

2001 FCRPS Operations Plan Update

June 15, 2001

Background

- The Federal Agencies began a limited spring spill operation on May 17, 2001 at Bonneville and The Dalles dams. The agencies had originally set a goal of three weeks of targeted spill.
- Because of indications of improving reliability and reservoir refill conditions, on May 25 the agencies initiated additional spill at John Day and McNary dams.
- Subsequently, on June 1, the agencies decided to continue the limited spill operations one more week. The agencies also indicated that unless there were significant adverse changes in system conditions, spill would probably continue until mid-June and the total quantity provided would be about 600 MW-Mo. This continuance of spill was based on indications of improving reliability and the fact that the spring chinook outmigration is occurring later than usual this year.
- On June 8, BPA and the other federal agencies committed to continue spilling until the total spill level of 600 megawatt-months (MW-Mo) has occurred. There was an emergency Technical Management Team meeting on June 8 to develop a plan for optimizing the biological effectiveness of the remaining spill. The TMT decided to continue spill as it had been occurring at Bonneville, The Dalles, John Day and McNary dams.
- The full 600 MW-Mo of spill will be realized by June 15.

Update

- Assessments of the FCRPS' condition under the established power emergency criteria are constantly changing as new information and data come available. In addition, there are significant ranges of uncertainty in the reliability and financial analyses. Factors that contribute to the uncertainty include volume runoff uncertainty, load variability, the timing of restart of Columbia Generating Station, market prices, and BPA's 2002 rates.
- Given these ranges of uncertainty, it is currently unclear whether we can spill in the summer and still meet the reliability criteria. This is true even with the decrease in FCRPS load obligations resulting from BPA's load reduction efforts, and with the recent decline in market prices for power.
- Possible options for summer spill include no spill, targeted spill, or full spill within the criteria depending on how actual conditions develop between now and the end of June.
- The National Marine Fisheries Services' draft biological analysis dated June 13, 2001, posted at www.salmonrecovery.gov, indicates that targeted summer spill would provide some survival benefit for Columbia River fall chinook, and to Snake River fall chinook that remain in-river.

Next Steps

From now through June 22, 2001, the Federal Agencies would like regional parties and stakeholders to consider the following questions:

1. Are there alternative actions that may have comparable or better biological benefits if no summer spill or a modified amount of summer spill is available within the criteria?
2. Do you have comments on the updates to the biological, financial, and reliability analyses and conclusions? (We are not seeking comment on the power emergency criteria or methodologies.)

Responses to these questions can be emailed to sbcooper@bpa.gov.

We will consider your views and advice as we develop proposals for summer spill and/or alternatives, and have scheduled a policy-level discussion for June 29 to further discuss summer spill options.

Summary Analysis of the Federal Agencies' Power Emergency Criteria

CRITERIA	<u>4/13 Analysis</u>	<u>6/13 Analysis</u>
Criterion 1: Near-Term Insufficiency (Sufficient Volume to Meet Near-term Load Obligations)	54	48.8
Criterion 1: 75% Probability Volume Forecast Standard June Forecast Error Buffer—RFC @ 4.0	58	N/A
Criterion 2: Long-Term Insufficiency ($< 5\%$ Loss of Load Probability)	59.5 ¹	53.3 ²
<i>Adjustment for 600 MW-mo Spring Spill</i>		0.4
TOTAL MAF to MEET CRITERIA 1 & 2 w/ RFC Buffer (4.0 MAF) w/ NPPC Buffer (1.7 MAF) w/ ESP Buffer (1.1 MAF)	59.5	55.4 54.8
June Final Forecast		55.5
Criterion 3: Insufficiency Due to Inadequate Reserves ($< 20\%$ Probability of \$0 Reserves)	Protect against drop in water supply and use to meet criteria 1 & 2	600 MW-mo of summer spill

¹ 1.5 MAF is used as a proxy for the 1500 MW-mo of storage needed for reliability purposes. Depending on the location and shape of the volume, the MAF requirement to provide the MW-mo could change.

² Uncertainties in the analysis:

- Assumes expected thermal generation based upon a forced outage rate with an estimated planned outage schedule
- Assumes normal temperatures
- Assumes modest amount of conservation
- Assumes significant amount of regional generation dedicated to exports to California
- Small variations in monthly (aMW) uncertainties can lead to large amounts of uncertainty accumulated over several months (MW-mos)
- Assumes all storage for next winter must be completed by Oct 1

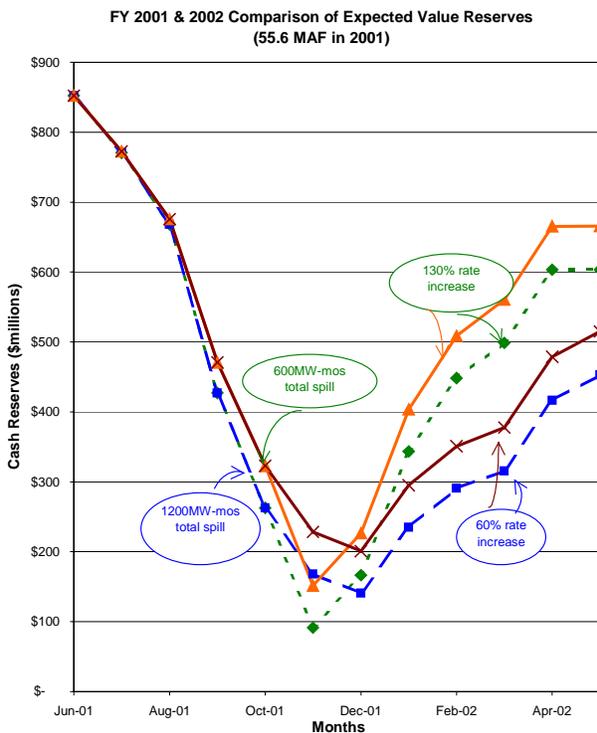
Summary Result: The current reliability analysis indicates that within the criteria, a decision about summer spill is too close to call given the uncertainties.

Financial Analysis

6/15/2001

Assumptions:

- Load based CRAC rate increase scenarios for fiscal year 2002 are intended to represent potential scenarios of augmentation outcomes for FY2002. The two scenarios selected represent potential average rate increases for the year of 60% and 130%. The two 6-month rates that are assumed to underlie the 60% rate are 62% and 58% and for the 130% rate are 152% and 104%. Slice in FY2002 is 1600 aMW.
- At those rate levels we evaluated 600 MW-mo, and 1200 MW-mo
- This is not incremental spill. It includes all 605 MW-mo spill to date.
- Runoff forecast is 55.6 MAF.



Cash Flow

(Probability of < \$0 Reserves)

Total Spring and Summer Spill - FY2001

	600MW-mos spill 60% rate increase	600MW-mos spill 130% rate increase	1200MW-mos spill 60% rate increase	1200MW-mos spill 130% rate increase
Jun-01	0.0%	0.0%	0.0%	0.0%
Jul-01	0.0%	0.0%	0.0%	0.0%
Aug-01	0.0%	0.0%	0.0%	0.0%
Sep-01	1.6%	1.6%	1.7%	1.7%
Oct-01	5.5%	5.5%	8.2%	8.2%
Nov-01	8.4%	13.6%	13.5%	21.3%
Dec-01	10.9%	8.9%	17.4%	14.5%
Jan-02	6.4%	4.2%	10.6%	5.8%
Feb-02	9.6%	6.1%	11.8%	7.6%
Mar-02	13.0%	9.1%	14.7%	10.5%
Apr-02	11.7%	9.8%	13.5%	10.5%
May-02	12.4%	10.9%	13.3%	11.4%

FY2001 Ending Reserve Levels

(Probability of < \$300M Reserves)

Sep-01	7.8%	7.8%	12.8%	12.8%
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Assumptions:

1. Cal ISO/PX don't pay anything due.
2. 4H10c credits applied monthly starting in February.

Observations:

- 600 MW-mo of spill, no additional spill beyond today, leaves BPA well within the financial criteria for declaring a power system emergency.
- 1200 MW-mo of spill, an additional 600 MW-mo beyond the already complete 600 MW-mo, is on the boundary of not meeting the financial criteria. If FY2002 rates are high, consistent with greater loads and increased price exposure, 1200 MW-mo of spill violates the financial criteria. If 2002 rates are lower, 1200 MW-mo of spill is sustainable without violating the financial criteria.
- Financial criteria indicate that BPA could spill an additional 0 to 600 MW-mo if circumstances were still the same at the time additional spill were to commence.