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TESTIMONY OF

MARCUS A. HARRIS, DANIEL H. FISHER,

REBECCA E. FREDRICKSON, AND BYRNE LOVELL

Witnesses for Bonneville Power Administration

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5  
6 **SUBJECT: FINANCIAL RESERVES POLICY**

7 **Section 1: Introduction and Purpose of Testimony**

8 *Q. Please state your names and qualifications.*

9 A. My name is Marcus A. Harris, and my qualifications are contained in BP-18-Q-BPA-15.

10 A. My name is Daniel H. Fisher, and my qualifications are contained in BP-18-Q-BPA-08.

11 A. My name is Rebecca E. Fredrickson, and my qualifications are contained in BP-18-Q-  
12 BPA-09.

13 A. My name is Byrne Lovell, and my qualifications are contained in BP-18-Q-BPA-25.

14 *Q. What is the purpose of your testimony?*

15 A. The purpose of this testimony is to sponsor the Financial Reserves Policy (Policy), which  
16 is attached to this testimony as Appendix A, and to provide background and explanations  
17 for the various conditions and requirements proposed in the Policy. Questions,  
18 comments, and concerns regarding the Policy or its overall implementation should be  
19 addressed to this panel. Issues concerning the specific calculations for this rate case  
20 should be directed to the Power and Transmission Risk Study panel, which is tasked with  
21 performing the calculations and implementing the terms of the Financial Reserves Policy  
22 for this rate period. *See Mandell et al., BP-18-E-BPA-15.*

1 **Section 2: Background and Context**

2 *Q. What are financial reserves?*

3 A. Financial reserves are composed of cash, market-based special investments, and deferred  
4 borrowing. Market-based special investments are the intra-governmental equivalent of  
5 U.S. Treasury bonds that BPA buys directly from the U.S. Treasury. They can be  
6 redeemed at BPA's option at any time prior to maturity. Deferred borrowing is an  
7 accounting of cash that has been used to pay for capital expenditures but that BPA plans  
8 to replenish in the very near future through borrowing. Cash, market-based special  
9 investments, and deferred borrowing are all considered to be available to BPA to meet its  
10 payment obligations, because these financial reserves are highly liquid.

11 *Q. Where are the financial reserves held?*

12 A. BPA has a single bank account, the Bonneville Fund, with the U.S. Treasury department.  
13 All of BPA's sales proceeds from Power Services and Transmission Services are  
14 deposited into this account. Likewise, all of BPA's disbursements necessary to operate  
15 its Power Services and Transmission Services business units and repay the Federal  
16 investment in the Federal Columbia River Power and Transmission Systems are made  
17 from this account. All funds in the Bonneville Fund are available to the Administrator to  
18 meet payment obligations.

19 *Q. Do Power Services and Transmission Services have separate financial reserves?*

20 A. BPA is required to apply separate accounting so that Power revenues and expenses are  
21 applied to the Power Services business unit and Transmission revenues and expenses are  
22 applied to the Transmission Services business unit. Revenues and expenses typically  
23 result in receipts and disbursements of cash. As a result, receipts of cash are attributed to  
24 the business unit they came from, as are disbursements of cash. When receipts for a  
25 business unit are greater than disbursements in a fiscal year, financial reserves attributed  
26 to that business unit increase, and when disbursements are greater than receipts, financial

1 reserves decrease. Power Services and Transmission Services have separate reserves  
2 only in the sense that BPA tracks them separately. All of BPA's financial reserves are  
3 held in the same account, the Bonneville Fund, however, and all BPA financial reserves  
4 are available to the Administrator to meet payment obligations regardless of business unit  
5 accounting.

6 *Q. What are financial reserves used for?*

7 A. Financial reserves are used to meet payment obligations, much like cash in a checking  
8 account keeps checks from bouncing. Financial reserves also provide liquidity to fill  
9 financial gaps when expenses are paid before revenues are received or when expenses are  
10 simply greater than revenues. In that way, financial reserves provide a financial buffer  
11 against timing differences between receipts and disbursements and against short-term and  
12 long-term financial uncertainty.

13 BPA Power and Transmission rates are set to recover all costs over a rate period  
14 on a prospective basis; thus, receipts from revenues are planned to be at least as much as  
15 disbursements from expenses. However, BPA sets Power and Transmission rates using  
16 forecasts of revenues and forecasts of expenses. Actual revenues and expenses are often  
17 different from forecasts, and thus actual receipts and disbursements can be different from  
18 what was planned for when setting rates. Receipts are either greater than, the same as, or  
19 less than disbursements.

20 For instance, looking just at the last three rate periods, net Power receipts and  
21 disbursements (cash flow) in a single rate period have been unexpectedly high by as  
22 much as \$213 million and unexpectedly low by as much as \$337 million. Transmission  
23 cash flow has been as much as \$16 million over and \$73 million under rate case  
24 expectations. Previously accumulated financial reserves have been used to fill the gap  
25 when cash flow was negative.

1 Q. *Are financial reserves encumbered or restricted in any way?*

2 A. From an operational perspective the answer is no; all financial reserves are available to  
3 the Administrator to meet payment obligations. That is, on a day-to-day basis, all  
4 financial reserves are available to meet payment obligations when they come due.  
5 However, for planning and ratesetting, BPA does consider certain financial reserves  
6 encumbered (or restricted). The financial reserves considered encumbered are called  
7 Reserves Not Available for Risk. The remaining financial reserves, considered  
8 unencumbered, are called Reserves Available for Risk.

9 Reserves Not Available for Risk are financial reserves that have been deposited  
10 with BPA for a specific purpose, such as for capital expense to interconnect customers to  
11 BPA's Transmission grid—*e.g.*, Large Generation Interconnection Agreements  
12 (LGIA)—or as collateral for certain Power or Transmission trading agreements. Because  
13 these financial reserves are committed to be used for a specific purpose, they are  
14 considered not available for risk mitigation.

15 Unencumbered reserves have resulted from revenues being greater than expenses  
16 over time. These financial reserves have accumulated from better than expected financial  
17 performance. Because Reserves Available for Risk are not obligated for any future  
18 specific purpose, they are available to use and function as BPA's primary source of  
19 liquidity for planning and ratesetting.

20 Q. *Other than financial reserves, does BPA have any other sources of liquidity?*

21 A. Yes. BPA has two other primary sources of liquidity: (1) the Short-Term U.S. Treasury  
22 Borrowing Note (Treasury Facility) and (2) the ability to defer principal and interest  
23 payments to the U.S. Treasury.

24 The Treasury Facility is a borrowing line of credit BPA has with the U.S.  
25 Treasury. The line of credit can be used to fund expenses recognized under the  
26 Northwest Power Act and is limited to a maximum amount outstanding of \$750 million

1 or the amount of BPA’s remaining borrowing authority, whichever is smaller. The  
2 maximum borrowing term is two years. BPA pays an interest rate from the applicable  
3 U.S. Agency yield curve corresponding to the borrowing term.

4 BPA also has the ability to defer principal and interest payments to the U.S.  
5 Treasury. Deferring a payment avoids the consumption of cash, thus allowing the  
6 unconsumed cash to remain for other purposes as a source of liquidity. While deferring  
7 payments to Treasury is a possible source of liquidity, in practice it is rarely used and  
8 would almost certainly be viewed very negatively by BPA’s business partners, including  
9 customers, credit rating agencies, Congress, and the Administration. BPA has a long  
10 history of making its scheduled principal and interest payments to the U.S. Treasury in  
11 full and on time. Deferring payment to the U.S. Treasury to create liquidity would likely  
12 occur only in an extreme case where other methods for generating liquidity had been  
13 unsuccessful.

14  
15 **Section 3: BPA’s Treasury Payment Probability Standard**

16 *Q. Please describe BPA’s current financial policies concerning financial reserves.*

17 *A.* BPA currently does not have a formal policy for determining an acceptable amount of  
18 financial Reserves Available for Risk for the agency or for each business line. (From  
19 here on in this testimony, Financial Reserves Available for Risk will be referred to as  
20 “financial reserves” and the appropriate business line attribution will be noted if it is  
21 necessary to do so.) However, BPA sets rates for both the Power and Transmission  
22 business lines to ensure a 95 percent probability of making BPA’s year-end Treasury  
23 payment for each year of the two-year rate period. Financial reserves for each business  
24 line are the primary source of liquidity to ensure this TPP standard is met.

1 Q. *Please describe the 95 percent Treasury Payment Probability (TPP) standard.*

2 A. In the 1993 10-Year Financial Plan, developed over several years of consultation with  
3 interested parties in the region and adopted in the WP-93 Record of Decision, BPA  
4 established the 95 percent TPP standard. *See* 1993 Final Rate Proposal Administrator’s  
5 Record of Decision, WP-93-A-02, at 72. The standard requires BPA to set rates so that  
6 BPA has enough financial reserves to maintain at least a 95 percent probability of making  
7 all of its Treasury payments over a two-year rate period. The standard was originally  
8 established as a means to rebuild trust in BPA’s ability to meet its statutory requirement  
9 to repay the Federal investment within a reasonable number of years after BPA had  
10 missed several Treasury payments in the early 1980s. Since then, BPA has made  
11 34 consecutive Treasury payments in full and on time.

12 The 10-Year Financial Plan was updated July 31, 2008, and renamed the  
13 “Financial Plan.” *See*  
14 <http://www.bpa.gov/Finance/FinancialInformation/FinancialPlan/Pages/default.aspx> .

15 Q. *What is the purpose of the 95 percent TPP standard?*

16 A. The primary purpose of the 95 percent TPP standard is to ensure a very high probability  
17 that BPA will have sufficient liquidity over the rate period to meet its payment  
18 obligations. The TPP standard accomplishes this by requiring that rates be set such that  
19 there is at least a 95 percent probability that the U.S. Treasury payments in a two-year  
20 rate period will be made on time and in full. BPA is required by law to meet its other  
21 financial obligations before it makes its Treasury payment. As a consequence, if BPA  
22 ensures that in a two-year rate period that there is at least a 95 percent probability that  
23 U.S. Treasury payments will be made in full, BPA will also be ensuring with near  
24 certainty that all other payments throughout the year will be made.

1 Q. *Is the 95 percent TPP standard an agency standard or an individual business line*  
2 *standard?*

3 A. In the 1990s, BPA set joint Power and Transmission rates, and thus the TPP standard was  
4 established as an agency standard. Starting with the 2002 rate case, BPA began  
5 establishing rates that ensure that Power and Transmission independently meet the  
6 95 percent TPP standard.

7 Q. *How has BPA met the 95 percent TPP standard?*

8 A. As noted above, financial reserves are the primary means by which BPA meets the  
9 95 percent TPP standard. BPA has also relied on other forms of liquidity. In particular,  
10 BPA has had agreements with the U.S. Treasury enabling it to execute short-term  
11 borrowing to temporarily increase financial reserves. The first agreement of this kind,  
12 the Treasury Note, nominally allowed BPA to borrow up to \$100 million. Due to  
13 unresolved issues with Treasury, BPA relied on only \$50 million of the Note for use in  
14 TPP calculations. BPA sets its rates to recover all of its costs, including its obligation to  
15 pay the U.S. Treasury.

16 Q. *Have financial reserves always been sufficient to achieve a 95 percent TPP?*

17 A. No. The reality is that financial reserves fluctuate throughout the rate period as actual  
18 rate period revenues and expenses deviate from the forecast rate period revenues and  
19 expenses relied on when setting rates. To ensure BPA meets the 95 percent TPP  
20 standard, BPA has developed a number of mechanisms to augment financial reserves if  
21 needed to address these uncertainties.

22 Q. *Please describe these mechanisms.*

23 A. The Cost Recovery Adjustment Clause (CRAC) is a rate mechanism that increases rates  
24 in one or both years of the rate period to generate positive cash flow when financial  
25 reserves fall below a specified lower financial reserves threshold. The availability of this  
26 mechanism provides additional financial reserves when needed to meet the 95 percent

1 TPP standard when setting rates. The CRAC has the effect of mitigating financial losses.  
2 The introduction of the CRAC mechanism has allowed for a lower amount of financial  
3 reserves to be held while still meeting the 95 percent TPP standard. The parameters of  
4 the CRAC and rules governing its implementation have been defined in the Power  
5 General Rate Schedule Provisions (GRSPs) since the CRAC for Power rates was  
6 established in 2002. The actual calculations for the CRAC—the determination of  
7 whether one has triggered, and if so, for how much, are made outside the rate case  
8 process. The BP-18 Initial Proposal is the first time a CRAC for Transmission rates has  
9 been considered.

10 Another risk mitigation measure that BPA has used is Planned Net Revenues for  
11 Risk (PNRR). PNRR is an expense line item in the revenue requirement without a  
12 corresponding planned cash disbursement. It has the effect of raising base rates above  
13 the level necessary to recover all costs, resulting in a planned increase in financial  
14 reserves throughout the rate period. Calculations of PNRR and inclusion in the revenue  
15 requirement are made within the rate case process. BPA has included a line for PNRR in  
16 the revenue requirements for both Power and Transmission since 2002. PNRR for  
17 Transmission has heretofore always been \$0; PNRR for Power has sometimes been  
18 above \$0.

19 *Q. Please describe the use of the Treasury Facility in calculating rates.*

20 *A.* In the 2010 rate case, BPA included a new version of the short-term borrowing  
21 agreement with Treasury, the Treasury Facility. During the WP-10 rate proceeding, BPA  
22 and the Treasury reached an agreement that expanded the Treasury Facility from  
23 \$300 million to \$750 million. BPA determined that for TPP and within-year liquidity the  
24 Treasury Facility could be relied on in the same way that financial reserves can be. At  
25 the time of the expansion of the Treasury Facility, Power rates would not have met the  
26 95 percent TPP standard without the use of PNRR, which would increase rates, or a

1 CRAC, which increases the likelihood of rate increases during a rate period.

2 Transmission rates, on the other hand, could meet the 95 percent TPP standard without  
3 any liquidity other than financial reserves on hand.

4 Because use of the Treasury Facility would reduce Power rates but would not  
5 reduce Transmission rates, BPA decided for the 2010 rate case that it would allocate for  
6 ratemaking purposes the entire Treasury Facility to Power rates. Introduction of the  
7 larger Treasury Facility had the effect of reducing the level of financial reserves needed  
8 for Power Services to meet the 95 percent TPP standard. In the 2010 rate case, BPA  
9 relied upon \$300 million of the Treasury Facility to satisfy Power within-year liquidity  
10 needs; the remaining \$450 million was available to support Power TPP. Starting with the  
11 2012 rate case, BPA has assumed \$320 million of the Treasury Facility to be available for  
12 Power within-year liquidity needs and \$430 million to be available for Power TPP  
13 support.

14 *Q. How has Transmission Services met the 95 percent TPP standard?*

15 A. Transmission Services historically has not needed any liquidity tools to meet the  
16 95 percent TPP standard other than financial reserves. Thus, transmission rates have not  
17 incorporated a CRAC or use of non-zero PNRR or other sources of liquidity such as the  
18 Treasury Facility.

19 *Q. Does the 95 percent TPP standard address what actions (if any) BPA should take if  
20 financial reserves reach particularly high levels?*

21 A. No. The TPP standard itself looks at only the probability of paying the U.S. Treasury on  
22 time and in full. Financial reserves in excess of the levels needed to meet this standard  
23 are held in the Bonneville Fund and are available for other purposes as determined by the  
24 Administrator. Power rates since 2002 have included a Dividend Distribution Clause  
25 (DDC), which is effectively the inverse of the CRAC: if financial reserves exceed an  
26 upper financial reserves threshold during the rate period, Power rates are reduced and

1 financial reserves are effectively distributed back to customers. While the DDC has been  
2 included in the risk mitigation package for Power rates, BPA's implementation of the  
3 TPP standard does not include a method for calculating what an appropriate threshold for  
4 the DDC would be. The CRAC threshold, on the other hand, should be set at the lowest  
5 level that yields a 95 percent TPP, or \$0, whichever is higher.

6 BPA did not develop a DDC for Transmission rates because BPA had not  
7 implemented the corresponding CRAC mechanism for Transmission rates. As discussed  
8 later in this testimony, BPA is introducing both mechanisms to Transmission rates as part  
9 its implementation of the Financial Reserves Policy.

10  
11 **Section 4: Need for a Financial Reserves Policy**

12 *Q. Why are you proposing a new Financial Reserves Policy?*

13 A. The 95 percent TPP standard has provided important policy guidance for when BPA  
14 should intentionally increase liquidity to ensure a 95 percent probability of making the  
15 Treasury payment. However, the standard does not provide policy guidance for other  
16 important issues related to BPA's financial reserves amounts. These other important  
17 policy issues are:

- 18 • the target level of financial reserves that BPA should have as an agency to support  
19 BPA's credit rating and operate consistent with sound business principles;
- 20 • the minimum level to which BPA should allow financial reserves to decline before  
21 BPA takes action to replenish them;
- 22 • the maximum level to which BPA should allow financial reserves to rise before  
23 taking action to use such reserves for other high value purposes; and
- 24 • how to allocate the responsibility for maintaining financial reserves targets and  
25 thresholds between Power and Transmission.

1 Q. *Does the 95 percent TPP standard establish a target amount or goal for financial*  
2 *reserves?*

3 A. No. The 95 percent TPP standard establishes a framework to ensure that each business  
4 line individually, and thus the agency, has enough liquidity over the rate period to ensure  
5 at least a 95 percent probability of making Power and Transmission Treasury payments  
6 over a two-year rate period. Although financial reserves are a primary source of  
7 liquidity, over time other sources of liquidity, such as the Treasury Facility, have been  
8 introduced in the TPP framework, reducing the necessary amount of financial reserves  
9 needed to meet the 95 percent TPP standard. The 95 percent TPP standard does not  
10 establish a target amount or goal of financial reserves for either business line or the  
11 agency.

12 Q. *Does the 95 percent TPP standard establish when financial reserves need to increase?*

13 A. BPA's implementation of the 95 percent TPP standard provides a methodology for  
14 determining the lowest CRAC thresholds that provide for a high probability of having  
15 enough financial reserves to pay BPA's financial obligations. It does not address the  
16 level of financial reserves needed to meet other purposes. In the BP-16 rate proceeding,  
17 for Power Services the lower financial reserves threshold (CRAC threshold) was \$0 and  
18 the upper financial reserves threshold (DDC threshold) was \$750 million. The threshold  
19 determinations have been made on a rate case-by-rate case basis based on the  
20 circumstances of the time. The threshold for the CRAC was reduced to \$0 when the  
21 Treasury Facility became available to support TPP.

22 For Transmission Services, the 95 percent TPP standard does not establish a  
23 lower or upper financial reserves threshold. However, Transmission financial reserves at  
24 the start of each rate period need to be sufficient to ensure a 95 percent probability of  
25 making both U.S. Treasury payments in the rate period, and they have been sufficient  
26 since the 2002 rate case.

1 *Q. How low can financial reserves be before an increase in financial reserves is needed to*  
2 *meet the 95 percent TPP standard?*

3 A. Power financial reserves could have been \$0 at the time the BP-16 rates were calculated  
4 and the 95 percent TPP standard would have still been met, due primarily to the  
5 availability of the Treasury Facility. The CRAC would trigger to replenish financial  
6 reserves only if financial reserves were negative. Transmission financial reserves could  
7 have declined to \$230 million when BP-16 rates were set and the 95 percent TPP  
8 standard would still have been met. Thus, in BP-16, BPA financial reserves could have  
9 been as low as \$230 million (\$0 for Power plus \$230 million for Transmission), and no  
10 BPA financial policy would have required financial reserves to be any higher in either  
11 business line.

12 *Q. How high can financial reserves go under the TPP standard?*

13 A. In the BP-16 rate period, if Power financial reserves are above \$750 million at the end of  
14 a fiscal year, a DDC would trigger. The DDC would lower Power rates the following  
15 fiscal year, distributing financial reserves above \$750 million to customers. In the BP-16  
16 rate period, Transmission financial reserves do not have an upper financial reserves  
17 threshold; thus, in theory, they could be infinitely high and no rate mechanism or  
18 financial policy would guide them to be used for any other purpose.

19 *Q. Generally describe Power and Transmission Financial Reserves levels over recent years.*

20 A. Power Services has seen wide variability in its financial reserves over the past ten years,  
21 from a high of over \$900 million in 2007 to a low of \$182 million in 2013. Current  
22 projections put Power Services in a declining trend for its financial reserves. Power  
23 Services ended FY 2016 with \$159 million in financial reserves, with a possibly even  
24 lower value for the end of FY 2017.

25 Transmission financial reserves have similarly seen volatility, though not to the  
26 degree of Power financial reserves. Over the past ten years, financial reserves for

1 Transmission Services have fluctuated from a high of \$606 million in 2010 to a low of  
2 \$193 million in 2006. Transmission financial reserves have largely remained steady  
3 since 2011, with reserves fluctuating between \$450 million and \$500 million.

4 *Q. How much financial reserves do other similar entities carry?*

5 A. According to one of the three primary credit rating agencies, Moody's, entities similar to  
6 BPA hold between 150 and 250 days' cash on hand. "Days' cash on hand" is a liquidity  
7 metric that measures the amount of financial reserves relative to a business's operating  
8 expenses. Days' cash on hand takes an entity's financial reserves and divides it by its  
9 annual amount of operating expenses divided by 365 days in a year. One hundred and  
10 fifty days' cash on hand for BPA computes to roughly \$1 billion in financial reserves,  
11 and 250 days' cash computes to \$1.6 billion.

12 *Q. Why is it important to carry financial reserves?*

13 A. There are three primary reasons it is important to carry financial reserves: credit rating  
14 support, liquidity, and rate stability.

15 *Q. Why is BPA's credit rating important?*

16 A. BPA's credit rating is critical to its capital programs for both its Power and Transmission  
17 business lines. BPA issues debt in order to fund its capital programs. Relevant to Power  
18 Services, Energy Northwest issues debt on behalf of BPA to fund new capital  
19 investments at the Columbia Generating Station (CGS) nuclear power plant and to  
20 refinance existing debt associated with CGS or Washington Public Power Supply System  
21 (WNP) Projects 1 and 3. Over the next 10 years, Energy Northwest is expected to issue  
22 \$3.9 billion in debt backed by BPA. BPA's credit rating is the primary factor  
23 determining the interest rate BPA will receive on that debt. The higher the credit rating,  
24 the lower the interest rate, and thus the lower the interest expense in BPA's Power  
25 revenue requirement.

1 Transmission Services issues debt for the lease purchase capital program. Over  
2 the next 10 years, BPA plans to issue \$5.4 billion in lease purchase-related debt. BPA's  
3 credit rating is the primary factor determining the interest rate BPA will receive on this  
4 debt. The higher the credit rating, the lower the interest rate, and thus the lower the  
5 interest expense in BPA's Transmission revenue requirement.

6 BPA's current credit ratings are Aa1 (Moody's), 15 AA (Fitch), and AA-  
7 (Standard & Poor's).

8 *Q. Has BPA's credit rating become more important in recent years?*

9 *A.* Yes. It has become increasingly important since the 2008 U.S. financial crisis for two  
10 primary reasons. First, BPA's credit rating impacts to a greater degree the interest rate  
11 BPA pays for third-party debt. Prior to the 2008 financial crisis, interest rate spreads  
12 between different credit ratings were small. For example, the interest rate spread on  
13 20-year debt prior to 2008 for AA and A rated entities was approximately 17 basis points.  
14 Since then, spreads have been much larger, averaging 50 basis points for 20-year debt.  
15 Second, BPA relies more today on third-party debt financing to finance both Power and  
16 Transmission capital programs and refinance existing high interest third-party debt. For  
17 instance, from 2001 to 2007, BPA-backed third-party debt issuances averaged  
18 approximately \$621 million per year. From 2008 to 2016, BPA-backed third-party debt  
19 issuances averaged approximately \$1,070 million per year.

20 *Q. Why is it important for BPA to maintain sufficient financial reserves for its credit rating?*

21 *A.* Rating agencies have made very clear the importance of financial reserves for BPA.  
22 Recently the Fitch rating noted that "[t]he maintenance of strong reserves is essential to  
23 the ratings and a sustained and sizable reduction in reserves could result in downward  
24 rating pressure." Additionally, Moody's recently noted that "BPA's rating could be  
25 negatively pressured if BPA's internal liquidity drops below 30 days' cash on hand on a  
26 sustained basis." Standard & Poor's noted "[i]f, during our two-year outlook horizon,

1 Bonneville’s robust liquidity cushion erodes meaningfully whether due to hydrology  
2 conditions, capital needs, or weak market for its surplus power, we could lower the stand-  
3 alone credit profile.” Links to the rating agencies’ reports are provided below.

4 Fitch Report

5 <https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe>  
6 [portsArticles/Fitch%20Final%20long%20report%20March%202016.pdf](https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe)

7 Moody’s Report

8 <https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe>  
9 [portsArticles/Moodys-Full-Report-June-2016.pdf](https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe)

10 S&P Report

11 <https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe>  
12 [portsArticles/S%20and%20P%20Rating%20Report%20March%202016.p](https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe)  
13 [df](https://www.bpa.gov/Finance/FinancialInformation/Debt/RatingAgencyRe)

14 *Q. Under the 95 percent TPP standard, could financial reserves be reduced to levels that*  
15 *would cause rating agencies to reevaluate BPA’s credit rating?*

16 *A. Yes. In TPP calculations, BPA counts the Treasury Facility as part of the liquidity that*  
17 *supports TPP. The rating agencies do not consider the Treasury Facility line of credit in*  
18 *their calculations of days’ cash on hand. Therefore, it is possible for BPA to have enough*  
19 *total liquidity (financial reserves plus the Treasury Facility) to meet its 95 percent TPP*  
20 *standard but to have insufficient financial reserves* *per se* *to support its credit rating. This*  
21 *is a consequence of the TPP standard’s narrow focus on BPA’s ability to pay Treasury,*  
22 *ignoring BPA’s credit rating.*

23 Because of the high uncertainty in BPA’s net secondary power revenue, BPA may  
24 lose a meaningful amount of financial reserves within a short time. BPA has annual  
25 expenses of approximately \$3.9 billion and has a considerable amount of uncertainty in  
26 its revenues to cover those expenses due to hydrology and market price risk and the

1 variability of other revenues and expenses. The standard deviation of BP-18 Power net  
2 revenue is \$250 million. That is, there is roughly a two-thirds chance Power rate period  
3 revenues will be within \$250 million of the forecast; roughly a one-sixth chance Power  
4 net revenues will be more than \$250 million above the forecast; and roughly a one-  
5 sixth chance Power net revenue will be more than \$250 million below the forecast. Thus,  
6 following only the TPP standard described above, BPA financial reserves could be  
7 \$230 million (comprised solely of financial reserves attributed to Transmission Services),  
8 which Power Services could exhaust in a single rate period under a standard deviation  
9 calculation. \$230 million is equivalent to 34 days' cash on hand, which is close to the  
10 level Moody's has specifically warned against.

11 Given the size of the Power and Transmission businesses and the amount of  
12 financial uncertainty each business line and BPA face, there is the real possibility that  
13 BPA could operate on a negative cash basis before taking rate action to increase financial  
14 reserves. Low to negative financial reserves can result in long-term harm to the financial  
15 health of BPA, particularly with respect to BPA's credit rating. The TPP standard is  
16 simply not designed to address credit rating risks. This is one of the main reasons BPA is  
17 proposing to create an additional financial standard to meet financial objectives the TPP  
18 standard does not address.

19 *Q. Are there other factors rating agencies look at when evaluating BPA's credit?*

20 *A.* Yes. While rating agencies are interested in the current amount of financial reserves  
21 entities have relative to their financial risk and overall business size, they are also  
22 interested in the policies entities have in place that signal when rates will increase to  
23 replenish financial reserves. These policies signal to the rating agencies at what point the  
24 business is willing to increase rates to support financial health, in this case to support  
25 financial reserves levels. Moody's assigns 10 percent of the overall credit rating to the  
26 number of days' cash on hand an entity has. However, Moody's also assigns 25 percent

1 of the overall rating to its assessment of the entity's management's willingness to recover  
2 costs to support sound financial metrics. BPA's current TPP standard does not require  
3 BPA to begin to replenish financial reserves until they decline to roughly 34 days' cash  
4 on hand. The current TPP standard without any additional policy guidance supporting  
5 BPA's credit rating signals to rating agencies that BPA will take action to replenish  
6 financial reserves only when they are at a level that rating agencies have warned will  
7 result in a credit rating downgrade.

8 *Q. What would be the effect of a downgrade of BPA's credit rating?*

9 A. A credit rating downgrade would increase BPA's borrowing costs on newly issued non-  
10 Federal debt by roughly 50 basis points or 0.5 percent on average. BPA plans to issue  
11 roughly \$3.9 billion in non-Federal debt for Power Services over the next 10 years and  
12 \$5.4 billion for Transmission Services. A 50 basis point interest rate increase could  
13 increase revenue requirement costs by as much as \$55 million per year, comprised of  
14 \$33 million attributed to Transmission Services and \$22 million to Power Services.

15 *Q. How is BPA's lease purchase program affected by BPA's credit rating?*

16 A. BPA's third-party lease purchase program relies on BPA's strong credit rating to have  
17 access to short-term lines of credit to fund construction. Because of the nature of the  
18 financing structure, banks use their own funds to lend to BPA during construction. After  
19 construction is complete, BPA goes to market to issue long-term bonds to pay off the line  
20 of credit with the banks. BPA's strong AA credit rating is one of the primary reasons  
21 banks will lend their own funds to BPA to fund construction. If BPA's credit was  
22 downgraded, at a minimum the interest rate banks charge BPA would increase  
23 dramatically (approximately 100 basis points), and banks could even decline to lend  
24 altogether. A 100 basis point increase on the cost of projected future lease purchase lines  
25 of credit over the next 10 years has an estimated present value impact of \$175 million.  
26

1 Q. *Why should BPA act to protect its credit rating now, instead of waiting to act until it has*  
2 *received a downgrade from one of the rating agencies?*

3 A. A downgrade by a rating agency is usually triggered when an entity is experiencing a  
4 challenge to its business that alters the rating agency's original assessment of the entity's  
5 ability to repay bondholders. This means that even short-term negative changes in a  
6 business's operations, finances, or industry can affect an entity's credit rating if the rating  
7 agencies believe the changes are significant. In contrast, rating agencies usually require a  
8 long period of positive performance before considering an upgrade to an entity's credit  
9 rating. The key point is this: a downgrade in BPA's credit rating can happen quickly, and  
10 it may take years of sustained positive performance to return BPA to the credit rating it  
11 had prior to the downgrade. Thus, it is in BPA's and its customers' best interests to act to  
12 protect its credit rating now instead of waiting.

13 Q. *Why is liquidity important?*

14 A. As stated previously in this testimony, financial reserves are BPA's and most other  
15 entities' primary source of liquidity. Liquidity ensures bills can be paid on time. The  
16 more financial reserves an entity has, the more liquidity it has, and thus the greater  
17 security an entity has to pay all its bills and the better able it is to withstand unexpected  
18 adverse circumstances.

19 Q. *You stated in section 2 that BPA has three primary sources of liquidity. Is any one*  
20 *preferred over the others?*

21 A. Yes. Financial reserves are BPA's primary and preferred source of liquidity because  
22 financial reserves do not have to be paid back. Borrowing under the Treasury Facility  
23 needs to be repaid within two years. Deferred portions of a Treasury payment become a  
24 payment obligation for the next fiscal year. Thus, those two forms of liquidity will  
25 produce rate pressure for future ratepayers directly and soon.

26

1 Financial reserves that have been used to meet financial obligations, because other  
2 cash disbursements have exceeded cash receipts, do not have to be repaid in the very near  
3 future. However, BPA will not be able to rely on those financial reserves to meet future  
4 liquidity needs until they have been replenished.

5 Use of the Treasury Facility is limited to the size agreed on with the Treasury and  
6 is also limited to the amount of remaining borrowing authority. Thus, financial reserves  
7 are preferred to the Treasury Facility. Both of these forms of liquidity are vastly  
8 preferred to Treasury payment deferrals. Deferral of any part of a scheduled Treasury  
9 payment would be viewed very negatively by nearly all of BPA's stakeholders. The  
10 95 percent TPP standard is really a requirement that BPA maintain sufficient financial  
11 reserves to have at least a 95 percent probability of not needing to make use of its ability  
12 to defer Treasury payments.

13 *Q. What other benefits do financial reserves offer?*

14 *A.* Financial reserves also provide rate stability for both business lines. Financial reserves  
15 are accumulated when financial performance is better than expected and are not obligated  
16 for a future specific purpose. They then provide liquidity when financial results are  
17 worse than expected, and unlike the Treasury Facility or deferring a U.S. Treasury  
18 payment, do not have to be replenished unless financial policies guide them to be  
19 replenished. Financial reserves may therefore allow BPA to forgo a rate increase that  
20 would otherwise have been necessary.

21 Cash and market-based special investments, two of the three components of  
22 financial reserves, earn interest income. The third, deferred borrowing, saves interest  
23 expense. Deferred borrowing temporarily allows BPA to avoid paying interest on  
24 borrowing from the Treasury. It also means forgoing interest earned on funds in the BPA  
25 account, although the interest rate for borrowing is always higher than the interest rate  
26 BPA can earn in the Bonneville Fund. BPA forecasts the amount of financial reserves

1 attributed to each business line over the rate period and the amount of interest income  
2 BPA will earn on those financial reserves over the rate period. BPA includes the forecast  
3 interest income as a credit to the revenue requirement. Thus, interest income reduces the  
4 overall revenue requirement. In the BP-18 Initial Proposal, BPA is forecasting  
5 \$7.7 million interest income for Power Services and \$9.9 million for Transmission  
6 services over the rate period. See Power Revenue Requirement Study Documentation,  
7 BP-18-E-BPA-02A, Table 3A and Transmission Revenue Requirement Study  
8 Documentation, BP-18-E-BPA-09A, Table 1-1.

9 *Q. Is it possible to hold too much financial reserves?*

10 A. Yes. The amount of financial reserves an entity should hold comes down to many factors  
11 that are often specific to each entity. For all entities however, there is a limit to how  
12 much financial reserves should be held before those financial reserves become inefficient  
13 from an investment standpoint and should be re-purposed for other high-value purposes.  
14 For BPA, key factors determining the amount of financial reserves to hold are credit  
15 rating support, liquidity, and rate stability. When it is determined financial reserves are  
16 higher than needed to support these three factors, financial reserves that are simply  
17 retained are no longer adding value and should be re-deployed to other high-value  
18 purposes.

19 *Q. Why is it important for BPA to develop a policy that also addresses what to do with high  
20 levels of financial reserves?*

21 A. As we noted above, the 95 percent TPP implementation does not include a methodology  
22 for calculating an upper limit on the amount of financial reserves BPA should hold before  
23 taking other actions with the funds. The Power DDC has served as such a limit, but it is  
24 not the product of a repeatable methodology, and Transmission rates have not included a  
25 DDC. This has led to uncertainty as to whether and when BPA should take actions to  
26 release financial reserves attributed to a business line for other purposes.

1 BPA has been reluctant to redeploy financial reserves because a release of funds  
2 for one business line would threaten the financial health and credit rating of the agency as  
3 a whole. BPA is assessed financially as a single entity, and rating agencies do not  
4 assume that financial reserves are available for the sole use of one business line. BPA's  
5 credit rating thus rises and falls on the prospects of both its business lines viewed as a  
6 single entity.

7 *Q. Are there other significant issues that the current policy framework does not address?*

8 A. Yes. The TPP framework does not provide a basis for assessing inter-business line  
9 equity issues. Without a coordinated policy on the level of financial reserves each  
10 business line, and thus the agency, should hold, BPA lacks comprehensive guidance on  
11 when to take action when financial reserves are high and when financial reserves are low.  
12 This can create equity concerns between the business lines as BPA holds a level of  
13 financial reserves for one business line that are not necessary to meet the TPP standard or  
14 operations of that business line but are needed to ensure that the BPA's credit rating is  
15 maintained. A financial reserve policy that contains clear targets with upper thresholds  
16 for both the business lines and the agency as a whole will provide needed policy guidance  
17 to BPA, its customers, and the rating agencies regarding when BPA may take actions to  
18 release financial reserves for other high-priority purposes without threatening BPA's  
19 credit rating.

20 In addition, the current financial paradigm has resulted in concerns over different  
21 business line treatment of rate case risk and financial reserves issues. While different  
22 treatment does not necessarily mean inequitable treatment, equity is more difficult to  
23 demonstrate under different treatment and can cause the perception of inequity whether  
24 there is actual inequity or not. Thus, this too can be a problematic result of the current  
25 financial paradigm.

1 **Section 5: Financial Reserves Policy Proposal**

2 **Section 5.1: Overview of the Financial Reserves Policy**

3 *Q. What is the Financial Reserves Policy?*

4 A. The proposed Financial Reserves Policy, Appendix A, is fully described in the Power and  
5 Transmission Risk Study, BP-18-E-BPA-05, Chapter 6. The proposed Policy provides a  
6 methodology to establish target financial reserves levels, lower and upper financial  
7 reserves thresholds, the actions taken when financial reserves are below or above the  
8 thresholds, and how to allocate the target and thresholds equitably between the two  
9 business lines.

10 *Q. Generally describe the Financial Reserves Policy proposal.*

11 A. The proposal establishes a method for determining the target level of financial reserves  
12 and upper and lower action thresholds for each business line and for the agency as a  
13 whole. The lower and upper thresholds are used to determine when certain rate  
14 mechanisms are enacted within a rate period to support the stated policy objectives. The  
15 Financial Reserves Policy main components are as follows:

- 16 • Financial reserves targets for each business line are calculated independently  
17 for each rate period based on the higher of what is necessary to meet the  
18 95 percent Treasury Payment Probability standard or 90 days' cash on hand  
19 (a common industry liquidity metric). *See* Appendix A, Policy §§ 3.1–3.2  
20 and 3.5.
- 21 • Lower financial reserves thresholds are calculated for Power and  
22 Transmission on a rate-period basis, based on 30 days' cash on hand below  
23 the financial reserves target. For each business line, if financial reserves fall  
24 below the lower threshold, a rate increase (a CRAC) will trigger to replenish  
25 reserves in the following fiscal year. *See* Appendix A, Policy §§ 3.3, 3.5.

- Upper financial reserves thresholds are calculated for Power and Transmission on a rate-period basis, based on 30 days' cash on hand above the financial reserves target. The agency upper threshold is the sum of the business line upper thresholds. If (1) reserves for a business line are above the upper threshold for that business line, and (2) BPA financial reserves are above the BPA upper threshold, a Reserves Distribution Clause (RDC) will trigger, and the above-threshold financial reserves will be considered for investment in other high-value purposes such as debt retirement, incremental capital investment, or rate reduction. *See* Appendix A, Policy §§ 3.4–3.5.
- The Policy includes a “phase-in” of the lower financial reserves threshold for Power Services. A description of the phase-in is provided in section 6.1 below.

Q. *How were the primary elements of the policy developed?*

A. BPA held three public workshops in the spring of 2016 to provide information to stakeholders and ask for their feedback. In the first workshop BPA discussed the background, context, and history of BPA’s financial reserves-related practices. In the second workshop, BPA discussed options for establishing target financial reserves levels and lower and upper financial reserves thresholds. In the final workshop, BPA proposed a draft policy and asked for stakeholder comment. BPA received 14 written comments and used those comments to inform the current Financial Reserves Policy proposal. Workshop materials may be viewed at <https://www.bpa.gov/Finance/FinancialPublicProcesses/Pages/Access-to-Capital.aspx>. Workshops and public discussions of the topic were held prior to the BP-16 rate case also.

1 Q. *Why is the Financial Reserves Policy being proposed in the BP-18 rate case?*  
2 A. BPA financial policies are generally not rate case issues. BPA Staff considered  
3 developing the Financial Reserves Policy outside of the rate case, but ultimately  
4 concluded that inclusion of this issue within the rate case would provide the timeliest  
5 opportunity for parties to express their views on the proposal.

6 Q. *What are the policy objectives?*

7 A. The Financial Reserves Policy has six general objectives:  
8 1. Maintain sufficient financial reserves levels to support BPA's credit rating.  
9 2. Ensure adequate liquidity throughout each rate period.  
10 3. Maintain equity between business lines.  
11 4. Establish prudent lower financial reserves thresholds and actions supporting  
12 objectives 1 and 2.  
13 5. Establish prudent upper financial reserves thresholds so that financial reserves are  
14 efficiently redeployed for other high-value purposes.  
15 6. Be compatible with BPA's existing 95 percent TPP standard.

16 Q. *Does the proposed Financial Reserves Policy meet these objectives?*

17 A. Yes. As we explain later in this testimony, we believe all of these objectives have been  
18 met through the Financial Reserves Policy. The proposal supports sound business  
19 principles by supporting BPA's strong credit rating and ensuring adequate liquidity and  
20 equity between business lines.

21 Q. *In general, how does the Financial Reserves Policy work with the implementation of*  
22 *BPA's TPP standard?*

23 A. The Financial Reserves Policy supplements the 95 percent TPP standard: it retains lower  
24 and upper reserves thresholds for Power Services; adopts those same lower and upper  
25 thresholds for Transmission Services; and links distributions of financial reserves to

1 business line financial reserves and agency financial reserves levels, ensuring all are  
2 robust.

3 For Power, implementing the 95 percent TPP standard established a lower  
4 reserves threshold (CRAC threshold), an upper reserves threshold (DDC threshold), and  
5 the actions BPA would take when financial reserves fall below the lower threshold or rise  
6 above the upper threshold during a rate period. Like the 95 percent TPP standard, the  
7 proposed Financial Reserves Policy establishes lower and upper reserves thresholds for  
8 Power and actions to take when reserves go below or above these thresholds. In addition,  
9 it establishes lower and upper reserves thresholds for Transmission and actions to take  
10 when financial reserves go below or above these thresholds during a rate period. The  
11 Financial Reserves Policy uses the same method for both Power and Transmission to  
12 establish the lower and upper thresholds.

13 *Q. Specifically, how will the Financial Reserves Policy supplement the 95 percent TPP*  
14 *standard?*

15 *A.* The Financial Reserves Policy supplements the 95 percent TPP standard in four primary  
16 ways:

- 17 1. In the Financial Reserves Policy, financial reserves targets are established for each  
18 business line based on the higher of what is necessary to meet the 95 percent TPP  
19 standard and 90 days' cash on hand. The TPP framework does not include the  
20 90 days' cash on hand criterion.
- 21 2. In the Financial Reserves Policy, the lower and upper financial reserves thresholds  
22 are established for both Power and Transmission based on the financial reserves  
23 equivalent of 30 days' cash on hand below the financial reserves target and 30 days'  
24 cash on hand above the financial reserves target. The TPP framework establishes a  
25 lower threshold only for Power, based on the higher of what is necessary to meet the  
26 95 percent TPP standard or \$0, and the upper threshold for Power only is a fixed

1 financial reserves figure of \$750 million. The lower and upper financial reserves  
2 thresholds are new to Transmission.

- 3 3. The Financial Reserves Policy states that both business line and agency financial  
4 reserves need to be above their respective upper thresholds before those reserves are  
5 considered for other high-value purposes. Under the TPP framework, Power reserves  
6 above \$750 million are distributed as rate relief through the DDC mechanism. There  
7 is no requirement for agency financial reserves to be above a particular level for this  
8 distribution, and there is no DDC mechanism for Transmission rates.
- 9 4. The Financial Reserves Policy establishes guidance for what to do with financial  
10 reserves when they meet two criteria: (1) business line financial reserves are above  
11 the upper threshold for a specific business line, and (2) agency financial reserves are  
12 above the agency upper threshold. The policy guidance is for the Administrator to  
13 consider using financial reserves above the upper thresholds for other high-value  
14 purposes such as debt retirement, additional capital investment, or rate reduction.  
15 The TPP framework includes a DDC rate mechanism only in Power rates, and  
16 financial reserves are to be repurposed only as a reduction in rates.

17  
18 **Section 5.2: Scope of Financial Reserves Policy**

19 *Q. What is the scope of the Financial Reserves Policy?*

20 A. The proposed Financial Reserves Policy establishes the financial reserves lower and  
21 upper thresholds for Power Services, Transmission Services, and the agency only at the  
22 end of each fiscal year prior to each year in a two-year BPA rate period. That is, the  
23 Policy establishes lower and upper financial reserves thresholds applicable to the end of  
24 the last year prior to the rate period and the end of the first year of the rate period. The  
25 Policy also provides guidance on the actions BPA should take when financial reserves

1 fall below established lower threshold levels or rise above the established upper threshold  
2 levels prior to the beginning of each year of the rate period.

3 *Q. What type of financial reserves will be measured under the Financial Reserves Policy?*

4 A. The proposed Policy affects financial reserves available for risk (financial reserves)  
5 attributed to Power and Transmission. The discussions of thresholds for triggering a  
6 CRAC or RDC are generally in terms of accumulated financial reserves; the reserves-  
7 based thresholds will be translated to Accumulated Calibrated Net Revenue. *See* Power  
8 and Transmission Risk Study, BP-18-E-BPA-05, § 6.6; *see also* Mandell *et al.*, BP-18-E-  
9 BPA-15, §2.

10 *Q. Will the Financial Reserves Policy be binding in future rate cases?*

11 A. Yes. The proposed Policy is intended to provide a consistent framework on which BPA  
12 can build its financial reserves. To that end, the Policy will constitute precedent that  
13 BPA will adhere to in future rate cases absent a determination by the Administrator that  
14 the Policy must be modified to meet BPA’s changing operating environment.

15 To achieve the intended benefit from the Policy, BPA must be committed to its  
16 implementation. Frequent revisions to the Policy would undermine the long-term  
17 financial objectives we are seeking to meet through this proposal.

18 Moreover, as we describe more fully in section 6.1 below, we are proposing to  
19 mitigate the impacts of the Policy with a phase-in feature designed specifically to limit  
20 the rate pressure that implementing the Policy could create in BP-18 and future rate  
21 cases. *See* Power and Transmission Risk Study, BP-18-E-BPA-05, § 6.8.

22  
23 **Section 5.3: Financial Reserves Targets**

24 *Q. Please describe the financial reserves target component of the Financial Reserves Policy.*

25 A. Financial reserves targets—for each individual business line and BPA as a whole—are  
26 the key feature of the Financial Reserves Policy. The financial reserves targets for each

1 business line are calculated independently for each rate period based on the higher of  
2 what is necessary to meet the 95 percent Treasury Payment Probability standard or  
3 90 days' cash-on-hand. *See* Appendix A, Policy §§ 3.1–3.5. Financial reserves targets  
4 set the target amount of financial reserves that each business line and the agency should  
5 hold in order to meet the stated policy objectives. From these targets, BPA can calculate  
6 upper and lower financial reserves thresholds to create a range of acceptable financial  
7 reserves levels within which financial reserves may fluctuate without triggering a rate  
8 action. *See* § 5.4 below; *see also* Appendix A, Policy §§ 3.3–3.5.

9 *Q. Please describe the days' cash on hand metric.*

10 A. The days' cash on hand metric measures the relationship between an entity's financial  
11 reserves and daily average operating expenses (*e.g.*, staffing and O&M costs). Daily  
12 average operating expenses are computed by taking annual operating expenses and  
13 dividing them by 365. This amount is then divided into the amount of financial reserves,  
14 thus computing the number of days of operating expenses that are contained within the  
15 amount of financial reserves. Days' cash on hand is a common industry measure of  
16 liquidity and is useful because it is a ratio that scales to businesses of different sizes,  
17 allowing businesses with any amount of annual operating expenses to be compared under  
18 the same metric.

19 *Q. How is days' cash on hand computed for Power Services, Transmission Services, and*  
20 *BPA as a whole?*

21 A. The specific calculations for Power Services, Transmission Services, and BPA as a whole  
22 are provided in section 3.5 of the Financial Reserves Policy. The days' cash on hand  
23 calculations are similar for Power and Transmission in that both calculations remove  
24 from expenses depreciation, amortization, and interest expenses. In the calculation of  
25 Power days' cash on hand we also remove Power Non-Federal Debt Service and Power  
26 Purchases.

1 Q. *Why are depreciation, amortization, and interest expense removed from the calculations?*

2 A. As noted earlier, the days' cash on hand metric is designed to measure the relationship  
3 between an entity's financial reserves and average daily operating expenses. Put  
4 differently, this metric compares an entity's available cash and its average daily need for  
5 cash to keep the business running. Depreciation and amortization are removed because  
6 they are non-cash expenses: they represent the utilization of assets, but there is no  
7 matching cash outlay. Interest expense is a component of financing cost that is a function  
8 of the method BPA chooses to finance investments in the Power and Transmission  
9 systems rather than a basic cost of operations.

10 Q. *Why are power purchases and non-Federal debt service removed from the Power  
11 calculation?*

12 A. Power purchases are removed because they are not a cost to operate the power system;  
13 they are a requirement for BPA to fulfill contractual and statutory obligations. Non-  
14 Federal debt service consists of principal and interest payments. Like Federal interest,  
15 these components are removed because they are a financing cost and not commonly  
16 considered a daily operating cost.

17 Q. *Does the Financial Reserves Policy ensure financial reserves will be at the financial  
18 reserves target?*

19 A. No. The financial reserves target simply establishes the midpoint for the acceptable  
20 range of financial reserves for each business line. The Policy framework will generally  
21 keep financial reserves between the upper and lower financial reserves thresholds. When  
22 financial reserves are within the upper and lower thresholds no action is taken. When  
23 they fall outside the range, however, action is taken to bring them back within the range.  
24 See § 5.4 below.

1 Q. *Why have you proposed a financial reserves target for each business line based on the*  
2 *higher of what is necessary to meet the 95 percent TPP standard and 90 days' cash on*  
3 *hand?*

4 A. As noted above, the financial targets in the Financial Reserves Policy are designed to  
5 supplement BPA's existing 95 percent TPP standard. We want BPA's financial reserves  
6 to meet two objectives (95 percent TPP and 90 days' cash on hand), and if financial  
7 reserves are below the amount needed to meet either one of the objectives, we will have  
8 failed. By setting the financial target as the "higher of" the 95 percent TPP standard or  
9 90 days' cash on hand, we can ensure that implementation of the Policy will never  
10 worsen BPA's financial position or increase the risk that BPA may miss a Treasury  
11 payment.

12 Q. *During the development of the policy, did you consider other methods for establishing*  
13 *business line financial reserves targets?*

14 A. Yes. In addition to establishing each business line's allocation based on its relative size as  
15 measured by operating expenses, we also considered two other allocation alternatives,  
16 one based on each business line's relative uncertainty (TPP-based) and another based on  
17 each business line's relative benefit.

18 With regard to the first considered alternative, we considered establishing  
19 financial reserves targets for Power and Transmission by using a modified version of the  
20 95 percent TPP methodology and removing any risk mitigation features except for  
21 financial reserves. That is, the start of rate period financial reserves would be adjusted to  
22 the point where the 95 percent TPP standard was met exactly. This point would be the  
23 financial reserves target.

24 With regard to the second considered alternative, we considered establishing  
25 financial reserves targets based upon their resulting benefits to each business line. The  
26 95 percent TPP standard ensures each business line has financial reserves and other tools

1 for liquidity over the rate period. Thus, any additional financial reserves would support  
2 additional financial objectives such as BPA's credit rating and longer term rate stability.  
3 Since Power and Transmission rely roughly equally on BPA's credit rating, we  
4 considered an approach for allocating financial reserves and upper and lower financial  
5 reserves thresholds based upon a roughly even split of financial reserves to match the  
6 roughly even split of credit rating benefit.

7 *Q. Why did you choose to reject these other methods for setting the financial targets?*

8 A. We decided not to adopt the above proposals, and instead relied on the 90 days' cash on  
9 hand metric, for two primary reasons. First, days' cash on hand is a metric that is easily  
10 calculated and is standard in the industry, while the TPP based calculation would be a  
11 calculation unique to BPA and unlikely to be understood or appreciated as readily by the  
12 rating agencies as a days' cash on hand metric. Second, splitting the financial reserves  
13 based on relative benefit is less consistent with cost causation principles.

#### 14 15 **Section 5.4: Financial Reserves Lower and Upper Thresholds**

16 *Q. Please describe the lower and upper financial reserves thresholds.*

17 A. The lower and upper thresholds are calculated in relation to the financial targets  
18 described in section 5.3 above. As noted, the target levels of financial reserves are  
19 calculated by taking the rate period average operating expenses as defined above divided  
20 by 365 and multiplied by 90 days. This gives the equivalent amount of financial reserves  
21 required to meet 90 days' cash on hand given the rate period average operating expenses.  
22 The lower threshold is calculated by taking the amount of the financial reserves target  
23 and subtracting from it the rate period average operating expenses as defined above,  
24 divided by 365 and multiplied by 30 days. The upper financial reserves threshold is  
25 calculated by taking the amount of the financial reserves target and adding to it the rate  
26 period average operating expenses as defined above, divided by 365 and multiplied by

1 30 days. Sections 3.3–3.5 of the Financial Reserves Policy provide the specific  
2 calculations.

3 *Q. The financial targets in the Financial Reserves Policy, section 3.2, are based on the*  
4 *higher of 90 days' cash on hand and the 95 percent TPP Standard. How will these two*  
5 *perspectives be reconciled?*

6 A. We will first calculate financial reserves targets, CRAC thresholds, and RDC thresholds  
7 using the days' cash perspective. We will then calculate TPP using those thresholds. If  
8 TPP is above 95 percent, those thresholds will be adopted. If TPP is below 95 percent,  
9 we will either add PNRR to the revenue requirement or increase the CRAC threshold  
10 until TPP reaches 95 percent. If the result of this recalculation is a higher CRAC  
11 threshold, then that threshold will be adopted.

12 *Q. Why does the Policy, sections 3.3 and 3.4, establish the lower and upper financial*  
13 *reserves thresholds based upon the financial reserves equivalent of 30 days' cash on*  
14 *hand below the financial reserves target and 30 days' cash on hand above the financial*  
15 *reserves target?*

16 A. The Policy attempts to balance competing objectives. At a general level, we wanted the  
17 Policy to establish prudent lower financial reserves thresholds to ensure adequate  
18 liquidity, support BPA's credit rating, and provide for longer term rate stability. At the  
19 same time, we wanted the Policy to establish an upper financial reserves threshold that  
20 allows distribution of financial reserves without jeopardizing liquidity, BPA's credit  
21 rating, or rate stability.

22 We believe both objectives are met by setting the thresholds based on 30 days'  
23 cash on hand above or below the 90 days' cash on hand financial reserves target. We  
24 have proposed this lower financial reserves threshold so the CRAC will begin to  
25 replenish financial reserves before they fall to the level at which rating agencies have  
26 warned us there would be a significant risk of a credit rating downgrade, which is

1 30 days' cash on hand. (The lower reserves threshold may be higher than 60 days' cash  
2 on hand if required to meet the 95 percent TPP standard.) BPA's CRAC mechanism can  
3 take more than a full year to recover financial reserves losses below the lower financial  
4 reserves threshold.

5 *Q. What will happen if financial reserves for either business line fall below the lower*  
6 *threshold?*

7 A. The Financial Reserves Policy, section 3.3, states that a rate increase will be triggered for  
8 the subsequent fiscal year to recover amounts that fall below the lower financial reserves  
9 threshold. Policy section 4, which addresses Implementation, provides for CRACs for  
10 both Power and Transmission rates that trigger if financial reserves are forecast to be  
11 below lower financial reserves thresholds. Additionally, we are proposing to phase in the  
12 implementation of the lower financial reserves threshold for Power over time. This  
13 phase-in will dictate how the lower financial reserves threshold is calculated for Power  
14 Services. See Appendix A, Policy § 4.2, and section 6.1, below.

15 *Q. Why do you propose to set the upper financial threshold at 30 days' cash on hand above*  
16 *the financial target?*

17 A. We propose an upper financial reserves threshold of 30 days' cash on hand above the  
18 financial reserves target so that financial reserves are not built up to unnecessarily high  
19 levels but are considered for higher value purposes such as high interest debt retirement,  
20 capital investment, or rate reduction. We believe the 120 days' cash on hand is a safe  
21 place to set the upper financial reserves threshold, as this would equate to roughly over  
22 four times the absolute minimum level of days' cash on hand required by Moody's.  
23 Using cash in excess of what would be needed to run BPA's business for 120 days would  
24 likely have a negligible effect on BPA's credit rating, and thus, this repurposing of  
25 financial reserves would provide more value to BPA and its stakeholders.

1 Q. *Why have you proposed the criterion that business line and agency reserves both need to*  
2 *be above their respective upper thresholds before they are considered for other high-*  
3 *value uses?*

4 A. We have proposed the two-part criterion so that BPA's financial reserves position is  
5 taken into consideration at the time of a financial reserves distribution for a particular  
6 business line. As we have discussed, BPA wants the Policy to ensure a high probability  
7 of being able to meet its financial obligations and support a strong credit rating. Because  
8 BPA is rated by credit rating agencies as a single entity, and the agency level of financial  
9 reserves is a factor in determining the rating, the agency financial reserves position  
10 should be robust before financial reserves are used for other purposes. BPA's  
11 methodology for ensuring its ability to meet its financial obligations is implemented  
12 separately by business line. Thus, a two-part test is needed, and financial reserves will  
13 not be distributed if doing that would threaten TPP or BPA's credit rating.

14 Q. *Why have you proposed giving the Administrator discretion, when the RDC is triggered,*  
15 *to decide how to use financial reserves above the upper threshold?*

16 A. BPA's business environment and business needs change over time. BPA's business lines  
17 have gone through periods of increased capital investment and periods of maintenance of  
18 the existing capital investment. We have proposed that the determination of which  
19 objectives will be furthered by the use of financial reserves, such as debt retirement,  
20 additional capital investment, or rate reduction, be made at the time that such  
21 distributions are determined to be prudent so that the business environment along with  
22 current needs can be assessed.

1 **Section 5.5: Financial Reserves Policy and BPA’s Policy Objectives**

2 *Q. Earlier you mentioned that the Financial Reserves Policy has six policy objectives.*  
3 *Please summarize how the Financial Reserves Policy meets these objectives.*

4 A. The first policy objective we mentioned is to “maintain sufficient financial reserves levels  
5 to support BPA’s credit rating.” The Financial Reserves Policy meets this objective by  
6 establishing that the Agency will set financial reserves target levels and take action to  
7 replenish financial reserves when financial reserves fall below 60 days’ cash on hand,  
8 which is 30 days’ cash on hand above a level of Agency reserves that rating agencies  
9 have warned will result in downward rating pressure. Moreover, as we explained earlier,  
10 many of the rating agencies consider an entity’s management’s willingness to recover  
11 costs to support sound financial metrics in determining a credit rating. The fact that BPA  
12 has a policy that directs BPA to take action when financial reserves drop below certain  
13 levels will be an additional factor in support of BPA’s favorable credit rating.

14 The second objective is to “ensure adequate liquidity throughout each rate  
15 period.” The Financial Reserves Policy meets this objective by establishing that  
16 financial reserves targets and lower thresholds are at minimum 90 days’ cash on hand and  
17 60 days’ cash on hand respectively, and possibly higher if required to meet the 95 percent  
18 TPP standard. Meeting the higher of the 95 percent TPP standard or the thresholds  
19 established by the Financial Reserves Policy will ensure that BPA maintains adequate  
20 liquidity both for TPP support and for credit rating support throughout each rate period.

21 The third objective is to “maintain equity between business lines.” The Financial  
22 Reserves Policy meets this objective by establishing a framework for setting target levels  
23 of financial reserves and lower and upper thresholds, using the same methodology for  
24 Power and Transmission. Using the same methodology for both business lines will allow  
25 BPA to measure how each business line’s operations are affecting BPA’s overall  
26 financial health. This evaluation will, in turn, enable BPA to equitably balance between

1 the business lines the actions BPA must take to support the agency’s financial health and  
2 credit rating.

3 The fourth objective is to “establish prudent lower financial reserves thresholds  
4 and actions supporting objectives 1 and 2.” The Financial Reserves Policy meets this  
5 objective by establishing lower financial reserves thresholds for each business line that  
6 are equivalent to 60 days’ cash on hand. The Policy further establishes that BPA will  
7 take action, specifically, will raise rates by means of the CRAC mechanism, to replenish  
8 financial reserves if they fall below the lower financial reserves threshold the following  
9 fiscal year.

10 The fifth objective is to “establish prudent upper financial reserves thresholds so  
11 that financial reserves are efficiently redeployed for other high-value purposes.” The  
12 Financial Reserves Policy meets this objective by establishing upper financial reserves  
13 thresholds for each business line that are 30 days’ cash on hand above the financial  
14 reserves target so that financial reserves that have accumulated above levels needed for  
15 TPP support or for the Policy may be repurposed. The Policy provides a non-exhaustive  
16 list of certain high-value purposes that will be considered.

17 Finally, the sixth objective is to “be compatible with BPA’s existing 95 percent  
18 TPP standard.” As we explained in detail in section 5.1, the Financial Reserves Policy  
19 supplements the current TPP standard in a several ways.

20  
21 **Section 6: Implementation**

22 **Section 6.1: Power Services Implementation and Phase-in**

23 *Q. Will the planned Power CRAC threshold (i.e., 90 days’ cash on hand target minus*  
24 *30 days’ cash on hand) be effective immediately?*

25 *A. No. To meet the lower threshold called for in the Financial Reserves Policy, we would*  
26 *have to set the Power CRAC thresholds to 60 days’ cash on hand, which would be*

1 \$309 million. Power financial reserves have declined sharply, as much lower-than-  
2 expected natural gas prices have reduced market prices for power and thus reduced  
3 Power's net secondary energy sales revenue. Setting the Power CRAC Threshold at  
4 \$309 million would be highly likely to cause very large Power rate increases for  
5 FY 2018, during a time when BPA is working diligently to keep rate increases as low as  
6 possible. Therefore, we propose that the planned Power CRAC threshold be phased in  
7 over 10 years, using two mechanisms: (1) the Good Year Ratchet and (2) the Incremental  
8 Rate Pressure Limiter (IRPL). *See Appendix A, Policy § 4.2.*

9 *Q. Let's begin with the second mechanism. Please describe the Incremental Rate Pressure*  
10 *Limiter.*

11 *A.* The IRPL limits the amount of incremental rate pressure that increasing the Power CRAC  
12 threshold can create in any given rate period. There are three kinds of possible "rate  
13 pressures" that IRPL calculations take into account. One is the Base Rate Change, or  
14 BRC, which is the percentage change in the average Non-Slice Tier 1 rate from the prior  
15 rate period, in this case BP-16 to BP-18. The second is the Status Quo CRAC, or  
16 CRAC\_SQ, which is the CRAC percentage change to the average Non-Slice Tier 1 rate  
17 that would have been calculated if the Power CRAC Threshold did not change from the  
18 prior CRAC Threshold. For this rate case, that value would be \$0 in Power reserves for  
19 risk because that was the BP-16 CRAC threshold. The third is the Incremental CRAC, or  
20 CRAC\_Inc, which is the difference between the Status Quo CRAC and the CRAC for the  
21 average Non-Slice Tier 1 rate calculated after increasing the Power CRAC Threshold.  
22 Incremental rate pressure and Incremental CRAC is the same thing.

23 *Q. What is the purpose for implementing the Incremental Rate Pressure Limiter?*

24 *A.* BPA's goal is to increase the Power CRAC Threshold up to the long-term goal as fast as  
25 possible without creating excessive rate pressure. Implementing the IRPL is a way to  
26 keep the increases in the Power CRAC Threshold from causing too much rate pressure.

1 Q. *How will the IRPL work?*

2 A. It depends on whether the Base Rate Change plus the Status Quo CRAC exceed the  
3 IRPL:

4 If  $BRC + CRAC\_SQ \geq IRPL$ ,

5 Then the IRPL prohibits any increase in the Power CRAC Threshold that  
6 would result in any CRAC\_Inc

7 If  $BRC + CRAC\_SQ < IRPL$ ,

8 Then the IRPL prohibits any increase in the Power CRAC Threshold that  
9 would result in  $CRAC\_Inc > IRPL - BRC - CRAC\_SQ$

10 Q. *What is the value of the IRPL?*

11 A. We propose to set the IRPL at 3.0 percent until Power has achieved the long-term lower  
12 financial reserves threshold of 30 days' cash on hand below the reserves target of  
13 90 days' cash on hand.

14 Q. *Does this mean that the Base Rate Change plus the Status Quo CRAC must be less than  
15 or equal to 3.0 percent, that is,  $(BRC + CRAC\_SQ \leq 3.0\%)$ ?*

16 A. No, the IRPL does not limit the Base Rate Change or the Status Quo CRAC. Either one  
17 of those figures, or their sum, could be greater than 3 percent. If the sum of the Base  
18 Rate Change and the Status Quo CRAC is 3.0 percent or higher, then the Incremental  
19 CRAC must be 0.0 percent. That is, the Power CRAC Threshold cannot be increased at  
20 all if that would cause any increase in the Power CRAC percentage.

21 Q. *Would an increase in the Power CRAC Threshold always cause an increase in the Power  
22 CRAC percentage?*

23 A. Not necessarily. If Power financial reserves are forecast to be above the Status Quo  
24 CRAC Threshold by, say, \$10 million, the Status Quo CRAC would be 0 percent, and  
25 there would be some room (\$10 million) to increase the Power CRAC Threshold without  
26 triggering the Power CRAC or creating any Incremental CRAC percentage.

1 Q. *Does the IRPL create incentives for BPA to manage its own costs?*

2 A. Yes. If BPA's costs are high, the base rate increase will likely swallow up the 3 percent  
3 Incremental Rate Pressure Limiter. BPA has an incentive to cut costs if it wants to have  
4 room under the 3 percent cap and make use of the Incremental CRAC limiter to increase  
5 the Power CRAC Threshold.

6 Q. *Given the limit on the Incremental CRAC imposed by the IRPL formula, is it likely that*  
7 *the Power CRAC Threshold will be raised to the 60 days' cash level you are aiming for*  
8 *within 10 years?*

9 A. The IRPL formula does create a fairly strict limit on how fast the Power CRAC  
10 Threshold can be increased when such increases would cause incremental rate pressure.  
11 To make it more likely that the long-term goal of CRAC Thresholds equal to 60 days'  
12 cash can be implemented within the next 10 years, we are also proposing another feature  
13 called the "Good Year Ratchet."

14 Q. *Please describe the "Good Year Ratchet."*

15 A. If Power Services has a good year financially, in which financial reserves increase, this  
16 feature takes advantage of that good luck by ratcheting up the Power CRAC Threshold  
17 without creating any incremental rate pressure in the first year of a rate period. For  
18 example, if FY 2017 is a good year financially for Power Services, and ending 2017  
19 Power reserves are forecast to be above the status quo CRAC threshold of \$0 set for the  
20 BP-16 rates, then the Power CRAC Threshold will be set to the forecast of ending  
21 FY 2017 financial reserves (or higher if there is room under the IRPL for incremental  
22 CRAC rate pressure). This will be done at the same time the Power CRAC applicable to  
23 rates for FY 2018 is calculated, so the result will be that there is no CRAC and no  
24 incremental rate pressure in the first year of the rate period, and the Power CRAC  
25 Threshold rises.

26

1 Q. *What would happen if the forecast of ending financial reserves is below the status quo*  
2 *CRAC threshold—would the threshold be decreased?*

3 A. No. It is a ratchet, allowing for threshold increases but not threshold decreases. The  
4 IRPL and the Good Year Ratchet are both aimed at raising the Power CRAC Threshold  
5 to the long-term goal of 60 days' cash on hand (presently about \$300 million) while  
6 limiting incremental rate pressure. Allowing the threshold to decrease would thwart the  
7 objective of reaching the long-term threshold goal.

8 Q. *If Power financial reserves increase during the first year of a rate period, e.g., FY 2018,*  
9 *can the threshold for the CRAC applicable to FY 2019 increase?*

10 A. Not under our proposal. The ratchet can take effect only just prior to the beginning of a  
11 rate period, when it can increase the Power CRAC Threshold that will apply to both years  
12 of the coming rate period. Good luck in the first year of a rate period cannot lead to an  
13 increase in the Power CRAC Threshold for the second year. Thus, the threshold for  
14 FY 2019 would remain at the level set for both FY 2018 and FY 2019 when the CRAC  
15 calculations are made in July 2017.

16 Q. *Please provide an example of how the Good Year Ratchet and the IRPL will work in*  
17 *rates.*

18 A. We have attached to our testimony, as Appendix B, a chart and graph that demonstrate a  
19 hypothetical example of how the phase-in may work over a ten-year period.

20 Q. *Did you consider any other methods for phasing in the implementation of the Power*  
21 *CRAC Threshold?*

22 A. Yes. We considered a plan to increase Power financial reserves by \$30 million per year  
23 by adding that amount of Planned Net Revenue for Risk to the revenue requirement and  
24 making corresponding \$30 million increases in the CRAC threshold each year. We  
25 decided against this proposal because it would likely create too much rate pressure in the  
26 first year of implementation of the Financial Reserves Policy. We also wanted the phase-

1 in to be more dynamic and responsive to the rate pressure BPA experiences in each rate  
2 case. A fixed \$30 million increase each year for 10 years would not provide the needed  
3 interplay with the facts and circumstances of each rate case.

4 *Q. Does this implementation ensure that the target CRAC threshold is achieved within*  
5 *10 years?*

6 A. No, but we think it is reasonably likely that the combination of raising the Power CRAC  
7 Threshold when incremental rate pressure is allowable under the IRPL and taking  
8 advantage of good financial luck to raise the Power CRAC Threshold without  
9 incremental rate pressure will result in increasing the Power CRAC Threshold to the goal  
10 of 60 days' cash within the next 10 years.

11  
12 **Section 6.2: Transmission Services Implementation**

13 *Q. Which parts of the Financial Reserves Policy will BPA implement for Transmission*  
14 *Services during the BP-18 rate period?*

15 A. BPA will implement the financial reserves target, lower financial reserves threshold, and  
16 upper financial reserves threshold.

17 *Q. Will Transmission Services need to phase in implementation of the lower threshold?*

18 A. No. The Transmission Services financial reserves level was \$444 million at the end of  
19 FY 2016, which is over \$300 million above Transmission's lower financial reserves  
20 threshold. Therefore, unlike Power Services, no phase-in is necessary to make up the  
21 difference between the amount of financial reserves that the business line currently has  
22 and the target lower financial reserves threshold.

23 *Q. Does this conclude your testimony?*

24 A. Yes.

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**APPENDIX A**  
**FINANCIAL RESERVES POLICY**

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## **1. BACKGROUND AND PURPOSE**

The Financial Reserves Policy (Policy) provides a consistent, transparent, and financially prudent method for determining BPA's target levels of financial reserves available for risk (financial reserves). The Policy establishes upper and lower financial reserves thresholds for Power Services, Transmission Services, and the Agency as a whole. The Policy also describes the actions BPA may take when financial reserves levels either fall below a lower threshold or exceed an upper threshold. The Policy supports BPA's requirement to establish the lowest possible rates consistent with sound business principles.

Prior to the Policy, BPA did not have a consistent way to establish financial reserves targets and upper and lower financial reserves thresholds for each business line and BPA. This is of particular importance because financial reserves levels and financial reserves policies and practices have a direct effect on BPA's credit rating, which is determined at the aggregate BPA level. BPA, however, sets rates to recover costs for each business line individually. The lack of a consistent policy across the business lines and for BPA as a whole allows for *ad hoc* financial reserves decisions and different treatment for each business line.

Establishing prudent financial reserves lower thresholds over time for the business lines helps to maintain BPA's credit rating, solvency, and rate stability, which is consistent with sound business principles. Establishing prudent financial reserves upper thresholds for the business lines and BPA as a whole ensures that financial reserves do not grow to unnecessarily high levels but rather are invested back into the business or distributed as rate reductions, both of which lower revenue requirement costs.

## **2. SCOPE OF THE FINANCIAL RESERVES POLICY**

The Policy affects financial reserves available for risk (financial reserves) attributed to Power Services (Power) and Transmission Services (Transmission).

The Policy establishes lower and upper financial reserves thresholds for Power Services and Transmission Services, and upper financial reserves thresholds for the Agency at the ends of fiscal years. The Policy also provides guidance on the actions BPA should take when financial reserves fall below established lower threshold levels or rise above established upper threshold levels at the ends of fiscal years.

The Policy does not preclude or hinder in any way the Administrator's authority to use financial reserves for purposes deemed necessary by the Administrator.

The Policy is intended to provide a consistent framework within which BPA can manage its financial reserves. To that end, the Policy will constitute precedent that BPA will adhere to in future rate cases absent a determination by the Administrator that the Policy must be modified to meet BPA's changing operating environment.

### **3. FINANCIAL RESERVES TARGETS AND THRESHOLDS**

#### **3.1 Definitions**

**Financial reserves available for risk.** Financial reserves available for risk (financial reserves) consist of cash, market-based special investments, and deferred borrowing, all of which are highly liquid and unobligated for BPA to use to mitigate financial risk.

**Days' Cash on Hand Metric.** Days' cash-on-hand is a measure of the number of days a business can continue to operate using its own cash on hand with no new revenue. Days' cash-on-hand is a common industry liquidity metric that captures the relationship between the amount of cash and the amount of average daily expenses required to operate a business.

#### **3.2 Business Line Financial Targets**

Financial reserves targets for each business line shall be calculated independently on a rate-period basis based on the higher of (1) what is necessary to meet the Treasury Payment Probability Standard specified in BPA's Financial Plan or (2) 90 days' cash on hand.

#### **3.3 Lower Financial Reserves Thresholds**

Lower financial reserves thresholds shall be calculated independently for Power and Transmission on a rate period basis based on the financial reserves equivalent of 30 days' cash on hand below the financial reserves target. For each business line, if financial reserves fall below the lower threshold, a rate increase shall trigger to begin recovering the shortfall in the following fiscal year.

#### **3.4 Upper Financial Reserves Thresholds**

Upper financial reserves thresholds shall be calculated independently for Power and Transmission on a rate period basis, based on the financial reserves equivalent of 30 days' cash on hand above the financial reserves target. The Agency upper threshold is the sum of the business line upper thresholds. If business line financial reserves and Agency financial reserves are above their respective upper thresholds, the Administrator shall consider the above-threshold financial reserves for investment in other high-value business line specific purposes including, but not limited to, debt retirement, incremental capital investment, or rate reduction.

### 3.5 Calculation of Financial Reserves Targets, Lower and Upper Reserves Thresholds

<b>3.5.1 - Power Services</b>		
Power target financial reserves	=	90 days * (Power Operating Expenses / 365 days)
Power lower financial reserves threshold	=	Power target financial reserves less 30 days * (Power Operating Expenses / 365 days)
Power upper financial reserves threshold	=	Power target financial reserves plus 30 days * (Power Operating Expenses / 365 days)
<i>Where:</i>		
Power Operating Expenses	=	Power Total Expenses – (Power Depreciation and Amortization + Power Net Interest Expense + Power Non-Federal Debt Service + Power Purchases)

<b>3.5.2 - Transmission Services</b>		
Transmission target financial reserves	=	90 days * (Transmission Operating Expenses / 365 days)
Transmission lower financial reserves threshold	=	Transmission target financial reserves less 30 days * (Transmission Operating Expenses / 365 days)
Transmission upper financial reserves threshold	=	Transmission target financial reserves plus 30 days * (Transmission Operating Expenses / 365 days)
<i>Where:</i>		
Transmission Operating Expenses	=	Transmission Total Expenses – (Transmission Depreciation & Amortization + Transmission Interest Expense)

<b>3.5.3 - Agency</b>		
Agency upper financial reserves threshold	=	Power upper financial reserves threshold plus Transmission upper financial reserves threshold

## **4. IMPLEMENTATION**

### **4.1 Overview**

The Policy will be implemented on a rate period basis through the Power and Transmission rate schedules. The financial reserves targets and lower and upper financial reserves thresholds for each business line will be re-calculated each time BPA establishes new Power and Transmission rates. Financial reserves targets and lower and upper financial reserves thresholds will remain constant throughout each rate period. The financial reserves targets and lower and upper financial reserves thresholds will be computed using forecast rate period average operating expenses from the Power and Transmission revised revenue tests. Thresholds calculated as above will be reconciled with BPA's TPP Standard by using them in calculations of TPP for both Power and Transmission. If TPP for a business line fails to meet the TPP Standard, the lower and upper thresholds for that business line will be increased by the same amounts until the TPP standard is met.

Implementation shall include development of parallel Cost Recovery Adjustment Clause (CRAC) mechanisms for each business line each rate period that will trigger if financial reserves are forecast to be below lower financial reserves thresholds. Implementation shall also include development of parallel Reserves Distribution Clause (RDC) mechanisms for each business line each rate period that will trigger if financial reserves are forecast to be above upper financial reserves thresholds.

### **4.2 Financial Reserves Policy Phase-in Provision for the Power CRAC Threshold**

The Power CRAC is the rate mechanism BPA will use to increase financial reserves when they are below the lower financial reserves threshold. The Power lower financial reserves threshold determines the point at which the CRAC triggers and thus the Power lower financial reserves threshold is also referred to, and is the same as, the Power CRAC Threshold.

To mitigate the risk of very large Power rate increases if the lower financial reserves threshold were to be implemented in one rate period, the Power CRAC Threshold will be phased in over approximately 10 years, using two mechanisms:

- (1) the Good Year Ratchet
- (2) the Incremental Rate Pressure Limiter (IRPL)

Any increase in the Power CRAC Threshold as a result of the IRPL is additive to any increase in the Power CRAC Threshold as a result of the Good Year Ratchet.

#### **4.2.1 Good Year Ratchet**

In the last year of a rate period, at the time BPA is calculating whether the Power CRAC will

trigger for the subsequent fiscal year, if the forecast end-of-year Power reserves are above the status quo CRAC threshold, *i.e.*, the Power CRAC Threshold currently in effect, the threshold for the Power CRAC applicable to the subsequent rate period can be increased to the forecast end-of-year financial reserves level. Increasing the lower threshold in this manner does not create rate pressure for the subsequent fiscal year because the Power CRAC calculations for the subsequent year would show that financial reserves are exactly at the Power CRAC Threshold, and the CRAC would not trigger. This is referred to as the Good Year Ratchet.

#### **4.2.2 Incremental Rate Pressure Limiter (IRPL)**

The IRPL limits the amount of incremental rate pressure that increasing the Power CRAC Threshold can create in the first year of each rate period. The IRPL is set at 3.0 percent until Power has achieved the long-term lower financial reserves threshold of 30 days' cash below the financial reserves target of 90 days' cash.

There are three kinds of possible rate pressures that IRPL calculations take into account.

- One is the Base Rate Change, or BRC, which is the percentage change in the average Non-Slice Tier 1 rate from the prior rate period.
- The second is the Status Quo CRAC, or CRAC\_SQ, which is the CRAC percentage change to the average Non-Slice Tier 1 rate that would be calculated if the Power CRAC Threshold is unchanged from the prior rate period CRAC Threshold.
- The third is the Incremental CRAC, or CRAC\_Inc, which is the difference between the Status Quo CRAC and the CRAC for the average Non-Slice Tier 1 rate calculated after increasing the Power CRAC Threshold. Incremental rate pressure and Incremental CRAC are the same thing.

The IRPL limits rate pressure according to the following conditions:

- If  $BRC + CRAC\_SQ \geq IRPL$ , the IRPL prohibits any increases in the Power CRAC threshold that would result in any Incremental CRAC.
- If  $BRC + CRAC\_SQ < IRPL$ , the IRPL prohibits any increases in the Power CRAC Threshold that would result in  $CRAC\_Inc > IRPL - BRC - CRAC\_SQ$ .

#### **4.2.3 Modification of the Power CRAC Threshold by the IRPL and the Good Year Ratchet**

Near the end of each rate period, BPA will recalculate the Power CRAC Threshold for the subsequent rate period when calculating whether the Power CRAC will trigger.

- If the BRC plus the CRAC\_SQ is equal to or greater than the IRPL, the Power CRAC Threshold will be set to the highest whole million dollar level of financial reserves not exceeding 60 days' cash for Power Services at which  $CRAC\_Inc = 0\%$ .
- If the BRC plus the CRAC\_SQ is less than the IRPL, the Power CRAC Threshold will be set to the highest whole million dollar level of financial reserves not exceeding 60 days' cash for Power Services at which  $CRAC\_Inc \leq IRPL - BRC - CRAC\_SQ$ .

The recalculation of the Power CRAC Threshold cannot cause a decrease in the Power CRAC Threshold.

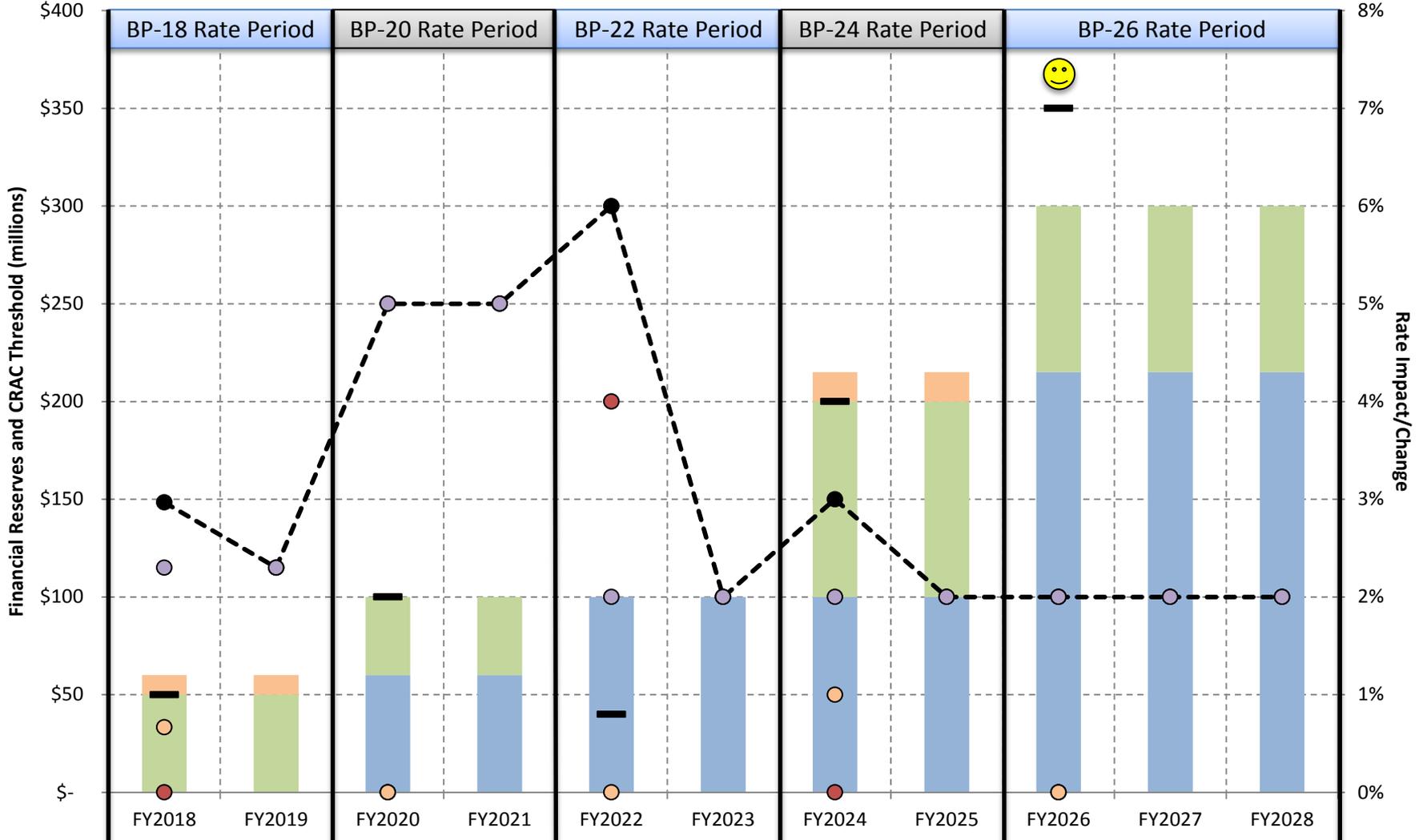
**APPENDIX B**  
**HYPOTHETICAL PHASE-IN EXAMPLES**

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# Hypothetical Financial Reserve Policy Phase-in Example

- Financial Reserves Policy Incremental CRAC Threshold
- Good Year CRAC Threshold Ratchet
- Status Quo CRAC Threshold
- SOY Power Financial Reserves

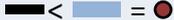
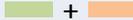
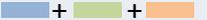
- Overall Tier 1 Non-Slice Rate Impact --●--
- Financial Reserves Policy Incremental Rate Impact ○
- Status Quo CRAC Rate Impact ●
- Base Rate Change ○



\*Assumes BPA Net Revenues are equal to or greater than expectation for 2<sup>nd</sup> and 3<sup>rd</sup> years of a rate period.

BP-18-E-BPA-17

# Hypothetical Phase-in Examples

Rate Period		BP-18	BP-20	BP-22	BP-24	BP-26
				 	 <b>Building Reserves</b> Incremental Rate Increase + Good Year Ratchet	  <b>Phase-in Complete</b>
1st Year Impacts (millions\$) \$15 = 1%		<b>Initial Proposal'ish</b> Incremental Rate Increase + Good Year Ratchet	<b>Good Year Ratchet Only</b>	<b>No Policy Impact</b> Status Quo CRAC triggered and rate impact ≥ 3%		
1 Status Quo CRAC Threshold		\$0	\$60	\$100	\$100	\$215
2 SOY Financial Reserves		\$50	\$100	\$40	\$200	\$350
3 Base Rate Change		2.3%	5.0%	2.0%	2.0%	2.0%
4 Status Quo CRAC Rate Impact		0.0%	0.0%	4.0%	0.0%	0.0%
5 Base Rate Change + Status Quo CRAC Rate Impact		2.3%	5.0%	6.0%	2.0%	2.0%
6 FRC Incremental Rate Impact		0.7%	0.0%	0.0%	1.0%	0.0%
7 Overall Tier 1 Non-Slice Rate Impact		3.0%	5.0%	6.0%	3.0%	2.0%
8 Good Year CRAC Threshold Ratchet		\$50	\$40	\$0	\$100	\$85
9 FRP Incremental Rate CRAC Threshold		\$10	\$0	\$0	\$15	\$0
10 New CRAC Threshold		\$60	\$100	\$100	\$215	\$300



