

7.0 RISK MITIGATION

7.1 Introduction

Because the environment within which BPA operates is filled with numerous uncertainties, the ratesetting process must take into account a wide spectrum of risks. This is carried out in two distinct steps: a risk analysis step, in which the distributions or profiles of operating and non-operating risks are defined, and a risk mitigation step, in which different measures are tested to assess BPA's ability to recover its costs in the face of this uncertainty. RiskMod and NORM (the Non-Operating Risk Model) are used in the risk analysis step for the 2002 rates, while the ToolKit model is used to test risk mitigation options. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 275, 279-280.

By law, BPA's payments to Treasury are the lowest priority of revenue application, meaning that principal, interest, and other payments to Treasury are the first to be missed if financial reserves are insufficient to pay all bills on time. For this reason, BPA measures its potential for recovering costs in terms of probability of being able to make Treasury payments on time.

In the 1993 rate filing, BPA established a long-term policy for meeting its obligations for repaying the U.S. Treasury. 1993 ROD, WP-93-A-02, at 68-72. At that time, two repayment probability calculations were made that have been referenced in rate cases since that time, one short-term and one longer-term. In 1993, a short-term goal was set to ensure a 95 percent probability of making both of the annual payments in the two-year rate period on time and in full. *Id.* A longer-term result, sought in the 10-Year Financial Plan, was to maintain that 95 percent rate period standard for five consecutive two-year rate periods. *Id.*

This TPP standard was established as a rate period standard: that is, it focuses upon the percentage of time BPA successfully makes all of its payments to Treasury over the entire rate period rather than setting numerical goals for year-to-year performance. *Id.* at 70.

In the 1996 rate filing, the length of the rate period changed from two to five years, and the TPP was converted to a value consistent with a longer rate period. Arnold *et al.*, WP-96-E-BPA-15, at 3-4. This value is 88 percent. *Id.* The Principles set this 88 percent, five-year standard as the Treasury repayment goal for the 2002 rate case, with an allowable range down to 80 percent. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 355.

Although the Risk Mitigation Methodology for the 2002 rate case displayed many similarities with previous rate cases, it also contained a number of new features.

- There were a larger number and wider variety of risks considered in setting rates. In addition to the operating risks that had been analyzed and modeled in prior rate cases, and remain the greatest source of risk in the 2002 rate case, this rate proposal also considered the impacts of policy-related nonoperating risks.

- There were revised guidelines for both rate design and risk mitigation. These included:
 - Fish and Wildlife Funding Principles (including the goal of strict adherence to the 88 percent TPP standard in full);
 - A pledge by BPA to its customers to keep power rates both stable and at levels equivalent to those established for the current rate period; and
 - The inclusion of both a CRAC and a Dividend Distribution Clause (DDC) in the rate design to deal with potential revenue shortfall and overrecovery.

Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 275-307.

BPA uses the ToolKit model to test the effectiveness of various risk mitigation measures as part of a rate package that meets the 88 percent TPP goal while meeting BPA's rate pledge to its customers. These risk mitigation measures include starting financial reserves, CRAC, and PNRR. Both section 4(h)(10)(C) credits and the Fish Cost Contingency Fund (FCCF) are modeled in RiskMod and are part of the net revenue deviations used as inputs to ToolKit. *Id.* at 278.

Three hundred distinct values for starting reserves for the FY 2002-FY 2006 period were projected from FY 1999 estimates using a current rate period ToolKit model. *Id.* at 283. This version of ToolKit used net revenue deviations developed for the 1996 rate proposal using the Short Term Risk Evaluation and Analysis Model (STREAM). *Id.* The average starting reserves value for FY 2002 used in the final proposal is \$842.3 million. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 272.

- CRAC is an automatic temporary upward adjustment to posted power prices if Actual Accumulated Net Revenues (AANR) fall below a threshold level. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 277. Because ToolKit calculates cash flows, CRAC thresholds and annual caps were modeled based on reserves. *Id.* at 283-284. For the rate proposal, reserves thresholds were set at \$300 million in 2001 and 2002 and \$500 million in 2003-2005, and annual caps were set at \$125 million if the threshold is crossed in 2001, \$135 million in FY 2002, \$150 million in FY 2003, \$150 million in FY 2004, and \$87.5 million in FY 2005. Lovell *et al.*, WP-02-E-BPA-14, at 6-9.
- PNRR is a component of the revenue requirement added to expenses to increase cash flows for risk mitigation purposes. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 267. For the final proposal, a PNRR of \$98 million was needed to produce an 88 percent TPP. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 276.
- The FCCF is comprised of 4(h)(10)(C) credits that BPA earned since the enactment of the Northwest Power Act in 1980 and prior to 1995, when BPA began taking these credits annually. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 287. The \$325.2 million in this fund is designed to provide protection against certain

operating risks associated with the use of the hydrosystem, and can be accessed when the impacts of court-ordered changes to hydro operations, adverse water conditions, or natural disasters exceed certain established thresholds. *Id.* The impact of FCCF credits on net revenues is modeled in RiskMod. *Id.*

The wide bandwidth of uncertainty BPA considered in formulating its 2002 rates is illustrated in four figures included in BPA's direct testimony on risk mitigation. Lovell *et al.*, WP-02-E-BPA-14, Attachment 2. These graphics show how the ToolKit Model is used in testing the effectiveness of risk mitigation strategies and determining the amount of PNRR needed to meet the 88 percent TPP standard.

The methodology employed in the ToolKit modeling is consistent with an emphasis on full rate period success in recovering all costs, including lowest priority Treasury payments. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 275-307. While ToolKit calculates sequential year-end financial reserve balances for a number of alternative simulations of the rate period under different risk profiles (or games), it counts games (or full rate periods) in calculating TPP percentages. *Id.* at 282. For the rate proposal, an 88 percent TPP meant that in 3432 (.88*3,900 = 3,432) of the 3,900 games modeled by ToolKit, no misses ("deferrals") occurred--that is, ending reserves never fell to \$50 million (or less) in any of the five years in the rate period. *Id.* Payments were made on time and in full five years in a row. *Id.*

7.2 Probability of Repaying Treasury

Issue 1

Whether the TPP goal, design of risk mitigation tools, and design of DDC violate subsection 7(n) of the Northwest Power Act, which declares that rates shall recover costs for protection, mitigation, and enhancement of fish and wildlife, not to exceed such amounts forecasted to be expended during the FY 2002-2006 rate period, while preserving the Administrator's ability to establish appropriate reserves and maintain a high TPP for the subsequent rate period.

Parties' Positions

NRU argues that the DDC, unlike their proposal for a reverse CRAC, potentially shifts costs of the post-2006 era to current customers. Saven, WP-02-E-NI-01, at 16.

The DSIs contend that "(g)roups who seek more expensive risk mitigation packages are seeking . . . to misuse BPA's rates to build a war chest for dam removal." DSI Brief, WP-02-B-DS-01, at 48-51. They state that BPA staff has confirmed that the risk mitigation package could be used to build a "war chest" for dam removal. DSI Ex. Brief, WP-02-R-DS-01, at 2-48. The DSIs claim that BPA's proposal for an 88 percent TPP goal "is precisely what Congress intended to prevent" when it enacted subsection 7(n) of the Northwest Power Act. *Id.* Subsection 7(n) "was adopted expressly to address widespread concerns that BPA was proposing an overly-expansive approach to risk mitigation in this case which would create a "slush fund" for dam removal." *Id.* "Section 7(n) was passed expressly to prevent BPA from overcharging its customers by collecting funds in excess of a reasonable forecast of funds that would actually be expended on fish and wildlife costs" in the 2002-2006 rate period. DSI Ex. Brief,

WP-02-R-DS-01, at 17. Congress considered, but rejected, an earlier draft of 7(n) that would have endorsed the Principles. *Id.*; DSI Brief, WP-02-B-DS-01, at 48-51. Principle No. 3 suggests that BPA may set a TPP anywhere from 80-88 percent. However, Congress, legislating with full knowledge that BPA has previously set rates to achieve an 80 percent level of TPP, rejected the idea that an increase in TPP is required. *Id.*; *see also* DSI Ex. Brief, WP-02-R-DS-01, at 2-51. Specifically, 7(n) requires BPA to maintain, not increase, the TPP in this rate period. *Id.* “The very act of seeking hundreds of millions of dollars annually to mitigate the “policy risk” of higher fish and wildlife costs *beyond the amounts forecast* to be spent in the rate period is a direct violation of section 7(n).” DSI Ex. Brief, WP-20-R-DS-01, at 17.

The DSIs contend that the DDC mechanism, with its five-year, forward-looking Treasury payment probability test, amounts to setting rates to recover fish costs that would be expended after the rate period--and that this violates subsection 7(n). *Id.* at 2-52. The DDC allows the Administrator to reduce the amount of distributions taking into consideration post-2006 costs and risks. This “. . . amounts to setting rates to recover fish costs to be expended after the rate period--precisely what is forbidden by subsection 7(n).” *Id.*

On the other hand, NEC/SOS state that “BPA has left out an important statutory standard in its listing of the statutory guidelines governing this rate case . . .” NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 4. NEC/SOS assert that:

BPA has omitted the extremely important and relevant standard contained in the recently passed section 7(n) of the Northwest Power Act, which reads, in part:

. . . rates established by the Administrator . . . shall recover costs for protection, mitigation and enhancement of fish and wildlife . . . *while preserving the Administrator’s ability to establish appropriate reserves and maintain a high Treasury payment probability for the subsequent rate period.*

Id. (emphasis added).

NEC/SOS argue that BPA’s statement that the risk mitigation tools that BPA is proposing are all designed to mitigate risks modeled for FY 2002-2006 only is “not sufficient and does not meet the legal standard of Section 7(n) of the Act. *Id.* Further, NEC/SOS assert that “[f]ailure to recognize this statutory standard has lead [sic] BPA to create a rate which may adequately recover costs for the 2002-6 period but utterly fails to position the agency adequately for the subsequent rate period. *Id.*

CRITFC/Yakama state that it is common practice for a business to position itself to address future risk by creating reserves necessary to accommodate that future risk. Sheets, WP-02-E-CR/YA-05, at 10.

CRITFC/Yakama incorporate by reference the arguments set forth by the NEC/SOS concerning section 7(n) of the Northwest Power Act. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 24.

BPA's Position

BPA's rates are being set to recover costs for the FY 2002-2006 period. BPA is adopting a mechanism to rebate or otherwise distribute revenue generated by these rates to the extent reserves grow to levels that are beyond what is needed to recover cost over the ensuing five years. Such distributions would occur in FY 2002-2006 using reserves generated by rates and cost in FY 2002-2006. These actions do not shift any future, post-2006 costs into the FY 2002-2006 period, or in any way cause BPA's rates to recover expenses for fish and wildlife above the level forecast by the Administrator for the FY 2002-2006 period. Post-2006 costs do not affect the level of rates in this proposal. DeWolf *et al.*, WP-02-E-BPA-39, at 20.

Evaluation of Positions

Subsection 7(n) of the Northwest Power Act reads:

Limiting the Inclusion of Costs or Protection of, Mitigation of Damage to, and Enhancement of Fish and Wildlife, Within Rates Charged by the Bonneville Power Administration, to the Rate Period in which the Costs are Incurred.

Notwithstanding any other provision of this section, rates established by the Administrator under this section shall recover costs for protection, mitigation and enhancement of fish and wildlife, whether under the Pacific Northwest Electric Power Planning and Conservation Act or any other Act, not to exceed such amounts the Administrator forecasts will be expended during the fiscal year 2002-2006 rate period, while preserving the Administrator's ability to establish appropriate reserves and maintain a high Treasury payment probability for the subsequent rate period.

See 2000 Energy and Water Development Appropriations Act, HR 2605 ENR, P.L. 106-60.

Subsection 7(n) refers to BPA ratesetting for FY 2002-2006. BPA is instructed to set rates at levels sufficient, and no higher than sufficient, to recover authorized costs of protecting, mitigating, and enhancing fish and wildlife that are forecasted to occur during the same five-year period. This includes a deterministic forecast of fish and wildlife expenses in revenue requirements and the repayment schedule for FY 2002-2006. This also includes the costs of mitigating risks in FY 2002-2006 to ensure with a high level of confidence that such costs will be recovered timely. Subsection 7(n) goes on to preserve the Administrator's flexibility to build and maintain financial reserves to position BPA to achieve a comparably high confidence level for recovering costs post-2006, consistent with Principle No. 4.

Costs in repayment studies and in revenue requirements reflect an average of the costs of the 13 Alternatives for the five years in the instant rate period only. DeWolf *et al.*, WP-02-E-BPA-13, at 7-10. *See, also*, Revenue Requirement Study Documentation, WP-02-FS-BPA-02A, Chapter 13, section II, and DeWolf *et al.*, WP-02-E-BPA-39, at 26-28. BPA is not pulling costs from FY 2007 or future years into the 2002-2006 rate period repayment

studies and revenue requirements. *Id.* Flexibility to reduce a distribution because the cash may be needed to pay the bills later on does not constitute pulling costs into the 2002-2006 period. The DSIs present no evidence or logic to support their contention that the DDC “amounts to setting rates to recover fish costs to be expended after the rate period.” DSI Brief, WP-02-B-DS-01, at 52. Rates for 2002-2006 are being set *now*, in *this* rate proposal, and *not* when the DDC is being implemented. That said, if there were any impact on rates, it would be to smooth or reduce post-2006 rates. By the same token, BPA is not adding to revenue requirements an unexpended balance or “carryforward” that has accumulated in FY 1996-2001 under terms of the current interagency MOA for fish and wildlife recovery. Lovell *et al.*, WP-02-E-BPA-40, at 19. *See* MOA carryforward issues, *infra*.

BPA is modeling risks in RiskMod and NORM for the FY 2002-2006 period only. Risk Analysis Study, WP-02-E-BPA-03, at 1, 9, 10, 14-17, and 19-23. *See also*, Risk Analysis Study Documentation, WP-02-E-BPA-03A. The 2002 power rates evaluated in this proceeding will cover the FY 2002-2006 period revenue requirement only. The TPP goal for which risk mitigation tools have been designed applies to FY 2002-2006 only. DeWolf *et al.*, WP-02-E-BPA-13, at 21-27.

The risk mitigation tools that BPA designed for the 2002 rates are applicable and effective in FY 2002-2006 only. They are all designed to mitigate risks modeled for FY 2002-2006 only. In particular, the starting reserves tool represents all projected cash in the BPA fund attributable to power as of the beginning of FY 2002. The full amount of these reserves is made available to mitigate risk during the instant rate period. In addition, the CRAC is allowed to trigger and raise rates in rate period years based on conditions prevailing in only the rate period years. Further, planned net revenues for risk are added to expenses in each rate period year only. And finally, FCCF credits are modeled statistically based on water conditions in rate period years only. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, Chapter 12.

The DDC is a mechanism that is applicable to and effective in FY 2002-2006 only. The threshold of the DDC is a threshold based on actual net revenues accumulated through FY 2002-2006 only. Distributions would occur in FY 2002-2006 only. If the threshold is met, the Administrator would reduce the amount that is distributed if, and only to the extent that, amounts above the threshold were needed to meet the TPP goal. The Administrator’s determination would be based on a financial forecast and risk analysis for the ensuing five-year period. This means that dividends could be reduced to as low as zero even if the threshold were exceeded, if that cash was deemed necessary to ensure that future costs would be recovered with a high degree of certainty. DeWolf *et al.*, WP-02-E-BPA-39, at 13. The Administrator would render that judgment, but only after a public airing of the forecast and risk analysis and after ample opportunity for public comment each time the DDC thresholds were crossed. In BPA’s judgment, it makes no business sense to be rebating cash today if tomorrow it will be needed. *Id.* at 15.

The DSIs state that subsection 7(n) was passed by Congress “. . . expressly to address widespread concerns that BPA was proposing an overly-expansive approach to risk mitigation in this case which would create a “slush fund” for dam removal.” DSI Brief, WP-02-B-DS-01, at 48-51. Such widespread concerns, if ever true as described, are now alleviated by BPA’s rate

proposal: the approach to risk mitigation is fundamentally a product of public involvement processes, including the 10-Year Financial Plan/TPP standard, Fish and Wildlife Funding Principles, and Subscription Strategy public processes. BPA is setting up no “slush fund” or “war chest” or anything like it for dam removal, and the transcript that the DSIs cite is certainly not the confirmation they pretend. DSI Ex. Brief, WP-02-R-DS-01, at 2-48 to 2-49. Indeed, the Principles that BPA is implementing in the 2002 rates are driven by a “keep the options open” strategy that explicitly treats each salmon recovery alternative as equally likely to occur. No preference or weight is given to low-cost alternatives over high-cost alternatives, or vice versa. DeWolf *et al.*, WP-02-E-BPA-13, at 7-21. BPA’s rate pledge is being met. And BPA’s DDC is designed to reduce reserves to the extent they accumulate to levels higher than are demonstrably needed to ensure near- and mid-term recovery of costs.

The DSIs’ contention that 7(n) somehow requires BPA to reduce its cost recovery goal is without foundation. Nothing on the Congressional record suggests that Congress intended BPA to implement an 80 percent TPP goal rather than the 88 percent goal BPA proposed in this proceeding. The 88 percent TPP standard is a long-standing policy goal. DeWolf *et al.*, WP-02-E-BPA-13, at 22-23; 1993 ROD, WP-93-A-02, at 68-72. *See* Issue 2, *infra*. The DSIs err in stating that subsection 7(n) requires that BPA maintain, not increase, the TPP in *this* rate period. Rather, as quoted above, subsection 7(n) preserves the Administrator’s ability to establish reserves and maintain a high Treasury payment probability for the *subsequent* rate period, meaning the period after FY 2002-2006.

The DSIs contend that the DDC mechanism, with its five-year, forward-looking Treasury payment probability requirement, amounts to setting rates to recover fish costs that would be expended after the rate period. DSI Brief, WP-02-B-DS-01, at 52. The DSIs claim that since “BPA is proposing to exercise discretion to invoke the DDC mechanism depending upon expected post-2006 costs,” it is essentially setting rates to recover post-2006 fish costs. *Id.* The DSIs are incorrect. The DDC is not a rate as the DSIs suggest, but a mechanism designed to ensure that reserves are constrained by means of rebates or other means to levels demonstrably needed to recover costs. In BPA’s view, the DDC design is precisely what Congress intended in subsection 7(n) when it preserved the Administrator’s ability to “. . . establish appropriate reserves and maintain a high Treasury payment probability for the subsequent rate period.”

Decision

BPA’s 2002 power rates comply in full with the recently passed subsection 7(n).

Issue 2

Whether BPA should implement a TPP goal of 88 percent for the five-year rate period.

Parties’ Positions

Several customer parties argue that BPA should target a lower TPP than the 88 percent TPP goal in the rate proposal.

Alcoa, Vanalco, and Energy Services support reducing the TPP goal by arguing that BPA will not be assuming more risks by lowering the TPP goal. Speer *et al.*, WP-02-E-AL/VN/EG-02, at 10. Alcoa/Vanalco contend that BPA does not have a historical precedent for the 88 percent goal, since 80 percent is the highest TPP that BPA has implemented in rates for a five-year rate period. Alcoa/Vanalco Brief, WP-02-B-AL/VN-01, at 22. They also conclude that the 10-Year Financial Plan that BPA adopted in 1993, which outlines BPA's current TPP policy, officially expires in 2003 and that it is not legally applicable (enforceable) post-2003. *Id.* at 23; Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-01, at 35.

The DSIs argue that BPA should reduce its TPP goal to 80 percent, reduce PNRR to zero, and make CRAC sufficiently robust to meet the lower TPP level. DSI Brief, WP-02-B-DS-01, at 47-49. The DSIs contend that an increase from the historical level of 80 percent to 88 percent comes at too high a cost to customers. *Id.* The DSIs claim that BPA fails to account for reductions in risk arising from Slice sales and other factors; if these reductions in risk were accounted for, the TPP result would be considerably higher than the 88 percent that BPA says. *Id.* They also argue that the Principles do not require BPA to implement an 88 percent TPP, and BPA fails to support or justify its assertion that Principle No. 4 may be undermined if a lower TPP were adopted. *Id.* at 48-51. They argue that BPA's decision to implement an 88 percent TPP for the rate period is arbitrary, capricious, and contrary to law. DSI Ex. Brief, WP-02-R-DS-01, at 18.

PPC, without specifying a TPP goal, asserts that BPA's risks are adequately mitigated with a TPP less than 100 percent but greater than the maximum of 80 percent advocated by various DSIs. PPC Brief, WP-02-B-PP-01, at 17.

The IOUs argue that BPA should implement an 88 percent TPP or higher goal, correct some modeling flaws, and redesign the CRAC to further ensure that risks are borne by power customers. IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 55-59. The IOUs contend that BPA's TPP goal and risk mitigation proposal "fails to align the risks and benefits of federal power," which results in lower benefits to residential and rural customers. *Id.* The IOUs state that the 88 percent TPP goal means that power rates will generate sufficient revenues to meet BPA's financial goals 88 percent of the time and that there is a 12 percent probability/risk that BPA will rely on a transmission surcharge to ensure that power costs are recovered timely. *Id.*

The IOUs have limited access to BPA's low-cost power and therefore purchase from higher-cost sources. BPA has capped the CRAC at levels below market price expectations, and in the event of a shortfall in power revenues, BPA would necessarily levy a surcharge on transmission rates. Thus, the IOUs claim, because they would be subject to a transmission surcharge, they would be put in the position of subsidizing other BPA customers who are entitled to large amounts of Federal power at below-market prices. *Id.* The IOUs state that BPA should redesign CRAC to enable BPA to increase power rates up to market prices before resorting to a transmission surcharge. *Id.*

NEC/SOS and CRITFC/Yakama support full implementation of the TPP standard. However, they argue that BPA's proposal variously underestimates risks, misinterprets and misapplies the standard, and otherwise fails to mitigate risks adequately, thus causing the proposal to come up

short of full implementation. NEC/SOS Brief, WP-02-B-NA/SA-01; CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 40-44. UCUT urges BPA to consider increasing TPP to 100 percent for only the year 2006, to help ensure financial readiness for costs in the next rate period. UCUT Brief, WP-02-B-UC-01, at 26.

BPA's Position

BPA is implementing the Principles in the 2002 rates. The Principles call for 88 percent as the five-year TPP goal, but allow a TPP as low as 80 percent. BPA is implementing the 88 percent TPP goal in order to meet a long-standing TPP policy standard and to fully meet Principles No. 3 and No. 4. DeWolf *et al.*, WP-02-E-BPA-13, at 21-22.

BPA adopted the equivalent of an 88 percent TPP standard as a long-term policy in 1993, after conducting an extensive public consultation and review process and after litigating the proposed standard in the 1993 rate proceeding. At the time of the 1993 rate case, reserves were plummeting due to drought conditions, unanticipated fish flow costs, and low aluminum prices. To mitigate the rate “spike” that would result from implementing the standard in full in FY 1994-1995, BPA agreed to a one-time phase-in of the standard in that rate period. *Id.* at 23. Even by relaxing the TPP goal, conditions caused BPA to raise rates by an average of 16 percent. *Id.* In the 1996 rate case, BPA’s price competitiveness, its ability to retain customers, and its long-term ability to recover costs were threatened. BPA’s ability to meet its statutory mission, including cost recovery requirements, was judged to be in jeopardy if the competitive challenge were not met. Accordingly, in addition to other actions, BPA reduced its TPP target in rates for FY 1997-2001. *Id.* at 25. The Administration acquiesced to BPA’s relaxation of the TPP goal in rates for FY 1997-2001. *Id.*

The conditions prevailing in 1993 and 1996 that caused BPA to relax its TPP target then are not present today. DeWolf *et al.*, WP-02-E-BPA-13, at 26; DeWolf *et al.*, WP-02-E-BPA-39, at 2. Today, reserves are strong and building, power costs are below market price expectations, demand for Subscription products is strong, and the rate pledge is being met with an 88 percent TPP. DeWolf *et al.*, WP-02-E-BPA-39, at 2. Further, BPA includes a DDC that will rebate or otherwise distribute reserves that accumulate in excess of what is needed to meet the TPP goal. *Id.* at 12. Hence, there are no compelling reasons why the TPP goal of 88 percent should not be implemented in full in the 2002 rates.

Evaluation of Positions

BPA adopted the equivalent of an 88 percent TPP standard as a long-term policy in 1993. This policy standard, “. . . reflects consideration and balancing of BPA’s responsibilities to keep rates as low as possible while ensuring its ability to carry out its legally mandated responsibilities required under the Northwest Power Act in a sound and business-like manner.” 1993 ROD, WP-93-A-02, at 71-72. Adopting the standard sets a precedent “. . . that BPA shall adhere to in future rate cases, absent a determination by the Administrator that the policies should be modified to meet BPA’s changing operating environment.” *Id.* at 68. The policy included no “expiration date” as suggested by Vanalco and Alcoa. BPA does not propose, indeed no party to this rate proceeding has proposed, that the policy be changed to meet the changing operating

environment criterion. And indeed, BPA does not need to have a formal TPP policy in place to be able to implement such a goal in its rates. Even if the policy did have a 10-year “expiration date,” it would apply to this rate proposal. The standard is to be applied in the ratesetting processes, and this rate case is clearly within 10 years of the policy being established.

Serious financial and marketing problems prevented BPA from implementing the standard in full in previous rate filings. In 1993, financial reserves were plummeting due primarily to drought conditions, and rates were already being hiked substantially. In the 1993 ROD, BPA decided to implement the new standard on a one-time phase-in basis at less than the full 88 percent equivalent. In 1996, industry restructuring and new competitive pressures threatened BPA’s competitive position and long-term ability to attract and retain customers and to recover costs. BPA cut costs substantially and, among other actions, reduced the TPP target to 80 percent for purposes of the FY 1997-2001 rates. Unlike in the current rate case, the Administration agreed to the TPP reduction in 1996.

None of the conditions that caused BPA to relax its TPP goal in 1993 and 1996 prevails today. *See DeWolf et al*, WP-02-E-BPA-13, at 26. Unlike in 1993, the PF rate is not being increased but is being stabilized at 1996 levels. Reserves are building, not plummeting, as demonstrated in an increase in reserves from \$559 million in 1998 to \$670 million in 1999. *Id.* at 24. The 1999 level of reserves is \$235 million above the level projected in the 1996 rate case. And unlike in 1996, when price competition required BPA to reduce rates, the PF and other rates being set today are substantially below market price expectations, and demand for Subscription products is greater than supply. *Id.* at 26.

The parties are correct that Principle No. 3 allows a TPP level as low as 80 percent. The Principles do not require 88 percent, but establish 88 percent as the goal that BPA should strive to meet. *DeWolf et al.*, WP-02-E-BPA-13, at 26. The DSI proposal for an 80 percent TPP target falls within the allowable range, and it is no lower than BPA’s 1996 precedent. But the DSI proposal falls short of the Principle No. 3 goal. No party has presented a persuasive argument as to why BPA should deviate from its goal of 88 percent.

Several tribal and constituent groups contend that BPA’s proposal variously underestimated risks, misinterpreted and misapplied the standard, and otherwise failed to mitigate risks adequately, thus causing the proposal to fail to achieve the TPP standard. Relaxing the TPP standard would exacerbate their concerns. *See* ROD section 5.4, *supra*, and the issues following in this section.

The Principles and the 10-Year Financial Plan establish 88 percent as the TPP goal that BPA should strive to achieve. BPA accepts and is attempting to implement this goal in full while at the same time meeting its rate pledge and fulfilling its environmental obligations. No party has successfully rebutted BPA’s contention that conditions prevailing in 1993 and 1996 are not present today. In their brief on exceptions, Alcoa/Vanarco raised a new argument that some of the same conditions that prevailed in 1993 also exist now regarding DSI survivability which permitted BPA to vary from the announced TPP policy. Alcoa/Vanarco Ex. Brief, WP-02-R-AL/VN-01, at 36. However, BPA did not need to lower TPP to improve the probability of DSI smelter survival, to the extent it can, consistent with its other rate goals,

including achieving a TPP of 88 percent during periods of low aluminum prices and high market power prices. *See* ROD section 15.5 *infra*.

The parties have presented no persuasive arguments or demonstrated that there are extenuating circumstances that should drive BPA to relax its goal in this rate proceeding.

Decision

BPA is implementing the 88 percent TPP goal in the final 2002 power rates.

Issue 3

Whether BPA's calculation of TPP inadequately accounts for risk by not explicitly addressing multiple deferrals within the rate period.

Parties' Positions

Four parties argue in their initial briefs that BPA should account for the financial cost of multiple deferrals in its calculation of TPP. NEC/SOS Brief, WP-02-B-NA/SA-01, at 29-30; OPUC Brief, WP-02-B-OP-01, at 7-8; UCUT Brief, WP-02-B-UC-01, at 26; and CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 43-44. As argued by OPUC:

BPA's calculation of TPP does not account for the financial consequences of multiple Treasury deferrals within the rate period. . . . Under BPA's method of calculating TPP a single deferral of a few million dollars is treated exactly the same as multiple deferrals of hundreds of millions of dollars per year. . . . In essence, BPA claims that, for purposes of setting rates, the cumulative magnitude of Treasury deferrals within the rate period is irrelevant.

OPUC Brief, WP-02-B-OP-01, at 7-8.

NEC/SOS further note:

. . . if a deferral does occur it is likely to be multiple and large. (61 percent of deferrals are multiple, averaging about 1.85 deferrals in any game which has deferrals . . .)

NEC/SOS Brief, WP-02-B-NA/SA-01, at 30.

CRITFC/Yakama state that "Bonneville's analysis treats multiple deferrals the same as a single miss. This clearly understates the risk to Treasury." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 43. CRITFC/Yakama support the analysis and arguments advanced by NEC/SOS and OPUC on this matter. *Id.* at 43-44.

UCUT urges BPA "to calculate TPP in such a manner that numerous failures to make Treasury payment during the rate period for a particular scenario are not treated as one failure, but are

treated as numerous failures” and cites NEC/SOS and OPUC testimony. UCUT Brief, WP-02-B-UC-01, at 26.

NEC/SOS argue that “[f]ailure of BPA to account for multiple treasury deferrals violates the agency’s requirement to follow sound business principles.” NEC/SOS Brief, WP-02-B-NA/SA-01, at 30.

OPUC proposed that BPA “should set its rates and risk mitigation strategies such that there is at least a 90 percent probability that reserves will be at least \$500 million in 2006.” Grist and Carver, WP-02-E-OP-01, at 10.

In their briefs on exceptions, both CRITFC/Yakama and OPUC referred to the decision on this issue in the Draft ROD as “arbitrary and capricious” and argued that multiple misses of Treasury payments somehow meant that BPA was setting its rates too low. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 24-25; OPUC Ex. Brief, WP-02-R-OP-01, at 6. OPUC further adds:

BPA relies primarily on the specter called “rate stability” to reject the suggestion that its failure to account for multiple treasury deferrals leaves substantial risk unaccounted for by the risk mitigation strategy.

Id.

NEC/SOS claims that BPA misrepresented NEC’s direct testimony in the Draft ROD:

In BPA’s last paragraph before its draft decision (p. 7-13), BPA charges that the NWECC proposal to address the multiple deferral risk worked out to a rate increase of 3-5 mills/kWh. But in actuality, what NWECC’s witness testified was, “An additional PNR of about \$46 million per year over the basecase...was necessary to reach that goal (about ¾ of a mill per year over BPA’s initial proposal).” (WP-02-E-NA-01, at 6). The 3-5 mills BPA cites came from a statement 8 pages later that estimated the rate increase needed to cure a much larger problem than that of multiple deferrals: satisfying Principle No. 4. Once again BPA resorts to this sort of cheap misrepresentation to cover up its weak case.

NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 18.

BPA’s Position

Since the 1993 rate case, BPA has defined Treasury Payment Probability as the likelihood of BPA making all of its annual Treasury payments within a rate period on time and in full. 1993 ROD, WP-93-A-02, at 68. The numerical value of the standard (*e.g.*, 88 percent) refers to the percentage of possible sets of future conditions for the rate period within which BPA never defers any of its payments to Treasury. Lovell *et al.*, WP-02-E-BPA-40, at 4. By setting the standard in such a fashion, an ending reserves value in any year of a single ToolKit game needs to fall to \$50 million dollars only once in the five-year period for that game to be counted as a failure. DeWolf *et al.*, WP-02-E-BPA-13, at 21-25.

The ToolKit model has been used since the 1993 rate case to test for ability of BPA's risk mitigation measures to achieve the TPP goal. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 275. For each game, or alternative simulation of the rate period, ToolKit takes a net revenue deviation (the sum of the net revenue deviations calculated in RiskMod and NORM) and applies it to the previous year's ending reserves balance. *Id.* at 279-80. Reserves are not allowed to fall below \$50 million. At that point, a deferral to Treasury is counted and the unpaid balance is rolled over to be paid in subsequent years. Missed amortization is not rescheduled for later years in the rate period, but missed interest payments are treated as a priority for the next year. *Id.* at 286-87. ToolKit is run using a very wide range of net revenue impacts. PNR is increased until only 12 percent of the games (3,900 in the 2002 rate case) contain any deferrals whatsoever. *Id.*

Evaluation of Positions

In evaluating the adequacy of BPA's TPP Methodology, two key points need to be noted. First, a number of items on the record support the assertion that the current TPP methodology already requires that BPA adhere to a stringent standard for making its annual payments to Treasury.

- In spite of the fact that multiple deferrals have been present in ToolKit simulations used for rate setting since 1993, BPA has made all of its Treasury payments on time and in full since adopting the methodology. DeWolf *et al.*, WP-02-E-BPA-13, at 22-24.
- Multiple deferrals are inevitable in ToolKit simulations of any rate periods longer than a single year, because BPA's Risk Analysis Methodology is explicitly designed to capture the combined effects of key risks on net revenues. Risk Analysis Study Documentation, WP-02-E-BPA-03A, at 1-2. Moreover, this range has been widened when necessary to reflect changes in the risk profile that BPA faces. Conger *et al.*, WP-02-E-BPA-15, at 18.
- BPA's modeling methodology treats ToolKit games that have any deferrals in them whatsoever as a failure (*i.e.*, not part of the successful 88 percent)--even if ToolKit shows that, in that game, BPA will have paid off the debt incurred by that deferral by the end of the rate period. Lovell *et al.*, WP-02-E-BPA-40, at 3-4. For the initial proposal, this meant that although only 4.4 percent of the reserves calculated in the 3,900 ToolKit games fell to the deferral level, 12 percent of the games were rejected.

Id.

Ultimately, whether a particular TPP standard is deemed adequate or not is dependent upon the philosophy or general approach to risk that an organization adopts. A general approach to risk provides a basis for an organization's risk tolerance; it weights the cost of risk mitigation against the acceptability of the risk remaining after mitigation measures have been taken.

NEC/SOS, OPUC, CRITFC/Yakama, and UCUT are all concerned with guaranteeing that the worst of worst-case conditions are covered by some combination of PNR and CRAC. NEC/SOS Brief, WP-02-B-NA/SA-01, at 30; OPUC Brief, WP-02-B-OP-01, at 7-8; CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 43; UCUT Brief, WP-02-B-UC-01, at 26.

BPA's TPP modeling methodology, however, has never been one of worst-case planning, but, like many other businesses, planning for an acceptable level of risk (defined by the TPP standard). 1993 ROD, WP-93-A-02, at 68-72. Moreover, by accepting a 95 percent TPP in 1993 (a two-year rate period) and an 88 percent TPP in 1996 (a five-year rate period), parties in BPA rate cases and FERC have recognized that less than 100 percent protection against risk is acceptable. BPA's modeling methodology, involving NORM and RiskMod in the risk analysis step, weights the impact of risks by their likelihood of occurrence. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 268-269. In direct testimony, BPA provided a graphic representation of just how wide a range of risk impacts was addressed by the risk mitigation measures in the initial proposal. Lovell *et al.*, WP-02-E-BPA-14, Attachment 2. BPA stated that "[i]f no risk mitigation measures were employed (other than FCCF and section 4(h)(10)(C) credits ...), the generation function's predicted ending reserves for FY 2006 would range from -\$3.5 billion to \$3.3 billion with a mean value of \$372 million." Lovell *et al.*, WP-02-E-BPA-14, at 11, and Attachment 2, Figure 1. The worst games were the product of sequences or combinations of negative outcomes, while the best games represented multiple "windfalls" or combinations of conditions that together produced very high ending reserves. *Id.* at 10-11. This extremely large variation in ending reserves reflects just how wide a range of potential risks was taken into consideration.

When the full set of risk mitigation measures described in the initial proposal was modeled, ending reserves for FY 2006 were distributed from \$50 million to \$4.1 billion, with an expected value of \$1.26 billion (assuming no distributions under the DDC). Lovell *et al.*, WP-02-E-BPA-14, at 10-11. NEC is correct that 61 percent of the games with deferrals contain multiple deferrals, NEC/SOS Brief, WP-02-B-NA/SA-01, at 30; however, this is only slightly over 7 percent of the total games (*i.e.*, $.61 * .12 = .0732$ or 7.32 percent). Moreover, the large debt that BPA would incur in the worst cases, part of the risk that BPA deems acceptable, when weighted against the full range of ending reserves modeled in ToolKit, has a relatively minor effect on average ending values in the rate period. The sum of the average deferrals in each of the five years is \$56.4 million; this sum comprises both deferred interest and deferred principal payments. Deferred interest payments for years 2002-2005 are repaid later in the rate period. Therefore, the impact of deferrals on average ending reserve levels can be no more than, and is probably less than, \$56.4 million. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 345. Thus, viewed from the standpoint of expected impact, the fact that deferrals occur in 12 percent of the games or that multiple deferrals occur in roughly 7 percent of the worst cases is not an indication that the method of calculating TPP is exposing BPA to undue risk.

Second, changing the way the TPP is calculated, or applying an alternative or supplementary methodology, would require a wholesale redefinition of the purpose of the TPP measure, the method of its calculation, and the establishment of a revised target. This would necessitate, among other things, a substantial change in precedent for BPA and require the development of a new political consensus around the resulting calculation.

The TPP standard has always evaluated the probability of remaining deferral-free for an entire rate period. The modeling methodology has never applied a different weight to games in which

multiple deferrals occurred, and was never intended to. The 95 percent standard for two-year rate periods was derived in the context of this definition. As stated in the 1993 ROD:

. . . the standard reflects consideration and balancing of BPA's responsibilities to keep rates as low as possible while ensuring its ability to carry out its legally mandated responsibilities required under the NW Power Act in a sound and business like manner . . . BPA shall adhere to [this precedent] in future rate cases, absent a determination by the Administrator that the policies should be modified to meet BPA's changing operating environment.

1993 ROD, WP-93-A-02, at 68, 71.

If the definition had been different, a different number would have been identified. The argument by the parties describes a design choice, made long ago, not a defect in the standard. It is not reasonable to take the 95 percent standard for two-year periods, derived in the context of deferral-free probability, and redefine the standard. The 88 percent goal of TPP applies to a specific calculation, and to use an average annual probability of Treasury payment or another standard that weights games with multiple deferrals more heavily than games with single deferrals would require a recalculation of the numerical standard. Lovell *et al.*, WP-02-E-BPA-40, at 4.

NEC and OPUC were the only parties to propose any alternatives to BPA's calculation. Both parties submitted an alternative methodology for calculating TPP and an additional metric for assessing the size of the target ending reserves for the FY 2002-2006 rate period. The TPP calculation was designed to capture the effects of multiple deferrals. Weiss, WP-02-E-NA-01, at 2-7; Grist and Carver, WP-02-E-OP-01, at 2-5. BPA demonstrated that this alternative TPP calculation contained a statistical flaw. Lovell *et al.*, WP-02-E-BPA-40, at 2. This fact is acknowledged by the parties:

After consideration of BPA's argument, NWEC agrees that its analysis was indeed flawed. However, proving that our attempt to account for the risk of multiple deferrals contained errors in no way dismisses the basic truth to the claim in the first place: *i.e.*, that the methodology utilized by Bonneville simply doesn't account for the risk of multiple deferrals either . . .

NEC/SOS Brief, WP-02-B-NA/SA-01, at 30. OPUC adds:

While BPA demonstrated OPUC's proposed method to account for the risk of multiple deferrals contained errors, it did not dismisses [sic] the basic truth to the claim that the method used by Bonneville doesn't account for the risk and financial costs of multiple deferrals.

OPUC Brief, WP-02-B-OP-01, at 7.

Adding a minimum level of reserves criteria as proposed by OPUC and NEC (or substituting it for TPP) would impair BPA's ability to maintain its promise of rate stability in the

FY 2002-2006 rate period. The proposal for a design to meet a target reserve level described in NEC's direct testimony would "... work out to rate increases of 3 or 5 mills/kWh," Weiss, WP-02-E-NA-01, at 7-15; while the proposal presented in OPUC's direct testimony, Grist and Carver, WP-02-E-OP-01, at 9-12; which was based upon a CRAC design with high thresholds and annual caps, would result in less rate stability than BPA sought in its initial proposal. Lovell *et al.*, WP-02-E-BPA-40, at 10-12. This issue is discussed further in ROD section 5.4.7.1.

(As quoted *supra*, NEC/SOS claimed that BPA misrepresented the direct testimony of NEC's witness by citing a potential rate increase resulting from the establishment of a target reserves criteria as evidence of the rate impacts attributable to NEC's alternative TPP calculation. In fact, BPA *was* referring to the effects of the target reserves criteria, not the alternative TPP calculation, in the statement in the Draft DOD that NEC/SOS took issue with. BPA would have no reason to be concerned with assessing rate impacts that were solely the result of a TPP methodology that the authors themselves eventually rejected as flawed. It is hoped, however, that the wording changes made for this final ROD have eliminated any confusion on this matter.)

A few points raised *supra* in this evaluation of positions need to be amplified in response to the issues raised by CRITFC/Yakama and OPUC in their briefs on exceptions. BPA is not rejecting the parties' argument on the significance of multiple deferrals based on the "specter of rates stability." As can be seen *supra* in the evaluation of positions, the effects of rate stability were cited as only one of the reasons BPA is not entertaining the idea of a minimum reserves criteria.

BPA is arguing that its approach to dealing with risk, which has been subjected to scrutiny since 1993 by rate case parties and FERC, continues to be a reasonable one. The presence of multiple deferrals is not a development new to the 2002 rate case that, in itself, signals any change in BPA's risk exposure, but an inevitable and constant consequence of the risk analysis and mitigation methodology BPA developed and uses. Further, the fact that a very small percentage of ToolKit runs display very large deferrals is not an indication that BPA is exposing itself and the region to undue risk. By its nature, the analysis is designed to produce some scenarios with very high impacts but low probabilities of occurrence, since BPA's business environment contains risks with those characteristics. The significance of both multiple deferrals and large deferrals can be assessed adequately only by putting them in context, viewing the specific impacts of worst cases in relation to their expected effects; and as can be seen *supra*, BPA has done this.

Decision

BPA's method of calculating TPP is reasonable and the product of past review. The fact that the TPP calculation does not explicitly address multiple deferrals within the rate period does not expose the agency to unnecessary risk.

Issue 4

Whether BPA would meet its TPP goal if Fish and Wildlife Alternative 13u is chosen.

Parties' Positions

CRITFC/Yakama argue that BPA would not be meeting its 88 percent TPP goal and, by extension, Principle No. 3, because “[i]f a decision was made this year to implement alternative 13u (the alternative that is similar to the tribal restoration plan), Bonneville’s TPP probability would reduce to 65 percent. WP-02-E-CR/YA-01, Attachment 1.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 27-28.

BPA’s Position

Because BPA must be prepared for the full range of uncertainties that are observable at the time the rate case studies are conducted, the ToolKit model applies an 88 percent TPP standard to a set of 3,900 five-year rate period games that cover the full spectrum of operating and non-operating risks. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 280. Each of the five-year games begins with a particular ending reserves balance from the current rate period, and then applies a unique set of net revenue deviations to produce ending reserve values for FY 2002-2006. *Id.* Three hundred games were run for each of 13 Fish and Wildlife Alternatives. *Id.* Each of the Fish and Wildlife Alternatives had its own associated set of annual costs and distribution of net revenues. *Id.* Within this range of 3900 games, each of the 13 Fish and Wildlife Alternatives was given equal weight. Lovell *et al.*, WP-02-E-BPA-14, at 6.

Evaluation of Positions

CRITFC/Yakama state that “Bonneville’s TPP probability would reduce to 65 percent.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 27. CRITFC/Yakama refer to an analysis that BPA and other Federal agencies considered a few months before BPA completed its initial proposal. Sheets, WP-02-E-CR/YA-01, Attachment 1, at 5-6. This analysis was provided by BPA to NEC in response to a data request. The analysis is entitled “Approximate 2002-2006 and 2007-2011 Impacts of 13 (18) F&W Alternatives” and includes the Conditional TPPs for 2002-2006 associated with each of the Fish and Wildlife Alternatives. *Id.* The Conditional TPP for Fish and Wildlife Alternative 13u shows a Conditional TPP of 65 percent. *Id.* These Conditional TPPs together average 88 percent, but vary depending upon the severity of the mitigation measures encompassed by different Fish and Wildlife Alternatives--some higher, some lower. *Id.*

Given the way TPP has been defined as applying to the full range of possibilities BPA considers at the time of writing its proposals, BPA would not be missing its 88 percent TPP goal if Alternative 13u, or any other Alternative, was ultimately selected. The reason for having a standard that addresses the uncertainty in the selection of a Fish and Wildlife Alternative is that at the present time, this selection is uncertain. Conditional TPP, which was not a criterion applied to the initial proposal, signifies the condition where the outcome of the fish decision is known. At some point in the future, an Alternative will be selected, and at that time the associated impacts will no longer be an uncertainty, but that is not the case now.

Decision

Whether Fish and Wildlife Alternative 13u is selected is irrelevant to the issue of whether BPA meets its 88 percent TPP goal.

Issue 5

Whether BPA should increase TPP to 100 percent in FY 2006.

Parties' Positions

UCUT stated that:

BPA should consider increasing TPP to 100% for only the year 2006, the last year of the rate period. If there is a possibility of treasury payment deferral in that year, there will obviously be no ending reserves to mitigate risk of rate shock in the next rate period as is required to meet Fish and Wildlife Principle No. 4. UCUT Brief, WP-02-B-UC-01, at 26.

BPA's Position

Fish and Wildlife Principle No. 3 states:

BPA will demonstrate a high probability of Treasury payment in full and on time over the five-year period.

- A 100 percent probability of Treasury payment is not achievable, but BPA's rates must be designed to maintain or improve TPP, even in the face of the range of possible fish costs.
- BPA will demonstrate a probability of Treasury payment in full and on time over the five-year period at least equal to the 80 percent level established in the last rate case and will seek to achieve an 88 percent level.

DeWolf *et al.*, WP-02-E-BPA-13, at 22.

Fish and Wildlife Principle No. 4 provides:

Given the range of potential fish and wildlife costs, BPA will design rates and contracts which will position BPA to achieve similarly high Treasury payment probability for the post-2006 period by building financial reserve levels and through other mechanisms.

Id.

BPA is implementing the Principles in the 2002 power rates. *Id.* at 7. As part of this implementation, an 88 percent TPP is being targeted in order to meet a BPA long-standing TPP policy standard and to fully meet both Principle No. 3 and Principle No. 4. *Id.* at 22.

Evaluation of Positions

Although it may appear on the surface that raising the TPP to 100 percent for a single year would have little effect on rates, this is not the case. BPA illustrated the width of the band of uncertainty surrounding the rate case in response to another issue *supra*, stating: “[i]f no risk mitigation measures were employed (other than FCCF and section 4(h)(10)(C) credits . . .), the generation function’s predicted ending reserves for FY 2006 would range from -\$3.5 billion to \$3.3 billion with a mean value of \$372 million.” Lovell *et al.*, WP-02-E-BPA-14, Attachment 2, Figure 1. The reason for the extreme width of the band of uncertainty is revealed by referring to the net revenue deviations presented in Table 74 of the Risk Analysis Study Documentation, WP-02-E-BPA-03A. It would take \$1.03 billion to cover the level of net revenue deviations for FY 2006 at the 1 percent level. *Id.* Thus, although this value represents an extreme outlying net revenue deviation value, to achieve a 100 percent TPP for the final year of the FY 2002-2006 rate period would mean covering this amount with prohibitively high PNRR and/or CRAC. *Id.*

In addition, the Principles allow BPA some flexibility in demonstrating a high probability of Treasury payment in full and on time over the five-year rate period. Principle No. 3 recognizes that “[a] 100 percent probability of Treasury payment is not achievable” and provides for a demonstration of Treasury payment probability at least equal to the 80 percent level established in the 1996 rate case, while seeking to achieve an 88 percent level. DeWolf *et al.*, WP-02-E-BPA-13, at 22.

BPA will adhere to its 88 percent TPP target, which is a long-standing BPA TPP policy standard. This 88 percent TPP level demonstrates a high probability of Treasury payment in full and on time over the five-year rate period and fully meets both Principle No. 3 and Principle No. 4.

Decision

BPA will not increase TPP to 100 percent in 2006.

7.3 Cost Recovery Adjustment Clause (CRAC) Design

Issue 1

Whether BPA’s CRAC thresholds should be based on financial reserves rather than AANR.

Parties’ Position

PPC states that the design of the CRAC implementation levels should rely on financial reserves, the same basis as BPA’s other risk estimates. By instead using AANR, BPA may alter the circumstances in which the CRAC triggers and the circumstances in which the proposed dividend distribution clause may be invoked. PPC Brief, WP-02-B-PP-01, at 15. Specifically,

PPC adds, the use of AANR to trigger CRAC would allow BPA to force the CRAC to trigger even if reserves exceeded \$1 billion, and would allow BPA to manipulate the AANR process based upon forecasts. The CRAC should trigger based on BPA's actual financial conditions and level of reserves at the end of its fiscal year. Hansen *et al.*, WP-02-E-PP-03, at 4-8.

BPA's Position

BPA designed both the CRAC and the DDC to trigger based on AANR because accumulated net revenues are subject to financial audit, thus allowing independent verification of actual results. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 291-92, 297-298. Reserves are not subject to audit or independent verification. Net revenues are more readily segregated by generation and transmission function than reserves because of financial systems design and financial reporting practices. Lovell *et al.*, WP-02-E-BPA-14, at 7. BPA chose to use AANR rather than reserves to minimize contention, and to help ensure that CRAC and DDC implementation is transparent and not subject to manipulation.

BPA's proposal assures its customers and constituents that reasonable actions will be taken before a CRAC triggers. DeWolf *et al.*, WP-02-E-BPA-39, at 44-45. When AANR are within \$150 million of the next year's CRAC threshold, BPA will provide customers and interested parties with an analysis of the causes of BPA's relative financial decline compared to the rate case plan, and propose a prioritized list of potential actions to avert or mitigate the need for a CRAC. *Id.* These actions presumably would include, but not necessarily be limited to, cost management actions. BPA will seek public comments and advice over a two-month period on these actions to avert or reduce a rate adjustment. On a quarterly basis, BPA will post on its web site the aggregate financial results for the generation function including AANR. Year-end information will be based on audited actual financial results. BPA will also provide preliminary, unaudited year-to-date aggregate financial results for generation quarterly on its web site. BPA will also provide a forecast of AANR no later than August 31 of each year. *Id.* In a similar fashion, the DDC evaluation process will begin when AANR exceeds a threshold value of \$250 million. *Id.* at 12-13.

As was indicated in Lovell *et al.*, WP-02-E-BPA-14, at 13, for the final proposal, BPA recalculated the AANR-based CRAC and DDC thresholds, using the same methodology as in the initial proposal but using 1999 actual financial data and more current reserves and net revenue forecasts. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, chapter 12, Appendix 1. BPA's projections of FY 2002 starting reserves and net revenues changed markedly from the initial proposal. *Id.* This recalibration was necessary so that the AANR-based thresholds would be consistent with the reserves assumptions underlying the CRAC analysis in the final proposal. If this change had not been made, the AANR-based thresholds to be used during implementation would have triggered at a level equivalent to a reserves threshold lower than \$300 million in FY 2001-2002 and \$500 million in FY 2003-2005. This would result in BPA undershooting the 88 percent TPP standard.

The methodology by which the AANR-based thresholds were calculated are described in detail in Appendix 1 of the Revenue Requirement Study Documentation. The basic steps are as follows:

1. BPA projects deterministic starting reserves for the years in the next rate period. *Id.*
2. These reserves values are then compared to the CRAC (or DDC) thresholds, expressed in terms of cash reserves--\$300 million for FY 2001-2002, \$500 million for FY 2003-2005. This determines the gap between projected reserves and the CRAC trigger point; that is, the magnitude by which reserves would need to fall before CRAC would trigger. *Id.*
3. BPA projects accumulated net revenues (ANR). For the initial proposal, the starting point for net revenue accumulation was the end of FY 1998. This was the last year for which audited actuals were available at that time. Since that time, end-of-year FY 1999 actuals have become available, and so, for the final proposal, BPA revised the starting point for net revenue accumulation to the end of FY 1999. *Id.*
4. To derive the appropriate annual CRAC and DDC thresholds, expressed in terms of AANR, the gap value derived in step 2 is subtracted from the AANR value for that year. In other words, the CRAC and DDC thresholds are calculated so that for these mechanisms to trigger, AANR would need to change by exactly the same magnitude as reserves did during the analysis used for setting rates (*e.g.* if the CRAC trigger threshold, expressed in terms of cash reserves, is \$500 million less than projected reserves for a given year, the CRAC threshold expressed in terms of AANR should similarly be \$500 million below projected ANR for that year). *Id.*
5. Finally, the AANR-based threshold values are rounded to more even values (*e.g.* -\$373 is rounded to -\$350). *Id.*

This recalculation resulted in slightly revised threshold values, after rebasing to end-of-year FY 1999 actuals. CRAC would trigger when AANR fell below -\$350 million in FY 2001-2002 and at a level of -\$250 million for FY 2003-2005 (the DDC would trigger at \$250 million.)

Evaluation of Positions

BPA has functionally separated its power and transmission lines. *See* Burns and Elizalde, WP-02-E-BPA-08, at 2. BPA records accounting transactions by business line. The accounting structure specifies the business line at the transactional level to enable separate accounting of business line operations. Accrued revenues and accrued expenses are specified by business line when recognized, with administrative and support service costs assigned to business lines based on use of services and allocations. DeWolf *et al.*, WP-02-E-BPA-13, at 31. The accumulated net revenues in the accounting structure are subject to financial audit, thus allowing independent verification of actual results. Lovell *et al.*, WP-02-E-BPA-14, at 7. Thus, they are appropriately used for determining the threshold.

On the other hand, as with single-company financial systems, BPA's financial system does not track agencywide assets (cash, receivables) by business unit. Additionally, BPA's cash management policies do not treat these assets separately by business line. Due to reserves being held in a single agency account, the BPA fund, BPA's financial reserve levels by business line are less auditable than actual accumulated net revenues. A functional split of cash flows is difficult and imprecise.

Additionally, BPA believes it is highly unlikely that cash reserves and AANR would diverge significantly. Hansen *et al.*, WP-02-E-PP-03, Attachment D. The PPC's concern is that using AANR could result in the CRAC triggering unnecessarily. BPA has instituted cost management safeguards to prevent this from happening. Specifically, when AANR are within \$150 million of the next year's CRAC threshold, BPA will provide customers and interested parties with an analysis of the causes of BPA's relative financial decline compared to the rate case plan, and propose a prioritized list of potential actions to avert or mitigate the need for a CRAC. BPA will seek public comments and advice over a two-month period on these actions to avert or reduce a rate adjustment. BPA will also make aggregated generation financial data available on its web site quarterly. DeWolf *et al.*, WP-02-E-BPA-39, at 44-45.

Decision

BPA will continue to set the CRAC thresholds based on AANR rather than reserves. BPA has included reasonable cost management safeguards against unnecessary triggering of the CRAC.

Issue 2

Whether a CRAC threshold equivalent of \$300 million in reserves and an annual revenue maximum of \$100 million (or even lower values) should be set for all five years of the FY 2002-2006 rate period.

Parties' Positions

Both the PPC and NRU argued that BPA should adopt the CRAC BPA used in its technical workshops before the initial proposal was drafted--with constant annual thresholds of \$300 million and constant annual caps of \$100 million. PPC Brief, WP-02-B-PP-01, at 5; Saven, WP-02-E-NI-01, at 11-12. NRU's recommendation was presented as part of an alternative proposal that substituted a reverse CRAC for the DDC, assumed no risk impacts on reserves in the remainder of the current rate period, and produced a TPP of 85.5 percent. *Id.* at 12-17.

In its brief on exceptions, OURCA argued that BPA "should correctly set the power rates for its customers in the first instance rather than rely on implementation of a CRAC." OURCA Ex. Brief, WP-02-R-OU-01, at 3-4.

BPA's Position

BPA used three criteria to guide the development of CRAC thresholds and annual caps in the initial proposal. Lovell *et al.*, WP-02-E-BPA-40, at 9-10. First, together with PNRR, CRAC levels needed to be set so that BPA would have an 88 percent probability of making all of its Treasury payments on time and in full over the FY 2002-2006 rate period. *Id.* at 10. Second, the CRAC values needed to be set high enough to allow BPA to meet its rate goals. *Id.* Finally, CRAC thresholds and caps needed to be set so that, to the extent possible given the first two criteria, they would have minimum impacts on the stability of BPA's firm power rates. *Id.* The values used for the this proposal--reserves thresholds of \$300 million in FY 2001 and 2002 and \$500 million in FY 2003-2005, and annual caps of \$125 million if the threshold is crossed in

FY 2001, \$135 million in FY 2002, \$150 million in FY 2003, \$150 million in FY 2004, and \$87.5 million in FY 2005--meet these criteria. Lovell *et al.*, WP-02-E-BPA-14, at 6-9.

Evaluation of Positions

Without the use of CRAC, BPA could not set rates so as to meet its TPP goal and its commitment to the rate pledge. PPC's and NRU's proposals fail to meet the 88 percent TPP standard. As noted elsewhere in this section of the ROD, in the 1993 rate case BPA established a target TPP of 95 percent for two-year rate periods. 1993 ROD, WP-93-A-02, at 68-72. This was converted into a five-year TPP of 88 percent in the 1996 rate case. Because of market conditions at that time, however, BPA ultimately lowered the TPP target to 80 percent, noting that "(r)educing the Treasury repayment probability for this (1996) rate case is one of the steps BPA is proposing to help maintain competitive rate levels. 1996 ROD, WP-96-A-02, at 89. The conditions that warranted this reduction in the TPP target are no longer present. DeWolf *et al.*, WP-02-E-BPA-13, at 27. The 88 percent standard is consistent with established policy and is appropriate. *Id.* at 22. The reduction in TPP proposed by the parties is not acceptable. Lovell *et al.*, WP-02-E-BPA-40, at 13. Also, the PPC and NRU proposals fail to satisfy the three criteria BPA established to guide the development of the CRAC thresholds and annual caps.

Decision

BPA will not establish a CRAC threshold equivalent of \$300 million in reserves and an annual revenue maximum of \$100 million for all five years of the FY 2002-2006 rate period. The values used for the proposal--reserves thresholds of \$300 million in 2001 and 2002 and \$500 million in 2003-2005, and annual caps of \$125 million if the threshold is crossed in 2001, \$135 million in FY 2002, \$150 million in FY 2003, \$150 million in FY 2004, and \$87.5 million in FY 2005--meet the three criteria BPA used to guide the development of CRAC thresholds and annual caps and will continue to be used in the final 2002 rates.

Issue 3

Whether CRAC thresholds and annual maximums should be raised.

Parties' Positions

The DSIs argue that BPA should "rely primarily on a modified CRAC, as explained by Messrs. Schoenbeck and Bliven of RCS, that would be limited so that customers would not pay more than the rate level plus CRAC proposed by BPA . . ." DSI Brief, WP-02-B-DS-01, at 47. *See also supra* for discussion of the section 7(n) issue. The proposal referred to by the DSIs was one of three presented in direct testimony that argued for raising the CRAC threshold and annual maximum values. The Joint DSIs recommended "that BPA set its rates based on expected costs, that BPA include no PNRR in rates, and that BPA structure the Cost Recovery Adjustment Clause to achieve the 80 percent TPP." Schoenbeck and Bliven, WP-02-E-DS/AL/VN-03, at 10. The Joint DSIs proposed a CRAC design that employed a CRAC threshold of \$675 million across all five years of the rate period with annual caps set at levels \$127 million higher than BPA's proposed CRAC revenue limits. *Id.* at 11. The DSIs recommended "setting the CRAC

revenue limits at \$252 million, \$262 million, \$262 million, \$277 million, \$277 million [sic], and \$302 million for FY 2002-2006 respectively.” *Id.* In addition, “[t]he targeted CRAC recovery would be the amount needed to restore reserves to \$675 million, but not more than the annual limit. This plan provides an 81 percent TPP.” *Id.* In their brief on exceptions, the DSIs argue that BPA’s refusal to modify the CRAC as they requested is arbitrary, capricious and contrary to law. DSI Ex. Brief, WP-02-R-DS-01, at 18. They assert that BPA appears to assume that customers would prefer to pay millions of dollars more for certain each year in higher rates, rather than take a chance on having to pay such funds later. *Id.* This assumption, they claim, lacks any support in the record and is arbitrary, capricious, and contrary to the design of BPA’s statutes which require it to behave in a business-like fashion. *Id.*

OPUC proposed two alternative CRAC designs and explained that “BPA could adopt a CRAC that triggers at a higher threshold and that has a higher annual limit, thus allowing the collection of more revenues if and when required.” Grist and Carver, WP-02-E-OP-01, at 10. Under the first design, the CRAC threshold grows by \$200 million increments each year, from \$300 million to \$1.1 billion, while the annual limit is a constant \$300 million. *Id.* at 11. Under the second design, each year’s CRAC cap (or annual limit) is set equal to the CRAC threshold for that particular year. The progression of these values from FY 2002 to FY 2006 is \$300 million, \$400 million, \$500 million, \$500 million, and \$725 million. *Id.* OPUC also argued that “. . . BPA should determine the TPP of its final proposal based on 5-year average TPP of 88 percent . . .” *Id.* at 10. Using OPUC’s measure of TPP, the first CRAC design met the alternatively defined 88 percent TPP standard with \$105 million PNRR, while the second CRAC design met that same standard with \$127 million PNRR. *Id.*

The IOUs argued that “BPA should eliminate the accumulation of reserves resulting from PNRR and provide a more robust CRAC.” Stauffer *et al.*, WP-02-E-AC/GE/IP/MP/PL/PS-04, at 10. The IOUs asserted that a very large CRAC would not be expected if PNRR were eliminated. *Id.* The IOUs stated that “BPA’s CRAC should not be capped . . .” *Id.* at 12. However, for analytical purposes, the IOUs ran the ToolKit model to find the CRAC thresholds and limits that would achieve 88 percent TPP. *Id.* at 10. Based on their analysis, the CRAC thresholds ranged from \$500 million in the first year to \$900 million in the fifth year, and caps ranged from \$300 million in the first year to \$500 million in the fifth year. *Id.* In their brief on exceptions, the IOUs claim that BPA ignored a key issue raised in the Draft ROD. They argue that CRAC and DDC together increase the likelihood of cost shifts to transmission customers by creating a mechanism that could end up giving money away that was needed later in the rate period. IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 41. They assert that BPA should increase power rates to market before it attempts to surcharge transmission customers and employ the use of an uncapped CRAC. *Id.*

BPA’s Position

BPA used three criteria to guide the development of CRAC thresholds and annual caps in the initial proposal. Lovell *et al.*, WP-02-E-BPA-40, at 9-10. First, together with PNRR, starting reserves, and access to the FCCF, CRAC levels needed to be set so that BPA would have an 88 percent probability of making all of its Treasury payments on time and in full over the FY 2002-2006 rate period. *Id.* at 10. Second, the CRAC values needed to be set high enough to

allow BPA to meet its rate goals. *Id.* Finally, CRAC thresholds and caps needed to be set so that, to the extent possible given the first two criteria, they would have minimum impacts on the stability of BPA's firm power rates. *Id.* The values used for this proposal--reserves thresholds of \$300 million in 2001 and 2002 and \$500 million in 2003-2005, and annual caps of \$125 million if the threshold is crossed in 2001, \$135 million in FY 2002, \$150 million in FY 2003, \$150 million in FY 2004, and \$87.5 million in FY 2005--met these criteria. Lovell *et al.*, WP-02-E-BPA-14, at 6-9.

Evaluation of Positions

From the standpoint of the criteria BPA used in formulating its CRAC design, the Joint DSI proposal suffers from two problems. "BPA's CRAC has an 11.8 percent probability that it would trigger during the rate period. The CRAC we propose has a 43.3 percent probability of triggering." Schoenbeck and Bliven, WP-02-E-DS/AL/VN-03, at 11. This CRAC design does not address the issue of rate stability, and it results in a TPP of only 81 percent, *Id.* at 11; which is considerably short of the 88 percent TPP target BPA has established.

With regard to OPUC's proposal, BPA demonstrated that OPUC's alternative calculation of TPP employed a methodology different from BPA's that was statistically invalid and could not be used as a substitute for assessing the success of meeting the Treasury payment goal. Lovell *et al.*, WP-02-E-BPA-40, at 10. This point was conceded by OPUC. OPUC Brief, WP-02-B-OP-01, at 7.

Using BPA's method of calculating TPP yields probabilities of 92.6 percent for OPUC's Example 1 and 91.3 percent for OPUC's Example 2. Lovell *et al.*, WP-02-E-BPA-40, at 11. BPA reran OPUC's Example 1 and Example 2 CRAC designs on ToolKit using the established TPP Methodology to arrive at the 88 percent TPP level. For Example 1, the high threshold levels cause CRAC to trigger on average 34 percent of the time over the rate period. *Id.* This is almost three times the number of CRAC triggers that BPA's design displayed (12 percent). *Id.* For Example 2, CRAC triggers at a rate more similar to BPA's design (17 percent), but the average annual rate increase is much higher. *Id.* Using a conversion of roughly \$55 million in additional revenues to a 1-mill increase in rates, the average size of the revenue increase per CRAC access--that is, per trigger--in the OPUC design (\$292.2 million per year) yields an average rate increase of 5.3 mills per year (with the high out-year threshold and cap resulting in a particularly severe 8-mill increase in FY 2006). *Id.* By contrast, in BPA's design the average size of a rate increase when CRAC triggers would be 2.4 mills, with the largest average increase in any given year being 2.9 mills. *See* Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 333. Both of the OPUC designs would result in less rate stability than BPA sought in its CRAC design. *Id.*

The IOU proposal displays many similar characteristics. Relying solely on CRAC would result in unstable rates considering the average frequency at which the CRAC would trigger. In the IOU proposal CRAC triggers, on average, over 42 percent of the time over the five-year rate period (and nearly two-thirds of the time by FY 2005), with an average rate increase of 4.7 mills each time CRAC triggers. Lovell *et al.*, WP-02-E-BPA-40, at 12. The additional problems associated with an uncapped CRAC are discussed *infra* in the context of Issues 4 and 5. The

rolling five-year forecast associated with the DDC is designed to prevent BPA from giving money away that was necessary for ensuring an adequate probability of making Treasury payments in the near future. *See* discussions *infra* in section 7.5 on the DDC.

BPA's CRAC thresholds and annual maximum values are reasonable and meet the 88 percent TPP standard. All of the proposals developed by the three parties would result in less stable rates for BPA's customers than BPA's CRAC design presented and evaluated in this case.

Decision

The CRAC thresholds and annual maximums will not be raised.

Issue 4

Whether CRAC should be capped.

Parties' Positions

Both UCUT and the IOUs support an uncapped CRAC. UCUT Brief, WP-02-B-UC-01, at 26; IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 57.

As noted *supra*, both PPC and NRU argued that the cap should be lowered from the values in BPA's initial proposal to a constant \$100 million per year across the rate period.

BPA's Position

As noted *supra*, one of the criteria BPA used in guiding the design of the CRAC was rate stability within the FY 2002-2006 rate period. The thresholds and annual caps in BPA's initial proposal were set such that CRAC would trigger only infrequently and with relatively minor rate increases. Lovell *et al.*, WP-02-E-BPA-40, at 10. "A more robust CRAC could well be so objectionable or onerous that BPA is effectively precluded from carrying it out as designed." Lovell *et al.*, WP-02-E-BPA-14, at 9.

Evaluation of Positions

Looking at the magnitude of the year-to-year rate impacts of the IOU CRAC design reveals that, on average, CRAC triggers over 42 percent of the time over the five-year rate period (and nearly two-thirds of the time by FY 2005) with an average rate increase of 4.7 mills each time CRAC triggers. Lovell *et al.*, WP-02-E-BPA-40, at 12. This illustrates why an uncapped CRAC would be undesirable: it would result in less stable rates for BPA's customers than the CRAC design presented in the initial proposal. Lovell *et al.*, WP-02-E-BPA-40, at 12. Moreover, as noted *infra* in section 7.3 (five-year rolling forecast for CRAC), under BPA's proposal, customers would know that their rates could increase by no more than about 10 percent; with an uncapped CRAC, there would be no limit to how high their rates might rise.

An uncapped CRAC would result in substantially less stable rates for BPA's customers than BPA's CRAC design presented and evaluated in this case. The major group subject to CRAC argues that BPA should adopt lower limits than BPA proposed. BPA's caps on rate increases under CRAC are reasonable in terms of risk mitigation and marketing objectives.

Decision

BPA will include an annual cap on the CRAC.

Issue 5

Whether BPA has arbitrarily and unnecessarily limited the flexibility of the CRAC.

Parties' Positions

In support of the assertion that BPA has arbitrarily and unnecessarily limited the flexibility of CRAC, OPUC argues that BPA cites rate stability as a key goal in the rate case, but that:

The exact nature or parameters of this "rate stability goal" cannot be ascertained from the record. The term apparently refers to rate changes caused by CRAC triggering within the 2002-2006 rate period or intra-period rate stability.

OPUC Brief, WP-02-B-OP-01, at 5.

They further argue that:

BPA's only evidence of any quantitative evaluation of rate stability is related to the "rate pledge" and refers to BPA's "pledge" to keep the rates in the 2002-2006 period no higher than the 1996 rates. WP-02-E-BPA-17, p. 27-28. The quantitative "proof" of the rate pledge looks only at average base rates, and makes no assumptions regarding the effect of a CRAC trigger. Thus, the only rate stability directly addressed in BPA testimony refers to keeping rate changes low between the 1996 and 2002 rate periods.

...The unstated premise of the claim of intra-period rate stability is that the introduction of additional risk will cause customers to avoid purchasing from BPA. Yet BPA has not identified any informal or formal guidelines or targets for the maximum annual percentage increase in a CRAC or maximum probability of a CRAC triggering in any year to support such an assertion.

Id. at 5-6.

In briefs on exceptions, several parties criticized BPA for its use of rate stability as a criterion for its CRAC design. These parties included the IOUs (WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 42-43), NEC/SOS (WP-02-R-NA/SA-01 at 18-20), and OPUC (WP-02-R-OP-01, at 7-8).

In conjunction with this issue, NEC/SOS and OPUC also raised an additional issue of inter-period rate stability. This issue will be addressed *infra* in section 7.7 of this risk mitigation chapter.

BPA's Position

Since the formulation of the Subscription Strategy, BPA has considered CRAC as an integral, but relatively modest, part of the risk mitigation package in developing its power rates. Subscription Strategy, at 14. CRAC, however, has been consistently characterized as an adjustment mechanism to base rates that generated most of the revenues BPA needed. *Id.*

Subject to the rate case, BPA proposes using an adjustment to posted prices, known as a cost recovery adjustment clause (CRAC), in its firm requirements rate schedules. All net firm power load requirements customers would be subject to a CRAC. BPA believes that a CRAC of about \$100 million per year would be adequate to maintain the desired Treasury Payment Probability, but the final determination of the amount will be made in the rate case.

Id. (emphasis added).

Although the CRAC design presented by BPA in the initial proposal ultimately raised this annual amount, it was by a rather small margin, with a maximum value between \$125 and \$150 million in FY 2001-2004 and \$87.5 million in FY 2005. Lovell *et al.*, WP-02-E-BPA-14, at 9. BPA noted one of the primary reasons for keeping the annual CRAC caps in this range:

The CRAC must be designed such that political constraints do not prevent the mechanism from being implemented as modeled. A more robust CRAC could well be so objectionable or so onerous that BPA is effectively precluded from carrying it out as designed. The effect could be to shift risk to Treasury.

Id.

See supra for BPA's comparison of several other parties' CRAC proposals to its own CRAC proposal using three criteria to guide the development of CRAC thresholds and annual caps in the initial proposal. Lovell *et al.*, WP-02-E-BPA-40, at 9-10. First, together with PNRR and other risk mitigation tools, CRAC levels needed to be set so that BPA would have an 88 percent probability of making all of its Treasury payments on time and in full over the FY 2002-2006 rate period. *Id.* at 10. Second, the CRAC values needed to be set high enough to allow BPA to meet its rate goals. *Id.* Finally, CRAC thresholds and caps needed to be set so that, to the extent possible given the first two criteria, they would have minimum impacts on the stability of BPA's firm power rates. This meant that CRAC would trigger only infrequently and with relatively minor rate increases. *Id.* The values used for this proposal--reserves thresholds of \$300 million in 2001 and 2002 and \$500 million in 2003-2005, and annual caps of \$125 million if the threshold is crossed in 2001, \$135 million in FY 2002, \$150 million in FY 2003, \$150 million in FY 2004, and \$87.5 million in FY 2005--met these criteria. Lovell *et al.*, WP-02-E-BPA-14, at 6-9. While only two of these three criteria were linked to quantitative assessment, the 88 percent TPP and the rate goals, all three criteria were consistent with statements made by

BPA throughout the Subscription process about anticipated levels of CRAC and the feasibility of its implementation.

Evaluation of Positions

OPUC is correct in its assertion that “BPA’s only evidence of any quantitative evaluation of rate stability is related to its ‘rate pledge’ and refers to BPA’s ‘pledge’ to keep the rates in the 2002-2006 period no higher than the 1996 rates.” OPUC Brief, WP-02-B-OP-01, at 5. As noted in the statement of BPA’s position, this was not established as a hard criterion with a numerical threshold that determined the acceptance or rejection of a proposal. Rate stability is fundamentally a marketing judgment, with broad implications for competitiveness, a stable customer base, and stable revenues. However, OPUC’s assertion is not tenable that “BPA’s reliance on its claim of ‘rate stability’ to reject suggestions to improve the CRAC is arbitrary and is not supported by substantial evidence.” *Id.* at 6.

First, BPA did not assert that any of the proposals offered by parties that relied on a more robust CRAC (including OPUC’s proposal) failed to meet any specific threshold criteria. Instead, BPA stated that:

All of the proposals developed by the three parties listed above would result in less stable rates for BPA’s customers than the CRAC design presented in the initial proposal.

Lovell *et al.*, WP-02-E-BPA-40, at 12.

In relative terms, each of these proposals would require larger and more frequent rate increases after the establishment of base rates for the FY 2002-2006 rate period than BPA’s CRAC design proposal.

Second, the fact that several customer groups filed testimony objecting to BPA’s increase in CRAC levels from those discussed during Subscription, Hansen *et al.*, WP-02-E-PP-03, at 3-8; Saven, WP-02-E-NI-01, at 11-12; substantiates that BPA’s concern for intra-period rate stability is warranted. This concern about implementation is not a trivial one.

In ROD section 6.4, Issue 2, BPA argues that it is confident that CRAC will be successfully implemented as designed, so that it is reasonable not to model the risk of its non-implementation. This argument, however, refers to the specific CRAC design BPA included in both its initial and final proposals: one employing CRAC as a relatively minor adjustment to revenues collected from base rates and characterized by annual caps that varied only slightly from those initially discussed during the development and broad regional and extraregional discussions of the Subscription Strategy. This argument is not one that BPA was applying to other CRAC designs that were characterized by annual caps far in excess of those considered during Subscription. In fact, this is the very reason that BPA, as also noted *supra*, asserted in its direct testimony that “a more robust CRAC could well be so objectionable or so onerous that BPA is effectively precluded from carrying it out as designed.” BPA was legitimately concerned about the

consequences of possibly having to rely heavily on year-to-year rate adjustments at levels its customers found objectionable.

BPA used three criteria to guide the development of the CRAC thresholds and annual caps to produce a proposal that reasonably balanced the use of PNRR and CRAC. CRAC was designed as a means for avoiding revenue shortfalls by adjusting revenue collection. It was never intended as the primary means of revenue recovery, and since the Subscription Strategy, BPA has consistently portrayed CRAC as a modest part of its overall risk mitigation package. The risk mitigation package presented in the final proposal meets all of the guiding criteria without supplementation, and no additional revenue-raising potential under CRAC is needed.

As noted *supra*, the proposals developed by OPUC and other parties would result in less stable rates for BPA's customers than BPA's CRAC design. Although a number of parties objected to BPA's use of intra-period rate stability as one of the guiding principles for developing its CRAC proposal, none demonstrated that BPA's decision to rely on CRAC for only a modest portion of its revenue recovery, or any of the other features in the proposal, were unreasonable given the conditions BPA faces in the upcoming rate period. Moreover, none of the other proposals displayed any features that could be considered an improvement over the BPA proposal given the agency's statutory obligations. OPUC's proposals, though well considered, were designed to use high CRAC thresholds and annual caps to achieve an additional goal that BPA does not accept: the attainment of a minimum ending reserves threshold of \$500 million for FY 2006. BPA's argument for not accepting this criterion can be found in ROD section 5.4.7.1. However, even if one were to accept this additional criterion, neither of the designs OPUC presented in its direct testimony actually meet it. As noted *supra* in the evaluation of positions in issue 3 of this section, in producing its two alternative CRAC proposals, OPUC used an alternative TPP statistic that proved to be flawed, and overstated the need for PNRR and/or CRAC. When utilizing BPA's established method of calculating TPP, Example 1 resulted in a TPP of 92.6 percent, while Example 2 resulted in a 91.3 percent TPP. Lovell *et al.*, WP-02-E-BPA-40, at 11. At these levels, the proposals did indeed produce a 90 percent probability of reserves levels of over \$500 million, but no longer do if the examples are rerun with TPP reduced to the 88 percent level, as BPA did in its rebuttal testimony (Lovell *et al.*, WP-02-E-BPA-40, at 10-12, Attachments C and E). With this correction for the faulty TPP calculation, the OPUC's CRAC designs fail to meet their additional minimum reserves criterion.

BPA's CRAC design is reasonable, and its selection for the final proposal is neither arbitrary nor capricious.

Decision

BPA has not arbitrarily and unnecessarily limited the flexibility of the CRAC.

Issue 6

Whether CRAC should rely on a rolling five-year forecast to determine by how much to raise rates, similar to the DDC mechanism.

Parties' Positions

Three parties suggested that BPA modify its proposed CRAC so that it would function in a manner more like the DDC. NEC/SOS Brief, WP-02-B-NA/SA-01, at 31; OPUC Brief, WP-02-B-OP-01, at 9-10; and CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 42. As described by NEC/SOS and OPUC:

Our proposal is to treat low reserve levels similarly to the way Bonneville treats high reserve levels in its DDC proposal. More specifically, if reserve levels fall below a trigger level for the period, BPA would undertake a five-year forecast as outlined for the DDC. If that forecast showed a need for more revenues in order to maintain the 88 percent TPP level for the ensuing five-year period, the Administrator could raise rates as needed--capped by the market price--to bring BPA back to the 88 percent TPP level.

NEC/SOS Brief, WP-02-B-NA/SA-01, at 31. OPUC adds:

BPA should revise the CRAC to allow the Administrator sufficient discretion to shore up end of period reserves based on a 5-year forecast of TPP. . . . The implementation of a flexible CRAC would increase, to the fullest extent possible, the likelihood that BPA will be 'well positioned' to meet a 'similarly high' TPP in the next rate period.

At the least, the CRAC should include a forecasting mechanism for the Administrator to determine that the projected end of period reserves are in danger of depletion below starting reserves. The Administrator should be able to implement measures designed to recover low reserves, even if the currently proposed CRAC thresholds have not been met. In addition the Administrator should retain the discretion to raise power rates to market prices if reserves are dangerously low.

OPUC Brief, WP-02-B-OP-01, at 9-10.

CRITFC/Yakama incorporated by reference the NEC/SOS argument regarding BPA's asymmetrical and inequitable treatment of cost recovery and dividend distribution mechanisms. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 42.

In their briefs on exceptions, each of these parties reiterated their support for a rolling five-year forecast in determining the maximum levels for CRAC. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 26; OPUC Ex. Brief, WP-02-R-OP-01, at 8-9; NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 19-20.

Commenting on BPA's response in the Draft ROD, OPUC asserts:

BPA also rejects OPUC's proposal for a 5-year rolling forecast to support the CRAC determination on the basis that it was not offered in evidence by OPUC (or the other

parties supporting this proposal). OPUC takes exception to this finding. OPUC based this proposal solely on BPA's proposal to employ a five-year rolling forecast to determine the distribution of dividends. As OPUC stated, the argument for the rolling-five-year forecast was based on cited material contained in the record, particularly the testimony of DeWolf, *et al.*, WP-02-E-BPA-39, p. 12. OPUC's proposal is based on and supported by the rationales identified by BPA for rejecting the reverse CRAC. *See* WP-02-B-OP-01, p. 4. Thus, OPUC's proposal is supported by substantial evidence in the record.

OPUC Ex. Brief, WP-02-R-OP-01, at 8.

NEC/SOS makes an additional point on BPA's argument in the Draft ROD:

BPA makes erroneous assumptions and then bases its conclusions on those assumptions. BPA states, "It is essential that customers signing contracts with BPA know what rates to expect for the upcoming rate period at the time they sign these contracts," in arguing against our proposal. But this is wrong. Customers may want to have low, flat rates – who wouldn't? – but it is not "essential." Customers will sign up with BPA as long as they can be sure the rate is the best deal in town – i.e. capped at market.

NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 19-20.

BPA's Position

The CRAC mechanism in BPA's 2002 rates is designed to trigger automatically based on AANR, Lovell *et al.*, WP-02-E-BPA-14, at 6; with maximum planned recovery amounts of "between \$125 and \$150 million in FY 2001-2004 and \$87.5 million in FY 2005." *Id.* at 9. The design of the CRAC is, in fact, fairly robust. *Id.* And the trigger level is substantially above the level at which BPA would have a deferral. *Id.* As noted *supra*, the design of the CRAC also recognized potential political difficulties surrounding its implementation:

The CRAC must be designed such that political constraints do not prevent the mechanism from being implemented as modeled. A more robust CRAC could well be so objectionable or so onerous that BPA is effectively precluded from carrying it out as designed. The effect could be to shift risk to Treasury.

Lovell *et al.*, WP-02-E-BPA-14, at 9.

Also, as noted *supra*, the design of the CRAC takes into account rate stability objectives. Among other criteria, CRAC thresholds and caps need to be set so to help minimize impacts on the stability of BPA's firm power rates. This means that CRAC would trigger only infrequently and with relatively minor rate increases. Lovell *et al.*, WP-02-E-BPA-40, at 10.

Evaluation of Positions

This proposal to apply a rolling five-year forecast and TPP test to the determination of annual CRAC caps was not introduced by NEC/SOS, OPUC, or CRITFC/Yakama prior to filing their initial briefs. Section 1010.11(a) of BPA's *Rules of Procedure Governing Rate Hearings* provides, in part, that "[p]arties shall be provided an adequate opportunity to offer refutation or rebuttal on any material submitted by any other party or by BPA." Further, ". . . witnesses shall submit all testimony and exhibits at the times specified in the procedural schedule." The procedural schedule for introduction of evidence in this hearing closed on February 4, 2000. BPA's rules do not provide an opportunity for parties to introduce new evidence into the record after the close of the evidentiary hearing. In addition, section 1010.13(a) of BPA's Rules of Procedure states that "[a]ll evidentiary arguments in briefs must be based on cited material contained in the record." Section 1010.13(e) discusses sanctions and provides: "The hearing officer shall not admit into the record any brief that does not conform to this section." The fact that the new CRAC proposal is based upon features of BPA's DDC design (which itself was explicitly detailed in the rate case record) is moot. Neither BPA nor other parties have had the opportunity to review this proposal, or test it through discovery and cross-examination. However, in the interest of identifying some inherent problems with this proposal, the following evaluation is offered.

It is essential that customers signing contracts with BPA know what rates to expect for the upcoming rate period at the time they sign those contracts. This is not simply a desirable but somehow unnecessary part of the ratesetting process as NEC/SOS suggest. BPA is legally obligated to let its customers know what their rates will be before the rate case is concluded and contracts are signed. While BPA's customers have, in the past, signed contracts containing, for example, variable rate provisions, these customers have had ample opportunity to be involved in the process by which these variable rates were developed. They did not have the proposed rate mechanism introduced at the eleventh hour after the opportunity for comment and rebuttal had passed.

Although BPA's CRAC design introduces some uncertainty into what customers will pay over the five-year rate period, as long as the cap on the CRAC can be specified, customers will be able to ascertain the minimum, maximum, and expected values of their rates. Employing a five-year rolling forecast to change the CRAC cap deprives customers of this opportunity when signing Subscription contracts. If CRAC is capped at market rates, but market rates are unknown or uncertain, then customers have no way of ascertaining what their expected or maximum rates might be.

The parties are arguing that BPA apply discretion to the implementation of the CRAC in a manner parallel to the discretion described in BPA's DDC proposal, but they have erred. The DDC threshold acts to trigger a distribution of dividends unless certain conditions are met; in the case of the DDC, the conditions are that a rolling five-year TPP analysis indicates the distribution would violate the 88 percent standard. Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, at 286-290. A parallel clause for the CRAC would have the CRAC threshold act to trigger a collection of additional revenue unless certain conditions are met. In the case of the CRAC, the only conditions that would be reasonably applied are that the

collection of CRAC revenues would not be necessary. Thus, making the CRAC operate more like the DDC would mean less frequent, not more frequent, collections of CRAC revenue.

Decision

BPA will not use a rolling five-year forecast to set caps on CRAC. BPA's CRAC design is, in fact, fairly robust, and the trigger level is substantially above the level at which BPA would have a deferral.

Issue 7

Whether the IPTAC rate should be subject to the CRAC.

Parties' Positions

The Joint DSIs argue that the TAC in the IP rate should not be subject to CRAC. They assert that since augmentation will provide the system with fixed price purchases that will cover all risk from serving IPTAC load, there will be no residual cost uncertainty from serving the TAC load, and hence no need to apply CRAC to IPTAC. Schoenbeck *et al.*, WP-02-E-DS-03, at 4-5.

PPC notes that the IPTAC rate is based on a prediction of BPA's costs of serving these loads rather than the actual cost. This means that the IPTAC rate may not cover the risk of market prices and that CRAC may be needed to cover the risk of the necessary purchases. PPC Brief, WP-02-B-PP-01, at 17.

BPA's Position

BPA asserts that CRAC should apply to all IPTAC charges. There is no intent to create an IP rate separate from the IPTAC charges and exempt from CRAC. The reason is that BPA retains risk associated with the IPTAC load. As BPA carries all other cost and revenue risk, BPA requires the ability to adjust the IPTAC rate through a CRAC during the rate period. Lovell *et al.*, WP-02-E-BPA-40, at 15.

CRAC may be implemented for a number of reasons related to cost overruns or revenue under-runs that BPA may experience during the rate period.

Evaluation of Positions

The DSI argument fails to recognize that the IPTAC rate is based on a prediction of BPA's cost of power to serve these loads, rather than being based on the actual cost of power acquired at the time service begins. *Id.* As a result, the IPTAC rate may not recover revenues sufficient to capture all of the risks associated with purchase prices.

Further, the DSIs have not committed as yet to the amount of load they will place on BPA. Accordingly, BPA will most likely not have purchased a sufficient quantity of energy to serve all potential DSI loads by the time rates are finalized. As a result, further load and purchase risks

remain. BPA needs the ability to impose the CRAC on IPTAC loads in order to manage the risk associated with serving these loads.

PPC correctly notes that the IPTAC rate is based on only a prediction of BPA's costs of serving these loads rather than the actual cost. This means that the IPTAC rate may not cover the risk of market prices and that CRAC may be needed to cover the risk of the necessary purchases. PPC Brief, WP-02-B-PP-01, at 17.

The fact is that the DSI loads have not and will not be fully committed nor fully augmented, so residual cost and revenue risks remain. These are precisely the types of risk that CRAC is established to address.

Decision

The IPTAC rate will be subject to CRAC.

7.4 Planned Net Revenues for Risk

Issue 1

Whether PNRR was set too low to result in an adequate probability of repaying Treasury.

Parties' Positions

NEC argued that BPA had incorrectly calculated TPP and offered an alternative method, which, when applied to the ToolKit data, yielded a TPP of only 79.8 percent. Weiss, WP-02-E-NA-01, at 2-4. Using this alternative definition of TPP, NEC concluded that “[a]n additional PNRR of about \$46 million per year over the base case \$127 million was necessary to reach that goal [of 88 percent TPP].” *Id.* at 6.

BPA's Position

Using the established method of calculating TPP, BPA determined the amount of PNRR which, together with CRAC, starting reserves, and access to the FCCF, was needed to meet the 88 percent TPP standard while keeping the rate pledge. Lovell *et al.*, WP-02-E-BPA-40, at 7. For the initial proposal, that amount was \$127 million. *Id.* at 7. This value was later revised to \$98 million for the final proposal. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 276.

Evaluation of Positions

BPA pointed out a statistical flaw in the alternative calculation of TPP. “While this calculation would be appropriate if the events being averaged were independent and identically distributed, it is not valid to apply such a calculation to events, like the reserves values calculated in the ToolKit model, that are dependent or serially correlated.” Lovell *et al.*, WP-02-E-BPA-40, at 2. NEC/SOS acknowledged this flaw: “After consideration of BPA's argument, NWECA agrees that

its analysis was indeed flawed.” NEC/SOS Brief, WP-02-B-NA/SA-01, at 30. They further state that:

Bonneville has presented convincing testimony that its proposed rates meet the first condition contained in its ‘93 policy. It has done so by establishing an objective standard--the 88 percent TPP as calculated by the ToolKit--and presenting substantial evidence to show that its proposed rates meet that standard.

Id. at 13.

See *supra* section 7.2 for a further discussion of this TPP calculation issue.

Decision

PNRR was not set too low to make an adequate probability of repaying Treasury. BPA was reasonable in setting the PNRR at \$98 million. This amount yields a TPP of 88 percent.

Issue 2

Whether PNRR was set unnecessarily high.

Parties’ Positions

The IOUs argued that “BPA should eliminate the accumulation of reserves resulting from PNRR and provide a more robust CRAC.” Stauffer *et al.*, WP-02-E-AC/GE/IP/MP/PL/PS-04, at 10. The IOUs also asserted that a very large CRAC would not be expected if PNRR were eliminated, *id.*; and presented a capped CRAC design with no PNRR that achieves an 88 percent TPP. Stauffer *et al.*, WP-02-E-AC/GE/IP/MP/PL/PS/04, at 10. The IOUs further argue that:

BPA’s methodology shifts PNRR away from the years that cause more risk to the years that cause less risk. By proposing a DDC in connection with this unbalanced PNRR collection, BPA amasses large net revenues before they are needed and is more likely to distribute them if the DDC triggers, such that the reserves are no longer available when needed.

IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 58.

The Joint DSIs stated that “[t]he PNRR that BPA proposes for rate test period is nine times higher than the PNRR included in current rates even though BPA expects to have much higher beginning of rate period reserves than in 1996.” Schoenbeck and Bliven, WP-02-E-DS/AL/VN-03, at 9. The Joint DSIs recommended “that BPA set its rates based on expected costs, that BPA include no PNRR in rates, and that BPA structure the Cost Recovery Adjustment Clause to achieve the 80 percent TPP.” Schoenbeck and Bliven, WP-02-E-DS/AL/VN-03, at 10. The Joint DSIs proposed a CRAC design that employed a CRAC threshold of \$675 million across all five years of the rate period with annual caps set at levels \$127 million higher than BPA’s proposed CRAC revenue limits. *Id.* at 11. In their brief

on exceptions, the DSIs add that BPA’s decision to require \$127 million in PNRR is arbitrary, capricious, and contrary to law. DSI Ex. Brief, WP-02-R-DS-01, at 18.

In their brief on exceptions, Alcoa/Vanalco stated that:

BPA never responded to the question of whether BPA has properly set the PNRR “trigger” to properly account for its risks. Alcoa and Vanalco have argued that BPA has included a rate adjustment mechanism in its power rates as a means to manage risks that may arise during a rate period.

Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-02, at 38.

BPA’s Position

For the initial proposal, BPA determined that \$127 million of PNRR, together with CRAC, was needed to meet the 88 percent TPP standard while keeping the rate pledge. Lovell *et al.*, WP-02-E-BPA-40, at 7. This value was revised to \$98 million for the final proposal. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 276.

Evaluation of Positions

Relying fully on CRAC rather than a combination of CRAC and PNRR, as the IOUs suggest, results in highly unstable rates. The average annual frequency at which the CRAC would trigger would rise from the current 12 percent to over 42 percent (and nearly two-thirds of the time by FY 2005). Rates would be hiked an average of 4.7 mills each time CRAC triggers. Stauffer *et al.*, WP-02-E-AC/GE/IP/MP/PL/PS-04, at Attachment B.

The Joint DSIs acknowledge that their proposal would trigger more frequently than BPA’s proposal: “BPA’s CRAC has an 11.8 percent probability that it would trigger during the rate period. The CRAC we propose has a 43.3 percent probability of triggering.” Schoenbeck and Bliven, WP-02-E-DS/AL/VN-03, at 11. Aside from the fact that this CRAC design does not address the issue of rate stability, it also results in a TPP of only 81 percent, *id.*; which is considerably short of the 88 percent TPP target BPA has established. These were the reasons BPA rejected the proposal of Alcoa/Vanalco. The means by which BPA set its PNRR trigger involved the iterative use of its risk mitigation modeling process to determine exactly what amount of PNRR, together with BPA’s CRAC proposal, would result in an 88 percent TPP. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 268-275.

Decision

The PNRR level of \$98 million is not set too high but is reasonable, in combination with other risk mitigation tools, in order to assure that BPA meets the 88 percent TPP standard. The proposals developed by the IOUs and Joint DSIs to eliminate PNRR and have a more robust CRAC would result in less stable rates for BPA’s customers.

Issue 3

Whether BPA's forecast of starting reserves is too low.

Parties' Positions

Both NRU and PPC argued that the starting reserves estimate for FY 2002 of \$685.5 million, used in the ToolKit model for the initial proposal, was too low. NRU stated that:

[BPA Vice President for Requirements Power Marketing Allen] Burns estimated that BPA will end FY '99 with reserves of more than \$700 million . . . it is reasonable to anticipate a beginning level of reserves of \$750 million rather than \$685.5 million by October 1, 2001. BPA's proposal to accumulate additional reserves over anticipated starting reserves during the WP-02 rate period should be modified to reflect these improved financial results.

Saven, WP-02-E-NI-01, at 7.

PPC further asserted that:

To date, BPA's projections have been inappropriately low estimates. Agency senior officials estimated that BPA's reserves at the end of fiscal year 1999 will stand in excess of \$700 million; *see* WP-02-E-PP-03 at 11. Furthermore, there remain nineteen more months of this rate period in which BPA may accumulate additional reserves. Climatic conditions associated with wet La Niña weather patterns are expected to maintain good hydro conditions, resulting in additional revenues from sales of surplus power, which may further enhance BPA's projections of reserve levels. *Id.*

PPC Brief, WP-02-B-PP-01, at 8.

CRITFC/Yakama argue that starting reserves are too high. "Bonneville has assumed starting reserves in 2002 of approximately \$685 million. This amount inappropriately includes \$227 million in unspent funds under the Memorandum of Agreement . . ." CRITFC/Yakama Brief, WP-02-CR/YA-01 at 36. *See* Issue 4, *infra*.

In a footnote to their brief on exceptions, the IOUs stated, "At other places on the record BPA states it will start the next rate period with reserves of over \$685 million. Tr. 643. BPA has updated its reserve estimates, but those estimates do not appear in the Draft ROD." IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 39, n. 123.

BPA's Position

As BPA stated in direct testimony, it plans to update the forecast for FY 2002 starting reserves attributable to power in the studies that support the 2002 final rates. DeWolf *et al.*, WP-02-E-BPA-13, at 34. BPA's initial proposal used the forecast of ending reserves for

FY 1999 from the FY 1999 Second Quarter Review (April 1999). Lovell *et al.*, WP-02-E-BPA-40, at 17. At that time, reserves were anticipated to be about \$725 million at the start of the next rate period. Lovell *et al.*, WP-02-E-BPA-14, at 4. This value, however, was not adjusted to account for the potential impacts of risks over the remaining two years of the current rate period. When these risks were taken into account, the average value for FY 2002 starting reserves modeled in ToolKit was \$685.5 million. *Id.*

These reserves values were updated in the studies to support the 2002 final rates, using actual ending reserves for FY 1999 and a forecast of reserves from the First Quarter Review (February 2000) Lovell *et al.* WP-02-E-BPA-40, at 17. Ending reserves for FY 1999 are \$665.6 million, with a much more optimistic projection for FY 2002 starting reserves of \$880 million. When these values are adjusted for risk in ToolKit, the average starting reserves value for the next rate period is \$842.3 million. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 272.

Evaluation of Positions

Although ending reserves for FY 1999 did not turn out to be as high as NRU and PPC had anticipated, the current forecast of \$842.3 million (risk adjusted) for FY 2002 starting reserves is far more robust than the \$750 million used by both groups in their proposals. PPC noted that:

BPA stated that it would be updating its forecasts of starting FY 2002 financial reserves for its final rate proposal. WP-02-E-BPA-40 at 16. Fortunately, BPA has made good on that statement and its revised numbers bear out PPC's recommendations . . . BPA now reports that its ending year 1999 financial reserves are \$665.6 million actual. From that, BPA forecasts that its ending year 2000 financial reserves will fall within a range from \$782.5 million (based on a deterministic analysis) and \$762.3 million (risk adjusted).

PPC Brief, WP-02-B-PP-01, at 8-9.

While the PPC and NRU are concerned that estimated starting reserves are too low, CRITFC/Yakama argue that starting reserves are too high. CRITFC/Yakama argue that starting reserves should not include MOA carryforward funds, and that these funds are being double counted. CRITFC/Yakama argue that the estimate of starting reserves should be reduced by the amount of the MOA carryforward balance. CRITFC/Yakama Brief, WP-02-B-CR/YA-01. *See Issue 4 infra* for a discussion of double-counting issues.

BPA updates its forecasts quarterly, so the revision of reserves values was done as a matter of routine. However, as BPA noted, both NRU and PPC assumed that there was no risk in the remaining years of the current rate period for the ToolKit modeling that underlies its proposal. Lovell *et al.*, WP-02-E-BPA-40, at 12.

This final forecast of reserves is driven by actual reserves for FY 1999 (\$665 million), updated program budgets for FY 2000 and FY 2001, and an updated revenue forecast based on an "early bird" snow pack estimate for water year 2000. This "early bird" snow pack estimate may reflect

the La Niña weather pattern referred to by PPC; however, BPA will not be relying on the potential impact of La Niña. BPA will be relying instead on a forecast based upon the actual snow pack. During cross-examination of the revenue requirement panel, DeWolf *et al.*, WP-02-E-BPA-13 and 39, Mr. Thor was asked about the runoff forecast. Mr. Thor noted that the January mid-month forecast was 109 million-acre feet (maf) runoff for The Dalles. He also noted that the average runoff for The Dalles is 103 maf. He continued, “So the important point is that we’re a little bit above average at this point in the forecast for this year.” Tr. 693-94. So far, there is no evidence that this will be a La Niña year.

The IOUs state that BPA did not update the reserve forecast in the Draft ROD. IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 39, footnote 123. BPA did update the forecast in the Draft ROD. Draft ROD, WP-02-A-01, at 7-32.

Decision

BPA will use actual ending reserves for FY 1999 and a forecast of reserves from the First Quarter Review (February 2000) in the studies supporting the 2002 final rates. It is reasonable to adjust these numbers for risks remaining in the current rate period. BPA’s forecast of starting reserves is not too low.

Issue 4

Whether BPA is double-counting the MOA carryforward funds in the starting reserves balances for FY 2002.

Parties’ Positions

CRITFC/Yakama argue that BPA is double-counting the MOA carryforward funds. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 38. CRITFC/Yakama recommend that “Bonneville reduce its starting reserve by \$227 million to avoid double-counting the unexpended MOA funds.” *Id.* at 40. CRITFC/Yakama argue that “BPA cannot use a dollar for fish and wildlife restoration that has been unexpended under the MOA and committed to fish and wildlife funding after 2002 . . . and assume that the same dollar is available for other risks and uncertainties facing Bonneville.” CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 27.

UCUT argues that “[t]his rolling forward of program measures [from the current rate period to FY 2002-2006] and inclusion of unexpended fish and wildlife funds as starting reserves is inconsistent with the 1996 MOA and carries the risk that such funds, if reallocated and expended under the MOA, will not be available as starting reserves.” UCUT Brief, WP-02-B-UC-01, at 22. UCUT also notes that “BPA is planning to update the forecast of FY 2002 starting reserves attributable to power in final proposal studies. BPA has stated that starting reserves are treated in the rate proposal as one of the tools to mitigate risk. Overestimating starting reserves counters any risk mitigation effect.” *Id.*

BPA's Position

BPA is not double-counting the MOA carryforward funds and, consistent with the MOA, BPA is making an amount equivalent to the carryforward funds balance available for fish and wildlife expenditures after FY 2001. Lovell *et al.*, WP-02-E-BPA-40, at 19.

Evaluation of Positions

CRITFC/Yakama contend that BPA is double-counting the MOA carryforward funds because “Bonneville has counted the unexpended fish and wildlife funding as part of the reserves. It has also counted these reserves as one of the contingencies to cover the full range of uncertainties facing Bonneville.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 38. UCUT alleges that “. . . inclusion of unexpended fish and wildlife funds as starting reserves is inconsistent with the 1996 MOA . . .” UCUT Brief, WP-02-B-UC-01, at 22. CRITFC/Yakama and UCUT argue that BPA is double-counting the MOA carryforward by including it in starting reserves, and therefore available to mitigate risks, and by also making the carryforward available for fish and wildlife purposes. CRITFC/Yakama and UCUT both recommend that BPA lower the estimate of starting reserves by the amount of the carryforward balance. CRITFC/Yakama, WP-02-B-CR/YA-05, at 40; UCUT Brief, WP-02-B-UC-01, at 22. They argue that by reducing the starting reserves by the amount of the carryforward balance, BPA will be able to make the funds available for fish and wildlife purposes.

In 1996, a Fish & Wildlife MOA was established to stabilize BPA's fish and wildlife obligations over a six-year period, FY 1996 through FY 2001. 64 Fed. Reg. 44318, 44320 (1999). The MOA also established a methodology for calculating the carryforward balance. Lovell *et al.*, WP-02-E-BPA-40, at 17. In accordance with the provisions of the MOA, BPA calculates a cumulative carryforward balance at the beginning of each year. *Id.* BPA also includes an interest credit on these carryforward balances. *Id.*

BPA intends to make the MOA carryforward funds available for fish and wildlife purposes, even if reserves are reduced from the current forecast for FY 2001:

- Q. Assuming Bonneville faces some disastrous problems in the year 2002 or shortly thereafter, such as low market prices or low water, combination of events that are non-fish and wildlife problems, and these events deplete Bonneville's reserves to an extremely low level, let's say zero, what will become of the MOA funds that are in Bonneville's reserves?
- A. (Dr. Lovell) That would not affect Bonneville's commitment to adhere to the principles and make funding in the amount of the MOA carryforward available for fish and wildlife purposes.
- Q. Can you explain how those MOA funds would still be available?
- A. (Dr. Lovell) I'm using the word “fund” pretty [carefully], not to mean particular dollars that are in the reserve. As I indicated, Bonneville is planning to spend a great deal of money on fish and wildlife throughout the

[2002-2006] rate period. Not all of that funding comes from reserves; some of it is in the revenue requirement.

Q. But we are --

A. (Dr. Lovell) The amount of funding being made available for fish and wildlife is in the next rate period greater than the MOA carryforward.

Q. Correct. But I am speaking only of the MOA funds that are being included in Bonneville's reserves. Would your answer be the same for just those funds?

A. (Dr. Lovell) As I said, my understanding of the MOA is not that it requires that a particular dollar that ends up in the reserves due to circumstances that lead to the existence of a carryforward calculation be set aside in some separate place for fish and wildlife. The requirement is that Bonneville will make available for fish and wildlife purposes funding of an amount as large as the MOA carryforward calculation. And Bonneville is going to do that.

Tr. 723-25.

BPA is not double-counting the carryforward funds, and consistent with the MOA, it is making an equivalent amount to the carryforward funds balance available for fish and wildlife expenditures after FY 2001. Lovell *et al.*, WP-02-E-BPA-40, at 19. BPA explained that:

BPA has included in annual revenue requirements for FY 2002-2006 the weighted average annual expenses of the 13 Alternatives in the Principles. These expenses are reflected in BPA F&W operations and maintenance (O&M), U.S. Army Corps of Engineers (COE) O&M, and the Bureau of Reclamation O&M, capital recovery expenses, and balancing and system augmentation purchases. See DeWolf, *et al.*, WP-02-E-BPA-13, at 8. Rates are being set to generate annual revenues sufficient to recover these and other annual expenses in revenue requirements, plus planned net revenues. In this way, annual revenues are set to cover the weighted average of F&W costs in the 13 Alternatives without a reliance on the carryforward balance.

The forecast of starting reserves includes all projected cash in the BPA fund, a portion of which is attributable to the carryforward balance...

As explained [] below, some activities that were assumed in the MOA to be funded in FY 1996-2001 have been rolled forward and included in costs projections for some of the 13 Alternatives for the FY 2002-2006 rate period. Further, an amount of funding equivalent to the carryforward balance is projected to be available post-2001 by reason of the fact that F&W costs in revenue requirements are substantially greater than the carryforward balance. Indeed, F&W costs for the first two years of the new rate period are greater than the carryforward estimate.

Lovell *et al.*, WP-02-E-BPA-40, at 19-20.

As BPA noted, not all of the capital recovery expenses require cash. The depreciation portion does not require cash. Lovell *et al.*, WP-02-E-BPA-40, at 21. As a result, only the portion of the carryforward balance that is the difference between the projected and actual cash expenditure is in the “bank” right now (*i.e.*, cash reserves). *Id.* The depreciation amount is not in reserves, because depreciation is a noncash expense. Therefore, an underrun in depreciation expense does not mean that cash has been saved. *Id.*

Starting reserves, together with PNRR, CRAC, and access to the FCCF, are treated in the 2002 power rates as tools to mitigate risks, including fish and wildlife costs risks, such that all costs are recovered on time and in full. *Id.* at 19. BPA would have a double-counting problem if it withheld the carryforward balance from starting reserves, because funding for FY 2002-2006 fish and wildlife costs is already provided in annual revenue requirements by reason of the weighted average expenses of the 13 Alternatives and by reason of our risk mitigation tools (including starting reserves). *Id.* at 20.

BPA has stated that it will fund all of its fish and wildlife expenses in the next rate period. *See Hansen et al.*, WP-02-E-PP-09, Attachment B at 1: BPA White Paper, *Fish and Wildlife Funding for the 2002-2006 Rate Period*. It is possible that BPA will use the unexpended MOA funds to meet fish and its wildlife expenses in the FY 2002-2006 period; however, fish and wildlife expenses are just one of the risks that BPA will be facing in that period.

BPA is setting rates to recover the equally weighted costs of the 13 Alternatives. *See ROD* section 5.4.4, *supra*. By asking BPA to withhold the projected MOA carryforward balance from starting reserves, CRITFC/Yakama are effectively asking BPA to augment the costs of the 13 Alternatives. While BPA has stated that it will meet all of its fish and wildlife expenses in the 2002-2006 rate period, asking BPA to increase the amount being considered is outside the scope of this proceeding. *See ROD* section 5.3.2, *supra*. BPA cannot set aside dollars in reserves for a particular cost. PPC also noted that “we are not aware of any mechanism in which BPA could legally ‘ earmark ’ funds for a specific purpose, such as fish and wildlife, within its single Bonneville fund, for carryover from one rate period to the next.” *Hansen et al.*, WP-02-E-PP-09, at 18.

While arguing for lower starting reserves, CRITFC/Yakama argue that BPA should set rates to assure an 88 percent TPP for Alternative 13u. *See ROD* section 5.4.6, *supra*. CRITFC/Yakama’s argument that BPA should reduce starting reserves by the amount of the projected MOA carryforward balance and set rates to cover high cost alternatives is inherently unfair to ratepayers.

PPC also noted that “[w]e accept BPA’s obligation to spend unused funds on fish and wildlife, but we do not agree that BPA has erred in counting unused funds in its starting reserves or that BPA is double-counting the funds as alleged in WP-02-E-CR/YA-02 at 9.” *Hansen et al.*, WP-02-E-PP-09, at 18.

Decision

BPA has appropriately included the MOA carryforward funds balance in the starting reserves balance for 2002 and is not double-counting those funds.

Issue 5

Whether BPA has underfunded its fish and wildlife program responsibilities in the current rate period, thereby not making funding available as called for under the MOA.

Parties' Positions

CRITFC/Yakama argued that “Bonneville has ended up obligating less than the \$127 million available under the MOA each year. This has added to the annual carryforward.” Sheets *et al.*, WP-02-E-CR/YA-05, at 22. They also argued that “[t]he carryforward balance for the direct budget category arises because Bonneville has chosen to under-fund its fish & wildlife responsibilities each year . . .” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 39.

CRITFC/Yakama argued that “Bonneville worked with some members of the Congressional Delegation to undermine the MOA by supporting an appropriation rider to the Northwest Power Act.” CRITFC/Yakama Ex. Brief, WP-02-E-CR/YA-01, at 27.

CRITFC/Yakama argued that BPA uses different and inconsistent interpretations of the Northwest Power Act to serve its purposes. CRITFC/Yakama Ex. Brief, WP-02-E-CR/YA-01, at 28.

BPA's Position

The MOA was developed to establish BPA's financial commitment for Columbia River fish and wildlife mitigation. The carryforward balance has grown primarily because the capital recovery expenses have not been as high as forecast under the MOA. Lovell *et al.*, WP-02-E-BPA-40, at 21. BPA set rates in 1996 to carry out the terms of the MOA in order to make the funding available for expenditure. *Id.* at 23. BPA has funded all projects that were recommended by the Northwest Power Planning Council. The carryforward has resulted from a number of factors described elsewhere. *Id.*

Evaluation of Positions

CRITFC/Yakama argue that a portion of the carryforward balance results from BPA underfunding its fish and wildlife program. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 39. The \$127 million amount cited is the sum of BPA's direct program O&M and BPA investment in fish and wildlife as projected by the MOA.

CRITFC/Yakama allege that BPA worked with members of the Northwest Congressional delegation to undermine the MOA with an appropriations rider to the Northwest Power Act. CRITFC/Yakama Ex. Brief, WP-02-E-CR/YA-01, at 27. While BPA may have been consulted

during the development of the appropriations rider referred to, BPA did not in any way “seek to undermine the MOA.” There is no evidence on the record to support these allegations. Therefore, there is no way for BPA to address this kind of argument.

BPA set rates in 1996 to carry out the terms of the MOA in order to make the funding available for expenditure. Lovell *et al.*, WP-02-E-BPA-40, at 23. BPA has made the funding available as called for under the MOA. At the time of the initial proposal, the projected carryforward balance for FY 2001 was \$203 million. Of this amount, \$182 million was related to capital fixed expenses (capital recovery expenses, that is, interest and depreciation). *Id.* at 21. The remainder of the carryforward balance relates to BPA’s direct program. BPA has funded all projects that were recommended by the Council. At the end of FY 1999, the projected MOA carryforward balance for FY 2001 was \$248 million.

In their brief on exceptions, CRITFC/Yakama confuse the overall Council Program discussed in ROD section 5.3.2, *supra*, and BPA’s position discussed here. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 28. BPA has funded specific projects that have gone through the Council’s review process.

The capital recovery expenses, interest and depreciation, are lower than forecast in the MOA because there is a lower amount of repayable appropriations being charged interest and a lower level of assets being depreciated. *Id.* at 23. This is fundamentally the cause behind the carryforward balance. These expenses are lower than projected because there have been lower Congressional appropriations than expected under the MOA and because the COE has placed less investment in service than forecast under the MOA. *Id.* at 22. CRITFC/Yakama noted that “[a]ppropriations for capital construction programs of the Corps of Engineers Columbia River Fish Mitigation Plan have not kept pace with the budget projected in the MOA . . . The House Energy and Water appropriations subcommittee also has been critical of the Corps proposed capital investments.” Sheets *et al.*, WP-02-E-CR/YA-05, at 23. The projected 2001 carryforward is not primarily attributable to BPA direct program fish and wildlife O&M nor to BPA’s capital investment. Lovell *et al.*, WP-02-E-BPA-40, at 23. Those costs have been lower than the MOA levels, not because BPA’s program levels are lower, but because Congressional appropriations and COE plant in service have been lower.

Not all of the capital recovery expenses require cash; in particular, the depreciation portion does not require cash. Lovell *et al.*, WP-02-E-BPA-40, at 21. As a result, only the portion of the carryforward balance that is the difference between the projected and actual cash expenditure is “in the bank” right now (*i.e.*, cash reserves). *Id.* The current carryforward balance forecast for the end of FY 1999 is \$203 million, of which \$175 million is cash that is “in the bank” now. *Id.* At the end of FY 1999 the carryforward balance is \$215 million.

Decision

BPA has set rates to recover the costs of the MOA in 1996. Those costs have been lower than the MOA levels, not because BPA’s program levels are lower, but because Congressional appropriations and COE plant in service have been lower. BPA has made the funding called for under the MOA fully available.

Issue 6

Whether any MOA carryforward balance at the end of FY 2001 is to be made available for fish and wildlife expenditures above and beyond the fish and wildlife program expenditures planned in the rate case for the FY 2002-2006 rate period.

Parties' Position

CRITFC/Yakama argue that the 13 Alternatives assume that certain projects would have already occurred before the end of the period covered by the MOA and that the CBFWA budgets were assumed to be in addition to the funds committed in the MOA. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 38.

The PPC stated that it did not see “any language that obligates BPA to any specific, or additional spending beyond the current rate period. While BPA cannot redirect unspent funds elsewhere, the MOA does not create any right to increased levels in the future.” Hansen *et al.*, WP-02-E-PP-09, at 18.

BPA's Position

There are some fish and wildlife investments that the MOA anticipated would be completed by FY 2001 that are now included in the 13 Alternatives for FY 2002-2006. Lovell *et al.*, WP-02-E-BPA-40, at 20. The Principles make no mention that BPA should assume that fish and wildlife costs in FY 2002-2006 will be augmented by the amount of the carryforward balance, even if funded by the carryforward balance. In fact, BPA may be prevented from doing so legally. *Id.* BPA set rates in 1996 to make funding available for expenditures under the terms of the MOA. The carryforward resulted from a number of factors described *supra*. *Id.* at 23. The costs of the 13 Alternatives in the FY 2002-2006 revenue requirements exceed the amount of the carryforward.

Evaluation of Positions

There are some fish and wildlife investments in the MOA that were expected to be completed before FY 2002 that are now included in the 13 Alternatives for FY 2002-2006. Lovell *et al.*, WP-02-E-BPA-40, at 20. For example, in the assumptions for the MOA, surface bypass collectors were to be put into service by FY 2001. These investments have not been completed, and several of the 13 Alternatives include surface bypass investment for the FY 2002-2006 rate period. *Id.* Another capital investment assumed in the MOA was engineering and design for drawdown on the lower Snake River projects. Of the 13 Alternatives, seven incorporate various levels and combinations of drawdown at the lower Snake River and John Day projects. *Id.*

BPA stated that the Principles make no mention of BPA assuming that the fish and wildlife costs in FY 2002-2006 will be augmented by the amount of the carryforward balance, even if funded by the carryforward balance. In fact, BPA may be prevented from doing so legally. Lovell *et al.*, WP-02-E-BPA-40, at 20. Further, “BPA has a single account at the U.S. Treasury, the BPA Fund, into which all revenues are deposited and from which all expenditures are made.

Cash may not be held out or segregated in the Fund without risk of violating priority of payments and other requirements. The MOA does not specify the disposition of carryforward funds post FY 2001, [except] to say that the carryforward funds will not be reprogrammed to purposes other than fish and wildlife recovery and they will remain available for fish.” *Id.*

As explained above, BPA is not reprogramming the carryforward balance to non-fish and wildlife uses. Indeed, amounts well in excess of the carryforward balance are being made available for fish and wildlife expenditure after FY 2001, by reason of the fact that the MOA carryforward is estimated at \$227 million, and average annual expenses in revenue requirements exceed \$400 million. Lovell *et al.*, WP-02-E-BPA-40, at 21. In rebuttal testimony, the PPC stated that it did not see “any language that obligates BPA to any specific, or additional spending beyond the current rate period. While BPA cannot redirect unspent funds elsewhere, the MOA does not create any right to increased levels in the future.” Hansen *et al.*, WP-02-E-PP-09, at 18.

BPA is not establishing a fish and wildlife budget for 2002-2006 period in this rate proceeding. The Principles do not establish a budget for this period. *See Revenue Requirement Study Documentation, Volume 1, WP-02-E-BPA-02A, Chapter 13, Attachment 1, Principles.* While the unexpended MOA funds are not in addition to budgets for the 2002-2006 period, BPA has stated that it will meet all of its financial obligations, including funding for Northwest fish and wildlife, for the FY 2002-2006 rate period. *See Hansen et al., WP-02-E-PP-09, Attachment B, at 1: BPA White Paper, Fish and Wildlife Funding for the 2002-2006 Rate Period.*

Decision

The MOA did not require that any MOA carryforward balance be made available for fish and wildlife expenditures above and beyond those included in the FY 2002-2006 rate case.

Issue 7

Whether the MOA carryforward balance demonstrates that BPA is over-collecting revenues in relation to its total fish and wildlife program expenditures.

Parties' Position

Alcoa/Vanarco/Energy Services stated that “[i]t would appear that current rates are overcollecting revenue in relation to total program expenditures for each year of the rate period. This is exemplified by what appears to be a substantial cash carryforward balance for fish and wildlife expenditures for every year since 1996, and is projected to continue through the end of the rate period in 2001.” Speer *et al.*, WP-02-E-AL/VN/EG-02, at 12.

CRITFC/Yakama state that:

in FY 97 and each subsequent year, CBFWA has identified about \$150 million needed to fund core projects to implement the F&W Program. In addition, Bonneville has ended up obligating less than the \$127 million available under the MOA each year. This has added to the annual carryforward. The carryforward balance for the direct budget category arises because Bonneville has chosen to

under-fund its fish & wildlife responsibilities each year, not because it is over collecting revenues.

Sheets *et al.*, WP-02-E-CR/YA-05, at 22.

BPA's Position

BPA stated in rebuttal that the carryforward does not indicate that BPA is overcollecting. BPA set rates in 1996 to carry out the terms of the MOA in order to make the funding available for expenditure. The carryforward has resulted from a number of factors described elsewhere. Lovell *et al.*, WP-02-E-BPA-40 at 23.

Evaluation of Positions

Alcoa/Valanco/Energy Services argued that the fact that there is a carryforward balance indicated that BPA was over-collecting. Speer *et al.*, WP-02-E-AL/VN/EG/-02, at 12. Contrary to what Alcoa/Valanco/Energy Services asserted, CRITFC/Yakama argued that the carryforward balance results because “Bonneville has chosen to under-fund its fish & wildlife responsibilities each year, not because it is over collecting revenues.” Sheets *et al.*, WP-02-E-CR/YA-05, at 22. See Issue 5 for discussion of this issue.

The carryforward balance does not indicate that BPA is overcollecting. BPA set rates in 1996 to carry out the terms of the MOA and make the funding available for expenditure. Lovell *et al.*, WP-02-E-BPA-40, at 23. The source of the carryforward is for reasons beyond BPA's control and is documented in Issue 5 *supra*. Since the carryforward is not being held out from starting financial reserves, it is available to mitigate risk, including fish cost uncertainty. *Id.* Starting reserves also include interest earnings on the higher reserves.

BPA has funded all projects recommended by the Northwest Power Planning Council. It is the Northwest Power Planning Council, not the CBFWA, that by statute recommends to BPA its program for funding. CBFWA works through the Council's prioritization process to recommend its priorities for fish and wildlife funding.

Decision

BPA has not been overcollecting revenues in relation to its total fish and wildlife program expenditures, and the existence of a MOA carryforward balance does not indicate that BPA has been doing so.

7.5 Dividend Distribution Clause

Issue 1

Whether BPA should revise the DDC threshold level of \$250 million in AANR (equivalent to \$950 million in reserves).

Parties' Positions

PPC states that BPA's DDC triggers at too high a level of reserves and does not act as "an assured brake to slow BPA's accumulation of reserves when BPA enjoys the benefit of prosperous financial times." PPC Brief, WP-02-B-PP-01, at 19. PPC proposes an automatic distribution based on a DDC threshold of \$850 million in reserves. *Id.* PPC's recommended reverse CRAC "would refund revenues to customers subject to the CRAC when BPA's financial reserves exceed \$850 million. The maximum amount of money that could be returned in a given year under the reverse CRAC would be capped. The purpose of the cap is to ensure that the expected average reserves at the end of the rate period would also be \$850 million." Hansen *et al.*, WP-02-E-PP-03, at 9-10.

CRITFC/Yakama assert that BPA should be able to build reserves to whatever level is necessary to ensure fulfillment of BPA's fish and wildlife obligations and payments to Treasury, CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 4; and take exception to NRU's arguments that any reserves over \$1 billion creates an attractive nuisance for extraregional interests. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 29. They oppose the DDC and BPA's reduction of the DDC threshold from \$500 million in AANR, proposed in the initial proposal, to \$250 million in AANR, in rebuttal testimony. *Id.* They advocate that if BPA retains the DDC, the threshold should be increased to \$1.6 billion (in reserves) to better enable BPA to meet its future obligations and remain competitive with market rates. *Id.*; CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 29. UCUT also disagrees with BPA's DDC threshold reduction and "requests that, due to extraordinary risks taken, the DDC be triggered only after the original reserve level (of \$500 million) is collected." UCUT Brief, WP-02-B-UC-01, at 26.

BPA's Position

BPA's DDC mechanism would return to as-yet unspecified stakeholders amounts above the DDC threshold that are not needed to fulfill an 88 percent TPP on a rolling five-year forecast basis. The DDC threshold is the minimum level of AANR that must be realized before a dividend distribution is considered. Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 287. The threshold triggers a review of the forward-looking cash requirements and cash in excess of that needed to meet the TPP. Initially, BPA set the DDC threshold at \$500 million in AANR, equivalent to \$1.2 billion in reserves, which represents about a 32 percent average annual probability of triggering. DeWolf *et al.*, WP-02-E-BPA-39, at 12. In rebuttal testimony, BPA reduced the threshold to \$250 million in actual accumulated net revenues, equivalent to \$950 million in reserves. This increases the annual average probability that the DDC threshold will be reached to 44 percent. *Id.* BPA made the policy choice to reduce the threshold to a \$950 million trigger level based on consideration of three criteria: (1) it falls below the \$1 billion amount identified earlier by the region's Congressional delegation, as a threshold for being an "attractive nuisance" for extraregional interests; (2) by reducing the threshold, BPA is forced to review its five-year projections more often, thereby giving customers a more frequent chance to review the logic behind BPA's reserve requirements; and (3) the new \$950 million threshold is close to the highest level of reserves BPA has attained, so a review is appropriate as we move to build reserves. DeWolf *et al.*, WP-02-E-BPA-39, at 13. It is BPA's position that cash not be retained if it is not needed for the TPP test. *Id.*

As noted in ROD section 7.3, Issue 1, *supra*, for the final proposal, BPA recalculated the AANR-based CRAC and DDC thresholds based upon updated reserves and net revenue forecasts. This resulted in slightly revised threshold values, which were rebased to end-of-year FY 1999 actuals. The DDC would trigger when AANR rose above \$250 million. The derivation of these values is presented in the Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, Chapter 12, Appendix 1.

Evaluation of Positions

PPC's argument for lowering the DDC threshold to \$850 million is based on their modified ToolKit run, which includes a reverse CRAC cap that would ensure average ending reserves of \$850 million at the end of the rate period. Hansen *et al.*, WP-02-E-PP-03, at 10. On the other hand, UCUT argues that the threshold should be raised back to the initial proposal threshold level of \$1.2 billion. UCUT Brief, WP-02-B-UC-01, at 26. CRITFC/Yakama argue that the threshold should be raised even higher to \$1.6 billion, to allow BPA to meet future obligations and remain competitive with projected market rates. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 40. UCUT proclaims that "BPA must be able to fund Fish and Wildlife in the next rate period and make Treasury payments without exceeding the market price of power." UCUT Brief, WP-02-B-UC-01, at 21.

The DDC is designed to distribute cash in excess of the threshold that is not needed to meet the five-year forward-looking TPP test. In its rebuttal testimony, BPA made a policy judgement to lower the threshold from \$500 million in AANR to \$250 million in AANR (equivalent to \$1.2 billion in reserves to \$950 million in reserves) because the ToolKit modeling suggested that the TPP test could still be met with a lower threshold. DeWolf *et al.*, WP-02-E-BPA-39, at 13. In lowering the threshold to \$950 million, BPA took into consideration the \$1 billion amount identified as an "attractive nuisance" for extraregional interests, Saven, WP-02-E-NI-01, at 8; the checks and balances due to increase in frequency of BPA's five-year public review, and historical precedents for highest level of reserves. DeWolf *et al.*, WP-02-E-BPA-39, at 13. BPA's position is that cash should not be retained if it is not needed to mitigate risks. *Id.*

Further lowering the threshold below \$950 million may jeopardize BPA's ability to fulfill its financial obligations and Principle No. 4. Raising the threshold, as CRITFC/Yakama and UCUT suggest, is unnecessary to assure the ability to meet future obligations, because of the forward-looking five-year TPP test BPA would be required to perform and subject to public review before any distributions. If the threshold is too high, BPA may end up retaining reserves in excess of what it needs to recover costs. The \$1.6 billion threshold targeted by CRITFC/Yakama represents an obsolete DDC threshold level that BPA developed in the early stages of preparation and analysis for the rate case, prior to BPA's initial proposal. CRITFC/Yakama provided no convincing logic or support for its position that the threshold should be at \$1.6 billion. Its assumptions regarding risks and risk mitigation tools are no longer valid in this rate case. During the pre-rate case TPP testing period, the \$1.6 billion threshold resulted in a 30-40 percent probability of holding cash in excess of BPA's needs. Increasing the threshold to amounts greater than what BPA proposed in its initial proposal may jeopardize its compliance with subsection 7(n) of the Northwest Power Act, which states that BPA shall set rates to recover costs not to exceed such amounts the Administrator forecasts will be expended

during the 2002-2006 rate period (though preserving the Administrator's ability to establish appropriate reserves and maintain a high TPP for the subsequent period). See ROD section 7.2 for a discussion of the 7(n) issue.

Decision

BPA will set the DDC threshold at \$250 million in AANR (equivalent to \$950 million in reserves). Distributions will not be made below this threshold.

Issue 2

Whether BPA should replace the DDC with a "reverse CRAC."

Parties' Positions

Several parties argue that BPA should replace the DDC with a "reverse CRAC."

PPC alleges that BPA's DDC has several inherent flaws. They claim that "the DDC provides no assurance that monies collected in excess of the agency's revenue requirement will be returned to those customers who made the overpayment in the first place." PPC Brief, WP-02-B-PP-01, at 19; PPC Ex. Brief, WP-02-R-PP-01, at 5. PPC argues that the distribution of excess reserves will be "to an unknown group of stakeholders, and "only after the BPA Administrator deigned to pay out such a dividend." PPC Brief, WP-02-B-PP-01, at 19; PPC Ex. Brief, WP-02-R-PP-01, at 4. PPC also argues that the DDC "does not act as an assured brake to slow BPA's accumulation of reserves when BPA enjoys the benefit of prosperous financial times." *Id.* PPC proposes that BPA adopt a reverse CRAC that would automatically trigger refunds to customers who are subject to the CRAC when reserves exceed \$850 million. Annual refunds would be capped at \$140 million or \$155 million per year (depending on whether or not BPA modifies the CRAC as PPC suggests or retains the CRAC presented in the initial proposal). PPC Brief, WP-02-B-PP-01, at 20; PPC Ex. Brief, WP-02-R-PP-01, at 5.

OURCA favors the concept of distributing excess reserves, and also supports PPC's proposal for a reverse CRAC that it claims would equitably allocate excess monies to customers who are subject to the risks of a rate increase through the CRAC mechanism. OURCA Brief, WP-02-B-OU-01, at 4.

NRU proposes replacing the DDC with a discretionary reverse CRAC. NRU accepts BPA's revised proposal that the threshold be set at \$950 million in reserves and that amounts in excess of the five-year, 88 percent TPP standard be distributed based on a financial forecast and risk analysis conducted at the time the DDC threshold is crossed. However, the NRU proposes that all distributions take the form of refunds to customers based on their contributions to the excess reserve amounts. This would obviate the need for BPA's proposed public process on dividing and allocating dividends. NRU Brief, WP-02-B-NI-02, at 10-11. NRU's rationale for the discretionary reverse CRAC is based on "the need to align the risks and benefits of the FCRPS with the customers who pay for the system, . . . that the DDC is not a 'sound and businesslike mechanism for redistributing excess revenues for various reasons, including that the customers'

excess rate money may end up going to non-customer “stakeholders,” and that the process for allocating funds will be divisive and political.” NRU Brief, WP-02-B-NI-02, at 9. NRU claims that “BPA’s rejection of NRU’s proposed Discretionary Reverse CRAC is not justified by evidence in the record.” NRU Ex. Brief, WP-02-R-NI-01, at 4.

NRU argues that BPA’s statutory obligations mandate that BPA operate on the basis of only recovering its costs. If BPA overrecovers its costs, then those monies should be returned back to the ratepayers (customers) based on a statutory covenant that precludes BPA from charging customers for more than its costs. NRU Brief, WP-02-B-NI-02, at 12; NRU Ex. Brief, WP-02-R-NI-01, at 4. NRU’s proposal is no different than BPA’s revised DDC, except that “. . . instead of a potentially divisive process for redistributing excess revenues, BPA would implement distributions through a discretionary Reverse CRAC mechanism . . . This would be a much more predictable and fair mechanism.” *Id.* NRU states that its earlier argument that the DDC is a poor mechanism for distributing excess revenues remains unrebutted. *Id.* at 10.

NEC/SOS support BPA’s “flexible and business-like approach” to implementing the DDC, as long as the Administrator maintains the discretion of triggering a distribution based on future costs and needs. NEC/SOS Brief, WP-02-B-NA/SA-01, at 25-26. This provides a check on BPA’s building up unneeded excess reserves while allowing BPA the ability to mitigate foreseeable financial challenges. *Id.* NEC/SOS argue that the disparity in design between the DDC and the CRAC (capped recovery amounts and automatic trigger) wrongly places customers’ interests above the interests of Treasury. *Id.* at 29. The CRAC should function like the DDC, meaning that there should be no arbitrary caps, and recovery amounts should be determined by cash requirements to meet the 88 percent TPP goal based on a five-year financial forecast and risk analysis. “There are powerful arguments for maintaining the flexibility in the DDC concept rather than the ‘unduly rigid and mechanistic’ and ‘inflexible formulaic’ approach in both PCC/NRU’s Reverse CRAC and BPA’s CRAC proposal.” NEC/SOS Brief, WP-02-B-NA/SA-01, at 25, 27.

CRITFC/Yakama “oppose PPC’s proposal to reduce the Administrator’s discretion in implementing the DDC” and supports BPA’s proposal for a five-year forecast and review of future costs before the Administrator decides on implementing the DDC. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 40-41.

The IOUs argue that “the inclusion of BPA’s proposed DDC and capped CRAC together increase the potential for cost shift to transmission customers. BPA may well develop enough revenues early in the rate period to trigger a refund . . . for the subsequent year, BPA could project a level of financial reserves that causes it to trigger the CRAC . . . In sum, these events would increase the potential of inequitable shifting of BPA power costs.” IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 58. The IOUs further contend that “proposing a DDC in connection with (this) unbalanced PNRR collection, BPA amasses large net revenues before they are needed and is more likely to distribute them if the DDC triggers, such that the reserves are no longer available when needed . . . since the DDC is not included in BPA’s model, any distributions that occur are not modeled, resulting in the model overstating the funds available to pay Treasury and hence overstating the TPP.” *Id.* at 59.

In their brief on exceptions, the DSIs argue that BPA’s decision to implement a DDC is arbitrary, capricious, and contrary to law. DSI Ex. Brief, WP-02-R-DS-01, at 18. The DSIs state that BPA has no authority to overcharge its customers, and then, if it chooses, dole the money out selectively to entities other than those that were overcharged. *Id.*

BPA’s Position

For the purpose of setting rates for FY 2002-2006, BPA has set as its cost recovery goal the 88 percent TPP established in the Principles. “There is substantial ‘upside uncertainty’ that may cause net revenues to accumulate at levels higher than our cost recovery goal . . . If hydro, market price, and other risks do not materialize, and costs are not significantly higher or revenues significantly lower than planned, BPA’s generation function may accumulate reserves in excess of its long-term needs.” DeWolf *et al.*, WP-02-E-BPA-39, at 10. For this reason, BPA has designed the DDC to distribute cash reserves in excess of BPA’s needs to meet the TPP goal. The DDC proposal calls for an analytical test to determine whether and how much to distribute. DeWolf *et al.*, WP-02-E-BPA-39, at 20. This five-year, forward looking 88 percent TPP test, not the Administrator’s judgment, is the basis for determining the amount of the dividend. *Id.*

BPA’s uncertainties and risks are great. The reverse CRAC espoused by PPC is unduly rigid and mechanistic, and offers little flexibility or adaptability to changing costs and risks. DeWolf *et al.*, WP-02-E-BPA-39, at 15. Automatically distributing cash in excess of a reserve threshold without testing for BPA’s financial need could jeopardize Treasury payments in a situation where BPA knows that high costs lie ahead. It is not sound business practice to rebate money shortly before that money will be needed. The reverse CRAC fails to meet the requirements of Principle No. 4 because it includes no consideration of prevailing TPP and no option to recalibrate the amount that is rebated as risk and cost conditions change. *Id.*

BPA proposed that it would decide on “dividing and allocating” dividends among stakeholders in a public consultation process that would occur before the next rate period begins. DeWolf *et al.*, WP-02-E-BPA-39, at 20. BPA concurs that the public process for the DDC may be contentious, because it will entail issues of regional priorities and values and allocation of public benefits. DeWolf *et al.*, WP-02-E-BPA-39, at 16. However, the “reverse CRAC’s” lack of flexibility, potential for shifting risk to Treasury and taxpayers, and its inconsistency with the Principles all pose greater political risk. *Id.*

NRU’s argument that BPA should implement a discretionary reverse CRAC in part due to a “problem of potential ‘intergenerational’ transfers,” NRU Brief, WP-02-B-NI-02, at 9, is unfounded. Post-2006 costs are not driving the 2002 power rates. BPA is setting rates to recover costs for only the FY 2002-2006 period. BPA proposed the DDC mechanism to return monies that are not needed in this rate period, in effect helping to avoid any shifting of post-2006 costs into the FY 2002-2006 period. DeWolf *et al.*, WP-02-E-BPA-39, at 20.

Evaluation of Positions

PPC and OURCA support a reverse CRAC rather than a DDC. A reverse CRAC would automatically return monies to the customers subject to the CRAC when reserves exceed a

certain threshold level (*e.g.*, \$850 million). PPC proposes that the distribution be automatic, but capped. On the other hand, NRU accepts BPA's revised DDC proposal and differs with BPA's DDC proposal only by contending that distributions should be given solely to customers. This would eliminate the need for the public process to decide how to distribute and allocate refunds. The DSIs argue that BPA does not have the authority to implement a DDC and that only Congress has the authority to allocate public benefits. DSI Ex. Brief, WP-02-R-DS-01, at 18.

NRU proposes the discretionary "reverse CRAC," which would be subject to the "same financial review and conditions as the proposed DDC." NRU claims BPA witnesses "agreed that a discretionary reverse CRAC on these terms would resolve the issue of the financial 'inflexibility' of a reverse CRAC. . . . In addition, the panel acknowledged that it would be possible for BPA to model the DDC as a reverse CRAC." NRU Brief, WP-02-B-NI-02, at 10. NRU claims that it would be inequitable and unfair to distribute excess rate revenues to "stakeholders who did not contribute to the creation of the excess." NRU Ex. Brief, WP-02-R-NI-01, at 5. This proposal does offer a solution to BPA's need for financial flexibility and risk mitigation, since it accepts most of BPA's revised DDC proposal. However, it diverges from BPA's proposal by necessarily defining "stakeholders" as customers only. Given the nature of this issue--allocation of public benefits--BPA prefers to discuss and decide on allocating and dividing dividends in a less formal setting outside a rates 7(i) process. This approach does not preclude options such as NRU proposes, wherein customers subject to CRAC receive all the dividends. The money that customers have paid to BPA becomes money for use in meeting BPA's statutory and regulatory responsibilities and policy objectives. DeWolf *et al.*, WP-02-E-BPA-39, at 18.

The design of the reverse CRAC does not provide BPA with the financial flexibility it needs to operate in times of uncertainty, nor does it represent sound financial practice. The automatic nature of the reverse CRAC does not allow BPA to forecast whether or not the excess reserves may be needed in the remaining years of the rate period. DeWolf *et al.*, WP-02-E-BPA-39, at 15.

The IOUs contend that BPA's proposed DDC and capped CRAC will increase the likelihood for a cost shift to transmission customers by giving away money that may be needed in the rate period after the trigger and by not collecting enough money through the CRAC to cover expenses and costs. IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 58. This argument would be more valid if BPA had proposed an automatic DDC distribution similar to the reverse CRAC proposed by other parties. BPA's DDC is designed to prevent returning money that may be needed in the years following the trigger. BPA's unprecedentedly robust risk mitigation package has been designed to meet the 88 percent TPP goal without the inclusion of a transmission surcharge. DeWolf *et al.*, WP-02-E-BPA-39, at 6.

The DSIs contend that no utility regulated by FERC or state public utility commissions would be permitted "systematically to overcharge" its customers to reduce its risks "practically to zero," and then decide at its sole discretion whether to keep or how to dispose of the excessive funds collected. DSI Ex. Brief, WP-02-R-DS-01, at 19. But no "overcharging" is occurring in this rate proposal. Rates are set to recover a revenue requirement that reflects implementation of Cost Review savings; system augmentation purchases; repayment study results; and PNR, reflecting

a TPP goal that still places significant risk on Treasury. The DDC does not allow the wide-open “discretion “ implied by the DSIs. *See Issue 2 supra.*

Reserves in excess of the DDC threshold will be distributed unless needed to meet the 88 percent TPP goal over the ensuing five-year period. Lovell *et al.*, WP-02-E-BPA-40, at 9. “Part of the rationale for this DDC design is to deal with the very concern the IOUs articulate--namely, that reducing reserves early in the rate period might, in some instances, later result in deferrals that would not have occurred otherwise. The additional requirements of the five-year forecast of reserves and TPP at the time of implementation provides a means for offsetting the likelihood of additional deferrals resulting from distributing dividends early in the rate period.” DeWolf *et al.*, WP-02-E-BPA-39, at 20.

Decision

BPA will not replace the DDC with a “reverse CRAC.” BPA must maintain the financial flexibility to achieve the 88 percent TPP goal and to react to unknown risks, uncertainties, and costs in the near future. BPA’s DDC mechanism, unlike the automatic reverse CRAC, allows BPA to return reserves in excess of the threshold only after it is determined that those reserves are not needed to fulfill an 88 percent TPP on a rolling five-year forecast basis. BPA will not decide in this rate case how dividends will be allocated or distributed. Rather, a one-time only public process will be conducted before October 2001 to discuss and decide this issue.

Issue 3

Whether it is necessary at this time to determine the criteria for dividing and allocating any DDC amount.

Parties’ Positions

OURCA maintains that “the DDC, as designed and adopted in the DROD, violates the mandatory rate-setting principles of Section 7(i) of the Northwest Power Act.” OURCA Ex. Brief, WP-02-R-OU-01, at 4. NRU argues that BPA’s proposed DDC public process should be done through a section 7(i) process. NRU Ex. Brief, WP-02-R-NI-01, at 6. “The proposed DDC process of informally re-distributing hundreds of millions of dollars of BPA rate revenues that are determined to be excess to BPA’s cost-recovery requirements is, in fact, a rate making process. . . The proposed process to decide how to rebate the excess funds is merely a retroactive adjustment to rates.” *Id.* The DSIs argue that the Administrator lacks authority to overcharge customers and then selectively distribute dividends to entities other than those who were overcharged. DSI Ex. Brief, WP-02-R-DS-01, at 19.

BPA’s Position

It is not necessary to determine the criteria for dividing and allocating any DDC amount at this time. DeWolf *et al.*, WP-02-E-BPA-13, at 29. The “rate mechanism” for how the DDC will be distributed, if and when there is a distribution to customers, is included in this rate case.

Evaluation of Positions

BPA has set its rates in this proceeding with the intent and purpose of recovering its costs and otherwise complying with statutory directives. BPA is not setting its rates with the purpose of accumulating excess revenues and triggering the DDC, any more than it is setting rates with a purpose of underrecovering its costs and triggering the CRAC. BPA is setting its rates for a future five-year rate period, one which happens to coincide with a great many uncertainties related to BPA's costs and revenues. Due to these factors, there is a possibility that the forecasting mechanisms that must be used to set BPA's rates will not project future costs and revenues as accurately as they would otherwise. The DDC is intended to deal with only the *possibility* that BPA will collect significantly more revenues than it currently envisions. DeWolf *et al.*, WP-02-E-BPA-13, at 27-28. Such an eventuality is by no means certain. Thus, it is not necessary to deal with the issue of how excess revenues would be allocated under the DDC at this time.

Decision

It is not necessary at this time to determine the criteria for dividing and allocating any DDC amount. The issue of how excess revenues would be allocated under the DDC can be dealt with in a different proceeding, as proposed by BPA, prior to October 1, 2001.

7.6 Ending Reserve Level

Issue 1

Whether the TPP goal and the risk mitigation tools would lead to an "excessive" buildup of reserves.

Parties' Positions

The IOUs and PPC have argued that the expected value of ending reserves in BPA's proposal is too high.

The IOUs argue that "BPA expects to have approximately \$750 million in reserves at the start of the 2002-2006 period . . . And BPA plans to add \$127 million a year as "Planned Net Reserve [sic] for Risk" for five years to the already excessive level of reserves, which will produce a staggering \$1.2 billion of reserves by 2006." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 50. "There is no question that BPA's reserve levels are massively higher compared to past cases and must be reduced. A reduction of the reserves would free up at least \$700 million . . ." *Id.* at 51. The IOUs also state, "Furthermore, since the DDC is not included in BPA's model, any distributions that occur are not modeled, resulting in the model overstating the funds available to pay Treasury . . ." *Id.* at 59.

PPC seeks to reduce an "excessively large" \$1.26 billion average ending reserve level to the "more reasonable level" of \$850 million, which will provide reserves necessary to recover costs, repay Treasury, and maintain BPA's financial health. PPC Brief, WP-02-B-PP-01, at 6. This

proposal may also limit attempts to privatize BPA. *Id.* In its brief on exceptions, PPC states that it still believes that \$950 million is unreasonable in view of the fact that BPA can maintain an 88 percent TPP with \$850 million in average ending reserve levels if BPA adopts the recommendations as set forth in PPCs direct testimony. PPC Ex. Brief, WP-02-R-PP-01, at 4.

The DSIs take exception to an “excessive build-up” of reserves, DSI Ex. Brief, WP-02-R-DS-01, at 18; stating BPA’s risk mitigation package is unnecessarily costly to customers. *Id.* at 2-47 to 2-49. BPA proposes an unnecessarily high TPP, and could potential build a “war chest” for dam removal. *Id.*

In light of BPA’s admission that it is proposing unprecedented reserves to position the agency to cover post-2006 fish costs, the IOUs ask the Administrator to reconsider reserve levels based on proper considerations only and lower the reserves accordingly. IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 40.

However, several parties argue that BPA’s level of reserves is not excessive. “OPUC generally agrees with BPA’s approach to high ending reserves.” OPUC Brief, WP-02-B-OP-01, at 5. UCUT argues that “BPA’s reserve level must be protected to assure BPA the ability to meet the variety of potential unknown costs under its statutory requirement.” UCUT Brief, WP-02-B-UC-01, at 25. CRITFC/Yakama and NEC/SOS (and Shoshone-Bannock by reference) argue that BPA’s expected value of reserves is not only not excessive, but it is not high enough. *See* ROD section 7.6, *infra*.

BPA’s Position

The expected value of ending FY 2006 reserves is the result of modeling BPA’s risks, and the proposed set of risk mitigation tools that are designed to achieve the 88 percent TPP goal. It is the five-year, 88 percent policy standard that is the goal, not a particular expected value of reserves. DeWolf *et al.*, WP-E-BPA-39, at 10.

Given the unprecedented level of uncertainty BPA is facing over the FY 2002-2006 rate period, it is essential that reserves be adequate to meet the 88 percent TPP level. DeWolf *et al.*, WP-02-E-BPA-39, at 2. Together with CRAC, levels of PNRR must be set high enough to allow reserves to accumulate to the point where they fully cover the risks in all but 12 percent of the cases. *Id.* To prevent the accumulation of reserves in excess of BPA’s long-term needs, but allow BPA to evaluate changes in its risk profile, the initial proposal contains a DDC. *Id.* at 13. The DDC would allow BPA to reassess its financial situation and the status of key regulatory policies before releasing funds that it might need. *Id.* at 12.

The modeling BPA presented in the initial proposal, wherein the expected value of reserves ramped up to \$1.26 billion by FY 2006, did not take into account the fact that distributions would be made under the DDC. An approximation of the effects of the DDC was made and described in rebuttal testimony. *Id.* at 13-14. The expected value of ending FY 2006 reserves using this approximation was a little under \$900 million. *Id.*

Evaluation of Positions

The expected value of ending FY 2006 reserves is the result of modeling. It is not a target or goal. DeWolf, *et al*, WP-02-E-BPA-39, at 10. Since the expected value of ending reserves reported in BPA's initial proposal did not include any numerical impact of the DDC, and the DDC is likely to reduce the expected value of ending reserves by \$200-300 million, BPA believes there will be no excessive build-up of reserves. *Id.* at 10-15.

The IOUs and PPC both argue that BPA should lower the expected value of ending reserves. They propose using different parameters for the risk mitigation tools, such as CRAC and PNRR, or even eliminating some of the tools. The IOUs state that their proposal, which includes removing PNRR and uncapping the CRAC, would reduce the expected value of ending reserves to about \$500 million. "A reduction of the reserves would free up at least \$700 million to fund the Residential Exchange, without raising comparable preference rates." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 51.

However, NRU states that the IOUs' proposals (robust CRAC, no PNRR) should be rejected in favor of more prudent planning measures, such as PNRR, that allow BPA to build reserves as needed to a level below \$1.2 billion, but certainly above \$500 million. NRU Brief, WP-02-B-NI-02, at 29.

PPC agrees with NRU that the IOUs' \$500 million reserve proposal is too low, and suggests that \$850 million is a reasonable level. "The target level advocated by IOUs heads in the right direction, but at \$500 million is even lower than updated reserve balances for 1999-2000 that will be used in formulating the draft 2002 forecast." PPC Brief, WP-02-B-PP-01, at 6. PPC also states "the [IOUs'] proposed elimination of PNRR is a shortsighted overreaction to BPA's financial package and should be rejected." *Id.* at 13. However, the PPC also argued that a \$1.26 billion level of reserves is not necessary to keep BPA financially viable or ensure a high probability of Treasury payment. Hansen *et al.*, WP-02-E-PP-03, at 8.

The IOUs' risk mitigation package would result in significantly less rate stability due to significantly greater likelihood of CRAC triggering more frequently and by a larger amount. This is counter to BPA's need to keep rates relatively stable during this rate period, and is therefore unacceptable. This issue is further addressed in Issue 3 below.

The PPC proposal to achieve an \$850 million reserve is based, in part, on having a reverse CRAC rather than a DDC. "PPC recognizes that higher reserves at the start of the 2002 rate period, along with cost reductions through implementation of BPA's Issues '98 plans, adjustments to the CRAC and replacement of the proposed dividend distribution with PPC's proposed reverse CRAC, would bring the average ending reserves level for the next rate period down to the more reasonable \$850 million." PPC Brief, WP-02-B-PP-01, at 7. For reasons discussed elsewhere in this document, BPA's rate proposal includes the most current forecast of starting reserves (*see* ROD section 7.4, Issue 3), does not include adjustments to the CRAC (*see* ROD section 7.3), and does not include a reverse CRAC (*see* ROD section 7.5, Issue 2, *supra*). *See also* ROD section 7.7 *infra*.

BPA's current modeling methodology shows that an 88 percent TPP is not achievable with the PPC's \$850 million expected value of ending reserves, and BPA is committed to achieving the 88 percent. However, the arguments of the PPC and IOUs focus on the \$1.26 billion expected value of ending reserves, and do not fully consider BPA's rebuttal testimony wherein the impact of DDC distributions on ending reserves is discussed. In the initial proposal, the DDC included a threshold of \$500 million in actual accumulated net revenues (equivalent to \$1.2 billion in reserves) attributable to the generation function. In rebuttal testimony, BPA proposed to reduce the DDC threshold level by \$250 million to the actual accumulated net revenues equivalent of \$950 million reserves. At such time as the threshold is reached, reserves in excess of the threshold will be distributed unless it is demonstrated that some or all of the excess must be retained to meet the 88 percent TPP goal for the ensuing five-year period. DeWolf *et al.*, WP-02-E-BPA-39, at 12.

The DDC would have the effect of lowering both the average and maximum ending reserves. The \$1.26 billion represents the upper bound on what the expected value would be if the DDC were factored in. *Id.* at 17. BPA would retain higher levels of reserves in those instances where the TPP analysis indicates they would be needed, such as a quantified risk that BPA might face large fish and wildlife expenses. If "excess" reserves were actually needed for large anticipated fish and wildlife costs, such a circumstance would significantly reduce BPA's attractiveness as a takeover target. *Id.* Moreover, if BPA retains reserves, it will be because they are needed for prudent operation of the business, especially for ensuring a high likelihood of making Treasury payments on time. *Id.* at 18. High reserve levels cannot mask annual performance problems, and BPA has a strong motivation to operate prudently no matter how high its reserves may be. *Id.* It is sound business practice for BPA to design its risk management measures and a dividend policy that adapts to changing circumstances. DeWolf *et al.*, WP-02-E-BPA-39, at 16.

BPA indicates that it is unable to model fully and adequately the triggering of the DDC, because there are two key pieces of information that will be available when it actually triggers that are not available now: (1) which fish alternative has been selected, and (2) a revised outlook of revenues, expenses and risk for the five-year period after the trigger year. DeWolf *et al.*, WP-02-E-BPA-39, at 11. These would be part of the forward-looking Treasury payment probability calculation conducted at the time the threshold is reached. In rebuttal testimony, BPA described an approximation of the DDC distributions. DeWolf *et al.*, WP-02-E-BPA-39, at 13-14. A reasonable conclusion to draw from this approximation is that the expected value of ending FY 2006 reserves will be well below \$1.0 billion. *Id.* at 15. This DDC "simulation" does not capture the second key factor, though it attempts a simple approximation. An automatic reverse CRAC, as proposed by PPC and NRU, does not capture either of these key factors. Therefore, any simulation misses a key factor that the process is designed to account for.

So, though BPA's proposal does not include modeling the distributions of any dividends, the modeling does show the DDC threshold being reached an estimated 57 percent of the time. When the threshold is reached, dividends will be distributed unless BPA determines the reserves above \$950 million are needed to maintain an 88 percent TPP for the subsequent five-year period. This will result in expected ending reserves somewhat lower than \$1.2 billion. The approximation described in BPA's rebuttal testimony resulted in a little under \$900 million. *Id.* at 14.

In their direct and rebuttal testimony, NRU raised issues having to do with BPA's potentially high level of ending reserves. However, these issues were not raised in brief, and thus are waived. In their direct testimony, NRU stated that "they do not support the accumulation of maximum or average reserves at the high levels proposed by BPA. BPA's 1993 ROD (page 71) references operating in a 'sound and business like manner.' In my judgment, BPA's reserve proposal does not meet that test." Saven, WP-02-E-NI-01, at 8. More specifically, NRU argued that such high levels of ending reserves increase the attractiveness of selling BPA and using the proceeds for other purposes, provides ammunition for members of Congress to move BPA from cost-based to market-based rates, and puts pressure on the agency to spend money. *Id.* at 8-9. In their brief on exceptions, the DSIs argue that BPA, in its Draft ROD, did not justify why it needs such "excessive" reserves, especially taking into consideration Slice contracts. DSI Ex. Brief, WP-02-R-DS-01, at 39. This is addressed in ROD section 16.6.

Decision

BPA's TPP goal and risk mitigation tools will not lead to a build up of "excessive" reserves. BPA sets its PNRR values to a level adequate to meet its 88 percent TPP goal, given the parameters of other risk mitigation tools including CRAC. In the event there is an accumulation of reserves in excess of BPA's long-term needs, the DDC provides for the "excess" to be rebated or otherwise distributed. A distribution would reduce the level of reserves to either \$950 million or a higher amount that is necessary to meet the 88 percent TPP. The purpose of the DDC is, in fact, to avoid the accumulation of "excessive" reserves.

Issue 2

Whether BPA should have a higher expected value of ending reserves.

Parties' Position

CRITFC/Yakama, NEC/SOS, UCUT, and OPUC all recommend high levels of ending reserves. UCUT "supports a strong level of reserves." UCUT Brief, WP-02-B-UC-01, at 25. UCUT stated that "BPA's reserve level must be protected to assure BPA the ability to meet the variety of potential unknown costs under its statutory requirement." *Id.* NEC/SOS state that "BPA needs to raise rates high enough to pay for most of the fish scenarios in the next rate period without going over market. This should be done by setting a "target" ending reserve of \$1 billion - \$1.75 billion for 2006." Weiss, WP-02-E-NA-01, at 7-14. CRITFC/Yakama state that an ending reserve of \$1.6 billion would allow Bonneville to cover the future costs of decisions made in the current rate period, remain competitive, and assure Treasury repayment for the FCRPS. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 45, 47. CRITFC/Yakama base this conclusion on results from a different model, "Strandsim." Sheets, WP-02-E-CR/YA-01, at 3.

CRITFC/Yakama state that NRU provides no new analysis that suggests that a reserve would not reduce potential rate increases in 2006 and improve repayment to the Treasury. This fails the test of reasonableness. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19.

Shoshone-Bannock support and join by reference the positions and suggested remedies of CRITFC/Yakama related to deficiencies in BPA's proposal with meeting TPP and adequately addressing the risks after 2006. Shoshone-Bannock Brief, WP-02-B-SB-01, at 9.

NRU, on the other hand, argued that a high level of ending reserves would become an "attractive nuisance." Saven, WP-02-E-NI-0 1, at 8. NRU opposes the CRITFC/Yakama and NEC proposals to set an "Ending Reserves" target of \$1.6 billion and/or increase proposed rates. NRU argues that the CRITFC/Yakama and NEC proposals are contrary to BPA's statutory mandate to recover only its costs. NRU Brief, WP-02-B-NI-02, at 12. NRU also states that the CRITFC/Yakama testimony presents an incomplete description of the NWPPC report on BPA costs and revenues. NRU Brief, WP-02-B-NI-02, at 13. CRITFC used a NWPPC report entitled "Analysis of the BPA's Potential Future Costs and Revenues" and the Council's "Strandsim" model to justify CRITFC's argument that BPA should establish a \$1.6 billion ending reserve target. "His (CRITFC's) conclusions go well beyond any that may be fairly drawn from that study. His recommendations should be rejected." *Id.* at 13-14. However, CRITFC/Yakama argue that their testimony clearly states that the analysis was done using a model developed by the NWPPC and reasonable assumptions developed by CRITFC/Yakama. The testimony does not claim that the analysis was the Council's. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19.

OPUC "generally agrees with BPA's approach to high ending reserves." OPUC Brief, WP-02-B-OP-01, at 9. However, OPUC argues that BPA should adopt an end of period reserves target that provides for \$500 million in reserves 90 percent of the time. *Id.* at 5.

BPA's Position

BPA has not proposed a reserves target or a reserve plan in this rate proceeding. Rather, BPA has modeled its risks and proposed a set of risk mitigation tools that are designed to achieve the 88 percent TPP goal. It is the five-year, 88 percent policy standard that is the goal, not a particular expected value of reserves. DeWolf *et al.*, WP-02-E-BPA-39, at 10. It is also impossible for BPA to guarantee any minimum level of starting FY 2007 reserves. *Id.* at 39.

As stated earlier, the range of fish and wildlife costs included in this rate proceeding is robust, and represents a reasonable range of costs given the variety of possible future alternatives. *Id.* at 32.

BPA's proposal implies a 70 to 80 percent chance of having at least \$500 million in reserves at the end of 2006. Increasing this probability to a 90 percent probability of having at least \$500 million at the end of FY 2006 would require: (1) abandoning the 88 percent TPP standard; and (2) either: (a) making the CRAC significantly more powerful, which would increase the frequency of CRAC triggering and the magnitude of the CRAC revenue increases; or (b) raising rates significantly. Either of these would reduced rate stability. Rate stability is a key BPA goal in this rate case. DeWolf *et al.*, WP-02-E-BPA-39, at 38.

BPA has not performed Strandsim analyses, which is the basis for CRITFC/Yakama's recommendation. As CRITFC/Yakama's testimony admits, Strandsim is not one of the models

used by BPA in its rate case, and its estimates are different and in some cases not as detailed as the assumptions used in BPA's revenue requirement. Sheets, WP-02-E-CR/YA-01, at 4. There are many differences in data, scope, and analytical assumptions. This makes the results very difficult to compare meaningfully, especially in light of the enormous uncertainty, both between now and FY 2006 and during the post-FY 2006 period. DeWolf *et al.*, WP-02-E-BPA-39, at 39.

Evaluation of Positions

CRITFC/Yakama and NEC/SOS argue that BPA should have an FY 2006 ending reserve level of \$1.6 billion, to assure the ability to meet potential unknown costs and assure Treasury payments. However, the expected value of ending reserves is a result of BPA's modeling, not a target. *Id.* at 10. BPA's modeling demonstrates that adding PNR to the revenue requirement sufficient to achieve 88 percent TPP results in an expected value of ending reserves of \$1.2 billion (without including the impact of the DDC). BPA would have to add unnecessarily to PNR to achieve the level recommended by CRITFC/Yakama and NEC/SOS, which would result in a higher TPP than the 88 percent goal, and would result in higher rates, which would violate Principle No. 5 of the Principles.

CRITFC/Yakama's proposal that BPA raise the expected value of ending reserves to the level of \$1.6 billion is based on analysis using the "Strandsim" model. This is the model used in the NWPPC report entitled *Analysis of the Bonneville Power Administrations' Potential Future Costs and Revenues*. CRITFC/Yakama used it to "estimate the size of a reserve that might be needed to cover the Snake River and John Day Dams to Natural River plus the Clean Water Act costs alternative." Sheets, WP-02-E-CR/YA-01, at 4. As CRITFC/Yakama's testimony admits, Strandsim is not one of the models used by BPA in its rate case. *Id.* There are many differences in data, scope, and analytical assumptions. This makes the results very difficult to compare meaningfully, especially in light of the enormous uncertainty, both between now and FY 2006 and during the post-FY 2006 period. DeWolf *et al.*, WP-02-E-BPA-39, at 39.

CRITFC/Yakama's argument fails to acknowledge the other risk mitigation tools the report references (which BPA has, in effect, adopted), or the higher reserves BPA has now compared to those in the Study. NRU Brief, WP-02-B-NI-02, at 13. It is inappropriate to try to impact 2002-2006 rates by making arguments about post-2006 costs and revenues, particularly using models and methodologies unknown to and untested by the rate case participants.

NRU argues that BPA's strategy provides enough, if not too much, protection. NRU also argues that CRITFC/Yakama advocate establishing ending reserves to fund one particular set of fish and wildlife alternatives, the most expensive. This violates the Principles. The only potential justification for recovering such amounts (\$1.6 billion) of excess revenue is to finance high-cost fish and wildlife programs these groups may favor. NRU Brief, WP-02-B-NI-02, at 12-13.

BPA's risk mitigation tools are sufficient to achieve an 88 percent TPP and will result, without modeling DDC distributions, in an expected value of ending reserves of about \$1.2 billion. To target a higher level of ending reserves would result in higher rates, and rates contrary to BPA's statutory mandate to recover only its costs.

Decision

BPA will continue to model its risks and risk mitigation tools and set a level of PNRR sufficient to achieve an 88 percent TPP.

Issue 3

Whether the flat annual pattern of PNRR in revenue requirements, and the exclusion of DDC from ToolKit modeling, cause TPP to be lower than the 88 percent goal.

Parties' Positions

The IOUs contend that BPA's proposal actually achieves less than the stated 88 percent TPP. "This is because of the combination of a level PNRR recovery over the rate period and BPA's failure to model the DDC in the Toolkit runs that arrive at the TPP percentage." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 57. BPA plans to collect \$127 million of PNRR for each the five years of the rate period. The IOUs claim that by levelizing the PNRR over the five-year period, TPP is higher in the early years and lower in the later years, meaning that PNRR is shifted away from the years that cause more risk to years that cause less risk. Further, "[b]y proposing a DDC in connection with this unbalanced PNRR collection, BPA amasses large net revenues before they are needed and is more likely to distribute them if the DDC triggers, such that the reserves are no longer available when needed. As a result, BPA substantially overstates the 88 percent TPP for the five-year period. Furthermore, since the DDC is not included in BPA's model, any distributions that occur are not modeled, resulting in the model overstating the funds available to pay Treasury and hence overstating the TPP." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 57-58.

BPA's Position

The expected value of reserves itself is uncertain because BPA was unable to use its models to reflect the operation of the DDC. Two uncertainties were not modeled: (1) distributions under the DDC can reduce or "zero out" the accumulation of reserves above the DDC threshold; and (2) decisions on the exact amounts to be distributed will be made during the rate period, at such time as the threshold is reached. At such time as the threshold is reached, reserves in excess of the threshold are distributed unless it is demonstrated that some or all of the excess must be retained to meet the 88 percent TPP goal for the ensuing five-year period. It is this five-year, forward-looking 88 percent TPP test that BPA was unable to model in its initial proposal. This demonstration entails a financial forecast and TPP analysis that takes into account risk factors prevailing at that time. The forecast and TPP analysis would undergo the scrutiny of a public review and comment process before decisions are made to reduce amounts that otherwise would be distributed. DeWolf *et al.*, WP-02-E-BPA-39, at 11.

Since the methodology for performing a five-year TPP test in FY 2002, FY 2003, and so on has not been developed yet, and the data that will be used then does not exist now, BPA must approximate how that test would work. DeWolf *et al.*, WP-02-E-BPA-39, at 15.

BPA's goal is to make all five annual payments on time and in full 88 percent of the time. Since BPA is not attempting to adjust rates and revenues year-by-year to meet an annual probability target, leveling PNRR across the five years of the rate period does not constitute overcollecting in some years and undercollecting in others. Lovell *et al.*, WP-02-E-BPA-40, at 7-9. The Toolkit run in the initial proposal shows that collecting a constant \$127 million of PNRR offsets the greater outyear risks by amassing higher reserves early on. *Id.*

BPA has designed the DDC to deal with the very concern raised by the IOUs--namely, that reducing reserves early in the rate period might, in some instances, later result in deferrals that would not have occurred otherwise. Distributions under the DDC do not occur automatically--when the threshold is reached, BPA must conduct a five-year forecast of reserves and assess TPP; cash over the threshold is distributed if it is not needed to meet the five-year TPP goal. This offsets the chance of additional deferrals resulting from distributing dividends early in the rate period. Lovell *et al.*, WP-02-E-BPA-40, at 9.

Evaluation of Positions

As the IOUs contend, the DDC threshold could be reached more quickly with level annual PNRR amounts, rather than increasing levels. The probability of the DDC threshold being reached is lowest in the early years of the rate period. See Lovell *et al.*, WP-02-E-BPA-40, Attachment A, "No. of DivDists." However, PNRR actually mitigates risk more effectively for the whole rate period the earlier it is available, since the added reserves can be available to mitigate risk over multiple years. That is, raising reserve levels in early years raises TPP more than the same increase to reserve levels in later years. Therefore, assigning level annual amounts of PNRR, when there is less that is apparently needed in the early years, does not have the effect of lowering TPP. Indeed, it likely raises it.

The IOUs state that TPP is 2 percent higher in the early years than in the later years, and that annual PNRR is misaligned with annual risks, which causes TPP to be lower than the 88 percent that BPA states. While it is true that annual probabilities are higher in the early years, the point is moot because BPA set the probability goal as a five-year goal, not an annual goal. BPA's goal is to make all five annual payments on time and in full 88 percent of the time. *Id.* at 7.

BPA cannot accurately model the DDC since, by design, it involves a forward-looking financial forecast and TPP assessment based on conditions at the time the threshold is reached. Once the threshold is reached, BPA will be required to forecast and analyze its net revenues, reserves and risks over the five-year period beginning with the year after the threshold is reached. BPA will then determine whether any or all of the excess will be needed to meet the TPP goal for that five-year period. BPA did attempt a simulation in order to get some sense of the impact of the DDC triggering on the expected value of ending reserves. It is true that distributing dividends will decrease reserve levels, but it is unclear whether TPP would be reduced, because distributions will be made only to the extent that cash is not needed to meet the TPP goal. If a distribution can be made, BPA will distribute only the amount in excess of that needed to maintain the five-year 88 percent TPP.

Decision

BPA will continue to include PNR in equal annual amounts. DDC modeling will not be included in the TPP calculation because it cannot be modeled accurately and because its impact on TPP, if any, is unclear conceptually.

7.7 Reasonableness of BPA's Risk Mitigation Strategy Taken as a Whole

Issue

Whether BPA's risk mitigation package, taken as a whole, is internally consistent, logical, and reasonable.

Parties' Positions

Two parties in the rate case argued in their briefs on exceptions that BPA's rate proposal was flawed by internal inconsistencies resulting from a piecemeal approach to addressing risk mitigation issues.

NEC/SOS argued that:

It is impossible to exercise statutory judgment is [sic] the decision in [sic] impermissible [sic] piece-mealed. The closest analogy arises when a federal agency deliberately breaks environmental action into numerous meaningless discrete and "harmless" segments in order to avoid the duty of exercising judgment over the total range of consequences . . .

[T]he rule of agency decision-making which requires reasoned decision-making in EIS cases is applicable and enforceable to analyze BPA methodology. The kind of inflexibility which retroactively rattifies [sic] a foregone ratemaking decision permeates the DROD.

NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 2-3.

Similarly, OPUC claimed:

. . . [I]n the Draft Record of Decision (Draft ROD) BPA's approach to deciding issues is to deconstruct the arguments, deal only with the pieces, and to ignore the larger problems posed by the issues . . . Thus BPA has not adequately responded to the overarching issue raised by OPUC: the risk mitigation strategy, particularly the design of the CRAC, forecloses BPA's ability to cover high costs this rate period and leaves BPA unnecessarily vulnerable to extreme rate spikes in the next rate period and violates the requirement that BPA's rates be set "in accordance with sound business principles." 16 U.S.C. §839e(a)(1).

OPUC Ex. Brief, WP-02-R-OP-01, at 2-3.

BPA's Position

In its rate proposal, BPA has presented an integrated package that displays the following characteristics:

- Using principles outlined in the Subscription Strategy, it keeps BPA competitive by providing customers with stable rates from the current rate period into the next rate period and by limiting potential rate increases during the rate period.
- It provides BPA with a strong financial position by strictly adhering to an 88 percent probability standard for repaying Treasury on time and in full over the FY 2002-2006 rate period. *See, supra*, section 7.2, Issue 2.
- Through CRAC and the DDC, it contains mechanisms for addressing potential problems arising from under- and over-collecting revenues. *See, supra*, section 7.1.
- By analyzing a spectrum of 13 distinct Fish and Wildlife Alternatives in setting rates that meet an 88 percent TPP standard, it positions BPA to attain a similarly high (80-88 percent) TPP in the FY 2007-2001 rate period. *See, supra*, section 5.4.7.2, Issue 6.

Evaluation of Positions

NEC/SOS's and OPUC's criticisms express a valid concern about an inherent characteristic of the ROD. Because it must address each and every major issue posed by parties during the rate case, the ROD necessarily breaks the discussion of BPA's overall rate proposal down into component parts that are amenable to focused discussion. It is useful, however, to end this chapter on risk mitigation with an overview of how the components of BPA's proposal fit together.

As articulated by OPUC, the pivotal issue that both OPUC and NEC/SOS are raising is whether or not BPA's risk mitigation strategy "leaves BPA unnecessarily vulnerable to extreme rate spikes in the next rate period." OPUC Ex. Brief, WP-02-R-OP-01, at 3. This argument is built upon two assertions: first, that BPA does not adequately account for the risk inherent in the multiple deferrals that occur in a percentage of the games in the ToolKit analysis (*supra*, section 7.2, Issue 3), and second, that the analysis NEC's witness prepared for direct testimony demonstrated that BPA is not adequately positioned for the post-2006 period, thereby violating Fish and Wildlife Funding Principle No. 4 (*supra*, 5.4.7.2, Issue 5). The parties are additionally claiming that by treating these two basic considerations separately, or in "piecemeal" fashion, the ROD obscures the fact that BPA's decision is "illogical and impermissible." NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 2.

BPA asserts that neither of the points is valid.

As discussed *supra* in section 7.2, Issue 3, BPA assumes a different level of risk tolerance than either NEC/SOS or OPUC in evaluating the rate proposal. This is not a matter of one approach or the other being unreasonable, only different. NEC/SOS and OPUC's proposals would have

BPA err on the side of possible over-collection of revenues in order to avoid the possible occurrence of certain low probability outcomes that would have a high impact if they occurred. In support of this point, however, they have chosen to focus selectively on certain ToolKit results to the exclusion of others, and thereby present a partial picture of BPA's risk profile. BPA's modeling methodology, built on Monte Carlo simulation, is designed to produce a wide range of outcomes, the worst of which are extremely severe and the best of which are extremely rewarding. The mere fact that seven percent of the games simulated in ToolKit have multiple deferrals and that the worst of these games would put BPA in severe debt is not, in itself, an indication that BPA is putting itself in jeopardy. What also needs to be noted is the expected impact of these worst cases, relative to the entire set of games played in ToolKit. The estimated effect, when the deferral amounts are weighted by their probability of occurrence, is relatively minor: average ending reserves fall by \$56.4 million in FY 2006. BPA asserts that this level of risk, the product of its TPP methodology, is acceptable and reasonable.

The significance of multiple deferrals, however, was only one piece of the argument advanced by OPUC and NEC/SOS regarding BPA's ability to cover high costs. The other piece was an analysis prepared by NEC's witness for direct testimony that allegedly demonstrated the need for additional revenues equivalent to an additional three- to five-mill rate increase. As noted *supra* in section 5.4.7.2, BPA disagrees with a number of the assumptions underlying the analysis. BPA asserts that not only is it not required to analyze rates for FY 2007-2011, but that doing so would be ill-advised.

There were two major points underlying BPA's assertion that it was not possible to do the analysis needed to determine risks or rates for the FY 2007-2011 period. First, BPA lacks information necessary to make the modeling and analytical assumptions necessary to adequately characterize the risks and uncertainties of that period. Second, the data needed to run analyses with the type of rigor needed is not available.

This broader consideration is what underlies BPA's statement that the technical problems associated with modeling and quantitative analysis of BPA's power business post-2006 are greater than implied by the parties. *See, supra*, section 5.4.7.2, Issue 3. Each time BPA goes through the process of resetting rates, it has the opportunity to reexamine the environment within which it operates and determine which risks and uncertainties need to be considered and how heavily to weight them. The set of relevant risks may vary considerably from one rate case to another, and the guidelines for mitigating them at one point in time may not be relevant five years later. In the 1996 rate case, BPA relaxed its 88 percent TPP standard because, at that time, its competitiveness in the market was an overriding issue, but the need to evaluate fish and wildlife obligations was not. Had BPA attempted a 10-year projection of risk and revenue requirements based upon the picture of the world it had at that time, its characterization of the FY 2002-2006 rate period would likely have suffered from "assumption drag" (continued use of out-of-date assumptions). This means that the issues of greatest importance for the FY 1996-2001 rate period would have colored the projections for the rate period to follow, which would likely have borne little resemblance to the analysis conducted in support of this proposal.

BPA provided a list of assumptions that would have to be made in order to perform any sort of analysis of FY 2007-2011 (*supra*, section 5.4.7.2, Issue 3). The intention was to illustrate the

near impossibility of meaningfully framing the proper analytical questions and selecting an appropriate set of uncertainties to be modeled. Lacking this sort of guidance, the only alternative is to incorporate ever-larger numbers of uncertainties into the analysis in the hope of capturing the appropriate ones as a subset. Indeed, in their initial brief NEC/SOS responded to this list of uncertainties by asserting that this meant that the range developed by its witness when preparing a minimum reserves target in direct testimony should be widened even further. NEC/SOS Brief, WP-02-B-NA/SA-01, at 21-22.

This, however, is the fundamental problem with dealing with uncertainties that compound over time. As one extends the analysis of risk farther into the future, the resulting range of values that need to be mitigated eventually widens to the point where prescribing a meaningful set of measures designed to accomplish that mitigation becomes impossible. Adding more risk variables that may or may not be relevant (or continuing to model effects that may no longer be relevant) compounds the problem.

BPA must assess the full period for which it is setting rates in its rate proposal, and as noted *supra* in ROD section 7.2, Issue 3, this involves addressing a very wide range of risks. However, at the time of ratesetting, BPA has a reasonably clear idea of which risks are relevant (and through CRAC and the DDC has included mechanisms to offset potential under- or over-collection of revenues). This is not true of the FY 2007-2011 period, and for this reason BPA finds it ill advised to attempt extending analysis into that period.

A post-2006 revenue requirement developed now would not be rooted in planned costs or a reasonable range of expected costs because fish and wildlife recovery, power purchase and other resource, and capital costs are uncertain. Further, uncertainties regarding Congressional action and marketing strategy are great. BPA is a Federal agency charged with setting rates to recover its costs. NEC/SOS's analysis conducted to demonstrate the need for a minimum reserves standard was developed using a simple methodology that calculated how high BPA's rates would have to be raised after FY 2006 given different ending (FY 2006) reserves levels, using the variance in market forecast of rates and the variance in the ending reserves level produced by ToolKit in the analysis for the initial proposal. *See, supra*, section 5.4.7.2, Issue 5. While NEC/SOS never characterized this approach as anything but a simple calculation to be used in the absence of a more rigorous and detailed study, the analysis leaves the assumptions about changes in BPA's risk environment in the post-2006 period unaddressed. The general inability of NEC/SOS or BPA to meaningfully address those uncertainties is what led BPA to conclude that neither the studies provided by BPA nor the NEC/SOS analysis match the rigor that BPA demands of TPP studies. *See* ROD section 5.4.7.2, Issue 5.

Although it is certainly possible that conditions could occur that would result in BPA incurring heavy debt by the end of FY 2006 (and a rate spike in the subsequent rate period), the results of the ToolKit analysis used for this proposal indicate that the probability of these scenarios would be low. The analysis shows that BPA successfully makes all of its Treasury payments on time and in full over the FY 2002-2006 rate period 88 percent of the time and fully recovers from the effects of deferral in a portion of the 12 percent of the cases where one or more deferrals occurs. Given the difficulties described *supra*, the analysis prepared by NEC/SOS does not demonstrate that BPA is ill-prepared for the FY 2007-2011 rate period.

BPA's risk mitigation strategy meets criteria that ensure BPA will repay Treasury and meet its obligations to cover the costs of fish and wildlife mitigation while meeting the goals of its Subscription Strategy. It does not expose itself to undue risk, and by balancing its statutory obligations with its ability to be a good business partner to its customers, provides a high likelihood that its proposal will be implemented effectively.

Decision

BPA's risk mitigation package, taken as a whole, is internally consistent, logical, and reasonable.