

5.0 REVENUE REQUIREMENTS

5.1 Introduction

BPA is a self-financed power marketing agency within the Department of Energy (DOE). Sales of electric power and transmission services provide BPA's primary sources of revenue. *See Central Lincoln Peoples' Utility District v. Johnson*, 735 F.2d 1101, 1116 (9th Cir. 1984). BPA's power and transmission rates must produce revenues sufficient to assure repayment of all Federal investments in the FCRPS over a reasonable number of years after first meeting the Administrator's other costs. 16 U.S.C. §832g and §839e(a). At the same time, BPA must set rates with a view to encouraging the widest possible diversified use of electric power at the lowest possible rates consistent with sound business principles. 16 U.S.C. §839(a)(1). This rate case has designed wholesale power rates to recover the costs of the generation function only. The rate case did not propose rates to recover the costs of the transmission function (transmission and ancillary services). The Revenue Requirement Study, WP-02-E-BPA-02, for generation determines the level of revenue required to recover all costs of producing, acquiring, marketing, and conserving electric power, including the repayment of the Federal investment in hydro generation, fish and wildlife recovery, and conservation; Federal agencies' operations and maintenance (O&M) expenses allocated to power; capitalized contract expenses associated with such non-Federal power suppliers as Energy Northwest (formerly known as Washington Public Power Supply System); other purchase power expenses, such as system augmentation and balancing power purchases; power marketing expenses; cost to the PBL, if necessary, of transmission services; and all other generation-related costs incurred by the Administrator pursuant to law. *See Revenue Requirement Study, WP-02-E-BPA-02.*

5.2 Revenue Requirement Development

BPA has developed the revenue requirements in conformance with the financial, accounting, and ratemaking requirements of DOE's Order No. RA 6120.2. BPA determines revenue requirements separately for generation and transmission. *United States Department of Energy-Bonneville Power Admin.*, 26 FERC ¶ 61,096 (1984).

The revenue requirements were developed using a cost accounting analysis comprised of three components:

- Repayment studies to determine the schedule of amortization payments and to project annual interest expense for bonds and appropriations that fund the Federal investment in hydro, fish and wildlife recovery, conservation, and associated assets. Repayment studies are conducted for each year of the five-year rate test period, and include a 50-year repayment period.
- Operating expenses and minimum required net revenues for each year of the rate test period.

- Annual planned net revenue for risk (PNRR) based on the risks identified and quantified, the Treasury Payment Probability (TPP) goal, and other risk mitigation tools.

With these three parts, revenue requirements are set at the lowest revenue level necessary to fulfill cost-recovery requirements and objectives.

Normally, BPA conducts a current revenue test to determine whether revenues projected from current rates can meet cost recovery requirements. However, BPA's Subscription Strategy is driving a substantial restructuring of power products and services; BPA is not revising its power rates because current rates are insufficient to recover costs. A current revenue test would be excessively complicated and not meaningful or relevant. Accordingly, a current revenue test is not performed for this rate case. Revenue Requirement Study, WP-02-E-BPA-02, at 43.

BPA is required to demonstrate that projected revenues from proposed rates will meet cost recovery requirements and objectives for the rate test and repayment periods. In this proceeding, rate test period costs are indeed demonstrated to be recovered with a very high confidence level. Risks have been quantified and analyzed, and risk mitigation measures designed to achieve an 88 percent probability that planned payments to Treasury will be recovered on time and in full over the five-year period. Additionally, cost recovery over the 50-year repayment period is fully demonstrated. *Id.*

5.3 Spending Level Development

5.3.1 Cost Review

Development of spending levels in these revenue requirements has its beginnings in the Comprehensive Review of the Northwest Energy Systems (Comprehensive Review), which the Governors of Idaho, Montana, Oregon, and Washington initiated in 1996 to seize opportunities and moderate risks presented by the transition of the region's power system to a more competitive electricity market. *See also* ROD Chapter 2, section 2.1.1, *supra*. The Comprehensive Review recognized that this transition raised fundamental issues for BPA, including long-term competitiveness and risks, with much of BPA's firm revenues at stake due to expiration of long-term power contracts at the end of FY 2001.

A theme of the Comprehensive Review was that BPA and the other entities of the FCRPS must effectively manage and control costs. The recommendations specifically called on BPA to "pursue all actions possible in the short-term to cut costs." Comprehensive Review of the Northwest Energy System Final Report (December 12, 1996), at 18. This was seen as essential to making the proposed Subscription-based system for marketing Federal power successful. A successful Subscription was viewed as the most certain means of achieving the goals of the Comprehensive Review, which were: adding no risk for the U.S. Treasury and third-party bondholders; fulfilling responsibilities for funding fish and wildlife recovery; and retaining the substantial long-term benefits of the FCRPS for the Northwest. Revenue Requirement Study, WP-02-E-BPA-02, at 10.

An outgrowth of the Comprehensive Review was the Cost Review of the FCRPS (Cost Review). In September 1997, BPA and the NWPPC jointly launched a review of FCRPS costs. The objectives of the Cost Review were to ensure that BPA's long-term power and transmission costs would be as low as possible, consistent with sound business practices, enabling full cost recovery with power rates at or near market prices. 64 Fed. Reg. 44318, 44320 (1999). The intent of the Cost Review was to:

- give confidence to BPA customers, tribes, and constituents that future FCRPS costs would be managed effectively;
- ensure that the Subscription process resulted in a very high level of customer load commitment;
- minimize, if not avoid, transition (stranded) cost; and
- ensure that obligations to the U.S. Treasury, third-party bondholders, and fish and wildlife recovery would remain at least as secure as they are currently.

See Revenue Requirement Study, WP-02-E-BPA-02, Appendix A, for background information on the Cost Review.

The Cost Review drew on the expertise of five executives with experience in managing large organizations undergoing competitive transitions. The Cost Review recommendations did not cover fish and wildlife recovery costs. Revenue Requirement Study, WP-02-E-BPA-02, Appendix A, at 104. The Cost Review also recognized that several categories of costs were subject to change in the rates development process, including short-term power purchase expenses, net costs of the REP, General Transfer Agreement (GTA) costs, Federal interest, depreciation, and inter-business line expenses. *Id.* at 75. The Cost Review panel addressed all other FCRPS costs to be recovered through BPA power and transmission rates, with a focus on power costs in the initial Subscription period, FY 2002-2006. A draft of the panel's recommendations went through a month-long regional public comment process, which included two broadly attended public meetings. In addition, there were briefings of other groups throughout the region, including tribal, public power, and environmental interests. The draft recommendations were modified to take into account comments received, and then submitted to the Administrator, the region's Governors, the Northwest Congressional delegation, and the House and Senate Committees on Appropriations in March 1998.

The recommendations outlined in the Cost Review were developed on an exception basis, using a cost baseline that already included significant cost control initiatives. As such, rather than indicating a level of costs, the recommendations set cost savings targets as reductions from the existing cost baseline.

For BPA as a whole, the sum of the recommended cost reductions and efficiency gains was estimated to equal \$136.9 million on average annually over the five-year period, FY 2002-2006. For the generation function, the reductions and gains were estimated to be \$145.7 million on average annually over the same five-year period. For additional information about these

recommendations and the Cost Review, *see* Revenue Requirement Study, WP-02-E-BPA-02, Appendix A.

In June 1998, BPA began a public involvement process entitled Issues '98. Issues '98 was designed to provide the region with an overview and context for major policy issues surrounding BPA's future, including cost management. In addition to taking written comment, BPA held three public meetings within the region to provide an opportunity for the public to participate. BPA notified process participants that Issues '98 was their opportunity to comment on BPA's proposed implementation plan of the Cost Review recommendations. At the conclusion of the Issues '98 process, BPA completed and released the "Cost Review Implementation Plan." This document, published in October 1998, summarized the 13 recommendations of the Cost Review, the implementation plan, and relevant customer comments. Revenue Requirement Study, WP-02-E-BPA-02, Appendix A, at 71-91. The Revenue Requirement Study, WP-02-E-BPA-02, reflects the "Cost Review Implementation Plan," with some updates and adaptations. *Id.* at 107-114. *See also* DeWolf *et al.*, WP-02-E-BPA-13, at 2-7.

The Cost Review recommendations did not address fish and wildlife recovery costs. Rather, another public review process occurred that directly addressed BPA's fish and wildlife funding obligations. In September 1996, the Secretaries of Energy, Commerce, Army and Interior signed a Memorandum of Agreement (MOA) on behalf of five Federal agencies – BPA, NMFS, COE, USFWS, and Reclamation. This MOA stabilized BPA's financial obligations for fish and wildlife over a six-year period, FY 1996-2001. 64 Fed. Reg. 44318, 44320 (1999). In 1997, the Northwest Congressional delegation requested the assistance of the Administration in formulating a post-2001 fish and wildlife recovery strategy. *Id.* at 44321.

On September 21, 1998, Vice President Gore announced that "a new set of principles will enable the BPA to continue providing low-cost power in the PNW while committing necessary funding for salmon restoration in the Columbia River Basin." Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 58. The public process that culminated in the Principles focused on developing guidelines for structuring BPA's approach to Subscription contracts and BPA's FY 2002-2006 power rates to ensure that BPA could meet all its financial obligations, including those for fish and wildlife recovery. 64 Fed. Reg. 44318, 44321 (1999). The Principles specify that BPA will take into account the full range of potential fish and wildlife costs, as reflected in 13 long-term alternatives for configuration of the FCRPS, and treat each alternative as if it is equally likely to occur. *Id.* Because power rates are being set before final decisions and approvals on a fish and wildlife recovery strategy are made, the driving goal of the Principles is to "keep the options open." This is accomplished by taking into account the broad range of potential costs associated with each hydrosystem configuration alternative.

Issue

Whether the spending levels included in revenue requirements are consistent with commitments made by BPA in the Cost Review and Issues '98.

Parties' Positions

Public Power Council (PPC) contends that expenses in revenue requirements are higher than recommended in the Cost Review and adopted by BPA in Issues '98. Opatrny *et al.*, WP-02-E-PP-02, at 2; PPC Brief, WP-02-B-PP-01, at 9. PPC argues that "BPA has violated its own rules by basing its FY 2002-2006 rates on expenses that are significantly higher than established by the Cost Review and Issues '98." *Id.* PPC argues that BPA did not adhere to its own commitment to implement the cost recommendations produced by the Cost Review and Issues '98. *Id.* PPC asserts that BPA should plan to achieve the \$113 million in reductions outlined in the Cost Review process and Issues '98 that do not require legislative action for implementation. PPC Brief, WP-02-B-PP-01, at 9.

BPA's Position

BPA completed and released the "Cost Review Implementation Plan" at the conclusion of the Issues '98 process. Revenue Requirement Study, WP-02-E-BPA-02, at 16. The Cost Review Implementation Plan carefully noted cost components that were outside the Cost Review recommendations and that were subject to change in the Subscription Strategy, Fish and Wildlife planning, and rates development process. BPA's Revenue Requirement Study, WP-02-E-BPA-02, reflects the Cost Review Implementation Plan, consistent with these caveats. *Id.* at 17. Three factors led to the increase in expenses over the Issues '98 forecast: (1) implementation of the Subscription Strategy and expense changes resulting from the revenue requirement and rates development process; (2) implementation of the Principles; and (3) an adjustment to the estimate of savings needed to achieve the objectives and specific recommendations of the Cost Review. DeWolf *et al.*, WP-02-E-BPA-13, at 2. Adjusting costs to reflect the results of the Subscription Strategy, the Principles, and the revenue requirements and rates development process is fully consistent with the commitments made in the Cost Review and Issues '98. *Id.* at 3; Revenue Requirement Study, WP-02-E-BPA-02, at 108-09. The remaining adjustments were necessary to correct the estimate of savings required to meet the Cost Review recommendations and to account for the fact that additional savings through enhanced administrative efficiencies depend on legislation that has not been enacted. *Id.* at 110; DeWolf *et al.*, WP-02-E-BPA-13, at 4. With these corrections, the savings incorporated in this revenue requirement from expense reductions associated with the Cost Review recommendations are \$113 million. *Id.*

Evaluation of Positions

PPC argues that BPA did not adhere to its own commitment to implement the cost recommendations produced by the Cost Review and Issues '98. Opatrny *et al.*, WP-02-E-PP-02, at 2. PPC provides a categorical description of the increases in generation revenue requirements over cost levels discussed in the Cost Review and Issues '98. *Id.* However, what PPC neglects to add is that certain cost areas discussed in Issues '98 were specifically and clearly identified as subject to change in the Subscription Strategy, Fish and Wildlife planning, and rate development process. Revenue Requirement Study, WP-02-E-BPA-02, at 17. These areas were described more fully in BPA's testimony.

The Issues '98 forecast, however, also recognized two key areas that would have to be developed and finalized in the context of the power rate case:

- Fish and wildlife funding amounts shown in Issues '98 did not include operational costs (*i.e.*, power purchases related to fish and wildlife recovery) and did not reflect averages of the range of system configuration alternative costs for O&M and capital called for in the [Fish and Wildlife Funding] Principles (*see* Appendix A of Cost Review Implementation Plan in the Revenue Requirement Study, WP-02-E-BPA-02); and
- Several cost components subject to change in the revenue requirements and rates development process, namely, short-term power purchase expense, net costs of the REP, GTA costs, Federal interest and depreciation, and inter-business line expenses.

DeWolf *et al.*, WP-02-E-BPA-13, at 3-4.

Changes in the two areas described above account for \$438 million of the \$489 million increase in forecasted expenses. DeWolf *et al.*, WP-02-E-BPA-13, at 3. Since they were identified as subject to change after the Cost Review, adjusting costs in these areas to reflect the results of the Subscription Strategy, the Principles, and the revenue requirement and rate development process is consistent with the commitments made in the Cost Review and Issues '98. *Id.*; Revenue Requirement Study, WP-02-E-BPA-02, at 108-09. The remaining adjustments were necessary to correct the estimate of savings required to meet the Cost Review recommendations and to account for the fact that additional savings through enhanced administrative efficiencies depend on legislation that has not been enacted. *Id.* at 110; DeWolf *et al.*, WP-02-E-BPA-13, at 4. *See also* Revenue Requirement Study, WP-02-E-BPA-02, at 113-14, for crosswalk tables and descriptive narrative that explain the changes to program levels due to outside processes since the Cost Review and Issues '98.

PPC asserts that BPA should plan to achieve the \$113 million in reductions outlined in the Cost Review process and Issues '98 that do not require legislative action for implementation. PPC Brief, WP-02-B-PP-01, at 9. In making this assertion, PPC gives the impression that BPA is not committed to these savings. In fact, the full \$113 million in savings is included in expense estimates in the revenue requirement. DeWolf *et al.*, WP-02-E-BPA-13, at 4.

See also BPA's discussion of Program Spending Levels, *supra*.

Columbia River Inter-Tribal Fish Commission (CRITFC)/Yakama state in their brief on exceptions that they "support the position taken by the PPC that BPA should not have assumed that all of the cost review savings will be implemented." CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 23. BPA believes that CRITFC/Yakama have misstated PCC's position, and BPA staff is unclear what CRITFC/Yakama intended. As stated above, BPA asserts that BPA should plan to achieve the \$113 million in reductions outlined in the Cost Review process and Issues '98 that do not require legislative action for implementation. PPC Brief, WP-02-B-PP-01, at 9. The PPC issue is addressed above.

Decision

The spending levels included in revenue requirements are consistent with commitments made by BPA in the Cost Review and Issues '98 for FY 2002-2006, including any cost revisions necessary to incorporate the results of the Subscription Strategy, the Principles, and the changes resulting from the revenue requirement and rate development process.

5.3.2 Fish and Wildlife and Cultural Resources Expenses

Issue 1

Whether the fish and wildlife protection costs in the revenue requirement provide the funding needed to meet applicable environmental laws.

Parties' Positions

CRITFC/Yakama state that “[t]he Northwest Power Act provides that all laws applicable to the Federal Columbia River Power System (FCRPS) are to be construed in a consistent manner and in a manner consistent with applicable environmental laws. 16 U.S.C. §839.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 11. Further, “. . . Bonneville must consider the affects [sic] of those laws on setting rates and whether those rates are based on the Administrator’s total system costs. 16 U.S.C. §839e(a)(2)(B).” *Id.*

CRITFC/Yakama allege that BPA has erred by assuming a low probability for fish and wildlife alternatives that are most likely to comply with applicable Federal and environmental laws. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 11.

CRITFC/Yakama argue that BPA’s revenue requirements and risk analysis do not adequately address the Clean Water Act (CWA), the Endangered Species Act (ESA), the Fish and Wildlife Coordination Act (F&WCA), and the Northwest Power Act. *Id.* at 11-19.

Upper Columbia United Tribes (UCUT) incorporates by reference the arguments made by CRITFC/Yakama regarding BPA’s obligations under the Northwest Power Act, the F&WCA, the CWA, and the ESA. UCUT Brief, WP-02-B-UC-01, at 21.

The Shoshone-Bannock Tribes state that CRITFC/Yakama have “successfully devoted a great deal of effort in pointing out the inadequacies of BPA’s proposal in covering the [CWA], the [ESA] and the [F&WCA].” Shoshone-Bannock Brief, WP-02-B-SH-01, at 9. Therefore, the Shoshone-Bannock Tribes support and join in the position taken by CRITFC/Yakama in their initial brief. *Id.*

BPA’s Position

The Northwest Power Act requires BPA to protect, mitigate, and enhance fish and wildlife, and to provide them equitable treatment *along with the other purposes BPA fulfills under that Northwest Act.* 16 U.S.C. §839b(h)(10)(A) and §839b(h)(11)(A). (Emphasis added.) The legislative history of the Northwest Power Act underscored this intent, where Rep. Dingell stated

that the fish and wildlife provisions were not meant to “undo the power developments of the past” and that the mitigation anticipated was to be prospective, not retrospective. 126 Cong. Rec. E5105 (1980).

BPA stated in the Federal Register notice:

. . . [F]inal decisions and approvals on a fish and wildlife recovery strategy and funding are not expected during this rate proceeding. Because rates are being set before decisions and approvals are made, the [Fish and Wildlife Funding] Principles take into account the broad range of potential costs associated with the hydrosystem configuration alternatives under consideration at the time the Principles were adopted. The Principles are intended to ensure that BPA’s rate and power sales contracts yield a very high probability of meeting all post-2001 financial obligations, including BPA funding obligations for the fish and wildlife recovery strategy that is eventually adopted.

64 Fed. Reg. 44318, 44321 (1999).

At this time, there is no consensus regarding which Fish and Wildlife Alternative should be implemented, or even which Alternative is most likely to result in better salmon recovery. DeWolf *et al.*, WP-02-E-BPA-39, at 28. “In the absence of clear science or regional consensus, BPA and the [Clinton] Administration consider it prudent to assume that all options identified in the Principles are equally likely to occur for purposes of setting rates . . .” *Id.*

Evaluation of Positions

CRITFC/Yakama allege that BPA has erred by assuming a low probability for the fish and wildlife alternatives that are most likely to comply with applicable Federal and environmental laws. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 11.

BPA disagrees with CRITFC/Yakama’s assertion that BPA’s revenue requirements and risk analysis do not adequately address its obligations under Federal and environmental laws because BPA assumed a low probability for fish and wildlife alternatives that CRITFC/Yakama allege are most likely to comply with applicable laws. The 13 Fish and Wildlife Alternatives established in the Principles development process represent, in the Clinton Administration’s judgment and based on extensive regional input, a reasonable range within which the costs of eventual decisions on system reconfiguration and related operations can be expected to fall. DeWolf *et al.*, WP-02-E-BPA-13, at 9. The Principles are intended to “keep the options open” for future decisions by: (1) specifying that each of the 13 Fish and Wildlife Alternatives should be treated by BPA as equally likely to occur; and (2) establishing a high cost-recovery goal, expressed as an 88 percent/five-year TPP goal. *Id.* Thus, the 13 Fish and Wildlife Alternatives represent a set of assumptions, a forecasting convention, to establish capital investment and O&M levels, system operations assumptions, and risk analysis assumptions for purposes of setting rates. *Id.*

CRITFC/Yakama argue that BPA's revenue requirements and risk analysis do not adequately address the CWA, the ESA, the F&WCA, and the Northwest Power Act. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 11-19. Each will be addressed in turn.

Clean Water Act

CRITFC/Yakama state that “[t]he Environmental Protection Agency has found that ‘the water quality standards for maximum water temperature and the total dissolved gas standard are commonly exceeded often by a substantial amount’ . . . at the Corps of Engineers’ dams on the Snake and Columbia Rivers.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 12. CRITFC/Yakama cite section 313 of the CWA which provides, in relevant part, that:

Each department, agency, or instrumentality of the . . . Federal Government,

(1) having jurisdiction over any property or facility . . . shall be subject to, and comply with, all Federal, State, interstate, and local requirements . . . respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity.

33 U.S.C. §1323(a).

CRITFC/Yakama then allege that “[m]ost of these Clean Water Act measures on the Corps of Engineers’ dams would be repaid by Bonneville.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 13.

CRITFC/Yakama argue that BPA “should have assumed that all of the [13] fish and wildlife funding alternatives would include sufficient measures to meet the CWA standards.” *Id.*

A policy of COE is to operate and configure its projects consistent with state water standards when possible. *Digest of Water Resources Policies and Authorities, Engineering Pamphlet 1165-2-1*, dated February 15, 1996. Whether Federal agencies operate and configure dams inconsistent with state water standards and how they should reduce or avoid exceedances are unresolved legal and policy issues. These issues are currently in litigation with respect to the COE's lower Snake River projects. *National Wildlife Federation v. U.S. Army Corps of Engineers*, Civil No. 99-42-FR (D. Or.). In their brief on exceptions, CRITFC/Yakama express surprise that BPA cited *National Wildlife Federation* without mentioning the recent opinion by Judge Frye. See *National Wildlife Federation v. U.S. Army Corps of Engineers*, 2000 WL 351187 (2000 D.Or.). CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 7. However, reference to this opinion was not necessary. CRITFC/Yakama state that “[t]his ruling clearly states the Corps of Engineer's projects are required to meet the Clean Water Act.” *Id.* CRITFC/Yakama quote from the ruling:

The United States Court of Appeals for the Ninth Circuit has stated that “[u]nder the Clean Water Act, all federal agencies must comply with state water quality standards.” [citation omitted] The plaintiffs are entitled to challenge alleged

violations of the state water quality standards pursuant to the Administrative Procedures Act . . . [citation omitted].

National Wildlife Federation v. U.S. Army Corps of Engineers, 2000 WL 351187, at 13 (emphasis added).

But this ruling does nothing to resolve the question posed by BPA--whether Federal agencies operate and configure dams inconsistent with state water standards and how they should reduce or avoid exceedances. This ruling was in response to plaintiffs' motion for summary judgment, where they alleged that the COE 1995 ROD and the COE 1998 ROD violate the CWA because these final agency actions fail to assure that the dams will operate in compliance with state water quality standards. *Id.* These are still unresolved legal and policy issues. In fact, the opinion goes on to say that:

In determining whether the COE's decisions in the 1995 ROD and the 1998 ROD regarding the operation of the dams were arbitrary and capricious, the court must "consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." [citation omitted] The court must consider all of the relevant factors and all of the relevant laws in deciding whether the administrative record shows that the COE has met its obligations under the CWA in the 1995 ROD and the 1998 ROD.

The court concludes that summary judgment on the merits cannot be decided without reference to and reliance upon the administrative record supporting the 1995 ROD and the 1998 ROD.

Id.

In short, these issues are still in litigation.

CRITFC/Yakama also argue that BPA erred when "they failed to cite *Pronsolino v. Marcus* regarding the authority of the Environmental Protection Agency to list substandard rivers and to issue total maximum daily loads (TMDLs) for them. *See Pronsolino v. Marcus*, 2000 WL 356305 (N.D. Cal.)." CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 7. CRITFC/Yakama claim that "[t]hese decisions clearly point out virtually certain additional risk of higher costs that Bonneville has failed to plan for." *Id.* BPA fails to see how a case that allegedly found that the Environmental Protection Agency (EPA) has the power to list waters or issue TMDLs translates into "virtually certain additional risk" for BPA, and CRITFC/Yakama can cite to no evidence on the record that justifies its bold assertion.

The uncertainty of resolution underscores why the Principles were established. It was well-understood at the time the Principles were adopted that cost estimates would continue to evolve as the analysis, planning, and decision process for system reconfiguration and related actions progressed. DeWolf *et al.*, WP-02-E-BPA-13, at 10. But the range of costs established by these 13 Fish and Wildlife Alternatives is deemed by the Executive Branch to be sufficiently high and broad for BPA ratesetting and Subscription purposes. *Id.* Further, even if BPA were

assumed to have some financial obligations related to CWA compliance, it is not clear whether BPA would bear the majority of the costs for CWA compliance as CRITFC/Yakama allege.

In their brief on exceptions, CRITFC/Yakama claim that BPA erred:

when it suggested that it is not clear whether BPA would bear the majority of the costs for CWA compliance. If the Corps is required to modify its dams to meet the CWA, BPA will reimburse those measures pursuant to the allocation formula established by Congress. Any other assumption would require changes in Federal law. Assuming that the law will change so as to reduce BPA's obligations is unwarranted.

CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 8.

CRITFC/Yakama find errors where none exist and then leap to a conclusion that bears no relation to the original statement made by BPA. Contrary to CRITFC/Yakama's implication, BPA's statement does not deny any obligation it has under law to reimburse appropriate power-related costs, nor does BPA assume that the law will change. BPA merely states a fact--there is no clear indication to what extent BPA would incur costs for CWA compliance. CRITFC/Yakama can cite to no evidence on the record indicating that BPA's statement is in error.

Endangered Species Act

CRITFC/Yakama state that "[t]he Endangered Species Act, 16 U.S.C. §1531-1543, protects species listed as either endangered or threatened and imposes substantive duties on Bonneville." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 13. CRITFC/Yakama argue that:

[T]he higher cost alternatives are more likely to be implemented because they are more likely to result in survival and recovery of salmon stocks listed under the ESA, whereas the lower cost alternatives are unlikely to result in survival and recovery. By assigning an equal weight to these options, BPA underestimates its potential fish and wildlife cost exposure, since fish and wildlife options that are unlikely to meet survival and recovery receive the same weight as those that would meet survival and recovery. Therefore, BPA's approach increases the risks to BPA and Treasury.

Sheets *et al.*, WP-02-E-CR/YA-05, at 19.

BPA agrees that it must avoid jeopardy of listed species and aid in their conservation and recovery pursuant to the ESA. 16 U.S.C. §1536. However, while BPA supports the Federal goal of restoration, BPA itself does not have a legal duty to "restore" fish and wildlife to historical levels, and courts have indicated that such an obligation on dam owners and operators in the PNW would be unproductive. *American Rivers v. FERC*, 187 F.3d 1007 (9th Cir. 1999), as amended, 201 F.3d 1186, 1197 (9th Cir. 2000) ("It defies common sense and notions of

pragmatism to require [FERC or license applicants] to ‘gather information to recreate a 50-year-old environmental base upon which to make present day development decisions.’”)

CRITFC/Yakama argue in their brief on exceptions that BPA erred when it contended that BPA does not have a legal duty to restore fish and wildlife to historical levels. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 8. CRITFC/Yakama state that “[t]here is no discussion [in *American Rivers*] about what dam owners are responsible for in terms of fish restoration. Moreover, the citation has nothing to do with the Endangered Species Act . . . Bonneville’s misdirected analysis is typical of the DROD and indicates the lack of attention to CR/YA issues.” *Id.* BPA cited the legislative history of the Northwest Power Act, *supra* in ROD section 5.3.2, for the proposition that the fish and wildlife provisions were not meant to “undo the power developments of the past” and that the mitigation anticipated was to be prospective, not retrospective. 126 Cong. Rec. E5105 (1980). BPA cited *American Rivers v. FERC*, 187 F.3d 1007 (9th Cir. 1999), as amended, 201 F.3d 1186, 1197 (9th Cir. 2000), simply for the proposition that FERC does not expect non-Federal hydro projects to be judged by a pre-project baseline either.

CRITFC/Yakama allege that “independently peer reviewed biological analyses from PATH (the Plan for Analyzing and Testing Hypotheses) indicate [the lower cost alternatives] would be unlikely to meet Endangered Species Act recovery . . .” Sheets *et al.*, WP-02-E-CR/YA-05, at 20; CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 14. CRITFC/Yakama also introduce new evidence that was never admitted into the record:

Recently, in its anadromous fish appendix (*see* Appendix A: Anadromous Fish, Lower Snake River Juvenile Salmon Migration Feasibility Report/Environmental Impact Statement . . .), the NMFS concluded that breaching of the four snake river [sic] dams provided the highest probability of recovery for listed stocks. *See* the Executive Summary of PATH FY 98 Final Report, page 9.

CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 15.

In this section 7(i) process, neither BPA nor other parties have had the opportunity to review the new information introduced by CRITFC/Yakama, *supra*, or to test their conclusions through discovery or cross-examination. In their brief on exceptions, CRITFC/Yakama state:

BPA argues [that] it has not had the opportunity to review the Federal studies cited by CRITFC in its Initial Brief. That is surprising as these studies have been extensively reviewed by the Federal Caucus where BPA is an active member. These materials are contained or linked to the Federal Caucus web page that is maintained on the BPA web page. BPA should have reviewed these federally sponsored studies that are critical to making any informed judgement about the actions needed to restore fish and wildlife and which will affect the output from the Federal dams.

CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 9.

Notwithstanding CRITFC/Yakama's allegation, the fact of the matter is that there is still no clear science or regional consensus on a fish and wildlife recovery plan. While it is impossible to predict precisely BPA's fish and wildlife costs during the upcoming rate period, the range of costs represented by the 13 Fish and Wildlife Alternatives represents a reasonable range of costs given the variety of possible future alternatives for program implementation and operational impacts. DeWolf *et al.*, WP-02-E-BPA-39, at 32. Although CRITFC/Yakama may not be "convinced" by BPA's proposal, there is ample evidence in the record to support BPA's proposal. *See, generally*, BPA's extensive discussion of fish and wildlife issues in ROD chapters 5, 6, 7, and 18.

Notwithstanding this new information, the 13 Fish and Wildlife Alternatives established in the Principles development process represent, in the Clinton Administration's judgment and based on extensive regional input, a reasonable range within which the costs of eventual decisions on system reconfiguration and related operations can be expected to fall. DeWolf *et al.*, WP-02-E-BPA-13, at 9. The Principles are intended to "keep the options open" for future decisions by: (1) specifying that each of the 13 Fish and Wildlife Alternatives should be treated by BPA as equally likely to occur; and (2) establishing a high cost-recovery goal, expressed as an 88 percent/five-year TPP goal. *Id.* Thus, the 13 Fish and Wildlife Alternatives represent a set of assumptions, a forecasting convention, to establish capital investment and O&M levels, system operations assumptions, and risk analysis assumptions for purposes of setting rates. *Id.*

CRITFC/Yakama also allege that "Bonneville's inadequate analysis of the risk it faces due to its failure to consider ESA compliance in the equal weighting of fish and wildlife alternatives is evident in their testimony." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 14. CRITFC/Yakama point to a response from BPA to a data request wherein BPA was asked to provide any documentation on the biological rationale for the probabilistic weighting of the 13 Fish and Wildlife Alternatives that BPA used to determine what level of funding to use in the rate case. CRITFC/Yakama stated that "Bonneville admitted, 'the probabilistic weighting of the 13 Fish and Wildlife Alternatives was not based on any biological rationale.'" *Id.* What CRITFC/Yakama neglected to include, however, was the remainder of BPA's response to the data request: "The keep-the-options-open strategy that underpins the Fish and Wildlife Funding Principles is the basis for weighting each of the 13 alternatives as equally likely to occur. (*see* DeWolf *et al.*, WP-02-E-BPA-13, at 16-19)." Lothrop, WP-02-E-CR/YA-02, Attachment 1 (citing BPA data response to Request No. CR-BPA:027).

It is inconsistent for CRITFC/Yakama to argue that BPA's risk analysis was inadequate because it did not undertake an independent analysis of the probabilistic weighting of the 13 Fish and Wildlife Alternatives developed in the Principles process. Those Alternatives were rigorously discussed in the very extensive public process. BPA adhered to limitations expressed in the Federal Register Notice regarding the scope of the power rate proceeding:

Included among the policy decisions, commitments, and assumptions that are not at issue in this rate proceeding are: . . . (1) the incorporation of the full range of costs using the same probabilistic method BPA uses for other cost and revenue uncertainties in its ratemaking; (2) the assumption that all 13 alternatives are equally likely to occur; . . ."

64 Fed. Reg. 44318, 44322-23 (1999).

CRITFC/Yakama object to “Bonneville’s continued mischaracterization of events and Bonneville’s attempts to declare issues are outside the scope set forth in the Federal Register Notice (FRN).” CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 10. They also object to BPA’s characterization of the “rigorous discussion” of the Fish and Wildlife Alternatives in the Principles process. *Id.* CRITFC/Yakama allege that various incidents occurred in the development of the Principles that do “not comport with ‘rigorous discussion.’” *Id.* It is clear that CRITFC/Yakama disagree with how the Principles were developed. Nevertheless, this rates proceeding is not the appropriate forum to address any perceived grievances CRITFC/Yakama may have had with the Principles process. Even if CRITFC/Yakama’s allegations were appropriate issues to be raised in this rates proceeding, there is no evidence on the rate case record to support CRITFC/Yakama’s complaints.

Fish and Wildlife Coordination Act

CRITFC/Yakama state that the USFWS recently completed a Coordination Act Report in December 1999, [as required under the F&WCA] on the effects of breaching the Snake River Dams on fish and wildlife. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 16. They indicate that a copy of the draft of this report was completed in the summer of 1999 in time for BPA’s consideration in this rate case. *Id.* CRITFC/Yakama argue that “Bonneville’s rate proposal should take into account the conclusions of this report and give significantly higher weight to Alternatives 8u and 13u and less weight to the non-natural river alternatives.” *Id.* Further, CRITFC/Yakama allege that the weightings BPA gave to Alternatives 8u and 13u are inconsistent with the findings of the Coordination Act Report, which is inconsistent with the F&WCA. *Id.* at 16-17.

The USFWS prepared the draft FWCA report that CRITFC/Yakama references. By law, the COE was required to give it “full consideration.” 16 U.S.C. §662. BPA is under no legal obligation to consider the recommendations of a draft report in its ratesetting process. These draft conclusions and the COE’s responses to them may very well change before becoming final. In its brief on exceptions, CRITFC/Yakama argue that BPA erred “in its decision that it does not have to take the findings of the Coordination Act Report prepared by the U.S. Fish and Wildlife Service into consideration in setting its rates.” CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 11. CRITFC/Yakama then go on to say that:

We do not need to argue whether BPA has a “legal” obligation to consider the findings. It is prudent business practice to be fully aware of additional environmental costs during the next rate period so BPA can set its rates to meet those costs and assure Treasury repayment. It is arbitrary and capricious to ignore pertinent information . . .

Id.

CRITFC/Yakama state that they do not need to argue whether BPA has a legal obligation to consider the findings of the Report mentioned above. BPA can only conclude that CRITFC/Yakama can cite to no such legal obligation to support its allegation. Further, CRITFC/Yakama's statement that it is arbitrary and capricious for BPA to "ignore pertinent information" lacks substance or support in the record. In addition, CRITFC/Yakama do not substantiate any "additional environmental costs" that BPA is obligated to pay based on the Report.

Here again, CRITFC/Yakama have provided yet another good example of why the Principles were developed. There is no resolution yet as to the best way to ensure fish and wildlife recovery. The Principles are intended to "keep the options open" for future decisions by: (1) specifying that each of the 13 Fish and Wildlife Alternatives should be treated by BPA as equally likely to occur; and (2) establishing a high cost-recovery goal, expressed as an 88 percent/five-year TPP goal. DeWolf *et al.*, WP-02-E-BPA-13, at 9.

Northwest Power Act

CRITFC/Yakama state that "Bonneville has specific obligations to implement the Columbia River Basin Fish and Wildlife Program developed by the Northwest Power Planning Council . . ." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 17-18. They indicate that "[t]he current Columbia River Basin Fish and Wildlife Program was adopted by the Council in 1994, with resident fish and wildlife amendments in 1995. That Program calls for drawdowns at the four Lower Snake River dams, and John Day Dam on a schedule that called for implementing these measures before 2000. It also calls for additional flows, significant habitat restoration, and hatchery reforms." *Id.* at 18.

CRITFC/Yakama argue that "Bonneville's rate proposal does not include sufficient funds to implement the Program. This is inconsistent with the Program." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 18.

CRITFC/Yakama argue that "Bonneville unlawfully disregards the Columbia River Basin Fish and Wildlife Program that was adopted in 1994. Bonneville cannot carry out its duties under the Act by developing a different plan or by waiting for a new Program from the Council, which Bonneville apparently hopes maybe [sic] better suited to its pledge to hold rates at their current level." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 39-40.

In their brief on exceptions, CRITFC/Yakama argue that "[i]n the context of the Northwest Power Act, Bonneville has an express duty to use its fund and authorities to protect, mitigate, and enhance fish and wildlife in the Columbia Basin to the extent affected by the development and operation of hydropower in the Basin. 16 U.S.C. §839b(h)(10)(A). CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 31.

BPA agrees that it must act consistently with the NWPPC's Program as well as the other purposes of the Northwest Power Act. 16 U.S.C. §839b(h)(10)(A). However, BPA disagrees that it must implement the Program measures without considering other ways in which the Program's goals can be achieved. If BPA meets the goals of the Program, it need not necessarily fund the specific measures proposed. *See, generally, Northwest Resource Information Ctr. v.*

Northwest Power Planning Council, 35 F.3d 1371, 1378 (9th Cir. 1994), *cert. den.* 516 U.S. 806, 116 S.Ct. 50 (1995) (NWPPC can guide but not command Federal river management). *See also* *ALCOA v. Administrator, Bonneville Power Administration*, 175 F.3d 1156 (9th Cir. 1999), *cert. den.*, 120 S.Ct. 983 145 L. Ed. 2d 933 (2000).

In their brief on exceptions, CRITFC/Yakama state:

Again, we do not plan to argue the legal issues in a forum where BPA is the decision maker, but we find no place in the record where BPA states how it plans to meet the Council's goal of restoring 5 million returning salmon and steelhead to the mouth of the Columbia River. BPA has no such alternative and its argument is simply a smoke screen.

CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 11.

CRITFC/Yakama once again do not lay out their legal issues. In fact, CRITFC/Yakama's contempt for the section 7(i) process is evident in its refusal to argue legal issues in a forum where the BPA Administrator is the decisionmaker. BPA is, therefore, unable to respond in any substantive way. CRITFC/Yakama also characterizes as "simply a smoke screen" the fact that BPA described its flexibility in meeting the goals of the Council program. Although CRITFC/Yakama imply that BPA has some obligation to state specifically how it plans to meet a particular Council goal in this section 7(i) rate proceeding, CRITFC/Yakama are mistaken. Further, CRITFC/Yakama can cite to no such obligation.

CRITFC/Yakama argue in their brief on exceptions that "Bonneville is also required to provide equitable treatment to fish and wildlife in its decision making. 16 U.S.C. §839b(h)(11)(A). Keeping rates 35 percent below the market price of electricity while not providing sufficient funding to avoid the extinction of salmon and steelhead is not equitable treatment nor does it comply with the other provisions of section 4(h) of the Act." CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 11-12. In 1997, the Ninth Circuit Court of Appeals addressed the issue of equitable treatment with respect to the Non-Treaty Storage Agreements in *Northwest Environmental Defense Center*. The court found that:

BPA's view that it must balance power needs and wildlife needs on a systemwide basis is a reasonable reading of the Northwest Power Act. Section 839b(h)(11)(A) does not explicitly require that each action individually provide equitable treatment. Moreover, in its directive to the Council, Congress recognized the need for a comprehensive approach to fish and wildlife protection on the Columbia . . . While each power marketing action that affects the system implicates the equitable treatment provision, BPA may properly exercise its obligation by insuring equitable treatment for fish on a systemwide basis.

Northwest Environmental Defense Center v. BPA, 117 F.3d 1520, 1533-34 (9th Cir. 1997).

CRITFC/Yakama emphasize only certain provisions in the Northwest Power Act. The provisions that CRITFC/Yakama would focus on do not take precedence over other provisions in the Northwest Power Act. In addition to funding fish and wildlife recovery, BPA is also

obligated under the Northwest Power Act to assure the PNW an “adequate, efficient, economic, and reliable power supply.” 16 U.S.C. §839(2). BPA must balance its fish and wildlife funding obligations with its other obligations under the Northwest Power Act.

CRITFC/Yakama also state that BPA’s probabilistically weighted approach gave equal weight to 12 alternatives that were inconsistent with the NWPPC’s Program and one alternative that was somewhat similar to the Council’s Program. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 18. CRITFC/Yakama allege that “[t]his approach does not take the Program into account at each relevant stage of decision making to the maximum extent practicable as required by the [Northwest Power] Act [16 U.S.C. §839b(h)(11)(A)].” *Id.*

The 13 Fish and Wildlife Alternatives established in the Principles development process represent, in the Clinton Administration’s judgment and based on extensive regional input, a reasonable range within which the costs of eventual decisions on system reconfiguration and related operations can be expected to fall. DeWolf *et al.*, WP-02-E-BPA-13, at 9. The Principles are intended to “keep the options open” for future decisions by: (1) specifying that each of the 13 Fish and Wildlife Alternatives should be treated by BPA as equally likely to occur; and (2) establishing a high cost-recovery goal, expressed as an 88 percent/five-year TPP goal. *Id.* Thus, the 13 Fish and Wildlife Alternatives represent a set of assumptions, a forecasting convention, to establish capital investment and O&M levels, system operations assumptions, and risk analysis assumptions for purposes of setting rates. *Id.*

Decision

The fish and wildlife protection costs in revenue requirements provide the funding needed to meet applicable environmental laws. At this time, there is no consensus regarding which Fish and Wildlife Alternative should be implemented, or even which Alternative is most likely to result in better salmon recovery. This section 7(i) rates proceeding is not the appropriate forum to decide this issue, and BPA has included the range of costs for the 13 Fish and Wildlife Alternatives without prejudice or preference of one alternative over another.

Issue 2

Whether the generation revenue requirements adequately reflect the cost and risk associated with cultural resource protection.

Parties’ Positions

UCUT argues that the \$3.5 million amount included in the generation revenue requirements has been budgeted in years past for cultural resource protection, and this amount has historically and consistently been inadequate to complete program requirements and comply with Federal law. Osterman, WP-02-E-UC-01, at 2; UCUT Brief, WP-02-B-UC-01, at 9. Moreover, UCUT argues that it is likely that a number of unplanned cultural resource issues may arise during the five-year rate period. *Id.* Therefore, UCUT argues that BPA’s cultural resource budget needs to be increased significantly even to properly come into compliance with law at existing sites and to meet the planned cultural resource needs. Osterman, WP-02-E-UC-01, at 3. Furthermore,

UCUT argues that BPA's risk management should be flexible enough to cover unplanned cultural resources issues such as the discovery of the Kennewick Man, or a proper Inadvertent Discovery Fund should be in place. *Id.* In addition, UCUT introduces new evidence in its initial brief that suggests that \$10.5 million per year is a reasonable sum for bringing the existing cultural resources protection program into compliance with law. UCUT Brief, WP-02-B-UC-01, at 10. UCUT also argues that an inadvertent discovery fund totaling \$5 million for the rate period should be created. *Id.*

UCUT argues in its brief on exceptions that it is unreasonable for BPA to design rates which increase risk by reflecting cultural resource budgetary numbers which do not comply with Federal law and are shown to be insufficient. UCUT Ex. Brief, WP-02-R-UC-01, at 2-3.

CRITFC/Yakama and the Shoshone-Bannock Tribes support the UCUT position. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 36, 55; Shoshone-Bannock Brief, WP-02-B-SH-01, at 9. In their brief on exceptions, CRITFC/Yakama argue that implementing the measures that will begin to meet the CWA, the ESA, and treaty and trust obligations to Columbia Basin tribes will reduce the probability of paying BPA's debt to the Treasury on time and in full. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 7. CRITFC/Yakama support and incorporate by reference the exceptions filed by UCUT on this issue. *Id.* at 12.

BPA's Position

BPA argues that a budget level for the cultural resource protection program has not yet been determined.

- Q. While the fish and wildlife budget is assumed to be expansive enough to cover \$200,000 per year in administrative expenses for cultural resources protection and that other fish and wildlife projects may have a cost component for cultural resources, no other funds are specifically budgeted for cultural resources at this time in the Revenue Requirement Study, WP-02-E-BPA-02 is that correct?
- A. (Mr. DeWolf) I think it is important to point out that there are no fully established budgets for fish and wildlife costs in 2002 through 2006, including any component parts having to do with cultural resources. They are [our] estimates for rate setting purposes at this point only. So there may or may not be amounts contained in--that were used in developing or building the forecasts of costs associated with the different alternatives, but it is all subject to review and change as we go forward.

Tr. 506.

BPA also argues that the determination of program levels is beyond the scope of this rate proceeding.

- Q. This treatment of the cultural resources budget is not a new policy implemented for this rate case to your knowledge. Is this level of budgeting for cultural resources consistent with past BPA policy?

A. (Mr. DeWolf) We do not know the answer and would argue that it is beyond the scope of what we are here to sponsor as testimony.

Tr. 506.

Further, the analysis UCUT used to determine what it considered to be a “reasonable sum” for bringing the existing cultural resources protection program into compliance with law was not presented in its prior testimony. Neither BPA nor any other party had the opportunity to test the analysis underlying these numbers through discovery or cross-examination.

There may be some risk associated with unplanned cultural resource issues that arise during the FY 2002-2006 rate period. BPA adds PNRR to the generation revenue requirements to mitigate against such potential financial risks. Revenue Requirement Study, WP-02-E-BPA-02, at 39.

Evaluation of Positions

UCUT argues that the current cultural resource budget is inadequate for the known and usual cultural resources obligations. UCUT Brief, WP-02-B-UC-01, at 9. In addition, UCUT argues that the recent example of the discovery of the Kennewick Man in July 1996 demonstrates the likelihood that a number of unplanned issues will arise. Osterman, WP-02-E-UC-01, at 2; UCUT Brief, WP-02-B-UC-01, at 9. UCUT asserts that BPA’s entire cultural resources budget was used to comport with cultural issues surrounding the Kennewick Man. UCUT Brief, WP-02-B-UC-01, at 9. Therefore, BPA should include additional funding for cultural resource protection. *Id.* at 10.

UCUT and CRITFC/Yakama argue that BPA should increase its program levels for cultural resources funding to \$10.5 million annually (with an additional \$5 million amount designated for an inadvertent discovery fund). However, the spending levels for the operations and maintenance direct funding agreements with the COE and Reclamation have already been addressed in the Cost Review.

[T]he Cost Review recommendations and BPA’s planned implementation of those recommendations have already received extensive public review. Pursuant to §1010.3(f) of *BPA’s Procedures*, the Administrator directs the Hearing Officer to exclude from the record any material attempted to be submitted or arguments attempted to be made in the hearing which seek to in any way visit the appropriateness or reasonableness of BPA’s decisions on spending levels, as included in BPA’s test period revenue requirement for FYs 2002 through 2006.

64 Fed. Reg. 44318, 44322 (1999).

In their brief on exceptions, CRITFC/Yakama state that they believe “there is sufficient information in the record to make a reasonable estimate of Bonneville’s future costs and include them in the base revenue requirements.” CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 12.

UCUT's and CRITFC/Yakama's argument for supplemental program level funding is beyond the scope of this power rate proceeding.

BPA is responsible to pay the power-related costs associated with the Federal dams operated by the COE and Reclamation. If those costs are properly found to be higher, BPA will meet its financial obligations. BPA faces many risks during the FY 2002-2006 rate period. The risk of an inadvertent discovery, such as the Kennewick Man, is undoubtedly one of these risks. However, no quantification of such a risk was demonstrated by the parties. The CRITFC/Yakama assertion that implementing measures to meet certain laws will reduce BPA's TPP is not supported by evidence on the record. CRITFC/Yakama Brief, WP-02-R-CR/YA-01, at 7.

Finally, this rate proceeding is not the process that determines BPA's program levels for the fiscal years of the rate period. BPA has not yet established budgets for fish and wildlife costs for the period FY 2002 through 2006. The amounts shown for cultural resources are simply estimates at this point developed for the purpose of setting rates. These estimates are subject to review and change in the future.

Decision

Since the level of the budget for the cultural resource protection program is outside the scope of this power rate proceeding, requests for additional funds to supplement BPA's program spending levels for FY 2002-2006 will not be considered. The risk associated with those expenditures is, however, at issue in this power rate proceeding. BPA acknowledges that there may be some risk in this area. BPA has considered this risk and believes it is reasonable to conclude that BPA's PNRR are adequate to cover BPA's exposure in this area.

5.4 Implementation of Fish and Wildlife Funding Principles

5.4.1 Equal Weighting of the 13 Alternatives

Issue

Whether BPA should treat each of the 13 Alternatives in the Principles as equally likely to occur.

Parties' Positions

CRITFC/Yakama argue that equal weighting of the 13 Fish and Wildlife Alternatives in BPA's proposal is inappropriate and underestimates BPA's potential fish and wildlife cost exposure, and therefore increases risk to both BPA and Treasury. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 10-11. CRITFC/Yakama claim that BPA's risk mitigation package should be adjusted to account for the higher likelihood that these more expensive alternatives are more likely to be implemented than the low cost alternatives. *Id.* at 20. In their brief on exceptions, CRITFC/Yakama state that BPA ignored their extensive analysis on this issue. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 13.

Alcoa/Vanalco argue that BPA's equal weighting is irrational. As an example, they state that over half of the alternatives include breaching dams on the Snake River, yet there is no basis for concluding that this has been authorized, and no testimony in the record to allow any conclusion that there is a greater than 50 percent probability that it will be authorized. Alcoa/Vanalco Brief, WP-02-B-AL/VN-01, at 90; Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-01, at 15. They argue that BPA's position in its Draft ROD is not persuasive or sufficient to carry BPA's burden of demonstrating cost recovery. *Id.* They also argue that BPA is refusing to do exactly what Congress intended it to do: predict its future costs and then set rates to meet these costs. Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-01, at 17.

The IOUs argued that "BPA should have analyzed the fish and wildlife alternatives in this rate proceeding to make the best possible determination of fish costs, rather than making an arbitrary assumption that all 13 alternatives are equally likely." Eakin *et al.*, WP-02-E-AC/GE/IP/MP/PL/PS-01, at 11-12. The IOUs refer to the equal weighting as arbitrary and unrealistic. They also claim that "by assuring that dam breaching was as likely as not, BPA assumed a huge cost impact." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 91.

Northwest Requirements Utilities (NRU) argued that BPA has assigned too high a probability for the more expensive fish and wildlife alternatives. "On the expense side, there is a low probability that some of the more expensive options under the 13 alternatives for system reconfiguration will ever occur." Saven, WP-02-E-NI-01, at 6.

PPC argues that "[t]he likelihood that dam breaching will be approved and implemented . . . has been significantly reduced in recent months." PPC Brief, WP-02-B-PP-01, at 47-48. They also state that "certain other parties propose to revise BPA's risk assessment and mitigation techniques in order to accommodate isolated and high cost fish and wildlife alternatives, chosen from those that the Principles direct should be equally weighted. . . . BPA should reject such proposals for to do otherwise would violate its rate pledge and misrepresent the risk faced by the agency." *Id.* at 50.

However, CRITFC/Yakama argue that BPA's use of PPC statements on page 5-17 of the Draft ROD is indicative of BPA's unwillingness to analyze the serious risk it faces. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 13. CRITFC/Yakama claims that BPA's use of PPC's argument amounts to willful blindness and is arbitrary and capricious. *Id.*

BPA's Position

BPA is implementing the Principles in the 2002 power rates (DeWolf *et al.*, WP-02-E-BPA-13, at 7), treating each of the 13 Alternatives as equally likely to occur. *Id.* at 10. This treatment is integral to the "keep the options open" strategy. *Id.* The Principles are the product of extensive regional discussion and Administration direction. *See* section 2.3 *supra*; *see also* 64 Fed. Reg. 44318, 44320-21 (1999). The guidance the Principles provide is not an issue to be addressed in this rate case. *See* Burns and Elizalde, WP-02-E-BPA-08, at 4-5. *See also* 64 Fed. Reg. 44318, 44322-23.

Additionally, equal weighting recognizes that it is unknown what will be included in a final decision on a fish and wildlife plan for the region. DeWolf *et al.*, WP-02-E-BPA-39, at 28.

The impact on the revenue requirements of including breach scenarios is very small. DeWolf *et al.*, WP-02-E-BPA-13, at 20-21.

Evaluation of Positions

In arguing against equal weighting, CRITFC/Yakama stated that “the higher cost alternatives are more likely to be implemented because they are more likely to result in survival and recovery of salmon stocks listed under the ESA, whereas the lower cost alternatives are unlikely to result in survival and recovery.” See Sheets *et al.*, WP-02-E-CR/YA-05, at 19. However, as noted above, other parties believe the higher-cost alternatives are less likely to be adopted. PPC states that “the likelihood that dam breaching will be approved by Federal agencies in 2000 and implemented prior to 2006 has been significantly reduced in the last few months.” PPC Brief, WP-02-B-PP-01, at 47-48. As Alcoa/Vanalco point out, no breaching has yet been authorized. Alcoa/Vanalco Brief, WP-02-B-AL/VN-01, at 90.

CRITFC/Yakama state that BPA may not argue that since some utilities (which benefit from the dams but have no responsibility to restore fish and wildlife) do not support some measures, that the restoration actions are unlikely to be implemented. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 13. However, the parties which BPA cited, PPC and Alcoa/Vanalco, did not state that they do not support breaching. Rather, they argue that there are significant questions as to whether the region and Congress will make decisions and take actions in sufficient time to affect the 2002-2006 rate period costs if a breaching decision is made. Alcoa/Vanalco Brief, WP-02-B-AL/VN-01, at 90; PPC Brief, WP-02-B-PP-01, at 47-48. The PPC testimony is evidence that the CRITFC/Yakama position (that the more expensive alternatives are more likely to be adopted) is far from certain. While CRITFC/Yakama have argued that not considering the higher cost alternatives under-estimates the costs and risks, *Id.* at 14; and claim that BPA has ignored their arguments, *Id.* at 13; BPA has, in fact, taken a reasonable and reasoned approach in its analysis of potential fish and wildlife costs by considering the vastly differing opinions, including CRITFC/Yakama’s, as to what decisions will be made in the future. See ROD sections 5.4.7.2, Issue 6, and 7.7, *infra*. CRITFC/Yakama appear to be overlooking the possibility that an approach they or others suggest as the best may not be the approach adopted by the relevant decisionmakers. In any case, BPA is not the decisionmaker. Rather, BPA must estimate the likely decisions of other entities.

At this point, there is no consensus regarding which alternative should be implemented, or even which alternative is most likely to result in better salmon recovery. DeWolf *et al.*, WP-02-E-BPA-39, at 28. Additionally, there is considerable regional debate and no consensus on the economic impacts and benefits of the various alternatives, with strong opinions at both ends of the spectrum. *Id.* In the absence of clear science or regional consensus, BPA and the Administration consider it prudent to assume that all options identified in the Principles are equally likely to occur for purposes of setting rates and initiating Subscription. *Id.*

Alcoa/Valanco argue in their brief on exceptions that “BPA first excluded all evidence from the rate case regarding the 13 Fish and Wildlife Alternatives, then stated that ‘there is no consensus regarding which alternative should be implemented . . . BPA cannot have it both ways.’” Alcoa/Valanco Ex. Brief, WP-02-R-AL/VN-01, at 17. As explained *supra*, BPA is referring to regional consensus, not rate case consensus. The rate case is not the forum where decisions will be made regarding which alternative will be implemented.

The fact that some parties have argued that dam breaching is more likely to occur than suggested by the equal weighting, while other parties argue it is less likely, supports BPA’s contention that equal weighting of all 13 Alternatives is a reasonable and balanced approach.

The region is in the process of trying to develop a fish and wildlife recovery plan, and until a plan is developed, the Principles establish a reasonable approach that keeps the options open. DeWolf *et al.*, WP-02-E-BPA-39, at 29. The assumption that all 13 Alternatives are equally likely is not an ‘arbitrary assumption.’ Indeed, the Principles are the product of extensive regional discussion and Administration direction, and the assumption is integral to the ‘keep the options open’ strategy. *Id.*

Alcoa/Valanco argue that BPA is refusing to do exactly what Congress intended it to do: predict its future costs and then set rates to meet these costs. Alcoa/Valanco Ex. Brief, WP-02-R-AL/VN-01, at 17. However, BPA’s approach is a reasonable one, which assumes a wide range of potential costs and uncertainties, and demonstrates a very high probability that proposed rates would recover this range of costs and other uncertainties. *See* ROD section 7.2, *infra*.

The IOUs assert a “huge cost impact” results by assuming each dam breaching scenario is equally likely to occur as other scenarios. In fact, there is very minimal impact to the revenue requirement in the FY 2002-2006 rate period by assuming each dam breaching scenario is equally likely to occur as other scenarios. If dam breaching is chosen as the strategy for system reconfiguration, Congress presumably would address BPA’s repayment obligations and allocations to project purposes in some manner. Changes in assumptions for the allocations to project purposes and repayment obligations yield very little or no reduction in revenue requirements for the 2002-2006 rate period. DeWolf *et al.*, WP-02-E-BPA-13, at 20-21.

Decision

In the absence of clear science or regional consensus on a fish and wildlife recovery plan, it is reasonable for BPA to treat each of the 13 Alternatives in the Principles as equally likely to occur.

5.4.2 Range of Fish and Wildlife Costs

Issue

Whether BPA should have changed the range of costs associated with the Principles to reflect an updated market forecast.

Parties' Positions

PPC argued that the range of costs used in the Principles (\$438 million to \$721 million) is adequate. Hansen *et al.*, WP-02-E-PP-09, at 14. Therefore, PPC asserts, BPA should reduce the level of fish and wildlife costs included in revenue requirements for the 2002-2006 rate period to the \$438 million to \$721 million range per year that the Principles instructed, rather than adjusting the operational costs for an increased market forecast. PPC Brief, WP-02-B-PP-01, at 50.

CRITFC/Yakama, on the other hand, argued that BPA should update the range of fish and wildlife costs. They argued that BPA staff had stated that electricity prices would be updated when AURORA model work was completed, Sheets *et al.*, WP-02-E-CR/YA-05, at 4; and that BPA has not adjusted the range inappropriately. *Id.* at 17.

BPA's Position

The Principles did not commit BPA to an exact set of costs. To the contrary, the second Principle states, in part, that “BPA will use the full range of potential fish and wildlife costs and financial impacts during the 2002-2006 rate period (currently estimated at \$438 million to \$721 million) for planning purposes . . .” DeWolf *et al.*, WP-02-E-BPA-39, at 26-27. This means that at the time the Principles were adopted, the costs of the Alternatives were estimated to be in a range of \$438 million to \$721 million annually. *Id.* at 27. BPA was aware that the component of the financial impacts due to operational constraints could change as the market forecast was updated, and as BPA's ability to model the operational impacts improved. *Id.*

In its proposal, BPA has implemented the Principles using the Alternatives developed in the Principles. It assumed the costs that were used in the development of the Principles, for “other entities” fish and wildlife O&M costs, BPA fish and wildlife O&M, and expenses for recovery of capital for historical and projected fish and wildlife investment of the COE, Reclamation, and BPA. BPA also assumed the generation effect for each of the 13 Alternatives as used in the development of the Principles. BPA then updated the 20-mill market price assumption used in the Principles to the same price forecasts used elsewhere in this rate case (*i.e.*, a projected market price which varies month-by-month). DeWolf *et al.*, WP-02-E-BPA-39, at 27. This adjustment resulted in a slightly broader range of total costs (\$430 million to \$780 million), but did not alter the intent of the Principles. *Id.* at 27-28.

In their brief on exceptions, CRITFC/Yakama contend that BPA has not addressed their arguments that the range of fish and wildlife costs should be much higher to address new information. They take exception to BPA updating the market price of power but ignoring new information on costs. They argue this is arbitrary and capricious, and that it results in BPA not setting rates high enough to meet costs and assure payment to Treasury. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 14. This issue is addressed in ROD issue 5.4.3, *infra*.

Evaluation of Positions

BPA explained the reason for this adjustment:

The update BPA made to the range of costs was isolated to the impacts on revenues and power purchases associated with system operations. We simply tried to reflect the market costs of power currently forecast for the rate period and more accurately model the interaction between the uncertainty over market prices and uncertainty over fish-related operational constraints.

DeWolf *et al.*, WP-02-E-BPA-39, at 27.

Further, the second Principle itself states that the \$438 million to \$721 million was just the “currently estimated” range of costs. *Id.*

This update is simply a recharacterization of the portion of the revenue requirement that is attributable to implementation of the Principles. DeWolf *et al.*, WP-02-E-BPA-39, at 28. Failure to update this range would result in failure to reflect the fish and wildlife costs that are in the revenue requirement, since purchase power is a significant component of revenue requirements. Purchase power for fish cannot be determined separately from purchase power for other reasons. *Id.* at 27. It is impossible to tell the difference between a power purchase for marketing reasons and a purchase due to an operational requirement of fish. *Id.* Power purchase costs in the revenue requirement are unchanged by this update. *Id.* at 28.

It is reasonable for BPA to update one set of data, the market prices, with the most recent data from the same sources, and not update other data (on fish and wildlife costs) where the source of that data is substantially less authoritative (*see* ROD section 5.4.4, *infra*).

As stated above, BPA was aware that the component of the financial impacts due to operational constraints could change as the market forecast was updated, and as BPA’s ability to model the operational impacts improved. DeWolf *et al.*, WP-02-E-BPA-39, at 27. Further, this expectation was conveyed to the parties. As CRITFC/Yakama stated, “Bonneville staff stated they would update this analysis (which assumed 20 mills) when they had completed additional analysis of the future market price of electricity using the AURORA model.” Sheets *et al.*, WP-02-E-CR/YA-05, at 4.

Decision

It was reasonable for BPA to update the range of costs associated with the Principles to reflect an updated market forecast.

5.4.3 Fish and Wildlife Costs and Probabilities

Issue

Whether BPA should use other estimates of fish and wildlife costs and probabilities rather than the fish and wildlife costs established in the Principles.

Parties' Positions

CRITFC/Yakama claim that the fish and wildlife decisions which will be made by the Federal Government “will almost undoubtedly increase Bonneville’s costs . . . By not adequately addressing these costs in its proposal, Bonneville increases the risks that it will not be able to cover all of its costs or assure timely repayment to the Treasury.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 8. CRITFC/Yakama also argue that BPA has significantly underestimated the risks that it faces and has not included sufficient costs in its revenue requirements. *Id.* at 9. As a result, BPA has not set rates high enough to meet its costs and assure payment to Treasury. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 15. CRITFC/Yakama also allege that though a memorandum from William Stelle of NMFS calls for strengthening BPA’s proposed contingencies [risk mitigation tools], BPA’s proposal actually weakened several of them, including reducing PNRR, reducing the projected average ending reserves, and reducing the threshold for dividend distributions to BPA’s customers. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 32. CRITFC/Yakama claim the direct program level of \$179 million should not have been assumed to be a “high” alternative, but rather is a Columbia Basin Fish and Wildlife Authority (CBFWA) budget that should have been used as a “best estimate.” *Id.* at 34-35; CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 15. They also claim BPA ignored evidence that more recent estimates were much higher than the range BPA considered, and that their evidence shows that the fishery managers believe that the more recent estimates are much more realistic. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 15. Ignoring this more realistic information was arbitrary and capricious. *Id.*

CRITFC/Yakama also state that BPA has erred by assuming a low probability for fish and wildlife alternatives that are most likely to comply with applicable Federal and environmental laws—CWA, ESA, F&WCA, and the Northwest Power Act. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 11. UCUT incorporates CRITFC/Yakama’s position by reference. UCUT Brief, WP-02-B-UC-01, at 21.

In their brief on exceptions, CRITFC/Yakama contend that BPA has not addressed their arguments that the range of fish and wildlife costs should be much higher to address new information. They take exception to BPA updating the market price of power but ignoring new information on costs. They argue that this is arbitrary and capricious, and that it results in BPA not setting rates high enough to meet costs and assure payment to Treasury. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 14.

UCUT states that “[i]n its risk analysis, BPA used no objective criteria to assess its fish and wildlife costs and did not rely on expertise in fish and wildlife agencies.” UCUT Brief, WP-02-B-UC-01, at 19. They claim that experts in matters of fish and wildlife and endangered species have testified that fish and wildlife options that are likely to be successful are the more costly options, and include options not listed in the 13 Alternatives. *Id.*

The Shoshone-Bannock Tribes states that “[b]oth the UCUT and Yakama Nation and CRITFC briefs point out that the risks after 2006 have not been adequately addressed by BPA’s proposal. As such, the Shoshone-Bannock [sic] Tribes support and join in the positions taken by the Yakama Nation and CRITFC and the UCUT in their Initial Briefs.” The Shoshone-Bannock

Tribes also agree with the suggested remedies of CRITFC/Yakama. Shoshone-Bannock Brief, WP-02-B-SH-01, at 9.

PPC argued that the range of \$438-\$721 million is adequate. Hansen *et al.*, WP-02-E-PP-09, at 14. They also argue that certain other parties propose to revise BPA's risk assessment and mitigation techniques in order to accommodate "isolated and high cost fish and wildlife alternatives, chosen from those that the Principles direct should be equally weighted . . . BPA should reject such proposals for to do otherwise would violate its rate pledge and misrepresent the risk faced by the agency." PPC Brief, WP-02-B-PP-01, at 50. The PPC also stated that "BPA has done a reasonable job of considering the preliminary cost estimates of the fisheries agencies and tribes in evaluating the risks of high fish costs and of balancing this with other responsibilities." Hansen *et al.*, WP-02-E-PP-09, at 13.

Further, PPC stated that parties' testimony in favor of increasing the range of potential costs is premature, because the fish and wildlife managers have yet to demonstrate that they can implement programs that are consistent with such benchmarks as PPC describes. Hansen *et al.*, WP-02-E-PP-09, at 15.

PPC also stated:

Even if high-cost alternatives are eventually adopted by Congress, it is not a foregone conclusion that BPA would be required to fund them all. An important consideration regarding who would pay for measures appears in section 4(h)(8)(B) of the Northwest Power Act . . . which provides that the NWPPC shall consider, in developing and adopting its fish and wildlife program, principles that include the following:

Consumers of electric power shall bear the cost of measures designed to deal with adverse impacts caused by the development and operation of electric power facilities and programs only.

In view of the ongoing debates about salmon survival in the ocean, fresh water habitat measures unrelated to dams, and production and harvest measures, it is not clear which of the components of the highest cost alternatives would qualify for BPA funding under this provision of the Northwest Power Act.

Hansen *et al.*, WP-02-E-PP-09, at 16.

BPA's Position

BPA is implementing the Principles in this rate case, DeWolf *et al.*, WP-02-E-BPA-13, at 7, treating each of the 13 Alternatives as equally likely to occur. *Id.* at 10. The Principles are the product of extensive regional discussion and Administration direction. *See* section 2.3, *supra*; *see also* 64 Fed. Reg. 44318, 44320-21. The guidance the Principles provide is not an issue to be addressed in this rate case. *See* Burns and Elizalde, WP-02-E-BPA-08, at 4-5. *See also* 64 Fed. Reg. 44318, 44322-23.

While it is impossible to predict precisely BPA's fish and wildlife costs during the upcoming rate period, the range of costs represented by the 13 Fish and Wildlife Alternatives represents a reasonable range of costs given the variety of possible future alternatives for program implementation and operational impacts. DeWolf *et al.*, WP-02-E-BPA-39, at 32.

Evaluation of Positions

CRITFC/Yakama claim the direct program level of \$179 million should not have been assumed to be a "high" alternative, but rather is a CBFWA budget that should have been used as a "best estimate." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 35. As stated in cross-examination at Tr. 502-4, the \$179 million level was an estimate that was presented to BPA during the development of the Principles, and it is prudent to consider a range as the Principles suggested when it defined the range between \$100 and \$179 million.

BPA's studies include estimates of the probabilities of having to sponsor a particular pattern of costs, including the timing of the costs (in the 2002-2006 period), not the probability of the eventual necessity of particular measures. DeWolf *et al.*, WP-02-E-BPA-39, at 32. The range of costs represented by the 13 Fish and Wildlife Alternatives represents a reasonable range of costs, given the variety of possible future alternatives for program implementation and operational impacts, for the following reasons:

1. In a memorandum to the Regional Federal Executives, while discussing the "need for substantial increases in fish and wildlife program funding after 2000," William Stelle, Jr., of the NMFS stated "NMFS believes these costs have been adequately captured in the range of alternatives under analysis in the rate case." *Id.*, Attachment 1, at 2.

As CRITFC/Yakama point out, Mr. Stelle's memorandum encourages BPA to consider strengthening its risk contingencies, such as the CRAC. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 32. CRITFC/Yakama claim that BPA's proposal actually weakened several of the contingencies. *Id.* However, in BPA's rate proposal (filed subsequent to the date of Mr. Stelle's memorandum), BPA is increasing the threshold at which the CRAC would trigger, as well as increase the amount of revenue that BPA could receive under a CRAC. Additionally, BPA's starting reserves are forecast to be substantially higher than forecast at the time Mr. Stelle's memorandum was written. At the same time, BPA acknowledges that PNRR is recalibrated.

2. The range of fish and wildlife costs in the Principles is robust, in several ways.
 - Five of the 13 Alternatives include high-cost drawdown, even though it is unlikely that Congressional authorization and appropriations would occur in sufficient time for these costs to occur in FY 2002-2006.
 - Also, in implementing the Principles, BPA has assumed that Congress will appropriate capital funds consistent with the amounts and timing of investments projected in the 13 Alternatives. The level of appropriations required is nearly double the amount Congress has recently appropriated for Columbia River fish mitigation.

- Additionally, in developing the range, no test of scientific appropriateness has been applied to the activities included, and such a test might eliminate some of the activities.

DeWolf *et al.*, WP-02-E-BPA-39, at 31.

3. BPA's studies assume BPA will pay all of the power-related costs contained in each of the alternatives. DeWolf *et al.*, WP-02-E-BPA-39, at 30. With respect to the dam breaching alternatives, BPA has included all of the power-related costs for the breach investment, plus assumed that BPA will repay the entire original cost of the dam that is still owed. *Id.* However, following breach, power production may no longer be a project purpose for the breached dams. *Id.* Should Congress authorize dam breaching, it will necessarily look at who should pay the dam's original investment costs plus the costs for breaching. *Id.* With no power generation purpose, it is uncertain whether BPA will remain responsible for the same scope of project costs. *Id.*
4. BPA may not be responsible for all other costs contained in the 13 Alternatives. Currently the region is working to develop a Unified Regional Plan for fish and wildlife. DeWolf *et al.*, WP-02-E-BPA-39, at 31. An element of this plan will include determining what BPA will be responsible for, as well as the responsibilities for the other Federal agencies, states, and local governmental bodies. *Id.* It is not a certainty that BPA will be charged for 100 percent of the costs, because the plan has not been completed or approved, and Congressional action has not been taken. *Id.*

For all these reasons, BPA agrees with the PPC that the range is adequate, Hansen *et al.*, WP-02-E-PP-09, at 14; and that to revise BPA's risk assessment and mitigation techniques in order to accommodate isolated and high-cost fish and wildlife alternatives, chosen from those that the Principles direct should be equally weighted, misrepresents the risk faced by BPA. PPC Brief, WP-02-B-PP-01, at 50. CRITFC/Yakama have provided reasons they believe costs will be higher than BPA's proposal considered, CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 8, 15; and others have provided reasons they could be lower than BPA's proposal considered. BPA's proposal represents a reasonable balance between those who believe higher cost alternatives will be adopted and those who believe lower cost alternatives will be adopted. And, as pointed out by the NRU, "the financial assumption that these very high cost programs will be adopted is contrary to the 'Fish Funding Principles,' . . . and is beyond the scope of this case. The CRITFC/Yakama and NEC/SOS proposals should be rejected." NRU Brief, WP-02-B-NI-02, at 13.

UCUT states that "[i]n its risk analysis, BPA used no objective criteria to assess its fish and wildlife costs, and did not rely on expertise in fish and wildlife agencies." UCUT Brief, WP-02-B-UC-01, at 19. However, the Principles were developed in the Three Sovereigns Process, which included many individuals with expertise in fish and wildlife agencies. This process was described in an attachment to CRITFC/Yakama testimony entitled "Attachment Cost Estimates for Two Fish and Wildlife Alternatives":

In the Spring and Summer of 1998, Federal, state, and tribal staff worked together through the Three Sovereigns Process to identify fish and wildlife alternatives. This effort identified 13 alternatives that ranged from the status quo operation with reduced river flows to modifying five dams to natural river conditions, implementing Clean Water Act (CWA) measures, increasing river flows, and adding new hatcheries to supplement natural production.”

Lothrop, WP-02-E-CR-02, Attachment 3, at 5-6.

The Principles were developed “in consultation with constituents, customers, other Federal agencies, the Northwest Congressional delegation, and Columbia Basin Tribes in an extensive public involvement process.” 64 Fed. Reg. 44318, 44321. As stated in the Revenue Requirement Study Documentation, Vol. 1, WP-02-E-BPA-02A, at 347, “a work group set up under the auspices of the 3 Sovereigns (now the Columbia Basin Forum) identified a list of individual actions or measures for each of the 13 Fish and Wildlife Alternatives.” In the description of the System Configuration Alternatives, *Id.* at 369, it is explained that “the workgroup used as a starting point the system configuration alternatives that are being evaluated in the Plan for Analyzing and Testing Hypotheses (PATH) process and COE’s Lower Snake Feasibility Study.”

It is reasonable for BPA to adhere to the Principles, using the 13 Alternatives developed during the development of the Principles. If BPA were to revise BPA’s risk assessment and mitigation techniques in order to accommodate isolated and high-cost fish and wildlife alternatives, chosen from those that the Principles direct should be equally weighted, it would be misrepresenting the risk faced by the agency. BPA’s studies include estimates of the probabilities of having to sponsor a particular pattern of costs, including the timing of costs.

Decision

BPA will adhere to the Principles, using the 13 Alternatives developed during the development of the Principles.

5.4.4 Use of Other Fish and Wildlife Alternatives in Risk Analysis

Issue

Whether BPA should substitute or supplement its risk analysis with the analysis in the May 11, 1999, memorandum by regional staff of EPA, NMFS, USFWS, and Treasury.

Parties’ Positions

CRITFC/Yakama argue that BPA should incorporate the May 11, 1999, staff level memorandum into its risk analysis. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 55-57; CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 16-18. The May 11, 1999, memorandum by regional staff of EPA, NMFS, USFWS, and a senior Treasury staff person was introduced in testimony by CRITFC/Yakama. Lothrop, WP-02-E-CR-02, at 3. They argue that the memorandum describes an “experimental management alternative for an aggressive stream of investment in fish and

wildlife recovery measures during the interim period while the region and Congress consider Snake River dam removal.” *Id.* They note that much higher costs are assumed with these proposals, especially during the 2002-2006 rate period. *Id.*

CRITFC/Yakama and UCUT argue in their initial briefs that an annual direct cost estimate of \$325 million for fish and wildlife over the 2002-2006 rate period from the May 11 memorandum should be used; that cost assumptions as high as \$390 million a year during the period should be analyzed; and these estimates are more reasonable than BPA’s treatment of fish and wildlife costs over the 2002-2006 rate period. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 55-56. *See also* UCUT Brief, WP-02-B-UC-01, at 19-20. Finally, CRITFC/Yakama argue that BPA has ignored the May 11 memorandum and that BPA’s failure to incorporate it into its risk analysis is arbitrary and capricious. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 18.

BPA’s Position

Incorporation of the May 11, 1999, memorandum into BPA’s analysis of fish and wildlife risks is unnecessary, because the fish and wildlife risks are adequately addressed by BPA’s risk analysis. DeWolf *et al.*, WP-02-E-BPA-39, at 31. BPA’s risk analysis implements the Principles, while the May 11 memorandum lacks documentation and is contradicted, in part, by a subsequent May 26, 1999, memorandum from Mr. William Stelle, head of the Seattle office of the NMFS, which concludes that NMFS believes these costs have been adequately captured in the range of alternatives under analysis in the rate case. *Id.*, Attachment 1, at 1. BPA has not ignored the May 11 memorandum in its fish and wildlife risk analysis. Rather, it has chosen to rely on a risk analysis and risk mitigation strategy which follow the Principles. BPA’s actions meet the standard applicable to rate cases. *See* ROD section 1.4, *supra*.

Evaluation of Positions

Consistent with past practice and legislative mandate, BPA made substantial efforts in this rate case to enable a wide range of customers and stakeholders to participate in this process. *See e.g.*, *BPA 2002 Proposed Wholesale Power Rate Adjustment, Public Hearing, and Opportunities for Public Review and Comment*, 64 Fed. Reg. 44318, 44323-24 (August 13, 1999); DeWolf *et al.*, WP-02-E-BPA-39, at 20-24.

CRITFC/Yakama introduce the May 11, 1999, memorandum as part of a broader attack on BPA’s treatment of fish and wildlife in its risk analysis. Lothrop, WP-02-E-CR-02, Attachment 3, at 1. *See also* DeWolf *et al.*, WP-02-E-BPA-39, Attachment 1, at 1. The May 11 memorandum was authored by regional staff at EPA, NMFS, USFWS and senior staff at the U.S. Treasury. The Hearing Officer, following Motions to Strike by BPA and the PPC, limited use of the May 11 memorandum to “test or challenge a party’s risk analysis.” WP-02-O-14. Rather than comparing the information in the May 11 memorandum with BPA’s Risk Analysis Study Documentation, WP-02-E-BPA-03A, and cross-examination testimony regarding risk analysis (Tr. 735-832, 1902-1949), CRITFC/Yakama argue that BPA should adopt in its risk analysis the contents of the May 11 memorandum. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 29-30. That is neither a test nor a challenge of BPA’s risk analysis, as limited by the Hearing Officer. CRITFC/Yakama provide no explanation or citation to

testimony for their assertions that, where Mr. Stelle's memorandum calls for strengthening the proposed contingencies, BPA actually weakened its risk package in its initial proposal. *Id.* at 32.

The May 11 memorandum is contradicted by the May 26, 1999, memorandum of Mr. Stelle, which states, "The timing of the rate case is out of sync with the timing of decisions regarding fish and wildlife operations through 2006. Options for those decisions are being examined currently through a number of regional processes, including the Federal Caucus. In the absence of final decisions, BPA has committed to setting its rates in a way that would not foreclose any of the options being considered." DeWolf *et al.*, WP-02-E-BPA-39, Attachment 1, at 1.

Mr. Stelle noted that while fish and wildlife costs might be higher after 2006, it is difficult to "pin down with accuracy" the range of out-year costs. *Id.* at 2. Mr. Stelle then stated, "NMFS sees no reason to conclude that BPA will not be able to cover anticipated costs." *Id.*

Mr. Stelle also contradicts the May 11 memorandum's claim that BPA's draft proposal (which was shared with representatives of the Federal agencies prior to commencement of the rate case) was inadequate. *See* DeWolf *et al.*, WP-02-E-BPA-39, Attachment 1, at 1. The May 11 memorandum did not represent a Federal consensus on the issues it addresses, nor did the memorandum present new, reliable information.

CRITFC/Yakama attempt to repudiate the equal weighting of the 13 Fish and Wildlife Alternatives BPA has included in its rate proposal, but their effort is not supported by the record. Mr. Stelle's May 26 memorandum accepts BPA's ". . . firm and explicit assurances that it will meet these costs across a wide range of assumptions, with substantive supporting documentation. We see no basic remaining disagreement about these analyses or conclusions." DeWolf *et al.*, WP-02-E-BPA-39, Attachment 1, at 1. Further, "BPA has committed to setting its rates in a way that would not foreclose any of the options being considered." *Id.* Mr. Stelle states, "Although it is impossible to predict with precision at this time what a fish and wildlife budget agreement thorough 2006 would look like, the range of costs BPA could cover with its contingent funding proposal appears adequate to cover the likely range of fish and wildlife costs through 2006." *Id.* at 2.

Further, CRITFC/Yakama's efforts to argue against the equal weighting of the 13 Fish and Wildlife Alternatives through the May 11 memorandum is outside the scope of the rate case as described in the Federal Register and as limited by the Hearing Officer, and should be disregarded. BPA's Rules of *Procedure Governing Rate Hearings*, §1010.11(a)(2); §1010.13(b) and §1010.13(c); Hearing Officer Order, WP-02-O-14.

Finally, the May 11 memorandum cited by CRITFC/Yakama lacks substance and reliability on its face. It is unsigned. It has not been finalized. It was not authenticated and was outside the public records exception to hearsay rules. Federal Rules of Evidence 801 and 803(8). *See also* DeWolf *et al.*, WP-02-E-BPA-39, Attachment 1, at 2.

Each of the participants who offer alternatives for BPA to consider as it meets its fish and wildlife obligations offers choices that conflict with other choices. BPA must balance these alternatives with other interests and obligations to produce its rates. This is consistent with BPA's statutory charge. 16 U.S.C. §839e(i). However, BPA is forced by the ratesetting process and its obligations to the region to accept some positions and reject others. *See, e.g., Association*

of Public Agency Customers v. Bonneville Power Administration (APAC v. BPA), 126 F.3d 1158, 1174-76 (9th Cir. 1997). Congress has granted BPA an unusually expansive mandate to operate with a business-oriented philosophy, and courts have found it wise to defer to BPA in matters such as these, “especially when the agency is responding to unprecedented changes in the market resulting from deregulation.” *APAC v. BPA*, at 1, 171. These changes continue to confront BPA and the wholesale electric power industry. *See, e.g.*, Burns and Elizalde, WP-02-E-BPA-08, at 2-8. Changes include implementation of FERC’s functional separation orders (*Id.* at 2), changing market conditions (*Id.* at 2-3), and implementation of the Principles (*Id.* at 4-6). BPA’s risk analysis, including its decision not to revise its risk analysis and to retain a “keep the options open” fish and wildlife strategy, reflects a reasonable approach to these changes in the industry and the Columbia River Basin. The decision not to modify BPA’s risk analysis by including values and concepts presented in the May 11, 1999, memorandum was appropriate, because BPA’s risk analysis keeps the fish and wildlife options open. Thus, BPA has not ignored the May 11 memorandum; it has chosen to rely on a risk analysis and risk mitigation strategy which follow the Principles, in light of the obvious limitations of the May 11 memorandum. BPA’s decision not to revise its risk analysis to reflect information contained in the May 11 memorandum is reasonable given the current business environment.

BPA’s fish and wildlife risk analysis and risk mitigation, including its treatment of the May 11 memorandum, are supported by substantial evidence and are not arbitrary and capricious. *See* ROD, section 1.4, *supra*.

Decision

BPA made appropriate judgments when it did not revise its risk analysis to reflect the information contained in the May 11, 1999, unsigned, draft memorandum by regional staff of EPA, NMFS, USFWS, and a senior Treasury staff person.

5.4.5 Fish and Wildlife Obligations

Issue

Whether BPA has inappropriately included funds to cover costs and risks, including fish and wildlife costs and risks, that might be incurred in a subsequent rate period (i.e., post-2006).

Parties’ Positions

The IOUs claim that BPA is improperly accumulating excess reserves in this case in order to pay for fish costs for the post-2006 rate period. IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 52. They claim, in their brief on exceptions, that BPA’s Draft ROD fails to reconcile its conclusion with BPA’s prior statements to NEC/SOS that its “unprecedented expected reserves of \$1.4B by 2006 positioned it to cover most of the 18 fish cost scenarios post-2006.” IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 40. “While the [IOUs] would like to believe that BPA is not improperly accumulating reserves, BPA’s assurances that it is not so doing--in the face of its unprecedented ending reserves--offer no comfort when BPA has made statements to others that reveal a different agenda.” *Id.*

CRITFC/Yakama argued that BPA is not including post-2006 costs. “The proposed rates are designed to cover Bonneville’s costs and maintain a high Treasury payment probability in this rate period and next. It is common practice for a business to position itself to address future risk by creating reserves necessary to accommodate that future risk.” Sheets *et al.*, WP-02-E-CR/YA-05, at 10.

CRITFC/Yakama also assert that fishery managers agree that fish and wildlife costs will increase significantly after 2006. A significant portion of this added cost will be paying the long-term debt service on fish and wildlife protection measures that are implemented during the 2002-2006 rate period. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 46-47.

BPA’s Position

BPA’s rates are being set to recover costs for the FY 2002-2006 period. DeWolf *et al.*, WP-02-E-BPA-39, at 20. Adopting a mechanism to distribute during the FY 2002-2006 period some of the revenue generated by those rates if circumstances show that it is not all needed does not shift any post-2006 costs into the FY 2002-2006 period. *Id.* Post-2006 costs are not driving the 2002 rates. *Id.*

Evaluation of Positions

Only projected costs for this rate period are included in revenue requirements. Only risks in these years are included in the risk analysis. The risk mitigation tools (starting reserves, PNRR, and CRAC) are all designed to address only the risks in this rate period. And the 88 percent TPP that the tools are designed to meet are applicable to this rate period only. While it is true that the expected value of reserves at the end of 2006 is higher than BPA is starting with, this is not an argument or demonstration that BPA is pulling costs forward. *See* ROD section 7.2. The fact that BPA has observed and discussed the expected value of reserves at the end of 2006 that result from implementing BPA’s risk mitigation strategy does not disprove BPA’s assertion that the high ending reserves result from the risk mitigation strategy and not from an intention to accumulate “excess reserves in this case in order to pay for fish costs for the post-2006 rate period,” as the IOUs claim. IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 52.

In their brief on exceptions, CRITFC/Yakama take exception to BPA’s inadequate treatment of its obligation to position itself to meet higher environmental costs after 2006. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19. The result will likely be that BPA will not be able to meet its costs and assure repayment to Treasury in the next rate period. *Id.* This is not consistent with Principle 4, or BPA’s Treaty and trust obligations. *Id.* This issue is addressed in ROD section 5.4.7, *infra*.

Decision

BPA has not included funds to cover costs and risks, including fish and wildlife costs and risks, that might be incurred in a subsequent rate period (i.e., post-2006).

5.4.6 Principles Nos. 1, 3, and 5

Issue 1

Whether BPA's 2002 rates meet both Principle 1 ("Bonneville will meet all of its fish and wildlife obligations once they have been established, including its trust and treaty responsibilities") and Principle 3 ("Bonneville will demonstrate a high probability of Treasury payment in full and on time over the 5-year rate period").

Parties' Positions

CRITFC/Yakama argue that the lowest-cost alternatives are unlikely to meet ESA standards and to ensure sustainable harvests or populations. CRITFC/Yakama claim that breach alternatives provide a significantly higher likelihood of recovery, and hence, sustainable harvest for Tribal fisheries. CRITFC/Yakama state that these alternatives also have a higher likelihood of meeting Principle No. 1. CRITFC/Yakama argue that BPA's risk mitigation package should be adjusted to account for the higher likelihood that these more expensive alternatives are more likely to be implemented than the low-cost alternatives. Sheets *et al.*, WP-02-E-CR/YA-05, at 20.

CRITFC/Yakama state that Alternative 13, if chosen, would put BPA's TPP at about 65 percent, which would violate Principle No. 3. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 21. It would also mean that BPA would be unable to fully fund the fish and wildlife measures, which violates Principle No. 1. *Id.* at 21-22. CRITFC/Yakama claim that because BPA's proposal does not address the risk that Alternative 13 is the most likely to provide for fish and wildlife recovery, the proposal is deficient and should be changed to comply with Principles Nos. 1 and 3. *Id.* at 22.

In their brief on exceptions, CRITFC/Yakama take exception to BPA's assertion that it is meeting these Principles. They argue that their brief clearly demonstrates that BPA cannot meet the alternatives that are likely to address Treaty and legal obligations and still meet its repayment probability for Treasury. They claim that BPA has not addressed the substance of these comments. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 10.

On the other hand, PPC stated that BPA's proposed rates for the 2002-2006 rate period are not intended to collect revenues that will recover the costs associated with any single alternative. Hansen *et al.*, WP-02-E-PP-09, at 13.

CRITFC/Yakama also state that BPA appears to be saying that its rate scheme meets the Principles as long as BPA does not have to fulfill Treaty and trust obligations and meet its responsibilities under the CWA. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 45.

The Shoshone-Bannock Tribes support and join in the positions and remedies suggested by CRITFC/Yakama and UCUT, and assert that CRITFC/Yakama:

. . . have successfully shown that the Principles cannot be met through BPA's scheme. Further, they have successfully shown the deficiencies of BPA's

proposal with meeting their treasury repayments and the inconsistency with the Fish and Wildlife MOA. Both the UCUT and Yakama Nation and CRITFC briefs point out that the risks after 2006 have not been adequately addressed by BPA's proposal.

Shoshone-Bannock Brief, WP-02-B-SB-01, at 9.

BPA's Position

BPA's 2002 rates meet both Principles Nos. 1 and 3. As a Federal agency, BPA shares the Government's trust responsibility to Indian tribes. BPA fulfills its trust responsibility by working with the PNW region's tribes in the manner prescribed by DOE and BPA tribal policies and by fully complying with the laws governing its activities, including the Northwest Power Act, ESA, and NEPA. DeWolf *et al.*, WP-02-E-BPA-39, at 33. *See also*, ROD section 18.2.2.

For purposes of the 2002 rates, BPA is implementing Principle No. 1 by ensuring that rates and risk mitigation measures are sufficient to recover the costs of future decisions on system reconfiguration and associated operations. DeWolf *et al.*, WP-02-E-BPA-13, at 11. This is accomplished by:

- ensuring that revenue requirements, the repayment schedule, and the risk analysis take into account the full range of potential fish and wildlife costs represented by the 13 Fish and Wildlife Alternatives, without prejudice of one alternative over another;
- identifying and modeling all significant risks, and by adopting a very high standard for recovering costs on time and in full; and
- designing risk mitigation measures that meet the standard.

See DeWolf *et al.*, WP-02-E-BPA-13, at 11, and Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 346.

The risk mitigation tools in this rate period are designed to achieve an 88 percent probability that all payments to the U.S. Treasury will be made on time and in full over the five-year rate period. DeWolf *et al.*, WP-02-E-BPA-39, at 11.

Evaluation of Positions

CRITFC/Yakama argue that BPA's proposal does not meet Principles Nos. 1 and 3. They contend that the more expensive, breaching alternatives are more likely to meet Principle No. 1, and BPA is not giving those alternatives a sufficiently high probability of occurring in its risk analysis. Therefore, they assert, BPA is not meeting Principle No. 1. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 21. They also argue that BPA's proposal fails to meet Principle No. 3 because, for the Alternatives CRITFC/Yakama believe are most likely to meet treaty and trust obligations, the TPP is lower than 88 percent. *Id.* at 22.

However, PPC notes that BPA has stated that it is committed to meeting its future fish and wildlife expenses whatever they are. Hansen *et al.*, WP-02-E-PP-09, Attachment B, at 1. BPA believes it is implementing Principle No. 1 by modeling the 13 Alternatives as called for in the Principles. BPA has committed itself clearly and publicly, with the express endorsement of the Administration, to meeting its fish and wildlife obligations once they have been determined, without qualifications as to the magnitude of the obligations. Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 361; Hansen *et al.*, WP-02-E-PP-09, at Attachment B. The 13 Alternatives represent a set of assumptions, a forecasting convention, to establish assumptions for purposes of setting rates. DeWolf *et al.*, WP-02-E-BPA-13, at 10. These assumptions are intended to establish a reasonable range for a specific set of future costs, consistent with statutory directives that govern BPA's ratemaking. DeWolf *et al.*, WP-02-E-BPA-39, Attachment 2. Such a forecast, however, does not define or circumscribe the actual obligations that will be created in the upcoming rate period, regardless of the source of those obligations or how they may arise. *Id.* Nor does such a forecast prevent or preclude BPA from meeting its future obligations. *Id.* And, even if BPA misses a payment to Treasury, it does not mean that funding for fish and wildlife programs or measures is being reduced. DeWolf *et al.*, WP-02-E-BPA-13, at 14. Rather, it means that repayment or reimbursement is delayed for funding that already has been expended. *Id.*

BPA also believes it is meeting Principle No. 3. BPA's modeling of forecasted costs and revenues, risks, and risk mitigation tools results in an 88 percent TPP. "The 88 percent Treasury payment probability standard is based on a complete package of risks and risk mitigation tools as well as the rest of the PBL rate proposal." Tr. 500.

CRITFC/Yakama misunderstand Principle No. 3. It commits BPA to achieve a high TPP in the proposal; it does not commit BPA to maintaining that same TPP no matter what events occur subsequent to the rate case. When CRITFC/Yakama state that under a particular alternative "Bonneville's TPP probability would reduce to 65 percent," CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 27; it is referring to an analysis that BPA and other Federal agencies considered prior to BPA's initial proposal. Sheets, WP-02-E-CR/YA-01, Attachment 1, at 5-6. 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 13 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 and some lower. *Id.* BPA applies its 88 percent TPP standard to the full range of uncertainties that are observable at the time the rate case studies are conducted, Volume 1, Revenue Requirements Study Documentation, WP-02-E-BPA-02A, at 280; not to an individual alternative. *See* ROD section 7.2, Issue 4, *infra*.

As PPC states, BPA's rates for the 2002-2006 rate period are not intended to collect revenues that will recover the costs associated with any single alternative. Hansen *et al.*, WP-02-E-PP-09, at 13. Applying an 88 percent TPP standard to a single alternative would not be consistent with the Principle wherein the TPP goal is associated with 13 equally weighted alternatives. "If, for instance, we know for sure one of those particular measures was going to be the fish and wildlife

plan, that would be a very substantial change to Bonneville's risk profile and if Bonneville made no change in its risk mitigation package it's very likely the treasury payment probability would no longer be 88 percent. That's true for each of the 13 alternatives, however . . . [i]f we knew for sure one of them would be chosen, that uncertainty then is eliminated and if no other adjustments were made the treasury payment probability would probably be quite different." Tr. 501. PPC also states that "BPA would further violate its rate pledge goal if it implemented certain parties' recommendations that BPA increase its rates in order to afford high cost fish and wildlife alternatives." Hansen *et al.*, WP-02-E-PP-09, at 18. "The witness [CRITFC/Yakama] is effectively proposing a 15-28 percent increase over BPA's initial proposal which means that BPA would further violate its rate pledge and power customers would see a significant increase in power costs for fish and wildlife costs that have not yet been adopted as BPA's budget." *Id.* at 20. Given what we know now, and taking into account the uncertainties, risks and risk mitigation tools, BPA is proposing rates with an 88 percent TPP.

Decision

BPA's 2002 power rates meet both Principle 1 ("Bonneville will meet all of its fish and wildlife obligations once they have been established, including its trust and treaty responsibilities") and Principle 3 ("Bonneville will demonstrate a high probability of Treasury payment in full and on time over the 5-year rate period"). BPA is reflecting the 13 Alternatives and assuming each is equally likely to occur, and thus is keeping the options open. BPA is setting rates to recover the range of costs associated with the 13 Alternatives, and is demonstrating an 88 percent TPP.

Issue 2

Whether Principles 1, 3, and 5 are jointly incompatible and pose a mathematical dilemma.

Parties' Positions

In their brief on exceptions, Alcoa/Vanalco argue that there is a mathematical dilemma created by BPA: it may not be possible to meet an 80 percent TPP [Principle No. 3], meet every fish and wildlife cost that may be imposed on BPA during the rate period [Principle No. 1], and keep the rate pledge by setting the PF rate at 1996 levels [Principle No. 5]. Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-01, at 16. Alcoa/Vanalco argue that BPA has not attempted to clarify whether it will be able to meet Treasury payments if fish and wildlife costs exceed the highest of the 18 fish and wildlife scenarios. Alcoa/Vanalco Ex. Brief, WP-02-R-AL/VN-01, at 16. Therefore, they contend, BPA cannot prove its proposed rates will allow it to meet its Treasury payments, and FERC cannot then make the affirmative findings necessary to approve rates proposed. *Id.* at 16-17.

BPA's Position

Principles Nos. 3 and 5, meeting a high TPP (88 percent) (*see* ROD section 7.2) and keeping 2002-2006 rates at the same average level as current rates (*see* ROD section 2.2), will be satisfied upon conclusion of this rate case. Principle No. 1, that BPA will meet its fish and wildlife obligations, is a long-term commitment that will be satisfied as BPA's fish and wildlife

obligations are determined and as they are met throughout the 2002-2006 rate period. *See* Issue 1, *supra*. Because the three Principles refer to different points in time, there is no mathematical dilemma.

Evaluation of Positions

The first factor listed by Alcoa/Vanalco is TPP, Principle No. 3, which will have been determined by the conclusion of the power rate case. BPA's proposal does demonstrate that BPA will have an 88 percent TPP. *See* Volume 1, Chapter 12, Revenue Requirement Study Documentation, WP-02-E-BPA-02A. The third factor listed by Alcoa/Vanalco is the rate pledge, Principle No. 5. Satisfaction of this Principle will also have been made at the conclusion of the power rate case. BPA's proposal does satisfy Principle No. 5. *See* ROD section 2.2. At the point the TPP and the rates are determined, the fish and wildlife costs are still uncertain, and BPA will not yet have had to make any payments to the Treasury for the 2002-2006 period. At a later time, a fish and wildlife plan may be adopted and BPA will have to meet its fish and wildlife obligations, and at other times BPA will need to pay the Treasury. These times will all be after the conclusion of the rate case, and by then Principles Nos. 3 and 5 will have been satisfied.

BPA does not need to prove that its rates will enable it to meet all Treasury payments; according to the TPP standard that BPA has been applying with FERC's approval to its rates since the 1993 rate case, BPA needs to establish that its rates are sufficient to achieve a specified *probability* of meeting all of its payments, in light of many uncertainties. *See* Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 275. In this rate case, BPA will keep the rate pledge while achieving an 88 percent TPP, which explicitly acknowledges that subsequent events such as regional adoption of an extremely expensive Fish and Wildlife plan or the occurrence of several dry years in a row could result in a Treasury payment deferral. However, even with a deferral, BPA will still meet its fish and wildlife obligations. But there is an 88 percent probability that a Treasury payment deferral will not occur in even one of the five years in the 2002-2006 rate period.

A Treasury payment deferral during 2002-2006 would not retroactively violate Principles Nos. 3 or 5, which are satisfied at the end of this rate case, nor would it cause a violation of Principle No. 1 by preventing BPA from meeting its fish and wildlife obligations. "Inasmuch as payments to Treasury represent the lowest priority in BPA's priority of payments, the average amount of these payments is large, and the level of TPP is very high, these higher priority costs [*e.g.*, fish and wildlife expenses] are virtually guaranteed to be recovered, which is to say, the availability of cash to fund these costs is certain." DeWolf *et al.* WP-02-E-BPA-13, at 13.

What can appear to be a dilemma if only one time point is assumed can be seen to be free of logical contradictions once the distinctions among different points in time are recognized.

Decision

Principles Nos. 1, 3, and 5 are mutually compatible and do not pose a mathematical dilemma.

5.4.7 Principle No. 4

Principle No. 4 states “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.” Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 355.

5.4.7.1 Change Risk Mitigation Package to Achieve 90 Percent Probability of \$500 Million Ending Reserves

Issue

Whether BPA should change its risk mitigation package to achieve a 90 percent probability of having at least \$500 million in reserves at the end of FY 2006 in order to meet increasing fish and wildlife funding uncertainty and to meet Principle No. 4.

Parties’ Positions

The Oregon Public Utility Commission (OPUC) argues that to handle increasing uncertainties that carry over into the next rate period, and satisfy Principle No. 4, BPA needs to adopt final rates, including a risk mitigation package, that collect revenues sufficient to demonstrate a 90 percent probability of having about \$500 million in ending reserves in FY 2006. OPUC Brief, WP-02-B-OP-01, at 9.

BPA’s Position

BPA believes its rate proposal “positions BPA’s power function reasonably well to be able to obtain a ‘similarly high’ TPP for the post-2006 period, through such mechanisms as potential rate increases, a planned build-up of reserves, potential rate adjustment mechanisms, and other actions that can be taken between now and 2007.” DeWolf *et al.*, WP-02-E-BPA-39, at 34-38.

BPA’s proposal implies a 70 to 80 percent chance of having at least \$500 million in reserves at the end of 2006. *Id.* at 38. Increasing this probability would require: (1) abandoning the 88 percent 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. *Id.* Either of these would reduce rate stability. *Id.* Rate stability is a key BPA goal in this rate case. *Id.*

BPA’s long-standing risk mitigation standard is an 88 percent TPP. DeWolf *et al.*, WP-02-E-BPA-39, at 22.

Evaluation of Positions

OPUC claims that BPA’s proposed risk mitigation package allows an expected value of reserves under \$600 million 30 percent of the time, which imperils Principle No. 4 by leaving reserves too low too often. They argue that BPA has offered no substitute objective criteria. OPUC

Ex. Brief, WP-02-R-OP-01, at 4. However, BPA's 2002 rates have sufficient risk mitigation tools to meet increasing fish and wildlife funding uncertainty as well as to meet Principle No. 4. See ROD section 5.4.7.2, Issue 6, *infra*. BPA measures the ability of its rates to meet its obligations with its longstanding risk mitigation standard of 88 percent TPP. DeWolf *et al.*, WP-02-E-BPA-13, at 21. The 2002 rates, designed under this standard, will produce unprecedentedly high TPP, *Id.* at 12, and the expected value of ending reserves is also very high. DeWolf *et al.*, WP-02-E-BPA-39, at 15. OPUC's proposal, however, would result either in a significant rate increase or a significantly more powerful CRAC, and therefore more rate instability. *Id.* at 38. The parties have proposed a new risk mitigation criterion, but have failed to demonstrate that BPA's position is unreasonable.

See also ROD section 7.7, *infra*.

Decision

BPA's 2002 power rates meet Principle No. 4, and result in lower and/or more stable rates than OPUC's proposal. BPA will not change its risk mitigation package, which achieves an 88 percent TPP, in favor of adopting a goal of having a 90 percent probability of having \$500 million in ending reserves in FY 2006.

5.4.7.2 Treasury Payment Probability (TPP) "Policy"

Issue 1

Whether BPA's 1993 10-Year Financial Plan requires that BPA demonstrate in its 2002 rate case that it can achieve a 77 percent TPP for a 10-year period.

Parties' Positions

Several parties argue that BPA has a policy or standard requiring BPA to demonstrate that it can meet a 10-year TPP of 77 percent, and that this requires BPA to demonstrate in this rate case that it will be able to achieve an 88 percent TPP for 2007-2011. OPUC states that "the ability to meet the 10-year 77% TPP requires that BPA will be freely able to increase rates between rate periods to achieve an 88% TPP . . ." OPUC Brief, WP-02-B-OP-01, at 3. OPUC claims that BPA refuses to address the real point of OPUC's argument to measure the post-2006 financial viability of its rate proposal by using the 77 percent 10-year TPP "standard" "intended" by BPA's long-standing 1993 financial policy, and they urge BPA to use this "standard" as a measure to judge whether it has met Principle No. 4. OPUC Ex. Brief, WP-02-R-OP-01, at 5.

NEC/SOS state that "[t]he 1993 policy standard (which in turn came from BPA's June 1992 10-year Financial Plan), which BPA is using in this rate proceeding, requires that rates must result in a 77 percent Treasury Payment Probability ("TPP") over a ten year period." NEC/SOS Brief, WP-02-B-NA/SA-01, at 2. "For this 5-year rate case, as in 1996, Bonneville is again proposing setting rates for the first of two 5-year rate periods, each of which must meet an 88 percent TPP to be equivalent to the 10-year standard." *Id.* NEC/SOS argue that BPA can no longer simply assume--like it could in 1993--that it will be able to establish rates sufficient to

meet the 88 percent TPP standard for the second rate period. BPA must instead produce credible evidence that this will be possible. *Id.* at 13; NEC/SOS Brief, WP-02-B-NA/SA-01, at 3. NEC/SOS argue that BPA’s denial of this criterion capriciously flies in the face of substantial testimony by “OPUC, CRITFC and ourselves, and numerous admissions to the contrary by BPA . . .” NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 6.

CRITFC/Yakama state that BPA’s proposal “has adopted the 1993 Bonneville policy of a 77 percent Treasury Payment Probability over a ten-year period.” CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 9. “CRITFC and the Yakama Nation hereby incorporate by reference the analysis and arguments of [NEC/SOS] and [OPUC], WP-02-B-NA-01 and WP-02-B-OP-01 respectively, concerning Bonneville’s treatment of the 1993 standard for assurance of Treasury repayment.” *Id.*

BPA’s Position

This is an issue that was initially raised in the NEC/SOS brief. Neither BPA nor the parties had an opportunity to test NEC/SOS’s evidence through discovery or cross-examination.

The 10-Year Financial Plan standard adopted in the 1993 ROD stated “[a]s a long-term policy, BPA will plan to set its rates to maintain financial reserves sufficient to achieve a 95 percent probability of meeting Treasury payments in full and on time for each two-year rate period. Thus, in subsequent rate cases . . . BPA will establish rates consistent with the long-term policy of achieving the 95 percent Treasury payment standard for each 2-year rate period.” *See* 1993 ROD, WP-93-A-02, at 72. In developing this standard, BPA examined the numeric significance of adopting the 95 percent rate period standard over a 10-year period. “This standard *results in* the probability of continued success over 10 years (five 2-year rate periods) of (.95)⁵, or a 77 percent probability of meeting all payments over 10 years” (emphasis added). *Id.* at 69. In the 1996 rate case, this 95 percent two-year standard was converted to an equivalent 88 percent probability of making all five U.S. Treasury payments in a five-year period. 1996 Revenue Requirement Study, WP-96-FS-BPA-02A, at 555-556.

BPA’s position is that there is no 77 percent standard; BPA’s TPP standard applies to a single rate period.

Evaluation of Positions

The record is sparse on this issue because it was introduced for the first time in the parties’ briefs. Neither BPA, nor other parties have had an opportunity to test this new evidence through discovery or cross-examination. However, there is nothing in the record of this rate case or previous ones indicating that 77 percent has been treated by BPA or the parties as anything except: (1) an illustration of the long-term impact of the 95 percent two-year standard; and (2) a number useful in translating the 95 percent standard to rate periods of lengths other than two years. Note that the cite above from the 1993 ROD, wherein the standard was adopted, states that the 95 percent two-year standard *results in* the probability of success over 10 years. 1993 ROD, WP-93-A-02, at 69. The standard set in the 10-Year Financial Plan was for a

two-year period. In the 1996 case where it was converted to a five-year standard, there was no mention of a calculation for a 10-year TPP.

The 95 percent TPP Standard adopted in the 1993 rate case was a standard that applied to a single rate period. BPA illustrated the long-term meaning of such a policy by means of the calculation that five statistically independent consecutive rate periods would have a combined 10-year TPP of 77 percent. BPA did not ever suggest that this illustration bound BPA in each rate case to prove that it would be able to achieve comparable TPPs throughout the remainder of the 10-year period that begins with the rate period under consideration. Nothing in the record indicates that BPA or any party undertook calculations of 10-year TPPs in any previous rate case, or that BPA or any party interpreted the 77 percent 10-year number as a criterion to be applied to the question of the adequacy of rates, contrary to OPUC's contention that the 10-year 77 percent TPP was an intended standard. The 77 percent 10-year figure has been used only as an illustration of the long-term impact of the TPP standard, and as a means for determining for rate periods of other than two years what TPP level would be equivalent to the 95 percent two-year TPP standard for ensuring payments to the Treasury.

From the 10-Year Financial Plan:

BPA's Financial Plan includes a long-term financial policy that BPA shall establish rates to maintain a level of financial reserves sufficient to achieve a 95 percent probability of making its U.S. Treasury payments in full and on time for each two-year rate period. 1993 Revenue Requirement Study, WP-93-E-BPA-02, at C12. The 95 percent probability policy provides that, in achieving the 95 percent probability standard, rates will be set to include recovery of any inherent downward bias in BPA's expected cash-flow distribution, taking into account normal operating risks. *Id.*; Marshall and Armstrong, WP-93-E-BPA-10, at 4. This long-term Treasury payment standard recognizes BPA's responsibility to act in a manner that ensures its ability to fulfill its legally mandated responsibilities required under the Northwest Power Act in a sound and business-like manner. *Id.* Meeting these responsibilities necessitates that a very high priority be placed on ensuring BPA's ability to meet its annual payments to Treasury with a high level of certainty in order that BPA is able to ensure its continued access to the financial resources needed to carry out its responsibilities. *Id.* The Financial Plan provides that during the FY 1994-95 rate period, the 95 percent long-term probability standard will be phased in on a one-time-only basis. 1993 Revenue Requirement Study, WP-93-E-BPA-02, at C12. Thus, it is BPA's intent that for rate periods subsequent to FY 1994-95, the long-term policy standard will be applied and implemented to result in rates that achieve the full 95 percent probability standard.

In developing a long-term Treasury payment standard, BPA considered the long-term implications of establishing a Treasury payment standard that would be applied to each two-year rate period. *Id.* at 5. In doing so, BPA examined the numeric significance of adopting the 95 percent rate period standard over a 10-year period. "This standard results in the probability of continued success

over 10 years (five two-year rate periods) of $(.95)^5$, or a 77 percent probability of meeting all payments over 10 years.” *Id.* BPA believes that the 77 percent long-term Treasury payment result is reasonable given its intent to evaluate and establish rates every two years, and that selection of this long-term standard balances the Treasury’s interest in receiving its payments in full and on time and BPA’s customers’ desire for the lowest rates possible. *Id.* at 5-6.

First, the Joint Customers’ claim that BPA has adopted a “new interpretation” of the 95 percent probability Treasury payment standard is simply incorrect. The BPA testimony cited by the Joint Customers contains no such characterization of the 95 percent probability standard as a “new interpretation.” Marshall and Armstrong, WP-93-E-BPA-20, at 6. “On the contrary, BPA’s Proposed 10-Year Financial Plan, published in June 1992, stated the 95 percent probability standard as follows: ‘*BPA proposes that the 95 percent Treasury repayment standard over each 2-year rate period that was selected for the current 1992-93 rate period be continued and that it be applied to each relevant rate period.*’” *Id.* In that same document, “BPA further explained the interpretation of the 95 percent rate period Treasury payment standard, stating that ‘[a]pplication of this repayment probability standard would result in BPA making its full annual Treasury payments in both years in at least 95 out of 100 2-year rate periods.’” *Id.* In addition, in the Proposed 10-Year Financial Plan, BPA explained the long-term statistical significance of adopting the 95 percent probability rate period standard. *Id.* at 7. “BPA stated that ‘[a]pplying the 95 percent standard over different time periods significantly affects the probability that BPA would meet its Treasury payments in any single year, and in all 10 years of any consecutive 10-year period.’” *Id.* “Under BPA’s proposal, the probability of continued success over a 10-year period of timely Treasury payment with a target 2-year rate period probability of 95 percent is 77 percent. By contrast, the probability of continued success of timely Treasury payment over a 10-year period decreases to only 60 percent with a target annual probability of 95 percent.” *Id.* Thus, the Proposed 10-Year Financial Plan (June 1992) clearly represented the 95 percent standard as a two-year *rate period standard*, not an average standard, and laid out the statistical significance of that standard over a 10-year period.

1993 ROD, WP-93-A-02, at 69-70.

In the 1996 rate proposal, BPA stated:

The Long-Term Financial Risk Mitigation Policy sets a standard of achieving a 95 percent probability of making all Treasury payments during a two-year rate period. The reasonableness of this standard was assessed in the 1993 Final Rate Proposal, Administrator’s Final ROD, WP-93-A-02 at pages 70-72. In applying this standard over a 10-year period (five two-year rate periods), BPA would achieve a 77 percent probability of making all 10 payments. This is illustrated by the calculation of $.95 * .95 * .95 * .95 * .95 = .77$.

For this five-year rate proposal, the 95 percent (two-year) standard was translated into a five-year standard by determining what probability of making all payments in a five-year period would be needed to yield a 77 percent probability over a 10-year period. In other words, if a 10-year period consisting of two five-year rate periods were to have an overall probability of 77 percent of making all payments, what probability for *each* five-year rate period would be required? This required five-year probability is 88 percent. Like the 95 percent (two-year) standard, this 88 percent (five-year) standard would result in a 77 percent probability of making all payments in a 10-year period. This is illustrated by the calculation of $.88 * .88 = .77$. Thus, the five-year percentage standard that is equivalent to the 95 percent standard of the 10-Year Plan is shown to be 88 percent. Unless noted otherwise, later references in this testimony to “Treasury payment probability” will mean the probability of making all five payments within the FY 1997-2001 rate period.

Arnold *et al.*, WP-96-E-BPA-15, at 3.

The only TPP *standard* or *policy* is for a single rate period; the references to 10-year periods and to 77 percent are clearly illustrations of the long-term impact of the single rate period standard, and not intended as standards or policies. NEC/SOS argue that it was not the policy of the 1993 ROD to establish simply one two-year rate period. NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 6. However, as explained *supra*, the policy established in 1993 was that, during any ratesetting process, a TPP for the rate period at issue should meet the standard, and that this should be done long-term, *i.e.*, during each rate case in the next 10 years.

NEC/SOS points out that BPA’s assumption that there is no serial correlation between rate periods is not completely correct; that is, it is a simplifying assumption. Weiss, WP-02-E-NA-02, at 9. Recognizing Mr. Weiss’s point, it can be observed that a 77 percent 10-year TPP can be obtained from two five-year rate periods if the “successful” sequences of years one to five have an 88 percent probability of success in years 6 to 10, even if the “unsuccessful” sequences of years one to five have a 0 percent probability of success in years 6 to 10. That is, with the incorporation of the serial correlation Mr. Weiss points out, it is possible to obtain a 77 percent 10-year TPP even if the second five-year rate period has a 77 percent TPP. Therefore, it would not be necessary for BPA to raise rates in 2006 in order to achieve an 88 percent TPP.

Decision

Since there is no 10-year 77 percent TPP standard, BPA is not obliged to demonstrate that it is met.

Issue 2

Whether Principle No. 4 requires that BPA demonstrate quantitatively that it can achieve an 88 percent TPP for the post-2006 rate period.

Parties' Position

NEC/SOS state that BPA must produce credible evidence that it will be able to establish rates sufficient to meet the 88 percent TPP standard for the second rate period. NEC/SOS Brief, WP-02-B-NA/SA-01, at 13.

OPUC argues that “[t]he statutory standard of “substantial evidence” has not been met, . . . and tends to undermine BPA’s positions that Fish Funding Principle No. 4 is met.” OPUC Brief, WP-02-B-OP-01, at 4. OPUC contends that in refusing to be tied to a quantitative demonstration, BPA has unnecessarily rejected the merit of any quantitative analysis in determining whether Principle No. 4 is met because there is no perfect analysis. OPUC Ex. Brief, WP-02-R-OP-01, at 5.

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

BPA’s Position

Principle No. 4 requires that BPA design rates and contracts which will position BPA to achieve similarly high TPP for the post-2006 period by building financial reserve levels and through other mechanisms. “Principle No. 4 does not say that BPA will take actions now that result in an 88 percent TPP for the post-FY 2006 period calculated as of today or calculated as of FY 2006, but rather that BPA will *position* itself (now) to be able to achieve *similarly high* TPPs post-2006 period [sic].” DeWolf *et al.*, WP-02-E-BPA-39, at 37 (emphasis in original).

Principle No. 4 only calls for positioning to achieve a “similarly high” TPP, that is, 80 percent to 88 percent for the post-2006 period, not 88 percent. Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 355.

Evaluation of Positions

Principles No. 3 and No. 4 require that BPA position itself to achieve a similarly high (*i.e.*, 80 to 88 percent) TPP post-2006. The Principles are silent on the issue of the manner of demonstration. BPA has identified analytical obstacles that make impossible an analysis of post-2006 TPP with the rigor required by TPP analysis. *See* BPA’s position in Issue 3, *infra*. BPA has determined, therefore, that the question of satisfaction of Principle No. 4 must be settled judgmentally, with quantification serving a supporting role. DeWolf *et al.*, WP-02-E-BPA-39, at 37. OPUC argues that BPA’s reliance on its “judgment,” rendered largely on subjective and secret factors, to meet Fish Principle No. 4, in the face of countervailing quantitative evidence, is arbitrary and capricious. OPUC Ex. Brief, WP-02-R-OP-01, at 5. However, BPA has provided extensive discussion explaining its judgmental analysis, as well as two informal quantitative analyses, which BPA used to conclude that it is meeting Principle No. 4. *See* Issue 6, *infra*. BPA has also provided extensive discussion explaining why the quantitative analysis OPUC refers to is not convincing. *See* Issues 3, 4, and 5, *infra*.

There are several features of BPA's 2002 rates that contribute to BPA's confidence that it is positioning itself reasonably well to achieve a high TPP in the post-2006 years. See DeWolf *et al.*, WP-02-E-BPA-39, at Attachment 4. They include the facts that BPA can set rates again in 2007, and can raise the rates substantially if necessary, as it has in the past; that any Slice customers will be taking on many risks that BPA has previously borne, and would be committing themselves to 10-year contracts; and that BPA is offering three-year contracts, as well as five-year contracts, giving BPA the opportunity to adjust rates in 2005, if necessary. *Id.* The expected values of BPA's annual financial reserves are projected in the 2002 rate case to increase quite substantially, though there is very large uncertainty in these projections. *Id.* This planned increase is on top of a healthy level of starting reserves, and BPA has designed a CRAC that could raise hundreds of millions of dollars of additional revenues if needed. See Response to NA-BPA:004, *Id.*, for a more complete list. See also DeWolf *et al.*, WP-02-E-BPA-13, Section 4; Volume 1, Chapter 12, Revenue Requirement Study Documentation, WP-02-E-BPA-02A.

The wording of Principle No. 4 (e.g., "position itself" and "similarly high Treasury payment probability") is essentially qualitative, and does not suggest that the drafters of the Principles had a quantitative definition in mind.

Decision

Satisfaction of Principle No. 4 does not require a quantitative demonstration proving that BPA will be able to achieve a post-2006 TPP of 88 percent, only a showing that BPA is positioning itself well at this time to be able to achieve a post-2006 TPP that is similar in security to the 80-88 percent TPP pledged in the Principles.

Issue 3

Whether BPA should have assessed the post-2006 TPP, and whether its lack of such assessment is a serious flaw in its rate proposal.

Parties' Positions

UCUT, CRITFC/Yakama, and NEC/SOS contend BPA must do, and has not done, a detailed analysis for the 2007-2011 period. UCUT Brief, WP-02-B-UC-01, at 20-21; CRITFC/Yakama Brief, WP-02-B-CR/YA-02, at 46; NEC/SOS Brief, WP-02-B-NA-01, at 23-24.

CRITFC/Yakama argue that they have provided analysis that the projected average ending reserve in BPA's initial proposal is too low to meet Principle No. 4. Sheets *et al.*, WP-02-E-CR/YA-05, at 7. "BPA could have used Standsim to measure ability to meet Principle No. 4." Sheets, WP-02-E-CR/YA-01, at 3-4. NEC/SOS incorporates by reference the OPUC and CRITFC/Yakama briefs. NEC/SOS Brief, WP-02-B-NA/SA-01, at 36. NEC/SOS also assert that BPA "admits it has not employed a reasoned analysis," WP-02-B-NA/SA-01, at 14; in concluding that Principle No. 4 is being satisfied. CRITFC/Yakama claim that "Bonneville has asserted that it has met Principle No. 4 without any analysis." CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 44. NEC/SOS submitted a quantitative analysis of its own that purports

to show that BPA has not positioned itself to meet the 88 percent TPP goal for the post-2006 period. OPUC also uses the NEC/SOS analysis, terming it “unrebutted,” to claim that quantitative analysis of the post-2006 TPP is, in fact, possible. OPUC Brief, WP-02-B-OP-01, at 3. CRITFC/Yakama assert that analyses performed by other parties indicate that quantitative analysis of post-2006 TPP is possible. CRITFC/Yakama Brief, WP-02-CR/YA-01, at 46. These three parties go on to argue that BPA’s omission of a quantitative analysis of post-2006 TPP is a grave error.

UCUT claims BPA has not shown how its 2002 rates will meet Principle No. 4. UCUT Brief, WP-02-B-UC-01, at 20. UCUT argues that BPA should do detailed analysis for the 2007-2011 rate period and incorporate conservative outcomes of that analysis into this rate period’s assumptions. *Id.* Or, UCUT claims, corresponding and more conservative risk mitigation measures should be incorporated into the rates. *Id.*

The Shoshone-Bannock Tribes 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.

BPA’s Position

Analysis at this time of the post-2006 TPP is not possible with the rigor that TPP analyses require. As stated in testimony:

The technical problems associated with modeling and quantitative analysis of BPA’s power business post-2006 are greater than implied by the Parties. A non-exhaustive list of such challenges is given here. The simplest of these difficulties have to do with the data:

- The risk distributions from Risk Analysis Model (RiskMod) that represent operating risks are not available for the post-2006 period. The operational constraints for the 13 Fish and Wildlife Alternatives have not been analyzed, and are not available for use by RiskMod. The forecasts of gas and electricity prices that far in the future are far more uncertain than the forecasts for the FY 2002-2006 period.
- BPA’s Fish and Wildlife costs themselves for that period are far less certain. By FY 2007, it is possible that uncertainty over these costs will have been resolved; for example, by adoption of a regional plan or by Congressional action, or by spontaneous recovery of the fish stocks due to changes in ocean conditions. The range of future Fish and Wildlife costs may also have increased by FY 2007. Agreements about funding plans quite different from those under discussion today may have been reached. But at this time (December 1999), the post 2006 Fish and Wildlife costs would have to be considered to be highly uncertain, more uncertain than the FY 2002-2006 Fish and Wildlife costs are today.
- BPA program costs have not been projected out that far with the rigor of those for the FY 2002 through 2006 period. The projections are developed consistently among the

programs and are sufficient for the 7(b)2 rate test purposes, where the significance is the cost categories that are excluded from the program case to produce the 7(b)(2) case.

- Other uncertainties are yet more complex. Some of the major structural uncertainties are:
 - National and state electricity industry restructuring plans--what will have happened by then?
 - Technological change--will generating supplies and loads be substantially the same, or will major changes have taken place on one or both sides of the supply and demand equation?
 - Congressional and FERC directions for BPA--what changes in BPA's responsibilities might be made by then?
 - How will financial markets have changed the ways that financial risks can be managed?

DeWolf *et al.*, WP-02-E-BPA-39, at 35-37.

The assessment of the TPP is the last step in the process of determining qualitative and quantitative assumptions in the analysis of proposed rates (*see, generally*, Volume 1, Chapter 12, Revenue Requirement Study Documentation, WP-02-FS-BPA-02A; Lovell *et al.*, WP-02-E-BPA-14; Conger *et al.*, WP-02-E-BPA-15). In one sense the whole of BPA's rate case a description of the input assumptions and numbers for the TPP calculations. This set of inputs has been completed for the 2002-2006 period, but not for the post-2006 period.

BPA does not consider NEC/SOS's "analysis" rebutted. BPA's rebuttal testimony addressed why BPA believes its rates do meet Principle No. 4, and why a rigorous quantitative analysis is not possible. DeWolf *et al.*, WP-02-E-BPA-39, at 34-35. A rebuttal of the *possibility* that NEC/SOS's analysis might be meaningful in the current context is surely a stronger rebuttal than one that merely finds flaws with the details of the analysis.

The question is whether BPA is positioning itself appropriately now so that it will be able to take actions in the future resulting in similarly high TPPs after FY 2006. *Id.* at 37. In the face of the massive uncertainty facing BPA over the next seven years (12 years if we assume a five-year rate period starting in FY 2007), to define "well-positioned" so accurately as to permit meaningful statistical assessments would be impossible. *Id.* This uncertainty ensures that any analysis will contain so many assumptions as to be an essentially judgmental analysis. *Id.*

Evaluation of Positions

NEC/SOS acknowledged that its analysis was not consistent with BPA's models. Weiss, WP-02-E-NA-01, at 12. BPA presented substantial evidence that the post-2006 TPP cannot be assessed with enough rigor to make the results meaningfully comparable to the series of TPP analyses BPA provided in the initial proposal and previous rate cases. DeWolf *et al.*, WP-02-E-BPA-39, at 35. CRITFC/Yakama have argued that BPA is asserting it is meeting

Principle No. 4 but has not analyzed it. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19. This is an incorrect characterization. BPA stated it is not relying primarily on quantitative analyses. Two analyses were used informally, and in addition BPA relied on judgmental analysis. DeWolf *et al.*, WP-02-E-BPA-39, at 37. CRITFC/Yakama also contend that failing to conduct quantitative analysis is arbitrary and capricious. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19. They state “[t]he only logical explanation for Bonneville’s failure to analyze this issue is that the problem will fall during the watch of another Administrator.” *Id.* at 20. BPA strongly objects to this characterization. BPA has argued that TPP calculations for years so far in the future, with such a large number of assumptions necessary, are neither comparable to the calculations of 2002-2006 TPP presented in this rate proposal nor meaningful in their own right. *See* Issues 4 and 5, *infra*. BPA has a very robust risk mitigation package, and a higher TPP goal than ever before, and projects a high expected value of ending reserves, which positions BPA well for the subsequent rate period. *See* ROD chapter 7, *infra*. BPA’s proposal is reasoned and reasonable, and meets Principle No. 4. *See* Issue 6, *infra*.

NEC/SOS concludes that this analysis should be done, because it has concluded that BPA’s 10-Year Financial Plan requires a 10-year 77 percent TPP. This is not the case. *See* Issue 1, *supra*.

BPA mentions the importance of assumptions in determining the outcome of any analysis of post-2006 TPP. The record contains many examples of assumptions that would have to be made:

- The portion of the regional fish and wildlife plan that BPA would be required to fund. UCUT Brief, WP-20-B-UC-01, at 18-19.
- Whether BPA would be required to continue servicing debt on projects that no longer serve a power purpose in the event some dams are breached. DeWolf *et al.*, WP-02-E-BPA-39, at 30.
- How much uncertainty there will be about post-2006 fish and wildlife costs--the range may have broadened or shrunk, and may have increased or decreased in average cost. DeWolf *et al.*, WP-02-E-BPA-39, at 36. There is currently no clear scientific consensus on how to save the salmon (DeWolf *et al.*, WP-02-E-BPA-39, at 28), but the science may be more conclusive five years hence.
- What BPA’s program costs will be after 2006. DeWolf *et al.*, WP-02-E-BPA-39, at 36.
- What the range of uncertainty about post-2006 market prices will be--the uncertainty *now* about post-2006 market prices is greater than the uncertainty *now* about market prices for 2002-2006. DeWolf *et al.*, WP-02-E-BPA-39, at 36.
- What additional financial risk management tools will be available to BPA to use in reaching its TPP goal. DeWolf *et al.*, WP-02-E-BPA-39, at 37.

- How national and state electricity industry restructuring plans will have affected the make-up of BPA's customer groups or the mechanisms through which BPA sells power to its customers. DeWolf *et al.*, WP-02-E-BPA-39, at 36.
- What the impacts will be of ocean conditions on the vitality of the threatened and endangered stocks. DeWolf *et al.*, WP-02-E-BPA-39, at 36.
- Whether BPA will selling power at cost-based rates or market rates. Saven, WP-02-E-NI-01, at 8.

The fact that the post-2006 period is so much more distant than is the 2002-2006 period means that many assumptions regarding issues of the sort just listed that are not only reasonable to make but unreasonable *not* to make for the nearer period are not nearly as safe to rely on for the post-2006 period. Any quantitative analysis will be strongly influenced or even determined by the assumptions on which it is based. Thus, any quantitative analysis of the post-2006 TPP will be an essentially judgmental analysis. DeWolf *et al.*, WP-02-E-BPA-39, at 37.

Decision

Any quantitative assessment of post-2006 TPP would be essentially judgmental; therefore, BPA is not obliged to perform such an assessment, nor is the lack of such an assessment a flaw in BPA's rate proposal.

Issue 4

Whether NEC/SOS's analysis of BPA's post-2006 rates and TPP should be treated as a minimum criterion for Principle No. 4.

Parties' Position

NEC/SOS asserts that BPA's claim that there are so many uncertainties as to make an analysis not meaningful is not a reason for ignoring NEC/SOS's analysis, but instead a strong argument for treating NEC/SOS's analysis as a *minimum* standard that must be met. NEC/SOS Brief, WP-02-B-NA/SA-01, at 22.

In their brief on exceptions, NEC/SOS argue that BPA reveals its lack of understanding of statistical methods when it asserts that an analysis which contains massive uncertainties cannot possibly be relied on for quantitative conclusions. NEC/SOS Ex. Brief, WP-02-R-NEC/SOS-01, at 7-8. NEC/SOS contend that statistics is the discipline most suited for dealing with uncertainties, and claiming that a set of data contains many uncertainties--even perhaps more than was originally assumed--does not always invalidate that study's conclusions. *Id.*

BPA's Position

The idea of treating the NEC/SOS analysis as a minimum standard was introduced in the NEC/SOS initial brief. NEC/SOS has misinterpreted both BPA's TPP policy (*see* Issue 1, *supra*)

and Principle No. 4 (*see* Issue 2, *supra*), neither of which requires demonstration of an 88 percent TPP in the post-2006 period.

“In the face of the massive uncertainty facing BPA over the next seven years (12 years if we assume a five-year rate period starting in FY 2007) to define ‘well-positioned’ so accurately as to permit meaningful statistical assessments would be impossible. This uncertainty ensures that any analysis will contain so many assumptions as to be an essentially judgmental analysis.” DeWolf *et al.*, WP-02-E-BPA-39, at 37.

Evaluation of Positions

The NEC/SOS analysis is not readily comparable to BPA’s TPP analyses. *See* Issue 5, *infra*. NEC/SOS has not demonstrated that when analysis matching BPA’s rate case standards cannot be performed, an analysis with “other assumptions and simplifications,” Weiss, WP-02-E-NA-01, at 12; ought to be adopted as a “minimum,” and be relied on to raise rates.

The uncertainties, *i.e.*, market price and reserve levels, that NEC/SOS cite make it difficult to be confident of any quantitative conclusions, even those of a “minimum” level. NEC/SOS claim that assuming more uncertainty in their analysis than was initially used does not invalidate the conclusion but instead strengthens it, and that statistics is the discipline most suited for dealing with uncertainty. NEC/SOS Ex. Brief, WP-02-R-NEC/SOS-01, at 7-8. This may be true when the uncertainty is of a statistical nature, such as the uncertainty over the supply of runoff available to drive hydropower generation, for which there is an extensive statistical history. However, the uncertainties cited by BPA as factors making statistical analysis of Principle No. 4 virtually meaningless are not of this nature. In Issue 3, *supra*, there are many assumptions listed that reflect political uncertainty:

- The portion of the regional fish and wildlife plan that BPA would be required to fund. UCUT Brief, WP-20-B-UC-01, at 18-19.
- Whether BPA would be required to continue servicing debt on projects that no longer serve a power purpose in the event some dams are breached. DeWolf *et al.*, WP-02-E-BPA-39, at 30.
- How national and state electricity industry restructuring plans will have affected the make-up of BPA’s customer groups or the mechanisms through which BPA sells power to its customers. DeWolf *et al.*, WP-02-E-BPA-39, at 36.
- Whether BPA will selling power at cost-based rates or market rates. Saven, WP-02-E-NI-01, at 8.

There are assumptions listed in Issue 3, *supra*, that reflect uncertainty over the speed at which human knowledge or financial creativity will progress:

- How much uncertainty there will be about post-2006 fish and wildlife costs--the range may have broadened or shrunk, and may have increased or decreased in average cost.

DeWolf *et al.*, WP-02-E-BPA-39, at 36. There is currently no clear scientific consensus on how to save the salmon, DeWolf *et al.*, WP-02-E-BPA-39, at 28, but the science may be more conclusive five years hence.

- What additional financial risk management tools will be available to BPA to use in reaching its TPP goal. DeWolf *et al.*, WP-02-E-BPA-39, at 37.

The assertion by NEC/SOS that *statistics* ought to be used to assess uncertainty over the future actions of political bodies or uncertainty over the pace of scientific progress and financial engineering progress vastly overstates the power of statistics.

Decision

NEC/SOS's analysis of BPA's post-2006 rates and TPP need not be treated as a minimum criterion for Principle No. 4. The analysis contains so many assumptions that it cannot be persuasive.

Issue 5

Whether either NEC/SOS's analysis or CRITFC/Yakama's analysis demonstrates that BPA has not met Principle No. 4.

Parties' Positions

NEC/SOS, CRITFC/Yakama and OPUC contend that there is analysis that indicates Principle No. 4 is not met with BPA's proposal.

CRITFC/Yakama argue that they have provided analysis, using Strandsim, that demonstrates that the projected average ending reserve in BPA's initial proposal is too low to meet Principle No. 4. Sheets, WP-02-E-CR/YA-05, at 7. On the other hand, NRU 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-01, at 13-14. CRITFC/Yakama used a NWPPC report entitled "Analysis of the BPA's Potential Future Costs and Revenues" and the Council's "Strandsim" model to justify CRITFC/Yakama argument that BPA should establish a \$1.6 billion ending reserve target. 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 in BPA's proposal compared to those in the NWPPC's study. "His [CRITFC/Yakama's] conclusions go well beyond any that may be fairly drawn from that study. His recommendations should be rejected." NRU Brief, WP-0-B-NI-01, at 13-14.

CRITFC/Yakama also argue that NEC/SOS's analysis shows that BPA's probability that it can maintain rates after 2006 that are less than market rates is less than 88 percent. CRITFC/Yakama Brief, WP-02-B-CR/YA-01, at 45.

NEC/SOS state that "[g]iven the variance in the market price forecast and ending reserve levels, BPA's ability to raise rates high enough to meet its expected costs is well below 88 percent in the

second rate period.” NEC/SOS Brief, WP-02-B-NA/SA-01, at 24. “NWECS analysis, in brief, calculated how high BPA’s rates would have to be raised after 2006 given different ending (2006) reserve levels. Using only data provided by BPA, it then calculated the probability of those rates being under the market forecast, given the variance of that market forecast and the variance of the ending reserve level. The result was that probability was substantially lower than the 88 percent level demanded by the 1993 policy standard (and Principle No. 4).” *Id.* at 19. NEC/SOS also assert that “BPA must be able to reset rates post-2006 in order to meet its 1993 Policy and Principle No. 4. However, Bonneville cannot raise its rates above market without causing customers to leave its service. No party, including Bonneville, has demonstrated in any objective fashion that this condition can be met with a high probability. The only attempt was a single-point analysis by BPA which suggests that probability is only 50 percent, well below the standard required.” *Id.* at 37.

OPUC incorporates NEC/SOS and CRITFC/Yakama’s positions on compliance with Principle No. 4. OPUC Ex. Brief, WP-02-R-OP-01, at 3-4.

BPA’s Position

It is impossible to do this analysis with the rigor that TPP analyses require. DeWolf *et al.*, WP-02-E-BPA-39, at 35. There are many severe technical and assumptive problems besetting any attempt to assess the post-2006 TPP. *See* list of problems under BPA Position for Issue 3, *supra*.

NEC/SOS have misinterpreted Principle No. 4, which does not require demonstration of an 88 percent TPP in the post-2006 period. *See* Issue 2, *supra*.

Evaluation of Positions

Principle No. 4 requires that BPA design rates and contracts which will position BPA to achieve similarly high TPP for the post-2006 period by building financial reserve levels and through other mechanisms. Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 355. “Principle No. 4 does not say that BPA will take actions now that result in an 88 percent TPP for the post-FY 2006 period calculated as of today or calculated as of FY 2006, but rather that BPA will *position* itself (now) to be able to achieve similarly high TPPs post-FY 2006 period [sic].” DeWolf *et al.*, WP-02-E-BPA-39, at 37. Principle No. 4 only calls for positioning to achieve a “similarly high” TPP, that is, 80 percent to 88 percent, for the post-2006 period, not 88 percent. *See* Issue 2, *supra*.

BPA has submitted a reasoned analysis of the issue of whether Principle No. 4 has been satisfied by BPA’s 2002 rates. This reasoned analysis did not rely primarily on quantitative analysis, but two quantitative analyses were provided that support the satisfaction of Principle No. 4. The quantitative analysis of TPP is an especially rigorous analysis. Neither the rough approximation provided by BPA nor the NEC/SOS analysis match the rigor that BPA demands of TPP studies. BPA rebutted the NEC/SOS analysis in DeWolf *et al.*, WP-02-E-BPA 39, at 34-39. In their brief on exceptions, NEC/SOS argue that they have submitted a meaningful assessment, “so evidently it is possible--it is only a question of whether it is correct. BPA must not be allowed to

arbitrarily ignore the quantitative demonstration our expert witnesses presented which shows principle 4 is not being met by BPA's rates." NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 7. However, BPA has argued that the NEC/SOS analysis is not meaningful and does not demonstrate that BPA's proposal does not meet Principle No. 4. *See* Issue 4, *supra*. NEC/SOS also argue that their analysis is the test BPA put forward in its "Implementation of the Principles" table, Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 366. They contend that BPA is arbitrary and capricious by claiming it used this test to show it is implementing Principle No. 4, but then walking away from it when a more complete analysis shows that conclusion to be incorrect. NEC/SOS Ex. Brief, WP-02-R-NA/SA-01, at 8.

BPA has said that its two analyses, while rough and inexact, support, not prove, BPA's position, and that NEC/SOS's analysis does not disprove it. "In the face of the massive uncertainty facing BPA over the next seven years (12 years if we assume a five-year rate period starting in FY 2007) to define 'well-positioned' so accurately as to permit meaningful statistical assessments would be impossible. This uncertainty ensures that any analysis will contain so many assumptions as to be an essentially judgmental analysis." DeWolf *et al.*, WP-02-E-BPA-39, at 37.

CRITFC/Yakama claim their analysis demonstrates that BPA's projected ending reserve is too low to meet Principle No. 4. Sheets, WP-02-E-CR/YA-05, at 7. CRITFC/Yakama's analysis was done using a model developed by the NWPPC and assumptions developed by CRITFC/Yakama. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 21. However, as with the NEC/SOS analysis, the analysis used different modeling and assumptions than BPA used. Sheets, WP-02-E-CR/YA-01, at 4. "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 also argue that NRU's criticism of their conclusion is inaccurate, and provides no new analysis that suggests that a reserve would not reduce potential rate increases in 2006 and improve repayment to the Treasury. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 21. "This fails the test of reasonableness." *Id.* BPA has not argued that higher reserves would not improve probability to the Treasury, but rather that BPA's rate proposal demonstrates a sufficiently high TPP. *See* ROD section 7.2, *infra*.

Analysis at this time of the post-2006 TPP is not possible with the rigor that TPP analyses require. "The technical problems associated with modeling and quantitative analysis of BPA's power business post-2006 are greater than implied by the Parties." DeWolf *et al.*, WP-02-E-BPA-39, at 37; *see also* Issue 3, *supra*.

There are several reasons why BPA is well positioned for the post-2006 period:

1. The range of fish and wildlife costs in the Principles is robust, in several ways.
 - Five of the 13 Alternatives include high-cost drawdown, even though it is unlikely that Congressional authorization and appropriations would occur in sufficient time for these costs to hit FY 2002-2006.

- Also, in implementing the Principles, BPA has assumed that Congress will appropriate capital funds consistent with the amounts and timing of investments projected in the 13 Alternatives. The level of appropriations required is nearly double the amount Congress has recently appropriated for Columbia River Fish Mitigation.
- Additionally, in developing the range, no test of scientific appropriateness has been applied to the activities included, and such a test might eliminate some of the activities.

DeWolf *et al.*, WP-02-E-BPA-39, at 31.

2. BPA's studies assume BPA will pay all of the power-related costs contained in each of the alternatives. DeWolf *et al.*, WP-02-E-BPA-39, at 30. With respect to the dam breaching alternatives, BPA has included all of the power-related costs for the breach investment, plus assumed that BPA will repay the entire original cost of the dam that is still owed. *Id.* However, following breach, power production may no longer be a project purpose for the breached dams. *Id.* Should Congress authorize dam breaching, it will necessarily look at who should pay both the dam's original investment costs and the costs for breaching. *Id.* With no power generation purpose, it is uncertain whether BPA will remain responsible for the same scope of project costs. *Id.*
3. BPA may not be responsible for all other costs contained in the 13 Alternatives. Currently the region is working to develop a unified regional plan for fish and wildlife. DeWolf *et al.*, WP-02-E-BPA-39, at 31. An element of this plan will include determining what BPA will be responsible for, as well as the responsibilities for the other Federal agencies, states, and local governmental bodies. *Id.* It is not a certainty that BPA will be charged for 100 percent of the costs, because the plan has not been completed or approved, and Congressional action has not been taken. *Id.*

CRITFC/Yakama contend that in the above discussion, BPA appears to be arguing that there are a number of reasons why the more expensive alternatives will not happen, and that this is contrary to BPA's arguments elsewhere that it does not know which alternative will be implemented. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA-01, at 19. NEC/SOS state that "BPA argues that it does not really think all alternatives are equally likely, that all costs are not likely to fall on BPA, and that "no test of scientific appropriateness has been applied to the activities" to assert that its financial fortunes will be better than modeled by NEC. NEC/SOS Ex. Brief, WP-02-R-NEC/SOS-01, at 13. NEC/SOS claim that it is disingenuous and capricious, however, for BPA to make such arguments. *Id.* NEC/SOS claim that in other contexts, BPA argues strongly that other parties' attempts to "second guess" the alternatives' probability of being implemented and costs are not appropriate. *Id.* at 13-14. CRITFC/Yakama and NEC/SOS appear to have misunderstood BPA's statements. BPA certainly does not know which alternative will be implemented, is including the full range of Alternatives, and is modeling the assumption that each of the 13 Alternatives is equally likely to occur. BPA recognizes that the more expensive alternatives could happen. CRITFC/Yakama and NEC/SOS have argued strenuously that they will. The discussion of why BPA considers its range robust is intended to indicate that there are also some reasons why they may not, and therefore BPA's proposal takes a balanced approach, considering the wide range of possibilities and uncertainties.

CRITFC/Yakama also contend that BPA appears to believe that some of the environmental costs will be paid for from Federal appropriations, and that it is not appropriate to assume changes in Federal law that would require Congress to provide funding for Bonneville when its rates have been substantially below market rates for the last 60 years. CRITFC/Yakama Ex. Brief, WP-02-R-CR/YA, at 20-21. They argue that such an assumption would be arbitrary and capricious. *Id.* Again, CRITFC/Yakama appear to have misunderstood BPA's statements. First, fish and wildlife capital costs of the COE and Reclamation, and O&M costs of USFWS are already funded by Federal appropriations. DeWolf *et al.*, WP-02-E-BPA-13, at 13. This would not be a change from current statute or practice. BPA's obligation for these investments is to repay Treasury for funding that Congress provided earlier through the annual appropriations process, not provide the initial funding. Second, BPA's rate proposal does not assume that BPA would directly receive any appropriations, nor does BPA expect that it would get any Federal appropriations for fish and wildlife costs. BPA's point is that this proposal assumes BPA would fully repay the currently applicable power portion of both the existing debt and the capital costs of breaching dams. Since the power portion of any dam would likely change with breaching, it is possible that Congress would reapportion the power purpose, or otherwise not require BPA to repay appropriations already spent on dam breaching. So though BPA recognizes the possibility that it may not retain these obligations, BPA's consideration of whether its rates do provide sufficiently for fish funding makes a conservative assumption--that all of the costs of a regional fish plan will be assigned to the FCRPS and that BPA will be granted no relief from these or other costs by Congress.

Part of the regional plan design will be the determination of what part of the funding will be BPA's responsibility. UCUT Brief, WP-20-B-UC-01, at 18-19. There is no evidence that the NEC/SOS analysis considered this.

NEC/SOS presented evidence that the NEC/SOS analysis is not readily comparable to BPA's TPP analyses. Weiss, WP-02-E-NA-01, at 10-12. NEC/SOS has not demonstrated that when analysis matching BPA's rate case standards cannot be performed, an analysis with "other assumptions and simplifications," *id.* at 12, ought to be relied on to raise rates.

As BPA has pointed out, quantitative analyses of post-2006 TPP require the making of a great many assumptions. *See* Issue 3, *supra*. The arguments by the parties that BPA will not be able to achieve an 80 to 88 percent post-2006 TPP require assuming that BPA's post-2006 fish and wildlife costs will be very high, which in turn requires assuming that the annual levels of appropriations that BPA would have to repay would vastly exceed current or historical levels approved by Congress. Congress has not authorized appropriations even as high as planned in the MOA for the current rate period. Lovell *et al.*, WP-02-E-BPA-40, at 22. An analysis that makes assumptions about future decisions of Congress could just as well assume that Congress would not only approve record levels of appropriations but would also allow BPA significant flexibilities in its repayment planning in order to ensure that such repayment does not cause economic disruptions in the PNW, thereby producing a result indicating a lack of financial problems for BPA. This demonstrates clearly that the result of any such analysis depends critically on political assumptions and is therefore essentially judgmental.

Decision

Neither NEC/SOS's nor CRITFC/Yakama's analysis demonstrates that BPA has not met Principle No. 4.

Issue 6

Whether BPA has met Principle No. 4.

Parties' Positions

NEC/SOS, CRITFC/Yakama, UCUT, and OPUC all claim that BPA has not demonstrated that its proposal meets Principle No. 4. OPUC states that NEC/SOS presented un rebutted testimony that quantitative analysis is possible and that even rudimentary analysis demonstrates that BPA has not met Principle No. 4. OPUC Brief, WP-02-B-OP-01, at 3. "BPA's proposed CRAC revenues of \$125 million to \$175 million per year will be insufficient to meet Principle No. 4 if BPA experiences several successive bad water years or incurs high costs." *Id.* at 9-10.

OPUC incorporates the NEC/SOS and CRITFC/Yakama positions on compliance with Principle No. 4. OPUC Ex. Brief, WP-02-ROP-01, at 3-4.

UCUT asserts that "if fish and wildlife costs are at the high end of the assumptions made by BPA in this rate case, it may not 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-02, at 21. With an 88 percent TPP, there is a 12 percent chance that there will be no reserves and a failure to meet Treasury payment. *Id.*

The DSIs state that nothing in the record supports a judgment that Principle No. 4 would be undermined by adopting an 80 percent TPP. DSI Brief, WP-02-B-DS-01, at 50.

The Shoshone-Bannock Tribes 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-SH-01, at 9.

BPA's Position

BPA has met Principle No. 4.

BPA interprets Principle No. 4 to mean that BPA must position itself reasonably well for, or position itself to have a reasonable expectation of, achieving a similarly high TPP post-2006. BPA asserts that the 2002 rates position BPA's power function reasonably well to be able to obtain a "similarly high" TPP for the post-2006 period through such mechanisms as potential rate increases, a planned build-up of reserves, potential rate adjustment mechanisms, and other actions that can be taken between now and 2007. DeWolf *et al.*, WP-02-E-BPA-39, Attachment 4, at 1. Meeting Principle No. 4 does not require that BPA demonstrate a certainty of 88 percent TPP for FY 2007-2011, when calculated in FY 2000.

BPA considers that Principle No. 4 is either satisfied or violated as of the time of the release of the 2002 power rate case ROD. At the time of that release, BPA either has or has not positioned itself reasonably well to achieve a similarly high TPP for the post-2006 period. Subsequent good or bad luck (*i.e.*, high or low ending FY 2006 reserves) will not change that. Cross-Examination Exhibit, WP-02-E-NA/OP/CR/YA-11.

In addition, there are reasons why future fish and wildlife costs may not necessarily be entirely BPA's responsibility. Current debt repayment obligations for dams are not certain to continue if the breaching of those dams is authorized. DeWolf *et al.*, WP-02-E-BPA-39, at 31. The Direct Program budget from CBFWA has not been approved by the NWPPC yet.

In its brief on exceptions, OPUC argues that BPA has interpreted Principle No. 4 as if compliance with the principle is entirely governed by BPA's discretion, and OPUC takes exception to BPA's determination that it has met Principle No. 4. OPUC Ex. Brief, WP-02-R-OP-01, at 6. However, BPA believes its proposal meets Principle No. 4 though it does not rely primarily on quantitative analysis.

If BPA misses a payment to Treasury, it does not mean that funding for fish and wildlife programs or measures is being reduced. DeWolf *et al.*, WP-02-E-BPA-13, at 14. Rather, it means that repayment or reimbursement is delayed for funding that already has been expended. *Id.* Fish and wildlife costs that do not take the form of payments to Treasury are higher in the priority of payments. *Id.* Inasmuch as payments to Treasury represent the lowest priority of payments, these higher priority costs are virtually guaranteed to be recovered, which is to say, the availability of cash to fund these costs is certain. *Id.* at 14-15.

Evaluation of Positions

The quantitative criteria cited by the parties have been rejected. *See* Issues 1-5, *supra*. BPA has submitted a reasoned analysis of the issue of whether Principle No. 4 has been satisfied by BPA's 2002 power rates. This reasoned analysis did not rely primarily on quantitative analysis, but two quantitative analyses were provided that support for the satisfaction of Principle No. 4. DeWolf *et al.*, WP-02-E-BPA-39, at 35. The quantitative analysis of TPP is an especially rigorous analysis. Neither the rough approximation provided by BPA, nor the NEC/SOS or CRITFC/Yakama analyses match the rigor that BPA demands of TPP studies. BPA rebutted the NEC/SOS analysis in DeWolf *et al.*, WP-E-02-BPA-39, at 34-39.

"BPA has not performed Strandsim analyses of this issue." DeWolf *et al.*, WP-02-E-BPA-39, at 39. As CRITFC/Yakama's testimony admits, Strandsim is not one of the models used by BPA in its rate case. 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, described above, both between now and FY 2006 and during the post-FY 2006 period." DeWolf *et al.*, WP-E-02-BPA-39, at 39.

Current science is highly uncertain; other parties have testified that the costs BPA is using are excessive, not inadequate. In the face of this uncertainty, the Administrator must still finish a

power rate case in time to sell the Federal power when the rates currently in effect expire at the end of FY 2001.

There are several features of BPA's 2002 power rates that contribute to BPA's confidence that it is positioning itself reasonably well to achieve a high TPP in the post-2006 years.

See DeWolf et al., WP-02-E-BPA-39, Attachment 4. They include the facts that BPA can set rates again in 2007, and can raise the rates substantially if necessary, as it has in the past; that any Slice customers will be taking on many risks that BPA has previously borne and would be committing themselves to 10-year contracts; and that BPA is offering three-year contracts, as well as five-year contracts, giving BPA the opportunity to adjust rates in 2005, if necessary. *Id.* The expected values of BPA's annual financial reserves are projected in the 2002 rate case to increase quite substantially, though there is very large uncertainty in these projections. *Id.* This planned increase is on top of a healthy level of starting reserves, and BPA has designed a CRAC that could raise hundreds of millions of dollars of additional revenue if needed. *See* Response to NA-BPA:004, *id.*, for a more complete list. *See also* DeWolf *et al.*, WP-02-E-BPA-13, section 4; Volume 1, Chapter 13, Revenue Requirement Study Documentation, WP-02-E-BPA-02A.

Parties have claimed that BPA's 2002 power rates do not meet Principle No. 4 because BPA does not demonstrate an 88 percent TPP for post-2006, but Principle No. 4 does not require this. *See* Issues 2 and 3, *supra*. Parties also have claimed that the NEC/SOS and CRITFC/Yakama analyses demonstrate that BPA's proposal does not meet Principle No. 4; however, the NEC/SOS analyses contain so many assumptions that they are not persuasive. *See* Issue 5, *supra*. BPA has provided reasoned analysis showing that its proposal meets Principle No. 4. *See* Issues 2-5, *supra* for arguments that demonstrate that BPA is meeting Principle No. 4.

Decision

BPA has met Principle No. 4.

5.5 Functionalization of BPA's Fiber Optic Communication Equipment

Issue

Whether BPA's investment in fiber optic communications equipment is appropriately assigned to the TBL.

Parties' Positions

The IOUs/Enron argued that BPA should not be allowed to assign the investment in fiber optic communications equipment to TBL, because TBL has the opportunity to minimize its costs and exposure to financial risk by negotiating an agreement with a private telecommunications company whereby BPA could allow its infrastructure to be used for a fiber optic network in exchange for access to a portion of the fiber optics cable. Hornby, WP-02-E-AC/GE/IP/MP/PL/PS/EN-06, at 6. In the alternative, they argued that BPA should be required to turn over the financial responsibility for the investment to date, and future

investments, to the PBL. *Id.* at 6. The IOUs/Enron also contended that BPA has effectively entered the fiber optics market by making this massive investment and leasing the resulting excess fiber optic cable to third parties. *Id.* at 7. Therefore, if BPA wishes to participate in this competitive market, it should functionalize its fiber optic cable costs to the PBL, which operates in a competitive, wholesale power market. *Id.* at 7-8. Further, any marketing advantage resulting from BPA's leasing of fiber optic cable will inure to the PBL, not the TBL. *Id.* at 8; Hogan, WP-02-E-AC/GE/IP/MP/PL/PS/EN-07, at 6. The IOUs also assert that as a matter of law under sections 7(a) and 7(g) of the Northwest Power Act, BPA's investment in fiber optic equipment must be allocated to power rates. IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 76.

PPC contended that "it is entirely appropriate for the costs associated with investment in fiber optics [to] be functionalized to TBL." Hansen *et al.*, WP-02-E-PP-09, at 24. They cite that "fiber optic communication spending to date has been appropriate and part of the normal TBL communications system upgrade process; that the incremental cost of dark fiber is minimal compared with the fixed cost of installation; that installation of additional dark fiber over and above current need is a sound business practice; and that the IOUs' concerns about risk to TBL and its transmission customers are unfounded." *Id.* WPAG also responded to the IOU proposal, arguing that "it runs directly contrary to cost causation principles. The fiber optic system was installed for the purpose of maintaining and improving reliable operation of the transmission system." Cross *et al.*, WP-02-E-WA-02, at 10.

BPA's Position

BPA's communications equipment, including fiber optic cable, is used in the operation of the Federal Columbia River Transmission System (FCRTS). DeWolf *et al.*, WP-02-E-BPA-39, at 47. Functionalization should be based on use and cost causation. *Id.* at 48. The overall investments in fiber optic cable have been and are being made ultimately for transmission system usage. *Id.*

Evaluation of Positions

The IOUs/Enron contended that BPA's fiber optic investments are "at the risk of its TBL customers" and that "the private sector has demonstrated it can provide this type of service at significantly lower cost . . ." Hogan, WP-02-E-AC/GE/IP/MP/PL/PS/EN-07, at 5. In fact, the IOUs/Enron asserted that the appropriate cost to BPA's transmission customers for upgrading the communication system is zero, citing a 1992 proposal to BPA from a private telecommunications company that allegedly demonstrated that the TBL could have received fiber optic communications service at no cost in exchange for the use of transmission rights-of-way for installing fiber optic cable. *Id.* at 2-3. The IOUs/Enron also argued that there is the potential risk that "fiber optics are rendered obsolete or reduced in value by new communications technologies." Hornby, WP-02-E-AC/GE/IP/MP/PL/PS/EN-06, at 6-7. Therefore, ". . . if TBL has the opportunity to minimize its costs and exposure to financial risk by outsourcing a function or buying a resource, it should do so. The TBL has an opportunity to do just that with respect to fiber optic cable." *Id.* at 6. In general, the IOUs/Enron state, the Government should not invest in risky new technologies when private sector companies will accept the risk and can do the job at a lower cost. *Id.* at 7.

BPA disagrees with the IOUs/Enron assertion that BPA should be foreclosed from making a business decision to install fiber optic cable on its own transmission system for its own communications purposes just because there may be a private company somewhere who also deals in fiber optic cable installations (allegedly at a lower cost). The IOUs/Enron argued that a private company can do it at lower cost, but the only evidence they provided is an anecdotal discussion about a proposal submitted to BPA in 1992 by Touch America that BPA decided not to accept as proposed. Hogan, WP-02-E-AC/GE/IP/MP/PL/PS/EC-07, at 2-3. “In August 1994, BPA decided that it wanted to own the entire cable and lease a portion of the cable to Touch America. BPA replaced the Touch America proposal with a lease agreement.” *Id.* at 4. The IOUs/Enron then stated that “[t]his was obviously a significant departure from what had been discussed previously” and alleged that this act “indicated BPA’s decision to enter the dark fiber business for more than the use of its transmission customers.” *Id.* However, there is no evidence in the record to substantiate this assertion. Coincidentally, this piece of testimony is sponsored by the general manager of operations with Touch America, a wholly owned telecommunications subsidiary of the Montana Power Company (MPC), one of the parties sponsoring this testimony. *Id.* at 1.

PPC argued that “the IOUs’ concerns about risk to TBL and its transmission customers are unfounded.” Hansen *et al.*, WP-02-E-PP-09, at 24. They asserted that, concerning transmission rates, customers “will have sufficient opportunity on the record to influence this classification process so as to ensure that revenues to cover TBL costs are allocated appropriately” in the Northwest Power Act’s section 7(i) process and by the fact that BPA “has voluntarily submitted itself to FERC review of TBL rates, terms and conditions similar to standards applicable to other transmission owners.” *Id.* at 28.

In the alternative, the IOUs/Enron argued that BPA should be required to turn over the financial responsibility for the investment to date, and future investments, to the PBL. Hornby, WP-02-E-AC/GE/IP/MP/PL/PS/EC-06, at 7. The IOUs/Enron contended that BPA has effectively entered the fiber optics market by making this massive investment and leasing the resulting excess fiber optic cable to third parties. *Id.* at 7. Therefore, if BPA wishes to participate in this competitive market, it should functionalize its fiber optic cable costs to the PBL, which operates in a competitive, wholesale power market. *Id.* at 7-8. Further, the IOUs/Enron state, any marketing advantage resulting from BPA’s leasing of fiber optic cable will inure to the PBL, not the TBL. *Id.* at 8; Hogan, WP-02-E-AC/GE/IP/MP/PL/PS/EN-07, at 6.

BPA disagrees with the IOUs/Enron allegation that the costs of BPA’s investment in fiber optics must be functionalized to power:

BPA’s communication equipment, including fiber optic cable, is used in the operation of the FCRTS. In previous rate cases, BPA functionalized between generation and transmission the investment in the Dittmer Control Center and supporting communications equipment needed to perform the resource dispatch and control operations. The portion needed for dispatch and control of the Federal resources were assigned to power. Now that transmission entities are required to provide ancillary services, which include dispatch and control, and the

power function is required to take these services at the same rates charged to others, what previously had been the generation portion of these investments is now appropriately assigned entirely to the transmission function. In BPA's transmission rate case, these costs will be allocated to transmission or ancillary services. Should it be determined that the PBL is responsible for costs associated with any incidental uses of communications plant other than for transmission or ancillary services, [the functionalization of] those costs will be represented by a user charge from the TBL to the PBL. An assumption concerning such a charge is reflected in the inter-business line expenses in the generation revenue requirements. In the subsequent transmission rate case, we expect that incidental uses will be appropriately accounted for in the transmission revenue requirement.

DeWolf *et al.*, WP-02-E-BPA-39, at 47-48.

In addition, “[f]unctionalization should be based on use and cost causation. The overall investments have been and are being made ultimately for transmission system usage.” *Id.* at 48.

The PPC agreed that the intent of BPA's fiber optic investment was for transmission. They stated that “BPA's fiber optic investment is communication for the support and reliability of its transmission system. Therefore, it is reasonable for BPA to functionalize equipment primarily for that purpose to the TBL.” Hansen *et al.*, WP-02-E-PP-09, at 25. WPAG also agreed concerning the intent of these investments. They stated that the IOU/Enron “proposal to charge the entire cost of the fiber optic system to PBL runs directly contrary to cost causation principles. The fiber optic system was installed for the purpose of maintaining and improving reliable operation of the transmission system.” Cross *et al.*, WP-02-E-WA-02, at 10. PPC further disagreed that PBL's customers are the intended recipients of the excess capacity. “The intended recipients . . . are private companies, non-profit entities and BPA's public agency customers. . . . [S]ome BPA utility customers . . . that place very little generation load on BPA . . . may potentially benefit from this service.” Hansen *et al.*, WP-02-E-PP-09, at 26.

The IOUs argue that “. . . these huge expenditures [in fiber optic cable] should not be assigned to TBL because private sector companies in the fiber optic business have been willing to install fiber optic cable on BPA's transmission lines at no cost to BPA.” IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 74. “Because BPA's fiber optic capital costs could have been completely avoided, . . . they were not incurred for the transmission function and should not be functionalized to transmission and should not be collected in transmission rates.” *Id.* at 76. The IOUs also argue that under section 7(a) of the Northwest Power Act, BPA's transmission rates must equitably allocate the costs of the Federal transmission system between Federal and non-Federal power utilizing such system. *Id.* They cite *U.S. Department of Energy-Bonneville Power Admin.*, 25 FERC ¶ 61,140, 61,375 (1983), for the proposition that BPA's power costs and transmission costs be separately accounted for and that “costs assigned to transmission are only transmission related costs . . .” *Id.* “Further, Section 7(g) of the Northwest Power Act requires that all costs not otherwise allocated by law shall be equitably allocated to power rates. Therefore, BPA's fiber optics capital costs, which cannot be allocated to transmission rates, must be allocated to power rates under Section 7(g) of the Northwest Power Act.” *Id.*

The IOUs' argument fails because it is based on an incorrect premise that BPA's fiber optic capital costs have been incorrectly assigned to transmission. This fragile line of reasoning rests solely on the contention that, because BPA chose not to exchange access to certain transmission rights-of-way for some fiber optic communication service, there was an ulterior motive having nothing to do with upgrading BPA's transmission communication system. As stated above, "[f]unctionalization should be based on use and cost causation. The overall investments have been and are being made ultimately for transmission system usage." DeWolf *et al.*, WP-02-E-BPA-39, at 48.

In their brief on exceptions, the IOUs/Enron stated that "BPA misunderstands our position and fails to address the principal argument of the Northwest Investor-owned Utilities, that BPA's transmission customers should not bear the cost of investments that are not intended to benefit or to provide service to transmission customers." IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 55. Unfortunately, this specific conclusion from their initial brief was inadvertently omitted from the discussion of the issue in the Draft ROD. They further stated in their brief on exceptions that "it is our position, supported by the testimony of Richard Hornby and Patrick Hogan, that BPA has not made a business decision merely to install fiber optic cable for its own communications purposes, but has made a business decision to enter the highly competitive and risky fiber optic telecommunications business, and the captive customers of TBL's monopoly transmission system should not bear the risk or expense of this new BPA business venture." *Id.* at 55-56.

The IOUs/Enron referred to the testimony of their witness to support their characterizations of BPA's motives pertaining to the installation of fiber optic cable. They contended that "Mr. Hornby's testimony demonstrates that BPA has invested a substantial amount of money in a fiber optic cable network that BPA does not currently need," *id.*, at 56; a contention that manipulates the words of their witness to imply that the communications network itself is beyond BPA's needs rather than the full capacity of fiber optic cable being installed. Hornby, WP-02-E-AC/GE/IP/MP/PL/PS/EN-06, at 5. They further contended that the witness' testimony demonstrates that this network is above and beyond what BPA can be "reasonably be expected to use to meet its future transmission or generation-related needs." IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 56. Unfortunately, Mr. Hornby's testimony makes no such demonstration or even pronouncement on this point. They further offer as support to their position that, "Mr. Hornby demonstrates that it is unrealistic and unreasonable for BPA to assume that it will be able to recall this leased capacity." *Id.* at 56-57. Mr. Hornby's testimony provides no such demonstration; he merely opines that BPA would be unable to recall the leased capacity once it was relied on by rural communities, but then immediately undercuts that conclusion by saying that rural communities do not "necessarily lack economically viable options from commercial providers." Hornby, WP-02-E-AC/GE/IP/MP/PL/PS/EN-06, at 5.

The IOUs/Enron further stated that "[u]ncontroverted evidence, in the form of Mr. Hogan's testimony, demonstrates that a specific, identified company was willing and able to pay for and install fiber optic cable to meet BPA's communications needs at no cost to BPA, in exchange for the use of BPA's rights-of-way. Instead, BPA spent \$103 million since 1993 for equipment and services that BPA could have obtained for free." IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 56. Mr. Hogan's testimony in no way addresses or

substantiates whether this proposal, which was discussed earlier, was sufficient to meet BPA's needs and requirements concerning communications facilities. However, this proposal and Mr. Hornby's testimony give the IOUs/Enron the basis to state that since "the costs of fiber optic facilities were avoidable, and because the vast majority of expenditures was for facilities not currently used and that may never be used to provide transmission service, the associated costs cannot be assigned to TBL and must be functionalized to PBL, as a matter of law." *Id.* at 57. They contended that, in the Draft ROD, "BPA beats the drum of cost causation without addressing the central and undisputed factual tenet of the Northwest Investor-owned Utilities' argument that BPA's excessive expenditure for fiber optic communications equipment is not justified or "caused" by TBL's communication needs." *Id.* Such loose characterization of "undisputed factual tenet" concerning whether the expenditures truly are excessive or not justified by TBL's needs is a stretch of reasoning that is not, as discussed, definitively supported in the cases of the witnesses. In fact, the Hearing Officer recognized that "Mr. Hornby and Mr. Hogan have difficulty focusing on the issues in this case and stray in and out of their answers to areas that are not allowed under the FRN. . . . [T]he testimony overreaches by revisiting history and second-guessing BPA's policy decisions concerning fiber optic investment which are not at issue in this proceeding. Any discussion of cost functionalization appears as a "tack-on" item in an effort to save what would otherwise be inadmissible testimony." Order Granting In Part and Denying In Part Motions to Strike Testimony, WP-02-O-14, at 12.

BPA asserted, as earlier cited, that the installation of fiber optic cable was ultimately for transmission system usage and, as earlier cited, that position was supported by PPC and WPAG. Most importantly, the IOUs/Enron offer no evidence that BPA would not recover the cost associated with the excess capacity through the leases, which would be reflected as revenue credits in developing transmission rates, thus achieving the end state they argue for, that transmission rates not bear those costs. Without consideration of the revenue from the excess capacity leases, the IOUs/Enron contention that the "allocation of excess capacity fiber optic cable costs is not governed by the Transmission Act . . . or any provision of law other than Section 7(g) of the Northwest Power Act. Therefore, the bulk of BPA's investment in fiber optics cannot be allocated to transmission rates and must be allocated to power rates under Section 7(g) of the Northwest Power Act." IOU Ex. Brief, WP-02-R-AC/GE/IP/MP/PL/PS/EN-01, at 59; is an incomplete view of the issue. This is also true for their argument that "FERC policy does not permit utilities to include in transmission rates the costs of facilities that are not caused by and are not used to provide transmission services. Costs of fiber optic cable that are intended to benefit customers of BPA's new telecommunications business, rather than TBL's transmission customers, and that are excess to TBL's real current and future needs are not used to provide transmission services and cannot be recovered through transmission rates." *Id.* at 58.

Decision

BPA's investment in fiber optic communications equipment is appropriately assigned to the TBL. In BPA's transmission rate case, communications equipment costs will be assigned to transmission or ancillary services. Should it be determined that the PBL is responsible for costs associated with any incidental uses of communications plant, the functionalization of those costs will be represented by a user charge from the TBL to the PBL.

5.6 Functionalization of the Costs of Energy Conservation and Renewable Resources

Issue

Whether BPA appropriately functionalized energy conservation and renewable resource costs entirely to the generation function.

Parties' Positions

WPAG argues that, because BPA's energy conservation and renewable resource programs provide certain benefits to the transmission system, BPA should functionalize a portion of the costs of these programs to transmission. Cross *et al.*, WP-02-E-WA-01, at 22-23. WPAG argues that BPA should assign a percentage of the conservation and renewable resource programs to transmission equal to the percentage that the TBL revenue requirement constitutes of BPA's total revenue requirement. *Id.* at 23; WPAG Brief, WP-02-B-WA-01, at 13.

Various parties rebutted WPAG's proposed functionalization. The IOUs state that WPAG's proposal did not comply with the treatment of conservation directed by the Northwest Power Act and that "renewables are power generating resources and should therefore be included in generation revenue requirements." IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 72-73. The Joint DSIs contended that WPAG provided no basis of support for its proposal. Schoenbeck and Bliven, WP-02-E-DS/AL/VN-06, at 29. PP&L Montana LLC (PPLM) added that WPAG's proposal "reflects neither how costs were incurred nor how benefits from these programs accrue. It therefore violates the fundamental ratemaking principle that rates should reflect cost causation." PPLM Brief, WP-02-B-PM-01, at 12. PPLM further argues that "any reductions in transmission demand incidental to conservation or renewable programs are very location-specific," which WPAG did not consider. *Id.*

BPA's Position

BPA stated that this issue, with respect to conservation, was raised by WPAG and resolved in the 1993 rate case, wherein the decision was made "that section 7(g) of the Northwest Power Act requires conservation costs to be assigned to power rates and, while that did not preclude the costs from being functionalized to transmission, the transmission component would still need to be assigned to power rates." DeWolf *et al.*, WP-02-E-BPA-39, at 46. In addition, since transmission rates under FERC's open access provisions no longer create separate rates for wheeling and transmission of Federal power, there is less ability to functionalize conservation costs to transmission. *Id.* Further, renewable resources are clearly power-generating resources and, for ratemaking purposes, their costs should be included in the generation, not transmission, revenue requirements consistent with the ratemaking provisions of the Northwest Power Act. *Id.* at 47.

Evaluation of Positions

Under the Northwest Power Act, BPA can acquire energy conservation and renewable resources. 16 U.S.C. §839d. The Northwest Power Act defines the term “resource” as “electric power, including the actual or planned electric power capability of generating facilities, or actual or planned load reduction resulting from direct application of a renewable energy resource by a consumer, or from a conservation measure.” 16 U.S.C. §839a(19). The costs of conservation and renewable resources are components of the generation revenue requirements. For ratemaking purposes, energy conservation costs are included in the conservation resource pool. The costs of renewable resources can be included in any of the resource pools depending on BPA’s determination of the character of the resource.

WPAG contended that BPA’s conservation and renewable energy programs benefit both generation and transmission systems by reducing the need for new transmission facilities. Cross *et al.*, WP-02-E-WA-01, at 22-23. Consequently, “BPA should assign a percentage of the conservation and renewable resource programs to transmission equal to the percentage that the TBL revenue requirement constitutes of BPA’s total revenue requirement.” *Id.* Otherwise, BPA’s “proposed functionalization will result in the PBL customers being unfairly saddled with conservation and renewable resource costs which provide benefits to the TBL.” WPAG Brief, WP-02-B-WA-01, at 13.

However, this issue, with respect to conservation, was raised by WPAG and resolved in the 1993 rate case, wherein the decision was made “that section 7(g) of the Northwest Power Act requires conservation costs to be assigned to power rates and, while that did not preclude the costs from being functionalized to transmission, the transmission component would still need to be assigned to power rates.” DeWolf *et al.*, WP-02-E-BPA-39, at 46. The fact that Subscription products are primarily undelivered power further reduces the possibility of assigning conservation costs to transmission. *Id.* In addition, since transmission rates under FERC’s open access provisions no longer create separate rates for wheeling and transmission of Federal power, there is less ability to functionalize conservation costs to transmission. *Id.* Further, renewable resources “are clearly power-generating resources and, for ratemaking purposes, their costs should be included in the generation, not transmission, revenue requirements consistent with the ratemaking provisions of the Northwest Power Act.” *Id.* at 47.

WPAG responded to the 1993 rate case resolution of the issue, arguing that “the fact that an issue was addressed in a prior rate proceeding does not prohibit BPA from addressing the issue on its merits in a subsequent proceeding.” WPAG Brief, WP-02-B-WA-01, at 13-14. WPAG also asserts that:

Section 7(g) of the Regional Act deals with the allocation of costs not otherwise allocated under other provisions of the law. Section 7(g) does not speak to the functionalization of costs. The functionalization step normally occurs before the allocation step in the rate setting process. As a consequence, section 7(g) only deals with the allocation of costs that have been properly functionalized to the power function. Section 7(g) poses no impediment to the proper functionalization

of conservation and renewable resources costs between TBL and PBL prior to allocation pursuant to section 7(g).

Id. at 14.

WPAG also offered the unsupported statement that “many costs that were previously allocated to power rates under section 7(g) have now been functionalized to transmission.” *Id.* at 15.

BPA disagrees with WPAG’s assertion that the use of the term “allocation” in section 7(g) specifically refers to the step in utility ratemaking following functionalization and, thereby, only addresses those costs functionalized to generation. As stated in the 1993 ROD, BPA believes that the Northwest Power Act does not speak to functionalization. Section 7(g) of the Northwest Power Act requires that all of the costs of energy conservation, regardless of functionalization, must be allocated to power rates. 1993 ROD, WP-93-A-02, at 40.

The IOUs also addressed the ratemaking directives of the Northwest Power Act, arguing that WPAG’s proposal “is inconsistent with the Northwest Power Act, which treats conservation as a resource. Moreover, renewable resources are power-generating resources and should therefore be included in generation, not transmission, revenue requirements.” IOU Brief, WP-02-B-AC/GE/IP/MP/PL/PS-01, at 72-73. Others addressed the technical merits of WPAG’s proposal. The Joint DSIs contended that WPAG “provided no basis to determine that its proposed allocation of costs between functions is reasonable. WPAG must present a basis for determining any savings in transmission costs due to conservation and renewables before any allocations could even be considered.” Schoenbeck and Bliven, WP-02-E-DS/AL/VN-06, at 29. PPLM argued that “BPA’s conservation and renewable resource programs are generally designed, evaluated, and developed to provide energy savings and, thereby, reduce or defer the need for additional generation resources and power purchases. Any reduction that such programs have caused in the need for investment in transmission facilities has been merely incidental to BPA’s decision to acquire conservation and renewable resources.” PPLM Brief, WP-02-B-PM-01, at 11-12. PPLM concluded from this that WPAG’s proposal “violates the fundamental ratemaking principle that rates should reflect cost causation.” *Id.* Moreover, any reductions in transmission demand incidental to conservation or renewable programs are very location-specific. This fact would necessitate that both calculation of the assignable percentages and determination of the transmission segment appropriate for assignment be made on a resource-by-resource basis. *Id.* at 12. PPLM concludes that “WPAG’s proposal fails to address or even recognize this issue.” *Id.*

WPAG has supported their proposed functionalization of renewable energy programs with the contention that new renewable resource technologies such as fuel cells “will allow generation to be placed close to load, thereby easing constraints on the transmission system” and that “solar photovoltaic generators . . . hold the promise of serving remote rural loads at a much lower cost than building transmission lines to serve those loads.” Cross *et al.*, WP-02-E-WA-01, at 23. However, they fail to even link these technologies with BPA’s renewable resources program, which consists primarily of funding for the development of geothermal and wind resources. Volume 1, Revenue Requirement Study Documentation, WP-02-E-BPA-02A, at 34-36.

WPAG concludes that “BPA should recognize the uncontroverted fact that conservation and renewable resources provide benefits to both the power and transmission systems, and should functionalize to the TBL a portion of the costs of the conservation and renewable resource programs based on the benefit that each derives from such programs.” WPAG Brief, WP-02-B-WA-01, at 15. Yet the WPAG proposal does not link its functionalization percentages to any demonstration of benefits, only to overall costs. As the Joint DSIs argue, WPAG did not present any basis for determining savings in transmission costs from conservation or renewable energy projects. Schoenbeck and Bliven, WP-02-E-DS/AL/VN-06, at 29.

Decision

BPA appropriately functionalized the costs of energy conservation and renewable resources to the generation function.

5.7 Segmentation and Cost Assignment of U.S. Army Corps of Engineers (COE) and Bureau of Reclamation (Reclamation) Transmission Facilities

Issue

Whether BPA should include COE and Reclamation generator step-up transformers (GSU) in the Generation Integration Segment; segment COE and Reclamation transmission facilities to Generation Integration (GI), Integrated Network and Delivery Segments respectively; and assign all GI Segment costs to generation to be recovered in power rates and assign annual costs of COE and Reclamation transmission facilities to Network and Delivery Segments to be recovered in transmission rates.

Parties’ Positions

PPLM supports BPA’s proposal to recover GSUs in the GI Segment and assign all GI costs to generation to be recovered in power rates. Brooks, WP-02-E-PM-01, at 11-14. WPAG supports BPA’s proposal to assign COE and Reclamation transmission costs to the Network and Delivery Segments. Cross *et al.*, WP-02-E-WA-01, at 21.

BPA’s Position

BPA proposed to include all of the COE and Reclamation investment and associated annual costs in the generation revenue requirement and generation repayment study, including the costs formerly functionalized to transmission. DeClerck *et al.*, WP-02-E-BPA-27, at 2. BPA proposed to assign the investment for the COE and Reclamation transmission facilities to the GI, Network, or Delivery Segments, and include the cost for COE and Reclamation GSUs in the GI Segment. *Id.* at 2-3. BPA’s proposal assigned all of the GI Segment costs to generation to be recovered through power rates, with the remaining COE and Reclamation transmission costs assigned to the Network and Delivery Segments to be recovered through transmission rates. *Id.* at 2-4.

Evaluation of Positions

BPA proposed to include all COE and Reclamation investments in the generation revenue requirement and repayment studies. DeClerck *et al.*, WP-02-E-BPA-27, at 2. BPA's proposal then identified the COE and Reclamation investment in GSUs and transmission facilities and assigns them to transmission segments so that the annual cost associated with these facilities can be developed and assigned to generation or transmission for cost recovery. *Id.* BPA's proposal assigned the investment for the COE and Reclamation transmission facilities to the GI, Network, or Delivery Segments, and includes the cost for COE and Reclamation GSUs in the GI Segment. *Id.* at 2-3. BPA assigns all of the GI Segment costs to generation to be recovered through power rates, and assigned the remaining COE and Reclamation transmission costs to the Network and Delivery Segments to be recovered through transmission rates. *Id.* at 2-4. PPLM supports BPA's proposal to include GSUs in the GI Segment and assign costs to the generation function to be recovered through power rates. Brooks, WP-02-E-PM-01, at 11-14; PPLM Brief, WP-02-B-PM-01, at 10. PPLM claims that all GI costs for Federal generation should be directly assigned to the generation revenue requirement. Brooks, WP-02-E-PM-01, at 12. PPLM concludes that this treatment ensures that non-Federal generation is put on equal terms with Federal generation. Brooks, WP-02-E-PM-01, at 12. PPLM claims that such treatment is consistent with FERC policy articulated in *Kentucky Utilities Co.*, 85 FERC ¶ 61,274 (1999). PPLM Brief, WP-02-B-PM-01, at 10.

BPA's proposal assigned the remaining COE and Reclamation transmission costs to the Network and Delivery Segments to be recovered through transmission rates. DeClerck *et al.*, WP-02-E-BPA-27, at 2, 4. BPA credits the annual cost of the COE and Reclamation Network and Delivery investments (O&M, depreciation, and interest expense) to the generation revenue requirement, and assigns them to BPA's transmission revenue requirement as an expense for the appropriate segment. *Id.* at 4-5. WPAG supports BPA's proposal to assign COE and Reclamation transmission costs to the Network and Delivery Segments. Cross *et al.*, WP-02-E-WA-01 at 21. No party in this rate proceeding raised any legal, policy, or factual issues regarding this proposed treatment in their initial briefs. BPA's Rules of Procedure provide that if a party does not raise and fully develop its position on an issue in its initial brief, then it shall be deemed to take no position on the issue. *Procedures Governing Bonneville Power Administration Rate Hearings*, §1010.13(b).

Decision

BPA has segmented the costs of the COE and Reclamation transmission facilities to GI, Network and Delivery Segments. All GI Segment costs, including COE and Reclamation GSU costs, have been assigned to the generation function. The annual cost for the COE and Reclamation transmission investments and associated costs will be assigned to the Network and Delivery Segments as a transmission expense and recovered in transmission rates.