above’ capital financing strategy...”
- “Each possible source of additional capital has its limitations, and BPA will evaluate them within the context of their cost, certainty and impacts on other stated financial health goals.”

Defining the Access to Capital Financing Challenge

Access to Capital Challenge



- The Leverage Policy preferred scenario stabilizes the federal borrowing challenge but does not satisfy the $1.5 billion of access to borrowing authority objective in the Strategic and Financial Plans.
- Key critical dates for remaining available borrowing authority
  - $1.5b remaining – 2021
  - $750m remaining – 2023
  - $0 remaining – 2027

Current capital assumptions used in modeling
- Power: BP-18
- Transmission: BP-20 pre-IPR capital guidance

"All of the Above"

Identified Individual Options

"All of the Above" Strategy

Financial Plan

- Legislative action
  - Additional borrowing authority
  - Authority to issue debt directly to capital markets
- Current available U.S. Treasury borrowing authority
- Reserve financing
- Lease-Purchase program
- Revenue financing
- Regional Cooperation Debt program (RCD)

Other Options not mentioned in the Financial Plan

- Reduce planned capital spending levels
- Non-federal Transmission asset ownership with BPA entering into Capacity Leases

Estimated Cost Comparison by Source

U.S. Treasury borrowing authority	2.8%
Reserve Financing	No Interest Rate
Lease Purchase	3.6% & Auxiliary Fees
Revenue Financing	No Interest Rate
Energy Northwest (RCD)	2.7% - 3.6%
Power Prepays	6.7%

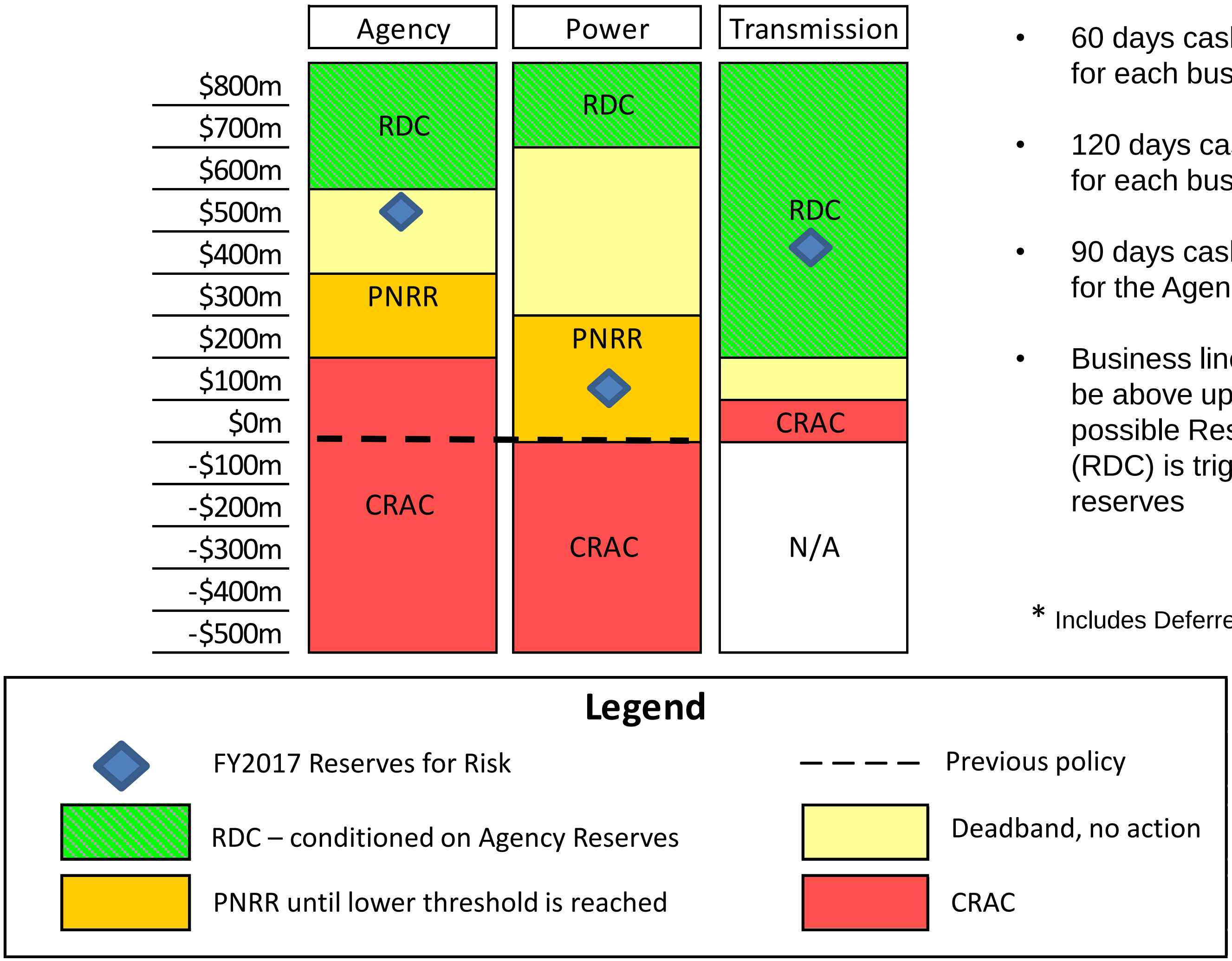
Interest rates are based on a recent 2-month average.

Legislative Solutions

- Additional borrowing authority
  - Congress first authorized BPA to borrow from U.S. Treasury (borrowing authority) when it passed the Transmission System Act in 1974.
  - Further increases to BPA's borrowing authority would require Congress to enact new legislation authorizing the increase.
    - New borrowing authority would "score" if enacted during the 10 year budget window creating procedure hurdles.
    - Actual voting to enact such new authority would be considered a "discretionary" budget action and be subject to budget "pay as you go" ("pay-go") points of order unless these rules are suspended.
  - The President would have to sign any legislation into Federal law.
- Direct market access
  - As with additional borrowing authority, Congress would have to enact legislation changing to BPA's authorities to allow BPA to directly sell securities in the private market.
  - Federal law would also have to be changed to allow a higher level of overall debt for BPA.
  - Like additional borrowing authority, direct market access would score and, therefore, encounter the same procedural hurdles described above.
  - The President would also have to sign this legislation into Federal law.
  - BPA statutes since 1974 reflect long-standing U.S. Treasury policy that BPA is its customer and should not directly access financial.

Reserve Policy

Existing Reserve Policy Framework

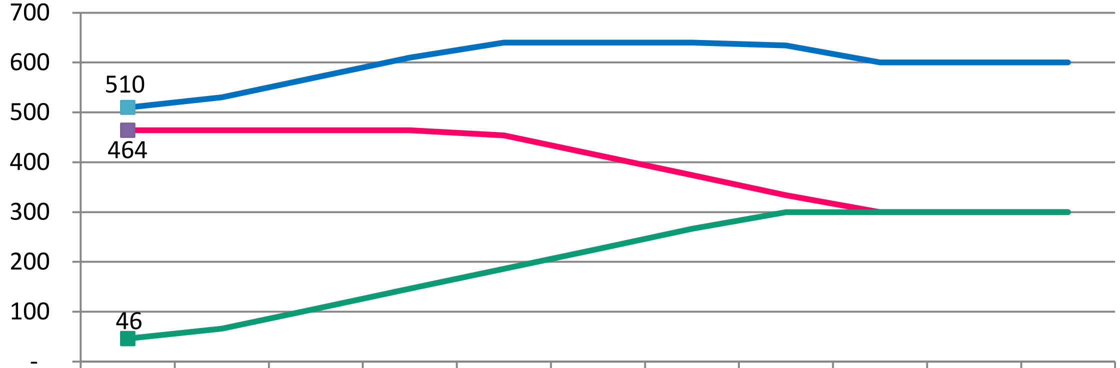


- 60 days cash on hand* lower threshold for each business line
- 120 days cash on hand* upper threshold for each business line
- 90 days cash on hand* upper threshold for the Agency
- Business line and the Agency need to be above upper thresholds before a possible Reserves Distribution Clause (RDC) is triggered to repurpose financial reserves

* Includes Deferred Borrowing

Potential Reserves Availability for Use

End of Year Reserves Forecast for Risk ($M)



	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Agency	510	530	570	610	640	640	640	634	600	600	600
Transmission	464	464	464	464	454	414	374	334	300	300	300
Power	46	66	106	146	186	226	266	300	300	300	300
Power Surcharge*	20	20	40	40	40	40	40	34	-	-	-
Transmission RDC	-	-	-	-	(10)	(40)	(40)	(40)	(34)	-	-

*Annual amounts based on BP-18 Final Proposal and BPA draft Financial Reserves phase-in proposal

- The graph and table above display potential values without regard to risk factors.
  - The Reserves Distribution Clause is not expected to trigger until 2022.
    - In the event of an RDC, funds may be used for other high-value business line-specific purposes including, but not limited to, debt retirement, incremental capital investment or rate reduction.

Lease-Purchase

- Goal is to Lease-Purchase as many Transmission projects as possible however, the forecast assumption is 25% of capital spending due to program constraints.

- Constraints of the program include
  - Funding is only available for Transmission capital assets in Oregon, Washington, and Idaho.
  - Assets must be physical plant (fixtures, no land or access roads).
  - Title/ownership of assets must transfer directly to third party owner (no sale lease-backs).
  - BPA must be able to relay access rights to assets to third party owner (no assets at foreign owned sites).

- Estimated costs of the program
  - Utilizes approximately 8.5 FTE spread over 26 people.
  - Approximately $500k per year in third party operating costs.
  - Requires additional processes and procedures for both internally and contracted construction work that adds additional costs not included above.

Additional Revenue Financing

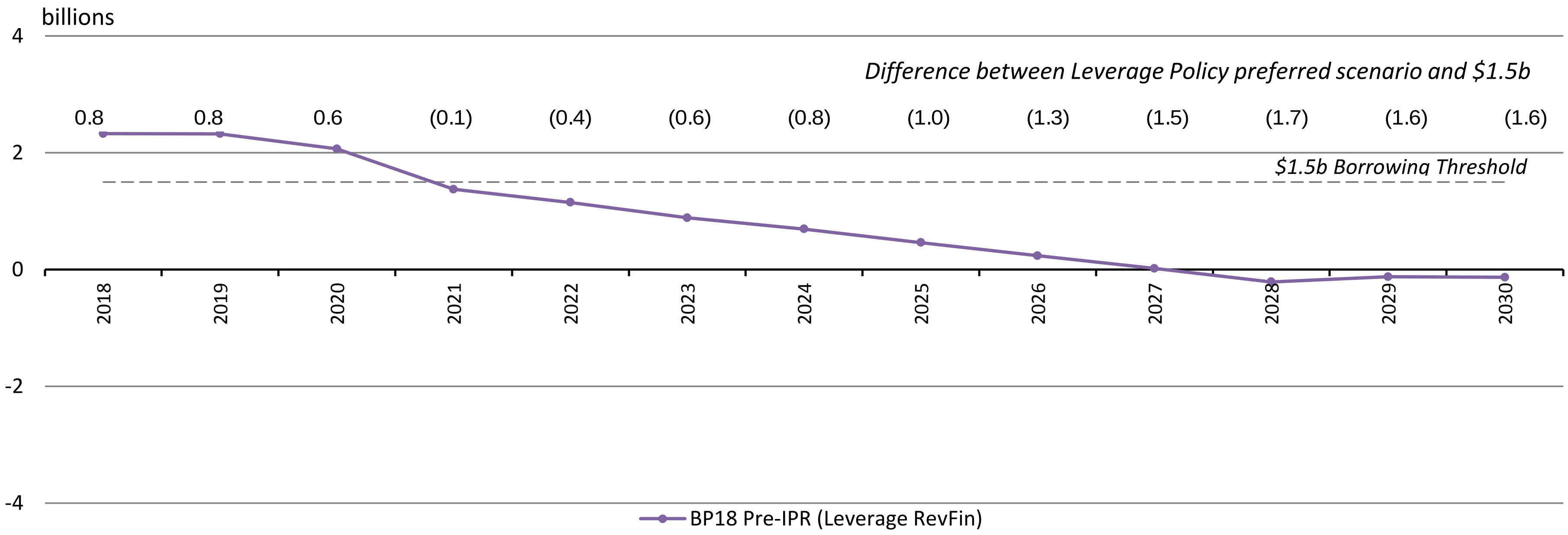
- Revenue financing increases the revenue requirement to generate sufficient additional funds to pay for some or all of the expected capital spending within a rate period.

- This is in addition to the amount of cash required to cover all other costs included in the Revenue Requirement.

- In the context of the 10-Year Capital Financing Plan this revenue financing would be in addition to the level required under the Leverage Policy preferred scenario.

Revenue Financing Scenarios

BPA misses the $1.5 billion borrowing authority availability objective in 2030 by $1.6 billion after including the benefits of the Leverage Policy preferred scenario.



- Key critical dates for remaining available borrowing authority
  - $1.5b remaining – 2021
  - $750m remaining – 2023
  - $0 remaining – 2027

Potential Revenue Financing Scenarios

In 2030, BPA misses the $1.5 billion target by $1.6 billion.

(millions)	50/50	Percent of Future Capital Spend	Net Use of Borrowing Authority	Net Use of Debt
Power	$800	$736	$1,296	$0
Transmission	$800	$864	$304	$1,600
Total Shortage	$1,600	$1,600	$1,600	$1,600

Impact on leverage ratio in 2030

Power	72%	72%	69%	77%
Transmission	66%	66%	70%	61%

RCD Program Potential

- Under current net billing agreements:
  - BPA expects to send almost $8.2 billion to Energy Northwest through 2030.
  - This includes funding for principal, interest, fuel, and O&M.
- These funds could be repurposed for borrowing capacity through the RCD program.
  - This would require approval from the Energy Northwest’s Board to extend Project 1 and 3 debt beyond 2028.
- The ability to finance through Energy Northwest is finite.
  - Once a payment is made to Energy Northwest for any funding requirement noted above, it cannot be repurposed to fund capital at a later date.
- The actual amounts repurposed would be driven by and fluctuate based on:
  - Capital needs as determined through the public IPR process.
  - Available capital sources as presented in the 10-Year Capital Financing Plan public workshop.

RCD Opportunities

- ***Extend*** the use of the current RCD program that is set to expire in 2020.
    - Principal debt maturing associated with Project 1, Columbia Generating Station, and Project 3.
    - Similar to the Debt Optimization Program from 2002-2012 and the RCD Program from 2014-2020.
- ***Expand*** the RCD program to include other Energy Northwest obligations.
    - Other funding sources that BPA is obligated to send to Energy Northwest cover fuel costs, interest expense, and O&M.
    - Risk mitigation and flexibility for changes in future capital requirements.
    - The maximum maturity date will influence the value of this tool.
- Currently modeled to have a final maturity of 2044 however a maturity date past 2044 would allow further repayment optimization.
- Repurposed funds would be utilized dollar for dollar to reduce outstanding debt.

RCD Financing Sources and Uses

Sources

(millions)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Sources
Extend	$0	$319	$337	$337	$316	$375	$400	$368	$397	$84	$129	**$3,062**
Expand	$561	$582	$534	$489	$490	$457	$420	$444	$384	$413	$360	**$5,134**
Total	**$561**	**$901**	**$871**	**$826**	**$806**	**$832**	**$820**	**$812**	**$781**	**$497**	**$489**	**$8,196**

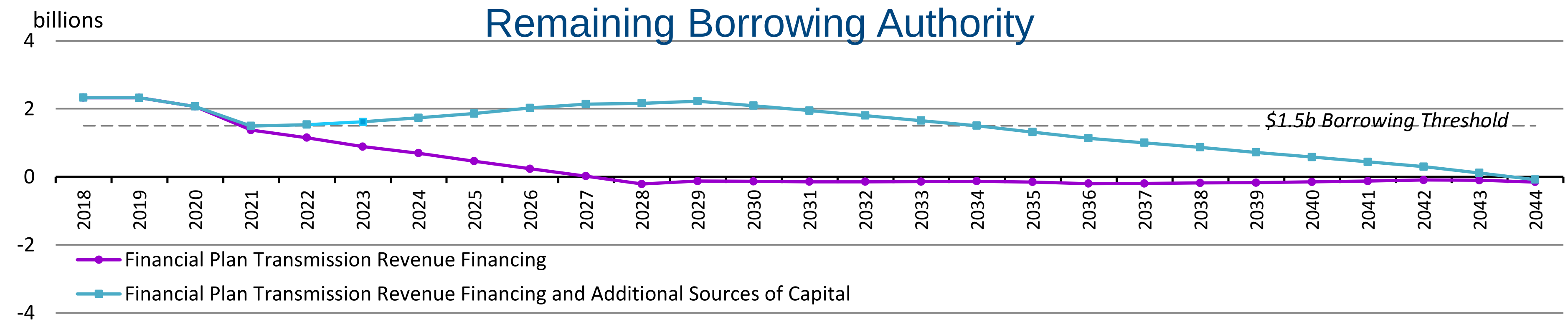
Uses

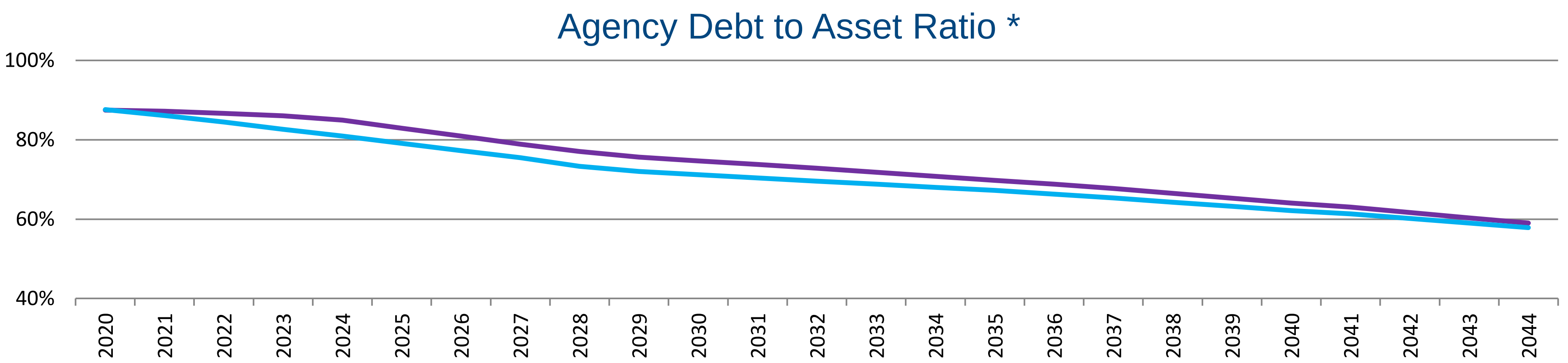
	Extend	Expand
10-Year Financing Plan	$1,633 - $3,062	$0
Lease-Purchase program (future only)	$0	$1,360
Changes in capital/excess capacity	$0 - $1,429	$3,774
Total	**$3,062**	**$5,134**

Note: Does not include the EN 2018 C/D transaction.

Access to Capital Challenge

Forecast assumes all RCD debt is paid off by 2044





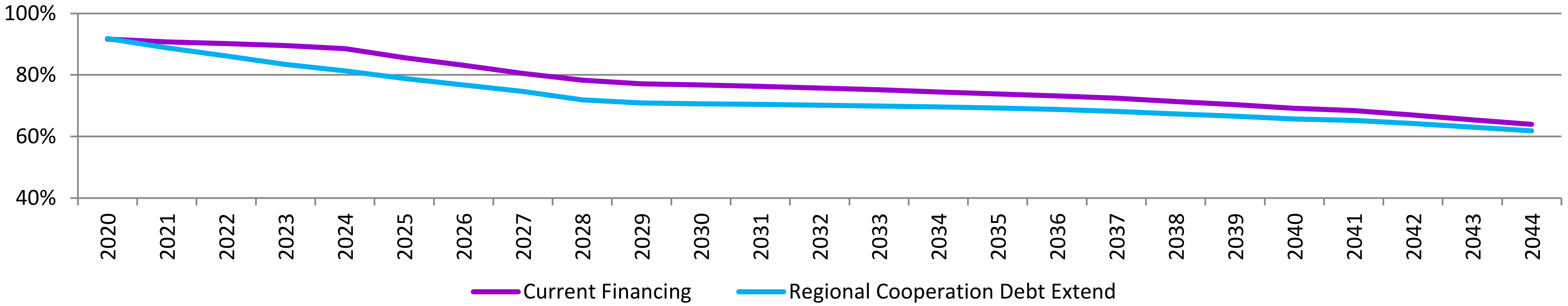
* The forecast Debt to Asset Ratio may vary from results presented in the Leverage Policy workshops as assumptions are updated over time.

There would be no adverse impact to the debt ratio as BPA would make the commitment to pay down federal debt dollar for dollar.

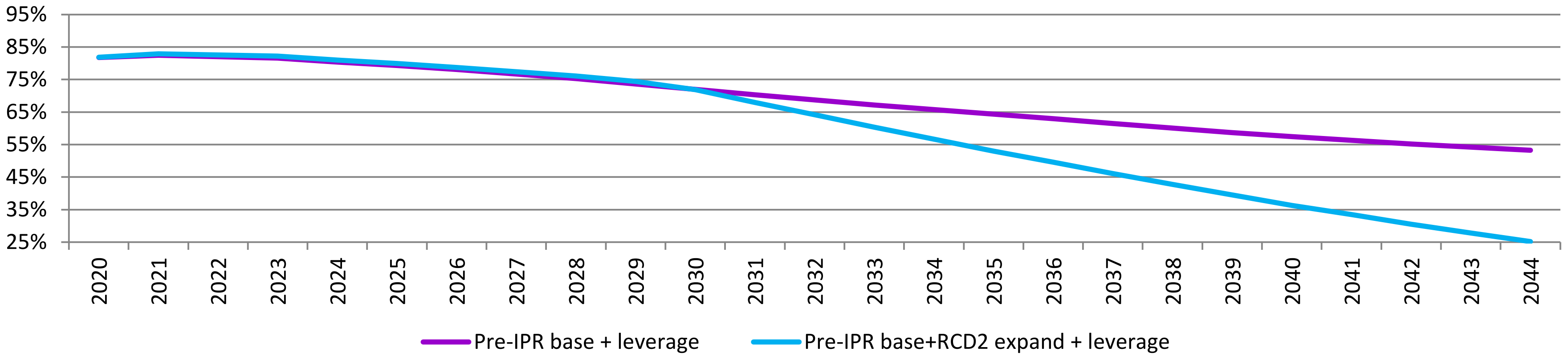
Leverage Ratios

Forecast assumes all RCD debt is paid off by 2044

Power *



Transmission *



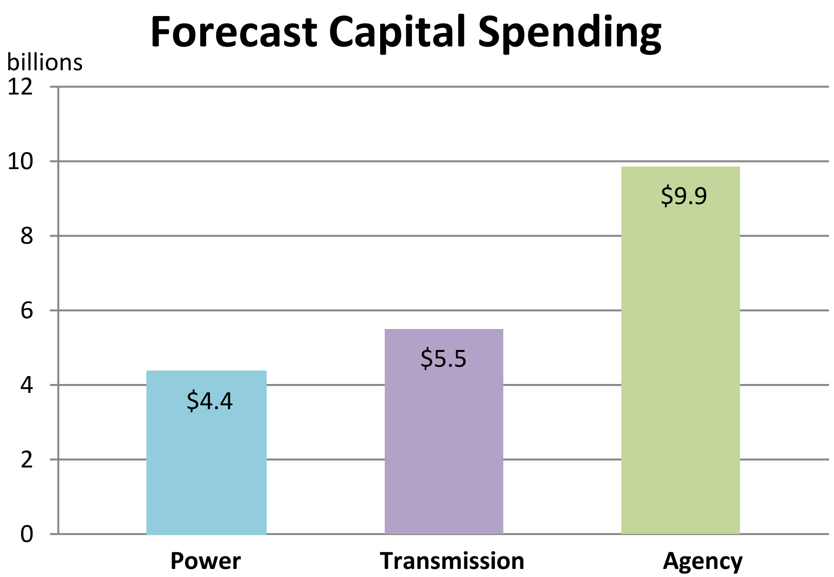
* The forecast Debt to Asset Ratio may vary from results presented in the Leverage Policy workshops as assumptions are updated over time.

Non-Federal Asset Ownership

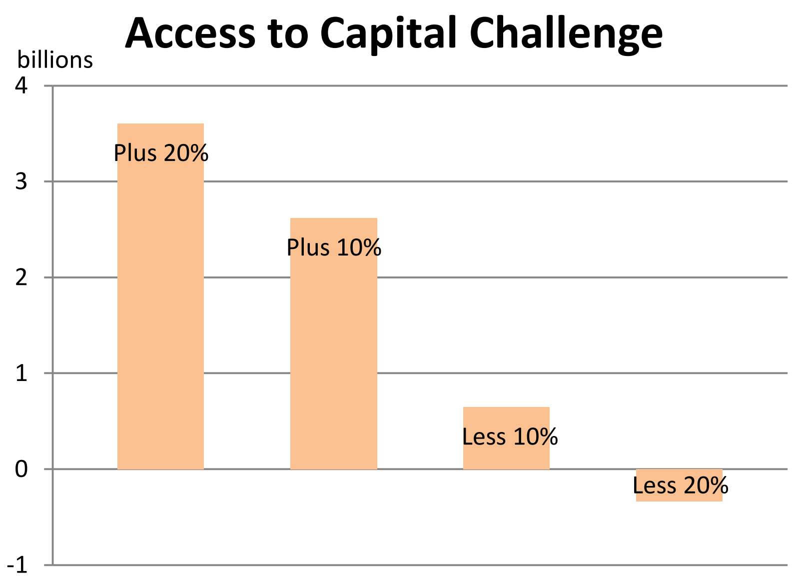
- Areas of consideration
  - Location of asset to be built
    - "Pancake" rates
    - Access to land
  - Agreement structure
    - Financing lease versus capacity agreement
    - Asset ownership
      - Preference for complete foreign ownership for life of asset
    - Operations and maintenance
      - Operationally responsible
      - Financially responsible
  - Risks
    - Credit risk of foreign owner
    - Cost risk and stability
      - Not to exceed agreements
      - Known escalations for O&M
  - Impact on financial objectives
    - Debt-to-asset ratio
    - Borrowing authority
    - Cost management

Changes in Capital Levels

- With the current assumptions, the Capital Financing Challenge is $1.6 billion to meet the 10-year target.
- Final capital spending will be determined through the public IPR process.
- Changes in capital spending levels will impact the 10-year Access to Capital plan.
- Actual Access to Capital challenge may change due to repayment results.



Current capital assumptions used in modeling
- Power: BP-18
- Transmission: BP-20 pre-IPR capital guidance



Summary of Potential Tools

Financing Tool	Estimated Cost	Certainty	Impact on other financial health goals
New borrowing authority	2.8%	Congressional approval required	Objective to retain $1.5b available
Reserve financing	No interest rate	Constrained by Reserve Policy	Not available until targets in Reserve Policy are met
Lease-Purchase	Transmission only	Forecast target of 25%	Would preserve borrowing authority
Revenue financing	No interest rate	Availability in BP-20 uncertain	Would improve the debt to asset ratio
RCD	2.7% - 3.6%	Requires Energy Northwest Board agreement, constrained by maximum maturity and availability of extend and expand options	Would be within the constraints of the Leverage Policy
Non-federal asset ownership	Negotiated	Unknown	Would preserve borrowing authority
Capital Spending reductions	Determined through IPR public process	Determined through IPR public process	Would preserve borrowing authority

Potential Combination Solutions

Extension – RCD Only

1. *Full Extension ($3.1 billion)*

   - Satisfies the 10-year financing goal
   - Maintains full flexibility
   - Defers future discussions on
     - Non-federal asset ownership
     - Revenue financing amounts between Power and Transmission

2. *Minimal Extension ($1.6 billion)*

   - Satisfies the 10-year financing goal
   - Does not provide for changes in capital levels
   - Defers future discussions on
     - Non-federal asset ownership
     - Revenue financing amounts between Power and Transmission

Expansion – RCD Only

3. *Full Expansion ($5.1 billion)*
   - Assumes extension and 10-year financing goal have been satisfied
   - Eliminates Lease-Purchase program if the maximum maturity is post-2044
   - Helps cost management efforts due to lower costs than the Lease-Purchase program
   - Defers future discussions on
     - Non-federal asset ownership
     - Revenue Financing amounts between Power and Transmission

4. *Minimal Expansion ($1.4 billion)*
   - Assumes extension and 10-year financing goal have been satisfied
   - Mitigates future Lease-Purchase program execution risk if the maximum maturity is post-2044
   - Helps cost management efforts due to lower costs than the Lease-Purchase program
   - Defers future discussions on
     - Non-federal asset ownership
     - Revenue financing amounts between Power and Transmission

Combination of Available Tools

5. *Evenly distribute $1.6 billion challenge between available tools*
   - RCD ~$533 million by 2030
   - Capital Reductions ~$533 million by 2030 +/- actual capital numbers set in BP-20 IPR
   - Additional revenue financing ~$533 million by 2030

6. *RCD + Capital Constraints + Additional Revenue Financing*
   - RCD amount would fluctuate up or down based on the level of revenue financing approved to maintain $1.5 billion of borrowing authority
   - Future capital reduction of 10-20% ~$1 - 2 billion by 2030 +/- actual capital numbers set in BP-20 IPR
   - Revenue finance remaining shortage to meet the 10-year Capital Plan

Combination of Available Tools cont.

7. *RCD + Capital Constraints*

   – Future capital reduction of 10-20% ~$1 - 2 billion by 2030 +/- actual capital numbers set in IPR
   – RCD ~$0 - 650 million approval to maintain $1.5 billion of borrowing authority

8. *Capital Constraints + Additional Revenue Financing*

   – Future capital reduction of 10-20% ~$1 - 2 billion by 2030 +/- actual capital numbers set in IPR
   – Revenue finance ~$0 - 650 million by 2030

9. *Other*

Considerations and Constraints

- Capital spending forecasts are uncertain
- Revenue financing and capital levels
  - Realistic Level (achievable and sustainable)
    - Revenue Financing
    - Capital Reductions
  - Shaping
    - Front Loaded
    - Evenly spread
    - Back Loaded
  - Implementation
    - BP-20
    - BP-22

Preferred Scenario

- *Hybrid of Scenario 2 - RCD Minimal extension ($1.6 billion)*
  - Additional extensions of RCD principal maturing through 2025 with a maximum maturity date of 2044
  - Actual amount and final year will fluctuate to maintain $1.5 billion of available borrowing authority based on:
    - Actual capital spend
    - Other available tools under consideration
      - Customer non-federal financing – level would decrease
      - Lease-Purchase actuals – level would increase or decrease
      - Revised capital forecast – level would increase or decrease
      - Additional revenue financing – level would decrease
- Implementation would require support and approval from the Energy Northwest Board

Summary

- The leverage policy stabilizes the Access to Capital Challenge but does not mitigate it.
- Current forecasts reflect the need of approximately $1.6 billion of additional sources of capital to achieve the10-year objective.
- Long-term sources of capital will be needed without maximum maturity dates to provide planning flexibility.
- As described in the Strategic and Financial Plans, BPA is considering “all of the above” in developing a capital financing strategy.
- All financing tools are being evaluated based on cost, likelihood, and interdependence with other financial health goals.
- Appropriate capital spending levels will be determined through the public IPR process.
- Capital financing tools will be informed by the IPR results.
- BPA continues to explore both Extend and Expand options under the Regional Cooperation Debt program.

Next Steps

- Comment period open through July13.
  - Submit comments via email to :
    BPAFinance@bpa.gov

- BPA is seeking input on potential financing sources including, but not limited to:
  - RCD Support
    - Extend and/or Expand
    - Amount
  - Combination of tools
    - Considering described constraints
  - Possible alternative sources of financing

- Continue to discuss potential RCD scenarios with Energy Northwest leading to a July decision

- Potential early August workshop on other alternatives to achieve the 10-year goal.

Helpful Links

- BPA 2018-2023 Strategic Plan
  - https://www.bpa.gov/StrategicPlan/Pages/Strategic-Plan.aspx
- BPA 2018 Financial Plan
  - https://www.bpa.gov/StrategicPlan/Pages/Strategic-Plan.aspx
- 2018 Integrated Program Review
  - https://www.bpa.gov/Finance/FinancialPublicProcesses/IPR/Pages/IRP-2018.aspx

Financial Disclosure

This information was publicly available on May 22, 2018 and contains information not sourced directly from BPA financial statements.