Bonneville Power Administration
Power Business Line

2003 Safety-Net Cost Recovery Adjustment Clause Initial Proposal

Direct Testimony

SN-03-E-BPA-10 SN CRAC DESIGN

March 2003

BONNEVILLE
POWER ADMINISTRATION

INDEX

TESTIMONY OF

TIM D. MCCOY, BYRNE E. LOVELL, RANDY B. RUSSELL, CAROL A. MILLER,

JAMES C. SAPP, AND MICHAEL R. NORMANDEAU

Witnesses for Bonneville Power Administration

SUBJECT: Rate Design

		Page
Section 1.	Introduction and Purpose of Testimony	1
Section 2.	Purpose of the SN CRAC	2
Section 3.	Explanation of the Proposed SN CRAC	3
Section 4.	Alternative Rate Designs	7
Section 5.	Overview of SN CRAC Analysis	11
Section 6.	Changes in Models Supporting ToolKit	12

TESTIMONY OF

TIM D. MCCOY, BYRNE E. LOVELL, RANDY B. RUSSELL, CAROL A. MILLER,

JAMES C. SAPP AND MICHAEL R. NORMANDEAU

Witnesses for Bonneville Power Administration

Subject: RATE DESIGN

Section 1. Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Tim D. McCoy. My qualifications are contained in SN-03-Q-BPA-15.

A. My name is Byrne E. Lovell. My qualifications are contained in SN-03-Q-BPA-12.

A. My name is Randy B. Russell. My qualifications are contained in SN-03-Q-BPA-23.

A. My name is Carol A. Miller. My qualifications are contained in SN-03-Q-BPA-16

A. My name is James C. Sapp. My qualifications are contained in SN-03-Q-BPA-24.

A. My name is Michael R. Normandeau. My qualifications are contained in SN-03-Q-BPA-19.

Q. What is the purpose of your testimony?

A. The purpose of this testimony is to describe the purpose and design of the Safety-Net Cost Recovery Adjustment Clause (SN CRAC), the three criteria used to calculate the size of the rate increase, and the supporting data in ToolKit that ultimately generate the final rate.

Q. How is your testimony organized?

A. This testimony is organized in six sections, including this introduction. Section 2 describes the purpose of the SN CRAC. Section 3 describes the SN CRAC parameters and how the SN CRAC will be implemented. Section 4 describes alternative rate designs. Section 5 provides an overview of the SN CRAC analysis and Section 6 describes changes to models.

Section 2. Purpose of the SN CRAC

Q. What is the purpose of the SN CRAC?

A. The SN CRAC is designed to address situations where BPA has missed a payment to the Treasury or to a creditor, or where BPA forecasts a 50 percent or greater likelihood of missing such a payment. It is intended to put BPA back on the path to financial health. *See* Keep, *et al.*, SN-03-E-BPA-04, for additional information on the intent of the SN CRAC.

Q. Does the SN CRAC replace the FB CRAC?

A. No. The SN CRAC is similar in design to the FB CRAC currently in place, but it does not replace the FB CRAC. It supplements the FB CRAC.

Q. What management direction was given for use in the development of the SN CRAC?

A. Management provided the following criteria to this panel for use in the development of this SN CRAC design. First, rates must be set sufficient to cover the PBL costs over the rate period. Second, the design, to the extent possible, mitigates the level of any rate increase. This included a directive to the rate design team to use agency reserves rather than PBL reserves in developing a solution. Third, the SN CRAC must be separate from the existing FB CRAC. In addition, BPA management established three standards that the rate design needed to meet to demonstrate cost recovery. *See* Keep, *et al.*, SN-03-E-BPA-04, for additional information on management directives.

Q. What are the standards the SN CRAC rate design must meet?

A. The first standard is a 50 percent Treasury Payment Probability (TPP). This is the likelihood that BPA will make all of its Treasury payments in full and on time in FY 2004, 2005, and 2006. The second standard is an 80 percent Treasury Recovery Probability (TRP). This is the probability BPA will make all of its Treasury payments in full, including any deferrals, by the end of FY 2006. The third standard is a zero net revenue measure. This standard requires PBL to have accumulated total net revenues for

the FY 2002-2006 rate period of at least zero. This standard should not be confused with the Accumulated Net Revenue (ANR) used to establish the SN CRAC rate increase, which is defined as accumulated net revenue from the end of FY 1999. *See* Keep*, et al.*, SN-03-E-BPA-04 for additional information regarding the reasons why BPA proposed TPP, TRP, and Net Revenue standards.

Q. What features did this panel develop as a result of the directions given by management?

A. In response, BPA developed a variable SN CRAC that would be in place for the remaining three years of the rate period. By selecting a variable rate design, BPA was able to set a lower rate over the remaining years of the rate period on an expected value basis as compared to a fixed rate design. *See* Keep*, et al.,* SN-03-E-BPA-04 for additional information regarding the reasons why a multiple year, variable rate design was chosen.

Section 3. Explanation of the Proposed SN CRAC

Q. Why did BPA choose to develop the SN CRAC rather than merely modifying the Financial-Based (FB) CRAC?

A. Because of BPA's various contracts, each of the three CRACs (Load-Based (LB) CRAC, FB CRAC, and SN CRAC) apply to different but overlapping subsets of BPA's customers. The GRSPs define the products that are subject to the SN CRAC and the FB CRAC, with additional specification coming from contractual language. The products subject to these two CRACs are not the same. If BPA implemented an SN CRAC that simply modified the FB CRAC parameters, the distinctions between the applicability of each CRAC to individual products would be lost. BPA chose to leave the existing FB CRAC unchanged in order to eliminate this problem. Leaving the FB CRAC unchanged also simplifies the application of the FB and SN CRACs to the particular products.

Q. What are the parameters of the SN CRAC?

A. The SN CRAC is proposed to be in place for the last 3 years of the current rate period for 12-month increments. The proposed SN CRAC adjustment is similar to the FB CRAC in design. Like the FB CRAC, the SN CRAC has yearly thresholds and caps that determine the CRAC and limit the amount collected. The annual thresholds are set at $-400 million PBL ANR for FY 2003, for the SN CRAC that applies to FY 2004; $-140 million for FY 2004, for the SN CRAC that applies to FY 2005; and $5 million for FY 2005, for the SN CRAC that applies to FY 2006. These thresholds are compared to the forecasted PBL ANR. The SN CRAC annual revenue amount is capped at $470 million for each year.

Q. Why are the SN CRAC thresholds different from the thresholds for the FB CRAC?

A. The deterioration of BPA's financial condition requires that new thresholds be set for the SN CRAC. Using the FB CRAC thresholds would not allow BPA to meet the directive to set rates to cover PBL's costs and meet the TPP, TRP, and net revenue design standards.

Q. How does the SN CRAC work?

A. As in the existing FB CRAC, in August of FY 2003, 2004, and 2005, a forecast of end-of-year ANR will be prepared, based on Third Quarter Review data. This forecast will include actual net revenues, as accumulated since FY 1999, to the extent actual financial data is available, plus the forecast of net revenue changes through the remainder of the fiscal year. For purposes of the SN CRAC, the forecast of ANR will be adjusted upward for any anticipated FB CRAC revenue for the next fiscal year. The ANR amount will be compared to the SN CRAC threshold. If the ANR plus FB CRAC revenue is below the SN CRAC threshold, an upward adjustment to posted power rates will be made for applicable power products for the following fiscal year. The SN CRAC revenue will be collected over a 12-month period and be equal to the lesser of: the annual cap or the difference between the threshold and the sum of forecasted ANR and FB CRAC revenue.

Q. Why is the SN CRAC collected over a 12-month period?

A. The SN CRAC revenues are collected over a 12-month period in order to spread the burden of the SN CRAC rate increase fairly across customers. An SN CRAC other than 12-months in length would disproportionately impact customers because of differing load patterns. By applying the SN CRAC for 12 months, all customer peak periods and off-peak periods will be covered.

Q. Why is the SN CRAC based on a forecast rather than audited actual ANR?

A. Audited actual ANR is not available until after the start of a fiscal year. Waiting for audited, actual ANR would mean that the SN CRAC could not begin on October 1, 2003, and it would not be possible to have three complete 12-month periods in the remainder of this rate case. By using the Third Quarter Review numbers, a large portion of the forecasted end-of-year ANR will be based on actual data.

Q. Is ANR for SN CRAC purposes calculated in the same way that ANR are calculated for FB CRAC purposes?

A. Yes. The ANR for any given fiscal year are accrued revenues less accrued expenses, in accordance with Generally Accepted Accounting Principles. Like the FB CRAC, there are two exceptions: first, for purposes of determining if either CRAC threshold has been reached, actual and forecasted expenses will include BPA expenses associated with Energy Northwest debt service as forecasted in BPA's WP-02 Final Studies. Second, the impact of adopting Financial Accounting Standard 133, Accounting for Derivative Instruments and Hedging Activities, will not be considered in determining if the CRAC thresholds have been reached.

Q. Why is there a cap?

A. Given management direction regarding mitigation of rate increases, BPA determined a cap sets a reasonable balance between limiting the rates customers might have to pay and providing protection for BPA's finances.

Q. Why is the cap set at $470 million?

A. In the development of the SN CRAC, BPA explored the impacts of a variety of SN CRAC parameters on rates. BPA determined a cap of $470 million provided an equitable balance between rate levels and protection for BPA's finances.

Q. What is the process associated with BPA's calculation of the SN CRAC?

A. BPA will hold a public process in August of each year for the remainder of the rate period in which BPA will explain the assumptions behind the forecast of ANR and explain the calculation of the SN CRAC revenue amount. This public process will be combined with the existing FB CRAC process. BPA will make a final decision on the revenue amount by the end of August. The SN CRAC rate increase will first appear on the customer's October bills, and will continue through that fiscal year.

Q. Is there an opportunity to make a correction if the forecast of ANR is significantly wrong?

A. No. Once the SN CRAC is in place it remains in place for the entire fiscal year. However, with a multi-year design, the actual ANR automatically goes into the following year's SN CRAC calculation. This effectively provides for an annual true-up.

Q. What is the projected impact of the SN CRAC?

A. The expected value of revenue from the SN CRAC over the period FY 2004 through FY 2006 is $1,018.5 million. The expected value of the SN CRAC rate increase as a percentage of May 2000 base rates is 29.5 percent in FY 2004, 31.7 percent in FY 2005, and 27.5 percent in FY 2006. The expected rate increase of the combined CRACs over FY 2003 rates (including the 2003 LB CRAC and FB CRAC) is 17 percent in FY 2004, 17.5 percent in FY 2005, and 12 percent in FY 2006, for average of 15.67 percent for the remaining three years of the rate period (*see* Documentation for SN-03 Study, SN-03-E-BPA-02).

Q. Why is the expected value of the revenue from the SN CRAC different from the net revenue gap of $920 million?

A. The reason the expected value of SN CRAC revenue is higher than the gap is that SN CRAC rates have to be high enough to meet the TPP and TRP standards previously discussed in this testimony. In addition, the $920 million net revenue gap was calculated under the assumption that the FB CRAC would trigger at its maximum for FY 2004-2006 producing about $320 million of revenue. With the addition of the SN CRAC mechanism, the threshold BPA is proposing, and the existing FB CRAC threshold, the expected value for FB CRAC revenue for the remaining 3 years has declined to approximately $250 million.

Section 4. Alternative Designs

Q. Is BPA considering possible changes in the SN CRAC design?

A. Yes. One possibility is the adoption of a "fixed" design: a plan to collect a fixed amount of SN CRAC revenue in the specified years, instead of using a formula to calculate the amount shortly before the beginning of the year. In public SN CRAC workshops, some parties have expressed concern that the variable nature of BPA's initial proposal design would take the pressure off BPA for controlling costs and introduce too much uncertainty about rate levels. Adopting a fixed design would be one way to respond to these concerns.

Q. What other design changes are possible?

A. BPA has been urged in public SN CRAC workshops to consider changing the amount of revenue an SN CRAC would collect if certain favorable events occur that would affect future costs and revenues. BPA refers to this as a "contingent" rate design.

Q. Is this the same as a "variable" design?

A. No. The variable design is a general mechanism with parameters, chiefly the thresholds and annual caps, that would not change. The SN CRAC rate calculated under the variable design would change with changes in ANR, but the design itself would not change after the ROD.

Q. How would a contingent design be different?

A. A contingent design is one whose parameters themselves can change, contingent on certain events. In public SN CRAC workshops, some customers have proposed actions that might reduce PBL's net revenue gap, thereby reducing the size of the problem the SN CRAC is addressing. For instance, customers suggested that settling the Publics' lawsuit against the IOUs would save $200 million and could reduce BPA's overall rate level. BPA does not believe it can prudently count on this. It depends on the actions of many outside entities, and on finding a mechanism for having the impact of the settlement reduce SN CRAC rather than the LB CRAC. A contingent design could accommodate success in these efforts by changing the SN CRAC parameters if the favorable events occur before August 1, 2003 (or perhaps before August 1 of 2004 or 2005 for the designs of the SN CRAC that would affect rates in FY 2005 and 2006). Some governing principles could guide the modifications of the SN CRAC parameters. One such principle might be that the modified SN CRAC design should meet, but just barely meet, the TPP and TRP criteria. Another might be that the modified SN CRAC should act to reduce the SN CRAC percentages for all years proportionately, rather than concentrating the impact in a subset of the years. Still a different approach would be to look forward into each year and identify the events affecting net revenues that BPA considers certain or perhaps highly likely to occur, and to adjust the revenue to be collected by that year's SN CRAC accordingly. Hypothetically, this might mean that settling the lawsuit would increase BPA's net revenue by $67 million in each year from

FY 2004-2006. Then, the SN CRAC modification of the SN CRAC might be to reduce both the annual cap and the threshold for the SN CRAC in each year by $67 million (assuming this is consistent with all of the governing principles). These revised SN CRAC parameters would then be used in the August 2003 calculation of the SN CRAC rate to be applied to eligible rates in FY 2004. An equivalent method would be to calculate the amount of revenue the SN CRAC should collect using the original thresholds and caps, and then modify the resulting SN CRAC revenue amount in line with the events affecting net revenues.

Q. What items might be used to adjust the amount of revenue the SN CRAC should collect?

A. There are several items. Those items that could be considered are items such as reductions in BPA internal operating costs charged to power rates; reductions in Corps, Reclamation, and/or Energy Northwest operations and maintenance costs; restructuring of IOU benefits; settlement of the Publics/IOUs litigation; renegotiation of augmentation contracts; additional hydro generation through modification of operations to meet fish and wildlife mitigation requirements; and secured freed-up reserves, 3rd party interest savings, and other debt management actions.

Q. Are there other possible changes?

A. Yes. BPA may need to change the SN CRAC and FB CRAC thresholds so that they work together to meet the intent of (1) the FB CRAC, (2) the load reduction agreements with PacifiCorp (Financial Settlement) and Puget Power (Amended Settlement Agreement), and (3) the SN CRAC in a way that is fair and equitable to all customers.

Q. Will BPA's Initial Proposal be updated in the Final Proposal?

A. Yes. The Final Proposal will include revised hydro estimates, secondary revenue forecasts, and expense and revenue forecasts for FY 2003-2006. Adjustments also will be made to capture changes in expenses, revenues, and cash resulting from deals signed between the time of the Initial Proposal and the time of the Final Proposal, such as the

settlement or termination of any power purchase or sales contracts. The updated numbers will more accurately reflect BPA's financial picture for FY 2003-2006. The Transmission Business Line (TBL) data also will be updated to the extent that more current information is available for FY 2003, or that updated data for FY 2004, FY 2005 or FY 2006 is available through the TBL rate case.

Q. Under what circumstances would the SN CRAC be retriggered?

A. The SN CRAC process retriggers if:

The Administrator determines that reserves are declining such that, even with implementation of FB CRAC, this SN CRAC, and other risk mitigation tools,

(1) BPA forecasts a 50 percent or greater probability that it will nonetheless miss a payment to the U.S. Treasury or other creditor, or

(2) BPA has missed a payment to the U.S. Treasury or has satisfied its obligation to the U.S. Treasury but has missed a payment to any other creditor.

Q. What actions will BPA take to implement another SN CRAC?

A. If the SN CRAC process retriggers, BPA will propose changes to the SN CRAC parameters that, to the extent market and other risk factors allow, achieve a high probability that the remainder of Treasury payments during the rate period will be made on time. BPA's proposal will give priority to prudent cost management and other options that enhance TPP while reducing the need for reliance on adjusting the SN CRAC. BPA would then conduct a public process to consider how the SN CRAC parameters should be adjusted to resolve the cost recovery problem. This process would include notice to rate case parties, development of an administrative record, an opportunity for participants to submit refutation or rebuttal, and a formal decision by the Administrator based on the administrative record. Upon conclusion of the public process, the Administrator would decide on changes to SN CRAC parameters. Potential issues in the public process would be the nature and magnitude of the cost recovery problem, including the assumptions in

any financial forecast used; the availability and use of measures other than rate changes to resolve the problem; and proposed changes to SN CRAC parameters.

Section 5. Overview of SN CRAC Analysis

Q. Please describe the general modeling approach you are using.

A. The main tool BPA used in assessing various SN CRAC designs is the ToolKit. ToolKit's primary function is to calculate TPP and TRP. It also calculates many other statistics that can be useful for analyzing various rate designs in order to assess BPA's chances of making its Treasury payments. Other models perform the fundamental portrayal of BPA's risk.

Q. What are the main inputs to the ToolKit?

A. Net revenue variability is one of the main inputs to the ToolKit. Net revenue variability is in two ToolKit input files, representing the variability of PBL net revenues and TBL net revenues. RiskMod generates the PBL net revenue file. *See* Conger, *et al.*, SN-03-E-BPA-07. The file of TBL games was generated by the Transmission Risk Analysis used in the 2003 TBL rate case. The TBL data includes both the variability of net revenues and the translation of net revenues into cash flows. The PBL data from RiskMod does not include the translation of net revenues (accrual data) into cash flows. This modification is performed by a set of Accrual-to-Cash Adjustments input into the ToolKit.

Q. Are these the only inputs the ToolKit needs?

A. No. The ToolKit also needs the starting reserve balances for the two business lines, the starting ANR balance for PBL, and the amount of interest credit assumed in the calculation of the net revenues for TBL and PBL.

Q. What role do the starting reserve balances play?

A. The reserve balances show the financial reserves – cash plus deferred borrowing – available to each business line. The sum of the reserves for the two business lines is the total reserves for BPA. This is a critical value, as BPA's ability to pay its creditors depends on the reserves with which it starts a year plus the net cash flow for that year. At the end of the year, if BPA does not have sufficient reserves to pay Treasury, BPA's last-in-line creditor, it may have to defer some or all of its Treasury payment.

Section 6. Changes in the Models Supporting SN CRAC

Q. Are there any changes in the models used to analyze CRACs since BPA's Supplemental Rate proposal in June 2001?

A. Yes. There are four significant changes. The first is that BPA is not using the Non-Operating Risk Model (NORM) to assess the risks around BPA's non-operating expenses because of the commitment to operate to particular budget levels.

Q. *Why has BPA not included any NORM distribution?*

A. The primary purpose for using the NORM distribution is to assess the risks around BPA's cost levels. BPA is making a major commitment to specific cost control targets. *See* Keep, *et al.,* SN-03-E-BPA-04. The depth of this commitment means that there is no need to reflect risks that costs will exceed these levels. Because NORM performed this function, it will not be needed in this rate case.

Q. What is the second change?

A. BPA is including TBL data in our analyses because of the decision to use agency reserve levels. *See* Keep, *et al.,* SN-03-E-BPA-09.

Q. Why is TBL data necessary for this proceeding?

A. There are two reasons: one is for the SN CRAC Trigger Analysis, and the other is based on the management decision to use agency reserves in calculating the TPP in order to mitigate the size of the rate increase.

Q. Please explain the importance of TBL data for the Trigger case.

A. The GRSPs define the trigger event for the SN CRAC as the fact or the forecast of a 50 percent or higher probability of a missed payment by BPA to a creditor (including the Treasury). BPA makes payments to the Treasury as a single agency, not as PBL alone. Therefore, to properly determine the possibility or fact of a missed Treasury payment requires consideration of both PBL and TBL reserve levels.

Q. What is the third change to the model?

A. BPA included a detailed Accrual-to-cash adjustment to calculate the reserve levels for the TPP.

Q. What is the purpose of the Accrual to-Cash (ATC) adjustment?

A. The ATC adjustment makes the necessary changes to convert the net revenues (accruals) provided from RiskMod into the equivalent reserves (cash) value needed by ToolKit to calculate TPP.

Q. Is this adjustment new for this rate case?

A. No. BPA's May 2000 Proposal included an adjustment in the ToolKit called the *Internal Cash Flow* that reflected the differences between net revenues and cash.

Q. Why do net revenues and cash differ?

A. For ToolKit and TPP purposes, there are four major factors that cause cash and net revenues to differ. First, some revenues and expenses that are accrued and included in net revenues do not affect cash. These include the depreciation and amortization of BPA's physical and non-physical assets, and the interest adjustments shown on the ATC Table (*See* SN-03 Study, Chapter 7, SN-03-E-BPA-01, Table 7-4, ToolKit Net Revenues to Cash Adjustments), which mostly reflects the "recognition of the gain" resulting from the restructuring of BPA's Federal appropriations in the 1990s. Part of the gain is amortized (written off) annually and "recognized" on the income statement as a non-cash reduction in interest expense each year. Because this transaction has no cash impact,

BPA's actual cash obligation to Treasury is not reduced. Therefore, BPA's interest payment is higher than its interest expense by the amount of the amortized gain. Second, there are timing differences between when certain accrued revenue and expense items are included in the income statement, and when the associated cash is received or paid. These items include the ENW Net Billing Prepaid Expense, the Residential Exchange Deferral; the Slice True-Up, LB CRAC True-Up, and various terminated purchase and sales contract amounts and other miscellaneous items included in the "all other" category in the ATC table. Third, there are various sources and uses of cash that are not part of the income statement. These include Reserve Fund Free-ups, Scheduled Federal Debt Amortization (Repayment), Transmission Revenue-Financed Capital Investments, the Proceeds from TBL Asset Sales (included in "All Other"), and the associated Accelerated Repayment of long-term debt from those Asset Sales.

Q. What is the fourth reason for cash to differ from net revenues?

A. The PBL income statement includes ENW debt service forecasts (as part of non-Federal debt service) from the May 2000 power rate case, which is consistent with the treatment for calculating accumulated net revenues for the FB CRAC. BPA has been actively refinancing and restructuring the principal payments of the ENW portions of this debt service in order to extend the principal payments into the future. BPA has amortized, and plans to continue to amortize, a like amount of Federal debt as was extended by ENW. To reflect the cash effects of the restructured ENW debt service it is necessary to replace the non-Federal debt service in the income statement with the current estimates of non-Federal debt service payments that include the restructured ENW debt service. In addition, the planned advanced amortization of Federal debt is a use of cash that is not included in the power income statement, so it must be shown as a reduction in cash on the ATC table.

Q. What is the ENW Net Billing Prepaid Expense adjustment?

A. This adjustment derives from BPA's net billing arrangement with ENW and the difference between the ENW fiscal year and BPA's fiscal year. ENW's fiscal year begins July 1, or 3 months earlier than BPA's fiscal year, which begins October 1. In order to convert the ENW fiscal year budget into a BPA fiscal year budget, BPA sums three-fourths of ENW's current fiscal year budget to cover the first nine months of the BPA fiscal year (October through June), and one-fourth of ENW's next fiscal year budget to cover the last 3 months of BPA's fiscal year (July through September).

Q. What effect does this have on net billing?

A. Under net billing, BPA is required to pay off each net billing participant's share of the ENW budget before BPA begins receiving payments from that participant. Due to the length of ENW's billing cycle, BPA requires that a customer send its payment for purchases from BPA directly to ENW, beginning with that customer's bill for May purchases from BPA. Generally, ENW begins receiving these payments in July. The customer continues to send its payments to ENW until its annual obligation for the ENW net-billed projects has been paid. In general, most customers will pay substantially more to ENW during the final quarter of the BPA fiscal year than BPA accrues for the three months for net-billed projects' debt service and operating expense. The remainder is paid in the October to June time period of BPA's following fiscal year.

Q. What does this mean for BPA's cash flow?

A. It means that much of BPA's revenue for May through September will not be received as cash by BPA.

Q. Why are some years positive and some years negative on the ATC table?

A. The amount that the payments to ENW exceed the amount BPA shows as an expense in any given fiscal year is directly related to three factors: the size of the ENW budget, the level of BPA's rates, and the amount of power and transmission services that net-billed

participants are purchasing from BPA. When BPA's rates increase, the payments to ENW will also increase for those customers who have not paid off their entire ENW obligation prior to September 30. Also, if ENW changes its budget dramatically from one year to the next, the payments to ENW will change to reflect fewer or more participants satisfying their obligations to ENW by September 30 of each fiscal year.

Q. What are bond reserve fund free-ups?

A. Energy Northwest had a low bond rating when it initially issued bonds in the early 1980s. One of the ways ENW was able to get back into the bond market was to provide assurances by issuing bonds to fund reserve funds in the amount of the final year's debt service in order to assure continued payment of the principal and interest in the case of default. Surety bonds are a different way to achieve the same end, except a bond insurer guarantees payment of the principal and interest. An insurance company has approved ENW to purchase surety bonds, allowing ENW to free up the last remaining reserve account funds being held as added security for the BPA-backed net-billed bonds. Also, after refinancing bonds, the new lower interest costs reduce the amount required to be maintained in reserve accounts, representing another way reserve funds are freed up. About $60 million will be released this fiscal year. Another $68 million will be released during ENW's FY 2004. This lowers the amount BPA needs to recover through rates.

Q. What is the source of the transmission data included in the ATC and TPP and TRP calculations?

A. As part of its current rate case, TBL included a risk analysis designed to calculate a TPP for TBL only. This risk analysis includes an accrual-to-cash worksheet to change TBL net revenues to cash for calculating the TBL-only TPP. This worksheet is the source of the transmission data used to calculate the net revenues to cash adjustments for BPA as a whole. *See* SN-03 Study, Table 7-3, Statement of Cash Flows-Transmission Business, SN-03-E-BPA-01, Chapter 7.

Q. The TBL rate case covers FY 2004-2005. What is the origin of the FY 2006 data?

A. The risk analysis for TBL's rate case includes data for FY 2006, even though it is outside the period for which TBL is setting rates. After consulting with TBL staff and managers, it was our professional judgment that this transmission data was the best available and appropriate to use for FY 2006 for the SN CRAC rate case. The review included the continuation of the $20 million per year revenue financing TBL plans to begin in FY 2004.

Q. Please describe the results of the ATC calculations.

A. Lines 20 to 22 of the ATC Table in the study show the annual differences between net revenues and cash for TBL, PBL, and BPA as a whole. For TBL for FY 2003-2005, annual end-of-year cash is lower by $1.43 million, $33.82 million, and $6.61 million respectively, and greater by $8.46 million in FY 2006. For PBL, end-of-year cash is greater than net revenues by $51.3 million in FY 2003, and lower than net revenues by $36.97 million, $110.48 million, and $21.07 million for FY 2004-2006 respectively. For BPA as a whole, end-of-year cash is greater than net revenues by $49.87 million in FY 2003, and lower than net revenues by $70.79 million, $117.08 million, and $12.61 million for FY 2004-2006 respectively.

Q. Line 23 of the ATC Table is labeled TBL incremental cash flow. What does this represent?

A. To quantify the effect of risk on the finances of BPA's transmission function, TBL analyzed the effects of uncertainty in costs and revenues on transmission cash flows using a Monte Carlo simulation method. The foundation of this risk analysis is a transmission financial spreadsheet model. Accrual-based revenues and expenses are converted to net cash flows in the cash flow statement (*see* Chapter 7, Table 7-3, Statement of Cash Flows, and TBL. SN-03 Study, SN-03-E-BPA-01) portion of this financial model. The net cash flows provide an estimate of the annual changes in cash

balances. For ToolKit purposes, the TBL Monte Carlo risk analysis model is run for 3,000 iterations, providing 3,000 four-year sets of net cash flows for FY 2003-2006. These 3,000 sets of net cash flows are inputs to ToolKit for purposes of calculating BPA net cash flows and TPP. For additional detail, *see* Chapter 7, SN-03 Study, SN-03-E-BPA-01.

Q. *What changes might be made in the final rate proposal with respect to the accrual to cash adjustments?*

A. Any changes to the forecasted expense levels and the load and revenue forecasts could affect the amount of cash BPA anticipates receiving. The most likely adjustments include incorporating a new ENW budget for ENW's FY 2004, which starts July 1, 2003; updated forecasts of ENW debt service to reflect any FY 2003 refinancings; updated revenue, expense, and end-of-year reserve levels for FY 2003; and any updates or changes to TBL's rate case risk analysis. Adjustments will also be made to capture changes in expenses, revenues, and cash resulting from deals signed between the time of the Initial Proposal and the time of the Final Proposal where the associated stream of accrued revenues and/or expenses differs from the stream of cash payments or receipts, such as the settlement or termination of any power purchase or sales contracts.

Q. *What is the fourth and final change to the ToolKit model?*

A. BPA made a number of modifications to the ToolKit model that calculates the TPP for BPA's SN CRAC proposal.

Q. *Please describe these modifications to model BPA's proposal.*

A. There are five reasons for the modifications: (1) transitioning to a post-2002 rate case world, there were features of the ToolKit that were no longer needed; (2) features required to model the SN CRAC needed to be added; (3) adoption of the new TRP criterion required modifications to the TPP logic; (4) there were several general updates and clean-ups to make the ToolKit operate more easily; and (5) several modifications

were needed to make the ToolKit more useful for this rate case. A more detailed explanation of the operation of the current version of the ToolKit can be found in the SN CRAC Design Study. *See* Documentation for SN-03 Study, SN-03-E-BPA-03, Chapter 7.

Q. Please describe the modifications made to reflect the transition to a post-2002 rate case world.

A. First, BPA is not using the 13 Fish & Wildlife Alternatives used in the WP-02 proceeding. The 2002 Biological Opinion (BiOp) has been determined, and BPA no longer needs to reflect uncertainty about the BiOp through the use of multiple flow and program regimes. Second, the revenues from Slice are now known. Third, since a particular LB CRAC design was adopted in the 2002 rate case, it is no longer necessary to model alternative LB CRAC designs in the ToolKit. All of the LB CRAC options except the one currently in the rates have been removed.

Q. How was ToolKit modified in order to model the SN CRAC?

A. The principal modifications created arrays of cells on the main page where the parameters of alternative SN CRAC designs could be entered, and added output displays on the same page.

Q. Why did BPA modify the TPP logic?

A. As the Overview and Management panel notes (Keep, *et al.*, SN-03-E-BP-04), BPA has proposed using a new Treasury payment criterion called Treasury Repayment Probability (TRP). This is the probability that by the end of FY 2006 BPA will have paid all FY 2006 Treasury payments and any missed portions of Treasury payments for FY 2003-2005. The ToolKit did not have logic for calculating this, so it was added.

Q. Has the inclusion of TBL data changed the TPP calculations?

A. The TPP calculations have changed only in that TBL data is factored in. There has been no change to the logic. Previously ToolKit started with PBL cash, added in PBL net

revenue, translated to PBL cash, and compared the ending reserve balance to the PBL working capital of $50 million. Now ToolKit starts with PBL and TBL cash, adds in PBL net revenue, translates it to PBL cash, adds in the TBL cash flow, and compares the ending reserve balance to the total BPA working capital level of $70 million.

Q. What "general updates" did BPA make to ToolKit?

A. Since the time when BPA was preparing the Supplemental Proposal in June 2001, various user interface improvements have been made. For example, some cells that required "TRUE" or "FALSE" as inputs were replaced with checkboxes.

Q. Why has this rate case required changes in the ToolKit?

A. The earlier versions of the ToolKit operated only in the cash world, and BPA had to make translations back and forth between the cash world of the ToolKit and the ANR world of the FB CRAC. With the possible addition of another adjustment keying off ANR, it made sense to model ANR explicitly in the ToolKit. Now the ToolKit can use the FB CRAC thresholds from the GRSPs, denominated in ANR, instead of using cash figures that were at one time the basis for deriving the ANR thresholds. This represents more accurately the way the FB CRAC would operate. This also benefits the modeling of the SN CRAC, as BPA has proposed that the SN CRAC thresholds be denominated in ANR rather than cash.

Q. What other ToolKit changes are specific for this rate case?

A. A calculation of the approximate total net revenue for the four years, FY 2003 through 2006, has been added to facilitate checking whether the SN CRAC design meets the TPP, TRP, and net revenue criteria. This criterion requires that an SN CRAC solution provide that PBL net revenue for FY 2002 through 2006 be at least zero. Since current runs of the ToolKit do not include FY 2002, the net revenue for FY 2002 needs to be added to the five year total the ToolKit reports. The actual 2002 PBL net revenue was negative $390.5 million.

Q. Are there other changes BPA has made specifically for this rate case?

A. Yes. In addition to reporting the expected value of several SN CRAC statistics in their own right, BPA has also included a report of the total rate level for each year, FY 2004-2006, as a percentage above the total average non-Slice rate for FY 2003. The FY 2003 total includes both the LB CRAC and the FB CRAC. The total for the later years also includes any SN CRAC increase. For example, if this statistic is 3 percent for FY 2004, it is indicating that the expected value of the base rate plus the FY 2004 LB CRAC rate plus the 2004 FB CRAC rate plus the 2004 SN CRAC rate would be 3 percent higher than the FY 2003 total of the base rate plus the 2003 LB CRAC rate plus the 2003 FB CRAC rate.

Q. Does this conclude your testimony?

A. Yes.