UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
BEFORE THE
BONNEVILLE POWER ADMINISTRATION

Fiscal Years 2018-2019 Proposed	**)**	**BPA Docket No. BP-18**
Power and Transmission Rate	**)**	
Adjustment Proceeding	**)**	

DIRECT TESTIMONY OF:
Public Power Council
Northwest Requirements Utilities
Pacific Northwest Generating Cooperative
Idaho Falls Power
Snohomish County Public Utility District No. 1
Eugene Water & Electric Board
Cowlitz County Public Utility District No. 1

as

JOINT PARTY 5

SUBJECT:
Financial Reserves Policy

WITNESSES:
Michael Deen
Megan Stratman
Scott Russell
Greg Mendonca
Kevin O'Meara
Christopher Weber

January 31, 2017

TABLE OF CONTENTS

SECTION 1: INTRODUCTION AND PURPOSE

Q: Please state your name and qualifications.

A: My name is Michael Deen. My qualifications are shown at BP-18-Q-PP-03.

A: My name is Megan Stratman. My qualifications are shown at BP-18-Q-NR-01.

A: My name is Scott Russell. My qualifications are shown at BP-18-Q-PN-02.

A: My name is Greg Mendonca. My qualifications are shown at BP-18-Q-PN-01.

A: My name is Kevin O'Meara. My qualifications are shown at BP-18-Q-PP-01.

A: My name is Chris Weber. My qualifications are shown at BP-18-Q-PP-04.

Q: What is the purpose of your testimony?

A: The purpose of our testimony is to respond to BPA's efforts to adopt a policy to provide comprehensive guidance in the management of BPA's financial reserves. We explain that because we are invested in the agency's long-term health and viability, we can support BPA adopting a financial reserves policy but only if it is transparent, minimizes rate instability, is equitable between Power Services and Transmission Services, and has a strong business case with benefits that exceed costs. We explain why BPA staff's financial reserves policy proposal fails to meet these goals, would result in unwarranted rate pressure on BPA customers, and would undermine BPA's goal of being cost-competitive and the future power supplier of choice for preference customers. Finally, we propose an alternative policy that addresses the concerns of BPA staff but avoids the intolerable consequences likely to result from BPA staff's proposal.

Q: What is your interest in BPA's policies regarding the level and use of financial reserves?

A: We represent a broad and diverse coalition of public and cooperative preference customers that purchase both wholesale power and transmission services from BPA. As such, we have a direct and material interest in the cost and terms of BPA's power and transmission products, which we rely upon to provide our consumers reliable and economic electricity service. Taken together our organizations and utilities comprise 94.6 percent of BPA's Tier 1 power load.

SECTION 2: POLICY CONTEXT

Q: Please describe the context in which you are evaluating potential financial reserves policies.

A: First and foremost, we are dedicated to the effort to achieve cost-competitiveness for BPA in both the short and the long term. The expiration of power sales contracts with BPA's preference customers in 2028 has rightly caused the agency to assess its long-term competiveness, given the low market prices for electricity and the unsustainable trajectory of BPA's rates. This dynamic has caused BPA's power customers to wonder about BPA's ability to be their provider of choice upon expiration of the current contracts.

Therefore, both the Administrator and the customers recognize that BPA is at a critical juncture to demonstrate its commitment to control the trajectory of its costs and rates. The fundamental financial strength of BPA is its relationship and its contracts with the preference power customers, and nothing is more important to the long-term solvency and health of the agency than remaining the power provider of choice for those customers.

To that end, BPA and its preference customers must work collaboratively to achieve delivery of cost-effective products and services. The preference customers succeed when BPA succeeds and vice versa. BPA should not adopt any policy that is detrimental to its commitment to control costs and offer stable, competitive rates. To do so would undermine crucial competitiveness efforts and damage the business relationships that are the key to the agency's long-term health.

SECTION 3: NEED FOR A FINANCIAL RESERVES POLICY

Q: Why are BPA staff proposing a financial reserves policy in this rate case?

A: Currently, BPA does not have a consistent definition of acceptable financial reserve levels for each business line and for the agency as a whole. This is of particular importance to BPA staff because financial reserves levels and financial reserves policies "have a direct effect on BPA's credit rating, which is determined at the aggregate BPA level."[1] Staff assert that 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."[2] Staff state that establishment of a financial reserves policy will help to maintain BPA's credit rating, solvency and rate stability.[3]

Q: How do you respond to BPA staff's rationale for adopting a financial reserves policy in this rate case?

A: We could support adoption of a consistent and prudent policy to manage financial reserves at the business line and agency level. Because rating agencies evaluate BPA's creditworthiness at the agency level, management and use of reserves within one business line inherently affects the other. Further, we agree that maintaining BPA's liquidity, rate stability, and credit rating is important. Regrettably, BPA staff's proposal fails to meet this need in a cost-effective manner.

---

[1] Harris *et al.*, BP-18-E-BPA-17, Appendix A, at A-1.
[2] *Id*.
[3] *Id*.

Q: How does BPA staff's proposal affect maintenance of BPA's liquidity, rate stability, and credit rating?

A: Staff's proposal is neutral to BPA's maintenance of liquidity, undermines rate stability, and is focused mostly on addressing credit rating support. Starting with liquidity, we address each of these in turn.

Q: How does BPA staff's proposal address liquidity?

A: To address BPA's liquidity needs, BPA staff's proposal incorporates BPA's existing practice of meeting or exceeding the 95 percent Treasury Payment Probability (TPP) standard.

Q: Briefly explain what the TPP standard is.

A: The TPP standard requires that rates are set such that there is at least a 95 percent probability that the U.S. Treasury payments in a two-year rate period will be made on time and in full.[4] Because obligations to the Treasury are subordinate to other obligations, the 95 percent TPP standard ensures an extremely high likelihood for payments to third parties.

Q: Why do BPA staff believe that a financial reserves policy is needed in addition to the existing TPP standard?

A: BPA staff state that while the TPP standard ensures a high probability of BPA having enough financial reserves to pay its financial obligations, it does not establish a target amount of financial reserves for either business line or the agency.[5] In addition, BPA staff express concerns about pieces of credit agencies' reports. For example, BPA staff

---

[4] Harris *et al.*, BP-18-E-BPA-17, at 6, lines 15-20.
[5] *Id.* at 11, lines 1-11.

cite a Fitch report that notes that the "maintenance of strong reserves is essential" to BPA's credit rating.[6]

Q: *How do BPA staff incorporate the TPP standard into their Financial Reserves Policy proposal?*

A: Staff incorporate the TPP standard, BPA's existing primary risk mitigation mechanism, by setting a financial target based on the higher of 90 days' cash on hand or what is necessary to meet the 95 percent TPP standard.[7]

Q: *Please clarify the interaction between the TPP standard and ensuring BPA's liquidity needs are met.*

A: BPA staff state that it is the TPP standard that addresses BPA's need for sufficient liquidity. According to staff, BPA's 95 percent TPP standard assesses "the amount of liquidity necessary to ensure short term solvency."[8] They clarify that it is the TPP standard, and not the days' cash on hand metric, that addresses hydrological conditions, market price volatility and contractual uncertainty.[9] In short, regardless of whether staff's proposal is adopted, BPA's liquidity needs will continue to be assessed and met entirely through its existing practices.

If in the future there is a concern that BPA may have a liquidity issue within a rate period, then that issue should be both modeled and addressed directly and not through generalized reserves targets that do not address BPA's particular financial situation and tools.

Q: *How do BPA staff assert that their proposal addresses rate stability?*

---

[6] Harris *et al.*, BP-18-E-BPA-17, at 14, lines 20-24.
[7] *Id.* at Appendix A, at A-2.
[8] Response to Data Request PP-BPA-26-16.
[9] Response to Data Request NR-BPA-26-19.

A: According to BPA staff, financial reserves that accumulate when financial performance is better than expected and are not obligated for a future specific purpose may allow BPA to forgo a rate increase that would otherwise have been necessary.[10] They also state that rates receive the benefit of interest income from holding financial reserves in interest-bearing investments, and saves interest expense by deferring borrowing. In the BP-18 Initial Proposal, BPA is forecasting $7.7 million interest income for Power Services and $9.9 million for Transmission Services over the rate period.[11]

Q: How do you respond to this assertion?

A: BPA staff's statements are factually correct. However, under staff's proposal, the likelihood of financial reserves being used to forgo a rate increase for Power Services would actually decrease compared to status quo. Under staff's proposal, financial reserves that accumulate when financial performance is better than expected will be used to increase the Cost Recovery Adjustment Clause (CRAC) threshold until Power reaches the proposed lower threshold. Therefore, those reserves will not be available to offset a potential rate increase. Only when both Power and the agency are above the upper thresholds could excess financial reserves be used to offset a rate increase, and then only if the Administrator chooses to use excess reserves for a dividend distribution instead of some other purpose. Finally, using interest income or interest savings as part of the rationale for holding financial reserves is unsound. While it is appropriate for BPA to place cash in interest-bearing investments, using interest income as a rationale to hold financial reserves is not compelling because (1) they yield extremely low earnings (2) and customers could otherwise put these funds to productive use.

---

[10] Harris *et al.*, BP-18-E-BPA-17, at 19, lines 13-20.
[11] *Id.* at 20, lines 4-6.

Q: Please discuss credit support, the third reason staff cite for their proposal.

A: As discussed above, BPA's liquidity needs are sufficiently met through its existing practices (*e.g.*, the TPP standard) and staff's proposal actually worsens rate stability. This leaves the support of BPA's credit rating as the primary reason for the adoption of a financial reserves policy.

BPA staff state that "[r]ating agencies have made very clear the importance of financial reserves for BPA."[12] The rating agencies have noted both BPA's "weakening reserves" and its lack of a minimum financial reserves policy.[13] BPA staff are concerned because BPA has an intensive capital program, and BPA's credit rating affects the interest rate BPA will pay on the debt it incurs.[14]

Q: Have you read the credit rating agency reports cited in BPA staff's testimony?[15]

A: Yes. As a matter of context it is important to note that BPA is rated at an extremely high level by all three credit rating agencies with a stable outlook. Specifically, BPA is currently rated "Aa1" by Moody's,[16] "AA-" by Standard & Poor's ("S&P"),[17] and "AA" by Fitch.[18] These ratings indicate that BPA has strong financial health and is very high in the category of investment grade debt.

Moody's defines obligations rated Aa "to be of high quality" and "subject to very low credit risk."[19] S&P describes an AA-rated obligation to be different "from the highest-rated obligations only to a small degree. The obligor's capacity to meet its

---

12 Harris *et al.*, BP-18-E-BPA-17, at 14, lines 20-21.
13 Fitch Ratings New Issue Report, 17 March 2016, at 1 and 3.
14 Harris *et al.*, BP-18-E-BPA-17, at 13, lines 15-25.
15 *Id.* at 15.
16 Moody's Investor Service Credit Opinion, 14 June 2016, at 1.
17 Standard and Poor's Credit Rating Report, 14 March 2016, at 2.
18 Fitch Ratings New Issue Report, 17 March 2016, at 1.
19 Moody's Rating Symbols and Definitions 2016, at 5.

financial commitment on the obligation is very strong."[20] Finally, Fitch defines credit rated as AA as, "Very high credit quality. 'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events."[21]

Q: *Do you agree with BPA staff's interpretation of the credit agencies' reports?*

A: Not entirely. We do not disagree that the credit agencies are likely to view a prudent and comprehensive financial reserves policy as a benefit. For example, Fitch says that it views "the initial steps toward the development of more formalized [financial] policies and forward-looking [rate] forecasts as positive."[22] Therefore, it is reasonable to conclude that BPA's adoption of some sort of financial reserves policy will be considered an improvement over status quo. In addition, BPA staff have developed a Long-Term Reference Case, which further bolsters BPA's response to the rating agencies' guidance.

But, we disagree with how BPA staff are interpreting certain parts of the rating reports. For example, BPA staff justify the establishment of the lower threshold to be 60 days' cash on hand "so the CRAC will begin to replenish financial reserves before they fall to the level at which rating agencies have warned us there would be a significant risk of a credit rating downgrade, which is 30 days' cash on hand."[23] However, Moody's report uses very different words. In its lists of "Factors that Could Lead to a Downgrade," Moody's simply notes that "BPA's rating *could be negatively pressured* if BPA's internal liquidity drops below 30 days cash on hand *on a sustained basis*."[24] (Emphasis added.) Moody's report does not "warn" about a "significant risk of a credit

[20] Standard and Poor's Rating Definitions, 20 November 2014, at 5.
[21] Fitch Ratings Credit Rating Scales 2017, Public Finance Obligations.
[22] Fitch Ratings New Issue Report, 17 March 2016, at 4.
[23] Harris *et al.*, BP-18-E-BPA-17, at 32-33, lines 23-1.
[24] Moody's Investor Service Credit Opinion, 14 June 2016, at 3.

downgrade" but simply says that BPA's rating "could be negatively pressured" if liquidity drops below 30 days' cash on hand "on a sustained basis." By BPA staff's own admission, "sustained basis" is an undefined term that "likely mean[s] longer than a period of a few months but shorter than a period of many years."[25] We must be careful to not overreact and adopt a costly policy based on a vaguely-worded phrase within an otherwise very positive multi-page report.

Additionally, the credit rating agencies define "days cash on hand" to the exclusion of other sources of liquidity available to BPA, primarily its $750 million revolving line of credit from the U.S. Treasury. One must be careful to overlay BPA's unique mechanisms and authorities to manage liquidity when attempting to compare BPA's days' cash on hand to other so-called comparable entities. It is not prudent to establish a threshold based on the financial reserves of entities that do not share BPA's unique characteristics. Among other factors, BPA enjoys underlying support from the U.S. Government, a $750 million revolving line of credit from the U.S. Treasury, and the ability to defer payments to the U.S. Treasury.

The above examples emphasize why it is important to read the credit agencies' reports comprehensively. In developing a prudent policy to manage financial reserves, one must consider *all* factors considered by the rating agencies. In addition to financial reserves, the rating agencies list others factors such as service area economic strength and customer base stability; willingness and ability to recover costs with sound financial metrics; and rate competitiveness.[26] Indeed, as discussed in detail below, these factors

[25] Response to Data Request PP-BPA-26-41.
[26] Moody's Public Power Rating Methodology, 1 March 2016, Appendix A.

underscore the need for BPA to ultimately adopt a financial reserves policy that supports its initiative to become cost-competitive and improve its cost trajectory.

Q: *Please briefly summarize the key observations made by the rating agencies about BPA's creditworthiness.*

A: The key strengths of BPA noted by all three rating agencies include: BPA's relationship with the U.S. Government and U.S. Treasury; BPA's competitive rates and low-cost hydro power; and BPA's long-term contracts with its Power customers. S&P says that "Customers demonstrated their commitment to the agency's system by entering contracts with BPA that extend from 2008-2028."[27] Fitch has a slightly different perspective on BPA's contracts with its Power customers, referring to them as "medium-term." Fitch goes on to say that the "contract terms limit Bonneville's financial exposure. However, the contracts expire in 2028 and customers are not obligated to continue to purchase from Bonneville if new contracts are not signed."[28] It is evident that long-term power sales agreements are considered to be a major strength by the rating agencies, both because they provide revenue certainty and because they demonstrate a positive and collaborative relationship between BPA and its customers.

Areas of concern noted by the rating agencies include potential decreases in BPA's reserves, although the rating agencies recognize that BPA's reserves are linked to seasonal hydrological conditions and power market prices.

Q: *Does BPA staff's proposal address the points made by the credit rating agencies?*

A: Staff's proposal appears to have focused on only one aspect of the reports: the amount of financial reserves held. However, in response to a data request, BPA staff acknowledge

[27] Standard and Poor's Credit Rating Report, 14 March 2016, at 5.
[28] Fitch Ratings New Issue Report, 17 March 2016, at 1.

that "cash on hand is not the only factor [the rating agencies] consider. Rating agencies also assess other factors to determine BPA's creditworthiness, including but not limited to BPA's overall liquidity, BPA's financial policies, and management's willingness to raise rates to support financial integrity."[29]

Perplexingly, BPA staff's proposal barely touches on one of the key risks noted by the rating agencies, that of hydrological and market price risks. Currently, BPA mitigates risks associated with uncertainty and volatility in hydrological conditions and wholesale market prices through the TPP standard. The "TPP captures hydrological conditions, market price volatility and contractual uncertainty"[30] and assesses "the amount of liquidity necessary to ensure short term solvency."[31] Thus, some of the major risks noted by the rating agencies – financial liquidity, hydrological conditions and market price volatility – are mitigated by BPA's existing practices (*e.g.*, the TPP standard).

Further, BPA staff's proposal actually undermines several of BPA's strengths: cost-competitiveness and strong relationship with its customers.

Q: Please elaborate on your assertion that BPA staff's proposal actually undermines some of the strengths noted by the credit rating agencies.

A: BPA staff's proposal is counter to the agency's ongoing effort to be cost-competitive and to position itself to be the power supplier of choice for preference customers post 2028. For example, in the 2016 Integrated Program Review (IPR) close out report, the Administrator stated that being cost-competitive "is essential to maintaining our position as the wholesale provider of choice when our long-term contracts are up for renewal in

[29] Response to Data Request PG-BPA-26-2.
[30] Response to Data Request NR-BPA-26-19.
[31] Response to Data Request PP-BPA-26-16.

the next decade."[32] The credit agencies have echoed this sentiment in their credit reports by noting that two of BPA's biggest strengths are its cost-competitiveness and long-term contracts with customers. As the contracts get closer and closer to expiration, their weight in BPA's credit assessment diminishes, and already the rating agencies have taken notice (*e.g.*, Fitch referring to these contracts as "medium term").

With customers already questioning BPA's ability to be the power provider of choice post 2028, BPA cannot adopt policies that will lead to unnecessary rate increases and make customers question the agency's commitment to cost-competitiveness. This would undermine two of the weightiest factors in BPA's excellent credit rating and potentially result in far greater harm than the absence of a comprehensive policy on reserves. Thus, the financial reserves policy BPA ultimately adopts cannot increase costs to customers without commensurate benefits so as to undercut the relationship BPA depends upon for its credit worthiness. Unfortunately, as we discuss more below, staff's proposal is likely to add to customers' concerns about the trajectory of BPA's rates and further undermine BPA's ability to be cost-competitive.

Q: What are the purported benefits and costs of BPA staff's proposal?

A: Staff's proposal is intended to support BPA's credit rating – that is, to avoid a downgrade. Staff cite statements in the rating reports that warn about the potential for a downgrade in the event of a sustained and sizable reduction in financial reserves.

BPA staff have estimated the potential cost of a downgrade. Staff estimate that a credit rating downgrade would increase BPA's borrowing costs on newly issued non-federal debt by approximately 50 basis points. Based on the planned amount of non-

[32] 2016 IPR/CIR Close Out Report, October 2016, at 2.

federal debt issuances over the next 10 years, staff estimate that a 50-basis-point interest rate increase could increase revenue requirement costs by as much as $33 million for Transmission Services and $22 million for Power Services per year.[33] Notably, the actual average impact of such a downgrade would be $22.5 million for Transmission Services and $16.1 million for Power Services per year from FY2018 through FY2027.

Regardless, this analysis is useful because it provides a maximum amount a business line would want to pay to avoid a potential downgrade. For Power Services, even if a downgrade was otherwise certain, any cost associated with a financial reserves policy should be below $16 million, and certainly below $22 million per year. We recognize that a potential downgrade could affect the number or diversity of potential bond purchasers in addition to increased interest expense. However, we also recognize that BPA's credit rating is inherently linked to the credit rating of the U.S. Government, over which BPA has no control. These qualitative factors must be considered along with the quantitative factor of the actual potential cost impact. We developed our counterproposal to balance these costs and benefits.

Q: Who benefits from BPA's credit rating?

A: Both business lines benefit from BPA's credit rating. For example, Energy Northwest issues debt on behalf of BPA related to Power Services. Transmission Services uses third parties to finance transmission construction through the lease purchase capital program.[34]

SECTION 4: BPA STAFF'S PROPOSED POLICY FAILS TO MEET OBJECTIVES

Q: Do you support adoption of some sort of a financial reserves policy?

---

[33] Harris *et al.*, BP-18-E-BPA-17, at 17, lines 8-14.
[34] *Id.* at 13-14, lines 15-5.

A: Yes, we support adoption of a financial reserves policy that links the costs and benefits of supporting BPA's credit rating; establishes the minimum level of reserves to trigger replenishment and specifies the mechanism and timeframe for such replenishment; establishes the maximum level of reserves before using them for other purposes; and is equitable between Power and Transmission business lines.

Q: In your opinion, does BPA staff's proposal accomplish these goals?

A: No, BPA staff's proposal does not accomplish these goals.

Q: Please explain how BPA staff's proposal fails to meet these objectives.

A: First, BPA staff's proposal does not align costs with benefits. As explained earlier, sustaining BPA's current credit rating relative to an immediate downgrade is projected to save Power customers an average of $16 million, and possibly up to $22 million, per year in interest expense over 10 years. Staff's proposal ignores the level of potential benefits and proposes to increase Power's CRAC threshold from $0 to over $300 million over 10 years. This is the equivalent of an average impact of at least $30 million per year, which well exceeds even the maximum potential cost savings of $22 million per year.

Second, we disagree with the lower threshold proposed by BPA staff. Staff's proposal sets the lower threshold at 60 days' cash on hand to allow the CRAC to "begin to replenish financial reserves before they fall to the level at which rating agencies have warned us there would be a significant risk of a credit rating downgrade, which is 30 days cash on hand."[35] We have already discussed why we disagree with staff's interpretation of the Moody's report. Nonetheless, we do support BPA staff's desire to adopt a financial reserves policy that does not intentionally contradict advice from the rating

[35] Harris *et al.*, BP-18-E-BPA-17, at 32-33, lines 23-1.

agencies. Therefore, we propose a threshold that is greater than 30 days' cash on hand in our proposal.

Third, we disagree with BPA staff's proposal to set the upper threshold at 120 days' cash on hand because there is no sound rationale for this level. Staff's rationale is that 120 days' cash on hand is a "safe place" because it equates to roughly "four times the absolute minimum level of days' cash on hand required by Moody's."[36] Again, we disagree with staff's characterization that Moody's has asserted a requirement that 30 days' cash on hand is the "absolute minimum level." When asked to provide further explanation on why they chose 120 days' cash on hand, BPA staff responded that they performed a historical analysis of how often the Reserves Distribution Clause (RDC) would have triggered since 2004. Analysis indicates the RDC would have triggered 25 percent of the time over the last 12 years, which "properly balances the need for BPA to hold reserves to support its credit rating and financial health, while also allowing the reserves to be repurposed with appropriate frequency."[37] No justification was provided as to why 25 percent is the appropriate frequency for the RDC to have triggered over the last 12 years. And this analysis ignores other factors, such as major contractual changes over this 12-year period (e.g., the start of long-term, take-or-pay Regional Dialogue contracts in 2012), which may affect the amount of reserves BPA needs to hold.

BPA staff's analysis also ignores other – and likely more impactful – aspects of BPA's financial health, such as its take-or-pay contracts, debt-to-asset ratio, and power rate increases totaling 27 percent since FY2009. This rate trajectory clearly shows BPA's willingness to raise customers' rates to recover agency costs. In fact, when presented

---

[36] Harris *et al.*, BP-18-E-BPA-17, at 33, lines 20-22.
[37] Response to Data Request NR-BPA-26-16.

with a compelling business case, customers have been willing to pay higher short-term rates to enhance BPA's financial health for the longer-term (for example, transitioning financing of the energy efficiency program from debt to expense financing).

Finally, we disagree with BPA staff's proposed mechanisms to phase in Power's lower threshold. First, the Incremental Rate Pressure Limiter (IRPL) ensures the non-Slice rate increases will be at least three percent until Power's lower threshold is met. Guaranteeing continued rate increases undermines BPA's initiatives to become cost-competitive and conflicts with competitiveness, one of BPA's key strengths identified by the rating agencies.

Second, the Good Year Ratchet creates excessive and unwarranted rate instability. The Good Year Ratchet usurps any amounts of financial reserves above the current CRAC threshold and uses them to increase the CRAC threshold even higher until it reaches the proposed lower threshold. This contradicts one of the fundamental mechanisms underlying BPA's net secondary revenues methodology, which sets rates based on the *expected value* of net secondary over a wide range of hydrology and price scenarios. By definition, actual net secondary revenues could be either above or below the expected value, but should average out over time. Staff's proposed Good Year Ratchet undermines the basis of BPA's net secondary revenue credit and risk mitigation framework.

Third, the Good Year Ratchet largely negates the primary benefit for power customers of BPA having financial reserves. The primary benefit of addressing bad operating results with previously accumulated cash instead of relying on existing credit lines is that the timing for repaying credit lines is determined externally by the credit terms, whereas the timing for restoring accumulated cash used to meet adverse developments can be determined based on the exercise of judgment informed by the surrounding circumstances. BPA staff's proposal, however, would remove BPA's ability to use reserves flexibly to mitigate adverse business results by dictating restoration of reserves the next year via a CRAC. The repayment terms of the Treasury Note are more flexible than the terms than BPA staff would impose on customers for restoring cash reserves accumulated for the purpose of credit support. Specifically, the Treasury Note provides for a one-year repayment, plus a one-year extension, whereas BPA staff's proposal would mandate recovery in a single year. We also question the use of the CRAC mechanism for the purpose of accumulating funds for credit rating support. The CRAC is intended for the recovery of actual operational costs, not raising cash for the purpose of avoiding potential future interest expense.

SECTION 5: JP05 PROPOSED FINANCIAL RESERVES POLICY

Q: Given the foregoing analysis, do you support BPA's Financial Reserves Policy as proposed?

A: No, we do not. While we understand the goals and objectives for the policy, the proposed implementation is fundamentally problematic. As described above, the policy would create significant rate volatility and has substantially negative financial impact on Power Services' customers without clear benefits. It also does not promote equity between business lines. Given these considerations, we do not view the proposed policy as being in the business interest of customers or promoting BPA's efforts towards cost-competitiveness.

Q: Do you support BPA adopting a financial reserves policy in this proceeding?

A: Although we do not support the version BPA staff have proposed, we would support a policy that has tangible benefits, outweighs costs, and meets BPA's staff's objectives, including supporting BPA's credit rating and maintaining equity between business lines.

Q: Have you developed such a policy proposal?

A: Because we value BPA as a business partner and want to work collaboratively with the agency in its effort to be cost-competitive and the power supplier of choice, we have developed a counterproposal. The full proposal is attached to this testimony as Exhibit A.

Q: Please describe the basic structure of your proposal.

A: At a basic level, our proposal includes upper and lower thresholds for financial reserves for BPA as a whole, as well as an allocation of those amounts between the Power and Transmission business lines. It also includes actions to be taken once reserves are projected to fall outside of the thresholds, and designates responsibility to the appropriate business line(s).

Q: Please describe the upper and lower reserves thresholds for BPA's total financial reserves.

A: We propose a lower threshold of 35 days' cash on hand and an upper threshold of 95 days' cash on hand.

Q: Please describe your proposed method for allocating the agency reserves thresholds between business lines.

A: We propose to allocate responsibility for agency total reserves as the proportion of each business line's forecasted contribution to BPA's overall planned capital expenditures on a rolling 10-year basis. For example, consider a case where heading into a rate period

BPA's forecasted capital expenditures for the agency for the following 10 years totaled $10 billion, and Power Services' planned investments (including Columbia Generating Station) totaled $4.5 billion and Transmission Services' totaled $5.5 billion. In this instance, the financial reserves allocation would be 0.45 (or 45 percent) for Power and 0.55 (or 55 percent) for Transmission.

Our estimate of these factors based on BPA's initial Capital Investment Review materials is approximately 0.456 for Power and 0.544 for Transmission. Unfortunately, BPA's "Integrated Program Review and Capital Investment Review: Close-out report, October 2016" does not contain sufficient detail to update these values for final decisions in that document. In any case, BPA should update these values in its final rates proposal to reflect the most recent final information.

Q: Please describe how your proposal operates.

A: During the rate-setting process, BPA would establish upper and lower reserves thresholds for the agency as a whole, as well as for each business line. The business line upper and lower thresholds will be equal to the agency upper and lower thresholds multiplied by the business line reserve allocation factors.

If BPA projects as part of its final rates proposal that agency reserves as a whole will start the rate period above the agency minimum threshold but below the agency upper threshold, then no action is taken under the financial reserves policy. This applies regardless of the distribution of financial reserves between business lines.

If BPA projects agency reserves will start the rate period below the agency lower threshold, a check is performed to determine whether Power, Transmission, or both are below their respective business line lower threshold. If a business line is below its threshold in this scenario, then BPA could add planned net revenues of up to one percent incremental rate pressure per year during the rate period to increase reserves.

If BPA projects agency reserves will start the rate period above the agency upper threshold, a check is performed to determine whether Power, Transmission, or both are above their respective business line upper thresholds. Under the circumstance that both the agency as a whole and an individual business line are above the relevant reserve thresholds, then the Administrator shall consider using the projected surplus during the rate period for other business line specific purposes including, but not limited to, debt retirement, incremental capital investment, or rate reduction. In making this determination, the Administrator will consult with customers and take comments on the proposed course of action.

Decisions to either increase or decrease expected reserve levels would only be made during the rate-setting process. There would be no adjustment of rates during the rate period solely to achieve a target level of reserves, although a mid-year period CRAC to meet the TPP standard would be possible as is the case under BPA's current policy.

Q: Can you provide some illustrative examples to further clarify the operation of your proposed policy?

A: Yes. Several examples are provided as Exhibit B to this testimony.

Q: How does your proposal interact with the TPP standard?

A: Our proposal is intended to be independent and supplemental to the TPP standard. BPA would continue to implement the TPP standard as under current practice and then layer in the financial reserves policy. If a business line would otherwise consider a distribution of reserves, but a higher level is needed for TPP support then TPP would take precedence.

SECTION 6: BENEFITS OF JP05'S FINANCIAL RESERVES POLICY

Q: Which aspects of your proposal are enhancements relative to BPA staff's initial proposal?

A. Our proposal addresses the fundamental issue that BPA staff's financial reserves proposal is a poor business proposition for power customers. Simply stated, risking a downgrade would be financially preferable for power customers relative to BPA staff's proposal. BPA projects a maximum impact of $22 million per year and an average of $16 million to Power Services due to an immediate downgrade over the next 10 years. Contrast this to BPA staff's proposal, which would have a cost to power customers of greater than $309 million over approximately the next 10 years. BPA's net secondary revenues experience significant natural variability due to both hydrological and market price conditions. The Good Year Ratchet ensures that money from "good years" will no longer be available to mitigate results from "bad years," necessitating CRAC events or other rate actions that would not have been necessary in the absence of the policy. Indeed, under BPA staff's proposal, BPA might find itself having to choose between two undesirable options: (1) implement a large CRAC for credit support when its costs are already pushing rates to unacceptable levels; or (2) violate its own policy, which might be worse than having no policy at all.

Conversely, the maximum benefit to Power is to avoid the potential for a $22 million cost. It is worth emphasizing again that this cost is "potential." Neither a downgrade nor the extent of a downgrade would be of any certainty. As discussed above, the credit rating agencies view BPA to be in strong financial health as reflected by BPA's excellent credit ratings. Further, that $22 million per year is a peak value and is significantly lower in many years of BPA's analysis. The actual average between FY2018 and FY2027 is $16 million per year. It would take until FY2035 for the benefits of avoiding a downgrade in FY2018 for Power Services to exceed $300 million.

Altogether, our proposal puts the costs of implementation much more in line with the potential benefits and also allows customers to benefit from accruing reserves.

Q: How does your proposal meet the objectives set out by BPA staff for a financial reserves policy?

A: BPA staff laid out six objectives for a financial reserves policy. These objectives are:

- Maintain sufficient financial reserves levels to support BPA's credit rating.
- Ensure adequate liquidity throughout each rate period.
- Maintain equity between business lines.
- Establish prudent lower financial reserves thresholds and actions supporting objectives 1 and 2.
- Establish prudent upper financial reserves thresholds so that financial reserves are efficiently redeployed for other high-value purposes.
- Be compatible with BPA's existing 95 percent TPP standard.[38]

Our proposal meets all of these criteria and in some cases is a substantial improvement over both the status quo and BPA staff's proposal.

Q: How does your proposal meet the objective to "Maintain sufficient financial reserves levels to support BPA's credit rating"?

A: Our lower end threshold of 35 days' cash on hand is based on the explicit guidance from Moody's that it could be concerning for BPA to fall below 30 days' cash on hand on a

[38] Harris *et al.*, BP-18-E-BPA-17, at 24, lines 6-15.

sustained basis, but with recognition that reserves should not decline fully to that level on a projected basis before action is taken. However, consistent with the goal of the most competitive possible rates we do not propose to collect more funds than necessary for this purpose.

Q: How does your proposal meet the objective to "Ensure adequate liquidity throughout each rate period"?

A: Our proposal ensures adequate liquidity throughout the rate period by being supplemental to BPA's implementation of the TPP standard. As discussed previously, the TPP currently ensures adequate liquidity.

Q: How does your proposal meet the objective to "Maintain equitable treatment between business lines"?

A: This is one of the most important aspects of our proposal. Because the TPP standard already ensures that each business line has adequate liquidity to meet its operational risk, one of the main benefits of a more comprehensive financial reserves policy is to help avoid a credit downgrade. Benefits would accrue in the form of avoiding higher costs of debt for investments financed with the support of BPA's credit rating. Therefore, our proposed approach is more in line with cost-causation principles because it associates the cost of maintaining the credit rating with the benefit of borrowing lower-cost money realized by the business line borrowing the money. Our allocation proposal is based purely on the future capital needs of each business line. By taking a long-term and balanced view of aligning costs and benefits, the proposal acknowledges that both business lines benefit from BPA managing its access to capital and debt portfolio on an integrated basis. BPA should continue to take advantage of the best available financing options available at the time capital is raised, but it is not possible to know today what the least-cost source of future capital will be.

That said, it is worth emphasizing that for the foreseeable future our proposal is conservative in allocating a relatively high proportion of the responsibility for reserves shortfalls to Power Services relative to the benefits of avoiding a downgrade. BPA's analysis shows that over the next 10 years the maximum annual cost of a downgrade would be borne approximately 60 percent by Transmission and 40 percent by Power.[39] Additionally, much of the potential cost to Power is for refinancing transactions over the upcoming rate period, meaning the exposure for Power to a credit downgrade is diminishing over the coming years.

Q: How does your proposal meet the objective to "Establish prudent lower financial reserves thresholds and actions" to support adequate reserves for credit rating support and liquidity?

A: We previously described how our proposed lower threshold is prudent for the purposes supporting BPA's credit rating. In terms of actions, our proposal establishes clear and concrete actions to take when reserves are projected to be below targeted levels for the agency in a rate period. Our proposed actions also have the benefit of being fully transparent and known during the course of a rate period as well as decreasing the likelihood of a CRAC, thereby enhancing rate stability at the same time as taking action to support BPA's credit rating.

[39] *See* Response to Data Request PP-BPA-26-6.

Q: *How does your proposal meet the objective to "Establish prudent upper financial reserves thresholds so that financial reserves are efficiently redeployed for other high-value purposes"?*

A: The upper threshold of 95 days' cash on hand is set to allow adequate flexibility for financial variability without rate actions to adjust the level of reserves. We agree with BPA staff's proposal that a "deadband" of 60 days' cash on hand appears reasonable and results in an upper threshold adequately higher than the lower.

Q: *How does your proposal meet the objective to "Be compatible with BPA's existing 95 percent TPP standard"?*

A: As previously described, our proposal is supplemental to the TPP standard and therefore fully compatible.

Q: *Please summarize how your proposal is an enhancement to BPA staff's initial proposal and why it should be adopted by the Administrator over BPA staff's proposal.*

A: Our proposal aligns responsibilities with benefits of the policy and also addresses the core gap between benefits and costs, which is particularly large for power customers. It promotes rate stability by reducing the likelihood that rates would need to be raised for either business line for purposes of supporting BPA's credit rating and also because additional revenues collected to enhance reserves would be known at the beginning of a rate period and be available for risk mitigation. Our proposal accomplishes these enhancements while fulfilling all of the objectives laid out by BPA staff for a financial reserves policy.

Q: *Are you aware that BPA has recently released an updated forecast of the end of year financial reserves available for risk for FY2017?*

A: Yes. We have conducted a preliminary review of BPA's Quarterly Business Review materials, which were made publicly available on January 27. These materials show a substantial decline in financial reserves available for risk. The materials do not, however, provide information on Accumulated Calibrated Net Revenues (ACNR), which may show important differences in the lower point forecast of reserves due to short-term lags in timing between accrual and cash flow. This highlights the value of using ACNR for decisions triggered off of financial reserves levels.

Q: Does this information affect your recommendations in this testimony?

A: No, it does not. Any forecast of BPA's net revenues for FY2017 at this point is subject to a high level of variability as the year progresses. More generally, however, our proposal is a long-term policy that is not subject to change based on the results of a single year. As such, our recommendations will not change based a changing forecast or a singular financial outcome.

Q: Does this conclude your testimony?

A: Yes.

EXHIBIT A
TO DIRECT TESTIMONY OF JP05 ON
FINANCIAL RESERVES POLICY

1. Background and Purpose

The Financial Reserves Policy (Policy) provides a consistent, transparent, and financially prudent method for determining BPA's 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 objective to provide competitive, reliable, and low-cost wholesale power and transmission services to its customers while promoting the agency's financial health.

Prior to the Policy, BPA did not have a consistent way to establish financial reserves thresholds for each business line and BPA as a whole. 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 helps to maintain BPA's credit rating. 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, Transmission Services and for the Agency at the start of each rate period. The Policy also provides guidance on the actions BPA should take when financial reserves are forecasted to be below the lower threshold level(s) or above the upper threshold level(s) at the start of a rate period.

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. 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 Financial Reserves and Risk Mitigation Tools for Treasury Payment Probability

Each business line will continue to independently establish necessary reserves and risk mitigation parameters to meet the Treasury Payment Probability (TPP) standard each rate period.

3.3 Financial Reserves Allocation Factors

During the rate setting process for each rate period BPA will calculate a "Financial Reserves Allocation Factor" for both the Power and Transmission business lines. The allocation factor for each business line shall be its proportion of BPA's total projected capital spending over the following ten years (upcoming rate period plus the following eight years) that is intended to be debt financed, as published in the Capital Investment Review or successor process.

3.4 Lower Financial Reserves Threshold

During the rate setting process for each rate period BPA will calculate a lower target threshold for financial reserves on the basis of 35 days' cash on hand for the agency as a whole. The lower financial reserves threshold for each business line will be equal to the total agency threshold multiplied by the business line allocation factor. To the extent that BPA as a whole and an individual business line are projected to be below the target threshold, rate action will be taken to accumulate reserves during the upcoming rate period.

3.5 Upper Financial Reserves Threshold

During the rate setting process for each rate period BPA will calculate an upper threshold for financial reserves on the basis of 95 days' cash on hand for the agency as a whole. The upper financial reserves threshold for each business line will be equal to the total agency threshold multiplied by the business line allocation factor. To the extent that BPA as a whole and an individual business line are projected to be above the threshold heading into a rate period, 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.

3.6 Calculation of Financial Reserves Thresholds and Allocation Factors

3.6.1 Agency Total		
Agency lower reserves threshold	=	35 days * ((Power Operating Expenses + Transmission Operating Expenses) / 365 days)
Agency upper reserves threshold	=	95 days * ((Power Operating Expenses + Transmission Operating Expenses) / 365 days)
Where:		
Power Operating Expenses	=	Power Total Expenses – (Power Depreciation and Amortization + Power Net Interest Expense + Power Non-Federal Debt Service + Power Purchases) Power Operating Expenses will be calculated as the annual average over the upcoming rate period.
Transmission Operating Expenses	=	Transmission Total Expenses – (Transmission Depreciation & Amortization + Transmission Interest Expense) Transmission Operating Expenses will be calculated as the annual average over the upcoming rate period.

3.6.2 Business Line Allocation Factors		
Power allocation factor	=	Power Capital Requirement / Agency Capital Requirement
Transmission allocation factor	=	Transmission Capital Requirement / Agency Capital Requirement

Where:		
Power Capital Requirement	=	Total projection of capital investment to be made during the following 10 years (that will be allocated to Power Services, debt financed, and ultimately recovered through power rates)
Transmission Capital Requirement	=	Total projection of capital investment to be made during the following 10 years (that will be allocated to Transmission Services, debt financed, and ultimately recovered through transmission rates)
Agency Capital Requirement	=	Total projection of BPA capital investment to be made and debt financed during the following 10 years
Note: the "following ten years" means the upcoming rate period plus the following eight years.		

3.6.2 Business Line Thresholds		
Power lower reserves threshold	=	(Power allocation factor) * (Agency lower reserves threshold)
Power upper reserves threshold	=	(Power allocation factor) * (Agency upper reserves threshold)
Transmission lower reserves threshold	=	(Transmission allocation factor) * (Agency lower reserves threshold)
Transmission upper reserves threshold	=	(Transmission allocation factor) * (Agency upper reserves threshold)

4. Implementation

The Policy will be implemented on a rate period basis through the Power and Transmission rate schedules. The financial reserves allocation factors and thresholds for each business line and the agency as a whole will be re-calculated each time BPA establishes new Power and Transmission rates. Financial reserves allocation factors and thresholds will remain constant throughout the duration of each rate period. The financial reserves lower and upper financial reserves thresholds will be computed using forecast rate period average operating expenses from the Power and Transmission revised revenue tests. The business line allocation factors will be calculated using the most recently available final capital investment forecast from the Capital Investment Review or successor process.

As part of its final rate proposal in each rate period, BPA will evaluate its projected levels of reserves for the agency as a whole and for each business line. If BPA's reserves as a whole are above the agency lower threshold and below the agency upper threshold, no action will be taken in that rate period pursuant to this Policy.

If BPA's reserves are projected to enter the rate period below the agency lower threshold, rate action will be taken to increase reserves on an expected basis. In this circumstance, if a business line is projected to start the rate period below its threshold, BPA will add up to one percent of incremental planned net revenues for that business line for each year of the rate period as necessary. For Power Services, this will be calculated as a one percent average rate impact to the Non-Slice Tier 1 rate.

If the projection of a business line and the agency's reserves are above their respective upper thresholds going into a rate period, and such reserves are not needed for TPP purposes, then the Administrator shall consider the above-threshold financial reserves for investment in other business line specific purposes including, but not limited to, debt retirement, incremental capital investment, or rate reduction. During the consideration process, the Administrator will consult with customers and take comments on the proposed course of action.

This Policy is supplemental to the TPP standard, which will remain in place to address operational risk and liquidity issues during each rate period. This Policy will in no way inhibit BPA's discretion regarding TPP implementation.

EXHIBIT B
TO DIRECT TESTIMONY OF JP05 ON
FINANCIAL RESERVES POLICY

Examples of JP05 Financial Reserves Testimony Implementation

The purpose of this exhibit is to provide illustrative, hypothetical examples of how JP05's proposed Financial Reserves Policy would be implemented.

Assumptions

1 days' cash on hand for BPA	=	$7 million
1% rate impact for Power Non-Slice Tier 1	=	$15 million
1% rate impact for Transmission	=	$10 million
Agency capital requirement (10 years)	=	$10 billion
Power capital requirement (10 years)	=	$4.5 billion
Transmission capital requirement (10 years)	=	$5.5 billion

Calculation of Agency and Business Line Thresholds

Agency lower threshold	=	$245 million (35 days * $7 million per day)
Agency upper threshold	=	$665 million (95 days * $7 million per day)
Power allocation factor	=	0.45 ($4.5 billion / $10 billion)
Transmission allocation factor	=	0.55 ($5.5 billion / $10 billion)
Power lower threshold	=	$110 million (0.45 * $245 million)
Power upper threshold	=	$299 million (0.45 * $665 million)
Transmission lower threshold	=	$135 million (0.55 * $245 million)
Transmission upper threshold	=	$366 million (0.55 * $665 million)

Process

Going into each rate period, BPA will make a projection of reserves for day one of the rate period as part of its final proposal and take action, if necessary, as prescribed by the Financial Reserves Policy.

Examples of Implementation

Example 1

Agency reserves	=	$450 million
Power reserves	=	$150 million
Transmission reserves	=	$300 million

Agency as a whole is between upper and lower thresholds as are both business lines. No action is taken.

Example 2

Agency reserves	=	$500 million
Power reserves	=	$100 million
Transmission reserves	=	$400 million

One business line is above its upper threshold, and one business line is below its lower threshold. However, the agency as a whole is between the upper and lower agency thresholds. No action is taken.

Example 3

Agency reserves	=	$800 million
Power reserves	=	$400 million
Transmission reserves	=	$400 million

The agency as a whole and both business lines are above their upper thresholds. Unless needed for TPP support (see Example 4), Power receives a distribution of $101 million and transmission receives a distribution of $34 million (totaling $135 million), leaving the agency as a whole at the upper threshold of $655 million.

Example 4

Agency reserves	=	$800 million
Power reserves	=	$400 million
Transmission reserves	=	$400 million

The agency as a whole and both business lines are above their upper thresholds. However, in this specific example, Power services needs at least $400 million to meet the TPP standard. In this case TPP takes precedence and power receives no distribution of reserves. Transmission receives a distribution of $34 million.

Example 5

Agency reserves	=	$200 million
Power reserves	=	$50 million
Transmission reserves	=	$150 million

The agency as a whole is below the lower threshold. Power services is below its lower threshold while transmission is above its lower threshold. In this case an additional 1%, or $15 million, of planned net revenue per year is added to power rates for the upcoming rate period. No action is taken with regard to transmission rates.

EXHIBIT C
TO DIRECT TESTIMONY OF JP05 ON FINANCIAL RESERVES POLICY

Responses to Data Requests Cited in BP-18-E-JP05-01

Response To Data Request PP-BPA-26-16

Request Detail

Request ID: PP-BPA-26-16
Page Number: 35
Line Number: 14-20
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Michael Deen
Technical Contact Phone: 503.595.9774
Technical Contact Email: mdeen@ppcpdx.org
Legal Contact Name: Irene Scruggs
Legal Contact Phone: 503.595.9779
Legal Contact Email: iscruggs@ppcpdx.org

Request Text: Does BPA believe that that there would be an issue meeting all of its non-Federal financial obligations during the upcoming rate period under status quo financial policy? If so, please provide any analysis to support this conclusion along with supporting documentation and workpapers.

Response Detail

Date Response Filed: 12/8/2016 3:41:31 PM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
BPA's modeling of liquidity over the rate period does not suggest there is an issue meeting non-Federal obligations. However, the amount of liquidity necessary to ensure short term solvency, which the status quo TPP policy assesses, is generally a lower requirement than the amount of liquidity that would need to be maintained to support BPA's credit rating.

Response To Data Request NR-BPA-26-19

Request Detail

Request ID: NR-BPA-26-19
Page Number: 28
Line Number: 15-18
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Megan Stratman
Technical Contact Phone: 503.233.5823
Technical Contact Email: mstratman@nru-nw.com
Legal Contact Name: Betsy Bridge
Legal Contact Phone: 503.233.5823
Legal Contact Email: bbridge@nru-nw.com

Request Text: The testimony states that "Days' cash on hand is a common industry measure of liquidity and is useful because it is a ratio that scales to businesses of different sizes, allowing businesses with any amount of annual operating expenses to be compared under the same metric." (a) Please describe how the days' cash on hand metric accounts for the uncertainty of hydrological conditions and market price volatility. (b) Please describe how the days' cash on hand metric reflects the risks and uncertainties associated with contractual terms BPA has with its Power or Transmission customers.

Response Detail

Date Response Filed: 12/16/2016 9:36:03 AM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:

The days' cash on hand metric is a ratio, measuring an entity's daily operating expenses relative to unrestricted cash and investments; a full description can be found in BP-18-E-BPA-17, at page 28-29, lines 19-16. The ratio aspect of the metric allows entities of different sizes to be compared. The days' cash on hand metric does not capture uncertainty; it is static. However, its appropriate use is not as a stand-alone metric, like TPP, but as a means of comparison to 'similar' entities. 'Similar' entities will have similar risk profiles because of their resource mix, e.g., Chelan PUD, or because of their contractual relationships, e.g., Lower Colorado River Authority, or both, e.g., New York Power Authority. BPA describes its perspective on what makes an entity 'similar' to BPA in data response NR-BPA-26-13. Thus, for example, comparing BPA's number of days' cash on hand to the days' cash on hand of a company like Microsoft, would for the most part be nonsensical because the entities have few similarities. Comparing BPA's day's cash on hand to the New York Power Authority's days' cash on hand, however, can provide a useful relative comparison, because the entities are both wholesale utilities with similar resource mixes and risk profiles. Thus, the risk profiles, contractual uncertainties and other factors not included in the day's cash on hand metric are not disregarded; rather they are accounted for because BPA is comparing itself to entities that are similar. This type of comparison highlights which entities within the group have more or less cash on hand given similar characteristics. It is also important to note that BPA's proposal explicitly captures the uncertainties in both (a) and (b) through the TPP requirement – the proposed policy calls for the reserves target to be the higher of the day's cash on hand target or the amount necessary to meet TPP. TPP captures hydrological conditions, market price volatility and contractual uncertainty.

Response to Data Request PP-BPA-26-41

Request Detail

Request ID: PP-BPA-26-41
Page Number: 14
Line Number: 24-26
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Michael Deen
Technical Contact Phone: 503.595.9774
Technical Contact Email: mdeen@ppcpdx.org
Legal Contact Name: Irene Scruggs
Legal Contact Phone: 503.595.9779
Legal Contact Email: iscruggs@ppcpdx.org

Request Text: Please provide your understanding of the term "sustained" in this context along with any available supporting documentation or analysis. P 14 24-26

Response Detail

Date Response Filed: 12/16/2016 1:54:36 PM

Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
BPA interprets “Sustained basis” to likely mean longer than a period of a few months but shorter than a period of many years.

Response To Data Request PG-BPA-26-2

Request Detail

Request ID: PG-BPA-26-2
Page Number: 32
Line Number: 25
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Jimmy Lindsay
Technical Contact Phone: 503.464.8311
Technical Contact Email: jimmy.lindsay@pgn.com
Legal Contact Name: Doug Tingey
Legal Contact Phone: 503.464.8926
Legal Contact Email: doug.tingey@pgn.com

Request Text: a) Please confirm that credit rating agencies have warned BPA that less than 30-days’ cash on hand of financial reserves would jeopardize BPA’s credit rating. b) Has BPA discussed with credit rating agencies whether BPA’s proposed ‘Accumulated Calibrated Net Revenue’ (ACNR) metric is a suitable substitute for cash on hand when assessing the Agency’s credit worthiness? If so, please detail the credit agencies’ feedback. c) Does BPA expect credit rating agencies to evaluate BPA’s cash-on-hand or ACNR when assessing the credit worthiness of the agency? d) Please explain why ACNR is a suitable metric to assess adequacy of BPA’s financial reserves as opposed to cash reserves.

Response Detail

Date Response Filed: 1/10/2017 3:16:38 PM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
a) Please see BPA’s testimony [BP-18-E-BPA-17, at page 14-15, lines 21-3]. b) No. BPA is not proposing that ACNR be a substitute for cash on hand to assess BPA’s credit worthiness. Credit rating agencies will continue to assess BPA’s credit rating considering, among other factors, BPA’s Financial Reserves Available for Risk. ACNR is a cash measuring construct that, while not reflecting instantaneous fluctuations in financial reserves, closely tracks Financial Reserves Available For Risk for Power and Transmission. We believe it is a better metric for determining whether a CRAC or RDC triggers for the reasons we note in subpart d). ACNR is thus a way of measuring BPA’s cash position for purposes of the CRAC and RDC triggers, and not a replacement or substitute for Reserves Available for Risk (cash on hand) for purposes of evaluating BPA’s credit worthiness. c) BPA expects rating agencies to consider BPA’s sustained Financial Reserves Available for Risk (cash on hand) position as a factor in BPA’s credit rating. However, cash on hand is not the only factor they consider. Rating agencies also assess other factors to determine BPA’s creditworthiness, including but not limited to BPA’s overall liquidity, BPA’s financial policies, and management’s

willingness to raise rates to support financial integrity. d) ACNR does not assess the adequacy of BPA's financial reserves. Rather, ACNR measures real gains and losses of financial reserves over the rate period without the 'noise' of natural ebbs and flows of differences between accruals and cash flow. Thus, ACNR more closely captures BPA's sustained financial reserves position rather than BPA's instantaneous financial reserves position. During each rate case, ACNR is recalibrated to correspond closely to reserves levels.

Response To Data Request NR-BPA-26-19

Request Detail

Request ID: NR-BPA-26-19
Page Number: 28
Line Number: 15-18
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Megan Stratman
Technical Contact Phone: 503.233.5823
Technical Contact Email: mstratman@nru-nw.com
Legal Contact Name: Betsy Bridge
Legal Contact Phone: 503.233.5823
Legal Contact Email: bbridge@nru-nw.com

Request Text: The testimony states that "Days' cash on hand is a common industry measure of liquidity and is useful because it is a ratio that scales to businesses of different sizes, allowing businesses with any amount of annual operating expenses to be compared under the same metric." (a) Please describe how the days' cash on hand metric accounts for the uncertainty of hydrological conditions and market price volatility. (b) Please describe how the days' cash on hand metric reflects the risks and uncertainties associated with contractual terms BPA has with its Power or Transmission customers.

Response Detail

Date Response Filed: 12/16/2016 9:36:03 AM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:

The days' cash on hand metric is a ratio, measuring an entity's daily operating expenses relative to unrestricted cash and investments; a full description can be found in BP-18-E-BPA-17, at page 28-29, lines 19-16. The ratio aspect of the metric allows entities of different sizes to be compared. The days' cash on hand metric does not capture uncertainty; it is static. However, its appropriate use is not as a stand-alone metric, like TPP, but as a means of comparison to 'similar' entities. 'Similar' entities will have similar risk profiles because of their resource mix, e.g., Chelan PUD, or because of their contractual relationships, e.g., Lower Colorado River Authority, or both, e.g., New York Power Authority. BPA describes its perspective on what makes an entity 'similar' to BPA in data response NR-BPA-26-13. Thus, for example, comparing BPA's number of days' cash on hand to the days' cash on hand of a company like Microsoft, would for the most part be nonsensical because the entities have few similarities. Comparing BPA's day's cash on hand to the New York Power Authority's days' cash on hand, however, can provide a useful relative comparison, because the entities are both wholesale utilities with similar resource mixes and risk profiles. Thus, the risk profiles, contractual uncertainties and other factors not included in the day's cash on hand metric are not disregarded; rather they are accounted for because BPA is comparing itself to entities that are similar. This type of comparison highlights which entities within the group have more or less cash on hand given similar characteristics. It is also important to note that BPA's proposal explicitly captures the uncertainties in both (a) and (b) through the TPP requirement – the proposed policy calls for the reserves target to be the higher of the day's cash on hand target or the amount necessary to meet TPP. TPP captures hydrological conditions, market price volatility and contractual uncertainty.

Response To Data Request PP-BPA-26-16

Request Detail

Request ID: PP-BPA-26-16
Page Number: 35
Line Number: 14-20
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Michael Deen
Technical Contact Phone: 503.595.9774
Technical Contact Email: mdeen@ppcpdx.org
Legal Contact Name: Irene Scruggs
Legal Contact Phone: 503.595.9779
Legal Contact Email: iscruggs@ppcpdx.org

Request Text: Does BPA believe that that there would be an issue meeting all of its non-Federal financial obligations during the upcoming rate period under status quo financial policy? If so, please provide any analysis to support this conclusion along with supporting documentation and workpapers.

Response Detail

Date Response Filed: 12/8/2016 3:41:31 PM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
BPA's modeling of liquidity over the rate period does not suggest there is an issue meeting non-Federal obligations. However, the amount of liquidity necessary to ensure short term solvency, which the status quo TPP policy assesses, is generally a lower requirement than the amount of liquidity that would need to be maintained to support BPA's credit rating.

Response To Data Request NR-BPA-26-16

Request Detail

Request ID: NR-BPA-26-16
Page Number: 33
Line Number: 20-25
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Megan Stratman
Technical Contact Phone: 503.233.5823
Technical Contact Email: mstratman@nru-nw.com
Legal Contact Name: Betsy Bridge
Legal Contact Phone: 503.233.5823
Legal Contact Email: bbridge@nru-nw.com

Request Text: Please provide any and all research, analysis or other documentation underlying BPA's staff conclusion that 120 days' cash on hand is a "safe place," other than it being "four times the absolute minimum level of days' cash on hand required by Moody's," and that "using cash in excess of what would be needed to run BPA's business for 120 days would likely have a negligible effect on BPA's credit rating."

Response Detail

Date Response Filed: 12/15/2016 2:07:37 PM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
In addition to considering that 120 days is four times the amount Moody's has warned would result in downward rating pressure, BPA also considered its historical reserves levels and historical reserves volatility in setting the upper threshold. Specifically, BPA looked at how often an RDC would have triggered historically given the proposed upper and lower thresholds. If the proposed thresholds were in place since 2004, an RDC would have triggered 25% of the time, that is, 3 out of 12 years. In our judgment, an upper threshold that would have triggered 25% of the time over the last 12 years properly balances the need for BPA to hold reserves to support its credit rating and financial health, while also allowing the reserves to be repurposed with appropriate frequency.

Response To Data Request PP-BPA-26-6

Request Detail

Request ID: PP-BPA-26-6
Page Number: 17
Line Number: 8-14
Exhibit Filing: BP-18-E-BPA-17

Technical Contact Name: Michael Deen
Technical Contact Phone: 503.595.9774
Technical Contact Email: mdeen@ppcpdx.org
Legal Contact Name: Irene Scruggs
Legal Contact Phone: 503.595.9779
Legal Contact Email: iscruggs@ppcpdx.org

Request Text: Please provide all supporting workpapers, documentation, and analysis in native electronic format to support the referenced impacts of a credit rating downgrade.

Response Detail

Date Response Filed: 12/8/2016 3:13:11 PM
Contact Name: Marcus Harris
Contact Phone: 503.230.5931
Contact Email: maharris@bpa.gov
Response Text:
Please see the attached spreadsheet.

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing on the Bonneville Power Administration's Office of General Counsel, the Hearing Clerk, and all litigants in this proceeding by uploading it to the BP-18 Rate Case Secure Website pursuant to BP-18-HOO-02 and BP-18-HOO-05.

DATED: January 31, 2017.

s/ Irene A. Scruggs
Irene A. Scruggs
Public Power Council
825 NE Multnomah, Suite 1225
Portland, OR 97232
Tel. (503) 595-9779
E-mail: iscruggs@ppcpdx.org

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
BEFORE THE
BONNEVILLE POWER ADMINISTRATION

Fiscal Years 2018-2019 Proposed	**)**	**BPA Docket No. BP-18**
Power and Transmission Rate	**)**	
Adjustment Proceeding	**)**	

DIRECT TESTIMONY OF:
Public Power Council
Powerex Corp.
as
JOINT PARTY 1

SUBJECT:
BPA SOUTHERN INTERTIE HOURLY RATE

WITNESSES:
Michael Deen
Kevin Wellenius

January 31, 2017

TABLE OF CONTENTS

SUBJECT: TESTIMONY OF JOINT PARTY 1 REGARDING BPA's SOUTHERN INTERTIE HOURLY RATE

SECTION 1: INTRODUCTION AND PURPOSE OF TESTIMONY

Q: Please state your names and qualifications.

A: My name is Michael Deen. My qualifications are shown at BP-18-Q-PP-03.

My name is Kevin Wellenius. My qualifications are shown at BP-18-Q-PX-02.

Q: What is the purpose of your testimony?

A: The purpose of this testimony is to express the strong support of Joint Party 1 (JP01) for the rate that Bonneville Power Administration's (BPA's) staff has proposed in this proceeding for BPA's hourly transmission service on the Southern Intertie.

Q: Please briefly summarize your principal conclusions regarding these rates.

A: JP01 supports BPA staff's proposed rate for hourly transmission service on the Southern Intertie for several reasons:

First, BPA transmission customers have consistently expressed their concern that the value of—and the incentives to purchase—long-term firm service on the Southern Intertie has been declining as a result of changes in the California energy markets. The Administrator committed in the BP-16 Record of Decision (ROD) to fully examine these concerns and to take appropriate steps to address them, including a potential change to the hourly rate. There continues to be growing evidence of declining customer demand for long-term firm service on the Southern Intertie: the queue for new service has declined sharply, customers have declined to renew expiring service, and customers have rejected offers of long-term service when it was offered by BPA. Several thousand megawatts of long-term firm service on the Southern Intertie will either expire or face renewal during the BP-18 rate period, making prompt and effective action necessary to ensure BPA continues to recover the Southern Intertie revenue requirement in a predictable and stable manner.

Second, JP01 believes that BPA staff's proposed hourly rate will provide a strong incentive for BPA transmission customers to continue to choose to reserve long-term service, rather than rely on hourly service, for deliveries to California over the Southern Intertie.

Third, JP01 believes that BPA staff's proposed rate is fully consistent with, and not a departure from, BPA's long-standing rate design and rate methodology. Moreover, staff's proposed rate is conservative, and consistent with other cost-based benchmarks for service on the Southern Intertie.

Fourth, BPA staff's proposed rate does not raise concerns of unintended consequences.

Q: What is JP01's interest in these rates and charges?

A: JP01 is a coalition of rate case parties with a joint interest in ensuring that BPA appropriately recovers the embedded costs of the Southern Intertie transmission facilities from users of those facilities.

Public Power Council's (PPC) members are preference customers of BPA, all of which purchase network transmission service for delivery of power to their loads and, in many cases, for delivery of their surplus energy to purchasers. Many PPC members purchase intertie transmission services from BPA; all of these transmission services purchases are made subject to the applicable rates, terms and conditions in BPA's rate schedules. Some of PPC's members are owners of Southern Intertie capacity. Many of PPC's members also purchase energy and power products from non-federal generators located both inside and outside BPA's Balancing Authority Area (BAA) and more are expected to do so in the future, including during the FY 2018-2019 rate period.

Powerex Corp. (Powerex) markets power exported from the surplus capability of the predominantly hydropower generation facilities of its parent the British Columbia Hydro and Power Authority (BC Hydro). Powerex also markets power from its own portfolio of third-party power purchases. Powerex sells and purchases power throughout the Western Interconnection, including to the California Independent System Operator, Corp. (CAISO) organized markets and to bilateral customers in California. Powerex is one of BPA's largest non-affiliated transmission customers, and has contracted for substantial Long-Term Firm transmission capacity on the Southern Intertie.

Q: How is your testimony organized?

A: Section 2 explains why JP01 believes decisive action is necessary to ensure the Southern Intertie revenue requirements continue to be recovered from sales of long-term transmission service. Section 3 discusses how BPA staff's proposed hourly rate will help restore incentives for transmission customers to continue to invest in long-term service on the Southern Intertie. Section 4 sets forth the reasons JP01 believes BPA staff's proposed rate is reasonable. Section 5 demonstrates that BPA staff's proposed hourly rate does not raise concerns regarding potential unintended consequences.

SECTION 2: BPA MUST ACT NOW TO ENSURE SOUTHERN INTERTIE REVENUE REQUIREMENTS CONTINUE TO BE RECOVERED FROM SALES OF LONG-TERM FIRM TRANSMISSION SERVICE

Q: What is the primary concern that BPA staff attempts to address with their proposed hourly rate on the Southern Intertie?

A: The primary concern that BPA staff's proposed hourly rate seeks to address is the evidence of declining demand for long-term firm service on the Southern Intertie. BPA transmission customers have expressed their view that the value of investing in long-term firm service on the Southern Intertie has been eroded over the past several years. In the BP-16 ROD, the Administrator committed to further examine the issue and identify possible rate and/or non-rate measures. Since that time, the evidence of reduced customer demand for long-term firm service on the Southern Intertie has continued to grow. In order for BPA to ensure it continues to recover fully the revenue requirement of the Southern Intertie from customers taking service over those facilities, and in a stable and predictable manner, it is imperative for BPA to take decisive action to strengthen the incentives for customers to continue to choose to invest in long-term firm service on the Southern Intertie.

A. BPA TRANSMISSION CUSTOMERS HAVE EXPRESSED PERSISTENT CONCERN OVER DECLINING VALUE OF LONG-TERM FIRM SERVICE ON THE SOUTHERN INTERTIE

Q: Please describe the concern regarding the declining value of long-term firm service on the Southern Intertie.

A: BPA's sales of Non-Firm, in addition to Firm, transmission service on the Southern Intertie lead to frequent congestion—that is, many hours in which total reserved transmission exceeds the physical capability of the facilities. This is particularly acute in the north-to-south direction, which is the predominant direction of power flows between the Pacific Northwest and California. Under the Open Access Transmission Tariff (OATT) framework, this congestion should be resolved according to priority of the transmission service: Firm reservations flow ahead of Non-Firm reservations. Uniquely on the Southern Intertie, however, the congestion is largely resolved by the CAISO—which grants awards for deliveries in its markets without regard to the seller's transmission priority on BPA's system—and not according to the OATT framework. As a result, BPA transmission customers reserving Non-Firm transmission can flow on BPA's Southern Intertie facilities ahead of customers that have invested in Firm service. The cause of this issue is the "seams" between the transmission frameworks of BPA's OATT and the CAISO's market rules.

Because priority of transmission service on BPA's system is generally immaterial for transactions with the CAISO, it stands to reason that transmission customers will seek to use the Southern Intertie transmission product that is available from BPA at the lowest total cost. Under current practice this allows sellers to use hourly non-firm (HNF) transmission service to "cherry pick" high-value hours at significantly lower total cost than is paid by long-term firm (LTF) customers.

This situation can lead to a decline in the value of service held by LTF customers by either inhibiting a LTF customer from fully utilizing its transmission rights or by undermining the value of sales into the Southern Intertie points of delivery. The erosion of value of LTF service may, in turn, reduce BPA transmission customers' willingness to invest in the LTF transmission product.

B. THE ADMINISTRATOR'S DECISION IN BP-16 COMMITTED TO EXPLORING STEPS TO ENSURE CONTINUED SALES OF LONG-TERM FIRM SERVICE ON THE SOUTHERN INTERTIE

Q: Was the rate for hourly transmission service on the Southern Intertie an issue in BPA's BP-16 rate proceeding?

A: Yes. PPC and Powerex raised the issue of the devaluation of long-term firm service on the Southern Intertie (IS LTF) in both the BP-16 pre-rate case process and in the proceeding itself as Joint Party 6. We also proposed a rate design solution in that case. Although BPA did not adopt a rate design change at that time, the Administrator made certain commitments regarding next steps.

Q: What commitments did the Administrator make in the BP-16 ROD regarding this issue?

A: As part of the decision regarding Issue 4.3.3.2 in the BP-16 ROD, BPA committed to hold workshops to further examine the issue of rate and non-rate incentives for continued sale of IS LTF service.[1] Additionally, the Administrator discussed this topic in the preface to his ROD, noting that "seams issues exist and must be addressed" and committing to further investigate the issues and implement a rate solution if it was found to be necessary.[2] The Administrator also

---

[1] BP-16 Rate Proceeding, Administrator's Final Record of Decision, BP-16-A-02 at 112 (July 2015).

[2] *Id*. at P-2.

voiced the determination to "preserve the value of our assets, for both BPA's financial stability and benefit of all of our customers and the region."[3]

C. CUSTOMER DEMAND FOR LONG-TERM FIRM SERVICE ON THE SOUTHERN INTERTIE HAS DECLINED SHARPLY

Q: *BPA staff state that it "is no longer the case" that the Southern Intertie remains fully subscribed in the southbound direction, or that BPA has a long queue of customers.[4] Do you agree?*

A: Yes. First and foremost, the AC Intertie is no longer fully subscribed on a long-term basis. BPA staff have confirmed that capacity is currently available to any eligible customer willing to commit to long-term service.[5] Additionally, BPA staff's testimony notes that the queue of requests for new long-term service (*i.e.,* requests for original service, as opposed to requests for renewal) declined from 6,228 MW in September 2014 to 1,002 MW.[6] Since the time that BPA staff filed their testimony, the volume of requests for new service in the queue has continued to decline. As of the end of 2016, there remained 812 MW of requests for new long-term service on the Southern Intertie.

Q: *Have BPA customers continued to withdraw new service requests from the long-term queue since the filing of BPA's testimony?*

---

[3] *Id.*

[4] Fredrickson *et al.*, BP-18-E-BPA-12, at 6, lines 18-24.

[5] *See* BPA response to PP-BPA-26-27, reproduced in Attachment A.

[6] Fredrickson *et al.*, BP-18-E-BPA-12, at 7, lines 20-21.

A: Yes. In December, Portland General Electric withdrew its only remaining request for original service on the Southern Intertie, which was from Big Eddy to NOB and totaled 100 MW.

Q: BPA staff also testified that customers had rejected offers of long-term service, resulting in 690 MW being removed from the queue.[7] *Have customers continued to decline long-term service on the Southern Intertie since the filing of BPA staff's testimony?*

A: Yes, they have. For instance, in December Cargill declined a long-term transmission service agreement on the AC Intertie when it was offered. Its 50 MW request was therefore removed from the queue. Cargill also has another 50 MW request for long-term service on the AC Intertie, which is now next in line to be offered service. If Cargill declines service on this request, the queue would be reduced by a further 50 MW. This would reduce the queue for original long-term service on the AC Intertie to a single request, from Avangrid, which also declined service the last time it was offered.[8]

Q: Is the queue for long-term service on the DC Intertie also of limited depth?

A: Yes. While there is a greater quantity of original long-term service requests on the DC Intertie, these requests all have a termination date of January 1, 2019 or

[7] Fredrickson *et al.*, BP-18-E-BPA-12, at 8, lines 1-6.

[8] *See* BPA response to PP-BPA-26-29 at (c), reproduced in Attachment A.

earlier.[9] All of these original service requests will be removed from the queue prior to the end of the BP-18 rate period.

Q: *BPA staff's testimony states that 2,344 MW of current long-term firm service agreements will terminate during the FY 2018-2019 rate period unless customers decide to renew service.[10] Does this fully represent the renewal decisions that will need to be made during the BP-18 rate period?*

A: No, the exposure is significantly greater. BPA staff's testimony identifies that 2,344 MW of current long-term firm service will terminate prior to the end of September 2019. However, in order to renew an existing long-term reservation, a transmission customer must notify BPA at least one year prior to the date of termination. Therefore, the quantity of long-term transmission reservations that either expire or will face renewal during the FY 2018-2019 rate period is considerably larger—3,158 MW—and represents more than half of all of BPA's Southern Intertie long-term sales volume.[11]

Q: *What do you conclude from these observations?*

A: Two conclusions immediately stand out. First, that BPA can no longer be confident that customers will continue to commit to long-term service on the Southern Intertie. Large numbers of new long-term service requests have been

---

[9] *See* BPA response to PP-BPA-26-30 at (c), reproduced in Attachment A.

[10] Fredrickson *et al.*, BP-18-E-BPA-12-E01, at 8, lines 9-10.

[11] The quantity of reservations facing renewal on the AC Intertie is 1,416 MW (*See* BPA response to PP-BPA-26-28, reproduced in Attachment A) and on the DC Intertie is 1,742 MW (*See* BPA response to PP-BPA-26-31, reproduced in Attachment A). BPA's projected long-term sales on the Southern Intertie total 6,042 MW. *See* BP-18-E-BPA-08 at Tbl. 4 row 66.

withdrawn from the queue, and multiple customers have declined long-term service when it was offered. BPA staff are correct to be concerned and to argue that the Administrator should take action to encourage transmission customers to continue to choose long-term firm transmission service on the Southern Intertie. Second, a very large quantity of existing long-term transmission reservations will expire or face renewal during the BP-18 rate period. This rate case is the last regular opportunity for BPA to implement changes to its rates in time to inform the decisions that its transmission customers will be making regarding those reservations. There is no time left to "wait and see."

D. REDUCED DEMAND FOR LONG-TERM FIRM SERVICE ON THE SOUTHERN INTERTIE JEOPARDIZES THE STABLE RECOVERY OF COSTS AND IS NOT IN THE BEST INTEREST OF BPA OR ITS CUSTOMERS

Q: Please explain how reduced demand for long-term firm service on the Southern Intertie jeopardizes the stable recovery of costs.

A: BPA recovers the vast majority of the embedded costs of the Southern Intertie facilities from the sale of long-term firm transmission service. Customers reserving this service pay for it in every hour of the year, whether they actually schedule energy or not. Moreover, customers reserving Long-Term Firm service often commit to multiple years of this service, in some cases for as long as 20 years. So in addition to recovering the majority of its Southern Intertie costs from the sale of Long-Term Firm service in each year, BPA derives significant revenue certainty that it will continue to be able to do so for several years into the future. The continued sale of Long-Term Firm service on the Southern Intertie is therefore vital to BPA's ability to ensure that it continues to be able to fully recover the cost of the Southern Intertie facilities.

Q: *What could happen if BPA were not able to recover the embedded cost of the Southern Intertie facilities through the continued sale of long-term firm service?*

A: If subscriptions to Long-Term Firm service on the Southern Intertie declined, there would be several ramifications. First and foremost, the recovery of embedded costs would be less certain as a higher fraction of the revenue requirement would need to be recovered from short-term sales that may or may not materialize. This increased uncertainty will place increased stress on BPA's financial reserves from year to year.

Second, Long-Term Firm customers pay for transmission service regardless of whether or not they actually deliver energy in any given hour. This means that customers with Long-Term Firm reservations have "sunk" transmission costs and have a financial incentive to fully utilize the Southern Intertie facilities whenever an economic opportunity presents itself. If Long-Term Firm reservations expire and transmission customers are less willing to commit to additional Long-Term Firm service, however, then use of the Southern Intertie will increasingly require purchasing short-term transmission service. Under such circumstances, transmission costs would no longer be "sunk," and there may be a significant number of hours in which variable transmission costs prevent otherwise economic use of the Southern Intertie facilities. In other words, Southern Intertie utilization may decline if a larger portion of the Southern Intertie costs had to be recovered from sales of short-term service. This would undermine the functioning of economically efficient wholesale power markets, to the detriment of all participants and ultimately consumers.

Third, the loss of Long-Term Firm sales may simply make it impossible to recover the embedded costs of the Southern Intertie from users of those facilities. While financial reserves may absorb revenue variations from year to year, a chronic inability to recover the revenue requirement from Southern Intertie users will inevitably shift some of the costs of those facilities to BPA's other transmission customers. This would be undesirable and contrary to the cost-causation principle of ratemaking, given that power flows on the Southern Intertie are predominantly from North to South (exports) rather than being used to serve native load in the Northwest.

SECTION 3: BPA STAFF'S SOUTHERN INTERTIE HOURLY RATE PROPOSAL ADDRESSES THE CONCERNS OVER FUTURE SALES OF LONG-TERM FIRM SERVICE

A. DESCRIPTION AND BASIS OF BPA STAFF'S HOURLY RATE PROPOSAL

Q: What rate are BPA staff proposing for hourly service on the Southern Intertie?

A: BPA staff are proposing an hourly rate of 11.49 mills per kWh on the Southern Intertie.

Q: What is your understanding of how BPA staff calculated the proposed hourly rate?

A: BPA staff maintained the same fundamental rate design and rate methodology BPA has used in prior rate cases. That is, BPA sets rates for hourly service so that customers reserving hourly service for a specified number of hours per week, for each week of the year, will face the same cost as a customer reserving long-term firm service. Staff's calculation in the BP-16 rate case used a value of 80 hours per week—corresponding to 16 hours per day, 5 days per week. Staff's proposed BP-18 hourly rate is based on a value of 25 hours per week. Beyond the use of a different number of hours of service, the calculation of the proposed rate follows the same formula as in prior years.

Q: *Do BPA staff explain why they calculated the proposed hourly rate based on 25 hours per week rather than 80 hours per week?*

A: Yes. BPA staff explained that 25 hours per week better reflects the evolving trends in the California organized markets, operated by the CAISO. In particular, BPA staff explained that the dramatic increase in California renewable generation, especially solar, "has reduced the demand for imports during the afternoon, a portion of the day that has traditionally been included in the definition of heavy load hours."[12] According to BPA staff, these changing conditions, together with the fact that the CAISO markets operate on an hourly and sub-hourly basis, "have effectively decreased the number of heavy load hours in California to 25 hours per week."[13]

B. BPA STAFF'S RATE PROPOSAL WILL RESTORE INCENTIVES FOR CUSTOMERS TO INVEST IN LONG-TERM FIRM SERVICE ON THE SOUTHERN INTERTIE

Q: *How will BPA staff's proposed hourly rate encourage transmission customers to continue to invest in long-term service on the Southern Intertie?*

---

[12] Fredrickson *et al.*, BP-18-E-BPA-12, at 5, lines 3-5.

[13] *Id*. at 10, lines 7-8.

A: In principle, there are three broad reasons for a transmission customer to choose to reserve long-term firm service instead of relying on hourly non-firm service. First, reserving long-term firm service secures transmission service, which may or may not be available on an hourly basis. Second, reserving long-term firm service provides higher scheduling priority than hourly non-firm service. Third, depending on how many hours per year the customer anticipates scheduling on the transmission reservation, long-term firm service may have a lower total cost than hourly service.

In the case of the Southern Intertie, however, all three of these reasons for purchasing long-term service have been eroded. BPA staff's proposed hourly rate, however, is designed to restore the third reason above. That is, BPA staff's proposed hourly rate reduces the financial incentive to rely on hourly transmission service rather than long-term service.

Q: Please explain how the first reason for purchasing long-term firm service has been eroded on the Southern Intertie?

A: Firm transmission capacity on the Southern Intertie that has been reserved but not scheduled is re-sold by BPA as non-firm service beginning at approximately 10 p.m. of the day prior to delivery. If CAISO has awarded a sale to a customer without firm transmission, however, under "normal" conditions this means that a customer with firm transmission will be unable to submit a schedule by the non-firm release timeline. As BPA staff's testimony explains, a "seller bidding into the CAISO market without firm transmission can anticipate that non-firm transmission inventory will become available on the northern half of the intertie if its bid is selected in the CAISO market."[14] Therefore, a transmission customer does not need to invest in long-term firm service on the Southern Intertie in order to reliably make sales into the CAISO markets; it can generally rely on hourly non-firm service being made available by BPA whenever the customer receives a CAISO market award.

Q: Please explain how the second reason for purchasing long-term firm service has been eroded on the Southern Intertie?

A: The scheduling priority of long-term firm service is largely irrelevant for making sales into the CAISO markets. As BPA staff explained, sellers into the CAISO markets are not required to schedule energy deliveries on firm transmission. Moreover, firm transmission is not an advantage in being awarded a sale in CAISO's markets because transmission information is not required by CAISO at the time bids into its markets are due.

Q: Please explain how the third reason for purchasing long-term firm service has been eroded on the Southern Intertie?

A: The financial advantage of purchasing long-term service instead of hourly service depends critically on the number of hours that the transmission customer expects to schedule on its reservation. For example, if a transmission customer anticipates scheduling energy in every hour of the year, then long-term service will be less expensive, over the course of the year, than purchasing hourly service in every hour. This is because, even under the BP-16 rate, the hourly rate is more than

[14] Fredrickson *et al.*, BP-18-E-BPA-12, at 6, lines 7-9.

simply a *pro rata* hourly share of the annual rate. If a transmission customer anticipates scheduling energy in relatively few hours of the year, however, then reserving hourly service only during the hours it is actually needed is likely to be less expensive than purchasing long-term service. The fewer the number of hours of anticipated use, the more financially attractive that hourly service becomes. As explained by BPA staff, the changes in the CAISO markets have had the effect of reducing the number of hours in which there is high demand for imports into California. Consequently, the financial incentive for transmission customers to invest in long-term service instead of hourly service on the Southern Intertie has declined.

Q: How does BPA staff's hourly rate proposal restore the financial incentive for transmission customers to invest in long-term service instead of hourly service on the Southern Intertie?

A: Under the existing BP-16 rates, long-term service on the Southern Intertie is more financially attractive than hourly service if a customer intends to schedule on the transmission reservation in more than 80 hours per week. Under the proposed BP-18 rate, long-term service becomes more financially attractive if a customer intends to schedule on the transmission reservation in more than 25 hours per week. Thus, the higher rate provides a financial incentive for customer to reserve long-term service, even as the number of "high value hours" for sales into California declines.

SECTION 4: BPA STAFF'S SOUTHERN INTERTIE HOURLY RATE PROPOSAL IS REASONABLE AND CONSISTENT WITH BPA'S LONG-STANDING RATE DESIGN METHODOLOGY

A. BPA STAFF'S RATE PROPOSAL WAS DEVELOPED THROUGH AN EXTENSIVE PUBLIC CONSULTATION PROCESS

Q: *Please describe the process through which BPA staff considered alternatives to address Southern Intertie seams issues and potential solutions.*

A: BPA staff conducted an extensive process of publicly noticed, open workshops. This also included numerous opportunities for customer and stakeholder feedback in both written and oral form.

Q: *How did BPA staff document their consideration of options and alternatives?*

A: In addition to the materials presented at workshops, BPA staff also developed a white paper to frame the issues and examine potential alternatives. BPA staff made two draft versions of this document available for public review and comment before putting forth a final version in February of 2016.

Q: *Please describe the workshop process.*

A: BPA staff conducted ten workshops during the period of October 2015 through July of 2016. Materials for these workshops were made available in advance of the meetings and are still available publicly on BPA's website. The workshops included presentations by BPA staff and also made time available for any party to offer perspectives or analysis, request information, or ask questions. Outside of the workshop process, BPA staff was also very responsive to inquiries on an individual basis.

Q: *What opportunities were available for public comment?*

A: BPA staff solicited written public comments on at least six occasions during the process and also accepted comments outside of those times.

Q: *Was participation in the workshop and comment process robust?*

A: Yes. Workshops were well attended by a wide variety of representatives of diverse utility and stakeholder interests from the Pacific Northwest as well as California. This diversity of participation was also reflected in the written comments submitted to BPA.

Q: *Did BPA staff reasonably consider and document viewpoints and options that were presented through public comments?*

A: Yes. BPA staff extensively analyzed, documented, and gave response to public comments in a transparent manner.

Q: *Did BPA staff consider a wide range of both rate and non-rate alternatives to resolve issues?*

A: Yes. As documented in BPA staff's white paper and workshop materials, a full range of potential alternatives were considered in arriving at their current proposal. This includes both rate and non-rate alternatives.

Q: *What are your conclusions regarding BPA staff's process for consideration in arriving at their current proposed rate for hourly service on the Southern Intertie?*

A: As described above, BPA staff conducted an extensive, robust, and transparent public process to arrive at their BP-18 rate proposal for hourly service on the Southern Intertie. All viewpoints and alternatives were reasonably considered to arrive at this point.

B. BPA STAFF'S RATE PROPOSAL CONTINUES THE COST-BASED RATEMAKING APPROACH FOR THE SOUTHERN INTERTIE

Q: *Has BPA staff abandoned BPA's prior cost-based ratemaking approach in calculating the proposed hourly rate for the Southern Intertie?*

A: No. As described in Section 3.A, above, the rate design and methodology are unchanged from prior rate cases. As in the BP-16 rate case, BPA staff continues to propose to calculate rates for short-term service down to Daily Block 2 as a simple *pro rata* share of the annual rate. That is, the rate for Daily Block 2 service is the annual rate divided by 365. Also as in the BP-16 rate case, the Daily Block 1 rate is set to recover a one-week *pro rata* share of the annual rate over five days of reservation. And, again adhering to the BP-16 rate methodology, hourly service is set to recover the Daily Block 1 rate over a subset of hours during that day. BPA staff's proposed BP-18 hourly rate differs only in the number of hours per day that is assumed in this formula. In prior rate cases, that value was 16 hours per day; in the proposed rate, that value is 5 hours per day.

Q: *Can the difference between the formulas used to calculate the hourly BP-16 rate and BPA staff's proposed hourly BP-18 rate be readily identified?*

A: Yes. The formulas used to calculate BPA staff's proposed BP-18 Southern Intertie rates are documented in Table 8 of BPA's Transmission Rates Study and Documentation.[15] The corresponding formulas for the BP-16 rates were

---

[15] Transmission Rates Study and Documentation, BP-18-E-BPA-08.

documented in Table 8 of the Errata to Transmission Rates Study and Documentation.[16] In Exhibit No. 7 of Attachment A to this testimony, the two rate calculation tables are presented side by side, with the difference in the formulas highlighted in red. As is readily apparent, the calculation of staff's proposed BP-18 rate follows precisely the same approach as in BP-16, with the only difference being the use of "24/5" as opposed to "24/16."

C. BPA STAFF'S RATE PROPOSAL IS CONSERVATIVE

Q: BPA staff's proposed hourly rate for the Southern Intertie is a significant increase over the BP-16 hourly rate. Is this increase excessive?

A: No. In fact, BPA staff's proposed rate could be viewed as conservative, given that there are several reasons to support a rate that would be higher than the proposed rate.

Q: In what ways is BPA staff's proposed hourly rate conservative?

A: As explained previously, the key factor driving the proposed rate is the change to the number of hours per week that is assumed in the rate calculation. In prior rate cases, the calculation used a value of 80 hours per week; staff's proposed rate is based on a value of 25 hours per week. The use of 25 hours per week is conservative in two key ways. First, it is based on information as of 2016, even though the trends cited by BPA staff that result in a fewer number of peak hours within the day in California are expected to continue and potentially accelerate. Second, while staff's proposed rate recognizes that hourly service can be reserved

[16] Errata to Transmission Rates Study and Documentation, BP-16-E-BPA-07-E02.

and paid for just in the hours that a customer wants to use the service, it assumes customers will reserve the 25 hours in every week of the year, which is a highly conservative assumption.

Q: *Regarding the first issue, are the changes identified by BPA staff regarding California's changing net load shape expected to continue?*

A: Yes. While BPA staff's testimony is based on information up to 2016, it is important to note that the trends staff identified in the testimony are likely to continue, and even to accelerate. For instance, the dramatic reduction in net load during the mid-day hours—the so-called "belly of the duck"—reached levels in 2016 that CAISO had previously anticipated would not be reached until 2020.[17] As the "duck belly" becomes larger and affects more hours, the demand for energy imports into the CAISO will continue to decline. Moreover, the principal driver of the "duck belly" phenomenon has been the addition of large amounts of utility-scale solar generation. Utility-scale solar generation capacity in California is approximately 9,000 MW at present, and is expected by CAISO to grow by another 4,000 to 5,000 MW by 2020.[18] Utility-scale solar additions are also expected to be a large part of the renewable resources added beyond 2020 as California seeks to meet its renewable target of 50% by 2030.[19] Moreover, it is

---

[17] CAISO, NREL, First Solar, *Using Renewables to Operate a Low-Carbon Grid*, January 11, 2017, at 11. ("CAISO Solar Study"), *available at* http://www.caiso.com/Documents/UsingRenewablesToOperateLow-CarbonGrid.pdf.

[18] CAISO Solar Study at 9.

[19] *Id*.

expected that "behind the meter" rooftop solar installations will grow by over 4,000 MW between now and 2020.[20]

Q: *Regarding the second point, why is it conservative to calculate a rate using a value of 25 hours per week?*

A: The principle behind BPA staff's proposed hourly rate is to set it at a level "so that a customer that reserves hourly transmission … would pay the same amount as a customer that has reserved long-term firm transmission."[21] BPA staff's proposed rate recognizes that customers reserving hourly service only pay for that service during the specific hours they reserve it, and that they are likely to reserve hourly service during the 25 high-value hours of each week. This is the basis for the 25-hours-per week value in staff's calculation. But while the proposed rate considers that hourly service might be reserved in a limited number of hours per week, it seems to not consider that hourly service might also be reserved in a limited number of weeks per year.

Q: *Is hourly transmission service on the Southern Intertie reserved uniformly in all weeks of the year?*

A: No. In fact, the patterns of hourly transmission reservation can vary substantially from week to week. This is to be expected, given that the market conditions between the Pacific Northwest and California are also highly variable throughout the year. Data provided by BPA staff in this proceeding demonstrates that an

---

[20] CAISO Solar Study at 10.

[21] Fredrickson *et al.*, BP-18-E-BPA-12, at 3, lines 10-13.

individual customer reserved hourly transmission service on the Southern Intertie during an average of just under 30 weeks per year during FY 2015-2016.[22] And of the 22 transmission customers that reserved hourly transmission service during that period, *none* did so in every week of the year.

Q: *Would the hourly rate be higher than BPA staff's proposed rate if the calculation assumed hourly service would be reserved in fewer than 52 weeks per year?*

A: Yes. If the hourly rate were designed to ensure that customers reserving long-term firm service paid the same as a customer reserving hourly service in 25 hours per week, but in just 30 weeks per year, the hourly rate would be approximately 20 mills per kWh, which is approximately 70 percent higher than BPA staff's proposed rate.[23]

Q: *Are there other ways that the selective nature of hourly service can result in customers reserving hourly service not paying the same as customers reserving long-term service?*

A: Yes. Even if a transmission customer reserves hourly service during 25 hours per week and 52 weeks per year, as assumed in the rate calculation, the quantity that the customer may reserve can vary in each hour. For instance, a customer could reserve 35 MW of hourly service in one hour, but only 10 MW of hourly service in other hours. In this example, the customer would pay for 35 MW of service

---

[22] *See* BPA staff's response to PP-BPA-26-37, reproduced in Attachment A. The average of "Count of weeks with a reservation," excluding customers with less than 1,000 MWh of reservations, was 25.5 weeks during FY 2015, and 32.8 weeks during FY 2016, for an overall two-year average of 29.1 weeks.

[23] 14.98 / (30 weeks * 168 hours) * (7/5) * (24/5) = 19.97 mills/kWh. 14.98 refers to the annual $/kW to be recovered through Southern Intertie rates. *See* Transmission Rates Study and Documentation, BP-18-E-BPA-08, at Tbl. 8, line 15.

only during one hour, but would pay for a lower quantity of service in the other hours. A customer reserving long-term transmission service has no such flexibility: it must reserve and pay for the *maximum* amount of capacity it desires for the entire duration of its long-term service agreement. For customers reserving hourly service, the ability to reduce the quantity of reserved service reduces the total cost paid, compared to being required to reserve a constant amount over all hours of service.

Q: Does JP01 now propose additional modifications to BPA staff's cost-based rate methodology?

A: No, not at this time. As stated previously, JP01 fully supports BPA staff's proposed rate for hourly transmission service on the Southern Intertie as a conservative first step to maintaining the incentives for BPA's customers to choose long-term firm transmission service. BPA staff's proposed rate strikes an appropriate balance between the need for decisive action while also limiting the magnitude of the rate increase.

D. BPA STAFF'S RATE PROPOSAL IS WELL WITHIN OTHER COST-BASED BENCHMARKS FOR THE SOUTHERN INTERTIE FACILITIES

Q: Are there other transmission providers that have established tariff rates for service on the joint Southern Intertie facilities at levels similar to BPA's proposed hourly rate?

Yes. Three of the OATT transmission providers on the southern segments of the Southern Intertie have established tariff rates for hourly transmission service at levels similar to BPA staff's proposed hourly rate. Specifically, the tariff rates of the Transmission Agency of Northern California (TANC), Sacramento Municipal

Utility District (SMUD), and Los Angeles Department of Water and Power (LADWP) are as follows:

Transmission Provider	Path	Hourly Tariff ($/MWh)
TANC	COTP	$12.52
SMUD	COTP	$11.14
LADWP	PDCI	$10.81 (on-peak)

Q: *How does BPA staff's proposed hourly rate compare to BPA's cost of transmission expansion?*

A: BPA's current cost of transmission system expansion is estimated to be $27.48/MWh.[24] This is based on the cost of expanding transmission capacity between the Pacific Northwest and California (*i.e.*, for the same activity supported by the Southern Intertie facilities). BPA staff's proposed hourly rate of $11.49/MWh is therefore less than half the cost of expanding transmission for similar transactions.

SECTION 5: BPA STAFF'S RATE PROPOSAL MITIGATES THE POTENTIAL FOR UNINTENDED ADVERSE CONSEQUENCES

A. BPA STAFF'S RATE PROPOSAL DOES NOT RAISE CONCERNS REGARDING UTILIZATION OF THE SOUTHERN INTERTIE

Q: *Does BPA staff's proposed hourly rate raise concerns about reduced utilization of the Southern Intertie?*

[24] *See* BPA Business Practice for Resale of Transmission Service, v. 10, at C.3.

A: No. In fact, by encouraging transmission customers to reserve long-term transmission service instead of hourly transmission service, BPA staff's proposed rate supports the maximum economic utilization of the Southern Intertie. As a general matter, the use of the Southern Intertie facilities will be maximized when the incremental charges that apply to that use are minimized. One way to minimize incremental charges would be for BPA to offer hourly transmission service on the Southern Intertie for free; this would maximize utilization, but it would obviously also fail to recover the annual revenue requirements for the Southern Intertie. Incremental charges can also be minimized by recovering the cost of service through charges that apply whether the transmission service is used or not. That is precisely what occurs when transmission customers invest in long-term service on the Southern Intertie: they commit to paying for the reserved capacity in fixed monthly amounts throughout the term of their service agreement. And since the transmission customer pays for the long-term reservation regardless of whether or not it schedules on it on any given hour or day, the customer has every incentive to utilize the transmission service any time there is a beneficial opportunity to do so.

Q: Will the higher proposed hourly rate prevent the Southern Intertie from being utilized when a transmission customer with a Firm reservation chooses not to schedule on it?

A: No, for several reasons. First, there is every reason to expect that customers that invest in long-term firm service will schedule on their reservations anytime that an economic opportunity is available. This is because a firm reservation can be used not only to deliver energy from a transmission customer's own resources, but also to deliver energy that the transmission customer purchases in the liquid and competitive market for electric power in the northwest. Second, a transmission customer that holds a long-term firm reservation has the ability to re-sell, transfer, or assign those rights to other eligible transmission customers. This allows utilization of the Southern Intertie by other transmission customers during periods when the long-term rights-holder does not intend to utilize the reservations for their own use. In other words, reserving hourly transmission service from BPA, at the proposed rate, is not the only way for "unused" firm capacity to be made available to other transmission customers.

B. BPA STAFF'S RATE PROPOSAL SUPPORTS, RATHER THAN UNDERMINES, STABLE REVENUE RECOVERY

Q: Does BPA staff's proposed hourly rate raise concerns regarding transmission revenues for the Southern Intertie?

A: No. While the higher hourly rate is projected to reduce the volume of hourly sales, this does not raise concerns about transmission revenues for Southern Intertie service overall, for two reasons. First, the lower quantity of hourly sales will pay a higher rate, with the result that total revenues from the sale of hourly service may not necessarily decline. Second, any reduction in hourly sales revenues that may be experienced is more than offset by strengthening incentives for continued sales of long-term firm service on the Southern Intertie.

Q: Regarding the first point, do lower volumes of short-term sales undermine revenue recovery on the Southern Intertie?

A: No. The lower quantity of short-term sales is largely mitigated by higher revenues for the sales that are made. For instance, BPA currently projects $4.2 million in annual revenues from the sale of short-term service on the Southern Intertie.[25] In the BP-16 rate case, BPA projected annual revenues of $5.2 million.[26] In other words, BPA projects that annual revenues from the sale of short-term transmission service on the Southern Intertie will be only $1 million less than in BP-16.

Q: Regarding the second point, please put the change in BPA's projected revenues from the sale of short-term service in the context of its reliance on the sale of long-term transmission service for revenue recovery.

A: One of the principal motivations behind BPA staff's hourly rate proposal is to "maintain the incentive for customers to choose long-term firm transmission."[27] The loss of just 100 MW of long-term transmission service sales would reduce BPA's transmission revenues by $1.5 million.[28] With *several thousand* megawatts of long-term firm reservations expiring or facing renewal decisions during the BP-18 rate period, and with a limited queue of requests for new long-term service, there is clearly far greater revenue at stake from long-term sales than from any reduction in hourly sales.

---

[25] Transmission Rates Study and Documentation, BP-18-E-BPA-08 at Tbl. 12, row 27 Column G.

[26] Errata to Transmission Rates Study and Documentation, BP-16-E-BPA-07-E-E02 at Tbl. 12, row 25 Column G.

[27] Fredrickson *et al.*, BP-18-E-BPA-12, at 8, lines 24-25.

[28] 100 MW * $1.248/kW-month * 12 months = $1.498 million.

C. BPA STAFF'S RATE PROPOSAL DOES NOT PRECLUDE OTHER SOLUTIONS FOR ADDRESSING SEAMS ISSUES ON THE SOUTHERN INTERTIE

Q: *Does BPA staff's rate proposal prevent future non-rates solutions?*

A: No. Nothing in BPA staff's proposal would prevent future alternative solutions from being pursued or implemented. For example, it is possible that a future collaborative solution between BPA and the CAISO could resolve this and other potential issues on the Southern Intertie. Indeed, the CAISO submitted comments in the pre-rate case process noting its goals to "maintain reliability and open, transparent, non-discriminatory markets" and that BPA staff's proposed alternatives would not conflict with these goals. There is also nothing to prevent BPA from adopting incremental non-rates solutions on its own system for seams issues on the intertie such as through changes in its business practices.

Q: *What other measures are available to BPA to address the potential for unexpected negative consequences?*

A: In the event that the rate proposal creates unexpected negative outcomes, BPA retains the ability to discount the rate to present levels at any time between rate setting processes. This provides a "safety valve" that should alleviate concerns regarding unintended consequences.

D. BPA STAFF'S SOUTHERN INTERTIE HOURLY RATE PROPOSAL IS DISTINGUISHABLE FROM RATES FOR SERVICE ON ITS PRIMARY NETWORK

Q: *Does the calculation for the hourly rate reflect characteristics that are unique to the Southern Intertie?*

A: Yes. As explained above, BPA staff's proposed hourly rate is driven by a revised assumption in the rate calculation regarding the number of high-value hours assumed to occur each week. That number has been 80 hours per week in prior rate cases, and was reduced to 25 hours in the proposed hourly rate for the Southern Intertie. BPA staff arrived at that number based on information specific to the California energy markets, citing specifically to large additions of solar generation and to the unique rules of the CAISO organized markets. These California-specific circumstances do not apply to service on BPA's primary transmission network.

Q: Does this conclude your testimony?

A: Yes.

ATTACHMENT A
TO DIRECT TESTIMONY OF JOINT PARTY 1

Exhibit 1: Data Request and Response PP-BPA-26-27

Exhibit 2: Data Request and Response PP-BPA-26-28

Exhibit 3: Data Request and Response PP-BPA-26-29

Exhibit 4: Data Request and Response PP-BPA-26-30

Exhibit 5: Data Request and Response PP-BPA-26-31

Exhibit 6: Data Request and Response PP-BPA-26-37

Exhibit 7: Comparison of BP-16 and BP-18 rate calculations

EXHIBIT 1

Request ID: PP-BPA-26-27			
Request Date	**Cite**	**Request Text**	**Response Text**
12/09/16	Exhibit: BP-18-E-BPA-12 Page(s): 7-8 Line(s): 8-25	Please confirm that the AC Intertie is no longer fully subscribed on a long-term firm basis and that transmission capacity is available for long-term firm purchase.	Response Filed: 12/16/16 This is correct.

EXHIBIT 2

Request ID: PP-BPA-26-28			
Request Date	**Cite**	**Request Text**	**Response Text**
12/9/16	Exhibit: BP-18-E-BPA-12 Page(s): 7-8 Line(s): 17-25	Regarding the AC Intertie, and considering that long-term firm customers must submit renewal requests with one year's notice, please confirm that 1,416 MW of existing long-term firm service will face a deadline for renewal notification prior to the end of the BP-18 rate period. If this is not the correct amount facing renewal, please provide the correct figure and a supporting explanation.	Response filed 12/16/16 1,416 MW is the correct amount of MWs facing renewal.

EXHIBIT 3

Request ID: PP-BPA-26-29			
Request Date	**Cite**	**Request Text**	**Response Text**
12/09/16	Exhibit: BP-18-E-BPA-12 Page(s): 7-8 Line(s): 17-25	Regarding the AC Intertie: a) Please confirm that there are presently 195 MW of new [original] service requests in the long-term queue. If this is not the correct amount of requests, please provide the correct number and a supporting explanation. b) Please confirm that these requests are from Avangrid and from Cargill. c) Please confirm that Avangrid turned down long-term service on the AC Intertie the last time such service was offered to it. d) Please confirm that Cargill turned down long-term service on the AC Intertie the last time such service was offered to it.	Response Filed: 12/16/16 a) Correct. b) Correct. c) Correct. d) Correct.

EXHIBIT 4

Request ID: PP-BPA-26-30			
Request Date	**Cite**	**Request Text**	**Response Text**
12/9/16	Exhibit: BP-18-E-BPA-12 Page(s): 7-8 Line(s): 17-25	Regarding the DC Intertie: a) Please confirm that there are presently 717 MW of new [original] service requests in the long-term queue. If this is not the correct amount of requests, please provide the correct number and a supporting explanation. b) Please confirm that these requests are from Bonneville, Portland General Electric, LADWP, and Cargill. c) Please confirm that there are no requests in the queue for service beyond January 1, 2019.	Response filed: 12/16/16 File(s) Submitted for this Response: PP-BPA-26-30.pdf*

*File is reproduced following this exhibit.

EXHIBIT 5

Request ID: PP-BPA-26-31			
Request Date	**Cite**	**Request Text**	**Response Text**
12/9/16	Exhibit: BP-18-E-BPA-12 Page(s): 7-8 Line(s): 17-25	Regarding the DC Intertie, and considering that long-term firm customers must submit renewal requests with one year's notice, please confirm that 1,742 MW of existing long-term firm service will face a deadline for renewal notification prior to the end of the BP-18 rate period. If this is not the correct amount facing renewal, please provide the correct figure and a supporting explanation.	Response filed: 12/16/16 1,742 MW is the correct amount facing renewal.

EXHIBIT 6

Request ID: PP-BPA-26-37			
Request Date	**Cite**	**Request Text**	**Response Text**
12/09/16	Exhibit: BP-18-E-BPA-08 Page(s): 27 Line(s): 15-17	Please provide the following information on the quantity of Hourly service over the Southern Intertie (i.e., original requests for Hourly Firm or Hourly Non-Firm service only) for each of FY2015 and FY2016: 1. Name of Transmission Customer 2. Total volume (MWh of reservation) for the Transmission Customer 3. Total number of hours of reservation for the Transmission Customer 4. Total number of weeks in which the Transmission Customer reserved service in at least one hour. To be clear, this question seeks an updated version (for FY2015 and FY2016) of the spreadsheet, PX-BPA-40, that BPA provided in response to PX-BPA-25-40 in the BP-16 rate case. If only some of this information is available, please provide that which is available.	Response Filed: 12/16/16 Please see attached workbook. File(s) Submitted for this Response: PP-BPA-26-37_Data.xlsx*

* Attachment to the data response not included due to volume.

EXHIBIT 7

	Table 8 Calculation of Intertie Rates				
	(A)	(B)	(C)	(D)	(E)
	FY 2016/2017	Source	Costs	Sales	Rates
1	**Intertie Costs**		$000/Yr	aMW	
2	Rate Development Costs	Table 3, line 36 (D)	**100,463**		
3	**Southern Intertie Sales**				
4	Long-term agreements	Table 4, line 58 (O)		6,116	
5	Short-term daily block 1	Table 5, line 52 (O)		60	
6	Short-term daily block 2	Table 5, line 53 (O)		53	
7	Short-term hourly firm	Table 5, line 54 (O)		93	
8	Short-term hourly non-firm	Table 5, line 55 (O)		-	
9	**Sales used for cost allocation**				
10	Long-term agreements	Line 4		6,116	
11	Daily block 1 (day 1 through 5)	Line 5 x (7/5)		83	
12	Daily block 2 (day 6 and beyond)	Line 6		53	
13	Short-term hourly	(Line 7 + line 8) x (7/5) x (24/16)		196	
14	Total cost allocation sales	Sum of lines 10 through 13		**6,449**	
15	**IS rate calculation**				
16	Annual ($/kW-yr)	Line 2 / line 14			15.58
17	Monthly ($/kW-mo)	Line 16 / (12)			**1.298**
18	Daily block1 ($/kW-day)	Line 16 / (365.5) x (7/5)			**0.060**
19	Daily block2 ($/kW-day)	Line 16 / (365.5)			**0.043**
20	Hourly (mills/kWh)	Line 16 / (8.772) x (7/5) x (24/16)			**3.73**

Source: BP-16-E-BPA-07-E-E02, Tbl. 8

	Table 8 **Calculation of Intertie Rates**				
	(A)	(B)	(C)	(D)	(E)
	FY 2018/2019	Source	Costs	Sales	Rates
1	**Intertie Costs**		$000/Yr	aMW	
2	Rate Development Costs	Table 3, line 33 (D)	**94,705**		
3	**Southern Intertie Sales**				
4	Long-term agreements	Table 4, line 66 (O)		6,042	
5	Short-term daily block 1	Table 5, line 42 (O)		5	
6	Short-term daily block 2	Table 5, line 43 (O)		6	
7	Hourly	Table 5, line 44 (O)		40	
8	**Sales used for cost allocation**				
9	Long-term agreements	Line 4		6,042	
10	Daily block 1 (day 1 through 5)	Line 5 x (7/5)		7	
11	Daily block 2 (day 6 and beyond)	Line 6		6	
12	Hourly	Line 7 x (7/5) x (24/5)		268	
13	Total cost allocation sales	Sum of lines 9 through 12		**6,324**	
14	**IS rate calculation**				
15	Annual ($/kW-yr)	Line 2 / line 13			14.98
16	Monthly ($/kW-mo)	Line 15 / (12)			**1.248**
17	Daily block1 ($/kW-day)	Line 15 / (365) x (7/5)			**0.057**
18	Daily block2 ($/kW-day)	Line 15 / (365)			**0.041**
19	Hourly (mills/kWh)	Line 15 / (8.76) x (7/5) x (24/5)			**11.49**

Source: BP-18-E-BPA-08, Tbl. 8

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing on the Bonneville Power Administration's Office of General Counsel, the Hearing Clerks, and all litigants in this proceeding by uploading it to the BP-18 Rate Case secure website pursuant to BP-18-HOO-02 and BP-18-HOO-05.

DATED: January 31, 2017.

/s/ Tyler S. Johnson
Tyler S. Johnson
Bracewell LLP
701 5th Ave.
Suite 6200
Seattle, WA 98104
Tel. (206) 204-6211
E-mail: tyler.johnson@bracewelllaw.com

UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
BEFORE THE
BONNEVILLE POWER ADMINISTRATION

Fiscal Years 2018-2019 Proposed	**)**	**BPA Docket No. BP-18**
Power and Transmission Rate	**)**	
Adjustment Proceeding	**)**	

DIRECT TESTIMONY OF:
Public Power Council

SUBJECT:
Revenue Requirement Issues

WITNESSES:
Michael Deen
Christopher Weber
Kevin O'Meara

January 31, 2017

TABLE OF CONTENTS

SECTION 1: INTRODUCTION AND PURPOSE

Q: Please state your name and qualifications.

A: My name is Michael Deen. My qualifications are shown at BP-18-Q-PP-03.

A: My name is Chris Weber. My qualifications are shown at BP-18-Q-PP-04.

A: My name is Kevin O'Meara. My qualifications are shown at BP-18-Q-PP-01.

Q: What is the purpose of your testimony?

A: The purpose of our testimony is to address certain issues related to (1) modeling transparency, (2) secondary energy sales, (3) net interest expense, and (4) revenue credits.

SECTION 2: MODELING TRANSPARENCY

Q: What is the importance of modeling transparency for BPA in its rate proceedings?

A: BPA's rate-setting process is enormously intricate as a result of the numerous statutory, contractual, and policy objectives that the agency must comply with and balance in setting its rates. With a net revenue requirement of over $3 billion that must be recovered through rates, there are very significant financial and economic stakes related to the accuracy of BPA's allocations. In addition, there are very significant components of the revenue requirement itself that are set using modeling projections during a rate proceeding. Tools of the digital age have allowed for an unprecedented level of precision in forecasting and allocation, but have also added a commensurate level of complexity to the rate-setting process. Unfortunately, in some cases this increased complexity can also lead to opacity.

Given these significant stakes for customers, accuracy of modeling is paramount. Underlying this need for accuracy is a requirement for transparency. If customers and stakeholders cannot fully audit and replicate the rate-setting process, it undermines the basic premise of holding a rate proceeding.

Q: Is BPA's rate modeling generally transparent?

A: Yes. As a whole BPA has done an excellent job in this proceeding of providing transparent and open access to its rate-setting models and tools. Indeed, we cite several examples later in this testimony of excellent collaborative efforts between BPA staff and stakeholders to improve the transparency and accuracy of the rate case modeling process.

Q: Do you have any concerns?

A: Yes. We continue to have concerns regarding the unavailability of a functional repayment model to rate case parties. This is the model that determines the level of debt service costs included in rates, which is a major driver of BPA's revenue requirement. PPC raised this issue in the BP-16 rate proceeding and also during the pre-rate case process for this proceeding. As part of the BP-16 Final Record of Decision, the Administrator committed that "BPA will explore ways to make the repayment model available to rate case parties."[1] Although efforts were made, for a variety of reasons this exploration did not reach the desired conclusion.

Q: Although the functional model is not available, have BPA staff taken any steps to partially mitigate your concerns?

A: Yes. We appreciate the documentation that BPA staff have made available, as well as staff's commitment to run a limited number of additional repayment study scenarios in response to rate case parties' requests. Unfortunately, this is not a substitute for the model itself.

Q: Do you have any recommendations on this issue going forward?

A: Yes. We recommend that BPA recommit to making a functional version of the repayment model available to rate case parties ahead of the BP-20 case. We see no reason why this should not be technically achievable and we believe it would significantly enhance the transparency and value to customers of future rate proceedings.

[1] Administrator's Final Record of Decision, BP-16-A-02, at 85.

SECTION 3: SECONDARY ENERGY SALES

Q: Since the BP-16 proceeding, has BPA made any changes to its methodology for setting the rate credit for the sale of secondary energy?

A: Yes. BPA implemented an extension to the RevSim model to account for the sale of secondary energy made outside of the Pacific Northwest. This change is largely consistent with the methodology PPC and ICNU proposed following the BP-16 rate proceeding.

Q: Do you support the changes that BPA has implemented to the methodology?

A: Yes. The enhanced methodology much better reflects the pattern of market activity that BPA undertakes. It also reflects the fact that BPA power rates recover significant costs for the long-term firm transmission rights required to make sales outside the region. Overall, we see the methodology as a significant enhancement that will lead to more accurate rates over time and also appropriately matches the costs and benefits of assets.

Q: Do you have any concerns with the proposal?

A: We have one concern. In the modeling extension, a coefficient is applied to the premium BPA receives on sales made outside the region, relative to sales it makes at Mid-Columbia (Mid-C). This coefficient takes a value between zero and one, thereby discounting the value of the revenue difference BPA realizes on extra-regional sales. This was not part of the PPC and ICNU proposal discussed during BP-18 rates workshops.

Q: Please describe this coefficient.

A: BPA designed the coefficient as a constant parameter calculated by taking the weighted average share of the price spread that BPA is expected to realize. This is because BPA makes sales outside the region through both bilateral contracts and sales into the California Independent System Operator (CAISO), the latter of which require a third-party contract. BPA incurs transaction costs through these third-party contracts. BPA staff analyzed historical FERC Electric Quarterly Reports (EQR) data and determined that 71 percent of its extra-regional sales were bilateral transactions. BPA staff have assumed that they will make zero sales using third-party contracts during the BP-18 rate period, due to the annual expiration of these contracts. They have also assumed that the absence of these contracts implies that these inventories will be marketed at Mid-C prices instead. As such, the coefficient reduces to the proportion of extra-regional sales made through bilateral contracts. This means that BPA staff assume that BPA will receive 71 percent of the difference between the Mid-C price and extra-regional price in revenues from sales made extra-regionally.

Q: What is your concern with this approach?

A: This approach has the potential to be overly conservative and therefore systematically underestimate the value of secondary sales. While we recognize that there are both costs and risks associated with the third-party sales arrangements in question, assuming a complete discontinuation of those arrangements without accounting for potential new bilateral sales or new avenues for selling directly into the CAISO seems potentially problematic.

Q: What is your recommendation regarding this issue?

A: BPA should continue to utilize the modeling extension as implemented in the BP-18 Initial Proposal for its final proposal for the BP-18 rate period. However, we think the coefficient issue should be further examined collaboratively with interested parties ahead of the next rate case.

Q: Do you have any other comments regarding BPA's methodological extension for secondary energy sales modeling?

A: Yes. We would like to compliment BPA staff on the manner in which they conducted the process for developing this new methodology. BPA staff were consistently responsive, transparent, and constructive throughout the entire process. We believe this was instrumental in reaching a positive outcome and also provides an ideal example for future collaborative modeling work between BPA and its customers.

SECTION 4: NET INTEREST EXPENSE

Q: Have you previously raised concerns regarding BPA's forecast of net interest expense?

A: Yes. As part of the BP-16 rate proceeding, we raised the concern that BPA had been systematically over-forecasting net interest expense.

Q: Has BPA made changes to its forecast in this proceeding relative to the BP-16 approach?

A: Yes. BPA staff have identified three changes in assumptions for BPA's repayment model: (1) when projected debt will be issued, (2) the maturities of projected debt, and (3) the assumed sources of funds for capital investments.

Q: What is the effect of these changes?

A: The general effect of these changes is to more closely align the modeling with BPA's actual financial practices and requirements. Based on BPA staff's response to Data Request PP-BPA-26-48, we have estimated the total impact of these changes as a reduction to the revenue requirement for Transmission of $23.3 million and to the Power revenue requirement of $4.4 million.

Q: Do you support the changes?

A: Yes. We believe these changes will produce a better forecast of actual results during the upcoming rate period. This is especially positive for the forecast of Transmission net interest expense, which, as we described in the BP-16 case, has been significantly overstated in recent proceedings. We commend BPA staff on implementing these changes towards more accurate modeling.

SECTION 5: REVENUE CREDITS

Q: Has BPA made any changes to the modeling of revenue credits from non-requirements sales?

A: Yes. Through a collaborative review of revenue credits with PPC prior to the rate case, BPA staff found that actual downstream benefits revenues that BPA receives from utilities under the Pacific Northwest Coordination agreement were being systematically under forecasted based on the previous methodology. BPA staff have proposed moving from the previous methodology to a three-year average of actual performance.

Q: Do you support this change?

A: Yes. We agree that this is more likely to result in accurate results during the upcoming rate period for this source of revenue. We appreciate BPA staff's responsiveness and collaborative approach in both identifying and addressing this issue.

Q: Does this conclude your testimony?

A: Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing on the Bonneville Power Administration's Office of General Counsel, the Hearing Clerk, and all litigants in this proceeding by uploading it to the BP-18 Rate Case Secure Website pursuant to BP-18-HOO-02 and BP-18-HOO-05.

DATED: January 31, 2017.

s/ Irene A. Scruggs
Irene A. Scruggs
Public Power Council
825 NE Multnomah, Suite 1225
Portland, OR 97232
Tel. (503) 595-9779
E-mail: iscruggs@ppcpdx.org