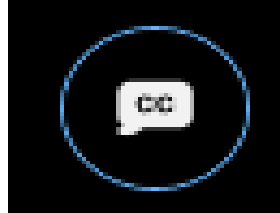


Webex Accessibility tools

To enable Closed Captions

Select the **CC icon** in the lower-left of the WebEx screen

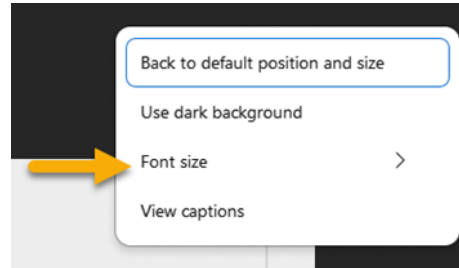


Note: CC is set individually by each person who wants to enable them.

Change font size

Select the **ellipsis** in the lower right

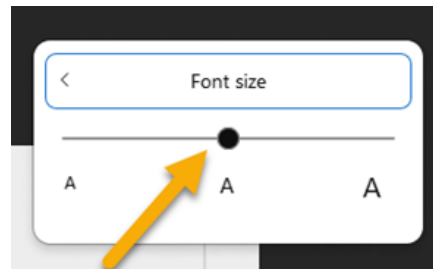
2



Select **font size**

Use the slider to select the desired size

3



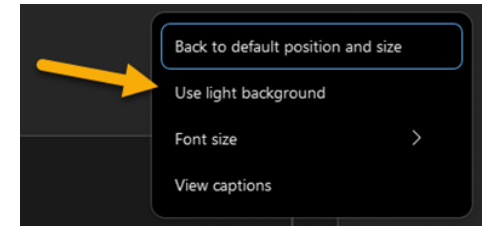
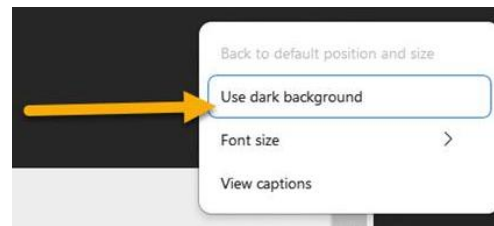
Change background contrast

1. Select the **ellipsis** in the lower right
2. Select the **dark or light background**

1



2





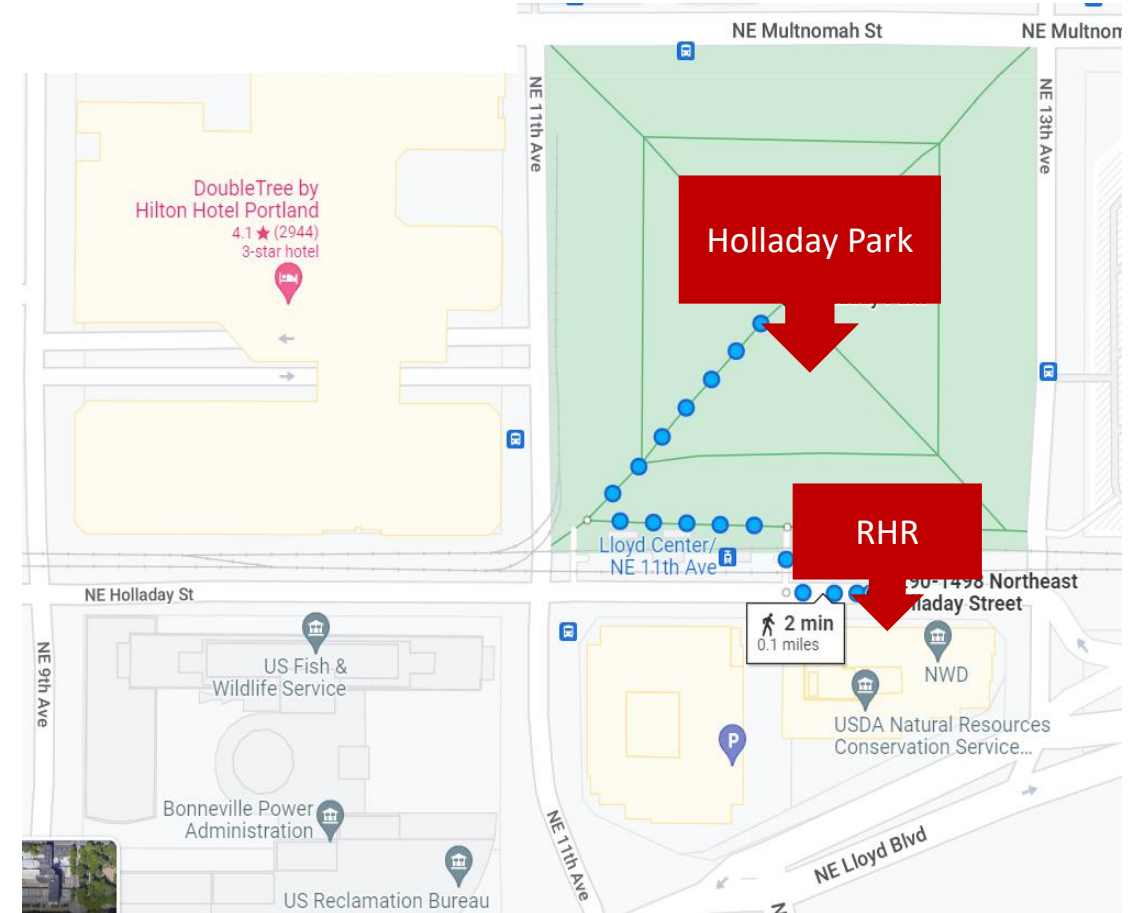
2026 Risk Mitigation & Financial Policies Refresh Analysis & Alternatives Workshop

September 1, 2026



Safety Moment

- The Rates Hearing Room has two exits.
- In the event an alarm sounds, please meet at Holladay Park across the street.



Webex Participant Guidelines

- **Chat & Muting:** The Webex chat feature and self-unmuting are disabled for attendees.
- **Asking Questions via Slido:** Please submit your questions using Slido. A co-host will moderate all submissions and post publicly appropriate content to the group.
- **Asking Questions via Webex (Microphone):** To speak, use the "Raise Hand" feature. Keep your hand raised until a co-host calls on you and unmutes your line.
- **Addressing Feedback:** Presenters will pause periodically to address Slido questions and raised hands in the order they were received.
- **Introductions:** When unmuted, please state your name and organization before sharing your comment or question.

Webex controls:



Today's Agenda

Start Time	End Time	Topic	Presenter(s)
9:00 AM	9:15 AM	Welcome, Introduction & Overview	Nadine Coseo
9:15 AM	9:20 AM	Workshop Objectives	Nell Burns
9:20 AM	11:30 AM	Analysis & Alternative: Financial Reserves Policy & Rate Setting Practices for Liquidity Risk	Damen Bleiler
11:30 AM	12:30 PM	L U N C H	
12:30 PM	2:30 PM	Analysis & Alternatives: Financial Reserves Policy & Rate Setting Practices for Liquidity Risk	Ethan Postrel
2:30 PM	2:55 PM	Overflow Discussion	All
2:55 AM	3:00 PM	Meeting Close	Nell Burns

Note: Start and end times are approximate.

Workshop Objectives

Establish a collaborative foundation with our customer partners, share **analytical methodologies** and preview the **policy tools**, **mechanisms**, and **strategies** currently **under evaluation**.



Workshop Roles & Expectations



Bonneville: Provide open and inclusive opportunities for discussion and feedback.

Participants: Provide feedback and share perspectives during workshops.

All: Respect one another and assume good intentions. Bring a constructive mentality.

Comments on This Workshop

Please share feedback on this workshop to RMFPR@bpa.gov by 9/25.

Please note that feedback will not be posted and direct responses will not be provided.

Feedback will help inform future workshops.



Public Workshop Schedule & Key Project Dates

Project Completion:

Target publishing in Q2 FY27 to prevent spill over into the BP-29 rate case workshops and implementation of the new POC contracts.

Date	Milestone	YOU ARE HERE
20-Aug	Workshop - Kick-off & Grounding	
1-Sept	Workshop - Alternative Discussion	
20-Oct	Workshop - Proposal Discussion	
13-Nov	Workshop - Draft Policy Framework for ROD Development	
13-Dec	Comment Period Closes	
16-Feb	Record of Decision Issued	
1-Mar	Financial Plan Issued	

Shaping Policy Proposals

Purpose of Meeting: Review a range of analyzed tools, mechanisms, and inputs under consideration for draft proposal policy updates.

Goal for Today: Share findings and gather attendee feedback for consideration for development of proposal packages.

How to Share Feedback

- **During Meeting:** Raise your hand and speak up or place questions and comments in Slido throughout today's discussion.
- **After Meeting:** Email written feedback to RMFPR@bpa.gov.

Next Steps: All feedback gathered today and via email will directly inform the development of proposals which will be discussed at the next workshop **10/20**.

Financial Reserves Policy & Rate Setting Practices for Liquidity Risk

What are Financial Reserves & Why Do They Matter

Financial Reserves for Risk (“financial reserves” or “reserves”) are BPA’s main liquidity tool and consist of cash, short-term market-based investments, and deferred borrowing, all of which are available to cover ongoing expenses.

Why do liquidity and financial reserves matter?

- **Ensures Operational Continuity:** They keep the business running, allowing it to cover daily operating expenses and other cash flow needs.
- **Supports Financial Resilience & Flexibility:** Strong liquidity helps entities survive unexpected crises, economic downturns, supply chain disruptions, or slow seasons. Enables flexibility to act on opportunities.
- **Improves or Helps Maintain Credit Rating and Financing:** Rating agencies and investors examine liquidity factors in evaluating an entity’s financial health. Liquidity can impact credit ratings and the cost of capital.

Liquidity Risk Policy Refresh Objectives

Objective: Review BPA's current risk mitigation package to ensure the tools, mechanisms, and policy are sufficient and prudent to meet the continuously changing landscape of the energy industry.

- Consider rate-setting, operational mechanisms, and policies that better prevent BPA from dipping and remaining below its Days Cash on Hand (DCOH) target;
- Provide the ability to recover to target level in a timely manner and maintain flexibility; and
- Evaluate whether BPA's rate setting practices establish rate levels that maintain financial reserves above the lower limit of our Days Cash on Hand (DCOH) threshold for the rate period.

Risk Practices & Policies: Where Are We Now

- **Treasury Payment Probability (TPP)** - BPA establishes power and transmission rates independently to maintain at least a 95% probability of making all payments to the U.S. Treasury in full and on time in a two-year rate period.
 - **Inclusion of the Treasury Note as a form of liquidity in rate setting risk analysis** - Assumes BPA would borrow from the expense note in games where BPA depletes all reserves. Rates are lower than otherwise would be.
- **Financial Reserves Policy (FRP) Mechanisms** – End of year (EOY) actual reserves above or below various thresholds trigger rate action.
 - **Reserves Distribution Clause (RDC)** – Triggers if a business line reserves *and* BPA reserves are above their respective upper thresholds (120 and 90 DCOH). The Administrator considers repurposing such reserves to other high value business line specific purposes, **with no cap**.
 - **FRP Surcharge** – Triggers if EOY actual business line reserves are below the 60 DCOH threshold, intended to move reserves back up toward the lower threshold, **but capped at \$40M annually for Power; \$15M for Transmission**.
 - **Cost Recovery Adjustment Clause (CRAC)** – Triggers if EOY actual business line reserves are below \$0, intended to move business line reserves back up to \$0, **but capped at \$300M annually for Power**.
- **Sustainable Capital Financing Policy (SCFP)** – planned revenue financing included in rates can be repurposed to support liquidity in certain situations, at the expense of leverage.

Liquidity Risk Policy Refresh Approach

Considerations

- Cognizant of rate pressure and volatility
- Balancing proactive and retroactive risk management
- Simplification in implementation
- Holistic risk mitigation alignment

Modeling

- Use a long-term trace modeling approach to compare risk tools and mechanisms over time
- Toolkit used to verify scenario proposals

Analysis Approach

- Forecasting implications of proposed policy and rate setting adjustments
- Evaluate potential financial outcomes
- Analyze risk mitigation strategies for long term financial health

Trace Model – Parameters & Assumptions

Model: Simulates risk tool and mechanism performance based on historical volatility data.

Cash Flow: Historic cash flow is drawn from the prior 21 years, normalized, then randomly generated to create a base cash flow scenario that is net neutral over a 20-year period.

Scenario Modeling: Each scenario was modeled using 200 iterations of different generated 20-year periods. The resulting impacts were averaged across these 200 iterations to evaluate and compare the performance of the various risk packages.

Starting RFR Balance: All Power scenarios begin with \$555M in RFR (90 DCOH). This provides a modeling neutral starting position and does not bias any results for comparative purposes. This level illustrates the impacts to RFR from each risk tool modeled. All Transmission scenarios begin with a comparable 90 DCOH number of \$212M in RFR.

Modeling Assumption - SCFP Revenue Financing Adjustment Proposal

This proposal will be discussed this afternoon. Here, we are noting a modeling assumption used throughout our analysis. We recognize a holistic review has many interactions and contingencies, where changes in one area could warrant changes in another.

The Sustainable Capital Financing Policy (SCFP) currently repurposes planned revenue financing to support liquidity in certain situations, at the expense of leverage. Staff's proposal continues to support that principle. However, given the importance of debt management and the volatility of Power revenues, Staff want to ensure the exception does not undermine the rule.

The SCFP currently removes two years of revenue financing to avoid triggering a Surcharge—both the current year's revenue financing *and* the future year's revenue financing. Staff proposes the following modifications:

- **Retain Revenue Financing Unwinding Only for Surcharge/CRAC Calculations:** Staff proposes to maintain having planned revenue financing be repurposed to attempt to avoid a FRP Surcharge or CRAC triggering. *The specific implementation methodology will be provided in the future.*
- **Removing “Bad Year” Repurposing:** Staff propose to remove the SCFP intent to repurpose revenue financing solely because end-of-year reserves are lower than start-of-year reserves.

Trace Model – Methodology & Key Metrics

We modeled each tool and compared the outcomes against four key performance metrics:

- **Average RFR:** Measured in dollars and DCOH over the entire evaluation period.
- **Recovery Period:** Two metrics track the recovery ability. The first reports the average number of years it takes to recover back to the lower threshold, once a game ends a year below the lower threshold. The second reports the average of the maximum amount of time each scenario spends below the threshold in any 20-year period.
- **Tool Balance:** The relative trigger frequency of Surcharges versus Reserve Distribution Clauses (RDC).
- **Rate Volatility:** Measured by how frequently rate changes (such as a Surcharge, CRAC, or RDC) are triggered.

We first modeled the status quo to establish a long-term performance baseline, then simulated alternative combinations to assess their relative impacts.

Starting Balance Modeling Assumption

Power

	A	Average RFR		Tool Balance	
		B	C	D	E
	Range of Starting RFR Balances	Avg. RFR (\$M)	Avg. RFR (DCOH)	Surcharge Frequency	RDC Frequency
1	\$300M Starting Balance	\$440	71	40%	16%
2	\$400M Starting Balance	\$453	73	33%	17%
3	\$500M Starting Balance	\$474	77	31%	17%
4	\$555M Starting Balance (90 DCOH)	\$487	79	30%	18%
5	\$600M Starting Balance	\$493	80	28%	19%
6	\$700M Starting Balance	\$508	82	26%	21%
7	\$800M Starting Balance	\$511	81	26%	26%

Transmission

	A	Average RFR		Tool Balance	
		B	C	D	E
	Range of Starting RFR Balances	Avg. RFR (\$M)	Avg. RFR (DCOH)	Surcharge Frequency	RDC Frequency
1	\$100M Starting Balance	\$247	105	0%	30%
2	\$150M Starting Balance	\$253	107	0%	31%
3	\$212M Starting Balance (90 DCOH)	\$263	111	0%	34%
4	\$250M Starting Balance	\$266	113	0%	36%
5	\$300M Starting Balance	\$264	112	0%	41%

Key Takeaway

The model's starting balance as the middle of the target range (90 DCOH) is a neutral non-biased starting position. Under the status quo every starting point drifts toward the lower half of the DCOH range for Power, while Transmission trends above 90.

Trace Model – Analysis

The following mechanisms were adjusted to model various risk outcomes:

FRP (Financial Reserves Policy) Surcharge

- Surcharge Trigger Level (DCOH)
- Surcharge Max Recovery Amount

CRAC (Cost Recovery Adjustment Clause)

- CRAC Trigger Level (DCOH)
- CRAC Max Recovery Amount

RDC (Reserves Distribution Clause)

- RDC Trigger Level (DCOH)
- RDC Max Recovery Amount
- RDC Alternate use of Amount, i.e., RSF

PNRR (Planned Net Revenues for Risk)

- Could be justified in different ways

Net Secondary Revenue (NSR) Credit

- Approach to NSR credit

Revenue Financing

- Redefine when revenue financing is repurposed for liquidity

RSF (Rate Stability Fund)

- Inclusion of a new fund
- Could be populated by PNRR and/or RDC

LSP (Liquidity Stability Provision)

- Use PNRR to ensure forecast RFR is at lower threshold by EO rate period.

Potential
New
Tools

Analysis Summary – Status Quo

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	M	N	O
Scenario	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
Status Quo - Current Risk Package-\$555M SOM	\$487	79		4.0	5.7	30%	18%	51%	0%	\$0

Key Takeaway

- An imbalance between the respective caps for upper and lower mechanisms drives operational disparities, resulting in lower average RFR balances and more frequent rate increases.

Average RFR: Starting balance exceeds average RFR.

Recovery Period: After ending a year below 60 DCOH, the Status Quo package takes 4 years on average to recover back to the threshold in a 20-year period.

Tool Balance: The Surcharge triggers over 12% more frequently than the RDC.

Rate Volatility: Results in an expected rate adjustment 51% of the time.

Analysis Summary – Status Quo

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Scenario	Avg. RFR (\$MM)	Avg. RFR (DCOH)	Ave RFR +RSF (\$MM)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
Status Quo - Current Risk Package	\$ 263	111		1.2	0.2	0%	34%	34%	0%	\$ 0

Key Takeaway

- The current risk tools and mechanisms in the FRP sufficiently manage Transmission RFR.

Reserve Performance: Average RFR levels trend toward the upper threshold.

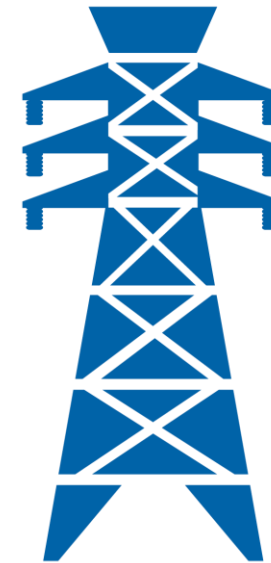
Trigger Imbalance: The RDC triggers over 30% more frequently than the Surcharge; Transmission's volatility landscape currently does not result in a Surcharge.

Recovery Period: When dipping below the lower threshold, the recovery time is only 1.2 years on average.

Rate Volatility: Package design results in an RDC potential downward rate adjustment 34% of the time.

Tailoring Risk Packages to Business Line Volatility

- **Context:** While both business lines operate under the same overarching financial reserves policy, their underlying operational and market environments create two distinct financial realities.
- **Key Takeaway:** Right sizing tools and thresholds for business line volatility
 - Power – Higher volatility – overall requires more flexibility and robust tools
 - Transmission – Lower volatility, more stable – stay closer to status quo



Analysis Key Takeaways – Existing Retroactive Tools

FRP (Financial Reserves Policy) Surcharge

- **Surcharge Trigger Level (DCOH)** - Raising the threshold increases **Average RFR** but increases surcharge frequency and rate volatility.
- **Surcharge Max Recovery Amount** - Raising the dollar cap on the recovery amount improves multiple metrics. The model shows increased **Average RFR**, faster **Recovery Period**, and decreased **Rate Volatility**.

CRAC (Cost Recovery Adjustment Clause)

- **CRAC Trigger Level (DCOH)** – By moving the threshold up from zero to a DCOH target, the **Recovery Period** increases better than all other modeled tools.
- **CRAC Max Recovery Amount** – Modeling results with starting RFR at \$555 (90 DCOH) show no impact from adjusting CRAC Max Recovery Amount. CRACs triggered do not reach CRAC max recovery amount.

RDC (Reserves Distribution Clause)

- **RDC Trigger Level (DCOH)** – Raising the threshold is the strongest lever for **Average RFR**, but had little impact on other metrics.
- **RDC Max Distribution** – Capping the RDC increases **Average RFR** and at \$100M achieves **Tool Balance** but also increases **Rate Volatility**

Analysis Key Takeaways – Existing Proactive Tools

PNRR

- Adding PNRR delivers the best **Recovery Period** and **Average RFR** increases, but at the cost of a guaranteed rate impact every year.

Secondary Revenue (SR) Credit

- Modeled the same as PNRR.

Removing or Reducing the use of the note in the TPP calculation:

- Reducing the use of the note is not a dollar for dollar increase through PNRR. It is dependent upon the available amount of the note and the amount needed in any given risk study calculation and the resulting TPP.
- Directionally, removing the entire note would eventually cause a base rate increase and provide a proactive increase in reserves, but it is driven by the tail ends of the risk distribution in any given rate period. The amount in a given rate case would be difficult to predict. It is not the same as PNRR, reducing the Secondary Revenue or the RSF when comparing proactive tools.

Rate Stability Fund Modeling Summary

The **Rate Stability Fund** (RSF) is a potential new tool designed to mitigate rate impacts on customers, operating in tandem with BPA's Reserves for Risk and existing rate adjustment mechanisms (FRP Surcharge and CRAC).

The amount of associated costs included in base rates is flexible and could depend on whether the RSF has reached its designated target balance (cap).

- **Target Balance (cap):** Could be set to any value.
- **The Base Amount:** Amount included in base rates could be set to any value, including \$0.
 - **If set to \$0:** The RSF remains operational but is funded entirely through Reserves Distribution Clause (RDC) Amounts.
 - **If set above \$0:** This amount is included as a cost to be recovered in base rates. It is modeled similarly to Planned Net Revenues for Risk (PNRR).
- **Dynamic Modeling ("Rate Toggle"):** The Base Amount would automatically turn off during rate setting for any rate period in which the RSF is projected to be at its Target Balance (cap). When the Target Balance is met, no additional Base Amount is included.

Interactions with RDC, FRP Surcharge and CRAC

When an RDC triggers, the RDC Amount would be applied to the RSF:

- **Prioritization:** The model would allocate 100% of the funds above the RDC threshold to the RSF until it reaches its Target Balance.
- **Customer Impact:** Customers may only receive an RDC Dividend Distribution *after* the RSF reaches its Target Balance.

At fiscal year-end, if reserves are below the FRP lower threshold, available RSF funds up to the amount below the lower threshold would be transferred into the RFR for the upcoming year to attempt to avoid the FRP Surcharge/CRAC triggering.

- The FRP Surcharge/CRAC calculation is then run utilizing these newly bolstered RFR levels.
- If the new RFR levels remain below the thresholds—even after absorbing the RSF balance—the FRP Surcharge/CRAC would still trigger to collect the remaining necessary adjustments.

Example: \$100M in RSF; Surcharge triggers at \$40M; RFR are \$150M below the lower threshold: All \$100M in the RSF is converted to RFR to attempt to avoid rate action. Because the remaining deficit (\$50M) is still below the lower threshold, a \$40M surcharge still triggers.

Sensitivity Analysis — Rate Stability Fund

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing RSF Contribution	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77	\$477	3.6	5.4	33%	17%	51%	0%	\$0
2 \$20 RSF Amount/\$400M Fund Cap	\$513	83	\$675	3.9	4.0	21%	13%	34%	79%	\$15
3 \$40 RSF Amount/\$400M Fund Cap	\$527	85	\$721	3.7	3.4	3%	15%	18%	75%	\$28
4 \$60 RSF Amount/\$400M Fund Cap	\$544	88	\$769	2.8	2.5	2%	17%	19%	70%	\$38

Average RFR - Implementing and increasing the RSF Base Amount consistently improves the average RFR across all metrics.

Recovery Period - The "Max Time Below 60 DCOH" drops steadily and significantly with higher Base Amounts—falling from a 5.4 years under the Status Quo to just 2.5 years under the 60 RSF package. This effectively halves the duration of prolonged, high-risk low-liquidity periods.

Tool Balance - Relying on a structural RSF Base Amount preemptively cushions the fund, resulting in a significant drop in the need to trigger emergency surcharges. Surcharge frequency decreases from 33% in the Status Quo to 3% (under 40 RSF) and 2% (under 60 RSF).

Rate Volatility - Year-to-Year Rate Volatility is smoothed out by introducing and increasing the RSF Base Amount. Moving from the Status Quo to a \$20M RSF Base Amount cuts the year-to-year volatility nearly in half (from 51% to 34%). However, there are diminishing returns on increasing the RSF Base Amount.

Sensitivity Analysis — Rate Stability Fund

Transmission

		Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A		B	C	D	E	F	G	I	J	K	L
Impacts of Increasing RSF Contribution		Avg. RFR (\$MM)	Avg. RFR (DCOH)	Ave RFR +RSF (\$MM)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1	Base -Rev Financing Proposal	\$ 227	96	\$ 227	1.1	0.3	3%	25%	28%	0%	\$ -
2	A - RSF_\$10M/\$100M_Cap/SC\$15/RDC120DC	\$ 227	96	\$ 278	1.2	0.2	1%	20%	21%	72%	\$ 7
3	A - RSF_\$20M/\$100M_Cap/SC\$15/RDC120DC	\$ 228	96	\$ 290	1.1	0.2	0%	23%	23%	63%	\$ 11
4	A - RSF_\$30M/\$100M_Cap/SC\$15/RDC120DC	\$ 228	97	\$ 297	1.1	0.1	0%	24%	24%	56%	\$ 13

Key Takeaway

- RSF does not appear to be a necessary addition to Transmission. The increase in base rate outweighs the benefit due to Transmission's lower volatility and higher forecast revenue financing available to mitigate rate increases.

Liquidity Stability Provision (LSP) Modeling Summary

Liquidity Stability Provision: This potential new provision would add PNRR to base rates to ensure RFR meet the minimum 60 Days Cash on Hand (DCOH) threshold by the end of the two-year rate period. The required PNRR amount would be reduced by any forecasted Surcharges and planned unwinding of revenue financing.

Essentially, this provision aims to prevent BPA from setting rates to intentionally land below its targeted RFR minimum at the end of the rate period. Today, nothing in rate setting prevents this.

Example: Assume Power starts and ends the rate period with \$200M in RFR. With a lower threshold of \$370M, the initial projected deficit is \$170M. The LSP would mitigate this deficit by assuming the maximum FRP Surcharge triggers (\$40M) and planned revenue financing is repurposed to support liquidity (\$37M) for both fiscal years, which offsets the deficit by \$154M (\$77M per year). The remaining shortfall of \$16M (\$170M - \$154M) would then be recovered evenly across the two-year rate period through \$8M Planned Net Revenue for Risk (PNRR).

Sensitivity Analysis — Liquidity Stability Provision

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	M	N	O
Impacts of Adding LSP	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 LSP based on 60 DCOH	\$509	82		2.9	4.2	29%	19%	48%	15%	\$11

Average RFR - Adding the LSP successfully increases the average reserves level.

Recovery Period - The LSP speeds up the timeline to restore healthy cash levels after a drawdown. The average time to recover to 60 DCOH drops from 3.7 years to 3 years (a 19% faster recovery rate).

Tool Balance - the LSP mitigates risk but does not fundamentally shift reliance on primary risk mitigation tools.

Rate Volatility - LSP provides modest smoothing of year-to-year rate changes; an LSP based on 60 DCOH alone does not significantly stabilize rates on a year-to-year basis.

Sensitivity Analysis — Liquidity Stability Provision

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	M	N	O
Impacts of Adding LSP	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 LSP based on 60 DCOH	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0

Key Takeaway

- Transmission's lower standard deviation in revenues and larger forecast revenue financing amount mean that, while the LSP provides logical support in an extreme circumstance, over the range of outcomes the modeling shows little benefit to adding this provision to Transmission.

Analysis Summary- Next Steps

Workshop Slides

- Today's workshop slides are available [here](#) on BPA.gov for your reference and review.

External Feedback

- Requesting external input, to identify preferences and gather input on specific risk tools, to inform package design. Please share feedback on this workshop to RMFPR@bpa.gov by **9/15**.
- Please note that feedback will not be posted and direct responses will not be provided.

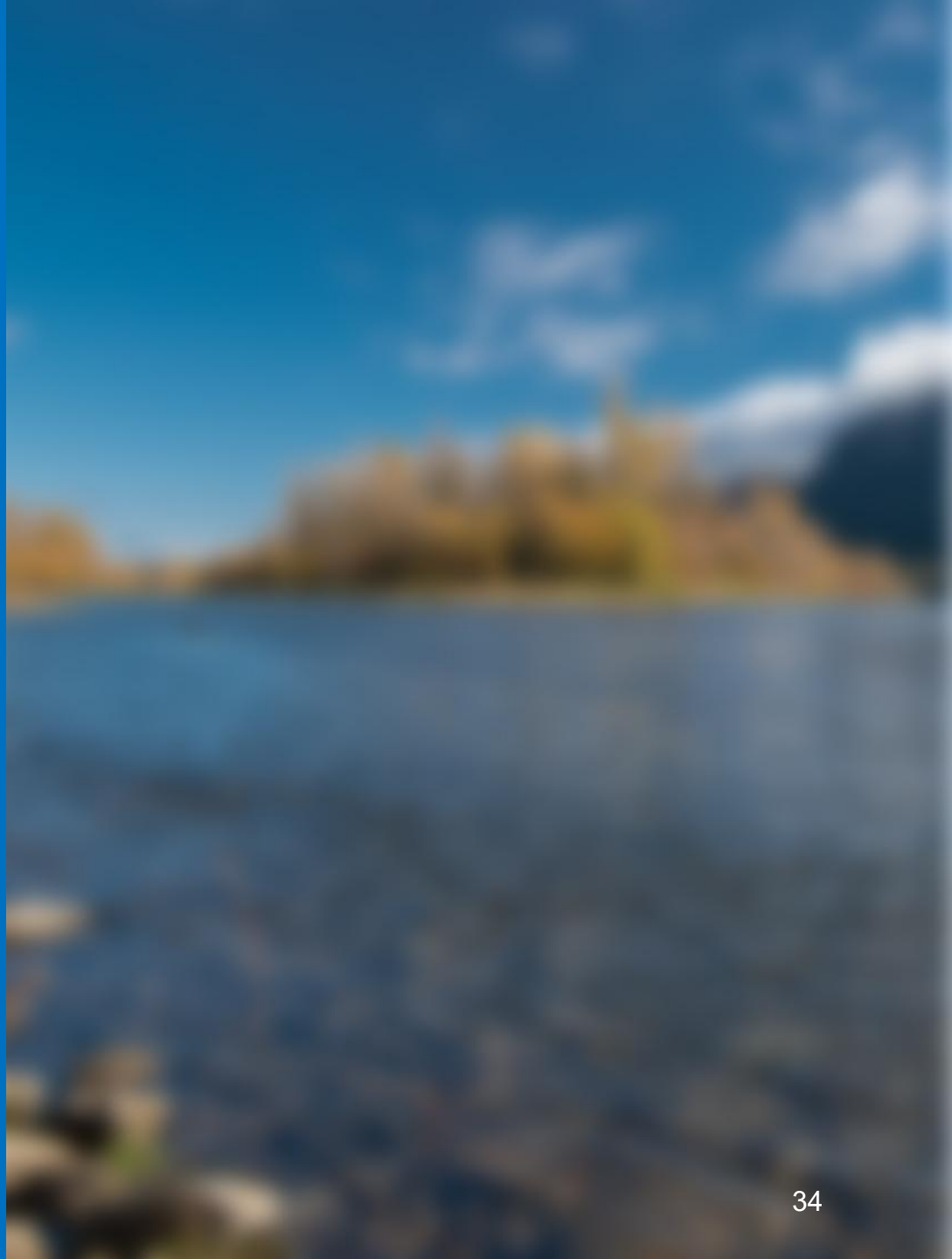
Proposal Development

- Between 9/15 and 10/20 BPA will work on packaging preferred tools into holistic proposals to address the current package imbalance.

Proposal Discussion Workshop

- Join BPA 10/20 for the Proposal Discussion Workshop for collaborative review of the proposal packages under consideration

LUNCH



Sustainable Capital Financing Policy (Leverage)

Sustainable Capital Financing (Leverage) Policy Review Objectives

- Objective:** Reassess BPA's leverage goals to achieve balance between the long-term rate impacts of more debt with higher fixed costs, and the near-rate impacts of revenue financing.
- Scope:** Review the Sustainable Capital Financing Policy. Specifically, determine whether the current 60% agency-level leverage goal remains appropriate and whether the targeted timeline of 2040 continues to be reasonable. Then, review the revenue financing determination/calculation method.
- Drivers:** Significantly increased Transmission capital plans and commitments made in the BP-26 process.

Leverage Refresh Approach

Guiding Principles and Analysis Approach

- Focus on strengthening BPA's long term financial health and operational resiliency.
- Maintain awareness of potential rate impacts on customers and stakeholders.
- Integrate industry benchmarking to align BPA's leverage policy and targets with peer organizations and industry standards.
- Utilize forecasted scenario-based analysis to model and evaluate potential outcomes.
- Design an execution framework that prioritizes simplification and operational flexibility.

Status quo – Repurposing Planned Revenue Financing for Liquidity

- The Sustainable Capital Financing Policy includes a baseline for revenue financing by business line to meet long term debt target metrics. It also includes provisions that BPA continues **to prioritize liquidity over the ability to improve on debt metrics in the event liquidity is needed for normal operations**.
- **Current Policy** - Captured in various spots within the SCFP, GRSPs and Risk Study, the current policy:
 - Accounts for removal of both the **current year** and **upcoming year** revenue financing to avoid a surcharge
 - Contains potentially confusing language
 - Provides **three different routes** in which BPA must or should unwind revenue financing to repurpose for liquidity.
 1. **Bad Year Logic:** When a business unit's start-of-year reserves for risk are between 60 and 120 days cash on hand, BPA intends that revenue financing will be reduced to the extent that a business unit's end-of-year reserves for risk are expected to be lower than the start-of-year. The reduction is limited to the amount needed to retain the start-of-year reserves for risk.
 2. **Surcharge/CRAC Calculation:** After the conclusion of the year, GRSP calculations based on RFR actuals require that, if a business line ends below the lower threshold, revenue financing is first removed to determine the size of the Surcharge or CRAC amount to be recovered. AND
 3. **General Discretion:** The Administrator retains the discretion to use revenue financing to support business-line liquidity needs.

Revenue Financing Adjustment Options

Power

A	Average RFR		Tool Balance		Rate Vol
	B	C	D	E	F
Scenario	Avg. RFR (\$M)	Avg. RFR (DCOH)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility
1 Status Quo - Current Risk Package/\$555M	\$487	79	30%	18%	48%
2 Rev Financing Proposal/\$555M	\$477	77	33%	17%	51%
3 No RF Adj/\$555M	\$432	70	41%	17%	59%

Transmission

A	Average RFR		Tool Balance		Rate Vol
	B	C	D	E	F
Scenario	Avg. RFR (\$MM)	Avg. RFR (DCOH)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility
1 Status Quo - Current Risk Package/\$212M	\$263	111	0%	34%	34%
2 Rev Financing Proposal/\$212M	\$227	96	3%	25%	28%
3 No RF Adj/\$212M	\$176	75	36%	20%	55%

- 1. Status Quo** – See previous slide.
- 2. Staff Proposal** – Continue to require planned revenue financing to be repurposed to liquidity in order to prevent or mitigate an FRP Surcharge or a Cost Recovery Adjustment Clause (CRAC). Remove Bad Year logic. Maintain Administrator discretion.
- 3. No RF Adjustment**

Staff Proposal - Repurposing Planned Revenue Financing for Liquidity

The status quo removes two years of revenue financing to avoid triggering a Surcharge—both the current year's revenue financing *and* the future year's revenue financing. Staff proposes the following modifications:

- **Removing “Bad Year” Repurposing:** Staff propose to remove the SCFP intent to repurpose planned revenue financing solely because end-of-year reserves are lower than start-of-year reserves.
- **Retain Revenue Financing Unwinding Only for Surcharge/CRAC Calculations:** Staff proposes to maintain having planned revenue financing be repurposed to attempt to avoid a FRP Surcharge or CRAC triggering. *The specific implementation methodology will be provided in the future.*

Rationale: Staff continue to support that liquidity should be prioritized over revenue financing in certain circumstances. However, given the importance of debt management and the volatility of Power revenues, Staff want to ensure the exception does not undermine the rule.

Three SCFP/Leverage Questions

1. Is 60% still the right BPA leverage goal?

2. Is 2040 still the right target date for achieving the leverage goal?

3. What is the best way to achieve the goal (e.g. revenue financing (RF) determination method)?

Stakeholder Landscape

Historically, stakeholder feedback has been diverse.

- **The Target:** The 60%-by-2040 leverage goal in the SCFP received limited support. Customer feedback ranged from full support to requests to abandon revenue financing altogether or delay its implementation. Several organizations (such as NIPPC, NRU, and PPC) proposed a higher, more conservative target of 70%, citing concerns over rising interest rates and inflation and disagreement over comparable entities.
- **Core Objections:** Opponents argued that the 60% target is inconsistent with maintaining the lowest possible rates, provides little benefit to customers, is unnecessary given BPA's increased borrowing authority, will have negligible impact on credit ratings, and that BPA benchmarked to the wrong entities.

Benchmarking Insights

Some findings from BPA's benchmarking exercise:

- **Long Island Power Authority (LIPA)** is executing an aggressive deleveraging posture targeting a dramatic reduction in its debt-to-assets ratio with a goal to decrease **from over 110% (2015) down to 71% by 2028**.
 - LIPA's 12-year framework highlights the value of maintaining a multidecade financial trajectory rather than optimizing solely for short term rate periods.
- **Salt River Project (SRP)** funds approximately **50% of all capital expenditures (CapEx) with revenues** built into current rate structures.
 - SRP provides an example of using cash funding to balance current rate impacts with future debt burdens.
- Investor-Owned Utilities (IOUs) may **utilize cash** generated by operations **to fully or mostly fund their “sustain” capital programs**.

Additional Benchmarking Updates & Analysis

Staff's analysis is ongoing. We are considering additional entities, including prior-suggested utilities, both U.S. and abroad, and we invite the submission of specific additional entities to include for benchmarking.

Staff is not mechanically solving for the average leverage of a defined proxy group. We are considering entities with similarities and differences as relevant to whether BPA's goals are reasonable and grounded in industry practice.



Key Proposal Considerations

Financial Health vs. Rate Impact Timing: Balancing long term operational stability with the immediate rate pressures of shifting to some revenue financing.

Present vs. Future Costs: Weighing near term rate increases against the benefit of reduced future interest expense.

Generational Equity: Prioritizing consistent, predictable financing to ensure fair cost allocation over time; enabling a consistent cost of service over time.

Power and Transmission Functionality: BPA's two business lines face very different capital realities. While Power is generally on track to meet long term leverage targets, Transmission faces massive capital expansion demands. The policy must work well for both, which may require something other than a "one-size-fits-all" leverage target.

Preserving Treasury Borrowing Authority as a Strategic Buffer: BPA recognizes the benefits of preserving federal borrowing authority for necessary uses. Revenue financing beneficial for borrowing authority preservation, not a driver.

Graph Assumptions

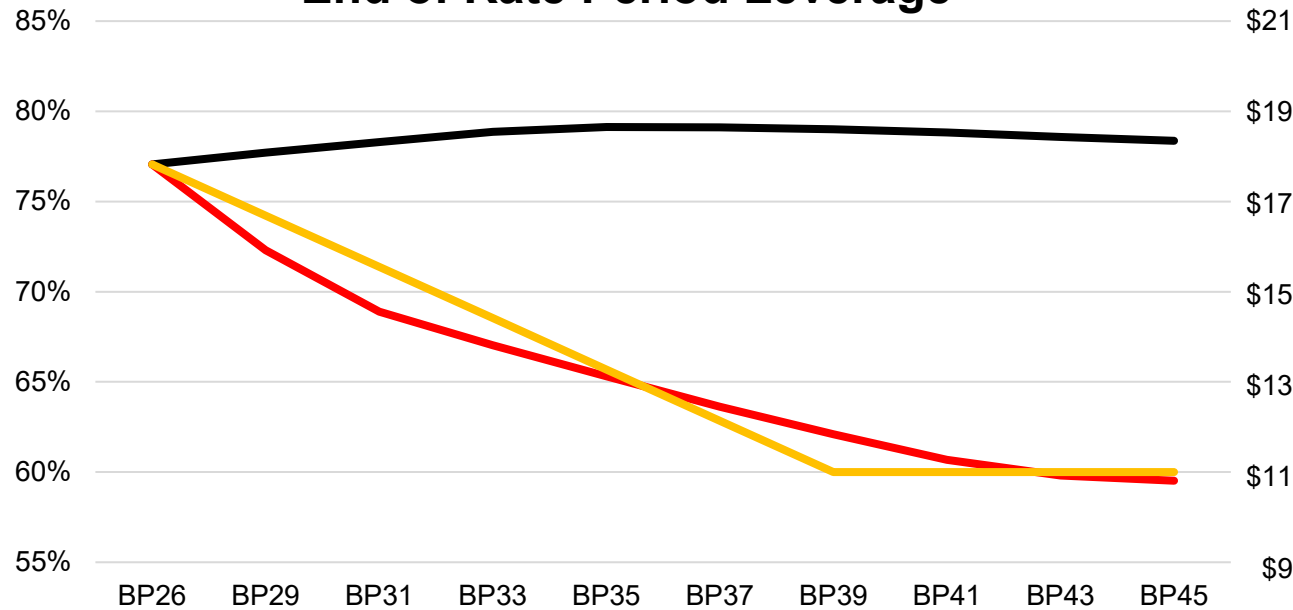
These assumptions apply to the following graphs and analysis.

- Capital Expenditure (CapEx) remain consistent across all scenarios.
 - Power CapEx: BP-26 updated capital base
 - Transmission CapEx: BP-26 *plus* ~\$2B of GERP (i.e., ~\$4B of GERP total; excludes ~\$2B of GERP)
- Interest expense forecasts consistent across all scenarios.
- Rate period over rate period revenue requirement impact calculations are based on current rates (BP-26) “rule of thumb” and could change over time. Rate impact won't be known until the rate proceeding.
- Continues Regional Cooperation Debt (RCD) Phase 2 extensions through 2030
- Excludes potential Lease Purchase Extensions
- BPA is currently considering additional Transmission development approaches including an Open Season structure. The following leverage analysis does not yet model the potential effects of those efforts.
- This leverage analysis does not include the impacts of potential phase-in approaches. BPA may consider phase-in transition periods during further refinement.
- **Modeling is based on estimates of future results over nearly two decades; actual results will differ, potentially significantly, from forecasts.**

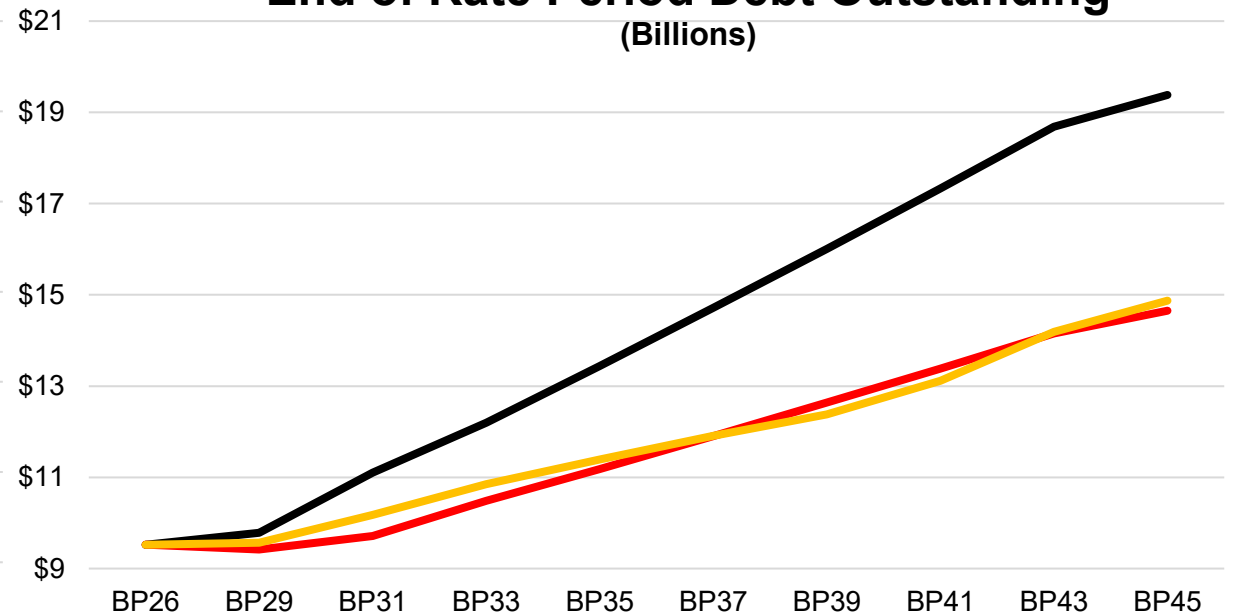
Transmission Modeling Outputs – RF *Sustain* Capital Program

Modeling showed that revenue financing BPA's Sustain Capital Program produced financial impacts equivalent to revenue financing roughly 40% of BPA's entire capital expenditure (CapEx) program.

End of Rate Period Leverage

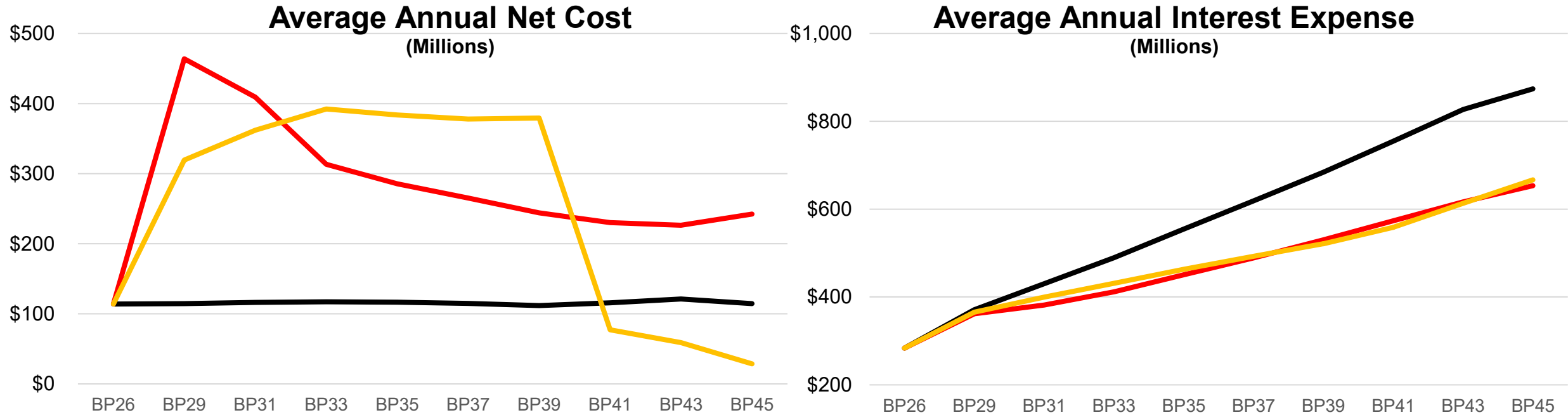


End of Rate Period Debt Outstanding (Billions)



Key	Revenue Financing (\$Millions)	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
SCFP 1% Rate Limiter		125	140	155	170	185	200	215	230	245	245
RF <i>Sustain</i> Capital Program		125	514	504	447	458	478	499	521	544	562
SCFP 60% by 2040		125	359	437	510	548	592	647	375	373	342

Transmission Modeling Outputs (Revenue Financing)

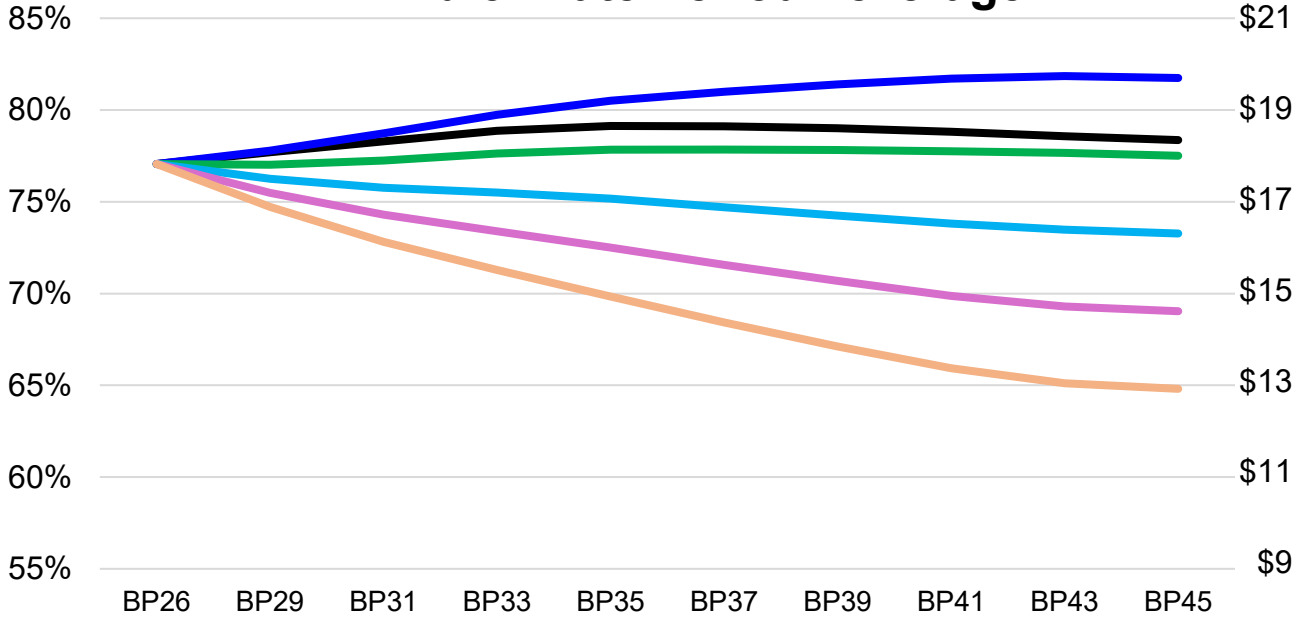


Key	RoR* Rev Req Impact	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
SCFP 1% Rate Limiter	-	-	0.0%	0.1%	0.0%	(0.0%)	(0.1%)	(0.2%)	0.2%	0.3%	(0.4%)
RF <i>Sustain</i> Capital Program	-	-	20.6%	(3.2%)	(5.6%)	(1.6%)	(1.2%)	(1.3%)	(0.8%)	(0.2%)	0.9%
SCFP 60% by 2040	-	-	12.1%	2.5%	1.8%	(0.5%)	(0.3%)	0.1%	(17.8%)	(1.1%)	(1.8%)

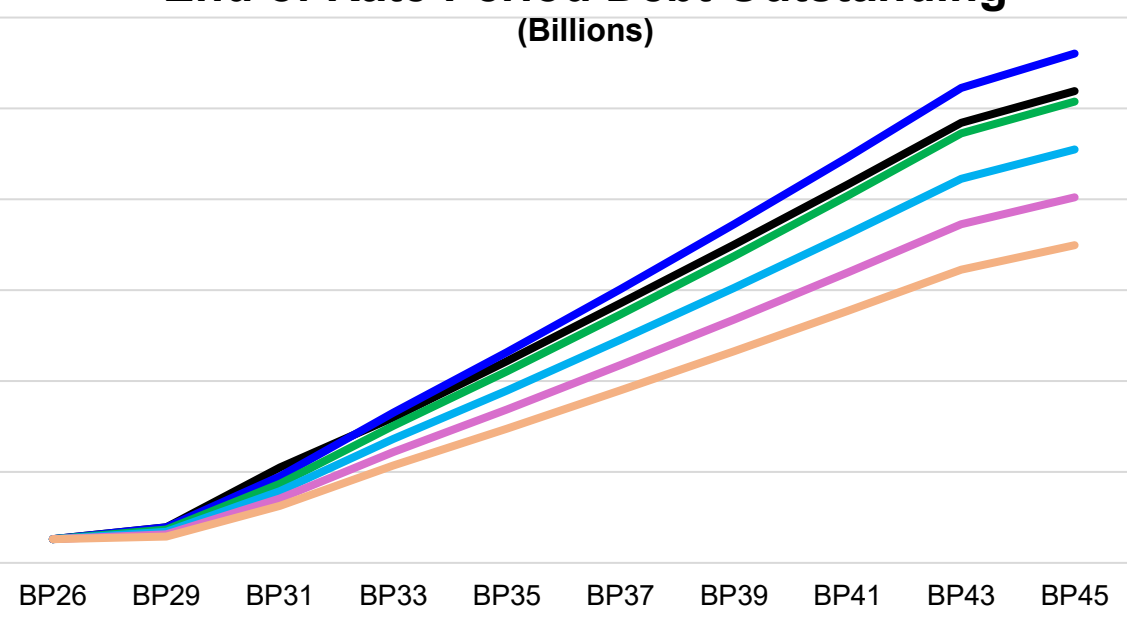
* RoR (Rate Period over Rate Period) revenue requirement impact is caused by the change in net costs between two rate periods.

Transmission Modeling Outputs (Revenue Financing)

End of Rate Period Leverage

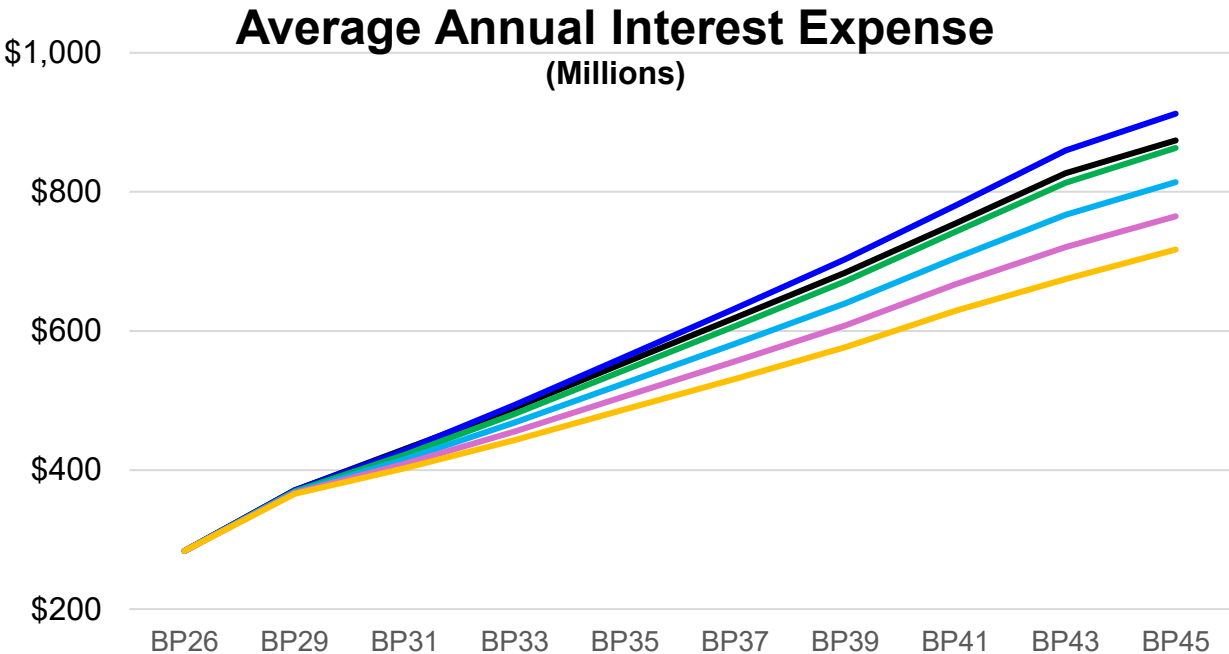
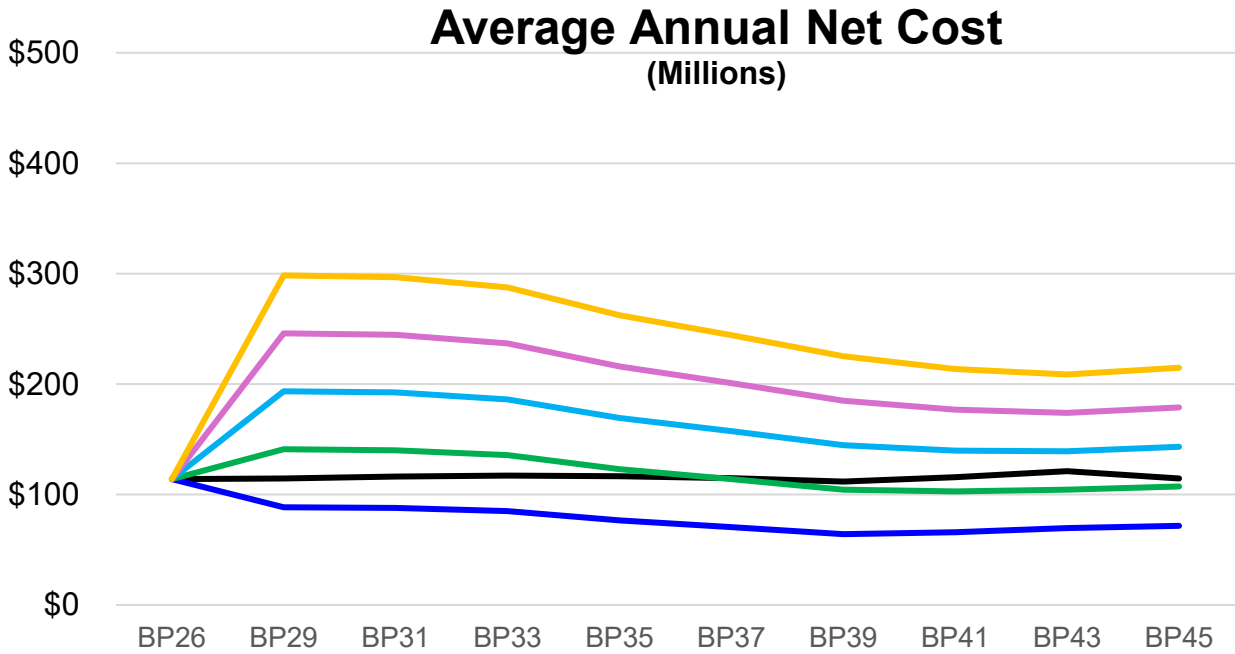


End of Rate Period Debt Outstanding
(Billions)



Key	Revenue Financing (\$Millions)	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
	SCFP 1% Rate Limiter	125	140	155	170	185	200	215	230	245	245
	10% Revenue Financing	125	112	122	130	133	139	144	151	157	162
	15% Revenue Financing	125	168	183	195	199	208	217	226	236	243
	20% Revenue Financing	125	225	244	260	266	277	289	301	314	324
	25% Revenue Financing	125	281	305	325	332	346	361	376	393	405
	30% Revenue Financing	125	337	366	390	399	416	433	452	471	486

Transmission Modeling Outputs (Revenue Financing)

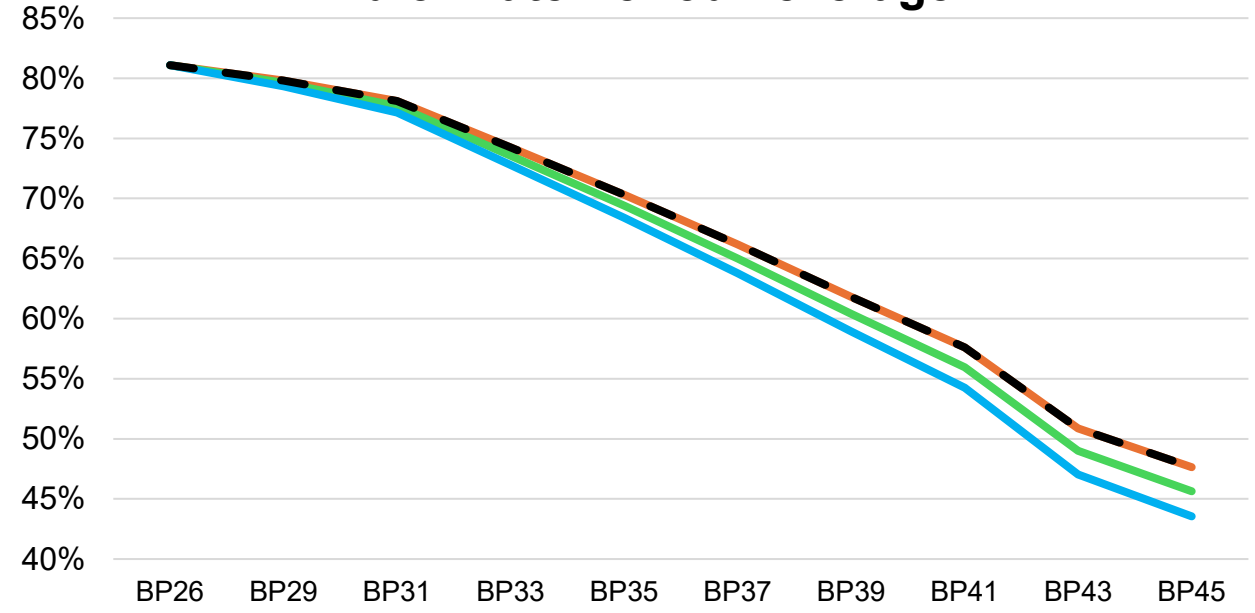


Key	RoR* Rev Req Impact	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
	SCFP 1% Rate Limiter	-	0.0%	0.1%	0.0%	(0.0%)	(0.1%)	(0.2%)	0.2%	0.3%	(0.4%)
	10% Revenue Financing	-	(1.5%)	(0.0%)	(0.2%)	(0.5%)	(0.4%)	(0.4%)	0.1%	0.2%	0.1%
	15% Revenue Financing	-	1.6%	(0.0%)	(0.3%)	(0.7%)	(0.5%)	(0.6%)	(0.1%)	0.1%	0.2%
	20% Revenue Financing	-	4.7%	(0.1%)	(0.4%)	(1.0%)	(0.7%)	(0.7%)	(0.3%)	(0.0%)	0.2%
	25% Revenue Financing	-	7.8%	(0.1%)	(0.5%)	(1.2%)	(0.9%)	(0.9%)	(0.5%)	(0.2%)	0.3%
	30% Revenue Financing	-	10.8%	(0.1%)	(0.5%)	(1.5%)	(1.1%)	(1.1%)	(0.7%)	(0.3%)	0.4%

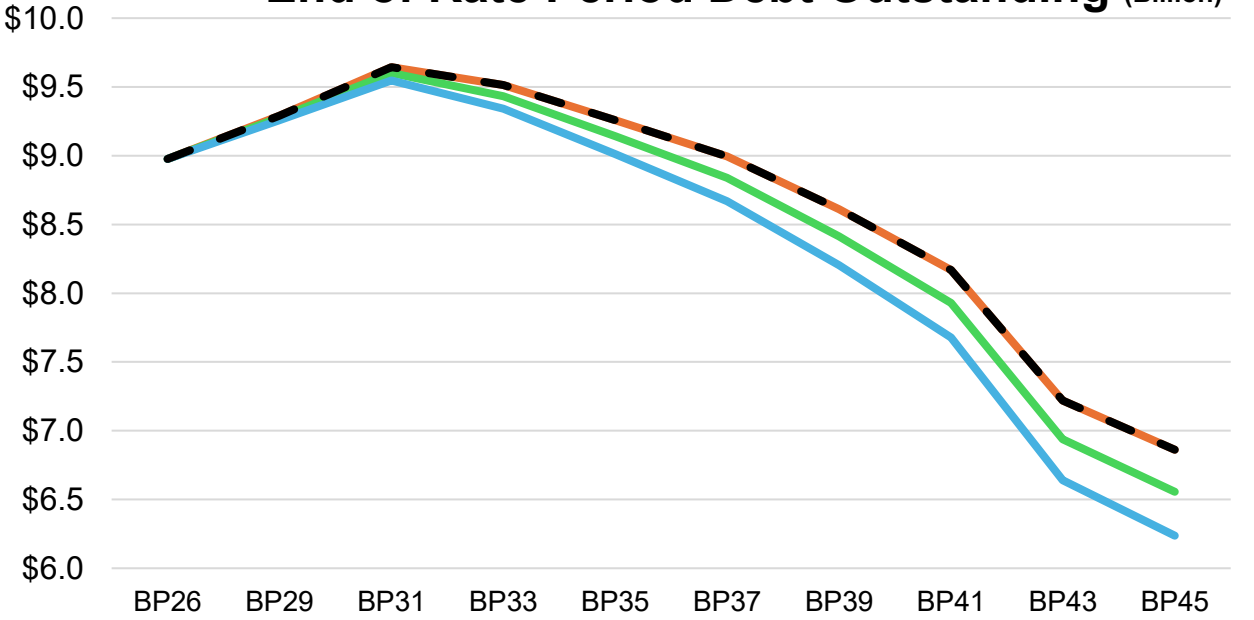
* RoR (Rate Period over Rate Period) revenue requirement impact is caused by the change in net costs between two rate periods.

Power Modeling Outputs (Revenue Financing)

End of Rate Period Leverage

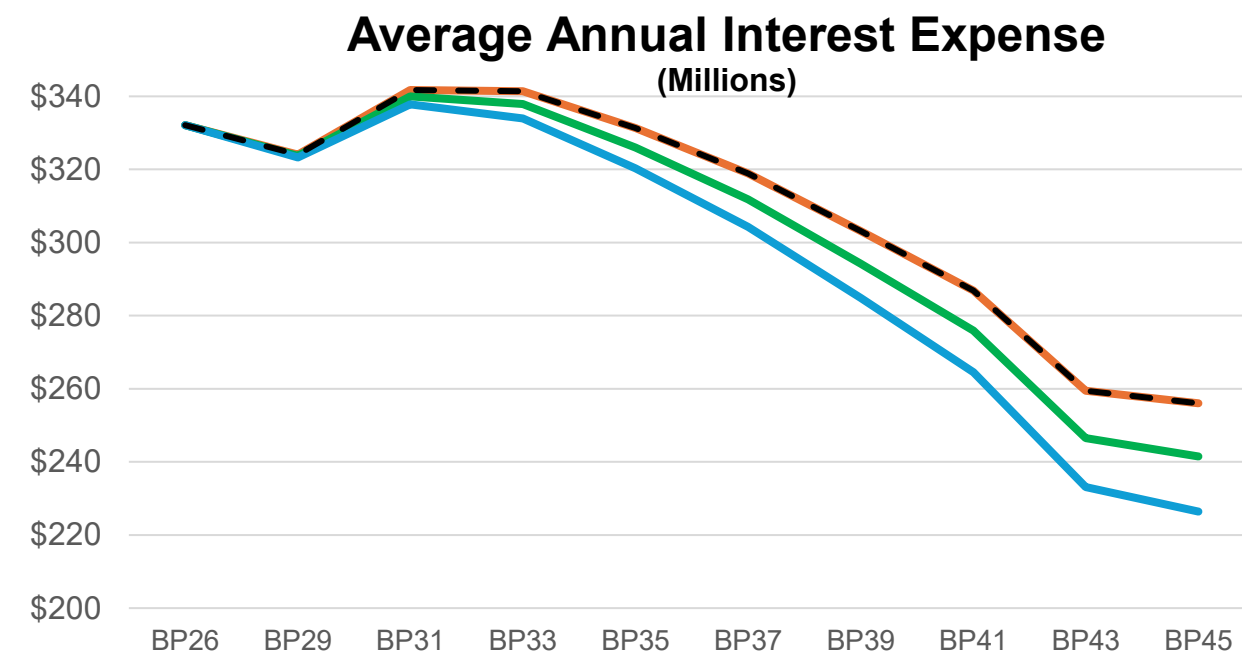
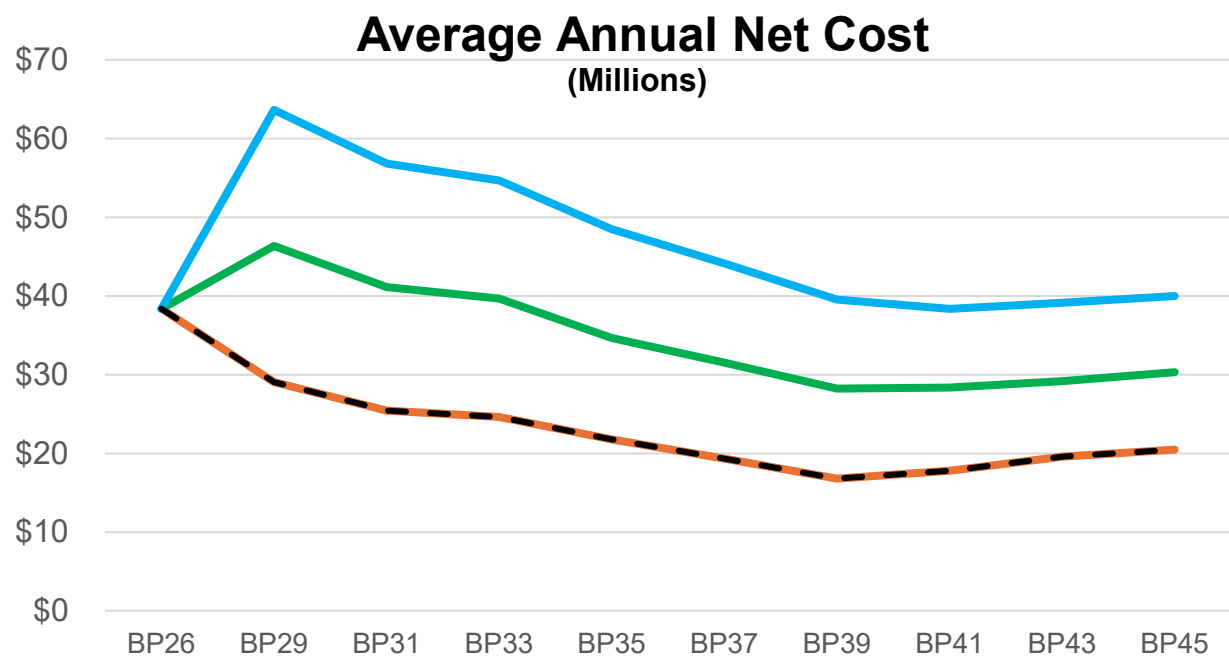


End of Rate Period Debt Outstanding (Billion)



Key	Revenue Financing (\$Millions)	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
	SCFP 1% Rate Limiter	42	37	37	39	40	41	42	44	46	47
	10% Revenue Financing	42	37	37	39	40	41	42	44	46	47
	15% Revenue Financing	42	56	55	59	59	61	63	66	68	70
	20% Revenue Financing	42	74	74	78	79	81	84	87	91	93

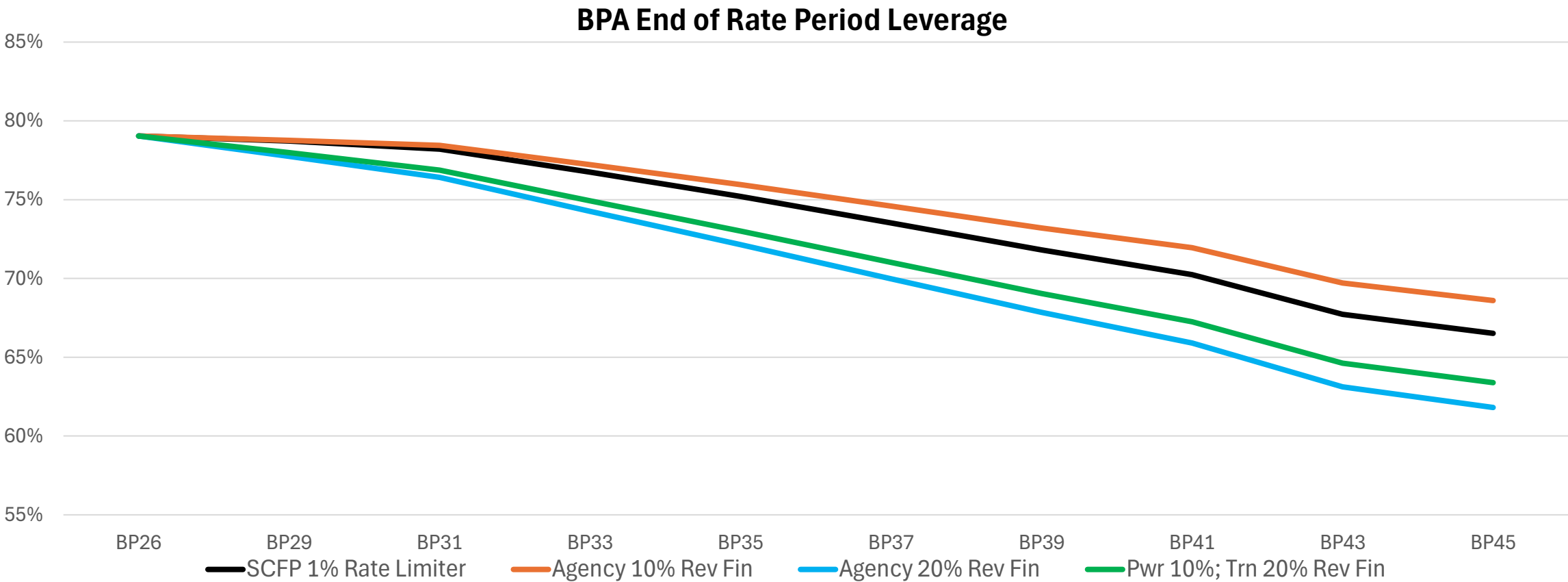
Power Modeling Outputs (Revenue Financing)



Key	RoR* Rev Req Impact	BP26	BP29	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
	SCFP 1% Rate Limiter	-	(0.5%)	(0.2%)	(0.0%)	(0.1%)	(0.1%)	(0.1%)	0.1%	0.1%	0.0%
	10% Revenue Financing	-	(0.5%)	(0.2%)	(0.0%)	(0.1%)	(0.1%)	(0.1%)	0.1%	0.1%	0.0%
	15% Revenue Financing	-	0.4%	(0.3%)	(0.1%)	(0.2%)	(0.2%)	(0.2%)	0.0%	0.0%	0.1%
	20% Revenue Financing	-	1.3%	(0.3%)	(0.1%)	(0.3%)	(0.2%)	(0.2%)	(0.1%)	0.0%	0.0%

* RoR (Rate Period over Rate Period) revenue requirement impact is caused by the change in net costs between two rate periods.

Enterprise Modeling Outputs (Revenue Financing)



Business Unit End of Rate Period Leverage Based on Selected Revenue Financing

Key	Revenue Financing Scenario	BP26	BP28	BP31	BP33	BP35	BP37	BP39	BP41	BP43	BP45
	Power: 10%	81%	80%	78%	74%	70%	66%	62%	58%	51%	48%
	Transmission: 20%	77%	76%	76%	76%	75%	75%	74%	74%	73%	73%

Insights and Findings

1. Is 60% still the right BPA leverage goal?

>Yes, but with flexibility. The team believes this is a reasonable eventual goal and recognizes there may be a need to consider a different level, particularly when considering the work underway around risk and expansion projects.

2. Is 2040 still the right target date for achieving the leverage goal?

>While achieving 60% by 2040 may not be feasible, BPA should maintain a consistent multi-decade trajectory moving toward a defined threshold.

3. What methodology should BPA use to determine the appropriate amount of revenue financing (RF) to achieve this goal?

>Develop a systematic policy approach that limits BPA's reliance on debt while maintaining flexibility to accommodate variable rate case circumstances.

Key Takeaways

- **Current Status vs. Emerging Needs:** While the Power business line is currently on track to meet its long-term leverage goal under the existing policy, the significant grid expansion in the Transmission business line has created different capital and financial needs and a different outlook.
- **Tackling the Disparity:** Because leverage is measured and evaluated at the enterprise level, BPA is exploring distinct revenue financing calculations for Power and Transmission. This ensures the Power business line does not carry a disproportionate financial weight in achieving the BPA's overall leverage goals.
- **"Bending the Curve" on Future Costs:** While adjusting this policy will not significantly alter immediate interest expense in the short term, a goal is to "bend the curve" over time—shifting and mitigating expensive, long term future costs to strengthen overall financial health and ensure future customers don't bear a disproportionate burden.
- **Modest Alternatives Compared to Benchmarks:** 10%-20% revenue financing is at the low end of the range of other utilities' financing structures, and a slow-and-steady deleveraging plan is consistent with others.

Comments on This Workshop

- Please share feedback on this workshop to RMFPR@bpa.gov by 9/25.
- Note that feedback will not be posted and direct responses will not be provided.
- Feedback will help inform future workshops.



Upcoming Workshop Schedule

Date	Meeting	Purpose
8/20	Workshop – Kick Off & Grounding	To formally kick off the Risk Mitigation & Financial Policies Refresh, establish a collaborative foundation with customer partners, and level set all attendees on the project's core focus areas, scope, and timeline.
9/1	Workshop – Analysis & Alternatives	To share analytical methodologies and preview the policy tools, mechanisms, and strategies currently under evaluation.
10/20	Workshop - Proposal Discussion	To facilitate a collaborative review of the holistic proposal packages under consideration.
11/13	Workshop - Draft Policy Framework for ROD Development	To share the draft policy framework and collect stakeholder input on its planned implementation.



Appendix

FRP & Rate Setting Practices for Liquidity Risk Sensitivity Analysis

Sensitivity Analysis – FRP Surcharge Threshold

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the Surcharge Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 +15 DCOH (75 DCOH)	\$495	80		3.6	5.2	46%	18%	64%	0%	\$0
3 +30 DCOH (90 DCOH)	\$508	82		3.6	5.1	58%	19%	77%	0%	\$0
4 +40 DCOH (100 DCOH)	\$524	84		3.4	4.9	64%	19%	83%	0%	\$0

Key Takeaway

Increasing the surcharge trigger threshold increases **Average RFR**. There is little change to the **Recovery Period**. The **Tool Balance** and **Rate Volatility** are impacted negatively.

Status Quo: Surcharge triggers when year end reserves fall below 60 DCOH, capped at \$40M annually for Power

Starting Reserves for Risk: \$555 Million

Modeled: Threshold Range at 60 DCOH-100 DCOH

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – FRP Surcharge Threshold

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the Surcharge Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 +15 DCOH (75 DCOH)	\$232	98		1.2	0.3	30%	26%	56%	0%	\$0
3 +30 DCOH (90 DCOH)	\$235	100		1.2	0.3	48%	27%	75%	0%	\$0
4 +40 DCOH (100 DCOH)	\$239	101		1.1	0.3	56%	30%	86%	0%	\$0

Key Takeaway

Increasing the surcharge trigger threshold for Transmission provides material increases to the **Average RFR** balances. It also increases the Surcharge frequency, exacerbating **Tool Imbalance** and significantly increases **Rate Volatility**.

Status Quo: Surcharge triggers under 60 DCOH and has a Cap of recovering \$40M per year

Starting Reserves for Risk: \$212 Million

Modeled: Threshold Range at 60 DCOH-100 DCOH

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – FRP Surcharge Recovery Cap

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the Surcharge Cap	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 +\$20M Surcharge Recovery Cap (\$60M)	\$492	79		3.3	5.0	32%	18%	49%	0%	\$0
3 +\$40M Surcharge Recovery Cap(\$80M)	\$503	81		2.9	4.5	30%	18%	48%	0%	\$0
4 +\$60M Surcharge Recovery Cap(\$100M)	\$511	82		2.7	4.0	28%	18%	46%	0%	\$0

Key Takeaway

Increasing the surcharge recovery cap marginally reduces the **Recovery Period** and **Rate Volatility**

Status Quo: Surcharge triggers when year end reserves fall below 60 DCOH, capped at \$40M annually for Power

Starting Reserves for Risk: \$555 Million

Modeled: Recovery Cap at \$60-100 Million (\$20M increments)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – FRP Surcharge Cap

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the Surcharge Cap	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Proposed Revenue Financing Adj	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 +\$10M Surcharge Recovery Cap (\$25M)	\$227	96		1.1	0.3	3%	25%	29%	0%	\$0
3 +\$20M Surcharge Recovery Cap(\$35M)	\$227	96		1.1	0.3	3%	25%	29%	0%	\$0
4 +\$30M Surcharge Recovery Cap(\$45M)	\$227	96		1.1	0.3	3%	25%	29%	0%	\$0

Key Takeaway

Because the revenue financing amount mitigates the Surcharge, the Cap would need to be increased to extreme levels to see significant benefit, or the revenue financing amount available to support liquidity would need to be limited or decreased.

Status Quo: Surcharge triggers under 60 DCOH and has a Cap of recovering \$15M per year.

Starting Reserves for Risk: \$212 Million

Modeled: Recovery Cap at \$25-45 Million (\$10M increments)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – CRAC Threshold

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the CRAC Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 +20 DC to CRAC Threshold (20DCOH)	\$496	80		3.2	4.8	31%	18%	49%	0%	\$0
3 +40 DC to CRAC Threshold (40DCOH)	\$518	84		2.6	3.9	28%	19%	47%	0%	\$0
4 +60 DC to CRAC Threshold (60DCOH)	\$539	87		1.9	2.8	13%	19%	42%	0%	\$0

Key Takeaway

Raising the CRAC threshold significantly reduces the **Recover Period** and improves **Tool Balance**, increases **Average RFR** and modestly decreases **Rate Volatility**. Improving results for all key metrics.

Status Quo: Triggers when year-end reserves fall below \$0, capped at \$300M annually for Power

Starting Reserves for Risk: \$555 Million

Modeled: Trigger Threshold at 20-60 Days Cash on Hand (20 DCOH interval)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – CRAC Threshold

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the CRAC Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 +20 DC to CRAC Threshold (20DCOH)	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
3 +40 DC to CRAC Threshold (40DCOH)	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
4 +60 DC to CRAC Threshold (60DCOH)	\$227	96		1.1	0.3	0%	25%	28%	0%	\$0

Key Takeaway

The CRAC Threshold would need to be increased to extreme levels for Transmission to see significant benefit or the revenue financing amount available to support liquidity would need to be limited or decreased.

Status Quo: Triggers when year-end reserves fall below \$0

Starting Reserves for Risk: \$212 Million

Modeled: Trigger Threshold at 20-60 Days Cash on Hand (20 DCOH interval)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – CRAC Recovery Cap

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of the CRAC Recovery Amount	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 \$200M Recovery CAP	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
3 \$300M Recovery CAP	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
4 \$400M Recovery CAP	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0

Key Takeaway

Modeling results with starting RFR at \$555 (90 DCOH) show no impact from adjusting CRAC Max Recovery Amount. CRACs triggered do not reach CRAC max recovery amount.

Status Quo: CRAC threshold at zero Days Cash on Hand

Starting Reserves for Risk: \$555 Million

Modeled: CAP: \$200M - \$400Md

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – CRAC Recovery Cap

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of the CRAC Recovery Amount	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 \$200M Recovery CAP	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
3 \$300M Recovery CAP	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
4 \$400M Recovery CAP	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0

Key Takeaway

Modeling results with starting RFR at \$212 (90 DCOH) show no impact from adjusting CRAC Max Recovery Amount. CRACs triggered do not reach CRAC max recovery amount.

Status Quo: CRAC threshold at zero Days Cash on Hand

Starting Reserves for Risk: \$212 Million

Modeled: CRAC recovery cap at \$100M - \$400M

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – RDC Threshold

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the RDC Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 +30DC to RDC Threshold (150DCOH)	\$554	89		3.7	4.8	29%	14%	43%	0%	\$0
3 +60DC to RDC Threshold (180DCOH)	\$619	100		3.8	4.5	26%	11%	37%	0%	\$0
4 No RDC	\$806	130		3.8	4.0	24%	0%	24%	0%	\$0

Key Takeaway

Raising the upper threshold significantly increases **Average RFR** and decreases **Rate Volatility** but has minimal impact on the **Recovery Period**. There is minimal impact to **Tool Balance** unless the RDC is removed

Status Quo: Triggers when Power's reserves and BPA's total reserves both exceed their upper thresholds (120 and 90 DCOH); the Administrator may repurpose the excess with no cap.

Starting Reserves for Risk: \$555 Million

Modeled: Removed, 120-180 Days Cash on Hand

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – RDC Threshold

Transmission

A	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
	B	C	D	E	F	G	I	J	K	L
Impacts of Increasing the RDC Threshold	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 +30DC to RDC Threshold (150DCOH)	\$252	107		1.2	0.3	3%	17%	20%	0%	\$0
3 +60DC to RDC Threshold (180DCOH)	\$273	116		1.2	0.3	3%	12%	15%	0%	\$0
4 No RDC	\$328	139		1.2	0.3	3%	0%	3%	0%	\$0

Key Takeaway

Increasing the RDC threshold increases **Average RFR** and reduces **Rate Volatility**.

Status Quo: Triggers when Transmission's reserves and BPA's total reserves both exceed their upper thresholds (120 and 90 DCOH); the Administrator may repurpose the excess reserves for high value purposes.

Starting Reserves for Risk: \$555 Million

Modeled: Removed, 120-180 Days Cash on Hand

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – RDC Cap

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of a Range of RDC CAPS	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 \$500M RDC CAP	\$482	78		3.6	5.4	33%	18%	51%	0%	\$0
3 \$400M RDC CAP	\$488	76		3.6	5.4	33%	19%	52%	0%	\$0
4 \$300M RDC CAP	\$498	80		3.6	5.2	32%	20%	52%	0%	\$0
5 \$200M RDC CAP	\$522	84		3.6	5.1	31%	23%	54%	0%	\$0
6 \$100M RDC CAP	\$590	95		3.7	4.8	29%	29%	58%	0%	\$0

Key Takeaway

Adding a RDC cap increases **Average RFR**. Small impact on **Recover Period**. **Tool Balance** improves and, at \$100M, the results shows equilibrium with Surcharge and RDC frequency. **Rate Volatility** increases slightly.

Status Quo: There is currently no cap on the RDC.

Starting Reserves for Risk: \$555 Million

Modeled: RDC distribution amount capped at \$100M - \$500M (100M increments)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis – RDC Cap

Transmission

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of a Range of RDC CAPS	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$227	96		1.1	0.3	3%	25%	28%	0%	\$0
2 \$150M RDC CAP	\$227	96		1.1	0.3	3%	25%	29%	0%	\$0
3 \$100M RDC CAP	\$231	98		1.2	0.3	3%	26%	29%	0%	\$0
4 \$50M RDC CAP	\$244	103		1.2	0.3	3%	30%	33%	0%	\$0

Key Takeaway

Introducing an RDC Cap for Transmission does not significantly change metrics.

Status Quo: There is currently no cap on the RDC.

Starting Reserves for Risk: \$212 Million

Modeled: RDC distribution amount capped at \$50M - \$100M (\$50M increments)

Retro-Active Tool: No immediate rate impact

Sensitivity Analysis — PNNR/Reducing Surplus Sales

	Average RFR			Recovery Period		Tool Balance		Rate Volatility		
A	B	C	D	E	F	G	I	J	K	L
Impacts of Adding PNNR/Reducing Surplus Sales Credit	Avg. RFR (\$M)	Avg. RFR (DCOH)	Ave RFR +RSF (\$M)	Ave Yrs Recover to 60DC	Max Time Below 60 DCOH(Yrs)	Surcharge Frequency	RDC Frequency	Yr to Yr Rate Volatility	Base Rate Adj Vol	Base Rate Adj Ave
1 Base - Revenue Financing Proposal	\$477	77		3.6	5.4	33%	17%	51%	0%	\$0
2 \$25M Per Year	\$591	95		1.6	1.9	10%	24%	40%	100%	\$25
3 \$50M Per Year	\$643	104		1.5	1.5	7%	32%	44%	100%	\$50
4 \$100M Per Year	\$739	119		1.3	0.9	3%	47%	54%	100%	\$100

Key Takeaway

Adding PNNR and reducing surplus sales are modeled identically. Implementing these adjustments significantly increases **Average RFR**, inverts the **Tool Balance** trend – reducing surcharge frequency and increasing RDC frequency – and decreases the **Recovery Period**. At certain levels, it decreases **Rate Volatility**, illustrating a Goldilocks zone for this mechanism.

Status Quo: \$0, currently not implemented

Starting Reserves for Risk: \$555 Million

Modeled: Including \$25/50/100 Million in the Base Rate Adjustment

Pro-Active Tool: Immediate rate impacts

Appendix

Additional Content

Revenue Financing Background – Status Quo

Sustainable Capital Financing Policy – Section 6. Implementation:

The Policy will be implemented each rate period. The Administrator retains the discretion to use revenue financing to support business-line liquidity needs. BPA will propose to retain, within its calculations for risk adjustment mechanisms such as the Power and Transmission Financial Reserves Policy (FRP) surcharges and cost recovery adjustment clause rate adjustments, the requirement to repurpose revenue financing to support business unit liquidity needs in lieu of, or to reduce the magnitude of, these rate-increasing risk adjustment mechanism amounts. Additionally, when a business unit's start-of-year reserves for risk are between 60 and 120 days cash on hand, BPA intends that revenue financing will be reduced to the extent that a business unit's end-of-year reserves for risk are expected to be lower than the start-of-year. The reduction is limited to the amount needed to retain the start-of-year reserves for risk.

Revenue Financing Background – Status Quo

Sustainable Capital Financing Policy – **Section 8 Calculations: 4.**

“BPA will use end-of-year actual reserves for risk compared to the start-of-year reserves for risk balances to determine whether revenue financing is to be repurposed to support business unit reserves for risk.”

BP-26-A-01-AP01 Page D-82: (a) Calculating Power FRP Surcharge Amount

“The Power FRP Surcharge Threshold is an amount of Power RFR, below which Power is considered to have experienced an underrun. The underrun amount is equal to the Power FRP Surcharge Threshold minus Power RFR.

The Power FRP Surcharge Amount is based on the underrun minus the Revenue Financing Amount, limited by the Base Surcharge. There are three possibilities:

- (1) If the underrun minus the Revenue Financing Amount is less than \$5 million, there is no Power FRP Surcharge.*
- (2) If the underrun minus the Revenue Financing Amount is greater than or equal to \$5 million and less than or equal to the Base Surcharge, the Power FRP Surcharge Amount is equal to the underrun minus the Revenue Financing Amount.*
- (3) If the underrun minus the Revenue Financing Amount is greater than or equal to the Base Surcharge, the Power FRP Surcharge Amount is equal to the Base Surcharge.”*

Revenue Financing Background – Status Quo

Power and Transmission Risk Study:

BP-26-FS-BPA-05 Page 50: 4.2.2.3 Risk Adjustment Mechanisms

“The Study assumes that if additional Power Services reserves are needed for liquidity, BPA’s Administrator would repurpose the planned revenue financing to maintain liquidity. Specifically, the study assumes that if Power Services reserves are below 120 days cash and end-of-year Power Services reserves are expected to be lower than start-of-year reserves, revenue financing will be reduced by the amount needed to retain start-of-year reserves. If Power Services reserves are below the FRP Surcharge threshold at the end of a fiscal year, revenue financing would be repurposed in the following year to replenish Power Services reserves back to the threshold.

If revenue financing is reduced in the operating year, the Slice share of the reduction will be returned to Slice customers through the Slice True-Up. The remainder of the revenue financing reduction will result in an increase in Power Services reserves. Therefore, only the Non-Slice share of the revenue financing amount is relied upon for risk mitigation. The Slice percentage is 11.75. See Power Rates Study Documentation, BP-26-FS-BPA-01A, Table 2.3.8. Therefore, the Non-Slice share of the revenue financed capital is \$37 million in each fiscal year.”