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November 29, 1984

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Commission
Washington, D.C. 20555

Re: Washington Public Power Supply System
(WPPSS Nuclear Project No. 1)
Docket No. 50-460-OL

Gentlemen:

On October 9, 1984 we provided you with Part 1 of a draft study report prepared by the staff of the Bonneville Power Administration regarding the future construction schedule of WNP-1. We stated that the draft study report would be subject to additional public meetings and comments and that the final report was expected to be released in early November.

The report has now been released in final form. As did the draft study report, the final report recommends that no funds for the construction of WNP-1 be included in BPA's budgets for fiscal years 1986 and 1987 or in its rate case for the period extending from July 1, 1985 to September 30, 1987. The report also recommends that preservation costs (to the extent that sufficient funds to cover preservation costs are not now available in the WNP-1 construction fund) for

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November 29, 1984

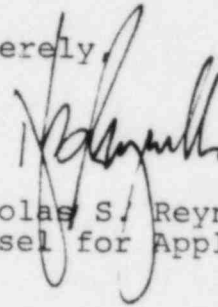
Page Two

the project be included in FY-1986 and 1987 budgets and in BPA rates to be preserve these assets as viable options. It explicitly rejects termination.

We have enclosed Part 1 of the report, which consists of a summary of the study background, conclusions, determinations and a discussion of the future assessment of WNP-1. Part 2 includes explanations and results of the resource, rates and financial analyses performed. If it is of interest to the Board, we will supply a copy of it.

We are providing copies of this material to the Board mindful of our obligation to apprise the Board of matters which bear on issues before it.

Sincerely



Nicholas S. Reynolds
Counsel for Applicant

Enclosure

cc: Service List

Washington State Water Supply System Projects (Phase I and II) Construction Schedule and Financing Assumptions

- I. Introduction
- II. Public Involvement Process
- III. Study Environment
- IV. Overview of BPA's Analysis Process
- V. Conclusions
- VI. Recommendations
- VII. Future Efforts

Bonneville Power Administration
Department of Energy

BPA REVIEW OF WASHINGTON PUBLIC POWER SUPPLY SYSTEM
PROJECTS 1 AND 3 (WNP 1 AND 3)
CONSTRUCTION SCHEDULE AND FINANCING ASSUMPTIONS

FINAL STUDY REPORT
PART 1

November 1, 1984



Department of Energy
Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208

OFFICE OF THE ADMINISTRATOR

In reply refer to: D

November 1, 1984

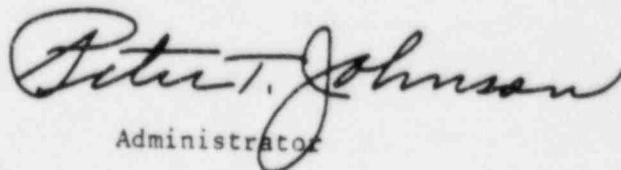
TO: Interested Persons

SUBJECT: WNP 1 and 3 Final Study Report

At my direction, BPA staff has recently completed an extensive study of the assumptions for Washington Public Power Supply System Projects 1 and 3 (WNP 1 and 3).

The WNP 1 and 3 study has been the subject of a broad public review. BPA conducted a wide-ranging public process on the study design, and revised the design in response to public comment. A technical audience reviewed the analysis in progress. The widely advertised and distributed Draft Study Report was the subject of public meetings throughout the region. Comments received through this process have been evaluated and considered by BPA. Key suggestions for changes within the scope and time limits of the study are reflected in the final report.

It is my decision to adopt the recommendations in the Final Study Report. The recommendations have been derived in a careful, deliberate process that has been open to the public and critically reviewed by many informed and interested people. It is my judgment that these recommendations will best assure an adequate, economical, reliable, efficient, and environmentally acceptable electric power supply in the Pacific Northwest.


Administrator

PART 1

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PREFACE

The main body of this Final Study Report is divided into two parts. Part 1 contains a summary of the study background, conclusions, determinations, and a discussion of future assessment of WNP 1 and 3. Part 2 contains explanations and results of the resource, rates, and financial analyses performed, related material, and a bibliography of sources used in the study. BPA will also have limited copies of an Appendix containing information from other sources that BPA drew on and detailed study information that would have made the main report unduly long. All parts of the study may be obtained from the BPA headquarters' Public Involvement office.

SECTION I. INTRODUCTION

In 1982 and 1983, the Bonneville Power Administration (BPA) performed analyses regarding construction schedules, costs, and financing availability for Washington Public Power Supply System (Supply System) Projects 1 and 3 (WNP 1 and 3). Those analyses led to BPA's recommendation to the Supply System that completion of the two projects be delayed for periods of up to five years and three years, respectively. These recommendations recognized then current circumstances regarding the need for power, the ability to finance continuation of construction, and the legal and institutional environment surrounding these resources. Deferral allowed BPA to reduce the size of its 1982 and 1983 rate increases compared to what would have been required had WNP 1 and 3 not been deferred.

Earlier this year, BPA began a review of current assumptions about WNP 1 and 3 costs and schedules. Current assumptions included restart of WNP 3 construction in July 1985 and restart of WNP 1 construction in July 1986, and the raising of construction funds through municipal bond financing. To determine whether those were appropriate assumptions for fiscal years 1986 and 1987 budgets, and for rates over the period July 1, 1985 through September 30, 1987, BPA analyzed a number of variables. Major variables, addressed at length in Part 2 of this study, included near-term plant financing options; surplus marketing; load growth; cost and availability of new resources; availability of electrical power from outside the region; cash impacts on the investor-owned utilities (IOU)'s who own 30 percent of WNP 3; and costs, output, useful life, and operating characteristics of the two nuclear plants. Because those variables are driven by such factors as changes in the economy, the legal environment, and the need for power, their values can only be estimated.

Because of its limited objectives, BPA's study does not serve as a definitive cost-effectiveness analysis of WNP 1 and 3. The primary purpose of BPA's study was to evaluate the financial consequences of various assumptions in order to determine what assumptions to use in its final rate proposal for the rate period extending from July 1, 1985 through September 30, 1987. Study results are also being used in preparing BPA budgets and in planning for meeting BPA loads through the acquisition of conservation and other resources in fiscal years 1986 and 1987.

SECTION II. PUBLIC INVOLVEMENT PROCESS

To help in the review of WNP 1 and 3, BPA developed a public involvement program:

- to provide BPA with outside technical review of its study plan;
- to receive suggestions about the study's methodology and results;
- to answer questions and respond to concerns about the study as well as nuclear energy issues in general; and
- to begin working toward consensus in the region on the best WNP 1 and 3 assumptions.

In the first step of the program, completed in June, townhall meetings and technical workshops were held in six Northwest cities to receive comments on the Draft Study Plan issued June 6. Those comments, together with written and telephoned responses, were evaluated and resulted in changes that appeared in the Revised Study Plan issued August 3.

Taking into consideration further comment on this revised plan, received at an August 8 technical meeting, BPA modified or added to its analyses where feasible. In early September, BPA held a second technical meeting to brief those interested in the preliminary results of the analyses and to listen to comments.

In the second step of the program, further public meetings and a technical session were held in October to review and receive comments on the Draft Study Report. Public comment was influential in developing this Final Study Report and in determining what assumptions BPA adopted for near-term budgets and the final 1985 rate proposal.

BPA's responses to public comments received are not detailed in this document, but may be found in the "Public Comment Summary and BPA Responses" available through BPA's Public Involvement office.

BPA thanks all those who participated in the public involvement program for the WNP 1 and 3 study. Your comments have added significant value to BPA's decisionmaking process, and by improving that process, should return greater value to Northwest ratepayers.

SECTION III. STUDY ENVIRONMENT

BPA recognized four factors that could significantly affect its current assumptions for construction schedules and financing for WNP 1 and 3, and therefore BPA's near-term rates and budgets. To a large extent, this study is a response to an important expected change that did not occur and important changes that did occur since the time of BPA's original recommendations to delay WNP 1 and 3 construction.

A. Financing Opportunities

When BPA adopted the current assumptions for construction schedules and financing for WNP 1 and 3, it was assumed that impediments to financing by the Supply System would be removed before the construction restart dates. At present, it is not likely that those impediments (challenges to the net billing agreements and the potential of a Supply System bankruptcy) will be removed before those dates. Until there is resolution of those impediments, financing by the Supply System is not available. The three financing alternatives which BPA studied are described in Part 2, Section VIII.C.

B. New Load Forecast

In July, EPA issued the 1984 Bonneville Power Administration Forecasts of Electricity Consumption In the Pacific Northwest (long-term, or 20-year, load forecast). Compared to BPA's 1983 long-term load forecast, the new medium

forecast is 1,038 average MW (megawatts) lower by year 2003, the high forecast is 63 average MW higher, and the low forecast is 2,196 average MW lower. These forecast changes called for a new look at the need for WNP 1 and 3 on their current schedules. More on the load forecasts can be found in Part 2, Sections IX and X of this report.

C. Surplus Marketing

BPA has not assumed completion of either WNP 1 or 3 for the purpose of export sales of firm surplus power. Nonetheless, the market for surplus firm power outside the region affects the value of the output of all resources. Much effort has recently gone into selling existing and projected surplus firm power to California at rates favorable to the Northwest. As yet, no agreements for large firm surplus sales have been reached.

BPA's current proposals to sell existing and projected surplus capacity and surplus firm energy would neither affect the need for nor the timing of completion of WNP 1 or 3. Even if the projects are not completed, BPA will have sufficient surplus capacity to make a long-term capacity sale without jeopardizing Northwest loads. BPA will also have sufficient surplus energy without the projects to make contemplated surplus firm energy sales.

Recent changes in the surplus marketing environment include BPA's new Near-Term Intertie Access Policy and the increased likelihood of major expansions in the intertie capacity between the Pacific Northwest and California. Both those developments are likely to improve revenues from export sales. For instance, BPA's Near-Term Intertie Access Policy will bring greater certainty to intertie availability for BPA and other parties. How these changes in the surplus marketing situation were addressed in the study is described in Part 2, Section IX.

D. New Resource Supply

BPA's assumptions regarding WNP 1 and 3 schedules are affected by the considerable uncertainty that surrounds the quantity and cost estimates of alternative resources. BPA and others have continued their efforts to improve estimates of new resource supply, including conservation. Techniques for addressing the uncertainty in resource supply have also improved somewhat. This study incorporates new supply estimates and new techniques for evaluating resource uncertainty. More on these subjects can be found in Part 2, Section IX.

SECTION IV. OVERVIEW OF BPA'S ANALYSIS PROCESS

A. Rationale for Selecting Scenarios

Due to the complexity and constraints of this analysis, BPA limited detailed resource, rate, and financial analyses to three WNP 1 and 3 scenarios: (1) current assumptions for each project; (2) an additional 2-year delay for each project; and (3) termination of each project. BPA selected these scenarios to best encompass the range of possible alternatives for WNP 1 and 3 schedules and costs as they relate to BPA's next rate period and fiscal years

1986 and 1987 budgets. Similarly, BPA chose three assumptions that it believes reflect the range of possible alternatives for funding project costs. Municipal bond financing, short-term bank financing, and BPA revenue financing were the assumptions used to perform rates and financial analyses on appropriate scenarios.

To provide further information for evaluating WNP 1 and 3, BPA analyzed other assumptions in less detail, including: (1) an additional 5-year delay for both projects (as suggested in public comment on the Draft Study Plan); (2) termination of WNP 1 and completion of WNP 3 on its current schedule; (3) termination of WNP 3 and completion of WNP 1; and (4) completion of WNP 3 on its current schedule and subsequent completion of WNP 1 on an additional 5-year delay schedule (tandem construction). Again, BPA used alternative financing assumptions for rates and financial analyses of appropriate alternative construction schedules.

B. Study Questions

The next step in the study was to answer five basic sets of questions:

1. Are WNP 1 and 3 needed to serve load growth on the schedule defined in each scenario? Could other resources be substituted at lower cost? What combination of WNP 1 and 3 and/or other resources meets the range of future situations at least cost? How do uncertainties about loads, project costs, alternative resources, and other factors affect the desirability of each scenario? This set of questions was addressed in the resource analysis segment of the study. Resource analysis and results are presented in Part 2, Sections IX and X of this report.
2. What changes would each scenario imply for BPA's fiscal years 1986 and 1987 budget levels for acquisition and development of other resources, as expressed in BPA's April 26, 1984, draft Resource Strategy? This question is addressed in Section X of the report. The analyses performed in this study are being incorporated in BPA's update of the Resource Strategy, which will be published as a separate document in November 1984.
3. How would each scenario affect BPA rates, and how would changes in rates affect loads? These questions are addressed in Sections XI and XII of this report.
4. Is the financing for WNP 1 and 3 likely to be available as assumed in each scenario? What is the financial impact of the scenario on BPA? on the four investor-owned utility (IOU) co-owners of WNP 3? These questions are addressed in Section XIII.
5. Finally, what are the effects of each scenario on local communities and on the region's economy? On oil and natural gas depletion? On nuclear hazards to health? What major cost events could BPA be facing? These questions are addressed in Section XIV.

SECTION V. CONCLUSIONS

In this study, the choice of WNP 1 and 3 assumptions and resource strategy was evaluated from a number of perspectives: relative costs and benefits, impact on rates, financial feasibility, and others. The base case variables which affect the analysis include the load growth rate; costs, output, and useful life of WNP 1 and 3; the costs and quantity of alternative resources (new resource supply); the export market; and the discount rate. There is uncertainty about all of these variables, and a range of estimates was made for each one.

The results of BPA's study are presented in detail in Part 2 of this report, and in the supporting appendices. In this section, the basic conclusions of each segment of the study are summarized.

A. Resource Analysis

1. Current Schedule Versus Delay

Based on current projections of load growth, the resource analysis indicated that a need to complete WNP 1 and 3 on their current schedules is very unlikely to materialize. In view of the current power surplus, even with high load growth, there is a great likelihood that loads can be met if the projects are further delayed. Delay is also highly likely to prove the least-cost alternative on a net present value ^{1/} basis, when all the factors influencing costs of meeting load are considered. Under base case ^{2/} assumptions, the benefit of a 2-year delay compared to current schedule has a net present value of approximately \$200- to \$400-million. The current schedule was also found to be high-risk, as shown in Table V-1. It is high-risk because project costs could exceed benefits by as much as \$5.5 billion if construction is restarted and the project later proves not to be needed. Delay also offers the opportunity to learn more about future loads and other key variables before making large, irrevocable commitments of capital and other resources.

^{1/} Net present value = present value of benefits - present value of costs.

Present value of benefits = the present values of costs of additional resources that would be needed if WNP 1 and 3 were not built, plus the present values of revenues gained by export of any output of WNP 1 and 3 in excess of regional needs.

Present value of costs = the amount of dollars needed to be invested today earning 9.2 percent interest to have enough to pay all the costs of WNP 1 and 3 in the future.

^{2/} BPA's base case consists of likely values for the variables used in its WNP 1 and 3 review which were developed through the public involvement process. The key uncertain variables are listed in Section V.A.3. These and other variables used appear in Part 2, Table X-11.

Table V-1 ^{3/}

Net Benefits Comparison
WNP 1 and 3

Base Case Net Benefits of Completing WNP 1 and 3	
with 2-year delay	+ \$2.2 Billion
with 5-year delay	+ \$2.7 Billion
Low-Side Net Benefits of Completion on Current Schedule	- \$5.5 Billion
High-Side Net Benefits of Completion After Delay	+ \$5.0 Billion

2. 2-Year Versus 5-Year Delay

It is likely that an additional delay of 5 years could be handled without creating difficulty in meeting loads on a regional basis. Uncertainty about the "shelf life" of the project and the impact of extended delay on the cost of completion make an economic choice between 2- and 5-year delay difficult. The Supply System's base estimates of costs to complete after a 5-year delay indicate a \$400- to \$600-million net present value advantage over a 2-year delay. If large additional increases in costs to complete the projects due to delay are assumed, a shorter delay appears preferable. Better information on the impact of a 5-year delay on project costs is needed before it will be clear whether a longer or shorter delay would be more economic.

3. Delay Versus Termination

Table V-1 shows a net benefit of \$2.2 billion for completing the projects after a 2-year delay and \$2.7 billion after a 5-year delay, using BPA's best estimates of all variables studied. In other words, the benefits of completing the projects would exceed their life-cycle costs by \$2.2 to \$2.7 billion under base case assumptions. But this estimate does not account for uncertainty. Net benefits were also estimated for a very wide range of combinations of the key uncertain variables. The wide range of possible combinations of these variables means a similarly wide range of potential net benefits for completing WNP 1 and 3. As shown in Table V-1, this uncertainty analysis indicated that the net benefits of completion after an additional delay could be as high as \$5 billion -- double the base case estimates.

Immediate termination instead of delay would cause the loss of the opportunity to realize this \$5 billion benefit. In other words, termination could force the region to eventually pay for replacement resources costing \$5 billion more than WNP 1 and 3. For this reason, termination now would be a high-risk decision.

^{3/} This Table has been simplified, compared to the draft report. The original detail can still be found in Part 2 and Appendix 5.

However, the significant chance that it may prove economic not to complete the projects after the delay period suggests that careful attention be paid to the magnitude of the preservation costs during the delay period.

4. Resource Strategy Alternatives

One possibility tested in this study was whether an aggressive conservation and generating resource strategy, combined with WNP 1 and 3 termination, would be most economic. This possibility was not supported by the analysis findings. The resource analysis results suggested that if WNP 1 and 3 were terminated, then an aggressive resource strategy could be most economic. But the results also indicate that an aggressive resource strategy combined with termination is not as economically attractive as delay of WNP 1 and 3 combined with a less aggressive resource strategy. Overall, the resource analysis also lent little support to the low resource strategy. The resource analysis indicated that the development of moderate amounts of conservation and other resources is appropriate in the near-term.

B. Rates Analysis

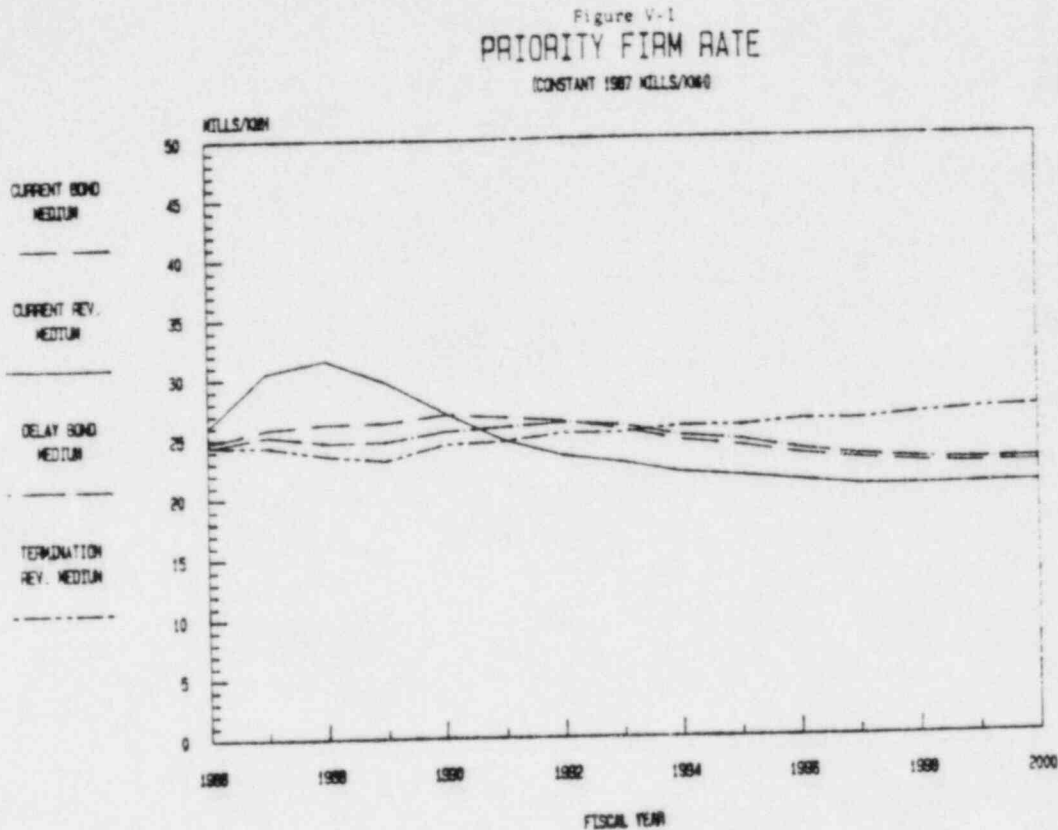
From strictly a rate impact perspective and based on the major scenarios and other assumptions examined, an additional delay in construction of both plants of two years or more would provide the most favorable rate impacts for the region's electricity consumers. Financing the construction of WNP 1 and 3 on their current schedules from BPA revenues would produce lower long-term wholesale and retail rates. However, in the near term it would result in as much as a 25 percent increase in BPA's Priority Firm ^{4/} rate and an increase of almost 15 percent in retail residential rates.

Termination of both plants would result in significant rate benefits in the near-term, but could result in significantly higher long-term rates if higher-cost resources were needed to meet vigorous growth in demand. The uncertainty inherent in load forecasts and the potential for severe long-term rate impacts argues against termination.

The additional 2-year delay scenario produces moderate rate benefits in the near-term and essentially the same long-term rate impacts as completing construction on the current schedule with conventional financing.

^{4/} BPA's wholesale power rate to Northwest publicly and cooperatively owned utilities, and residential and small farm consumers of Northwest investor-owned utilities who participate in the residential exchange.

Figure V-1 shows the Priority Firm rate impacts under current assumptions with either revenue or municipal bond financing, an additional 2-year delay, and termination of both projects, all assuming no other changes in ratesetting methodologies and assumptions.



If there were no other changes in BPA rate assumptions and BPA's recommendation were for an additional two-year delay with the preservation estimates used in this analysis, the Priority Firm rate in the 1986 to 1987 period be approximately 1 mill/kwh less than under current assumptions with municipal bond financing.

C. Financial Analysis

The conclusions of BPA's financial analysis are consistent with the resource economic and rate analyses. This analysis provided a BPA financial perspective on the same fundamental data analyzed in the resource analysis and rates sections of the report.

As in past studies, BPA reviewed the likely availability of Supply System financing for WNP 1 and 3 construction costs through the sale of municipal bonds. Based upon this review, BPA believes that conventional bond financing cannot reasonably be expected to be available to fund the construction of WNP 3 in July 1985. What may be possible in July 1986 is uncertain. As the rate analysis showed, BPA's Priority Firm rate could be 25 percent higher in

the late 1980s if BPA were to attempt to fund construction from revenues. Such severe rate shocks do not appear necessary or prudent, especially in light of the unlikely need for the projects on current schedules.

The review of the major WNP 1 and 3 scenarios from the perspective of BPA's financial position and flexibility showed that an additional delay of the projects would be most beneficial. A delay would increase BPA's ability to respond to financial demands and would decrease the risk of high future expenditures to acquire replacement resources. In contrast, current schedules for WNP 1 and 3 construction, whether financed from revenues or bonds, would result in large inflexible capital commitments that may prove unnecessary. Termination would reduce near-term expenditures for resources but expose BPA to expensive resource programs if high load growth occurs. Therefore, a prudent middle course appears to be a delay of capital commitments related to WNP 1 and 3 while efforts proceed to gain further information concerning such matters as construction costs, shelf life, and alternative resource availability and cost. A delay may also provide the time necessary to remove current barriers to Supply System financing or develop other arrangements which would make the annual costs of these resources, if completed, more attractive to ratepayers.

BPA briefly reviewed the ability of the investor-owned utility owners of WNP 3 to sustain a construction restart, a further delay in project construction or project termination. While it does not appear that all four of the other owners would view the delay similarly, delay may provide some time to strengthen their financial position. Also, just as delay will provide BPA and other regional entities the opportunity to avoid potentially unneeded capital investments, delay may offer the same advantages to the other owners' stockholders and ratepayers.

D. Risk Management

The choice of WNP 1 and 3 assumptions and resource strategy must be guided not only by most-likely estimates and expected values, but also by consideration of the whole range of possible outcomes of each nuclear plant scenario, including the extremes. From this risk management perspective, additional delay of WNP 1 and 3 appears most advantageous. Delay would reduce the risk of starting construction and later finding that the projects are uneconomic or unneeded. Study results suggest that delay would reduce from about 30 percent to about 10 percent the chance of incurring a negative net present value of \$3.5 billion or more. Delay would also preserve the option of realizing very large net benefits from completion, ranging to over \$5 billion. Termination would eliminate the opportunity to realize these potential benefits.

The decision to delay can be compared to a decision to pay an insurance premium. In the case of WNP 1 and 3, the insurance premium is the preservation costs, which could range from \$24- to \$80-million per year for the two projects depending on the preservation level that is chosen. The potential payoff is a net benefit of over \$5 billion if the projects turn out to be needed and are completed. Paying the insurance premium likewise reduces the risk of taking a large economic loss on a decision to stay with the current schedule.

The insurance analogy is not perfect. The insurance premium could be higher or lower, depending on actual preservation costs and the positive or negative effects of further delay on completion costs. The payoff is also uncertain, depending on the accuracy of BPA's projections concerning the usefulness of completing WNP 1 and 3 and the ability to bring the projects on line within budget.

However, if even a moderate ability to learn from future experiences and act accordingly is granted, then assuming a further construction delay and maintaining the option to complete the projects appears to be the best course. Delay would minimize the large risk of resuming construction now and later finding that the decision was wrong. Likewise, delay would reduce the equally-severe risk of large cost increases to pay for resources to replace a terminated project. In today's situation, neither "getting the projects built as soon as possible" nor "getting them behind us" appears to be as prudent as delay.

E. Changes from Previous BPA Reports

1. Data and Assumptions

BPA's last analysis of WNP 1 and 3 appeared in the WNP-3 Resource Economics and Construction Schedule Update, dated October 26, 1983. Changes in basic data and assumptions since that report was issued include:

- A new long-term load forecast, in which the high forecast is higher, and the medium and low forecasts are lower. Also, Regional Council model conservation standards are now assumed to be in effect in future years.
- Increases in Supply System O&M and other cost estimates, and a one percent increase in the assumed cost of financing, leading to an increase of approximately 4 mills/kWh in the levelized cost of the projects. Since the draft study was completed, the Supply System has developed revised fuel and O&M cost estimates which reduce the cost increase from 4 mills/kWh to approximately 3 mills/kWh.
- A 40-year life is now assumed for both projects, consistent with the design life and the Nuclear Regulatory Commission (NRC) operating license for WNP 2. A 35-year life had been assumed previously.
- Resource supply estimates and computer models have changed somewhat, but these changes had minor effects on the base case estimates of benefits of completing the projects.

2. Analysis and Results

In addition to traditional analyses, this report addresses the net benefit of completion of WNP 1 and 3 over a range of possible combinations of future load growth, alternative resource supply, project cost, and project performance. This type of analysis was not included in the October 1983 report.

Under base case assumptions, the October 1983 report showed a \$2684 million net benefit in 1983 dollars for completion of both projects on their current schedules. This report shows a net benefit of \$2023 million in 1984 dollars.

also for current schedule under base case assumptions. Hence, both reports show the projects to be cost-effective under base case assumptions. However, this report also shows a \$200- to \$400-million additional net benefit for a further delay of the projects.

SECTION VI. RECOMMENDATIONS

Based on the completed study, BPA staff has made the following recommendations:

1. BPA should not include funds for construction for WNP 1 and 3 in its fiscal years 1986 and 1987 budgets or in its rate case for the period extending from July 1, 1985, to September 30, 1987.

2. a. Because of the wide range of potential preservation cost estimates (about \$24- to \$80-million per year for both plants) and in order to avoid over-collection of such costs through BPA rates, BPA should use a mid-range estimate of potential preservation costs in its rates and budgets. The Supply System Adjustment Clause proposed in BPA's Initial Rate Proposal is sufficiently broad to cover any adjustment needed to reflect new estimates as preservation costs are reviewed, refined and approved through the Supply System budgeting process.

Specifically, near-term BPA funding estimates for WNP 1 and 3 should be as follows:

Table VI-1

Near-Term BPA Funding Estimates WNP 1 and 3 (\$ in millions)

	<u>Fiscal Year 1985</u>	<u>Fiscal Year 1986</u>	<u>Fiscal Year 1987</u>
<u>WNP 1</u>			
Debt Service and			
Other Costs	258.0	263.7	265.9
Preservation Costs ^{5/}	0.0	0.0	0.0
WNP 1 Total	258.0	263.7	265.9
 <u>WNP 3</u>			
Debt Service and			
Other Costs	140.3	153.2	155.0
Preservation Costs	48.8	21.7	16.8
WNP 3 Total	189.1	174.9	171.8

^{5/} WNP 1 will require no funds from BPA through September 1987 to pay preservation costs as it has sufficient monies in its Construction Fund to pay those costs.

b. For BPA budgeting presentations, and until better assumptions can be defined through further study, the following funding requirements should be assumed:

Table VI-2

BPA Outyear Estimates
WNP 1 and 3
(\$ in millions)

	<u>Fiscal Year 1988</u>	<u>Fiscal Year 1989</u>	<u>Fiscal Year 1990</u>
<u>WNP 1</u>			
Existing Debt Service and Other Costs	270.4	274.2	280.1
New Debt Service	<u>0</u>	<u>60.8</u>	<u>137.4</u>
WNP 1 Total	270.4	335.0	417.5
 <u>WNP 3</u>			
Existing Debt Service and Other Costs	155.6	155.5	155.5
New Debt Service	<u>40.0</u>	<u>92.5</u>	<u>245.9</u>
WNP 3 Total	195.6	248.0	308.4

It should be noted that while the amounts for fiscal years 1988, 1989, and 1990 reflect the potential restart of WNP 3 and 1 in fiscal years 1988 and 1989 respectively, such restart is dependent upon the outcome of further studies and determinations discussed below. These estimates should not be interpreted as predetermining whether or when construction of the projects may be resumed.

3. BPA should work with the Supply System, the other WNP 3 owners, the Northwest Power Planning Council, and other appropriate parties in defining and perfecting preservation plans and restart assumptions.

4. BPA should perform periodic reviews of WNP 1 and 3 projects consistent with BPA resource planning and budgeting to assure scheduling consistent with regional resource requirements.

Recommendations for assumptions to be used for near-term rates and budgets largely depended on the following:

- the final study results, intended to embody the best quantitative and qualitative information available;
- comments and recommendations of BPA's customers, the Supply System, the IOU co-owners of WNP 3, and other interested parties as received in response to the draft study report; and
- additional analysis performed in response to comments received in October on the Draft Study Report.

At this time there are no proposals for new action with regard to WNP 1 and 3 within the meaning of the National Environmental Policy Act (NEPA). BPA believes that continued preservation of these projects would incur no new environmental effects of any kind, and therefore BPA will not prepare an environmental document at this time. The public will be informed of any proposal that may arise in the future.

SECTION VII. FUTURE EFFORTS

The BPA Final Study Report demonstrates that while WNP 1 and 3 will probably provide future regional power benefits, those benefits are subject to uncertainties. These include questions regarding future loads, which utilities will bear those loads, the quantity and cost of alternative resources, and the efficiency with which nuclear plants and other power resources can provide cost-effective insurance against load and resource uncertainties.

Over the next year, BPA, the Northwest Power Planning Council, the region's utilities, and interested groups will be perfecting resource plans and load assessments which may provide additional insight regarding these uncertainties. The courts may be active in resolving the legal uncertainties surrounding the Supply System on such matters as the liabilities associated with the termination of WNP 4 and 5, the default on the WNP 4 and 5 bonds, the delay of WNP 3, and the validity of the net billing agreements. Technical and state regulatory and energy agencies will be reviewing the feasibility of plans and estimates. These activities can be expected to change and improve BPA's and the region's view of the appropriate disposition of WNP 1 and 3.

BPA believes that some uncertainties need to be addressed in the immediate future through activities designed to assure prudent management of WNP 1 and 3. The activities BPA intends to pursue include:

- continued discussions with the Supply System and others regarding the cost at which WNP 1 and 3 may be completed with delays of two years or longer;
- continued investigation with the NRC and others regarding the feasibility of continued delay and subsequent construction resumption of WNP 1 and 3;
- additional assessment of the supply of alternative resources in the Pacific Northwest, and of the amount and price of power purchases from Canada or the Pacific Southwest which could displace Northwest resource development in the post-1990 period; and

- additional investigation of the current impediments to Supply System financing and continuation of efforts to remove those impediments in the time now available, so that prudent financing is available when needed to fund construction of WNP 1 and 3 or to refund outstanding debt at rates less burdensome to ratepayers.

In any case, BPA and the Supply System, together with the investor-owned utility co-owners of WNP 3, must immediately begin to define the optimum preservation mode for the projects. Some of these efforts have, in fact, already begun. BPA believes that a preservation mode that minimizes the financial burden of preservation on ratepayers while assuring the probability of economic and timely construction completion can and must be developed.

Finally, the costs and benefits of continued preservation, while of potential regional benefit, may not be equally shared among all regional utilities. A major problem in assessing the distribution of benefits and burdens among regional utilities resulting from preservation is the current uncertainty about which regional loads will be placed upon BPA and which will be borne by individual utilities. Resolution of these issues would enhance the ability of WNP 1 and 3 to serve as successful and economic regional resource options.

END