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Journ

June 1999[Click here for past Journals.](#)

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Financial update

BPA's total operating revenues through the second quarter of fiscal year 1999 were nearly \$1.4 billion. Net revenues for the first half of the fiscal year were \$184 million. The current forecast for fiscal year 1999 year-end financial reserves — cash and deferred borrowing authority — is approximately \$647 million.

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BPA boosts fuel cell technology

BPA is thinking small — as in a black box that will fit in a house and generate all the electrical power and hot water the family living in the house needs. The box will do it all with high fuel efficiency and lower emissions than current combustion technology. The black box is a proton exchange membrane fuel cell, which is the kind of technology the National Aeronautics and Space Administration uses to provide electricity on satellites and shuttles.

BPA has signed an agreement with Northwest Power Systems of Bend, Ore., to purchase up to 110 units to test in homes. The first ten “alpha” test units are to be delivered this fall. Northwest utilities will test the 3-kilowatt units for home use. Northwest Power Systems will take the information gained from the testing, make any necessary adjustments and build 100 “beta” test units. BPA will work with local utilities to place the beta units in the homes of interested customers. Each of the beta units will cost about \$30,000. BPA will look to share that cost with local utilities and/or their customers who will participate in the test. Northwest Power Systems expects the price of the fuel cells should drop to about \$10,000 per unit when they become commercially available in 2002.

BPA and Northwest Power Systems have been testing prototype units for over two years. The tests have been so successful, they decided to move ahead with a full-scale test. The units convert hydrogen-rich fuels such as natural gas, methane and propane into electricity and water through a catalytic process that separates the protons and electrons in hydrogen. When the waste heat is used to heat water, the units are 85 percent efficient in converting fuel to energy.

The units have wide applicability that complements BPA’s large-scale distribution system. For instance, they are a good a solution in remote areas where they can replace diesel generators and in industrial and commercial uses where reliable, uninterrupted power is important.

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Energy efficiency project expects to result in big energy savings

BPA recently signed its biggest purchase order to date for energy efficiency work. This multi-million dollar third phase of a project at a General Services Administration facility is estimated to save 2 million kilowatt-hours per year with an associated reduction in peak electric demand of about 1 megawatt. It is another success story for BPA in its catalyst role to help energy efficiency projects that might not otherwise come about.

The 450 Golden Gate building in San Francisco, Calif., is headquarters for Region 9 of the General Services Administration and the largest federal building west of the Mississippi River. Already, information about earlier phases of the project has been published in engineering journals. Phase 3 of the energy project involves replacing the existing inefficient central chiller plant with a new one that is CFC-compliant and replacing the boiler plant. CFC, or chlorofluorocarbon, is a manufactured gas used in refrigeration and air conditioning that reduces ozone in the atmosphere. The building will have a unique chilled water system design and an energy management control system that uses the BACnet protocol. BACnet is a communication protocol for the exchange of data, including lighting and heating, from various buildings. The 450 Golden Gate project is the first large-scale and most important BACnet pilot project in the energy efficiency industry.

BPA's Energy Efficiency has project management responsibilities for this effort, including coordinating contracting services and technical project management. The project is testimony to BPA's partnership efforts in expanding market opportunities for the private sector. The bulk of the work and money for this project will go to the project's private sector general contractor and many subcontractors. Private firms, including some from the Pacific Northwest, will participate in the project that is expected to be completed by spring 2000.

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BPA and island utility collaborate on underwater transmission cable

BPA will install about 7 miles of underwater cable and Orcas Power and Light (OPALCO) will install about 2 miles of overland cable to provide electrical service to OPALCO's service area in the San Juan Islands, Wash.

The OPALCO cable is replacing two smaller underwater cables, one that failed in 1994 and another, still in service, that is nearing the end of its projected 30-year life. To meet expected load growth, the new cable will have about 30 percent more capacity than the two older cables combined.

The 100 megawatt cable will start at a BPA substation in Anacortes, Wash., cross the Rosario Strait underwater, go overland at Decatur Island, go back underwater through Lopez Sound and go overland to the BPA substation on Lopez Island. The new cable is expected to be in operation by October 2001.

OPALCO will install the overland portion and BPA will do the work at its two substations. BPA will pay a contractor to build and install the underwater cable. BPA's total cost is estimated at about \$13 million.

In the past, BPA used to fund the construction of most new transmission facilities for its public utility customers. With the advent of electricity deregulation and federal mandates that all transmission users be treated equally, BPA has a new policy of cost-sharing with its public utility customers. The cost-share policy helps BPA manage dwindling capital assets. BPA has limited borrowing authority from the U.S. Treasury. Since 1992 BPA has cut its transmission capital budget from about \$350 million to less than \$100 million a year. Cutting capital investments helps lower transmission rates by lowering principal and interest payments on the funds BPA has borrowed.

High costs to provide transmission to its island service area make OPALCO's electric rates some of the highest of any public or investor-owned utility in the Pacific Northwest. Many of the 20 islands in its service area have no ferry service and are accessible only by private boat or plane.

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BPA continues low-income weatherization program

BPA will extend funding to continue the low-income weatherization program through September 2001. The program was set to end in September 1999. The NW Energy Coalition and representatives from Washington, Oregon, Idaho and Montana have been concerned about the impact on low-income households if the program were to end in September. BPA Administrator Judi Johansen decided to make \$3 to \$4 million available annually to continue the program through 2001. BPA is currently working

with its utility customers to create local funding sources for low-income weatherization after 2001.

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Liquid assets are frozen

At mid-May BPA was buying power. It seemed the height of improbability that in the spring following a winter with abundant rain and snow, there was no runoff. But that's the kind of year it's been. For the week ending May 20, the natural streamflows in the Columbia River at The Dalles, Ore., had dropped to only 66 percent of average. The reason the water was missing was simple — it was still on the slopes of the region's mountains in the form of snow. The National Weather Service reported that the first 13 days of May were the coldest on record for Seattle. Similar unseasonably cold conditions prevailed over most of the Columbia Basin during that time. With reservoirs poised to capture the above normal runoff expected, the big question remained — would this be a green tomato summer? Mother Nature appeared to begin cooperating in the third week of May. Warmer temperatures began to melt the snowpack, pushing streamflows from 60 percent of average on May 17 to 134 percent of average by May 26.

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Canadian Entitlement update

Canada and the U.S. recently announced an agreement that will allow Canada to dispose of its Canadian Entitlement power in the U.S. The agreement saves an estimated \$100 million total for Canada and the U.S. by not having to build new transmission lines to deliver the power back to the border and saves other transmission costs because Canada can dispose of its Canadian Entitlement directly in the U.S.

The agreement benefits both countries because it provides an opportunity for BPA and British Columbia to enter into mutually agreeable deals such as energy exchanges, which will benefit customers on both sides of the boarder. If Canada sells all its power in the U.S., it saves \$40 million (U.S.) in transmission losses it would otherwise incur.

The Canadian Entitlement is part of the Columbia River Treaty. The treaty between Canada and the United States, ratified in 1964, required construction of three Canadian storage dams — Mica, Keenleyside and Duncan — and allowed the U.S. to construct one, Libby Dam in Montana, which impounds water upstream into Canada.

The treaty dams more than doubled the storage capacity of the Columbia River hydro system, adding major downstream electric power and flood control benefits. The Canadian Entitlement totals somewhat more than 500 average megawatts of energy and nearly 1200 megawatts of capacity. The treaty requires the U. S. to return to Canada half of the electric power benefits produced in the U.S. from the Canadian storage projects. Canada sold its share of the power benefits to a consortium of U.S. utilities for the first 30 years of the treaty based on completion dates of the three new Canadian dams.

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Northern pikeminnow season begins

The 1999 northern pikeminnow season began May 3 and runs through Sept. 26, with an increase in cash rewards from last year. For every northern pikeminnow 11 inches or longer returned to a registration station, anglers will receive \$4 to \$6. Northern pikeminnow are predators of young salmon, devouring millions of smolts each year. Since 1990, anglers have caught over 1.2 million northern pikeminnow in the Snake and Columbia rivers. Biologists estimate that the program has reduced predation on young salmon by 38 percent. BPA and the region's ratepayers sponsor the program as part of the effort to protect and enhance fish and wildlife affected by hydropower development. The Pacific States Marine Fisheries Commission, Washington Department of Fish and Wildlife, Oregon Department of Fish and Wildlife and the Columbia Basin Tribes implement the program. For more information, call the Washington Department of Fish and Wildlife's sport reward hot line at 1(800) 858-9015.

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PUBLIC INVOLVEMENT

Status Reports

Big Eddy-Ostrander Vegetation Management EA. Ore. — To control vegetation on two segments of the 500- kV transmission line right-of-way. One segment is from Lolo Pass to near Parkdale. The other segment is east of Parkdale. An EA is being prepared. Call to be added to the mail list.

Fourmile Hill Geothermal Development Project EIS (Calpine). No. Calif. — A geothermal power plant and new transmission line have been proposed on Forest Service land in the Klamath and Modoc forests. BLM has the lead. BPA is a cooperating agency. A final EIS and summary are available. Call to receive a copy.

Johnson Creek Artificial Propagation Enhancement. Idaho — Development of a native chinook salmon broodstock for rearing of acclimated smolts to preserve and recover the population. An EA is being prepared. Call to be added to the mail list.

Mid-Columbia Coho Reintroduction Feasibility Project. Wash. — To implement various studies and research projects on the feasibility of restoring coho salmon to the mid-Columbia tributaries. The Yakama Indian Nation and the Washington Department of Fish and Wildlife are cooperating agencies. A final EA (#1282) and FONSI are available. Call to receive a copy.

Northwest Regional Power Facility. Wash. — To construct a combustion turbine near Creston. The final EIS (#2887) and a supplement analysis are available. Call to receive a copy.

Reedsport-Fairview Transmission Project. Ore. — To improve reliability and limit maintenance costs on a segment of Reedsport-Fairview No. 1, a 115-kV transmission line. Would either replace a segment of the line with a shorter line in a new location or rebuild the segment where it is now. Comments on preliminary EA (#1286) are being addressed. Call to be added to the mail list.

South Oregon Coast Reinforcement EIS. Ore. — To reinforce electrical service to the southern Oregon coast and provide the necessary transmission for Nucor Corp. to build a new steel mill in the Coos Bay/North Bend area. The Bureau of Land Management, Forest Service, U.S. Fish and Wildlife and Corps of Engineers are cooperating agencies. A draft EIS is being prepared. Call to be added to the mail list.

Telephone Flats Geothermal Project EIS (CalEnergy). No. Calif. — A geothermal power plant and new transmission line have been proposed on Forest Service land in the Modoc Forest. BLM has the lead and BPA is a cooperating agency. The final EIS (#0298) and summary are available. Call to receive a copy.

Vegetation Management Program EIS. Regionwide — To develop a vegetation management program while maintaining a safe and reliable transmission system. The draft EIS is being prepared. Call to be added to the mail list.

CLOSE OF COMMENT

Subscription power sales and standards of service: **June 11**

Subscription power sales to customers and customers' sales of firm resources (net requirements): **June 11**

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Acronyms:

EA: Environmental Assessment

EIS: Environmental Impact Statement

FONSI: Finding of No Significant Impact

NOI: Notice of Intent

ROD: Record of Decision

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We welcome all comments from you at Journal-AC, Bonneville Power Administration, P.O. Box 3621, Portland, OR 97208-3621 or enballa@bpa.gov.

For More Information or To Get Involved:

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