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OF THE

TASK FORCE ON
BONNEVILLE POWER ADMINISTRATION

OF THE

COMMITTEE ON NATURAL RESOURCES

OF THE

U.S. HOUSE OF REPRESENTATIVES

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May 1994

MEMORANDUM OF TRANSMITTAL

COMMITTEE ON NATURAL RESOURCES,
U.S. HOUSE OF REPRESENTATIVES,
WASHINGTON, DC.

To Members of the
Committee on Natural Resources
of the House of Representatives

The Bonneville Power Administration Task Force has submitted the following report entitled *BPA at a Crossroads*, which is hereby made available to all members of the committee. This report summarizes the results of the most comprehensive congressional oversight of BPA since the passage of the Pacific Northwest Electric Power Planning and Conservation Act of 1980.

I commend Representative DeFazio, Chair of the committee's Task Force on the Bonneville Power Administration, for his fine work on this report. Representative DeFazio's understanding of the extremely complex issues surrounding the Columbia River power system is unparalleled in the Congress. His understanding and insight may well be the key to resolving the many difficult challenges facing BPA and the Northwest region in the coming years.

I am particularly impressed by the work that Representative DeFazio has done to uncover potential reductions in BPA costs and power rates that would not sacrifice BPA's commitment to energy efficiency and the conservation of the Northwest's wildlife resources. As Representative DeFazio's report points out, the energy efficiency and wildlife conservation programs have received disproportionate criticism over their costs, despite the fact that other areas of BPA's budget offer large savings potential. The Washington Public Power Supply

System nuclear reactors are perhaps the best example of such possible budget savings. Better management of these facilities offers large potential savings that have received relatively little scrutiny.

The report also finds that the "project power" rates for the Bureau of Reclamation's Columbia Basin Project reduce power costs to one-tenth of one cent per kilowatt hour of electricity, which is less than one twenty-eighth of the price paid by other BPA customers. This cut-rate price for power imposes considerable costs on the economy and environment of the Northwest by increasing the price other BPA customers pay for power and encouraging excessive use of water. Excess water use leads to diminished flows that not only impede the effort to restore salmon stocks but also reduce power generation.

The recent work of the committee on ecosystem management is borne out by the Report's findings regarding the need to implement the basin-wide *Strategy for Salmon* adopted by the Northwest Power Planning Council. These salmon conservation measures exemplify the need to look at activities across the ecosystem and involve all stakeholders in achieving a sustainable environmental and ecological status for the Northwest.

Again, I praise Representative DeFazio for bringing these issues to the attention of the committee, and I look forward to working with him and other Members of the Pacific Northwest congressional delegation on these matters in the future.

Sincerely,

GEORGE MILLER
Chair

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May 1994

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COMMITTEE ON NATURAL RESOURCES,
U.S. HOUSE OF REPRESENTATIVES,
WASHINGTON, DC.

To the Honorable George Miller, Chairman,
Committee on Natural Resources
of the House of Representatives

I am formally submitting the original of the Bonneville Power Administration Task Force report entitled *BPA at a Crossroads*.

Sincerely,

PETER DeFAZIO
Chair
Bonneville Power Administration Task Force

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LIST OF ABBREVIATIONS

aMW	Average megawatt
BPA	Bonneville Power Administration
BuRec	Bureau of Reclamation, U.S. Department of the Interior
CBO	Congressional Budget Office
cfs	Cubic feet per second
Council	Northwest Power and Planning Council
CRITFC	Columbia River Inter-Tribal Fish Commission
CRS	Congressional Research Service, Library of Congress
DSI	Direct service industries
EIS	Environmental impact statement
EPUD	Emerald People's Utility District
ESA	Endangered Species Act
FTE	Full time equivalent
IRP	Integrated resource plans
kwh	Kilowatt-hour
mills	One-tenth of one cent or one one-thousandth of one U.S. dollar
mW	Milliwatt
MW	Megawatt
NCAC	Northwest Conservation Act Coalition
NMFS	National Marine Fisheries Service
PF-rate	Priority firm rate
PMA	Power Marketing Administrations
PNCA	Pacific Northwest Coordination Agreement
SOR	System Operation Review
VOR	Value of reserves
WAPA	Washington Area Power Administration
WPPSS	Washington Public Power Supply System

TASK FORCE CHAIR'S SUMMARY

The Bonneville Power Administration (BPA) supplies about one-half of all the energy consumed in the Pacific Northwest. It controls about 80 percent of the region's high voltage transmission capacity. By any measure, BPA is central to the region's economic well-being.

BPA is at a pivotal point in its 57-year history. The ground is shifting under the agency's feet, upsetting political and economic arrangements that have served the region since the passage of the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) in 1980.

The following are among the significant challenges facing the agency:

- Increasingly deregulated and competitive energy markets are prompting BPA to reexamine its structure and mission. The agency is considering, and in many cases moving to implement, major changes in its structure and the manner in which it seeks to fulfill its mandates.
- Threatened and endangered Snake River salmon runs, and the decline of other Columbia River stocks, pose an extraordinary challenge to the agency and the region.
- Continuing pressure from Washington, DC to alter fundamentally the financial compact between the Federal Government and BPA adds another degree of uncertainty to a world increasingly defined by uncertainty.

The agency's last great shakeup occurred in the 1970s and early 1980s when the region bet heavily—and mistakenly—on nuclear power. The fallout from that series of bad decisions is reflected in every Northwest ratepayer's electric bill.

Between 1979 and 1984, BPA wholesale electric rates increased by 600 percent. That whopping rate hike was the direct result of BPA's decision to invest in three nuclear power plants owned by the Washington Public Power Supply System (WPPSS). Between 15 and 25 percent of every Northwest residential electric bill is dedicated to paying for one ailing and two uncompleted nuclear power plants in the State of Washington.

The Northwest Power Act, with its emphasis on comprehensive energy planning and regional resource development, grew out of the WPPSS fiasco. The Northwest Power Act created the Northwest Power Planning Council (Council), appointed by the Governors of the four States in the region—Idaho, Montana, Oregon, and Washington—and charged it with developing regional energy and fish and wildlife mitigation plans. Today, there are many who ask whether energy planning and regional resource development make sense in an increasingly competitive and deregulated energy market.

The Northwest Power Act's requirement to protect, mitigate, and enhance fish and wildlife populations affected by the hydroelectric facilities on the Columbia River system is also being challenged—though the challenges are more subtle.

The BPA Task Force set out to answer some not-so-simple questions: How has the Northwest Power Act withstood the test of time? Is BPA doing a good job of implementing the Northwest Power Act's provisions? And how

can we continue to enjoy the benefits of regional planning and coordination in the brave new world of more open and competitive energy markets?

This report's findings include the following:

- The Northwest Power Act sought to encourage conservation and efficient energy use and promote the development of renewable energy resources, thus assuring the Northwest an adequate, efficient, and economical supply of power. It requires BPA to protect, mitigate, and enhance the Columbia River basin's fish and wildlife populations and requires that fish and wildlife receive equitable treatment with respect to power production. The Northwest Power Act's goals remain sound.
- A more competitive BPA could better achieve the Northwest Power Act's goals. However, the region's long-term interest in promoting efficient energy use, developing renewable energy resources, and rebuilding the Columbia River basin's incomparable salmon stocks should not be sacrificed in order to minimize electric rates in the short term.
- A significant factor driving many of BPA's utility customers to consider alternative energy sources is the BPA "hassle factor." BPA's customers are legitimately dissatisfied with BPA's bureaucratic processes and cumbersome decisionmaking. However, BPA's focus seems to have shifted largely to the issues of price, and away from the customers' concerns about unwieldy BPA processes. BPA should refocus its efforts on responding to its customers' legitimate concerns about BPA's bureaucratic tendencies.
- BPA's conclusion that its rates are imminently uncompetitive is not supported by the analysis in its Draft Marketing Plan or by testimony presented during the task force's hearings. That is not to say, however, that BPA's interest in maintaining its competitive position is not prudent and appropriate. Rapidly changing energy markets could ultimately pose a significant threat and already offer alternatives to BPA-supplied power for some of BPA's utility customers. Therefore, BPA should make every effort to become a more efficient provider of conservation and energy resources while continuing to satisfy its statutory mandates.
- The task force staff identified up to $150 million in achievable annual savings, most of which are not being prominently discussed by BPA as part of its Competitiveness Project. In addition, BPA has identified another $66 million in annual savings it could gain through greater administrative efficiency—without any new legislation. More than $50 million of the savings identified by the task force staff are associated with the WPPSS' three nuclear power plants, only one of which was ever completed.

  If all of these savings were achieved, they could lead to a BPA rate *decrease* of 8 percent.
- A tiered wholesale electric rate should be one element in BPA's conservation acquisition strategy. However a tiered rate—by itself—is not likely to provide an incentive sufficient to cause utilities to make substantial direct investments in conservation and energy-efficiency measures.
- BPA must provide a stable, long-term financial commitment to conservation if the region expects to reach the energy-efficiency goals set out in the Council's Conservation and Electric Power Plan. The agency should not abandon direct investment in energy-efficiency measures, retreat from its fish and wildlife responsibilities, or decrease its

commitment to improve delivery of services in favor of untried "market mechanisms" until those mechanisms are proven to be widely effective.

- BPA needs to conduct a comprehensive analysis of the economic costs and benefits to the Northwest of the region's aluminum industry, known as the direct service industries (DSIs). Based upon this analysis, a new rate structure should be designed for the DSIs that equitably balances the interests of the DSIs and all other regional ratepayers. Furthermore, BPA must prepare for the very real possibility that some of the individual DSIs may not survive the competitive challenges facing the industry in the near term.
- Those who benefit from the power provided by the Columbia River hydroelectric system bear a responsibility to further the efficiency goals of the Northwest Power Act. Therefore, BPA's public utility customers should be required to prepare integrated resource plans (IRPs). These plans should be consistent with regionally developed guidelines stressing long-term, least-cost approaches such as conservation and renewable energy resources.
- A properly structured proposal recreating BPA as a government corporation could be a benefit for BPA and the region. However, the Clinton Administration should proceed very cautiously in developing a proposal to convert BPA to a government corporation. No clear consensus supporting such a proposal emerged from hearings held by the Department of Energy and the Northwest Power Planning Council earlier this year. There are legitimate concerns that the "side effects" from the enactment of a government corporation bill could conceivably cause harm far in excess of any benefits that might result from the legislation.
- The goal of debt-restructuring legislation—to stabilize BPA rates and resolve the "repayment reform" controversy—is sound. The repayment issue should be resolved in a manner that will not lead to any significant increase in BPA electric rates.
- The Northwest must unite behind a single vision for salmon recovery if the purposes of the Northwest Power Act are to be achieved. To the extent a regional consensus on salmon recovery exists, it is represented by the Northwest Power Planning Council's *Strategy for Salmon (Strategy)*. The *Strategy* is a comprehensive plan for rebuilding healthy and genetically diverse anadromous fish populations throughout the basin. It is aimed not only at recovering listed stocks and making future listings unnecessary, but at producing harvestable numbers of fish for both Indian and non-Indian harvesters. The *Strategy* was developed within the region with strong public participation and merits the region's support.
- No matter what measures are proposed in any future Endangered Species Act (ESA) recovery plan or biological opinion governing operation of the Columbia River system, the BPA and other Federal agencies continue to bear a responsibility to implement the *Strategy*. The *Strategy* should not be delayed while ESA recovery plans are developed or National Marine Fisheries Service's (NMFS) biological opinions are litigated. The National Marine Fisheries Service should work closely with the Council to ensure that its proposed actions are consistent with the *Strategy*.
- The causes of salmon decline are numerous, although the development of the Columbia basin's hydroelectric system almost certainly represents the single most significant human-caused source of

salmon mortality. Intuition as well as the available science argue that juvenile salmon need greater flows and river velocities during the migration period than those that prevail when the system is operated to maximize hydroelectric generation. Although a considerable degree of scientific uncertainty exists, it is imperative that the region act quickly and prudently to improve downstream passage conditions, relying on the best available science.

- The Army Corps of Engineers should use the money specifically appropriated for that purpose and begin design work on the necessary modifications to allow operation of John Day reservoir at minimum operating pool. Congress should provide the funding and direction necessary to expedite implementation of a John Day drawdown to minimum operating pool while providing mitigation to affected irrigators and others.
- As part of its effort to remain competitive, BPA should negotiate an agreement transferring its fish and wildlife functions to one or more fish and wildlife agencies. Such an agreement must be conditioned on thorough monitoring and evaluation of results, and tied to specific rebuilding targets, as well as a commitment on the part of the implementing entity to carry out fully the Council's *Strategy*.
- A common theme heard during the task force's deliberations was the lack of coordination between Federal agencies, State fish and wildlife managers, and Indian tribes. The Chair of the task force recommends one of two approaches to improving regional coordination in salmon-recovery efforts.

  During the task force's September 24, 1993, hearing, the creation of a new regional entity responsible for basin planning and implementation was discussed. There may be merit in such an approach as long as the new planning effort: (1) incorporates existing plans and processes; (2) is not used as a pretext for delay in the implementation of the *Strategy*; (3) provides for full public participation; and (4) produces binding agreements that commit the participants to undertake the recommended measures.

  Alternatively, NMFS, working with the Council, BPA and other Federal, State, tribal and private interests, could seek to develop a basin-wide conservation plan, using the *Strategy* as a framework. Such a plan should include rebuilding objectives and a timetable for implementation as well as a strong monitoring and adaptive management component. A basin-wide conservation plan, if fully implemented, could provide justification for the Secretary of Commerce to use his authority under §4(b) of the ESA to defer further ESA listings pending evaluation of the effectiveness of actions taken under the plan.
- The Federal agencies and the States should continue their efforts to reform water law so that conserved water may be dedicated to instream flows. The same logic that counts lost-generation opportunities caused by increased fish flows as lost revenues would consider water purchases for instream flows as an energy resource acquisition cost, not a fish and wildlife program cost. BPA should make this conceptual leap.

  Federal policies that discourage water conservation should be reformed. BPA should develop alternatives to its present practice of discounting power for irrigation uses, including new power-pricing methodologies that provide incentives for water conservation.

CONCLUSION

The Bonneville Power Administration is at a crossroads. Decisions being made over the course of the next few years will have profound implications not only for BPA, but for the economy and culture of the Pacific Northwest.

In the final analysis, the Bonneville Power Administration's first responsibility is not to serve its Federal masters, the Governors of the four States in the Pacific Northwest region, or its utility and non-utility customers' individual interests; it is to serve the people of the Pacific Northwest. Whether BPA makes choices in the next two to three years that best serve the long-term interests of the people of the region remains to be seen.

The hearings held by the Bonneville Power Administration Task Force constitute what is arguably the most extensive congressional oversight of the BPA since the passage of the 1980 Northwest Power Act. Continuing informed congressional oversight is essential during this crucial period in BPA's history.

Sincerely,

PETER DEFAZIO, *Chair*

I. INTRODUCTION

The Task Force on Bonneville Power Administration of the Committee on Natural Resources convened on April 28, 1993. Over the following six months, the task force held five hearings on issues that will shape the future course of the Bonneville Power Administration. BPA has far-reaching responsibilities under the Pacific Northwest Electric Power Planning and Conservation Act[1] to meet the Pacific Northwest's electric power needs through sales of Federal power, while encouraging energy conservation and protecting, mitigating and enhancing regional fish and wildlife resources. All these purposes are to be met by BPA based upon recommendations of the Northwest Power Planning Council (Council), which was established under the Northwest Power Act to provide regional planning and participation in the Federal power system.[2]

The task force hearings were similarly wide-ranging. On April 28, the task force addressed BPA's FY 1994 budget, and its implications for BPA's near-term financial condition.[3] The second hearing, held in Portland, Oregon, reviewed BPA's programs for power resources acquisition.[4] The task force's next field hearing was held in Boise, Idaho, to examine BPA's participation in salmon restoration efforts in the Columbia River basin.[5] The Task Force then traveled to Eugene, Oregon, to discuss BPA's plans to remain competitive in future power markets.[6] The final hearing addressed BPA's legislative proposals to allow the agency to buy out its Federal debt and to convert itself into a government corporation.[7]

Upon review of the transcripts of these hearings, and other materials submitted to the task force, the Chair of the Committee on Natural Resources

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[1] P.L. 96-501, 94 Stat. 2697, codified at 16 U.S.C. §§ 839-839h (hereinafter Northwest Power Act).

[2] Northwest Power Act § 4, 16 U.S.C. § 839b.

[3] "BPA Proposed Fiscal Year 1994 Budget," Oversight Hearing before the Task Force on Bonneville Power Administration, Committee on Natural Resources, 103d Congress, 1st Session, Serial No. 103-20 Part I (April 28, 1993) (hereinafter Hearing Part I).

[4] "BPA Electric Power Resources Acquisition," Oversight Hearing before the Task Force on Bonneville Power Administration, Committee on Natural Resources, 103d Congress, 1st Session, Serial No. 103-20 Part II (July 12, 1993) (hereinafter Hearing Part II).

[5] "BPA Columbia River Salmon Restoration," Oversight Hearing before the Task Force on Bonneville Power Administration, Committee on Natural Resources, 103d Congress, 1st Session, Serial No. 103-20 Part III (September 24, 1993) (hereinafter Hearing Part III).

[6] "BPA Competitiveness," Oversight Hearing before the Task Force on Bonneville Power Administration, Committee on Natural Resources, 103d Congress, 1st Session, Serial No. 103-20 Part IV (September 25, 1993) (hereinafter Hearing Part IV).

[7] "BPA Proposals," Oversight Hearing before the Task Force on Bonneville Power Administration, Committee on Natural Resources, 103d Congress, 1st Session, Serial No. 103-20 Part V (October 28, 1993) (hereinafter Hearing Part V).

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and the Chair of the task force concluded that a report bringing together the many disparate issues influencing the future of BPA, and providing guidance in directing the agency into the twenty-first century, could be a benefit to BPA and the Pacific Northwest.

II. BPA'S COMPETITIVENESS PROJECT

BPA is considering far-reaching changes in its marketing strategies and structure in response to real and perceived threats to the agency's competitive position. BPA is concerned that electric industry deregulation and the narrowing gap between its wholesale electric power rates and the cost of power from natural gas combined-cycle combustion turbines could cause a critical mass of BPA's customers either to seek other energy suppliers or develop their own resources. Such an abandonment of the Federal power resource would erode BPA's revenue base and undermine its ability to carry out its statutory mandates. It would also place the burden of Treasury debt repayment, fish and wildlife costs, and other BPA obligations on a smaller pool of utility customers.

Specifically, BPA's concerns are prompted by: the expansion of the Federal Energy Regulatory Commission's power to order wholesale wheeling; the growing interest on the part of some States in allowing and regulating retail wheeling; the increasing importance of independent power producers; and the decrease in the marginal cost of gas-fired generation. It is fair to say that the Nation's energy markets are undergoing significant change. It is also fair to say that the utility industry and BPA are uncertain about what the future holds.

In November 1993, BPA released a Draft Strategic Marketing Plan, which provided the most detailed description to that date of changes BPA is considering as part of its Competitiveness Project.[8] Subsequently, the Council's staff completed an analysis of the Draft Strategic Marketing Plan. In February 1994, a Final Draft Strategic Marketing Plan was released.[9]

Some of the changes BPA is proposing include designing and implementing a tiered wholesale electric power rate, "unbundling" its melded services, and generally becoming less bureaucratic and more responsive to its customers' needs. BPA plans to implement many of these changes between 1994 and 1996.

A. TIERED WHOLESALE POWER RATES

BPA is engaged in discussions with its customers and other shareholders aimed at designing a tiered wholesale electric power rate. In its simplest form, a two-tiered rate would offer customers a first tier allocation consisting in whole or part of less expensive power generated by Federal base system resources, and a second tier priced to reflect the marginal cost of more expensive, new generating resources. By sending marginal cost price signals at the wholesale level, a tiered rate should encourage more efficient energy development and use.

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[8] Bonneville Power Administration, Strategic Marketing Plan, Draft, November 1993.

[9] Bonneville Power Administration, Final Draft Strategic Marketing Plan, February 1994.

BPA considers a tiered rate to be a central element in its effort to "reinvent" its conservation program. The Final Draft Marketing Plan states that "[t]o the greatest extent possible, the conservation program will become a self supporting product line."[10] BPA believes that a tiered rate will prompt BPA's utility customers to make their own investments in conservation, relieving BPA of much of its liability for the direct acquisition of conservation resources. BPA's description of conservation as a product line, as well as discussions with BPA staff, suggests that BPA believes it can sell conservation services to its utility customers, or loan BPA customers the funds needed to purchase energy-efficiency measures as an alternative to new utility-sponsored generation.

A properly designed tiered rate would force BPA customers to face the realities of the marketplace, i.e., the marginal cost of new resources, as they deal with load growth. However, the Council staff makes the point that in the absence of BPA-sponsored programs or incentives, a tiered rate would be unlikely to offer a sufficient incentive to cause utilities to invest in conservation as opposed to new generation.[11] BPA's analysis tends to support this view. In a February 1994 draft BPA document, BPA concludes that only about 40 aMW of a revised target of 608 aMW of conservation will result directly from implementing a tiered rate.[12]

B. UNBUNDLING BPA SERVICES

BPA now offers melded service packages to its various customer groups. Generally, these packages combine a number of discrete services into a single package at a single price. For example, BPA's firm power package for small customers includes transmission and shaping services, as well as transformation from network voltages to the customer's lower distribution voltage. The direct service industries—industrial customers that purchase power service directly from BPA without a utility intermediary—receive transmission services as well as a credit on their bills for the estimated value of certain portions of their contracted power that are deemed to be interruptible under some conditions.

BPA is proposing to identify and market a range of individual services for its partial-requirements customers and others who may prefer to provide for some but not all of their own needs. For example, a customer with its own generating resources may wish to purchase shaping services or power reserves from BPA. Others may wish to wheel power over BPA-owned transmission lines. BPA believes that offering an array of unbundled services will allow it to better tailor its services to its customers' needs. It also believes that it may be able to offer higher-value services that could enable customers to use or develop their own resources more efficiently.

The challenge for BPA will be to price these unbundled products in a manner that avoids cross-subsidization between customer groups and services

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[10] Bonneville Power Administration, Final Draft Strategic Marketing Plan, February 1994, p. 47.

[11] "Bonneville Marketing Plan Issue Briefing," Northwest Power Planning Council staff paper, p. 10.

[12] Document titled "Bonneville Power Administration, Conservation Reinvention, February 1994 (Draft)."

and continues to promote regional least-cost energy resource development. Unbundled services, if appropriately priced, could help deter BPA customers from uneconomical development of new generation resources.

In the worst case, however, unbundled services could facilitate uncoordinated and environmentally unsound resource development, imposing environmental and economic costs on the region as a whole at the same time that a tiered rate encourages utilities to look to suppliers other than BPA for their needs. It is not inconceivable that the combination of the two could serve to undermine the region's goals of coordinated and least-cost resource development.

BPA asserts its intention to design and price unbundled services in a manner that will promote the goals of the Northwest Power Act. It is interesting to note, however, that on the one hand BPA argues that open transmission access is one of the most significant forces driving its competitiveness concerns, while on the other hand BPA contends that its ability to set the price of transmission and related services—i.e., its control over the transmission grid—will enable it to promote regional planning and resource development.

C. BPA'S FUTURE PRICE COMPETITIVENESS

BPA's Competitiveness Project is driven in large part by the agency's concern that its wholesale electric power rates could soon be higher than the cost of competing energy resources. BPA's average priority firm (PF) rate is currently 26.8 mills for preference customers and 27.4 mills for residential exchange customers. BPA's PF-rate has declined in real terms since 1984. Even taking BPA's 1993 rate increase into account, BPA's current PF-rate is nearly 8 percent lower than the 1984 rate in real terms.[13]

Improvements in natural gas turbine technology and other changes in the market have substantially narrowed the gap between BPA's rates and the cost of gas-fired generation. The Tenaska Project, a gas-fired combustion turbine which is being acquired by BPA, is expected to provide power costing about 38 mills in 1993 levelized dollars, about 41 percent higher than the current PF-rate. Recent bids to construct cogeneration plants seem to offer very attractive terms, though uncertainty about future gas price increases or possible energy or carbon taxes remains.

For example, Clark public utility commissioners recently voted to begin final negotiations with a North Carolina-based company for construction of a 240 MW cogeneration plant whose estimated long-term costs, in 1994 levelized dollars, are about 30.1 mills/kwh.[14] However, it should be noted that near-term costs for most generating projects are higher than the levelized costs and must be recovered through rates.

The Draft Marketing Plan includes projections of BPA's PF-rate and compares them to the projected costs of power from a gas-fired combined cycle combustion turbine. The Draft Marketing Plan's analysis shows the gap between the two rates remaining more or less constant in the medium forecasts, with the PF-rate remaining 5–10 mills lower in real terms than the

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[13] BPA Wholesale Power and Transmission Rate Projections and Historic Wholesale Power Rates, November 1993.

[14] *Clearing Up*, May 2, 1994, p. 8.

cost of gas-fired power. However, when comparing the high PF-rate projection with the low gas-cost projection, BPA's rates can be shown to be marginally uncompetitive in 10-15 years.[15]

The November 1993 Draft Strategic Marketing Plan concludes that without dramatic changes, BPA's position as low-cost energy provider for the region is in "serious jeopardy."[16] However, BPA included in its high PF-rate projection a number of costs that are not currently borne by the agency. For example, $200 million a year was added to represent uncertainties such as possible BPA debt repayment reform. Significant generation losses from the hydroelectric system are assumed to account for contingencies such as increased fish flows.[17] The Draft Marketing Plan also gives a projection of the PF-rate that includes a 5 mill "independence premium," in an attempt to quantify what BPA perceives as a widespread desire on the part of its utility customers to develop their own generating resources.

On the other hand, there is no corresponding projection that attempts to quantify the risk that a BPA utility customer assumes when it invests in its own generation or signs a long-term contract for thermally generated power. Nor is any value assigned to the fact that BPA currently has virtually no exposure to the financial risks associated with possible limits or taxes on carbon dioxide emissions. The analysis also fails to include the costs of wheeling, shaping, and reserves in the projected costs of power from a gas-fired combustion turbine. BPA estimates that wheeling costs alone could add as much as 10 percent to the cost of gas-fired generation.[18]

D. THE BPA "HASSLE FACTOR"

During its hearings, the task force heard a considerable amount of testimony about what has become known as the "hassle factor" inherent in dealing with BPA. Customers almost uniformly complain that BPA is excessively bureaucratic, and that its decisionmaking processes are hopelessly complex. In response to its customers' concerns and the concerns of the Chair of the task force, BPA has taken steps to begin to address this problem, including a simplification of its negotiating process and a proposal to restructure the organization.

An example of the BPA hassle factor can be found in Chairman DeFazio's congressional district. The Emerald People's Utility District (EPUD) had to spend nearly 4 years negotiating a third-party financing agreement for its conservation power plant proposal. More than 50 BPA employees were involved in the multi-stage process. The hurdles to completion of a billing credits agreement for EPUD's Short Mt. methane generation project were equally daunting.

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[15] Bonneville Power Administration, Final Draft Strategic Marketing Plan, February 1994, p. 38.

[16] Bonneville Power Administration, Strategic Marketing Plan, Draft, November 1993, "BPA Competitiveness," p. 1.

[17] Bonneville Power Administration, Final Draft Strategic Marketing Plan, February 1994, p. 38.

[18] Ibid.

BPA's focus in the Competitiveness Project seems to have drifted away from this central and pressing problem. That point is illustrated in BPA's Final Draft Marketing Plan. The "Strategic Marketing Thrusts" section of the marketing plan seeks "[t]he creation of customer satisfaction through process enhancements, rate stabilization and product choice."[19]

However, the discussion in that section highlights not the need to address the hassle factor, but the need to "minimiz[e] . . . rate increases in the next six years." Only one sentence is given over to describing BPA's intention to "streamline its decisionmaking process and establish clear accountability."

BPA's importance to the Pacific Northwest's economy is ample reason for the agency to seek to minimize electric rate increases. But BPA's focus seems to have shifted too much toward rate issues—many of which are highly speculative—and away from the more immediate and pressing customer-satisfaction concerns.

E. POTENTIAL LOSS OF MARKET SHARE

The Final Draft Marketing Plan concludes that BPA is likely to lose 1,400 aMW of load within ten years unless the Marketing Plan's recommendations are implemented.[20] The possibilities that the DSIs and other customers might purchase power from new suppliers, that some large industrial customers will develop their own generation, and that sales in the California market will decline, all contribute to the load-loss scenario described in the Draft Marketing Plan. The Draft Marketing Plan suggests that even greater load-losses are possible, including the potential loss of 1,450 aMW from DSI closures and significantly greater losses due to other causes.

F. OTHER COMPETITIVENESS ISSUES

In addition to the issues evaluated in the agency's Draft Marketing Plan, the majority staff has identified three other issues that BPA should address in evaluating the agency's current and future competitiveness in the power marketplace.

1. Relationship to the Direct Service Industries

In addition to more traditional contracts with local utilities and government entities, BPA sells a significant amount of power to the DSIs. The price that the DSIs pay for BPA power is linked to the worldwide price of aluminum. BPA adopted this rate to increase the economic viability of the aluminum industry by lowering the DSIs' electricity rate when aluminum prices were low and increasing their rate when aluminum prices were high. BPA intends to keep the current variable rate in effect until June 1996.

Aluminum prices have plummeted in recent years and have been near historical lows for almost two years. Consequently, the current DSI rate is about 21 mills, considerably lower than the 26.8 mills PF-rate paid by preference customers.[21] The Northwest Conservation Act Coalition (NCAC) estimates that at current world aluminum prices, the variable rate currently

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[19] Final Draft Strategic Marketing Plan, p. 45.

[20] Ibid., p. 42.

[21] Ms. Leslie Ratcheye, BPA Washington DC Office, telephone conversation with task force staff, January 1994.

costs regional ratepayers about $11 million per month.[22] If world aluminum prices do not increase significantly, the DSI rate could cost regional ratepayers more than $300 million by June 1996.[23]

It must be noted that there have been extended periods since the variable rate was adopted in 1986 when high aluminum prices raised the DSI rate higher than the PF-rate. Regional ratepayers and non-DSI utility customers benefitted from these additional revenues. However, according to the majority staff's estimate, the crossover point where revenues losses from the rate exceeded revenue gains was reached in 1993.

Another special feature of the DSIs' contracts is the curtailment provision. In the utility industry the willingness of a customer to agree to curtail the amount of power it receives is a service that has considerable economic value. In consideration of the DSIs' agreement to curtail their use of power under certain circumstances, BPA has quantified the value of reserves (VOR) provided by the DSIs. The rate they pay for power has been adjusted to factor in the value of this service. Consequently, if the value assigned to these reserves is lowered, then the rate that the DSIs pay for power will increase.

BPA has not recalculated the VOR since 1987 and has agreed to freeze the 1987 VOR value until 1996. NCAC and others contend that the 1987 calculation is inaccurate and out-of-date since it is based in part on the cost of replacement power from a theoretical natural gas combustion turbine purchased at a prevailing interest rate of 14 percent and includes an overestimation of the amount of reserves actually provided by the DSIs. NCAC estimates that the subsidy for overpayment of the VOR is about $40 million per year.[24]

The question for the Northwest region is whether the regional economic benefits from the aluminum industry justify a continuation of the variable rate over the long term. The DSIs are a major economic force. According to the DSIs, they pay $550 million in wages each year. The DSIs also provide important benefits to the Northwest's power system, including the provision of interruptible reserves and a significant demand for night-time load. At the same time, the low price the DSIs pay for power and the overvaluation of the reserves they provide impose an economic cost on the region by increasing the electricity rates paid by all other BPA customers. For example, if aluminum prices are stable, the revenue loss to BPA in FY 1994 due to the variable rate will be approximately $132 million, which translates into a cost to non-DSI BPA ratepayers of about 5 percent of the price they pay for BPA

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[22] Hearing Part IV, p. 192 (testimony of Mr. K.C. Golden, executive director, Northwest Conservation Act Coalition).

[23] See BPA chart "Variable Industrial Rate—Cumulative Simple VI vs. IP" prepared at the request of the task force staff, who asked BPA staff to calculate the difference between charging the DSIs the VI rate and the IP rate paid by other industrial customers. BPA does not agree with these assumptions.

[24] Hearing Part IV, p. 123 (testimony of Mr. K.C. Golden).

electricity.[25] However, as noted earlier, the variable rate has proven to be a benefit over part of its history.

2. Integrated Resource Planning

In the Northwest Power Act, Congress recognized "the unique opportunity provided by the Federal Columbia River power system" as a means to encourage efficient energy use and the development of renewable resources in the Pacific Northwest.[26] These goals have been advanced by BPA's participation in regional energy planning and acquisition.

The deregulation of the Nation's energy markets could, however, undermine the Northwest Power Act's goal of regional least-cost energy planning and development, particularly if BPA retreats from its role as a regional resource provider. This loss of efficiency could be overcome by bringing more efficient decisions into localized power acquisition. Least-cost planning, or integrated resource planning, by BPA's public utility customers would provide a mechanism to achieve such localized least-cost planning, preserving the regional commitment to least-cost solutions.

The region's investor-owned utilities are required to prepare integrated resource plans. The Energy Policy Act of 1992 placed an IRP requirement on the public utility customers of the Western Area Power Administration (WAPA).[27] Due to the historically integrated nature of the Northwest's energy system and the planning requirements of the Northwest Power Act, BPA's public utility customers have not previously been required to engage in least-cost planning, though many already do so.

3. Market Loss Potential and Extra-regional Power Sales

The Regional Preference Act provides that BPA may sell outside the region only power that is surplus to the needs of the Pacific Northwest. Any contract to sell surplus power outside the region must include a call-back provision that allows the Administrator to suspend the sale of such power on 60-days notice when necessary to serve the energy requirements of any Pacific Northwest customer. For the purposes of the Act, the Pacific Northwest is generally defined as "the region consisting of the States of Oregon and Washington, the State of Montana west of the Continental Divide, and those portions of the States of Nevada, Utah and Wyoming within the Columbia drainage basin and of the State of Idaho as the Secretary may determine to be within the marketing area of the Federal Columbia River power system."[28]

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[25] Task force staff calculation:

$$\frac{(\$11 million/month*)\times(12 months)}{(\$25 million**)} = 5.28\%$$

* Council estimate of subsidy
** Hardy estimate of 1% rate of savings for each $25 million saved

[26] 16 U.S.C. § 839.

[27] 42 U.S.C. §§ 7275-7276(c)

[28] 16 U.S.C. § 837(b).

If the load-loss scenario described in the Draft Marketing Plan becomes a reality, it may be advantageous for BPA and the region to reexamine the requirements that apply to the sale of surplus power outside the region. If BPA's fears of a 1,400 aMW load-loss become a reality, and extra-regional markets for that power exist, BPA could realize significant additional revenues if it were able to sell the power under more favorable contract terms. Put another way, if BPA were able to market surplus power under more favorable terms, it should be able to sell the power for at least as much as it stands to lose due to the projected load-losses.[29]

G. FINDINGS AND RECOMMENDATIONS

- The Northwest Power Act sought to encourage conservation and efficient energy use and promote the development of renewable energy resources, thus assuring the Northwest an adequate, efficient and economical supply of power. The goals of the Northwest Power Act remain sound. In the final analysis, these goals are the yardstick by which BPA's new Marketing and Business Plans should be measured. A more competitive BPA could better achieve the Northwest Power Act's goals. However, the region's long-term interest in promoting efficient energy use, developing renewable energy resources, and rebuilding the Columbia River basin's incomparable salmon stocks should not be sacrificed solely in order to minimize electric rates in the short term.
- BPA's conclusion that its rates are imminently uncompetitive is not supported by the analysis in the Draft Marketing Plan or by testimony presented during the task force's hearings. That is not to say, however, that BPA's interest in maintaining its competitive position is not prudent and appropriate. BPA should make every effort to become a more efficient provider of conservation and energy resources, while continuing to satisfy its statutory mandates.

  However, the BPA Draft Marketing Plan's analysis seems to have been structured to arrive at a predetermined conclusion, i.e., that BPA's rates would soon be uncompetitive when compared to the costs of gas-fired generation. The Council's analysis of the Draft Marketing Plan disagrees: "The examination of competitive cost issues in the marketing plan does not strongly support the conclusion that there is a current or likely problem with the competitiveness of BPA's rates for most of its customers."[30]

  BPA's excessive public concern over its prospects may have the unintended consequence of encouraging individual utilities to make questionable resource decisions based on their mistaken perception of BPA's unreliability as a low-cost energy supplier. Alternatively, customers may be encouraged to threaten such actions in order to extract rate concessions, to the detriment of other stakeholders. In either event, greater institutional self-confidence at BPA would benefit the region.
- A significant factor driving many of BPA's utility customers to consider alternative energy sources is the BPA hassle factor. BPA's

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[29] This assumes that an extra-regional market will exist for BPA power priced within the projected range of the PF-rate even in the face of substantial Northwest load losses.

[30] Northwest Power Planning Council, Bonneville Marketing Plan Issue Briefing.

customers are immediately and legitimately dissatisfied with BPA's bureaucratic processes and cumbersome decisionmaking. However, BPA's focus seems to have shifted largely to the issue of price, and away from the customers' concerns about unwieldy BPA processes. BPA should refocus its efforts on responding to its customers' legitimate concerns about BPA's bureaucratic tendencies.

- A tiered rate should be one element in BPA's conservation acquisition strategy. However, BPA has apparently concluded that continued *regional* investment in energy efficiency is inconsistent with a strategy emphasizing improved price signals and new conservation-based products and services. That conclusion should be rejected. Market signals and direct investment should be mutually reinforcing parts of a regionally integrated energy conservation program.
- There are many potential responses to a wholesale tiered rate's marginal price signal. One of them is direct utility investment in energy-efficiency measures, which the Northwest Power Act seeks to promote. Other responses could include fuel switching, the curtailment of residential energy consumption in response to a retail tiered rate (sometimes referred to as "freezing in the dark"), or investments in new generation. Though some of these responses may be preferable to overbuilding new thermal generation capacity, they do not conform to the Northwest Power Act's purposes, which are to promote efficient energy use *and* provide an adequate and economical supply of power.
- BPA should implement tiered wholesale electric power rates and offer certain unbundled services to better serve customer needs. But BPA should not abandon direct investment in energy-efficiency measures, retreat from its fish and wildlife responsibilities, or decrease its commitment to improving its delivery of services in favor of untried "market mechanisms" until those mechanisms have been proven to be widely effective. The Northwest Power Act's mandate that the Administrator "acquire" conservation resources remains in effect.
- BPA must maintain a stable, long-term commitment to conservation if the region expects to reach the energy-efficiency goals set out in the Council's Conservation and Electric Power Plan. In 1993, BPA achieved record conservation savings of 52 aMW at an average weighted cost of 23 mills. Rather than abandon acquisition processes that are clearly working, BPA should build on its successes.

Although BPA's conservation performance improved markedly during 1993, the task force heard a considerable amount of testimony indicating that significant amounts of cost-effective conservation are not being acquired due to BPA budget constraints.[31] Slashing conservation budgets will only exacerbate the problem.

However, greater decentralization of conservation acquisition would benefit BPA and the region, as long as it is combined with some level of regional support for local energy efficiency measures. As part of its continuing commitment to energy-efficiency, BPA should place particular emphasis on mechanisms that enable utility customers to develop their own conservation and renewable resources, consistent with the priorities

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[31] Hearing Part II, p. 124 (testimony of Ms. Sue Hickey).

of the Northwest Power Act, and in a manner that obviates the need for new BPA Treasury-borrowing authority. Such mechanisms could include long-term third-party financing agreements, billing credits, and the use of energy service companies.

- BPA needs to work with the Council on a comprehensive analysis of the economic costs and benefits to the Northwest region of the current variable rate/value of reserve structure. Based upon this analysis, a new rate structure should be designed for the DSIs that equitably balances the interests of the DSIs and all other regional ratepayers. The assumptions underlying the calculated value of reserves are clearly out-of-date and need to be revised. Furthermore, BPA must prepare for the very real possibility that some of the individual DSIs may not survive the competitive challenges facing the industry in the near term.

  During new DSI power sales contract negotiations, BPA should examine the possibilities of increased interruptibility, shorter contract periods, and any other provisions that may be deemed to be necessary to protect BPA's ratepayers and non-DSI customers from the potential disruptions that sudden DSI load-loss may cause.

- Those who benefit from the power provided by the Columbia River hydroelectric system bear a responsibility to further the efficiency goals of the Act. Therefore, BPA's public utility customers should be required to prepare integrated resource plans as a pre-condition to independent resource acquisition. The requirement could either be laid upon BPA's customers by legislative mandate or as an obligation in their power sales contracts. Technical assistance should be provided to smaller utilities that lack the resources to undertake an IRP exercise.

  The majority staff notes that the Council, in a letter to task force Chairman DeFazio, stated:

> "[M]embers of the Public Power Council are willing to accept a contractual obligation, if properly structured, to prepare and comply with an integrated resource plan as a condition for independent resource acquisition. The power sales contracts are currently being rewritten, affording a timely opportunity to develop and incorporate an IRP provision."[32]

BPA should commence discussions with its public utility customers, the Northwest Power Planning Council and other interested parties toward the development of regionally acceptable IRP guidelines. IRPs should promote the goals of the regional power plan. They should be developed in an open and public process. Mandatory penalties (such as a power surcharge) or the use of incentives (such as discounted costs of services) should be employed to enforce compliance with regionally developed IRP guidelines. It may be necessary to give the Council authority to make consistency determinations once the IRP requirements are incorporated into the power-sales contracts.

If progress is not made toward the development of acceptable contract provisions, a legislative mandate should be placed on BPA's

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[32] Letter from Mr. William K. Drummond to Chairman DeFazio, February 24, 1994.

publicly owned utility customers, similar to the one placed on the Western Area Power Administration public utility customers in the Energy Policy Act of 1992.

- The discussion above of regional preference issues should not be construed as an endorsement of eliminating regional preference. To the contrary, regional preference provides significant benefits to BPA customers and their ratepayers. But a financially insolvent BPA cannot serve the region, fulfill its mandates under the Northwest Power Act, or satisfy its financial obligations to the U.S. Treasury. If regional preference entities effectively abandon BPA by signing long-term power-purchase contracts with other suppliers, BPA's remaining customers will have a stake in allowing BPA to maximize revenues from extra-regional surplus-power sales.

III. RESTRUCTURING BPA

Over the past year, two major proposals have emerged that could significantly alter BPA's relationship to the Federal Government: refinancing BPA's appropriated Treasury debt by allowing BPA to pay off the Federal investment in one lump sum using privately borrowed funds; and recreating BPA as a government corporation. Each of these proposals is intended to assist BPA in better meeting regional needs, with less interference by the Federal Government. However, each of these proposals as currently designed raises questions regarding BPA's accountability.

A. REFINANCING THE BPA DEBT

The budget proposals of three consecutive Presidents have contained debt-repayment reform proposals aimed at changing BPA's repayment obligation to the U.S. Treasury. Though different in scope and impact, each has proposed substantial increases in project interest rates and conversion to a fixed schedule of annual repayment. The last Bush Administration proposal would have cost Pacific Northwest ratepayers about $2.6 billion.

The recurring threat of debt-repayment reform represents one of the most significant uncertainties facing BPA and its customers. Resolving this issue in a manner fair both to the ratepayers in the Northwest and the U.S. Treasury will better enable BPA to serve the region and continue to satisfy its obligations to the Treasury.

The "Bonneville Power Administration Repayment Bonds Act" was included in the Clinton Administration "Reinventing Government" legislation (H.R. 3400).[33] As introduced, this legislation authorized BPA to borrow funds on the private market in order to make a single payment to the U.S. Treasury that would discharge all of BPA's obligations for appropriated Treasury debt.

On October 28, 1993, the task force conducted a hearing on this legislative proposal. The language submitted by the Administration had a number of technical problems. The Congressional Budget Office (CBO) scored the BPA refinancing legislation as a budget "cost" due to the increased cost of borrowing from private markets as opposed to current Treasury-borrowing practices. Because of the budget cost found by CBO, the committee could only approve the BPA refinancing proposal if equivalent budget "savings" were found to offset these costs. In addition, a number of provisions included in the bill may have had potentially far-reaching, if unintended, effects. These concerns made it impracticable for the committee to act on the legislation.

Unfortunately, the Chair of the task force was left with no choice but to request that the Committee on Natural Resources refrain from acting on the Administration proposal before the end of the committee's brief referral of

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[33] H.R. 3400, Part 1, Subtitle C, Title IV.

H.R. 3400. The committee complied with this request and replaced the BPA refinancing provision with study language intended to serve as a placeholder for future efforts by the committee on the issue. The Chair of the task force and other members of the region's congressional delegation are continuing discussions with the Administration and parties in the region over a possible Treasury debt buy-out proposal.

B. GOVERNMENT CORPORATION

On December 17, 1993, BPA released a draft bill proposing to convert BPA to a government corporation. Both the Northwest Power Planning Council and the Department of Energy conducted public hearings to obtain comments on the draft bill. Many concerns were raised regarding the possible unintended consequences of such a change.

1. Accountability

Converting BPA into a government corporation could reduce the accountability of the agency to the citizens of the Northwest, its utility customers, the Northwest Power Planning Council, the executive branch, and the Congress. For example, the Council staff issue paper on the December 17 draft bill states that the bill would remove BPA's budget entirely from the annual congressional appropriations process. Although there are significant drawbacks to being part of the appropriations/budget process, it remains a primary avenue of access for regional interests seeking review or modification of BPA policies.

In addition, BPA already has more autonomy than the other Federal Power Marketing Administrations (PMAs) because it is self-financing and has the authority to borrow funds directly from the Federal Treasury. Unlike the other PMAs, the agency can spend funds and incur most obligations without an annual appropriation, although certain planned expenditures—such as for major transmission lines and fish and wildlife facilities with a useful life greater than 15 years and a cost greater than $1 million—must be approved in an appropriations bill.

2. Environmental Responsibility

Another concern is the lack of a precedent for giving a government corporation environmental responsibilities, such as BPA's responsibility to help restore fish and wildlife resources in the Columbia River basin. Careful deliberation should be devoted to the issue of whether a corporate structure is best suited to carry out the environmental mandates of the Northwest Power Act.

In this regard, it should be noted that when Congress recently converted the Department of Energy uranium enrichment complex into a government corporation in the Energy Policy Act of 1992 it did *not* assign the new government corporation responsibility for cleanup of past contamination of the enrichment complex. Congress withheld this environmental responsibility due to concerns that the cleanup duties would not be consistent with the profit-maximizing mission of a corporation. Instead, cleanup responsibility remained with the Federal Government, and a fee on nuclear electricity was imposed to finance these costs.

The draft incorporation legislation would also allow BPA to represent itself in legal proceedings. The result could be that in some proceedings, including those in which other agencies of the Federal Government are

parties, BPA would not necessarily be required to take positions consistent with broader Federal policy.

3. Administrative Savings

BPA estimates that legislation making BPA a government corporation would allow BPA to reduce its permanent and contracted work force by a total of 1,000 full time equivalent (FTE) positions and save the agency $100,580,000 a year. BPA estimates that it could achieve savings of $66,310,000 and reduce its work force by 650 FTE positions in the absence of government corporation legislation.[34] The fiscal savings possible through legislation include greater flexibility in personnel and procurement practices, and a decrease in budgeting and reporting requirements BPA feels are a hindrance to its mission.

4. Other Considerations

The December 17 draft bill states that one of the purposes of the new corporation is "to operate as a commercial enterprise." The unanswered question is whether BPA could use its new corporate authorities along with its existing broad powers as a governmental entity to hinder competition. In addition, many of BPA's responsibilities, including its fish and wildlife obligations, could be considered to be of secondary importance to a "commercial enterprise."

The draft legislation also creates a new exception to the Freedom of Information Act that would allow BPA to refuse to disclose any information it defines as "government commercial information." BPA has been criticized in the past for unnecessarily withholding information from the Council, Congress, and the public. In the task force's July 12, 1993, hearing, the Chair criticized BPA for failing to share with the Council information relating to natural-gas costs for the Tenaska natural gas combustion turbine. He also criticized the Council for approving the project without having reviewed the data being held in confidentiality by BPA.[35] As drafted, the Freedom of Information Act exception is overly broad, perhaps even unnecessary.

Finally, in many instances throughout the draft, unspecified laws are made inapplicable to the corporation. This makes it very difficult for members of the public to understand the likely impacts of the legislation.

C. FINDINGS AND RECOMMENDATIONS

- The goal of debt-restructuring legislation—to stabilize BPA rates and resolve the "repayment reform" controversy—is sound. The repayment issue should be resolved in a manner that will (1) provide long-term repayment certainty for BPA and its customers; (2) minimize near-term BPA rate impacts; and (3) not cause any increase in the Federal deficit as determined by the Congressional Budget Office.
- Despite failings by BPA, such as exceeding the annual borrowing limit recommended by the Appropriations Committees in the report accompanying the Fiscal Year 1993 Appropriations Act, the independence

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[34] "Savings from BPA Incorporation vs. Existing Situation and Administrative Action," Bonneville Power Administration memo, January 6, 1994.

[35] Hearing Part II, p. 111.

the agency has under current law should be retained. BPA requires flexibility to meet its legal obligations. However, a conclusive case has not yet been made that even more independence is necessary or appropriate.

- A properly structured government corporation proposal could be a benefit for BPA and the region. However, the Administration should proceed very cautiously in developing a proposal to convert BPA to a government corporation. No clear consensus supporting such a proposal emerged from hearings held by the Department of Energy and the Council earlier this year. There are legitimate concerns that the "side effects" from the enactment of a government corporation bill could conceivably cause harm far in excess of any benefits that might result from the legislation.
- The December 17 draft corporation bill would give BPA new authorities that exceed those the agency identified as necessary to make itself more efficient and competitive. BPA must take care to draft any new version of the corporation bill narrowly, to achieve the goals of the legislation as represented by BPA and only those goals. Where the needs of a BPA corporation require an exemption from a Federal statute, the statute should be specifically identified.
- Discussion regarding the potential savings from the corporation should be kept in perspective in relation to savings that can be achieved without legislation. BPA has identified $66 million in annual savings that it has the authority to achieve *now* under current law. BPA and the Administration should aggressively pursue these savings as well as other savings identified in this report. According to BPA, $34 million in additional annual savings would result from corporate status. Of course, a corporation could also give BPA greater flexibility in meeting the demands of changing energy markets and customer concerns. It is difficult to place a value on the benefits such flexibility could provide.

IV. CUTTING COSTS—CUTTING RATES

BPA is currently experiencing severe financial pressures due to a wide variety of factors, including a series of extremely dry years, increased electric demand, low aluminum prices,[36] failure to increase rates in the past, and modifications of power operations to reduce harm to endangered salmon. As a consequence, BPA raised its rates about 14 percent in October 1993.

As noted above, even this recent rate increase has not raised BPA's rates to their 1984 level in real terms. However, the rate increase has led BPA and many others concerned with regional power matters to embark on an effort to cut BPA costs and make BPA more "competitive." According to BPA Administrator Randy Hardy, every $25 million that BPA saves roughly translates into reducing electricity rates by 1 percentage point.[37]

The majority staff has identified about $150 million in potential annual budget savings that do *not* compromise BPA's commitment to sound environmental stewardship. In a number of instances, these budget savings could also advance important Northwest Power Act goals such as encouraging more efficient use of regional water and power resources. BPA is properly considering many additional savings and efficiencies as part of its Competitiveness Project.

A. WASHINGTON PUBLIC POWER SUPPLY SYSTEM

Proponents of cutting BPA costs often fail to focus on the fact that approximately 25 percent of BPA's budget is devoted to paying for debt service, operations, and "mothballing" of the three Washington Public Power System nuclear plants. The WPPSS fiasco occurred because BPA in effect agreed to pay for all of the costs of three nuclear plants built by WPPSS. Only one of these three plants has been completed (WNP-2) and it has a very poor operating record, though the plant's management has been able to substantially improve the plant's capacity during the last year. The other two (WNP-1 and WNP-3) were never completed, but BPA continues to pay for the debt incurred on their construction and for the cost of mothballing them in case their power is ever needed. Between 1979 and 1983 BPA's priority firm electric power rate increased by about 600 percent in nominal terms, largely due to the costs of WPPSS.[38]

According to data provided by BPA and the Congressional Research Service (CRS), the costs of running the WPPSS WNP-2 reactor are far higher than the nuclear industry average for similar plants. WPPSS costs are further increased by wasteful spending on mothballing the incomplete WNP-1

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[36] As discussed on p. 7 above, the DSI power rate is linked to the price of aluminum.

[37] Hearing Part I, p. 18 (testimony of Mr. Randall W. Hardy).

[38] *Wholesale Power and Transmission Rate Projections and Historic Wholesale Power Rates 1939-1992*, Bonneville Power Administration, November 1993.

and WNP-3 reactors. Despite the apparent inefficiencies in WNP-2 operations, BPA has *never* formally disapproved *any* WNP-2 expenses.[39]

CRS estimates that the average industry capital expenditure for reactors comparable to WNP-2 is about $23 million per year.[40] In 1993, WNP-2 capital expenditures were almost $80 million.[41] For FY 1994-1996 capital additions are budgeted at approximately $50 million per year, and for FY 1997-2003 capital additions are estimated to be $35-$40 million.[42] Some of the 1993 costs were one-time only costs.[43] Nonetheless, if WNP-2 capital expenditures were reduced to the industry average, annual savings of between $10 million and $25 million per year would result in FY 1995 and FY 1996.

WPPSS currently has approximately 1,550 full-time staff for the WNP-2 reactor.[44] CRS estimates that the average staffing for comparable reactors is 1,250 positions.[45] The average annual cost per staffer at WNP-2 is $64,573.[46] Consequently, if WNP-2 staffing is brought down to the industry average, eliminating 300 extra positions, savings of about $20 million per year would result.

In April 1993, BPA initiated efforts to terminate WNP-1 and WNP-3; however, the WPPSS Board has yet to vote for termination. Thus, the continuing cost of mothballing the WNP-1 and WNP-3 reactors remains at about $10.5 million per year, half of which is paid from BPA revenues, the other half from the WNP-1 construction fund.[47] In addition to annual savings, termination of WNP-1 and WNP-3 would also yield one-time savings from the sale of as much as $100 million of reactor fuel that would no longer be needed.[48]

Because so much of the BPA budget is devoted to WPPSS, the majority staff has devoted considerable attention to identifying savings in this area. Of

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[39] Hearing Part I, p. 93 (supplement to the statement of Mr. Randall W. Hardy).

[40] Congressional Research Service, "Nuclear Power Plant Costs and Staffing," Memorandum to Committee on Natural Resources by Mark Holt, Specialist in Energy Policy, Environment and Natural Resources Policy Division, January 5, 1994 (hereinafter CRS January 5 Memo).

[41] Hearing Part I, p. 96 (supplement to statement of Mr. Randall W. Hardy).

[42] CRS January 5 Memo.

[43] According to BPA staff, $24 million of the $80 million was an investment in increased plant capacity, which BPA considers a resource acquisition cost, and $17 million is attributable to the settlement of a lawsuit between the WPPSS and General Electric.

[44] Congressional Research Service, "Additional WNP-2 Cost and Staffing Information," Memorandum to Committee on Natural Resources by Mark Holt, Specialist in Energy Policy, Environment and Natural Resources Division, January 24, 1994.

[45] Ibid.

[46] Ibid.

[47] Hearing Part I, p. 92 (supplement to statement of Mr. Randall W. Hardy).

[48] Ibid.

course, the fundamental mistake that BPA made many years ago to back these plants financially cannot be reversed, and the region will continue to live with the consequences for many decades. Nevertheless, considerable opportunities for savings do exist within WPPSS.

B. IRRIGATION POWER RATES

1. Bureau of Reclamation

One of the largest consumers of federally generated hydropower in the Northwest is the Federal Bureau of Reclamation (BuRec), which uses the electricity to pump water through its irrigation distribution systems. BuRec estimates that it uses about 480 MW of hydropower for pumping.[49] The price that BuRec pays for power is passed on to its irrigation customers through operation and maintenance payments or a separate energy charge.

The rate that BuRec pays for this power—and passes through to its customers—is generally set by the Secretary of the Interior under Reclamation law. The price BuRec pays varies depending upon the project; however, in all cases it is less than half the 26.8 mill priority firm rate paid by most BPA customers.[50] In fact, over two-thirds of the power consumed by BuRec is used in the Columbia Basin Project and is sold for 0.95 mills, less than one twenty-eighth of the 26.8 mill priority firm rate.[51] Charging BuRec the same rate for power that other BPA customers pay would raise approximately $32 million a year.

Before the 600 percent BPA rate increase that resulted in the early 1980s from the WPPSS fiasco, the disparity between the electricity price paid by BuRec and the price paid by other BPA customers was not a major concern. But by 1994 this disparity has grown to the point where other regional power consumers find themselves paying the lion's share of the costs for BuRec power.

In addition, the extremely low price for irrigation pumping electricity also encourages the increased use of water resources that might otherwise be used for power generation or other purposes. BPA has not quantified the amount of power generation lost due to BuRec's irrigation pumping discount. However, even if the low rate BuRec pays for power causes only a moderate increase in water use and consequent loss of power generation, considerable revenue is lost to the region. Finally, more efficient water use would also assist efforts to restore salmon runs.

2. Private Irrigation Discount

In addition to the extremely low price BuRec pays for power used for pumping purposes, BPA provides discounts to individual irrigators who use electricity for water pumping in their own irrigation distribution systems. BPA will forego a total $27.018 million in FY 1994 and FY 1995 due to the

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[49] Mr. Al Bolin, Bureau of Reclamation, Boise Office, telephone conversation with task force staff, February 1994.

[50] Bureau of Reclamation, Boise Office, written response to task force inquiry, February 11, 1994.

[51] Bureau of Reclamation, written response to task force inquiry, February 9, 1994.

irrigation discount.[52] In order to understand the magnitude of the water depletion attributable to irrigation withdrawals in the Columbia River basin, and the theoretical resulting lost power-generation opportunities, the task force asked BPA to provide an estimate of the amount of foregone revenue attributable to water withdrawals using discounted BPA-supplied power. BPA's estimate of lost power sale revenues attributable to irrigation withdrawals was $150–$300 million per year.[53]

Proponents of the irrigation discount argue that it helps increase energy consumption in the summer when other BPA loads are low and BPA needs to increase flows for fish purposes. This argument, however, ignores the fact that the value of this power to the region can be maximized through exchange agreements with Southwest utilities, in which BPA agrees to supply power to meet their peak summer loads in exchange for the Southwest utilities providing power to the Northwest to meet peak winter loads. Thus, by increasing electricity consumption for irrigation pumping, the discount in some cases prevents more valuable power exchanges.

In addition, like the low rates that the Bureau of Reclamation pays for power, the irrigation discount may have the effect of increasing water use, or at the very least, offering no incentive for more efficient water use. Again, increased water use has a variety of negative impacts on the region, including diminishing hydroelectric production and increasing the cost and complexity of restoring salmon runs.

It should be noted that BPA's Draft Marketing Plan assumes the elimination of the irrigation discount.

C. SUPER GOOD CENTS

BPA's "Super Good Cents" program provides a $2,500 payment toward the construction of energy-efficient all-electric homes. This payment is provided throughout the BPA service territory, including areas that are currently served by natural gas. According to BPA, between FY 1985 and FY 1992 it spent about $8.4 million on Super Good Cents subsidies for new construction in areas where gas is currently available.[54] BPA estimates that it will spend $3–$5 million per year on these payments from FY 1994 to FY 1998.[55]

This has the effect of encouraging builders, who are economically compelled to minimize up-front construction costs, to install electric space and water heating systems in new homes, even when it would be more prudent to install gas systems. As a result, Super Good Cents discourages the use of natural gas for space and water heating in new homes constructed in the Northwest. This in turn stimulates new demand for electricity, which requires BPA to acquire costly new resources contrary to the energy conservation mandate of the Northwest Power Act.

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[52] Hearing Part I, p. 88 (supplement to the statement of Mr. Randall W. Hardy).

[53] Hearing Part III, pp. 57-58 (prepared statement of Mr. Randall W. Hardy).

[54] Hearing Part I, p. 99 (supplement to the statement of Mr. Randall W. Hardy).

[55] Ibid.

Ironically, BPA intends to meet part of the increased demand for electricity in the Northwest by purchasing the output of the proposed Tenaska natural gas turbines. It must be noted that direct gas use in the home produces about two times more energy than burning the same gas in a turbine to produce electricity that is subsequently used for space- or water-heating purposes.

In defense of its practice of providing electric heating subsidies in areas served by natural gas, BPA claims that 2.0 MW of efficiencies would be lost in multifamily construction if the payments were canceled.[56] BPA neglects to mention, however, the cost savings that would result from the reduced demand for electricity if gas is utilized for heating purposes. It is also interesting that BPA does not claim that any electrical efficiencies would be lost from terminating Super Good Cents payments for single-family construction in areas currently served by natural gas.

BPA asserts that market forces are sufficient to encourage appropriate fuel switching to natural gas, without considering the market barriers that exist to prevent customers from using gas. For example, according to the NCAC, a number of BPA's customer utilities require their customers that receive weatherization financing to agree not to convert to gas. This prompts NCAC to ask the following question, "If it is worth paying a customer $2,000 to reduce their heating load on the electric system by 30 percent, through weatherization, why discourage that customer from reducing their heating load by 100 percent for the same price?"[57]

D. FINDINGS AND RECOMMENDATIONS

As part of its "reinvention" effort, BPA has identified $66 million in annual administrative savings that it has the authority to accomplish under current law, without becoming a government corporation. These savings include personnel cuts, procurement changes and other reforms. However, current efforts to cut BPA costs could ultimately compromise important regional goals established by the Northwest Power Act, such as energy efficiency and the protection of fish and wildlife resources.

What follows are budget savings that BPA could achieve that would produce approximately $150.5 million of savings per year starting in 1995. BPA's proposed savings combined with the potential savings of up to $150.5 million identified by the majority staff can significantly reduce BPA's costs and rates. BPA should move to implement as many of these savings as possible.

Strongly Recommended Savings:

- *WPPSS: Total Annual Savings—$55.5 million*

  About $55 million in annual savings could be gained through improving the efficiency of WPPSS. If WNP-2 costs cannot be reduced—and safety improved—then BPA and the region should consider the option of permanently shutting down the reactor. At any rate, BPA must use the tools at its disposal to reduce wasteful spending at WPPSS.

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[56] Ibid.

[57] Hearing Part II, p. 170 (attachment to prepared statement of Mr. K.C. Golden, Northwest Conservation Act Coalition).

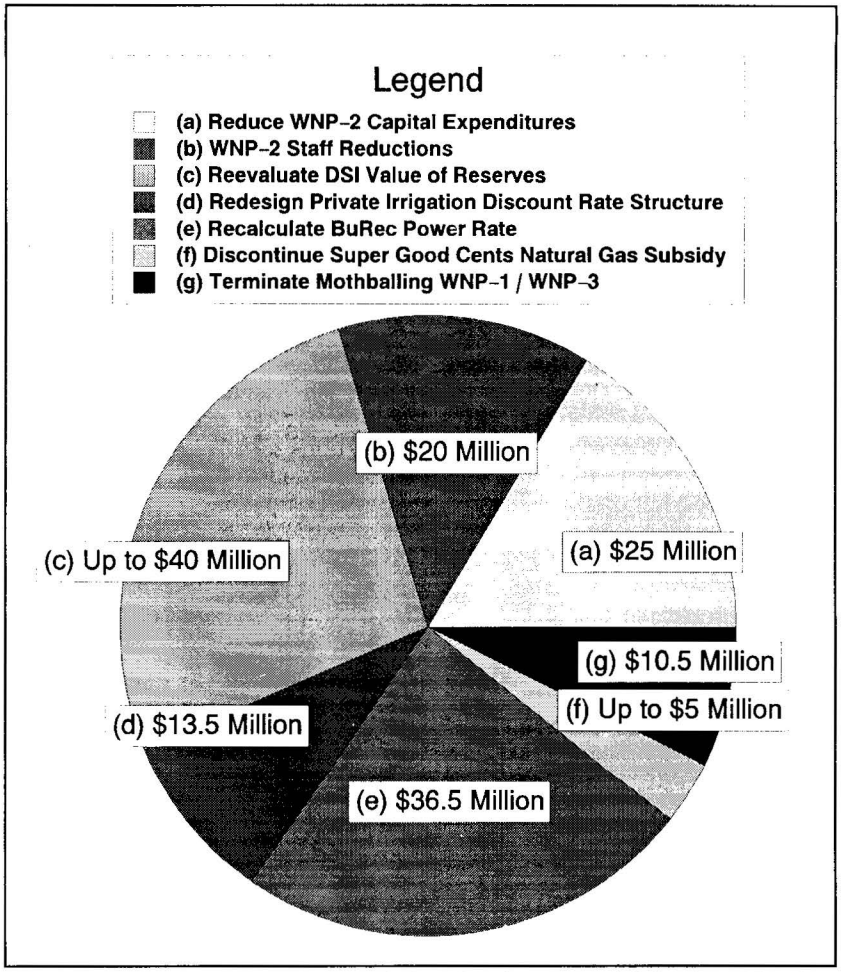

Figure 1. Strongly Recommended and Other Potential Savings Totaling $150.5 Million

BPA should insist upon the following savings in WPPSS expenses:

- *WNP-2 Capital Expenditures: Annual Savings—$25 million*

It should be noted that the new manager of WPPSS, William Counsil, plans to reduce WNP-2 capital expenditures to below the industry average. BPA should hold him to his stated goal.

- *WNP-2 Staff: Annual Savings—$20 million*

BPA, and the region, can no longer afford to permit WPPSS to run a jobs program. Again, it should be noted that Mr. Counsil is attempting to reduce the size of the WNP-2 staff.

- *Terminate Mothballing: Annual Savings—$10.5 million*

Continuation of mothballing is unjustifiable. The practice should have been terminated years ago when it became apparent that completing WNP-1 and WNP-3 would be far more expensive than a wide range of other energy resources available in the Northwest. The recent closure of the Trojan reactor reinforces the conclusion that additional nuclear generation is not economically viable in the Pacific Northwest.

Recently, WPPSS has announced that it is exploring the option of completing WNP-1, using a mixture of uranium and weapons grade plutonium to fuel both WNP-1 and WNP-2. The decision to end BPA funding of mothballing should not be delayed on account of this far-fetched proposal, which may just be a tactic to delay the mothballing decision.

If the WPPSS Board does not vote for termination by May 1994 as requested by Administrator Hardy, BPA should take a series of unilateral actions to force the WPPSS Board to agree to termination, including the following:

— disapproval of any proposed WPPSS budget that continues to preserve WNP-1 and WNP-3; and
— joining the Clark and Mason utilities as a party plaintiff in their suit supporting termination of WNP-1 and WNP-3.

BPA should also consider other steps, including filing a separate lawsuit barring WPPSS from using any Construction Fund money to pay for preservation and seeking State legislation to terminate WNP-1 and WNP-3.

If BPA and WPPSS do not act as expeditiously as possible to terminate mothballing then it may be necessary for Congress to address the issue through legislation that would remove WNP-1 and WNP-3 from the Federal base system.

- *Super Good Cents Payments: Annual Savings—Up to $5 million*

BPA should stop making Super Good Cents payments in areas served by natural gas. At bottom, BPA's reluctance to discontinue Super Good Cents payments in areas served by natural gas results from pressure by some of its utility customers to *increase* electricity demand and utility revenues. BPA can no longer afford to support this type of subsidy at the expense of regional ratepayers.

Other Potential Savings:

Along with the strongly recommended savings, the majority staff has identified certain costs to BPA associated with the lower wholesale rates offered to BPA's irrigation utility customers and the Bureau of Reclamation. Whether these subsidies should be discontinued or modified in order to provide incentives for greater water conservation is an open question, but one that should be addressed. For the purposes of comparison, this report includes the estimated savings from a complete elimination of the known irrigation subsidies.

Another open question is the appropriate value of the DSI reserves. Though the reserves are clearly overvalued at present, the majority staff does not take a position as to their appropriate value. Again, for the purposes of

comparison, this report uses figures provided during the task force's hearings to estimate the savings that could be attained by recalculating the value of the DSI reserves.

- *BuRec Power Rate: Annual Savings—$36.5 million*

  The Secretary of the Interior should reevaluate the policies that have led to BuRec's paying less than 1 mill per kwh when most customers are paying over 26.8 mills. Minimally, the agency should seek to set rates that encourage energy and water conservation in the region. If necessary, the agency should consider seeking congressional authorization to do so.

- *Private Irrigation Discount: Annual Savings—$13.5 million*

  The discount for private irrigation pumping, which tends to encourage increased electricity and water use, also runs contrary to the Northwest Power Act's mandate to encourage efficient use of energy. At a time when BPA is considering establishing a tiered rate that will charge customers a higher rate as their consumption increases, the results will be undercut by the irrigation discount, which actually encourages increased consumption. It also makes little sense to perpetuate a rate structure that offers no incentive for water conservation when the region is trying to provide more water for fish flows. As noted, BPA plans to eliminate the irrigation discount as it is now structured. BPA should design a rate structure in its place that discourages excessive energy and water consumption and encourages new conservation efforts.

  More efficient water use would also translate into additional revenues for BPA from the sale of power generated by increased flows.

- *Value of DSI Reserves: Annual Savings—Up to $40 million*

  As mentioned on page 8, the value of the interruptible portions of the DSI loads is clearly out of date and should be reevaluated. The potential savings to BPA and its ratepayers range as high as $40 million.

V. SALMON RECOVERY

The Northwest Power Act requires that the Columbia basin's fish and wildlife resources receive equitable treatment with respect to power production.[58] As with planning a strategy for meeting regional power demand into the next century, planning a strategy for restoring and maintaining Columbia basin salmon stocks into the next century must begin with regionwide participation and coordination under the Northwest Power Act. Although a regional fish and wildlife plan has been developed, efforts to implement that plan have been only partially successful.

The task force's examination of this issue focused on the *Strategy for Salmon* developed by the Northwest Power Planning Council[59] and efforts by BPA and others to carry out the *Strategy*. The plan's goal is "the doubling of the total number of adult salmon and steelhead in the Columbia basin as fast as possible without further loss of biological diversity among or within anadromous and resident fish populations."[60] The Endangered Species Act requires that these efforts be supplemented by the National Marine Fisheries Service's adoption of a recovery plan for those salmon stocks listed as endangered or threatened under Federal law.[61]

A. STATUS OF THE SALMON

Estimates of Columbia basin salmon runs predating European settlement range from 7.5–16 million.[62] Those stocks have now been reduced to fewer than 2.5 million, more than 70 percent of which come from hatcheries.[63]

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[58] Section 4(h)(11)(A)(i) of the Pacific Northwest Electric Power Planning and Conservation Act requires that the BPA Administrator exercise his responsibilities in a manner that "provides equitable treatment for . . . fish and wildlife . . . ." Northwest Power Planning Act § 2, 16 U.S.C. § 839.

[59] Northwest Power Planning Council, *Strategy for Salmon*, Vols. I & II, Doc. Nos. 92-21 and 92-21A (October 1992).

[60] Ibid., section 2.1A, Vol. II, p. 18.

[61] NMFS' Endangered Species Act responsibilities have given it a role in salmon restoration at three different stages: (1) listing individual salmon stocks as threatened or endangered species; (2) issuing "biological opinions" that determine whether proposed federal agency actions will "jeopardize" the survival of listed species; and (3) developing recovery plans for listed species. ESA §§ 4, 7, 16 U.S.C. §§ 1533, 1536.

[62] Congressional Research Service, "Salmon in the Pacific Northwest: Endangered Species Act Issues," Issue Brief by Eugene H. Buck, Amy Abel, and Betsy Cody, Environment and Natural Resources Policy Division, p. 1, April 5, 1993.

[63] Ibid.

The major factors that have contributed to this depletion have been described as the "four Hs":

- poor **h**atchery management;
- fisheries **h**arvest;
- **h**ydropower dam construction and operation; and
- **h**abitat degradation due to many activities in the watershed, including pollution, which reduce salmon health and survival, and water diversions for irrigated agriculture.

Despite regional efforts to restore and maintain wild salmon stocks, NMFS listed the Snake River sockeye as "endangered" under the Federal Endangered Species Act in November 1991, followed by separate "threatened" listings for two Snake River chinook stocks in April 1992. During 1993, regional conservationists filed two additional petitions with NMFS, requesting ESA listing of three additional salmon stocks: (1) the mid-Columbia chinook populations; (2) the entire southern range of coho;[64] and (3) steelhead populations throughout the basin.

Further endangered species listings may well occur. In early 1992, the American Fisheries Society reported 214 separate native salmon stocks at risk in California, Washington, Oregon, and Idaho.[65] Since NMFS applies different standards from those used by the Fisheries Society to determine whether various salmon runs should be treated as separate species under the Endangered Species Act, the number of endangered species listings will be far lower than 214. Once a species is listed, however, NMFS may address the independent needs of the various populations of the species in developing a species recovery plan.

Two potentially inconsistent goals have guided efforts to restore salmon populations: maintaining and increasing treaty and commercial salmon stocks for harvest and protecting and restoring naturally spawning salmon stocks. These goals are not inherently contradictory, but can become inconsistent when hatchery management and harvest practices targeted at the commercial stocks also damage wild runs. However, wild fish advocates argue that the hatchery stocks are doomed as well unless wild stocks are maintained to support genetic diversity in the hatcheries.

B. SALMON RECOVERY MANDATES

Regional efforts to restore salmon populations and maintain wild salmon stocks have centered around the measures recommended in the *Strategy for Salmon*. In the Columbia River mainstem, the principal responsibility for executing the plan rests with the BPA, but the other river management agencies, the U.S. Army Corps of Engineers (Corps) and Bureau of Reclamation, also play a role. The actions of these three river managers under the Council's plan are constrained by their separate duty to comply

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[64] Coho salmon are largely extinct in the Columbia basin; but if the remaining stocks are listed, recovery efforts could affect the Columbia River and certainly would affect ocean fishery management.

[65] Willa Nelson, Jack E. Williams, and James A. Lichatowich, "Pacific Salmon at the Crossroads: Stocks at Risk from California, Oregon, Idaho, and Washington," *Trout*, Winter 1992, p. 21.

with the ESA as interpreted by NMFS. Other Federal agencies, such as the Forest Service and Bureau of Land Management, are also directed to take the Council's program into consideration when planning their management actions.

1. Council Plan—the Strategy for Salmon

Under the Northwest Power Act, the Council must develop a program:

> . . . to protect, mitigate and enhance fish and wildlife affected by the development, operation, and management of [federal power] facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply.[66]

The Council has approached this challenging task in stages. The third phase of the Council's fish and wildlife program merged its earlier efforts into the comprehensive *Strategy for Salmon*. A fourth-phase plan addresses conservation of resident fish and wildlife.

The *Strategy for Salmon* adopted two separate goals—to double the total salmon runs and to conserve existing diversity. Both of these goals are essential to the purposes of the Northwest Power Act *and* to the full implementation of the Council's mandate. Although the mandates of the Endangered Species Act draw public focus to the plight of the weakest stocks, restoring harvestable stocks is also essential to the Northwest Power Act and to meeting treaty commitments to the basin's Indian tribes.

The *Strategy* seeks improvements in salmon survival at every stage in the salmon's life cycle. The plan calls for the development of rebuilding targets for each run of naturally spawning salmon.[67] It provides interim rebuilding targets for Snake River spring, summer, and fall chinook.[68]

Like most projects affecting salmon in the Northwest, the *Strategy for Salmon* has not gained universal endorsement. Certain commercial interests whose use of the Columbia River would be affected filed a lawsuit challenging the plan in Federal District Court; environmental advocates have joined the suit. The *Strategy* has been correctly criticized for its weakness in the areas of ocean survival and harvest.[69]

The *Strategy for Salmon* requires scores of individual actions by all the agencies acting in the Columbia basin to achieve the goal of doubling salmon populations without losing biological diversity. Two of the most controversial aspects of the *Strategy* have been measures affecting management of water and power; namely, increases in river velocity and salmon transportation. Two principal mechanisms are designated to increase river velocities for improved salmon passage: increased water flow and drawing down the level of reservoirs along the migration corridor.

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[66] Northwest Power Act § 4(h)(5), 16 U.S.C. § 839b(h)(5).

[67] Ibid., section 2.3, Vol. II, p. 21.

[68] Ibid., section 2.2, Vol. II, p. 20.

[69] For example, see Hearing Part III, p. 44 (testimony of Mr. Randall W. Hardy).

The *Strategy* makes a distinction between actions to improve mainstem survival that can be taken immediately and actions that will require more time to evaluate and implement. The plan states specifically that the immediate measures will not be sufficient to rebuild some weak stocks.[70]

The *Strategy for Salmon* specifies immediate actions to achieve a "flow equivalent" target of at least 85,000 cfs at Lower Granite from April 16 through June 15 for Snake River spring migrants.[71] This level of water flow was met in 1993 operations, in part because BPA, the Corps, and NMFS had to meet targets set by NMFS under the ESA, discussed below. The *Strategy* also requires further flow augmentation to reduce water temperature for fall Snake River migrants and enhance flows in the Columbia as well. By contrast, the Columbia Basin Fish and Wildlife Authority has requested minimum flows between 100,000 and 140,000 cfs in all years in the Snake and between 220,000 and 300,000 cfs in the Columbia.[72]

As stated, the Council's plan recognizes that its immediate measures are not likely to be sufficient to rebuild salmon populations. As an additional means for improving water velocities, the *Strategy for Salmon* requires studies of the potential to lower the level of certain reservoirs to make the shape of the reservoirs more like the historic river during juvenile migration periods. There are two major parts of these drawdown recommendations. The first involves drawing down the level of the John Day reservoir on the lower Columbia River to minimum operating pool—the minimum level at which the John Day Dam was designed to operate.[73] The second would depend upon new studies of lowering four lower Snake River reservoirs, possibly *below* minimum operating pool, which would require dam modifications.[74]

These drawdown proposals have been quite controversial among many entities that rely upon commercial use of the reservoirs. At the task force hearing, utility representatives argued that there was insufficient evidence that drawdowns or increased river speeds would help the salmon.[75] An organization representing various commercial users of the river presented the irrigation utilities' argument that drawdowns would be the "least viable, least

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[70] *Strategy for Salmon*, section 3, Vol. II., p. 23.

[71] Ibid., section 3.2, Vol. II, p. 25. The "flow equivalent" is a measure of water particle travel time, which may be met in part by lowering reservoirs levels instead of increasing water amounts passed down the river.

[72] Columbia Basin Fish and Wildlife Authority, "Proposed Flows for Columbia Basin Anadromous Fish," p. 9, March 1990. The Columbia Basin Fish and Wildlife Authority is composed of all the major fisheries agencies and Indian tribes in the Columbia basin. Although its original flow proposal was fairly brief, substantial technical justification was published in February 1991.

[73] *Strategy for Salmon*, section 3.6A, Vol. II, pp. 32-33.

[74] Ibid., section 3.5, Vol. II, pp. 30-32.

[75] Hearing Part III, p. 378 (prepared statement of Mr. Don Godard), pp. 461-462 (prepared statement of Mr. Al Wright), p. 475 (testimony of Mr. Al Wright), pp. 483-484 (testimony of Mr. Don Godard).

cost-effective" mechanism for restoring salmon runs.[76] An Idaho grain elevator operator argued that drawdowns would be costly and unnecessary.[77] By now, the studies and implementation of the drawdown plans have been delayed many years past the deadlines set in the *Strategy*.

The *Strategy for Salmon* acknowledges the degree of scientific uncertainty surrounding reservoir drawdowns, and establishes a process to monitor and evaluate the effectiveness of the measures taken in a manner that adds to scientific understanding and, ultimately, salmon recovery. Specifically, the *Strategy for Salmon* calls for reservoir drawdowns for the lower Snake River, unless such drawdowns are shown to be structurally or economically infeasible or biologically imprudent.[78]

The *Strategy* also requires that measures necessary to operate the John Day reservoir at minimum operating pool from May 1 to August 31 be evaluated and implemented while providing mitigation for the impacts of operating the reservoir below the minimum irrigation pool.[79] The Council estimates that a John Day drawdown would reduce water particle travel time between McNary and Bonneville Dams by one to two days, which represents a decrease of about 10 percent. To achieve the same reduction in travel time from increased flows would require about 3.1 million acre-feet of water from upstream storage.[80] A John Day drawdown would benefit not only listed Snake River salmon stocks, but also mid-Columbia summer chinook now petitioned for listing.

In 1993, Congress appropriated $2 million for Advanced Planning and Design of modifications to public and private facilities that would be affected by a drawdown. The Corps has barely begun design work. The Corps estimates that at its present rate of progress, it will be 1999 before a John Day drawdown can be implemented.[81]

Another controversial feature of the *Strategy for Salmon* is the provision for juvenile salmon "transportation," which involves collecting salmon smolts at each of the Lower Snake River dams and barging them downstream to the Columbia River estuary. The effectiveness of this practice has been the subject of substantial dispute. Competing scientific studies suggest on the one hand that most of the smolts survive the trip and on the other hand that, although the voyage in artificial containers does not kill many hatchery fish, it has a much greater impact on wild salmon. In addition, survival to the estuary may not be the full measure of success for transportation; some argue

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[76] Ibid., p. 342 (materials accompanying prepared statement of Mr. Bruce Lovelin), p. 330 (prepared statement of Mr. Bruce Lovelin), p. 473 (testimony of Mr. Bruce Lovelin).

[77] Ibid., pp. 509-510 (testimony of Mr. Joe Stegner).

[78] *Strategy for Salmon*, section 3.5, Vol. II, p. 30.

[79] Ibid., section 3.6A, Vol. II, pp. 32-33.

[80] Ibid., p. 428 (materials accompanying prepared statement of Mr. Jim Baker).

[81] Hearing Part III, p. 293 (testimony of Maj. Gen. Ernest J. Harrell).

that the smolts have high mortality after release from the barges and may not receive the imprinting necessary for adult return to their native streams.[82]

Despite the regional consensus represented by development of the Council's plan, the Northwest Power Act does not require that Federal agencies adhere to the Council's fish and wildlife program. Instead, it requires that Federal agencies operating power facilities on the Columbia River "tak[e] into account at each relevant stage of decisionmaking processes to the fullest extent practicable, the program adopted by the Council . . . ." In addition, BPA is to use its financial resources and authorities "in a manner consistent with the plan." There has been much dispute over whether the agencies have met these standards.[83]

If the Council finds BPA's actions inadequate, it may make a formal Council determination of inconsistency with the plan. A Council finding of inconsistency would trigger a series of actions under the Northwest Power Act.[84] Again, this statutory process ends with a judgment made by the BPA Administrator, rather than the Council, regarding consistency with the Council's plan and Federal law. The threat of an inconsistency finding in mid-1993 led to productive negotiations between BPA and the Council over the content of BPA's fish and wildlife program.

2. NMFS Endangered Species Act Mandates

NMFS's efforts on behalf of salmon are focused on those naturally spawning salmon stocks listed or proposed for listing as threatened or endangered. Since the 1991 and 1992 listings of Snake River stocks, the agency has reviewed annual plans of operations for the river and begun to develop a recovery plan for those stocks.

As part of its statutory obligation to review whether agency activities will jeopardize listed species, NMFS has been heavily involved in the development of annual plans of operations for the reservoirs developed by BPA, the Corps, and BuRec. The 1992 and 1993 operating plans and biological opinions were challenged in court by several fishing and environmental groups. The State of Idaho filed a separate suit over the 1993 biological opinion. The State of Oregon joined Idaho in its challenge.

Environmentalists' attempts to obtain a court order to stop barging of salmon smolts in 1993 were unsuccessful. A recent decision on the States' suit in federal court, however, overturned the 1993 biological opinion, which formed the basis for a biological opinion on 1994–1998 operations as well.

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[82] Ibid., pp. 398-939, 403 (materials accompanying prepared statement of Mr. Jim Baker).

[83] Contrast Ibid., pp. 45-47 (prepared statement of Mr. Randall W. Hardy) and p. 159 (prepared statement of Maj. Gen. Ernest J. Harrell) with Ibid., pp. 365-367 (prepared statement of Mr. Ed Chaney), pp. 384-385, 393 (prepared statement of Mr. Jim Baker), pp. 597-598 (additional material submitted by Mr. Lionel Q. Boyer), and pp. 658-659 (additional material submitted by Columbia River Inter-Tribal Fish Commission (CRITFC)). CRITFC represents four tribes living in the Columbia River basin: the Umatilla, Warm Springs, Yakama, and Nez Perce Tribes. Ibid., p. 288.

[84] Northwest Power Planning Act § 4(j), 16 U.S.C. § 839b(j).

The judge found that NMFS's 1993 finding of "no jeopardy" to the endangered and threatened stocks was based on an analytical process that

> . . . is too heavily geared towards the status quo that has allowed all forms of river activity to proceed in a deficit situation—that is, relatively small steps, minor improvements and adjustments—when the situation literally cries out for a major overhaul. Instead of looking for what *can* be done to protect the species from jeopardy, NMFS and the action agencies have narrowly focused their attention on what the establishment is capable of handling with minimal disruption.[85]

The court remanded the biological opinion to NMFS for revision; further proceedings to bring the biological opinion on river operations into compliance with the ESA will continue over the next weeks and months.

The 1993 biological opinion was arrived at in negotiation with the Corps and led to the adoption of the following targets for both spring and summer flows, in addition to other management practices:[86]

	Flow	Time Period
Lower Snake River	85,000 cfs	April 10 - June 20
(at Lower Granite Dam)	50,000 cfs	June 21 - July 31
Columbia River	200,000 cfs	April 20 - June 30
(at McNary Dam)	160,000 cfs	July 1 - July 31

The decision to require the summer flow meant that less of the 10.4 million acre-foot "water budget" stored for fish could be used in the spring, but substantial spring rainfall in the Snake River basin helped the agencies to meet these targets. One part of the biological opinion that caused some concern among fish advocates was designating these flows as "targets" rather than required minimums. But in fact, the flow targets were generally met.

NMFS recently issued a biological opinion finding that river operations over the next five years, 1994-1998, will not jeopardize the listed species of Snake River salmon.[87] This opinion evaluates an operations plan again developed by BPA, the Corps, and BuRec in consultation with NMFS. The flow targets remain the same, but varying amounts of additional water will be devoted to the flow augmentation "water budget" depending on water conditions each year. In addition, BPA will undertake to acquire more water for flow augmentation over the next five years. ESA consultation may be re-initiated if the agencies are unable to meet the flow requirements or the water

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[85] *Idaho Department of Fish and Game* vs. *National Marine Fisheries Service*, Civ. No. 92-973-MA, slip op. at 36 (D. Ore. March 28, 1994).

[86] Corps of Engineers, "Record of Decision, Columbia and Snake River Flow Improvement Measures for Salmon, Supplemental Environmental Impact Statement, Plan of Reservoir Regulation and Project Operations," pp. 16-17, June 18, 1993.

[87] National Marine Fisheries Service, biological opinion, March 16, 1994.

budgets prove inadequate due to drought.[88] The biological opinion also directs the Corps to design a biological test of a Lower Granite reservoir drawdown by January 1, 1995. Since this 1994-1998 biological opinion was based on the same analysis as the 1993 opinion, it will presumably be modified as well in light of the recent court order.

Each of NMFS's biological opinions regarding river operations has led to controversy, in part because the ESA consultation process has been conducted among the agencies in private with minimal public involvement. For example, the first public notice of the alternative under consideration for operations over the next five years was the issuance of a draft biological opinion allowing just seven days for technical review and comment. And under the ESA regulations, this notice and opportunity for comment was provided only to State and tribal governments. But, as noted by the court in the recent decision overturning NMFS's 1993 biological opinion, "the underlying root of the litigation problem is the feeling of these parties that the Federal Government is simply not listening to them."[89]

NMFS does claim to "encourage and consider any information volunteered by the public in its decision process."[90] In response to Chairman DeFazio's inquiry regarding this lack of public participation, NMFS acknowledged that there is no statutory or regulatory provision forbidding public involvement.[91] Rather, the ESA is silent on this issue while it requires public notice and comment for certain other activities related to endangered species.

NMFS suggests public participation in the process of developing a biological opinion would be "unwieldy."[92] NMFS also argues that such participation is less essential, since the biological opinion is not the product of policy debate, but rather scientific inquiry; the decision on final action by the consulting agency after issuance of the biological opinion is the appropriate point for public comment on policy.[93] This analysis disregards the practical process that takes place in developing a biological opinion and the potential benefits of public input. In a situation where NMFS is working actively with the river operating agencies to develop an alternative plan of operations that will not jeopardize the species, public comment—even constrained by short statutory time frames—might well suggest creative and valuable alternatives, or bring to the attention of agency scientists information regarding the potential impacts of a given alternative. The seven-day comment period provided for technical review by State and tribal governments might have been more useful if proposed alternatives had been suggested and public comments obtained in advance.

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[88] Ibid.

[89] *Idaho Department of Fish and Game* vs. *National Marine Fisheries Service*, slip op. at 34-35.

[90] Hearing Part III, p. 282 (prepared statement of Mr. J. Gary Smith).

[91] Ibid., pp. 302-306 (insert to testimony of Mr. J. Gary Smith).

[92] Ibid., p. 304.

[93] Ibid., pp. 302-303.

In fact, NMFS has tried seeking public comment more extensively in the development of a recovery plan for the listed species. A team of outside analysts convened by NMFS to develop a recommendation for a recovery plan for the three listed Snake River stocks has received public comment on its draft recommendations. Final recommendations for a recovery plan will be issued later this year; NMFS will then review the recommendations and adopt a final recovery plan.

Unfortunately, the ESA does not require that measures be taken to achieve species recovery in fact after a "recovery plan" is adopted. This gap in the statutory scheme means that once the recovery plan is developed there is no guarantee that it will be followed. Agencies need not implement its recommendations. They may take any actions that a NMFS biological opinion determines will not place the species in "jeopardy." Agency actions would be limited only occasionally by NMFS opinions that actions will actually place the species in jeopardy of final extinction. Without any mandate for actual recovery, the ESA raises the prospect of salmon stocks constantly sustained on the brink of extinction.

C. AGENCY COMPLIANCE WITH THE MANDATES

Under the Northwest Power Act, BPA is the primary entity responsible for implementing the fish and wildlife program developed by the Council. The cost of the program is repaid by power sales. BPA Administrator Hardy testified that "virtually all" of 117 separate salmon-related actions identified in the *Strategy for Salmon* have been funded by the agency.[94] However, timetables for many of these actions, including major activities like reservoir drawdown studies, have slipped substantially.

1. Bonneville Power Administration

According to BPA figures, the cost of the fish and wildlife program has risen from $150 million in 1991 to $300 million in 1993.[95] These figures include $149 million in 1993 for foregone power production, which rose in cost over the last few years as water flows for fish increased and as regional drought raised the amount of BPA's power purchases and also the cost of each kilowatt-hour purchased.[96] Thus, much of BPA's cost resulting from reduced flows due to drought has been attributed to salmon recovery. This accounting is inconsistent with BPA's budget treatment of other constraints on flows available for hydropower production; for example, as mentioned, irrigation withdrawals reduce water flows that might produce $150–$300 million worth of annual power production, yet irrigation withdrawals are not treated as an annual expense by BPA.

BPA's administration of the fish and wildlife program has been criticized by both power users and environmental advocates. BPA's customers, conducting a "function-by-function review" of BPA's programs, presented draft recommendations to streamline and possibly restructure the

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[94] Ibid., p. 45 (prepared statement of Mr. Randall W. Hardy).

[95] Ibid., pp. 19, 28-29 (testimony and prepared statement of Mr. Randall W. Hardy). BPA estimates that the 1994-1998 biological opinion will boost annual fish and wildlife costs to $350 million.

[96] Ibid., pp. 19, 28-30, 40-41 (testimony and prepared statement of Mr. Randall W. Hardy).

administration of the fish and wildlife program.[97] Environmental advocates have argued that BPA commits excessive program resources to activities that are better implemented by fish and wildlife specialist agencies and that BPA has failed to implement all of the actions required by the *Strategy for Salmon* on the schedule set by the Council.[98]

The Columbia River Inter-Tribal Fish Commission and some private entities have recommended that BPA's fish and wildlife programs be transferred en bloc to the Fish and Wildlife Service, NMFS, or some combined group of fishery management agencies. In Administrator Hardy's written and oral testimony at the Bonneville Power Administration Task Force's September 24 hearing, he indicated a willingness to consider a lump sum transfer of fish and wildlife funds to one or more fish and wildlife agencies.[99]

A lump sum transfer could allow BPA to substantially reduce its fish and wildlife staffing level, which now stands at 77 FTE positions. Many of BPA's critics complain that the BPA's fish and wildlife program is at best redundant and, in some cases, operates at cross purposes with other Federal, State, and tribal fish and wildlife agencies.

BPA has adopted an analogous approach to funding its responsibility to implement the Council's resident fish and wildlife program. BPA has signed resident fish and wildlife trust agreements satisfying its responsibilities to the States of Idaho and Montana. Those agreements provide long-term mitigation for projects in those States while indemnifying BPA against further claims. The agency has signed an interim funding agreement with the State of Washington, worth $43 million and has provided the State of Oregon with $150,000 to fund its efforts to negotiate a resident fish and wildlife trust agreement.[100]

Apart from financing issues, BPA's implementation of flow augmentation for fish came under particular criticism in 1992, when the agency used water provided by Idaho water users only to move fish to barge collection sites at Lower Granite reservoir. From Lower Granite on, water intended to enhance flows for the length of the river downstream was offset by reduced flows from the Upper Columbia, whose water was held for power production instead.

BPA Administrator Hardy explained that the agency felt the flows were unnecessary in the Columbia because most of the endangered salmon smolts from the Snake River were presumed to be in barges by the Columbia reach of the river.[101] However, water is necessary in the Lower Columbia River to transport fish coming from the Columbia River watershed as well as any other smolts that have avoided the collection facilities in the Snake. In

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[97] "A Functional Review of Fish and Wildlife in the BPA," Draft Review Team Report, October 13, 1993.

[98] Hearing Part III, pp. 368 and 372 (prepared statement of Mr. Ed Chaney), pp. 384-85 (prepared statement of Mr. Jim Baker).

[99] Ibid., pp. 68-69 (prepared statement of Mr. Randall W. Hardy).

[100] Hearing Part III, p. 140 (testimony of Mr. Randall W. Hardy).

[101] Ibid., p. 152 (testimony of Mr. Randall W. Hardy).

addition, this reasoning leads to the contradictory result noted by Chairman DeFazio,

> We have got to barge salmon because there are not enough flows and then we do not have flows because we have got barges. It is hard for people to understand, mere mortals like me and I think some of the farmers; it is a little counter-intuitive.[102]

2. Corps of Engineers

The Corps of Engineers, not BPA, took the lead in developing the 1994–1998 river operation plan currently under consultation with NMFS. The Corps is also the lead agency for two long-term studies, the System Operation Review (SOR), and the System Configuration Study.

The System Configuration Study will evaluate various changes in the Columbia River system that might require new construction by the Corps. These include the *Strategy for Salmon*'s recommended drawdowns of the John Day reservoir below minimum irrigation pool and drawdowns of the lower Snake River reservoirs below minimum operating pool. The Corps' timetable for this analysis requires ten years before drawdown tests on the lower Snake are complete, salmon survival is analyzed, and a decision is made. A "Phase I" report on the study is scheduled for completion in spring of 1994, with drawdown testing in 1996.[103] The System Configuration Study also includes the possible construction of new salmon collection facilities to aid in barging smolts. As discussed above, the Corps has accelerated studies on the John Day drawdown, anticipating that the modifications might be completed as early as 1999.

The SOR, which incorporates some of the study questions recommended in the *Strategy for Salmon*,[104] is a separate study of hydropower operations in the Columbia River hydropower system taking into account the needs of the salmon. The SOR will produce an environmental impact statement (EIS) with options for new procedures to set hydropower operations, as well as new terms for the Pacific Northwest Coordination Agreement (PNCA), which expires in 1998.[105] The PNCA is a contract that determines how hydropower operations will be coordinated among Federal and non-Federal entities to guarantee, among other things, that the power production terms of the Columbia River Treaty with Canada are met.

3. Bureau of Reclamation

Despite the Council's recommendation that the Federal agencies explore alternatives for increasing water quantities available for salmon in the Columbia basin,[106] non-power-producing reservoirs of the Bureau of

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[102] Ibid., p. 153.

[103] Ibid., p. 293 (supplemental information included in testimony of Maj. Gen. Ernest J. Harrell).

[104] *Strategy for Salmon*, section 3.6D, Vol. II, p. 34.

[105] Hearing Part III, pp. 159-160 (prepared statement of Maj. Gen. Ernest J. Harrell).

[106] *Strategy for Salmon*, section 3.6C, Volume II, pp. 33-34.

Reclamation have been excluded from the SOR studies. BuRec Assistant Regional Director Kenneth Pedde asserted that incorporating these BuRec reservoirs into the study could delay the outcome of the SOR by 3-4 years, although the possible availability of BuRec water has been modeled using a hypothetical 15th reservoir in the studies.[107] The Corps also has mentioned that salmon needs would be protected as non-power uses which take priority under the terms of the PNCA.

BuRec's major role in the Columbia River system is to store and divert water for irrigation, but its Grand Coulee and Hungry Horse Dams also produce hydropower sold through BPA. BuRec has played a substantial role in obtaining additional water for salmon flows. The agency is working on model water conservation programs in the Grande Ronde River basin and the Yakima River basin. Unfortunately, water conservation efforts are to some extent undercut by BPA's prices for irrigation pumping power. In addition, as discussed in section D below, illegal water use and limitations of State water law have limited BuRec's effectiveness.

D. WATER LAW LIMITATIONS

Acquiring additional water to assist in moving juvenile salmon downstream is a major theme of the *Strategy for Salmon*, as well as NMFS's biological opinions under the ESA. BuRec has been able to assist in this effort because not all BuRec water has been contracted for, and significant water conservation savings can be obtained from BuRec customers in the Northwest. One area in which BuRec has directly moved to carry out the *Strategy*'s recommendations is in developing new conservation demonstration projects providing Federal money toward improved water conservation in the region.

However, BuRec's efforts to obtain water in the Snake River basin for out-of-state use have been stymied somewhat by restrictions in Idaho water law.[108] In addition, illegal "water spreading"—applications of irrigation water outside project boundaries or on land deemed unsuitable for irrigation—has prevented some conserved water from returning to the river system.

Idaho State law makes it very difficult to provide permanent protection for water used for fish. The Idaho Natural Resources Board may obtain permanent water rights for instream flows, or an existing water user may transfer its water to instream use, but several further standards constrain water that will flow out of the State. These standards make it virtually impossible to protect such water; a 1991 BuRec attempt to change the nature of use of its existing storage water rights to instream flow rights for salmon recovery encountered more than 650 letters of protest to the State water board.

Annual water rentals through Idaho water banks can provide water for salmon from year-to-year. Again, State law makes it difficult to obtain such rentals, and water bank rules discourage users from transferring water to

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[107] Hearing Part III, pp. 590-591 (testimony of Mr. Kenneth R. Pedde).

[108] Water conservation measures in the 1980s reduced irrigation diversions by 800,000 acre-feet, but none of that water was transferred to flows for fish. Hearing Part III, p. 578 (prepared statement of Ms. Garrison).

instream use.[109] The State legislature passed a special three-year exemption for BuRec to provide out-of-state flows from rented water through January 1, 1995.[110] This law requires only that the flows be part of an overall augmentation plan, and that other parties make a proportional contribution to salmon restoration. The BPA decision to offset Snake River flows by reducing flows from the Upper Columbia in 1992 led to allegations that BuRec's flows violated the provisions of the three-year exemption law.

On top of the State disincentives to transfer water to instream flows, Federal involvement in irrigation often undercuts BuRec's efforts to obtain water for salmon flows. BPA's reduced rate for irrigation pumping (discussed above on page 21) lowers the cost of irrigating and thus provides a disincentive to water conservation. In addition, BuRec has known for years that irrigation districts have illegally applied water to lands lying outside the approved scope of the Reclamation projects, yet has only recently convened a task force to address this practice. And BuRec has in the past been quite lax in enforcing the water conservation requirements of the Reclamation Reform Act of 1982, although new water conservation regulations are currently being drafted. As the region continues to look for ways to provide fish flows in the rivers, reform of these Federal policies could supply some of the needed water.

E. AGENCY SATISFACTION OF INDIAN TRUST RESPONSIBILITY

The Indian tribes of the Pacific Northwest region are among those most concerned with salmon recovery activities due to their historic dependence on salmon fisheries and their treaty rights to continued access to those fisheries. Since the Federal Government has a general trust responsibility to the tribes in addition to these specific treaty obligations, the Federal agencies must take tribal concerns into account in decisionmaking regarding the salmon. Unfortunately, the tribes have found the agencies' decision processes unresponsive and have remained some of the most vocal critics of BPA and other Federal entities in the Northwest. A petition by the Shoshone-Bannock Tribes led to the listing of the threatened and endangered stocks in the Snake River.

The tribes' criticism of salmon recovery efforts begins with the *Strategy for Salmon*. The Yakama Tribe has sued the Council over the adequacy of the plan, arguing that it meets the requirements of politics but not those of science.[111] Both the Columbia River Inter-Tribal Fish Commission and the Shoshone-Bannock Tribes told the task force that tribal concerns were inadequately addressed because of lack of tribal membership on or an intergovernmental relationship with the Council.[112] (Even NMFS supported adding tribal representation to the Council, which would require amending the Northwest Power Act.[113])

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[109] Ibid., p. 579 (prepared statement of Ms. Garrison).

[110] Idaho Code § 42-1763A.

[111] Hearing Part III, p. 288 (testimony of Mr. Anthony Van Pelt).

[112] Ibid., pp. 602 (additional material submitted by Mr. Lionel Q. Boyer), 657, and 660 (additional material submitted by CRITFC).

[113] Hearing Part III, p. 283 (prepared statement of J. Gary Smith).

In addition, the tribes have been highly critical of Federal agency efforts to restore salmon stocks, particularly the efforts of BPA. They feel they have been left out of important decisionmaking processes, even where the *Strategy for Salmon* mandates their involvement.[114] They expressed doubt that the agencies managing Columbia basin resources were even aware of the existence of their trust responsibility to the tribes.[115]

The lack of attention to tribal concerns is unfortunate also because Indian water rights could contribute to the solution to the problem of protecting water flows for fish. The Nez Perce Tribe has intervened in an Idaho State court adjudication of water rights on the Snake River, claiming a right to the water necessary to sustain salmon to meet their treaty fishing rights, with a mid-1800s priority date set by the treaties. If upheld by the court, this claim could provide the legal basis for maintaining adequate flows for Snake River stock.

F. FISH AND WILDLIFE PROGRAMS IN THE COMPETITIVENESS PROJECT

BPA has proposed tying fish and wildlife program spending to the agency's fiscal success.[116] One stated purpose is to give fish-protection advocates some stake in BPA's financial well-being. BPA also hopes to gain greater planning certainty by setting a "floor" for fish and wildlife expenditures that would only be exceeded during periods in which BPA is financially successful.

Since BPA's actual outlays for fish and wildlife expenses and capital outlays amounted to $82.5 million in 1993,[117] the potential for real savings through "incentivization" of the fish and wildlife program is probably small. In addition, BPA's statutory fish and wildlife responsibilities do not somehow evaporate during bad water years or other financially difficult periods.

G. FINDINGS AND RECOMMENDATIONS

- The Northwest must unite behind a single vision for salmon recovery if the purposes of the Northwest Power Act are to be achieved. To the extent a regional consensus on salmon recovery exists, it is represented by the Council's *Strategy for Salmon*. The *Strategy* is a comprehensive plan for rebuilding healthy and genetically diverse anadromous fish populations throughout the basin. It is aimed not only at recovering listed stocks and making future listings unnecessary, but also at producing harvestable numbers of fish for both Indian and non-Indian harvesters. The *Strategy for Salmon* was developed within the region with strong public participation.

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[114] Ibid., p. 289 (testimony of Mr. Anthony Van Pelt), pp. 597-598 (additional material submitted by Mr. Lionel Q. Boyer).

[115] Ibid., p. 604 (additional material submitted by Mr. Lionel Q. Boyer), p. 662 (additional material submitted by CRITFC).

[116] Hearing Part III, pp. 20-21 (testimony of Mr. Randall W. Hardy). Also see Final Draft Strategic Marketing Plan, February 1994 at p. 48.

[117] About one-half of BPA's estimated $300 million fish and wildlife budget consists of "losses" attributed to foregone power sales and resulting power purchases; see Hearing Part III, p. 29 (testimony of Mr. Randall W. Hardy).

- There has been considerable interest in the actions proposed to recover Snake River salmon stocks listed under the Endangered Species Act. However, the focus on listed stocks could detract from the fundamental purposes of the Northwest Power Act and the *Strategy for Salmon*, which seek basin-wide recovery of all affected fish and wildlife populations. Whatever the outcome of NMFS's ongoing efforts to protect and recover threatened and endangered species under the Endangered Species Act, those efforts should not compromise the implementation of an overall regional plan under the authority of the Council.

  Notwithstanding the measures proposed in any future ESA recovery plan or biological opinion governing operation of the Columbia River system, BPA and other Federal agencies continue to bear a responsibility to implement the *Strategy*. The *Strategy for Salmon* should not be delayed while ESA recovery plans are developed or NMFS's biological opinions are litigated. NMFS should work closely with the Council to ensure that its proposed actions are consistent with the *Strategy for Salmon*.

  On the other hand, the four States in the region should avoid undermining the regional consensus as they pursue their own parochial interests. The Council has been and should continue to be the forum for resolving regional conflicts.

- The *Strategy for Salmon* has suffered from uneven implementation and uncertain funding, with some significant actions falling well behind schedule. One theme sounded by many witnesses was the need for accountability for fish and wildlife mitigation measures.[118]

  The rebuilding targets called for in the *Strategy for Salmon* are the standard that must be used to evaluate salmon recovery efforts. It will be difficult, if not impossible, to judge the effectiveness of individual actions taken under the *Strategy* until these objectives are determined. State and tribal fish managers, working with the Council, should quickly complete the development of rebuilding targets for individual naturally spawning salmon runs within the Columbia basin.

- The causes of salmon decline are numerous, although the development of the Columbia basin's hydroelectric system almost certainly represents the single most significant human-caused source of salmon mortality. Intuition as well as the available science argue that juvenile salmon need greater flows and river velocities during the migration period than those that prevail when the system is operated to maximize hydroelectric generation.

  Though a considerable degree of scientific uncertainty exists, it is imperative that the region act quickly and prudently to improve downstream passage conditions relying on the best available science. To that end, the *Strategy for Salmon* calls for both immediate and longer-term measures to decrease downstream travel times through a combination of increased storage for flows and reservoir drawdowns. Without pre-judging the outcome of the Lower Granite Dam test now being designed and fully understanding the difficulty of designing and

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[118] For example, see Hearing Part III, p. 44 (testimony of Mr. Randall W. Hardy) or p. 457 (testimony of Mr. Al Wright).

conducting a meaningful experiment under minimally controllable circumstances, the Corps should move aggressively to design and conduct a meaningful biological test. The decline of Snake River salmon stocks represents a biological emergency that demands prompt action. Sufficient staff and funding should be allocated to ensure that this effort proceeds in a timely manner.

- The Corps is proceeding at what can only be described as a glacial pace in its efforts to evaluate and design measures to mitigate operation of John Day reservoir at minimum operating pool. The Corps should begin design work on the necessary modifications immediately, using the money specifically appropriated for that purpose. Congress should provide the funding and direction necessary to expedite implementation of a John Day drawdown to minimum operating pool while providing full mitigation to affected irrigators.
- As part of its effort to remain competitive, BPA should negotiate an agreement transferring its fish and wildlife functions to one or more fish and wildlife agencies. Such an agreement must be conditioned on thorough monitoring and evaluation of results, tied to specific rebuilding targets, as well as a commitment on the part of the implementing entity to fully carry out the Council's *Strategy for Salmon*. BPA, in turn, would reasonably expect that such an agreement would hold the implementing agency or agencies accountable for results, perhaps through the use of independent audits, and provide a significant degree of planning certainty over a specific period of time.

  Administrator Hardy, in his testimony before the task force, indicated a willingness, if not an eagerness, to begin discussions toward a lump sum transfer of many of its fish and wildlife responsibilities. However, no such discussions have commenced between BPA, any other Federal entities, and the Council.
- Another common theme heard during the task force's deliberations was the lack of coordination between Federal agencies, State fish and wildlife managers, and tribes. Since the demise of the Northwest River Basins Commission in 1981, there has been no single entity responsible for developing a comprehensive basin plan and coordinating the implementation of that plan.

  During the task force's September 24, 1993 hearing, the creation of a new regional entity responsible for basin planning and implementation was discussed. There may be merit in such an approach as long as the new planning effort: (1) incorporates existing plans and processes; (2) is not used as a pretext for delay in the implementation of the *Strategy for Salmon*; (3) provides for full public participation; and (4) produces binding agreements that commit the participants to undertake the recommended measures.

  Alternatively, NMFS, working with the Council, BPA, and other Federal, State, tribal, and private interests, could seek to develop a basin-wide conservation plan, using the *Strategy for Salmon* as a framework. Such a plan should include rebuilding objectives and a timetable for implementation, as well as a strong monitoring and adaptive management component. A basin-wide conservation plan, if fully implemented, could provide justification for the Secretary of Commerce to use his authority under §4(b) of the ESA to defer further ESA listings pending evaluation of the effectiveness of actions taken under the plan.

- The Federal agencies and the States should continue their efforts to reform water law so that conserved water may be dedicated to instream flows. The same logic that counts lost-generation opportunities caused by increased fish flows as lost revenues would consider water purchases for instream flows as an energy resource acquisition cost, not a fish and wildlife program cost. BPA should consider making this conceptual leap.

  Federal policies that discourage water conservation should be reformed. BPA should develop alternatives to its present practice of discounting power for irrigation uses, including new power-pricing methodologies that provide incentives for water conservation.
- BPA and the State of Oregon should begin negotiations on a long-term resident fish and wildlife trust agreement. In the interest of equity, BPA should consider an interim funding agreement with the State of Oregon, similar to its agreement with the State of Washington.
- Federal efforts to restore salmon stocks have not always given sufficient deference to the Federal trust responsibility to Indian tribes in the region or to Indian treaty rights. The Federal agencies should redouble their efforts to involve the Indian tribes at all levels of decisionmaking on management of the Federal water system. Impacts on traditional hunting and fishing rights should be an essential part of the analysis of all Federal activities. In addition, Federal agencies, the Council, and the States should recognize the tribes' status as separate governments within the Northwest region.
- In the interest of open government, as well as greater public understanding of the tradeoffs inherent in balancing scientific uncertainty against social and economic interests, the National Marine Fisheries Service and other Federal agencies should explore options aimed at opening Endangered Species Act consultations to public scrutiny, if not public participation.
- Though there may be some merit in allowing BPA a greater degree of flexibility in determining its fish and wildlife program spending levels (or "incentivizing" its fish and wildlife program, as proposed in the Final Draft Marketing Plan), it must be recognized that in the final analysis BPA is not a utility; it is a public agency with a mandate from the public.

  The Northwest Power Act's conservation and fish and wildlife mandates are at the very core of BPA's mission. They distinguish BPA as a steward of the Columbia River's fish and energy resources and as a power supplier committed to providing affordable energy to the people of the region at the lowest long-term cost. Fulfilling that mission more effectively and efficiently should be the primary aim of BPA's Competitiveness Project.

VI. CONCLUSION

The Bonneville Power Administration is at a crossroads. The agency is considering, and in many cases moving to implement, major changes in its structure and the manner in which it seeks to fulfill its mandates. Decisions being made over the course of the next few years will have profound implications not only for BPA, but also for the economy and culture of the Pacific Northwest.

In the final analysis, the Bonneville Power Administration's first responsibility is not to serve its Federal masters, the Governors of the four States in the Pacific Northwest region, or its utility and non-utility customers' individual interests; it is to serve the people of the Pacific Northwest. Whether BPA makes choices in the next two to three years that best serve the long-term interests of the people of the region remains to be seen.

The hearings held by the Bonneville Power Administration Task Force constitute what is arguably the most extensive congressional oversight of the BPA since the passage of the Northwest Power Act in 1980. Continuing informed congressional oversight is essential during this crucial period in BPA's history.

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