

# JOURNAL

A MONTHLY PUBLICATION OF THE BONNEVILLE POWER ADMINISTRATION

September 2003

Web site: [www.bpa.gov/corporate/kc/home/journal](http://www.bpa.gov/corporate/kc/home/journal)

## Could it happen here?

As pundits and politicians think about electricity in the wake of the Aug. 14 Northeast power outage, those in the West inevitably ask, "Could it happen here?" The short answer is, although major steps have been taken to strengthen the Western grid since a major outage in 1996, there are still vulnerabilities. The Aug. 10, 1996, outage, which was triggered in the Northwest, turned out the lights for seven million people in California and parts of other Western states. But both the likely causes and effects of cascading outages differ from east to west, explained BPA Chief Engineer Vickie VanZandt.

The Western electrical grid fundamentally differs from the transmission system in the Northeast, VanZandt said. Because of the density of population there, the Northeast resembles one large load center. Many short transmission lines connect power plants that are close together and close to the loads they serve. Because generators are distributed throughout the load centers in the Northeast, outages theoretically should be easier to isolate if systems detect a problem and are working properly.

In contrast, the Northwest system and the West Coast are characterized by cities separated from each other and from generators by vast stretches of mountains, plains and deserts. So, the West relies more heavily on long-distance, high-voltage power lines to connect distant load centers and generators. The intertie lines to California are prime examples.

After the 1996 West Coast outage, Western utilities reduced line ratings, installed equipment and instituted policy changes to make the Western grid more robust and resilient. The utilities have voluntarily agreed to pay fines if they do not meet reliability standards administered by the Western Electricity Coordination Council.

If multiple generators in any interconnected grid start shutting down, then outages can cascade very rapidly. Eastern outages are likely to be associated with overloading and the relative intolerance of steam-powered generators to system fluctuations. Once they trip off, thermal generators can take days to restore. In the Northwest, voltage imbalances, losses of a transmission

lines or capacity shortages are more frequent culprits. The Northwest system relies on hydropower, which can sustain wide fluctuations and can ramp up from zero to full generation in seconds.

The 1996 West Coast outage resulted from a combination of triple digit heat, very high energy demands and equipment failures when transmission lines sagged into trees. The series of line outages caused enough instability that generators tripped off and eventually the system segmented itself into several parts. The most significant impact occurred in California where some cities, including San Francisco, were darkened for 10 hours.

However, even with all the safeguards put into place on the Western grid since 1996, the fact remains that the Northwest transmission system is stretched. Despite increasing population, no new major high-voltage lines had been built in the Northwest since 1987, until BPA broke ground recently for the Kangley-Echo Lake line. (See next story.)



## Wright points out underlying issues

Regardless of how it starts, a major cascading outage happens so quickly and is so complex that it takes time to re-create the sequence of events affecting such wide geographic areas. BPA Administrator Steve Wright commented shortly after the Northeastern outage that it's been known for some time that there are significant problems with the nation's transmission grids. Wright said, "While specific solutions vary by region, there are actions that will make it less likely a similar event will happen. Fundamentally, there are two steps we need to take. We need to make reliability standards for market participants mandatory. And we need to enhance our electricity infrastructure." The latter includes ensuring utilities get access to capital to invest in infrastructure.

Wright pointed out that the current system for maintaining reliability is based on standards with which utilities voluntarily comply. With the introduction of competition in wholesale electric markets, the incentive to



comply has been eroded and pressure to “skate on the edge” or even not comply with reliability standards has dramatically increased. “Mandatory standards require federal legislation to create teeth,” Wright noted. He added, “This issue has been thoroughly debated nationally, and there’s consensus on how to make this happen. This non-controversial legislation is part of the national energy bill before Congress. This legislation must be enacted quickly.”

As to infrastructure investment, Wright noted that BPA has broken ground on three new lines this year. They are the first major transmission projects to be started in 15 years, and more projects are planned. All are intended to make BPA’s part of the Northwest grid more robust and even more resistant to outages. But these projects are only part of the picture. Wright said, “We need to ensure that our region’s utilities are financially healthy enough to access capital markets at reasonable cost so they can invest in measures to keep reliability high and costs lower.”

“The Northeastern outage has reminded us that electricity is a fundamental element of our lives,” Wright said. “If we are going to continue to improve our quality of life and productivity, we must put in place policies that will ensure we have adequate electricity infrastructure and appropriate regulatory standards to meet our needs.”

### **BPA engineer joins black out task force**

BPA engineer Bill Mittelstadt becomes BPA’s first representative on an international team convened to discern the causes of the Aug. 14 Northeast blackout.

“They want people who helped improve the West Coast system after the 1996 blackout,” Chief Engineer Vickie VanZandt explained, “and Bill was one of the chief architects of those improvements.” Several other BPA engineers are expected to join the team as its work is organized.

The National Society of Professional Engineers named Mittelstadt as the 2003 Federal Engineer of the Year. Among his cited accomplishments, Mittelstadt developed new planning practices, tools and testing for design and stability of the West Coast high-voltage transmission system.

Energy secretary Spencer Abraham and Canadian Minister of Natural Resources Herb Dhaliwal announced that they will lead the international task force.

### **BPA fall rate increase shrinks to 2.2 percent**

Rates for BPA’s wholesale power will increase 2.2 percent beginning Oct. 1. However, a rate reduction of 6.4 percent remains possible if the region’s utilities settle legal differences by mid-September, BPA officials said.

“This wholesale rate increase is less than the 5 percent increase we projected two months ago,” BPA Administrator Steve Wright noted. “Additional cost reductions and bond refinancings have helped reduce the adjustment further.”

Future rate levels depend on highly uncertain market variables, including availability of hydropower in the Columbia River Basin and market prices for energy. If average conditions prevail, rates could average about 3.5 percent higher than 2003 rates through the remainder of the rate period ending Sept. 30, 2006.

This could change, however, with settlement of a lawsuit over how federal hydropower benefits are currently divided between public agency utilities and investor-owned utilities. Settlement would eliminate the need for a rate increase and reduce rates 6.4 percent in 2004. Negotiations among the utilities and BPA continue.

BPA sells wholesale power at cost to 135 retail utilities and several industries in the Pacific Northwest. Each one has unique operating costs and rates, so the effect of the wholesale increase will vary by utility.

### **Court upholds DSI buy downs**

BPA received a ruling Aug. 21 on a suit filed by lawyer Dan Meek, former Rep. Jim Weaver (D-Ore.) and consultant Kevin Bell challenging BPA’s buy-down contracts with its direct-service industrial customers. BPA paid the DSIs to forgo purchases from BPA under their 1991 contracts as one of several ways to reduce its exposure to the wholesale power market during the West Coast power crisis. The court ruled that the contracts are not only legal but “an astounding success” in view of market conditions and risks faced by BPA at the time.

### **FERC: BPA did not violate trading rules**

The Federal Energy Regulatory Commission staff has filed a motion to dismiss the Bonneville Power Administration from a show cause order regarding market manipulation in 2001. FERC is expected to rule in September on the motion to clear BPA.

Steve Oliver, BPA vice president of Bulk Power Marketing, said: “During this period BPA stood ready to help California avoid shortages and blackouts where possible, while protecting the interests of Northwest ratepayers. This is a big step forward in clearing BPA of any wrongdoing concerning California market manipulation. BPA did not design, participate in or execute strategies aimed at manipulating the market or harming any participant.”

On June 25, 2003, the Commission issued its “Order to Show Cause Concerning Gaming And/Or Anomalous Market Behavior.” Among other things, the order found that BPA and 42 other utilities and marketers appeared to have participated in such activities in the California ISO and PX during the period of Jan. 1, 2000, and June 20, 2001.

In mid-July, BPA submitted documentation clarifying its actions in that period. As a result, FERC trial staff is requesting that FERC formally dismiss BPA from the show-cause proceeding and be relieved of any further obligations relating to the show cause order. The decision would mean that BPA's Northwest ratepayers would not be liable for any damages that may arise from this proceeding.

### **Test shows safer path for salmon**

Spilling more water through fewer spillways at Ice Harbor Dam seems to help juvenile fall chinook survive the ride, according to biologists from NOAA Fisheries and the U.S. Army Corps of Engineers. Scientists just completed a third year of tests to try to determine why fewer fish survive passage through Ice Harbor (89 percent) than predicted (98 percent). Water depth below Ice Harbor is much shallower than at most dams.

Researchers found that concentrating spill in one to three of the dam's 10 spill bays seems to provide a cushion, reducing injuries. More fish (96 percent) got through safely during the test than under normal spill conditions.

The study also found that fish passage survival through the dam's turbines and bypass system – a no-spill option – was 95 percent. "Statistically, it's a wash," said BPA biologist Scott Bettin. "There's no difference between this operation and the no spill operation."

Fish managers will consider the study results for 2004 summer spill patterns at Ice Harbor and further research needs.

### **Runoff in bottom fourth of record**

The January to July final runoff for the Columbia River at The Dalles Dam is 87.7 million acre feet according to data from the National Weather Service and the River Forecast Center. The figure puts 2003 at the 18th lowest runoff in the 74 years of record keeping.

January to July is only part of the water year, which officially runs from Oct. 1 to Sept. 30. The projected 2002-2003 water year – based on observed data for October 2002 to July 2003 and forecasts for August and September – is 107.7 maf, which would be the 16th lowest on record.

### **New P.O. Box will save money**

BPA has a new address for public involvement mailings. It's P.O. Box 14428, Portland OR 97293-4428. The old BPA public-comment address – P.O. Box 12999 – is being retired. All letters, notices and documents that solicit public comments should use the new address from now on.

This change will save BPA (and ratepayers) money and time for drivers who pick up the mail. With Postal Service boundary changes in the past year, BPA has had to pick up mail from three different post offices.

For the first year after the change the Postal Service will forward any mail sent to the old address.

# **PUBLIC INVOLVEMENT** Updates and Notices

## **NEW PROJECTS**

### **Bonneville-Alcoa Access Road Project EA – Skamania County, Wash.**

BPA proposes to establish a half-mile access road along the Bonneville-Alcoa 115-kV transmission line. The proposed road is located approximately 3.5 miles west of Skamania, Wash. The preliminary EA was released for public review July 23. The comment period ended Aug. 15. The final EA was released in August 2003.

## **ONGOING PROJECTS**

### **BP Cherry Point Cogeneration Project Interconnection EIS – Whatcom County, Wash.**

BP West Coast Products LLC has requested interconnection of its proposed 720-MW combustion turbine project at its Cherry Point Refinery near the community of Birch Bay, Wash. The project may require rebuilding an existing single-circuit 230-kV transmission line to double circuit from Cherry Point to Custer Substation and is subject to Washington energy facility siting processes. BPA and Washington EFSEC are developing a joint SEPA/NEPA DEIS, which is scheduled for release this summer. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information.

### **BPA's Power Supply Role After 2006 – Regionwide**

A regional discussion regarding how BPA will market power and share the costs and benefits of the Federal Columbia River Power System in the Pacific Northwest after 2006 is proceeding at a slower

pace. BPA expects to renew its efforts on the project this fall. Please refer to BPA's Web site at [www.bpa.gov/power/regionaldialogue](http://www.bpa.gov/power/regionaldialogue) for up-to-date information, or contact Jenifer Scott at (503) 230-7685.

### **COB Energy Facility Interconnect EIS – Klamath County, Ore.**

Peoples Energy Resources Corp. has requested interconnection of its proposed 1,200-MW combustion turbine project at a site near Bonanza in Klamath County, Ore. The project would require a new 500-kV transmission line to BPA's Captain Jack Substation. The project is subject to Oregon Energy Facility Siting Council certification. The DEIS is scheduled for release this summer. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information.

### **Fish and Wildlife Implementation Plan EIS – Regionwide**

This EIS examines potential impacts of implementing any of the fish and wildlife policy directions being considered in regional processes. BPA has developed a preferred alternative using regional guidance. The three-volume FEIS is available in CD or hard copy format. See <http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/SUMMARIES/FishWildlifeImplementation> for more information.

### **Grand-Coulee-Bell 500-kV Transmission Line – Spokane and Lincoln counties, Wash.**

Construction is under way on the rebuilding of 84 miles of an existing 115-kV wood-pole transmission line with a new, higher capacity 500-kV steel lattice line. The transmission line corridor between the Grand Coulee and Bell substations currently contains two 115-kV transmission lines on two wood-pole structures and three 230-kV transmission lines on two steel lattice structures. The

existing transmission lines cannot reliably move power from existing generation sources east of Spokane to the west. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information and construction photos.

#### **Grande Ronde and Imnaha Spring Chinook Project EIS – Wallowa and Union counties, Ore.**

Fish trapping, incubation, rearing and release hatchery facilities would be built to help boost spring chinook salmon populations in the Grande Ronde and Imnaha river basins of Northeast Oregon. Planned facilities would modify and augment existing Lower Snake River Compensation Plan facilities. The DEIS is available on CD, in hard copy or online at [www.efw.bpa.gov](http://www.efw.bpa.gov) under links to environmental analysis/planning and active projects. Public review and comment period ended July 7, 2003. Responses and an FEIS are being prepared.

#### **Hanford Reach National Monument CCP/EIS – Benton, Franklin and Grant counties, Wash.**

BPA is participating as a cooperating agency in a land management planning process being led by the U.S. Fish and Wildlife Service. The USFWS seeks to develop a comprehensive conservation plan as required by the Refuge System Improvement Act of 1997. BPA is providing information and writing sections of the plan that pertain to transmission facilities, roads, energy facilities and river management within the monument. A DEIS is scheduled for release in June 2004.

#### **Kangley-Echo Lake 500-kV Transmission Line – King County, Wash.**

Construction has started on the Kangley-Echo Lake 500-kV transmission line. The line will connect to an existing transmission line near Kangley to BPA's Echo Lake Substation in Western Washington. The project is needed to improve transmission system reliability and to enhance BPA's ability to meet treaty requirements with Canada. A new nine-mile transmission line will run parallel to an existing BPA transmission line in central King County, Wash. Five miles of the line cross the Cedar River Municipal Watershed, which is the source for much of the city of Seattle's drinking water. BPA and the city of Seattle reached an agreement and will work together to protect the watershed during construction. The ROD was signed on July 21, 2003. Construction is scheduled to be complete by late December 2003. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information and construction photos.

#### **Plymouth Generating Facility EIS – Benton County, Wash.**

Plymouth Energy requested interconnection of its proposed 306-MW combustion turbine project near Plymouth in Benton County, Wash. BPA prepared a joint NEPA/SEPA EIS with Benton County. A DEIS was released in September 2002, and a FEIS was released in June 2003. A record of decision is expected in mid-August 2003. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information.

#### **Safety Net Cost Recovery Adjustment Clause (SN CRAC) Adjustment to 2002 Wholesale Power Rates – Regionwide**

The Record of Decision under the National Environmental Policy Act is available at [www.efw.bpa.gov/cgi-bin](http://www.efw.bpa.gov/cgi-bin).

#### **Salmon Creek EIS – Okanogan County, Wash.**

BPA proposes to fund a project to enhance fish habitat and fish passage and to increase instream flows in 4.3 miles of lower Salmon Creek, a tributary of the Okanogan River. The project would rehabilitate the stream channel, revegetate stream banks and increase streamflows. A DEIS is scheduled for release in fall 2003.

#### **Schultz-Wautoma Area 500-kV Line Project – near Ellensburg to near the Hanford Reservation, Wash.**

BPA proposes to build a new 500-kV line from Schultz Substation to

the new Wautoma Substation southwest of the Hanford Monument. An FEIS was released in February. The ROD was released in March 2003. Construction on the new Wautoma Substation began May 5, 2003. Energization of the Sickler-Schultz portion of the line began in May 2003. Major line construction is now scheduled to start in the fall of 2004, be completed by winter 2005 and energized by spring 2006. See [www2.transmission.bpa.gov/PlanProj/Transmission\\_Projects/](http://www2.transmission.bpa.gov/PlanProj/Transmission_Projects/) for more information and construction photos.

#### **South Fork Flathead Watershed/Westslope Cutthroat Trout Conservation Program EIS – Flathead National Forest, Mont.**

BPA proposes to fund a project to remove exotic trout species from selected lakes in the South Fork of the Flathead drainage. BPA is preparing an EIS. Additional information is available at [www.efw.bpa.gov/cgi-bin/efw/E/Welcome.cgi](http://www.efw.bpa.gov/cgi-bin/efw/E/Welcome.cgi).

#### **Summit/Westward – Columbia County, Ore.**

Westward Energy L.L.C. requested interconnection for the proposed Summit/Westward Project, a 520-MW combustion turbine project to be located in Columbia County, approximately 4.5 miles north of Clatskanie, Ore. The project would interconnect at BPA's Allston Substation. A tiered ROD to the Business Plan EIS was completed in July 2003.

#### **Wanapa Energy Center Generation Project EIS – Umatilla County, Ore.**

The Confederated Tribes of the Umatilla Indian Reservation requested interconnection of the Wanapa Energy Center, a proposed 1,300-MW gas-fired combined-cycle combustion turbine project, into the transmission grid. The project would be located on tribal trust land. The Bureau of Indian Affairs plans to publish a DEIS in October 2003, a FEIS in March 2004 and a ROD in April 2004. BPA is participating as a cooperating agency.

## **SUPPLEMENT ANALYSES**

### **Watershed Management Program EIS**

- SA-109 – East Fork Holistic Restoration – Salmon River East Fork and Herd Creek. Custer County, Idaho
- SA-110 – Pahsimeroi Holistic Restoration – Gydesen/Hayes Riparian Enhancement and Irrigation Improvement Project. Custer County, Idaho
- SA-111 – Young Creek Stream Restoration. Lincoln County, Mont.
- SA-112 – Upper Salmon Holistic Restoration – Zeigler Riparian Fence. Custer County, Idaho
- SA-113 – Pahsimeroi Holistic Restoration – Moen Riparian Fence. Custer County, Idaho
- SA-114 – Protect and Restore Lolo Creek Watershed – Jim Brown Creek Road Stream Crossing Project. Clearwater County, Idaho
- SA-115 – Upper Salmon Holistic Restoration – Downton Riparian Fence. Custer County, Idaho
- SA-116 – Fabricate and Install New Huntsville Mill Fish Screen. Columbia County, Wash.

## **CALENDAR OF EVENTS**

### **Non-Construction Alternatives Round Table**

- Wed. Oct. 1 – 9 a.m. to 4:30 p.m. BPA headquarters, Rates Hearing Room, 905 N.E. 11th Ave., Portland, Ore.
- Thurs. Oct. 2 – 8 a.m. to 1:00 p.m. BPA headquarters, Rates Hearing Room, 905 N.E. 11th Ave., Portland, Ore.

**If you have questions or comments, or you want to be added to the mailing list for any project, call (503) 230-3478 (Portland) or 1-800-622-4519.**

To order copies of documents, call: 1-800-622-4520 or (503) 230-7334. Written comments may be sent to: BPA, P.O. Box 14428, Portland, OR 97293-4428. E-mail address: [comment@BPA.gov](mailto:comment@BPA.gov). BPA home page: <http://www.bpa.gov>. For details on BPA environmental reviews listed above, including site maps and documents issued to date, see <http://www.efw.bpa.gov/cgi-bin/PSA/NEPA/Projects>. Process Abbreviations: EA-Environmental Assessment, EFSEC-Washington Energy Facility Site Evaluation Council, EFSC-Oregon Energy Facility Siting Council, EIS-Environmental Impact Statement, DEIS-Draft Environmental Impact Statement, FEIS-Final Environmental Impact Statement, FONSI-Finding of No Significant Impact, NOI-Notice of Intent, ROD-Record of Decision, SA-Supplement Analysis.

