

Power System Emergency Memorandum For the Record

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FROM: 
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TO: File

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Purchases during the Week of January 12, 2001

	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20
	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
Daily / Balance aMW	0	0	0	300	300	914	928	921	984
Daily / Balance Price	0.0	0.0	0.0	175.3	175.3	267.0	425.2	433.6	438.1
Real-Time aMW	247	55	68	30	703	533	58	28	40
Real-Time Price	228.4	165.4	176.9	181.3	418.7	558.0	458.0	275.0	275.0
Total Purchase aMW	247	55	68	330	1003	1447	985	950	1024
Daily \$(M)	\$1.4	\$0.2	\$0.3	\$1.4	\$8.3	\$13.0	\$10.1	\$9.8	\$10.6
Wk Cum \$(M)	\$1.4	\$1.6	\$0.3	\$1.7	\$10.0	\$23.0	\$33.1	\$42.9	\$53.5
CUM \$(M)	\$1.4	\$1.6	\$1.9	\$3.3	\$11.6	\$24.6	\$34.7	\$44.5	\$55.1

b. Criteria for Possible Future Declarations of Emergencies

Because the tenuous balance of resources and loads creates a risk of additional emergencies after the current emergency ends, BPA is attempting to more elaborately define when continued expenditures of power would compel it to declare an emergency again. Some of attributes of a good definition are:

- The duration of an energy emergency;
- A situation that poses a common threat to BPA programs;
- A threshold of minimum needed financial flexibility to sustain operations;
- Consideration of risks, benefits, and costs of alternative actions;
- Consideration of near-term water and longer-term implications to fish and other programs.

BPA has tentatively identified two measurements of financial stability. BPA's financial situation would become unstable when:

Depletion threatens BPA's ability to make its payments to the Treasury for the Federal hydroelectric projects; or

Depletion threatens the availability of funds needed to satisfy its current obligations, including fish and wildlife responsibilities.

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BPA believes these measurements to be relevant because lack of funds clearly would compel BPA to limit or discontinue support for its activities, including fish and wildlife activities. In addition, failure to make a Treasury payment would encourage administrative and congressional review and possible limitation on BPA operations.

BPA is endeavoring to more specifically define these parameters. Current reasoning is that, for FY 2001, BPA could declare a power system emergency based upon a BPA deficit and adverse economic conditions when:

1. In any month of the fiscal year, the probability of reserves falling below necessary working capital levels equals or exceeds 20%, or
2. The probability of failing to pay Treasury at the end of the fiscal year exceeds 20%.

These measurements are a work in progress. BPA will continue to refine these measurements to better describe relevant financial parameters used to assess the need to declare an emergency. Although BPA did not use these measurements when it declared an emergency on January 18, it believes these types of measurements, as they may be revised, will be useful to indicate when BPA might declare an emergency in the future.

4. Economic Disruption Resulting from High Rates

Another aspect of financial stability is the adverse effect of dramatic increases in the cost of power upon the economic health of the Pacific Northwest. In the longer run, even if BPA had time to raise rates sufficient to pay for the acquisition of power to cover BPA's power energy deficit, the rates may have to be so high as to cause economic distress to BPA's customers and ultimate consumers of

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electricity. At a point not well defined, this potential disruption may be sufficiently severe to warrant declaration of an emergency.

C. Potential Duration of Emergencies

The risk of a power system emergency due to the current tenuous nature of load-resource balance in the Pacific Northwest will decline as new generation sources come on line. BPA estimates that many new projects currently under various stages of planning and construction will be completed within approximately three years. Consequently, the heightened risk of a power system emergency could exist for a three-year period.

The duration of a particular emergency, if it is declared, will depend upon the particular circumstances applicable to that emergency. Improvements in many factors, including warmer winter weather conditions, increased precipitation, increased generation from other sources, reductions in load, and reasonable market prices for power, can rapidly end an emergency. However, BPA will terminate its declaration of an emergency as soon as resources become sufficient to economically meet load.

IV. EFFORTS TAKEN TO AVOID AN EMERGENCY

The action agencies have undertaken several measures to reduce potential power supply deficits and avoid declaration of an emergency.

Energy Exchanges with California.

Because it has no power surplus to needs of the Pacific Northwest, BPA does not sell additional power to California. However, to help California address its power crisis, and benefit the Pacific Northwest at the same time, BPA has arranged two-for-one energy returns for power that BPA transmits to California. For every MW that BPA delivers to California, California returns a MW within twenty-four hours. Consequently, over a day, the energy exchange with California has no adverse effect on meeting BPA's load. In addition, for every MW that BPA delivers to California, California returns a second MW later in the month. This second MW is very beneficial because it will help BPA to meet its load and reduce need to make additional drafts of reservoirs.

Since November 14, 2000, when exchanges began, BPA has sent over 283,000 MWH of power to California through the exchange. So far, California has returned approximately 160 percent of the power sent through the exchange. The additional return beyond delivered amounts is equivalent of the power a nuclear plant would generate in one week.