Bonneville Power Administration's

Power Function Review

Risk Mitigation

Management-Level Discussion

April 18, 2005

BPA's Financial Disclosure Information

All FY '05-'09 information was provided in April 2005 and cannot be found in BPA-approved Agency Financial Information but is provided for discussion or exploratory purposes only as projections of program activity levels, etc.

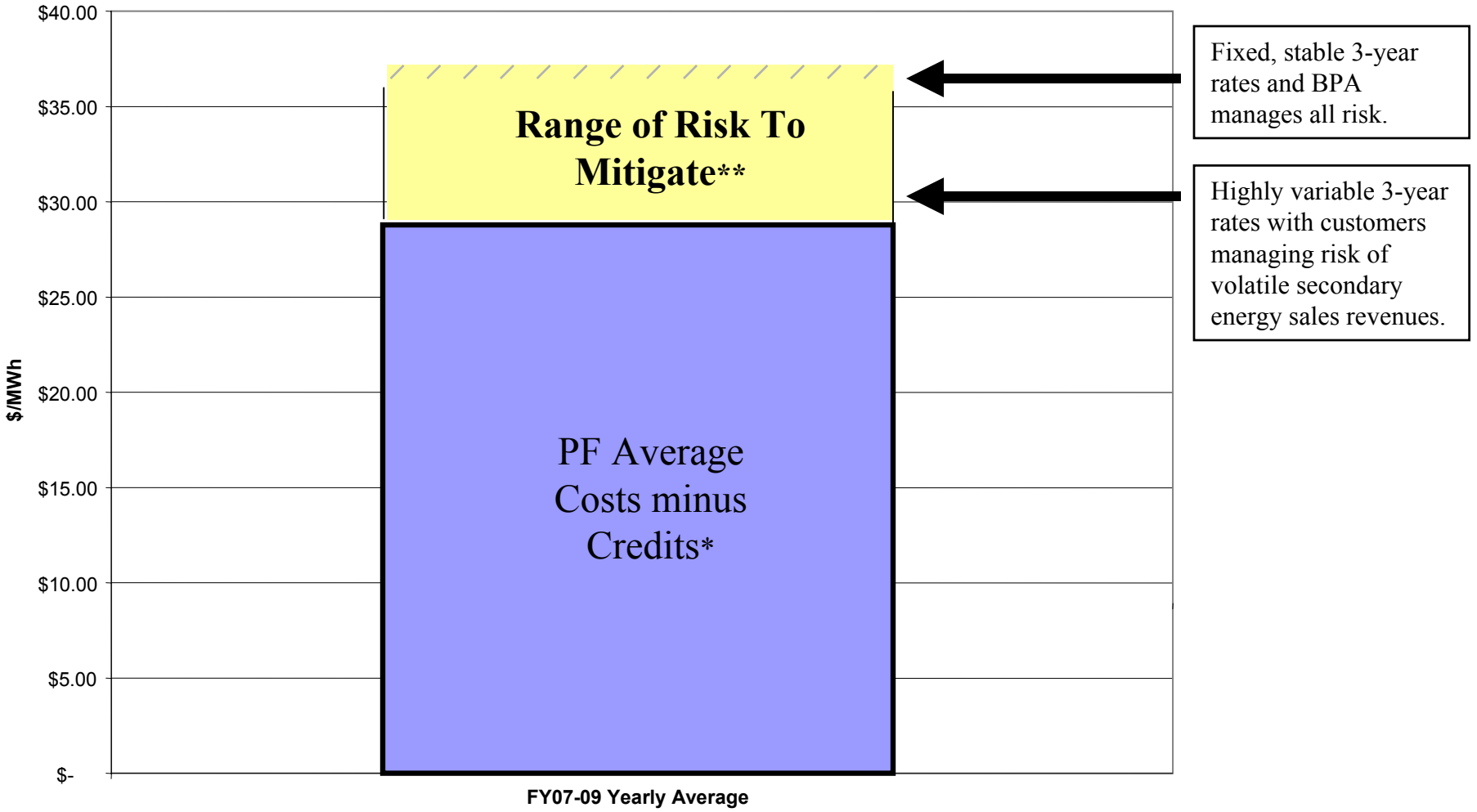
Major Risks Affecting Power Rates

- Hydro Variability
  - There is a 1-in-6 chance of being at least two nuclear power plants worth below average output.
- Market Price Variability
  - Price levels and variability have increased since the last rate case.
- IOU Benefits
  - FY 2008 and FY 2009 IOU benefits won't be known when rates are set for 2007-2009. This is a new uncertainty, or risk.
- Other Risks
  - Risks associated with unexpected expenses have yet to be estimated.
  - Hydro uncertainty related to the BiOp is still unknown.

Why Risk is a Bigger Challenge in the FY 2007-2009 Rate Period

- Low Starting PBL Reserves (Approx. $180M)
- Reduced Credits Available to Mitigate Low Water
  - Exhausted $325M of FCCF Credits in FY 2001 and FY 2003
- Returning to a Traditional 92.6% TPP Standard (5-year 88% equivalent)
- Greater Reliance on Volatile Secondary Revenues
- Increase in Power Liquidity Reserves ($50M to $100M)
- New Uncertainties
  - IOU Benefits, Wind, and Transmission Expense Risks

Range of Possible Traditional PF Rate Outcomes



*Consistent with Power Function Review Base Costs before any actions are taken.

**Reflects BPA's largest risks of market price and water variability

Optional Rate Design Ideas for Risk Mitigation

- BPA staff evaluated different "families" of rate design, each of which meets BPA's TPP target of 95% for a 2-year rate period (equivalent to 92.6% for a 3-year rate period). These are illustrative examples. The specific parameters of any of these rate designs would be decided in the rate case.

A. Flat, fixed rate:
   - 3-year fixed rate
   - 100% credit of the expected value of secondary revenues
   - No CRACs
   - Possible dividend distribution clause

B. Shaped, fixed rates:
   - 3-year "step-down" rate
   - 100% credit of the expected value of secondary revenues
   - No CRACs
   - Possible dividend distribution clause

C. Secondary revenue rebate:
   - Less than 100% credit of expected value of secondary revenues
   - Rebate if secondary revenues are higher than credit
   - Surcharge if actual secondary revenues are lower than credit

Optional Rate Design Ideas for Risk Mitigation– Con't

D. Rate adjustment mechanism:
- 100% credit of the expected value of secondary revenues
- Adjustments similar to Financial-Based/Safety Net CRACs and Dividend Distribution Clause based on actual net revenues

E. Complex mechanism:
- 50% credit of expected value secondary revenues
- Rebates and Surcharges based on forecasted reserves and actual secondary revenues

F. Higher Market Price, Flat, Fixed Rate:
- 3-year fixed rate
- 100% credit of the expected value of secondary revenues (higher price forecast)
- No CRACs
- Possible dividend distribution clause

Review of Alternative Risk Mechanisms

The numbers are illustrative estimates of the level of PNRR and the resulting rate required to recover costs and meet a 92.6% PBL TPP for the FY 2007 – 2009 rate period. These numbers do not include the final PFR cost estimates, updated FY 2007 starting reserves or the FY 2007 – 2009 updated revenue forecast that will be used to calculate the rates in the Initial Proposal.

Expected Value 2007 PBL Starting Reserves: ~$180M

	Rate Characteristic	Fixed, Flat Rates (PNRR Only) (A)	Fixed, Declining Rates (PNRR Only) (B)	0% Secondary Revenue Rebate (C)	Rate Adjustment Mechanism (D)	Complex Mechanism (E)	Higher Market Price Fixed, Flat Rates (PNRR Only) (F)
1	3-Year Average Effective Rate Level 1/ 2/ 3/	$ 36.1	$ 34.7	$ 32.7	$ 33.1	$ 31.1	$ 36.1
2	Cost of Risk PNRR (In Millions)	$ 435	$ 270	$ 85	$ -	$ 20	$ 530
3	2007 Posted Rate	$ 37.1	$ 40.2	$ 39.0	$ 35.7	$ 33.9	$ 37.1
4	Secondary Revenue Credit	100% Credit to Rates	100% Credit to Rates	Actuals	100% Credit to Rates	50% Credit to Rates/ 100% of actuals above the 50% credited to rates is rebated after the reserve threshold is met	100% Credit to Rates

1/ The mechanisms above are approximate figures and will change with the assumptions used in determining expected value starting rate period reserves, E.V. annual secondary revenues, IOU residential exchange broker prices for FY 2008 and FY 2009, and other risk factors.

2/ The effective rate is an average of three years. Annual rates may be higher or lower depending on annual rebates and surcharges. Current analysis generally shows rates higher in FY 2007, then lower rates in FY 2008 and FY 2009. A lower expected value rate tends to have greater potential volatility in annual rate levels.

3/ A Dividend Distribution Clause (DDC) similar to the DDC developed for the current rate period has been incorporated into all these options, it reduces the effective rate. This effect is limited to mechanisms where forecasted reserves increase over $1.2B in any year of the rate period. The DDC only triggers in option A.

What We Heard in the Technical Workshop

- We're all in this together:
  - The risk technical workshop was collaborative and constructive
  - The group recognized there is a problem and want to help solve it.
  - Customers proposed working sessions in addition to our proposed workshops.
  - BPA will share its models shortly so that customers can run studies.

- We heard concerns regarding trust and spending controls:
  - We'd like to take these interests into account when appropriate as we explore different risk mitigation alternatives.

- We heard concerns about FY 2006 rate levels:
  - BPA is not ready to discuss the FY 2006 rate levels at this time.

- We heard concerns about other issues:
  - Level of Treasury Payment Probability
  - The size and relationships of the disaggregated risks.
  - Justification of the need for higher liquidity reserves.

Policy Level Questions

- How important are posted rate levels compared to effective rate levels? (There is a trade-off between the amount of PNRR or starting reserves relative to variable rate-design alternatives.)
- How important is it to minimize rate volatility?
  - Magnitude of rate level changes…
  - Frequency of rate level changes…
- How important is rate simplicity vs. complexity?
- Do answers to these questions change depending on…
  - The overall rate level?
  - Magnitude of risk?
- Additional questions that arise during this discussion.