2002 Supplemental Power Rate Proposal Study Documentation

WP-02-E-BPA-69

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BONNEVILLE
POWER ADMINISTRATION

2002 SUPPLEMENTAL POWER RATE PROPOSAL
DOCUMENTATION

TABLE OF CONTENTS

DOCUMENTATION FOR THE
2002 SUPPLEMENTAL POWER RATE PROPOSAL

INTRODUCTION

The Chapters in the Documentation correspond with the Chapters in the 2002 Supplemental Power Rate Proposal Study (WP-02-E-BPA-67). Only Chapter 5 (**Risk Mitigation**) has documentation.

The 2002 Supplemental Power Rate Proposal Study Documentation is now contained in one volume (WP-02-E-BPA-69) and is no longer divided into Volume 1 and Volume 2 (the 2002 Amended Power Rate Proposal Study Documentation contained the two volumes in one binder).

1. OVERVIEW (NO DOCUMENTATION)

2. RISK ANALYSIS (NO DOCUMENTATION)

3. NO-SLICE RISK ANALYSIS (NO DOCUMENTATION)

4. SLICE (NO DOCUMENTATION)

5. RISK MITIGATION

CHAPTER FIVE: RISK MITIGATION

1. INTRODUCTION

This chapter of the documentation describes changes to the risk mitigation tools and modeling that are incorporated into the Supplemental Proposal. Since the publication of the May 2000 Final Power Rate Proposal (May Proposal), significant changes in West Coast power markets and unanticipated system augmentation have required Bonneville Power Administration (BPA) to reassess its risk profile and develop an even more robust mitigation package. In August 2000 BPA reviewed events during the summer months which indicated that power markets on the West Coast had become more volatile than previously anticipated. BPA concluded that, in light of the unprecedented price spikes during the summer months, BPA's cost-based rates for Fiscal Year (FY) 2002-2006 would be far more attractive to prospective customers than market alternatives.

As a result, preference customers could be expected to purchase significantly more power at much higher prices than originally anticipated. During the initial phase of the rate case, BPA's load forecast exceeded BPA's forecast of generation resources by 1,745 average megawatts (aMW). BPA now expects loads will exceed the original rate case forecast by an additional 1,518 aMW. Moreover, the difficulty of forecasting the expense of serving the increased load obligations is magnified by the fact that prices are escalating in an extraordinarily volatile market.

The combination of an unanticipated increase in loads with higher and more uncertain market prices greatly diminishes the probability that the rates proposed in the initial phase of the rate case will fully recover generation function costs. TPP has decreased to an unacceptable level.

In the May Proposal, BPA updated and expanded its risk analysis methodology to encompass a wider array of risks than had been addressed in prior rate cases. These methodological enhancements are described in detail in the 2002 Final Power Rate Proposal Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 264-285.

In December 2000, BPA released the Initial Amended Proposal to the 2002 Power Rate Case (Amended Proposal). The Amended Proposal addressed the additional risks that had materialized following the release of the May Proposal, updating forecasts of market prices and expected reserves and introducing a more robust, three-component Cost Recovery Adjustment Clause (CRAC) to mitigate risks of an increasingly volatile market. Since December, market prices have continued to rise to levels well beyond those forecast in the Fall of 2000. At the same time, the Pacific Northwest has experienced a drought that has left reservoirs at levels well below average. This Supplemental Proposal addresses these increased risks, adopting the same general approach as the Amended Proposal (i.e. a three-component CRAC) but modifying some of the specific rate-making provisions. In order to accomplish this, several modifications have been made to the structure of the ToolKit model as well as to the risk mitigation methodology. These modifications are detailed in the text that follows.

2. TREASURY PAYMENT PROBABILITY

In the face of operating and non-operating risks, BPA seeks to maintain a high probability of recovering all costs on schedule. Payments to Treasury rank lowest on BPA's priority of payments, and therefore paying Treasury on time implies having paid all other creditors on time. For this reason, TPP is the key measure of the agency's ability to recover its costs on time and in full.

This Supplemental Proposal, like the May and Amended Proposals, is consistent with Fish and Wildlife Funding Principle Nos. 3 and 4 concerning with BPA's TPP. Principle No. 3 states:

> "Bonneville will demonstrate a high probability of Treasury payment in full and on time over the five-year period.
>
> - A 100 percent probability of Treasury payment is not achievable, but BPA's new rates must be designed to maintain or improve TPP, even in view of the range of fish costs.
>
> - BPA will demonstrate a probability of Treasury payment in full and on time over the five-year rate period at least equal to the 80 percent level established in the last rate case and will seek to achieve an 88 percent level." *See* the Principles, Volume 1, Chapter 13 of Revenue Requirement Study Documentation, May Proposal, WP-02-FS-BPA-02A.

In the May Proposal, BPA designed and proposed risk mitigation tools to achieve an 88 percent Treasury Payment Probability for the generation function. While 88 percent continues to be BPA's goal, the current modeling of alternative LB CRAC outcomes resulted in TPP values falling between 82.7 and 85.9 percent, which is within the 80-88 percent range called for in the Principles. In addition to the Safety-Net CRAC described later in this chapter, BPA intends to pursue additional, non-rate-making actions that could increase the likelihood of making Treasury payments on time during each of the five years.

Principle No. 4 states: "Given the range of potential fish and wildlife costs, BPA will design rates and contracts which will position BPA to achieve similarly high Treasury payment probability for the post-2006 period by building financial reserve levels and through other mechanisms." Consistent with this Principle, the expected value of reserve levels at the end of FY 2006 was $1.2 billion in the May Proposal, without modeling DDC distributions. In this Supplemental Proposal, a number of ToolKit runs were performed to assess the possible impact of LB CRAC given market price and load reduction uncertainties. In the six runs performed for the Cost Shift analysis that modeled Slice loads, the expected value of FY 2006 ending reserves varied from $1,045 to $1,156 million.

3. RISK MITIGATION TOOLS

Using the ToolKit model, analysts can assess the impacts of various risk mitigation tools on TPP. In addition to those used in the development of the May Proposal, two new tools, a Load-Based Cost Recovery Adjustment Clause (LB CRAC) and a Safety-Net CRAC (SN CRAC), were added in the Amended Proposal to address the higher level of risk due to system augmentation and market volatility. This Supplemental Proposal

contains updates and revisions to some of these tools. ToolKit allows users to evaluate the effects of each of the following tools on TPP (described in detail in WP-02-FS-BPA-02A, at 266-267):

- ***FY 2002 Start of Year Financial Reserves***, consisting of cash in the Bonneville Fund and any deferred borrowing balance functionalized to generation. This forecast had been updated since the May Proposal.
- ***4(h)(10)(C) credits*** for fish and wildlife expenditures made by BPA equal to the fraction of projects' costs allocated to purposes other than power. These credits were dealt with in RiskMod where they have been updated since the May Proposal. *See* WP-02-E-BPA-71 for a description of the changes to RiskMod.
- ***Fish Cost Contingency Fund (FCCF credits),*** comprised of 4(h)(10)(C) credits that BPA earned since enactment of the Northwest Power Act in 1980 and prior to 1995, when BPA began claiming these credits annually. These credits are dealt with in RiskMod and have not changed since the May Proposal.
- ***Planned Net Revenues for Risk (PNRR)***, a component of the revenue requirement that is added to expenses to increase expected cash flows for risk mitigation purposes. Because the Revenue Requirement used for the Supplemental Proposal has not changed since May, both PNRR and other internally generated cash flows for risk remain unchanged since the May Proposal.
- ***Cost Recovery Adjustment Clauses (CRAC)***, automatic, temporary upward adjustments to posted power prices if certain conditions occur. Although the May Proposal contained a single CRAC mechanism to deal with fluctuations in BPA's financial situation, the Amended Proposal contains three CRAC mechanisms: a LB CRAC implemented if augmentation load exceeds the amount forecast in the

original 2002 rate case, a Financial-Based CRAC (FB CRAC) designed to trigger if forecasted accumulated net revenues (ANR) fall substantially below a threshold level; and a SN CRAC, triggered by a deferral or a forecasted deferral, designed to prevent further deferrals. Pre-subscription customers are exempt from CRAC. In this Supplemental Proposal, the financial portion of the Residential Exchange Settlement is subject to the SN CRAC, and Slice purchases are subject to the LB CRAC. These three CRAC mechanisms have been adjusted since the Amended proposal, as described below.

4. TOOLKIT AND GENERATION RISK MITIGATION MODELING

The ToolKit model utilizes outputs of two Monte Carlo models in developing an estimate of TPP. Specifically, ToolKit receives two streams of net revenues and sums these to arrive at a distribution that reflects both operating and non-operating risks. RiskMod produces the stream of net revenues reflecting operating risk, whereas Non-Operating Risk Model (NORM) produces the stream of net revenues reflecting non-operating risks. *See* Risk Analysis Study and Documentation, WP-02-E-BPA-03 and, WP-02-E-BPA-03A for a description of RiskMod and NORM and the 2002 Final Power Rate Proposal Revenue Requirement Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 268-270 for a fuller description of the modeling system.

Another version of the ToolKit model is used to produce a distribution of net revenues for the remaining year of the current rate period (FY 2001). This version uses the output of the STREAM model used in the 1996 Rate Case to assess operating risks for FY 2001, and a current rate period version of NORM to assess the potential impact of two non-operating risks in FY 2001. For the Supplemental Proposal, the output of Short-Term Evaluation and Analysis Model (STREAM) was modified to better reflect BPA's

current outlook. Most of the variation in net revenues in STREAM comes, roughly equally, from two sources: water conditions and market prices. While the risks due to uncertainty from water conditions have not changed since the May Proposal, BPA estimates that price volatility is roughly four times greater than was previously modeled in STREAM. Accordingly, to better capture the uncertainty remaining in the last year of the current rate period, the net revenue deviations used in STREAM were doubled. One other change was made to the STREAM distribution. The games in the 2001 STREAM distribution were sorted so that, for each game, the water year in 2001 was the historical water year prior to the water year in 2002. This ensures that the assumptions made in the 2002 modeling about the balance remaining in the FCCF after 2001 are valid. STREAM is documented in the 1996 Final Proposal Wholesale Power Rates Development Study and Documentation, WP-96-FS-BPA-05 and WP-96-FS-BPA-05A.

5. DISCUSSION OF CHANGES TO THE TOOLKIT MODEL OPERATION

The ToolKit is a computer spreadsheet model that calculates sequential year-end financial reserve balances for a number of different games. It is used to determine the probability of paying Treasury in full and on time during the rate period. The ToolKit counts the number of U.S. Treasury deferrals that occur whenever the balance of financial reserves falls below a $50 million trigger point at the end of any year. This $50 million figure represents the amount of working capital that BPA must keep on hand for day-to-day liquidity during the first part of each fiscal year. A fuller description of the operation of the ToolKit model can be found in Revenue Requirements Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 271-276. The discussion that follows focuses on the changes to the ToolKit model operation implemented for the Supplemental Proposal.

A. Starting Financial Reserves

ToolKit was used to evaluate the Treasury payment probability for 3,900 5-year rate period games. For each 5-year scenario, the FY 2002 start-of-year financial reserve balance was derived from results of a separate run of an earlier version of the ToolKit for FY 1996–2001 through a probabilistic process. This probabilistic process consisted of running 300 simulations in the ToolKit using the one-year STREAM distribution described above to represent the remainder of the current rate period (FY 2001). For the Supplemental Proposal, ToolKit was calibrated to a lower FY 2002 starting reserves value than in the May Proposal. In December, a new set of 300 starting reserves values were generated by ToolKit, calibrated to forecasts reported in BPA's Third Quarter Review for FY 2000. New values for the Supplemental Proposal were derived by operating the version of the current period ToolKit used for the Amended Proposal, but subtracting $600 million from the net revenues for FY 2001 in each of the 300 games.

Additionally, the $50 million floor on reserves, used to model a minimum amount of working capital needed by BPA, was switched off in order to model some additional aspects of the extraordinary potential for cash drains during FY 2001. This allowed ToolKit to produce negative cash balances for FY 2001, reflecting, for example, the possibility that BPA could exercise its short-term note with the Treasury and need to pay it off early in FY 2002. This corresponds to a change in the FY 2002 FB CRAC in the Supplemental Proposal: it was left uncapped so that in the event that BPA began FY 2002 with less than $300 million in cash it would be able to collect whatever amount of FB CRAC revenue was needed to bring cash reserves back up to $300 million. For the

expected value of this amount to be calculated correctly, it is necessary to allow the 2002 – 2006 ToolKit to begin with negative reserve balances. If a floor of $50 million is placed on FY 2001 ending reserves values, the amount of additional revenue required to meet the $300 million reserves threshold in FY 2002 would be understated.

FY 2002 starting reserve balances in the 3,900 games ranged from -$514 million to $1214.6 million and averaged $308.7 million. *See* the output from this ToolKit run at Attachment 1. This starting reserve estimate will be updated in the Final Supplemental Proposal to reflect BPA's audited actual financial results for FY 2000.

B Net Revenue Distribution Changes

Both the RiskMod and NORM distributions for the FY 2002-2006 period were modified to reflect two sets of changes from the May Proposal. First, because the percentage of system output to be purchased by Slice customers is now known fairly well, the net revenues deviation in both RiskMod and NORM were adjusted to reflect the 28.29 percent of operating and non-operating risks absorbed by the Slice customers. The net revenues developed in RiskMod also reflected a revised forecast of market prices, and larger system augmentation required to meet the loads placed on BPA by customers who have signed subscription contracts.

C Cost Recovery Adjustment Clause

Another mechanism BPA is using in its Supplemental Proposal to meet its TPP standard is a three-component CRAC that allows BPA to temporarily increase power rates under specific conditions. *See* General Rate Schedule Provisions (GRSPs) WP-02-E-BPA-68.

The Load-Based CRAC (LB CRAC) is designed to cover the net cost of augmenting BPA's system to meet the additional 1,518 aMW of load placement. Because BPA will be acquiring this additional power in a highly volatile market, it is not possible to accurately forecast the cost of purchasing this power over the entire five-year rate period. Accordingly, the LB CRAC has been designed to be responsive to changes in the market price of power.

There are several steps involved in the determination of the LB CRAC amount. First, by June 2001, BPA will establish a preliminary LB CRAC amount for each year of the rate period, FY 2002-2006. The amount will be based on the current forecast of forward market prices for each year, shaped, and the amount by which loads contracted for exceed BPA resources, less purchases for augmentation prior to August 1, 2000. This percentage will be included in BPA's Final Power Rate Proposal.

Second, the preliminary LB CRAC amount will be adjusted for each six-month period of the rate period, beginning October 2001. For each year there will be an adjustment for each October-March period, and for each April-September period. These adjustments will be made at least 90 days prior to the beginning of each six-month period. These

adjustments determine the percentage increase that will be applied to each customer's bill for the six-month period. These adjustments will be made based upon updated forward strip forecasts. There will be a public process prior to the determination of the LB CRAC adjustment.

Finally, about 90 days after the end of each six-month period, BPA will true-up the LB CRAC based on actual augmentation purchases during the period. *See* Section 5.7 of WP-02-E-BPA-67 for a detailed discussion of the mechanics of the LB CRAC and Slice adjustments. Appendix 2 below contains documentation and additional explanation for the calculation of the amount of augmentation that BPA proposes to use to calculate the LB CRAC percentage and its effect on rates.

The LB CRAC mitigates the market price risk inherent in serving augmented loads by what is, in effect, a variable price mechanism. How much revenue BPA collects from LB CRAC in any period is a function of two factors: the amount of additional load placed upon BPA and the market price of the electricity needed to serve that augmented load. There is, however, a great deal of uncertainty surrounding both these factors; so much uncertainty, in fact, that BPA staff determined that the only way to assess the potential impacts of the design of the Supplemental Proposal was to perform a series of ToolKit runs that would illustrate the amount of LB CRAC revenue required to meet a TPP of roughly 84 percent under three price scenarios and two levels of load augmentation. (Further, to assess whether or not the LB CRAC design resulted in a cost shift, each of these load and market price combinations were run with and without Slice, resulting in a total of 12 ToolKit runs).

The FB CRAC is structured in substantially the same way as in the May Proposal with two notable exceptions. First, the annual cap on new revenue collection for FY 2002 was removed: ToolKit now models FY 2002 FB CRAC so that it collects whatever amount of additional revenues are needed to raise reserves to the $300 million threshold value for that year. The annual thresholds and caps for the remainder of the rate period, FY 2003-06, remain the same. Second, the timing of the collection of the FB CRAC has changed. In the May Proposal, it was proposed that determination of the FB CRAC trigger being reached be based on audited actual financial data available in January, and that collection be made over a 12-month period beginning in April. By contrast, the Amended Proposal called for collecting the full amount in the four months between March and June. This proposal goes back to the 12-month collection. However, collection would begin in October following an initial determination made in August after the 3rd Quarter Review.

The SN CRAC is designed to trigger a special 7(i) process if a payment to Treasury or other creditor is to be missed or has been missed. SN CRAC enables the amount, duration, and parameters of FB CRAC to be changed taking into account conditions prevailing at the time. Because these changes cannot be known at this time, and because SN CRAC will not affect the calculation of the TPP, SN CRAC is not being modeled in ToolKit.

D. Adjustment for IOU Residential Exchange Settlement

Because the value of the IOU Residential Exchange Settlement has been revised to reflect a market price of $38 rather than $28.1 per MWh, annual net revenues were adjusted downward by $ 56 million. The IOU Settlement included a financial component equivalent to 900 aMW. Changing the market price assumption on which this is based from $28.1 to $38 per MWh increases this expense by ($38- $28.1) * 8,760 * 900 = $78.1million, less the 28.29 percent to be paid by Slice customers, yielding $56 million.

E. Dividend Distribution Clause

BPA's Supplemental Proposal retains the Dividend Distribution Clause (DDC) mechanism for distributing "dividends" to certain stakeholders if Audited Accumulated Net Revenues (AANR) for the prior year reach the DDC Threshold. As part of the Amended Proposal, BPA is making changes to how the DDC will operate.

As has been the case since the May Proposal, the first $15 million of AANR exceeding the threshold will be allocated to qualifying Conservation and Renewable purposes. The remainder of any excess revenues will automatically be refunded to customers rather than having an additional public process to determine the allocation of the dividend. The threshold for any fiscal year will be adjusted upward, however, under two conditions.

- If there has been a power system emergency during the fiscal year and BPA has agreed to provide additional funding to mitigate the impact of the emergency operations on fish and wildlife, then to the extent that BPA has not spent the additional emergency-related funding during that fiscal year the threshold for that year will be increased.

- To the extent that BPA fish and wildlife direct program costs previously budgeted for expenditure in that fiscal year were not spent in that fiscal year and a need for them continues, the threshold for that year will be increased.

Threshold values, however, have been raised since the May and Amended Proposals. Because the DDC is now designed to operate automatically, these thresholds can be modeled straightforwardly in ToolKit as a "reverse CRAC." The DDC is modeled so that it triggers when cash reserves exceed $1.7 billion at the end of FY 2002, $1.5 billion at the end of FY 2003, and $1.2 billion at the end of FY 2004-2005. There will be no DDC distribution in FY 2002, the first year of the rate period.

When implemented, the DDC will be triggered by actual accumulated net revenue values comparable to the threshold expressed in terms of cash. These AANR equivalents have been re-calibrated based on updated financial data. The threshold is $1110 million for the end of FY 2002 (*i.e.*, for possible distribution starting in FY 2003), $852 million for the end of FY 2003, $519 million for the end of FYs 2004, and $519 for the end of FY 2005.

The logic in the ToolKit for a reverse CRAC was written to operate at the end of a fiscal year, triggering on ending reserves. Since the DDC in the May Proposal and the Amended Proposal included a five-year TPP test before distributions could be made, modeling the DDC would require modeling that five-year TPP test. Such modeling is difficult, and BPA had not developed that capability. Because the DDC logic was not used, it was not trued up to the GRSP provisions that the DDC would be triggered by (the ANR equivalent of) beginning reserves. There has not been enough time to change the logic in the ToolKit now that the DDC logic is being used. This discrepancy has been resolved by modeling the DDC in the ToolKit inputs as if the DDC operates in 2002

through 2005 rather than 2003 through 2006 as the Supplemental Proposal actually stands. The correspondence is this: the Supplemental Proposal calls for the first possible DDC distribution to be made on the basis of the beginning 2003 reserves for distribution starting in 2003; the basis in the ToolKit for the first possible DDC is the ending reserves for 2002. Ending 2002 reserves equal beginning 2003 reserves. Thus the report in the ToolKit of DDC distributions for 2002 reflect distributions made on the basis of ending 2002 reserves, that is, beginning 2003 reserves, and the distribution would be made during 2003.

The ending reserves reported by the ToolKit also reflect this. Ending 2002 reserves are affected by any distribution of DDC on the basis of ending 2002 reserves (*i.e.*, beginning 2003 reserves). This should be interpreted as a report of the ending 2002 reserves as adjusted by any distribution of DDC made during 2003 on the basis of beginning 2003 reserves.

6. RISK MITIGATION TOOLKIT RESULTS

For the Supplemental Proposal, ToolKit was run a total of 12 times. This was done to demonstrate the impacts of different levels of market price and load reduction on the amount of revenues to be collected under the LB CRAC and to demonstrate that the Supplemental Proposal does not shift additional costs to non-Slice customers.

Table 1 makes comparisons of the relative rate impacts of the LB CRAC, the FB CRAC, and the DDC on Slice and non-Slice customers given the different FY 2002 price levels and load reduction assumptions. The table summarizes the results of running ToolKit for twelve distinct combinations of conditions.

3	sets of market prices	X	**2**	load reduction levels	X	**2**	Slice sales levels	=	**12**	ToolKit Alternatives

where

market price levels for FY 2002 are set at $140, $210, and $315/MWh ,
load reduction levels are either 0 or 1,500 aMW, and
the Slice sales levels are with or without Slice

The table compares Five-Year TPP, first year rate increase due to LB and FB CRAC, average rate increase due LB and FB CRAC, average rate increase due to LB and FB CRAC including the offsetting effects of the DDC, and FY 2006 average ending reserves. These values are reported for 'Slice' (2000) and 'without Slice' (0) Options for each of six specific market price/load reduction combinations. (Note: Unlike the May and Amended Proposals, the ToolKit runs represented in the tables reflect the effects of the DDC.) Attachments 2-13 to this documentation present the summary ToolKit outputs for each of the 12 Alternatives modeled.

Table 1: Cost Shift Analysis Summary

		No Load Reduction Slice Product Sales		**1500 MW Load Red** Slice Product Sales	
		2000	**0**	**2000**	**0**
Ave 2002 Market = $140	TPP (5-year) 1st yr rate increase Ave rate increase Ave rate inc w/DDC Ave 2006 End Res	82.7 % 172% 67% 59% $1045	77.6 % 179% 71% 61% $1124	82.7 % 92% 31% 21% $1046	77.4 % 93% 33% 21% $1116
Ave 2002 Market = $210	TPP (5-year) 1st yr rate increase Ave rate increase Ave rate inc w/DDC Ave 2006 End Res	85.1 % 267% 94% 79% $1116	80.6 % 279% 100% 82% $1178	85.1 % 136% 43% 23% $1117	79.9% 141% 44% 24% $1112
Ave 2002 Market = $315	TPP (5-year) 1st yr rate increase Ave rate increase Ave rate inc w/DDC Ave 2006 End Res	85.9 % 408% 136% 108% $1156	81.1% 430% 145% 114% $1204	85.9 % 202% 61% 25% $1140	80.5 % 213% 65% 29% $1142

Notes for Table 1

Ave 2002 Market: The 2002 and 2003 markets vary; 2004 thru 2006 are the same in all cases. Calendar-weighted average prices: $140, $76, $46, $50, $49; $210, $114, $46, $50, $49; $315, $172, $46, $50, $49.

Load Reduction: "No Reduction" means full amount of augmentation is needed; "1,500 Reduction" means that load has been reduced by 1,500 MW of un-specified load at no additional cost.

Slice product sales: in the "0" case, Slice is not offered, and Slice load is converted to other PF products according to Account Executive estimates and customer feedback. Increased load growth in the 0 Slice case adds an average of 94 MW to that case, increasing augmentation needs and net costs.

TPP: The TPP is estimated without quantification of the risks of mis-match between the LB CRAC revenues and the actual augmentation costs, and without estimation of the timing of cash flows of the LB CRAC revenues.

Starting 2002 Reserves: The 2001 ending reserves are allowed to be negative, reflecting possible use of Treasury note (expected value = $309 million).

FB CRAC for 2002 collects enough to make up for any shortfall (below $300M) in beginning 2002 reserves. It triggers 46 percent of the time in all 12 cases.

Slice/Non-Slice Allocation of Net Augmentation Cost: Allocated across all revenues, per BPA (Customer proposal calls for dividing Slice/Non-Slice shares by MW, not revenues).

Cost Shift Conclusions: Offering the Slice product under this proposal does not cause a shift of costs or risks to Non-Slice Customers or to the Treasury.

Appendix 1
FB CRAC Threshold Conservation from Reserves to ANR

Appendix 2
Calculation of the Initial Estimate of Augmentation Need

Attachment 1

Current rate period ToolKit output (FYs 2000-2001)

Attachments 2-13

ToolKit outputs (FYs 2002-2006)

Appendix 1: FB CRAC and DDC Threshold Conversion from Reserves to ANR

The FB CRAC is a temporary, upward adjustment to posted power rates for Subscription sales if ANR in the generation function are forecasted to fall below a threshold level. The FB CRAC has typically been modeled in ToolKit as having a trigger level based on reserves. Because ANR are: (1) a more common financial yardstick, (2) audited as part of BPA's regular financial accounting practices; and (3) better able to be separated into power and transmission portions, BPA is defining the FB CRAC Threshold (the "trigger point" for invoking a rate increase under the FB CRAC) in terms of forecasted ANR. A series of five accumulated net revenue FB CRAC Thresholds is calibrated based on starting reserves thresholds of $300 million for FY 2002 to 2003 and $500 million for FY 2003 to 2006.

Table A: Calculation of the FB CRAC Threshold as Accumulated Net Revenues

(1) Fiscal Year	(2) Pro-jected Ending Reserves	(3) Pro-jected Starting Reserves	(4) FB CRAC Thresh-old as Reserve Level	(5) Maximum Planned Recovery Amount	(6) Differ-ential (3)-(4)	(7) Projected Starting Accumu-lated Net Revenues	(8) FB CRAC Threshold as Accumulated Net Revenues (7-6)
FY2001	309						
FY2002	1284	309	300	No cap	9	-259	-268
FY2003	1215	1284	300	135	984	694	-290
FY2004	1010	1215	500	150	715	567	-148
FY2005	990	1010	500	150	510	321	-181
FY2006		990	500	175	490	309	-181

Note: Because there were no changes in the base rates in the Supplemental Proposal, it was necessary to derive the values in this table somewhat differently than was the case for the May Proposal. See Revenue Requirements Study Documentation, Volume 1, WP-02-FS-BPA-02A, at 280-285. The projected ending reserves in column 2 were taken directly from ToolKit and as such represent the expected values for reserves in each of the years in the rate period. The projected Accumulated Net Revenues in column 8 were derived by calculating the year-to-year change in reserves from column 3 and subtracting the "Internal Cash Flow" values listed in ToolKit to yield an estimate of net revenues for each of the years in the FY 2001-2006 period. These values were then added to the net revenues forecasted for the FY 2000 to produce the values in column 7.

The same methodology was used to convert the DDC reserves thresholds to ANR. BPA has proposed three changes to the DDC methodology from that presented in the May Proposal: first, the DDC would not be available in the first year (2002) of the rate period; second, any dividend beyond the first $15 million which will go to Conservation and Renewable purposes would all be distributed to power customers; finally, the distribution will be automatic if accumulated net revenues exceed the threshold. There will be no TPP test. Due to the automatic nature of the dividend and BPA's increased financial volatility, the thresholds are higher. For FY 2003, the threshold is the accumulated net revenue equivalent of $1.7 billion in reserves; FY 2004, $1.5 billion; FYs 2005 and 2006, $1.2 billion. The conversion from reserves to ANR is reported in the Table B below.

Table B: Calculation of the DDC Threshold as Accumulated Net Revenues

(1) Fiscal Year	(2) Projected Ending Reserves	(3) Projected Starting Reserves	(4) DDC Threshold as Reserve Level	(5) Differential (3)-(4)	(6) Projected Starting Accumulated Net Revenues	(7) DDC Threshold as Accumulated Net Revenues (6-5)
FY2001	309					
FY2002	1284	309	N/A	**N/A**	**N/A**	**N/A**
FY2003	1215	1284	1700	-416	694	1110
FY2004	1010	1215	1500	-285	567	852
FY2005	990	1010	1200	-190	321	519
FY2006		990	1200	-210	309	519

Appendix 2: Calculation of the Initial Estimate of Augmentation Need

Table C shows the calculation of the initial estimate of augmentation need (AAMT) for each month for each year in the rate period. The estimate of AAMT contained in the last line of numbers for each year only reflects pre-purchases made by August 1, 2000. There are five calculations required to determine a monthly value for AAMT. Each of these five steps is discussed below.

The first line is BPA's loads with the Slice loads removed. It is labeled "BPA loads minus Slice loads". It is derived from the May Proposal adjusted for the increase in the forecast due to increases in subscription load forecasts, for the 46 aMW of increased DSI load, and for transmission losses of 13 aMW on 450 aMW of DSI load. It includes PF, RL, IP, and NR loads except for Slice loads and 900 aMW of IOU load receiving the cash settlement. It also includes all long-term purchases and sales using the FPS rate schedule, and all system obligations. It is reduced by long term purchases and customer contributions to meet system obligations. It is then further reduced by system obligations met by the base FBS that are taken off the top of the base FBS before determining the basis for the Slice of the system.

The second line is BPA's share of the base FBS after reducing for system obligations. It is labeled "BPA critical FBS shaped to load" BPA's share of the critical FBS (5,070 aMW) is shaped across the months in proportion to the loads in line one. The 5,070 aMW is the critical FBS of 7,070 minus an assumed sale of 2,000 aMW of Slice. For example, the October entry for FY 2002 in the second line is found by multiplying

the constant 5,070 by the October entry in “BPA loads minus Slice loads” and dividing the result by the average of “BPA loads minus Slice loads.”

Line 3 labeled “Augmentation made before Aug 1, 2000” shows the actual pattern of delivery for the purchases that comprise the 794 aMW of purchases reflected in the Amended proposal.

Line 4 labeled “Base for determining augmentation” is the monthly energy in aMW that is subtracted from “BPA loads minus Slice loads” to arrive at the initial estimate of monthly augmentation need. Line 4 is the sum of lines 2 and 3.

Line 5 labeled “Initial estimate of augmentation need” is the estimated augmentation before adjusting for any pre-purchases and buydowns made after August 1, 2000. Line 5 is Line 1 minus Line 4.

Table C: Shaped Augmentation by Year

FY 2002	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
BPA loads minus Slice loads	7788	8524	9132	9448	9307	8652	8393	8278	8136	8313	8310	8082	8530
BPA critical FBS shaped to load	4629	5066	5428	5615	5532	5142	4988	4920	4836	4941	4939	4804	5070
Augmentation made before Aug 1, 2000	950	950	950	1050	1050	1050	500	100	100	1050	1050	1050	
Base for determining augmentation	5579	6016	6378	6665	6582	6192	5488	5020	4936	5991	5989	5854	
Initial estimate of augmentation need	2209	2508	2754	2783	2725	2460	2905	3258	3200	2322	2321	2228	

FY 2003	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
BPA Loads minus Slice Loads	8026	8742	9340	9174	9020	8356	8033	7922	7814	7982	7974	7748	8344
BPA critical FBS shaped to load	4877	5312	5675	5574	5481	5077	4881	4813	4748	4850	4845	4708	5070
Augmentation made before Aug 1, 2000	1050	1050	1050	1050	1050	1050	500	100	100	1050	1050	1050	
Base for determining augmentation	5927	6362	6725	6624	6531	6127	5381	4913	4848	5900	5895	5758	
Initial estimate of augmentation need	2099	2380	2615	2550	2489	2229	2652	3009	2966	2082	2079	1990	

FY 2004	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
BPA Loads minus Slice Loads	7700	8459	9050	8966	8837	8137	7878	7763	7646	7825	7828	7600	8141
BPA critical FBS shaped to load	4796	5268	5636	5584	5504	5068	4906	4835	4762	4873	4875	4733	5070
Augmentation made before Aug 1, 2000	1050	1050	1050	950	950	950	400	0	0	950	950	950	
Base for determining augmentation	5846	6318	6686	6534	6454	6018	5306	4835	4762	5823	5825	5683	
Initial estimate of augmentation need	1854	2141	2364	2432	2383	2119	2572	2928	2884	2002	2003	1917	

FY 2005	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
BPA Loads minus Slice Loads	7547	8317	8920	9044	8891	8198	7937	7819	7698	7884	7889	7661	8150
BPA critical FBS shaped to load	4695	5174	5549	5626	5531	5100	4937	4864	4789	4904	4907	4766	5070
Augmentation made before Aug 1, 2000	950	1087	1096	1080	1084	1036	489	89	114	1127	1123	1121	
Base for determining augmentation	5645	6261	6645	6706	6615	6136	5426	4953	4903	6031	6030	5887	
Initial estimate of augmentation need	1902	2056	2275	2338	2276	2062	2511	2866	2795	1853	1859	1774	

FY 2006	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Avg
BPA Loads minus Slice Loads	7603	8382	8992	8975	8821	8120	7807	7682	7558	7747	7749	7512	8079
BPA critical FBS shaped to load	4771	5260	5643	5632	5536	5096	4899	4821	4743	4862	4863	4714	5070
Augmentation made before Aug 1, 2000	1107	1087	1096	680	684	636	293	86	114	727	723	721	
Base for determining augmentation	5878	6347	6739	6312	6220	5732	5192	4907	4857	5589	5586	5435	
Initial estimate of augmentation need	1725	2035	2253	2663	2601	2388	2615	2775	2701	2158	2163	2077	

Initial Reserves Balance (Year 0)			**165.7**								**Updated 2/11/01**			
Initial Balance of 4(H)(10)(C) FCCF			**325**											
Interest earned on FCCF? (1=yes)			**0**	**1**	Allow access to FCCF?						Adjustments to cash			
Frequency of 4(H)(10)(C) FCCF			2%	**1**	Allow access to 4h10c??							Flex.	FCCF	4h10c
Additional contingent 4(H)(10)(C) Credit			0							esc		**0**	**0.0**	**0.0**
Interest rate from Treasury			**6.93%**		**1-year probability of**			100.0%		flat		**0**	**0.0**	**0.0**
Rebate Threshhold			**8000**		Use adjustments? (1=yes)			0					**0.0**	**0.0**
Total expected rebates (5-year)			**$0**		"cumulative probability": probability of making all payments in								**0.0**	**0.0**
Total expected missed Tr. payments (5-yr)			**$0**		years 1 thru 2, 1 thru 3, 1 thru 4, or 1 thru 5								**0.0**	**0.0**
Plus one std. dev.	(0.0)		**$0**		Ave. size of deferrals (per deferral)				**$0**					**-39.8**
Maximum amount missed			**0**	**kg Cap =**	**-5000**									
Customer Line of Credit		**Size =**	**$ -**	**Int % =**	**6.93%**									

Kit Yr	Fiscal Yr	Proba-bilistic?	deferrals	prob.	cumulative deferrals	cumulative probab.	Sched Amort	Sched Interest	Cash for Risk	Acc to Cash Adj	Adjmt to Cash	STREAM Mean	Interest Credit	Ave End Bal
Year 0	FY 96	**0**	0	100.0%			290.0	407.1	39.85	0	0.0	-6.7	20.6	**197.1**
Year 1	FY 97	**0**	0	100.0%			233.1	426.6	**199.8**	**0**	-10.1	-18.5	**24.4**	**381.8**
Year 2	FY 98	**0**	0	100.0%			227.6	470.9	**180.0**	**0**	1.8	-19.7	**32.3**	**562.9**
Year 3	FY 99	**0**	0	100.0%	0	100.0%	163.6	473.5	**85.1**		25.1	-21.3	**45.1**	**669.2**
Year 4	FY 2000	**0**	0	100.0%	0	100.0%	164.1	489.6	**108.6**		0.0	-19.3	**51.5**	**774.6**
Year 5	FY 2001	**1**	0	100.0%	0	100.0%	163.0	521.7	**183.3**	**0**	-639.8	-57.9	**63.3**	**308.7**
		5-yr Ave.	0	100.0%			190	476	151	0.00	-124.60	-27.3	43.3	
		5-yr Total	0				951	2,382	757		-623.00		217	

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $140/MWh, No Load Reduction.

Time of run: 11:27:58 AM on 2/12/01 — **5 -yr TPP = 82.7%**

RiskModFile2 (the uncapped one): n / a

Inputs Files =>	Riskmod: Z:\ToolKit\Supplemental Proposal\RM_Merged_$140_S2000_LR0.xls
	NORM: Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_72%_outputs.xls
	Prior TK: Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	1,874.3	760.2	138.4	138.4	1	0	0	2,549.7	2,634.5	1,639.3	1,166.3
3	2003	57.7		-56.0	779.8	313.8	74.9	74.9	1	0	0	2,287.3	1,093.6	1,648.5	1,175.4
4	2004	33.6		-56.0	329.6	131.8	44.3	44.3	1	0	0	2,159.9	461.4	1,656.3	1,183.3
5	2005	0.0		-56.0	347.7	137.7	47.3	47.3	1	0	0	2,001.0	485.3	1,667.8	1,194.8
6	2006	0.0		-56.0	372.9	146.4	47.6	47.6	1	0	0	2,149.8	519.3	1,677.5	1,204.5

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	329	6	92%	329	92%	69.1	819.4	819.4	865	-	308.7
3	2003	445	25	89%	497	87%	107.7	944.1	211.0	866	-	
4	2004	413	5	89%	571	85%	101.4	957.2	149.9	842	-	FCCF
5	2005	400	16	90%	636	84%	91.7	893.8	145.3	872	-	Strt Bal
6	2006	357	17	91%	675	83%	79.0	863.2	116.5	1,045	-	n / a
5	-yr Total	1944	69	n / a	n / a	n / a	448.9	n / a	n / a	n / a	-	
5	-yr Ave.	388.8	14	n / a	n / a	n / a	89.8	900.6	489.0	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	161%
3	2003	520	80.5	10.7	352	0	0	n / a	0.0	0	0	66%
4	2004	1172	98.1	29.5	980	0	0	n / a	0.0	0	0	28%
5	2005	970	97.3	24.2	799	0	0	n / a	0.0	0	0	29%
6	2006	877	83.8	18.8	718	0	0	n / a	0.0	0	0	31%
5	-yr Total	5346	n / a	218.1	2849	0	0	n / a	0.0	0	0	
5	-yr Ave.	1069.2	159.1	43.6	569.8	n / a	0.0	n / a	0.0	0.0	n / a	63%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-2138.2	-7.3	-2145.5	456	408.7	47.8	40.5	n / a	n / a	n / a	161%	12%	172%		172%	46%
3	2003	-1022.5	-8.6	-1031.1	975	576.9	144.2	58.7	n / a	n / a	n / a	66%	1%	67%	3%	64%	13%
4	2004	-258.8	-8.5	-267.3	1738	464.6	207.0	60.7	n / a	n / a	n / a	28%	2%	30%	11%	20%	30%
5	2005	-242.4	-8.5	-251.0	1856	321.8	153.2	59.0	n / a	n / a	n / a	29%	2%	31%	15%	16%	25%
6	2006	-283.4	-8.6	-292.0	n / a	n / a	n / a	60.6	n / a	n / a	n / a	31%	2%	33%	11%	22%	22%
5	-yr Total	-3945.2	-41.6	-3986.8	5025	n / a	552.2	279.5	n / a	n / a	n / a						
5	-yr Ave.	-789.0	-8.3	-797.4	1005	428.6	110.4	55.9	n / a	n / a	n / a	63%	4%	67%	8%	59%	27%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $140/MWh, No Load Reduction.

Time of run: 11:11:57 AM on 2/12/01 — **5 -yr TPP = 77.6%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files => Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$140_S0_LR0.xls
NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☑	☑	☑	☑	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	2,643.2	0.0	138.4	138.4	1	0	0	2,557.9	2,643.2	1,548.8	1,548.8
3	2003	57.7		-56.0	1,121.6	0.0	74.9	74.9	1	0	0	2,344.3	1,121.6	1,568.9	1,568.9
4	2004	33.6		-56.0	481.0	0.0	44.3	44.3	1	0	0	2,257.6	481.0	1,587.6	1,587.6
5	2005	0.0		-56.0	521.0	0.0	47.3	47.3	1	0	0	2,143.6	521.0	1,607.3	1,607.3
6	2006	0.0		-56.0	560.9	0.0	47.6	47.6	1	0	0	2,314.0	560.9	1,622.4	1,622.4

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	506	17	87%	506	87%	157.2	1211.7	1211.7	917	-	308.7
3	2003	620	17	84%	677	83%	254.2	1598.8	577.2	895	-	
4	2004	599	18	85%	783	80%	244.6	1592.4	177.5	846	-	FCCF
5	2005	584	9	85%	832	79%	230.2	1537.5	239.1	866	-	Strt Bal
6	2006	561	16	86%	873	78%	209.9	1459.0	144.0	1,124	-	n / a
5	-yr Total	2870	77	n / a	n / a	n / a	1096.1	n / a	n / a	n / a	-	
5	-yr Ave.	574	15	n / a	n / a	n / a	219.2	1489.4	857.1	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	679	89.1	15.5	533	0	0	n / a	0.0	0	0	n/a
4	2004	1216	97.7	30.5	1039	0	0	n / a	0.0	0	0	n/a
5	2005	1031	99.6	26.3	887	0	0	n / a	0.0	0	0	n/a
6	2006	959	88.1	21.7	829	0	0	n / a	0.0	0	0	n/a
5	-yr Total	5692	n / a	228.8	3288	0	0	n / a	0.0	0	0	
5	-yr Ave.	1138.4	156.8	45.8	657.6	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-2115.5	-10.2	-2125.7	757	585.1	113.6	41.5	n / a	n / a	n / a	171%	9%	179%		179%	46%
3	2003	-1069.7	-12.0	-1081.7	1204	682.1	210.6	58.7	n / a	n / a	n / a	71%	1%	72%	6%	66%	17%
4	2004	-202.7	-11.9	-214.6	1980	602.2	305.7	60.1	n / a	n / a	n / a	30%	2%	32%	12%	20%	31%
5	2005	-193.3	-11.9	-205.2	2053	462.6	243.5	57.0	n / a	n / a	n / a	32%	2%	34%	17%	17%	26%
6	2006	-237.2	-12.0	-249.2	n / a	n / a	n / a	58.1	n / a	n / a	n / a	35%	1%	36%	13%	23%	25%
5	-yr Total	-3818.3	-58.0	-3876.3	5994	n / a	873.4	275.4	n / a	n / a	n / a						
5	-yr Ave.	-763.7	-11.6	-775.3	1198.8	568.3	174.7	55.1	n / a	n / a	n / a	68%	3%	71%	10%	61%	29%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $140/MWh, 1500 aMW Load Reduction.

Time of run: 11:29:29 AM on 2/12/01 — **5 -yr TPP = 82.7%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
#REF!	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks

Inputs

Files => Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$140_S2000_LR1500.xls
NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_72%_outputs.xls
Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	668.0	360.8	135.5	135.5	1	0	0	1,006.1	1,028.7	1,348.9	875.9
3	2003	57.7		-56.0	229.3	122.6	72.0	72.0	1	0	0	743.8	351.9	1,358.1	885.0
4	2004	33.6		-56.0	84.1	44.5	40.0	40.0	1	0	0	616.3	128.6	1,365.9	892.9
5	2005	0.0		-56.0	69.0	36.1	39.3	39.3	1	0	0	457.8	105.1	1,377.4	904.4
6	2006	0.0		-56.0	96.1	49.7	43.7	43.7	1	0	0	609.0	145.8	1,387.2	914.1

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	329	6	92%	329	92%	69.1	819.4	819.4	865	-	308.7
3	2003	445	25	89%	497	87%	107.7	944.2	211.0	866	-	
4	2004	413	5	89%	571	85%	101.4	957.2	149.8	842	-	FCCF
5	2005	400	16	90%	636	84%	91.7	893.7	145.2	872	-	Strt Bal
6	2006	355	15	91%	675	83%	78.9	866.8	115.2	1,046	-	n / a
5	-yr Total	1942	67	n / a	n / a	n / a	448.8	n / a	n / a	n / a	-	
5	-yr Ave.	388.4	13	n / a	n / a	n / a	89.8	901.3	489.0	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	76%
3	2003	520	80.5	10.7	352	0	0	n / a	0.0	0	0	26%
4	2004	1172	98.1	29.5	980	0	0	n / a	0.0	0	0	9%
5	2005	970	97.3	24.2	799	0	0	n / a	0.0	0	0	8%
6	2006	877	83.8	18.8	718	0	0	n / a	0.0	0	0	11%
5	-yr Total	5346	n / a	218.1	2849	0	0	n / a	0.0	0	0	
5	-yr Ave.	1069.2	159.1	43.6	569.8	n / a	0.0	n / a	0.0	0.0	n / a	26%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-532.4	-7.3	-539.7	456	408.7	47.8	40.5	n / a	n / a	n / a	76%	15%	92%		92%	46%
3	2003	-280.8	-8.6	-289.4	975	576.8	144.2	58.7	n / a	n / a	n / a	26%	1%	27%	4%	23%	13%
4	2004	74.1	-8.5	65.6	1738	464.6	207.1	60.7	n / a	n / a	n / a	9%	3%	13%	13%	-1%	30%
5	2005	137.8	-8.5	129.3	1856	321.9	153.2	59.0	n / a	n / a	n / a	8%	3%	10%	19%	-9%	25%
6	2006	91.2	-8.6	82.6	n / a	n / a	n / a	60.6	n / a	n / a	n / a	11%	2%	13%	14%	-1%	22%
5	-yr Total	-510.0	-41.6	-551.6	5025	n / a	552.2	279.5	n / a	n / a	n / a						
5	-yr Ave.	-102.0	-8.3	-110.3	1005	428.6	110.4	55.9	n / a	n / a	n / a	26%	5%	31%	10%	21%	27%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $140/MWh, 1500 aMW Load Reduction.

Time of run: 11:14:27 AM on 2/12/01 — **5 -yr TPP = 77.4%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files => Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$140_S0_LR1500.xls
NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	1,037.2	0.0	135.5	135.5	1	0	0	1,014.4	1,037.2	1,258.4	1,258.4
3	2003	57.7		-56.0	378.4	0.0	72.0	72.0	1	0	0	800.7	378.4	1,278.5	1,278.5
4	2004	33.6		-56.0	146.3	0.0	40.0	40.0	1	0	0	714.0	146.3	1,297.2	1,297.2
5	2005	0.0		-56.0	130.9	0.0	39.3	39.3	1	0	0	600.3	130.9	1,316.9	1,316.9
6	2006	0.0		-56.0	181.8	0.0	43.7	43.7	1	0	0	773.3	181.8	1,332.0	1,332.0

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	506	16	87%	506	87%	157.2	1212.0	1212.0	917	-	308.7
3	2003	622	16	84%	678	83%	254.4	1595.4	575.6	894	-	
4	2004	601	15	85%	785	80%	245.1	1590.8	179.6	845	-	FCCF
5	2005	589	6	85%	836	79%	232.3	1538.1	243.1	862	-	Strt Bal
6	2006	574	16	85%	882	77%	212.5	1443.5	128.3	1,116	-	n / a
5	-yr Total	2892	69	n / a	n / a	n / a	1101.6	n / a	n / a	n / a	-	
5	-yr Ave.	578.4	14	n / a	n / a	n / a	220.3	1485.5	850.1	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	679	89.1	15.5	533	0	0	n / a	0.0	0	0	n/a
4	2004	1218	97.8	30.5	1040	0	0	n / a	0.0	0	0	n/a
5	2005	1034	99.7	26.4	897	0	0	n / a	0.0	0	0	n/a
6	2006	971	88.3	22.0	848	0	0	n / a	0.0	0	0	n/a
5	-yr Total	5709	n / a	229.3	3318	0	0	n / a	0.0	0	0	
5	-yr Ave.	1141.8	156.7	45.9	663.6	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-509.7	-10.2	-519.9	756	585.6	113.5	41.5	n / a	n / a	n / a	82%	11%	93%		93%	46%
3	2003	-328.0	-12.0	-340.0	1202	681.6	210.1	58.6	n / a	n / a	n / a	30%	1%	31%	8%	23%	17%
4	2004	130.2	-11.9	118.3	1975	601.0	304.3	60.0	n / a	n / a	n / a	11%	2%	14%	14%	-1%	31%
5	2005	186.9	-11.9	175.0	2036	455.6	237.8	56.5	n / a	n / a	n / a	10%	2%	12%	20%	-8%	27%
6	2006	137.4	-12.0	125.4	n / a	n / a	n / a	57.6	n / a	n / a	n / a	14%	2%	15%	16%	0%	25%
5	-yr Total	-383.2	-58.0	-441.2	5969	n / a	865.8	274.2	n / a	n / a	n / a						
5	-yr Ave.	-76.6	-11.6	-88.2	1193.8	565.7	173.2	54.8	n / a	n / a	n / a	29%	4%	33%	12%	21%	29%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $210/MWh, No Load Reduction.

Time of run: 11:30:54 AM on 2/12/01 — **5 -yr TPP = 85.1%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n 1375
Additional load -1357
Total 18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$210_S2000_LR0.xls
NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_72%_outputs.xls
Files => Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	2,973.5	1206.1	207.5	207.5	1	0	0	2,549.7	4,179.5	1,639.3	1,166.3
3	2003	57.7		-56.0	1,311.3	527.7	112.1	112.1	1	0	0	2,287.3	1,839.0	1,648.5	1,175.4
4	2004	33.6		-56.0	329.6	131.8	44.3	44.3	1	0	0	2,159.9	461.4	1,656.3	1,183.3
5	2005	0.0		-56.0	347.7	137.7	47.3	47.3	1	0	0	2,001.0	485.3	1,667.8	1,194.8
6	2006	0.0		-56.0	372.9	146.4	47.6	47.6	1	0	0	2,149.8	519.3	1,677.5	1,204.5

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		Strt Bal
2	2002	369	7	91%	369	91%	117.0	1237.1	1237.1	1,092	-	308.7
3	2003	413	10	89%	485	88%	182.1	1719.5	567.2	1,089	-	
4	2004	399	3	90%	523	87%	173.7	1697.4	160.7	953	-	FCCF
5	2005	401	12	90%	558	86%	160.7	1563.2	142.5	948	-	Strt Bal
6	2006	360	2	91%	581	85%	145.0	1570.6	173.7	1,116	-	n / a
5	-yr Total	1942	34	n / a	n / a	n / a	778.5	n / a	n / a	n / a	-	
5	-yr Ave.	388.4	7	n / a	n / a	n / a	155.7	1563.4	924.9	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	255%
3	2003	477	88.3	10.8	385	0	0	n / a	0.0	0	0	112%
4	2004	725	98.5	18.3	625	0	0	n / a	0.0	0	0	28%
5	2005	690	99.3	17.6	604	0	0	n / a	0.0	0	0	29%
6	2006	683	85.1	14.9	576	0	0	n / a	0.0	0	0	31%
5	-yr Total	4382	n / a	196.4	2190	0	0	n / a	0.0	0	0	
5	-yr Ave.	876.4	174.8	39.3	438	n / a	0.0	n / a	0.0	0.0	n / a	91%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-3348.9	-7.3	-3356.2	1071	783.0	215.0	51.9	n / a	n / a	n / a	255%	12%	267%		267%	46%
3	2003	-1603.4	-8.6	-1611.9	1857	753.8	358.9	78.0	n / a	n / a	n / a	112%	1%	112%	16%	97%	12%
4	2004	-255.7	-8.5	-264.3	2523	500.8	324.0	73.1	n / a	n / a	n / a	28%	2%	29%	26%	3%	19%
5	2005	-240.9	-8.5	-249.4	2226	321.0	183.2	63.7	n / a	n / a	n / a	29%	1%	31%	23%	7%	18%
6	2006	-282.3	-8.6	-290.9	n / a	n / a	n / a	63.1	n / a	n / a	n / a	31%	1%	32%	13%	19%	18%
5	-yr Total	-5731.2	-41.6	-5772.8	7677	n / a	1081.1	329.9	n / a	n / a	n / a						
5	-yr Ave.	-1146.2	-8.3	-1154.6	1535.4	549.2	216.2	66.0	n / a	n / a	n / a	91%	3%	94%	16%	79%	22%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $210/MWh, No Load Reduction.

Time of run: 11:16:16 AM on 2/12/01 — **5 -yr TPP = 80.6%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n 1375
Additional load -1357
Total 18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files =>

Riskmod: Z:\ToolKit\Supplemental Proposal\RM_Merged_$210_S0_LR0.xls
NORM: Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
Prior TK: Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	4,193.2	0.0	207.5	207.5	1	0	0	2,557.9	4,193.2	1,548.8	1,548.8
3	2003	57.7		-56.0	1,885.5	0.0	112.1	112.1	1	0	0	2,344.3	1,885.5	1,568.9	1,568.9
4	2004	33.6		-56.0	481.0	0.0	44.3	44.3	1	0	0	2,257.6	481.0	1,587.6	1,587.6
5	2005	0.0		-56.0	521.0	0.0	47.3	47.3	1	0	0	2,143.6	521.0	1,607.3	1,607.3
6	2006	0.0		-56.0	560.9	0.0	47.6	47.6	1	0	0	2,314.0	560.9	1,622.4	1,622.4

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	558	13	86%	558	86%	261.7	1828.9	1828.9	1,146	-	308.7
3	2003	557	3	86%	650	83%	408.2	2858.0	1544.5	1,093	-	
4	2004	526	4	87%	683	82%	397.1	2944.4	222.5	939	-	FCCF
5	2005	550	12	86%	734	81%	382.3	2710.6	252.6	925	-	Strt Bal
6	2006	541	5	86%	756	81%	364.6	2628.3	194.5	1,178	-	n / a
5	-yr Total	2732	37	n / a	n / a	n / a	1813.8	n / a	n / a	n / a	-	
5	-yr Ave.	546.4	7	n / a	n / a	n / a	362.8	2589.3	1570.2	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	594	93.1	14.2	532	0	0	n / a	0.0	0	0	n/a
4	2004	832	99.7	21.3	728	0	0	n / a	0.0	0	0	n/a
5	2005	822	99.4	20.9	708	0	0	n / a	0.0	0	0	n/a
6	2006	754	89.0	17.2	677	0	0	n / a	0.0	0	0	n/a
5	-yr Total	4809	n / a	208.4	2645	0	0	n / a	0.0	0	0	
5	-yr Ave.	961.8	169.0	41.7	529	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-3277.1	-10.2	-3287.3	1503	1014.8	391.1	54.7	n / a	n / a	n / a	271%	9%	279%		279%	46%
3	2003	-1631.7	-12.0	-1643.6	2073	962.5	511.6	77.4	n / a	n / a	n / a	120%	1%	121%	22%	99%	15%
4	2004	-198.5	-11.9	-210.4	2560	631.6	414.6	68.2	n / a	n / a	n / a	30%	1%	32%	29%	3%	21%
5	2005	-191.1	-11.9	-203.0	2336	454.4	272.2	57.8	n / a	n / a	n / a	32%	1%	34%	23%	11%	21%
6	2006	-235.7	-12.0	-247.7	n / a	n / a	n / a	56.6	n / a	n / a	n / a	35%	1%	36%	15%	21%	19%
5	-yr Total	-5534.1	-58.0	-5592.1	8472	n / a	1589.4	314.7	n / a	n / a	n / a						
5	-yr Ave.	-1106.8	-11.6	-1118.4	1694.4	731.7	317.9	62.9	n / a	n / a	n / a	98%	3%	100%	18%	82%	25%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $210/MWh, 1500 aMW Load Reduction

Time of run: 11:32:21 AM on 2/12/01 — **5 -yr TPP = 85.1%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files => Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$210_S2000_LR1500.xls
NORM:	NORM_MixProb_Final_Proposal_72%_outputs.xls
Prior TK:	Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	1,055.8	570.2	203.2	203.2	1	0	0	1,006.0	1,626.0	1,348.9	875.9
3	2003	57.7		-56.0	381.2	203.8	107.8	107.8	1	0	0	744.0	585.0	1,358.1	885.0
4	2004	33.6		-56.0	84.3	44.7	40.0	40.0	1	0	0	616.0	129.0	1,365.9	892.9
5	2005	0.0		-56.0	68.9	36.1	39.3	39.3	1	0	0	458.0	105.0	1,377.4	904.4
6	2006	0.0		-56.0	96.2	49.8	43.7	43.7	1	0	0	609.0	146.0	1,387.2	914.1

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	369	7	91%	369	91%	117.0	1236.8	1236.8	1,092	-	308.7
3	2003	413	10	89%	485	88%	182.1	1719.2	566.9	1,089	-	
4	2004	399	3	90%	523	87%	173.6	1696.7	159.9	953	-	FCCF
5	2005	401	13	90%	558	86%	160.7	1562.5	141.8	948	-	Strt Bal
6	2006	360	2	91%	581	85%	144.8	1568.6	171.9	1,117	-	n / a
5	-yr Total	1942	35	n / a	n / a	n / a	778.1	n / a	n / a	n / a	-	
5	-yr Ave.	388.4	7	n / a	n / a	n / a	155.6	1562.6	924.5	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	121%
3	2003	477	88.3	10.8	385	0	0	n / a	0.0	0	0	43%
4	2004	725	98.4	18.3	625	0	0	n / a	0.0	0	0	9%
5	2005	689	99.4	17.6	604	0	0	n / a	0.0	0	0	8%
6	2006	683	85.1	14.9	576	0	0	n / a	0.0	0	0	11%
5	-yr Total	4381	n / a	196.4	2190	0	0	n / a	0.0	0	0	
5	-yr Ave.	876.2	174.8	39.3	438	n / a	0.0	n / a	0.0	0.0	n / a	38%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-795.1	-7.3	-802.4	1072	782.5	215.1	51.9	n / a	n / a	n / a	121%	15%	136%		136%	46%
3	2003	-349.4	-8.6	-358.0	1858	753.5	359.0	78.0	n / a	n / a	n / a	43%	1%	44%	20%	24%	12%
4	2004	77.1	-8.5	68.6	2524	501.1	324.3	73.2	n / a	n / a	n / a	9%	2%	11%	34%	-22%	19%
5	2005	139.4	-8.5	130.8	2227	320.8	183.2	63.7	n / a	n / a	n / a	8%	2%	10%	30%	-20%	18%
6	2006	92.2	-8.6	83.6	n / a	n / a	n / a	63.2	n / a	n / a	n / a	11%	2%	12%	16%	-4%	18%
5	-yr Total	-835.8	-41.6	-877.3	7681	n / a	1081.6	330.0	n / a	n / a	n / a						
5	-yr Ave.	-167.2	-8.3	-175.5	1536.2	549.2	216.3	66.0	n / a	n / a	n / a	38%	4%	43%	20%	23%	22%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $210/MWh, 1500 aMW Load Reduction.

Time of run: 11:18:02 AM on 2/12/01 — **5 -yr TPP = 79.9%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files => Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$210_S0_LR1500.xls
NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	1,639.0	0.0	203.2	203.2	1	0	0	1,014.4	1,639.0	1,258.4	1,258.4
3	2003	57.7		-56.0	606.3	0.0	107.8	107.8	1	0	0	800.7	606.3	1,278.5	1,278.5
4	2004	33.6		-56.0	146.3	0.0	40.0	40.0	1	0	0	714.0	146.3	1,297.2	1,297.2
5	2005	0.0		-56.0	89.4	0.0	39.3	39.3	1	0	0	600.3	89.4	1,316.9	1,316.9
6	2006	0.0		-56.0	131.7	0.0	43.7	43.7	1	0	0	773.3	131.7	1,332.0	1,332.0

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	558	13	86%	558	86%	261.7	1829.1	1829.1	1,146	-	308.7
3	2003	563	6	86%	656	83%	412.0	2853.7	1474.9	1,084	-	
4	2004	533	7	86%	687	82%	401.0	2934.5	194.5	933	-	FCCF
5	2005	584	9	85%	759	81%	394.2	2632.2	242.3	907	-	Strt Bal
6	2006	581	3	85%	784	80%	384.2	2578.9	189.5	1,112	-	n / a
5	-yr Total	2819	38	n / a	n / a	n / a	1853.1	n / a	n / a	n / a	-	
5	-yr Ave.	563.8	8	n / a	n / a	n / a	370.6	2563.6	1522.2	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	594	93.1	14.2	532	0	0	n / a	0.0	0	0	n/a
4	2004	859	99.8	22.0	748	0	0	n / a	0.0	0	0	n/a
5	2005	836	101.0	21.7	732	0	0	n / a	0.0	0	0	n/a
6	2006	786	90.2	18.2	730	0	0	n / a	0.0	0	0	n/a
5	-yr Total	4882	n / a	210.8	2742	0	0	n / a	0.0	0	0	
5	-yr Ave.	976.4	168.4	42.2	548.4	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-723.3	-10.2	-733.5	1502	1015.2	391.0	54.7	n / a	n / a	n / a	130%	11%	141%		141%	46%
3	2003	-377.7	-12.0	-389.7	2047	948.3	497.7	76.5	n / a	n / a	n / a	47%	1%	49%	27%	22%	15%
4	2004	134.4	-11.9	122.5	2540	628.7	409.4	67.4	n / a	n / a	n / a	11%	2%	13%	34%	-21%	22%
5	2005	189.1	-11.9	177.2	2202	425.1	240.0	55.5	n / a	n / a	n / a	7%	2%	8%	27%	-19%	21%
6	2006	138.8	-12.0	126.8	n / a	n / a	n / a	53.2	n / a	n / a	n / a	10%	1%	11%	16%	-4%	20%
5	-yr Total	-638.7	-58.0	-696.7	8291	n / a	1538.2	307.4	n / a	n / a	n / a						
5	-yr Ave.	-127.7	-11.6	-139.3	1658.2	723.5	307.6	61.5	n / a	n / a	n / a	41%	3%	44%	21%	24%	25%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $315/MWh, No Load Reduction.

Time of run: 11:33:59 AM on 2/12/01 — **5 -yr TPP = 85.9%**

Inputs		
Files =>	Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$315_S2000_LR0.xls
	NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_72%_outputs.xls
	Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	4,622.3	1874.8	311.3	311.3	1	0	0	2,549.7	6,497.1	1,639.3	1,166.3
3	2003	57.7		-56.0	2,117.8	852.3	168.6	168.6	1	0	0	2,287.3	2,970.1	1,648.5	1,175.4
4	2004	33.6		-56.0	329.6	131.8	44.3	44.3	1	0	0	2,159.9	461.4	1,656.3	1,183.3
5	2005	0.0		-56.0	347.7	137.7	47.3	47.3	1	0	0	2,001.0	485.3	1,667.8	1,194.8
6	2006	0.0		-56.0	372.9	146.4	47.6	47.6	1	0	0	2,149.8	519.3	1,677.5	1,204.5

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	419	1	89%	419	89%	193.2	1798.6	1798.6	1,284	-	308.7
3	2003	427	6	89%	515	87%	301.9	2757.5	1109.8	1,215	-	
4	2004	417	2	89%	529	86%	294.6	2755.4	114.7	1,010	-	FCCF
5	2005	411	9	89%	542	86%	282.1	2676.6	221.8	990	-	Strt Bal
6	2006	404	8	90%	551	86%	266.9	2576.9	106.9	1,156	-	n / a
5	-yr Total	2078	26	n / a	n / a	n / a	1338.8	n / a	n / a	n / a	-	
5	-yr Ave.	415.6	5	n / a	n / a	n / a	267.8	2512.6	1571.0	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	396%
3	2003	501	91.1	11.7	410	0	0	n / a	0.0	0	0	180%
4	2004	583	101.2	15.1	534	0	0	n / a	0.0	0	0	28%
5	2005	517	103.9	13.8	490	0	0	n / a	0.0	0	0	29%
6	2006	542	90.7	12.6	501	0	0	n / a	0.0	0	0	31%
5	-yr Total	3950	n / a	188.0	1935	0	0	n / a	0.0	0	0	
5	-yr Ave.	790	185.7	37.6	387	n / a	0.0	n / a	0.0	0.0	n / a	133%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-5177.5	-7.3	-5184.8	1943	1214.3	605.0	68.6	n / a	n / a	n / a	396%	12%	408%		408%	46%
3	2003	-2500.4	-8.6	-2509.0	2591	1087.9	722.8	96.4	n / a	n / a	n / a	180%	1%	181%	45%	136%	13%
4	2004	-252.8	-8.5	-261.3	2953	528.1	399.9	77.7	n / a	n / a	n / a	28%	1%	29%	53%	-24%	15%
5	2005	-239.5	-8.5	-248.0	2418	317.0	196.5	63.3	n / a	n / a	n / a	29%	1%	30%	29%	1%	13%
6	2006	-281.0	-8.6	-289.6	n / a	n / a	n / a	61.6	n / a	n / a	n / a	31%	1%	32%	14%	18%	14%
5	-yr Total	-8451.1	-41.6	-8492.7	9905	n / a	1924.2	367.5	n / a	n / a	n / a						
5	-yr Ave.	-1690.2	-8.3	-1698.5	1981	757.6	384.8	73.5	n / a	n / a	n / a	133%	3%	136%	28%	108%	20%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $315/MWh, No Load Reduction.

Time of run: 11:20:01 AM on 2/12/01 — **5 -yr TPP = 81.1%**

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n 1375
Additional load -1357
Total 18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

Inputs

Files =>
Riskmod: Z:\ToolKit\Supplemental Proposal\RM_Merged_$315_S0_LR0.xls
NORM: Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
Prior TK: Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	6,518.2	0.0	311.3	311.3	1	0	0	2,557.9	6,518.2	1,548.8	1,548.8
3	2003	57.7		-56.0	3,044.8	0.0	168.6	168.6	1	0	0	2,344.3	3,044.8	1,568.9	1,568.9
4	2004	33.6		-56.0	481.0	0.0	44.3	44.3	1	0	0	2,257.6	481.0	1,587.6	1,587.6
5	2005	0.0		-56.0	521.0	0.0	47.3	47.3	1	0	0	2,143.6	521.0	1,607.3	1,607.3
6	2006	0.0		-56.0	560.9	0.0	47.6	47.6	1	0	0	2,314.0	560.9	1,622.4	1,622.4

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	580	1	85%	580	85%	423.2	2845.4	2845.4	1,300	-	308.7
3	2003	586	2	85%	693	82%	654.4	4355.3	2246.5	1,187	-	
4	2004	536	3	86%	702	82%	646.7	4705.5	174.2	981	-	FCCF Strt Bal
5	2005	552	9	86%	722	81%	634.7	4484.2	180.6	952	-	
6	2006	552	5	86%	737	81%	623.2	4402.8	144.5	1,204	-	n / a
5 -yr Total		2806	20	n / a	n / a	n / a	2982.1	n / a	n / a	n / a	-	
5 -yr Ave.		561.2	4	n / a	n / a	n / a	596.4	4144.8	2593.6	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	611	93.2	14.6	548	0	0	n / a	0.0	0	0	n/a
4	2004	731	104.9	19.7	695	0	0	n / a	0.0	0	0	n/a
5	2005	684	103.4	18.1	643	0	0	n / a	0.0	0	0	n/a
6	2006	648	90.0	15.0	611	0	0	n / a	0.0	0	0	n/a
5 -yr Total		4481	n / a	202.2	2497	0	0	n / a	0.0	0	0	
5 -yr Ave.		896.2	176.0	40.4	499.4	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-5036.9	-10.2	-5047.1	2289	1674.4	982.7	74.0	n / a	n / a	n / a	421%	9%	430%		430%	46%
3	2003	-2505.3	-12.0	-2517.3	2705	1381.6	958.2	92.1	n / a	n / a	n / a	194%	1%	195%	57%	138%	16%
4	2004	-194.4	-11.9	-206.3	2859	643.7	471.9	66.2	n / a	n / a	n / a	30%	1%	32%	54%	-23%	19%
5	2005	-189.2	-11.9	-201.1	2440	453.1	283.5	51.9	n / a	n / a	n / a	32%	1%	34%	26%	7%	18%
6	2006	-233.9	-12.0	-245.9	n / a	n / a	n / a	49.6	n / a	n / a	n / a	35%	1%	35%	15%	20%	17%
5 -yr Total		-8159.7	-58.0	-8217.7	10293	n / a	2696.3	333.9	n / a	n / a	n / a						
5 -yr Ave.		-1631.9	-11.6	-1643.5	2058.6	1021.6	539.3	66.8	n / a	n / a	n / a	142%	3%	145%	31%	114%	23%

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, 2000 aMW Slice, $315/MWh, 1500 aMW Load Reduction.

Time of run: 11:35:42 AM on 2/12/01 — **5 -yr TPP = 85.9%**

Inputs		
Files =>	Riskmod:	Z:\ToolKit\Supplemental Proposal\RM_Merged_$315_S2000_LR1500.xls
	NORM:	Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_72%_outputs.xls
	Prior TK:	Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	1,637.0	884.1	304.8	304.8	1	0	0	1,006.1	2,521.1	1,348.9	875.9
3	2003	57.7		-56.0	611.4	326.8	162.0	162.0	1	0	0	743.8	938.2	1,358.1	885.0
4	2004	33.6		-56.0	84.1	44.5	40.0	40.0	1	0	0	616.3	128.6	1,365.9	892.9
5	2005	0.0		-56.0	69.0	36.1	39.3	39.3	1	0	0	457.8	105.1	1,377.4	904.4
6	2006	0.0		-56.0	96.1	49.7	43.7	43.7	1	0	0	609.0	145.8	1,387.2	914.1

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	419	1	89%	419	89%	193.2	1798.6	1798.6	1,284	-	308.7
3	2003	427	6	89%	515	87%	301.9	2757.6	1109.9	1,215	-	
4	2004	417	2	89%	529	86%	294.6	2755.5	114.8	1,010	-	FCCF
5	2005	411	9	89%	542	86%	282.1	2676.6	221.7	990	-	Strt Bal
6	2006	404	8	90%	551	86%	266.8	2575.7	105.8	1,157	-	n / a
5	-yr Total	2078	26	n / a	n / a	n / a	1338.7	n / a	n / a	n / a	-	
5	-yr Ave.	415.6	5	n / a	n / a	n / a	267.7	2512.4	1571.0	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	187%
3	2003	501	91.1	11.7	410	0	0	n / a	0.0	0	0	69%
4	2004	584	101.1	15.1	534	0	0	n / a	0.0	0	0	9%
5	2005	517	103.9	13.8	490	0	0	n / a	0.0	0	0	8%
6	2006	543	90.5	12.6	501	0	0	n / a	0.0	0	0	11%
5	-yr Total	3952	n / a	188.0	1935	0	0	n / a	0.0	0	0	
5	-yr Ave.	790.4	185.6	37.6	387	n / a	0.0	n / a	0.0	0.0	n / a	57%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-1201.5	-7.3	-1208.8	1943	1214.3	604.9	68.6	n / a	n / a	n / a	187%	15%	202%		202%	46%
3	2003	-468.5	-8.6	-477.1	2591	1087.9	722.7	96.4	n / a	n / a	n / a	69%	1%	70%	58%	13%	13%
4	2004	80.1	-8.5	71.6	2952	528.4	399.9	77.7	n / a	n / a	n / a	9%	2%	11%	68%	-57%	15%
5	2005	140.7	-8.5	132.2	2418	317.0	196.5	63.3	n / a	n / a	n / a	8%	2%	9%	37%	-28%	13%
6	2006	93.6	-8.6	84.9	n / a	n / a	n / a	61.7	n / a	n / a	n / a	11%	1%	12%	18%	-6%	14%
5	-yr Total	-1355.6	-41.6	-1397.2	9904	n / a	1924.1	367.6	n / a	n / a	n / a						
5	-yr Ave.	-271.1	-8.3	-279.4	1980.8	757.7	384.8	73.5	n / a	n / a	n / a	57%	4%	61%	36%	25%	20%

RiskModFile2 (the uncapped one): n / a

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
28.29%	Slice Fraction of System
29.70%	Slice Fraction of Load
2,000	Slice Load
2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks

ToolKit v. 1.45, (2-10-2001)

Study title: Supplemental Proposal, No Slice, $315/MWh, 1500 aMW Load Reduction.

Time of run: 11:22:00 AM on 2/12/01 — **5 -yr TPP = 80.5%**

RiskModFile2 (the uncapped one): n / a

Inputs Files =>	Riskmod: Z:\ToolKit\Supplemental Proposal\RM_Merged_$315_S0_LR1500.xls
	NORM: Z:\ToolKit\Supplemental Proposal\NORM_MixProb_Final_Proposal_outputs.xls
	Prior TK: Z:\ToolKit\Supplemental Proposal\Prior_ToolKit_B_2001_110600_Lose600_NoFloor.xls

Start in TK Year	Stop in TK Year	Random St. Rsrv.	St. Rsrv. Balance	Access FCCF?	Random St. FCCF	St. FCCF Balance	Access 4h10C?	CRAC Lim/Total	Slice frac. for CRAC	CP CRAC On (>0)	Tx Surch Threshold
2	6	TRUE	300	FALSE	TRUE	162.5	FALSE	20,000	28.90%	0	300

Start TPP in TK Yr	"Small" Def. Size	FishRisk in RM?	No. of Iterations	Ave PF Base Rt	Debug Level	Reserves Graph	AutoPrint Res Grph	AutoPrint This Page	Use Adj. CRAC	Enable OnTheFly	LB CRAC Scaling
2	$20	TRUE	3900	21.7	0	☑	☐	☐	☐	☐	100%

Load-based CRAC (CRAC 1)

Sep augm assumpt'n	1375
Additional load	-1357
Total	18

$38	Price for IOU Fin. Settlemt.
2.80%	Network loss percentage
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2000	Default Slice Load Amt.
7	How Slicers participate in FB CRAC

(1: There are no Slicers)
(2: Load-based share of FB CRAC)
(3: Pseudo-CRAC [**$** & **MW** true-up in FB CRAC years])
(4: No FB CRAC; they true up instead)
(5: BPA CounterProp, 1-22-01, CRAC rev in true-up)
(6: BPA CounterProp, 1-22-01, CRAC rev not in true-up)
(7: 2-2-01 proposal from settlement talks)

ToolKit Year	Fiscal Year	Probabi-listic?	Treasury Int. Rate	Amort Sched	Interest Sched	Interest Cr. Sched	CRAC Threshold	CRAC Lim/Year	Tx Surch. Lim/Year	Div. Dist. Threshold	Div.Dist Lim/Year
1	2001	TRUE	7.39%	163.0	521.7	65.4		50	0		
2	2002	TRUE	6.82%	107.4	315.5	61.0	300	1000	0	1,700	20,000
3	2003	TRUE	6.78%	73.0	323.0	67.5	300	135	0	1,500	20,000
4	2004	TRUE	6.92%	93.0	334.4	75.0	500	150	0	1,200	20,000
5	2005	TRUE	6.90%	148.1	345.3	79.8	500	150	0	1,200	20,000
6	2006	TRUE	6.90%	128.5	348.3	84.7	500	175	0		20,000

ToolKit Year	Fiscal Year	Internal Cash Flow		Add'l IOU $	LB CRAC Non-Slice	Adj. C1 Slice	LB CRAC Price	Slice Aug Price	FB CRAC 1st Month	FB CRAC Thr. Type	IOU $ to power	Rem Aug Q (aMW)	Net Augm Cost	LB CRAC Rev Basis	FB CRAC Rev Basis
1	2001	190.6	0.0			0	0	0.0	0						
2	2002	21.6		-56.0	2,541.8	0.0	304.8	304.8	1	0	0	1,014.4	2,541.8	1,258.4	1,258.4
3	2003	57.7		-56.0	986.5	0.0	162.0	162.0	1	0	0	800.7	986.5	1,278.5	1,278.5
4	2004	33.6		-56.0	146.3	0.0	40.0	40.0	1	0	0	714.0	146.3	1,297.2	1,297.2
5	2005	0.0		-56.0	89.4	0.0	39.3	39.3	1	0	0	600.3	89.4	1,316.9	1,316.9
6	2006	0.0		-56.0	131.7	0.0	43.7	43.7	1	0	0	773.3	131.7	1,332.0	1,332.0

Outputs

ToolKit Year	Fiscal Year	No. of Deferrals	"Small" Deferrals	1-year Probab.	Cumul. Deferrals	Cumul. Probab.	Ave. Def. per Year	Ave. Def. per Def.	Ave 1st Def./Def.	Ave. End. Reserves	On-the-Fly Adjustmt.	Ave Rsrvs Strt Bal
0.0	0.0	0.0	-	1.0	n / a	n / a	0.0	n / a	n / a	0		
2	2002	580	1	85%	580	85%	423.2	2845.9	2845.9	1,300	-	308.7
3	2003	591	3	85%	694	82%	658.6	4346.1	2254.1	1,183	-	
4	2004	541	4	86%	704	82%	650.9	4692.4	166.5	977	-	FCCF
5	2005	566	2	85%	732	81%	646.7	4456.2	172.6	936	-	Strt Bal
6	2006	583	7	85%	761	80%	643.5	4304.9	140.8	1,140	-	n / a
5	-yr Total	2861	17	n / a	n / a	n / a	3023.0	n / a	n / a	n / a	-	
5	-yr Ave.	572.2	3	n / a	n / a	n / a	604.6	4120.8	2520.6	n / a	-	

ToolKit Year	Fiscal Year	CRAC Accesses	Av. CRAC per Acc.	Av. CRAC per Year	CRAC Ann. Lim Rchd	CRAC Tot. Lim Rchd	Slice pmt. Accesses	Av. Slice per Acc.	Av. Slice per Year	TxS Ann. Lim Rchd	TxS Total Lim Rchd	Slice LB CRAC
0.0	0.0	0	n / a	0.0	0	0	0	n / a	0.0	0	0	
2	2002	1807	291.0	134.8	0	0	0	n / a	0.0	0	0	n/a
3	2003	611	93.2	14.6	548	0	0	n / a	0.0	0	0	n/a
4	2004	744	104.4	19.9	713	0	0	n / a	0.0	0	0	n/a
5	2005	688	104.3	18.4	652	0	0	n / a	0.0	0	0	n/a
6	2006	700	87.7	15.7	626	0	0	n / a	0.0	0	0	n/a
5	-yr Total	4550	n / a	203.5	2539	0	0	n / a	0.0	0	0	
5	-yr Ave.	910	174.4	40.7	507.8	n / a	0.0	n / a	0.0	0.0	n / a	0%

ToolKit Year	Fiscal Year	Riskmod Inputs	NORM Inputs	Risk IP Totals	No. of DivDists	Ave. DvD. per DvD.	Ave. DvD. per Year	Interest Credit	FCCF Credit	FCCF Use %	4h10C Credit	Non-Slice Impacts of LB & FB CRACs and DDC: LB C	FB C	FB + LB	DDC	Net	FB CRAC Freqncy
0.0	0.0	0.0	0.0	0.0	n / a	n / a	n / a	0.0	n / a	n / a	n / a						
2	2002	-1060.9	-10.2	-1071.1	2286	1676.1	982.4	74.0	n / a	n / a	n / a	202%	11%	213%		213%	46%
3	2003	-473.5	-12.0	-485.4	2687	1363.2	939.2	91.2	n / a	n / a	n / a	77%	1%	78%	68%	10%	16%
4	2004	138.5	-11.9	126.6	2848	642.0	468.8	65.7	n / a	n / a	n / a	11%	2%	13%	64%	-51%	19%
5	2005	191.0	-11.9	179.1	2288	427.1	250.6	49.8	n / a	n / a	n / a	7%	1%	8%	31%	-23%	18%
6	2006	140.7	-12.0	128.7	n / a	n / a	n / a	46.3	n / a	n / a	n / a	10%	1%	11%	16%	-5%	18%
5	-yr Total	-1064.3	-58.0	-1122.3	10109	n / a	2641.1	327.0	n / a	n / a	n / a						
5	-yr Ave.	-212.9	-11.6	-224.5	2021.8	1018.9	528.2	65.4	n / a	n / a	n / a	61%	3%	65%	36%	29%	23%

6. IOU SETTLEMENT (NO DOCUMENTATION)