

journal

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www.bpa.gov/corporate/pubs/Journal

BPA partners in Smart Grid proposal

BPA is partnering with other regional entities to bring a Smart Grid Demonstration Project to the Pacific Northwest. The Battelle Memorial Institute, Pacific Northwest Division, the lead applicant, submitted a proposal for funding to the Department of Energy in August.

The region is proposing a five-year, \$178 million project, with about half provided through the American Recovery and Reinvestment Act. BPA is contributing \$10 million, with those funds eligible for matching funding from DOE. If the proposal is accepted, DOE could start dispersing funds by December 2009.

Smart Grid is a system that uses various technologies to enhance power delivery and use through intelligent two-way communication. The demonstration project would span five states and include 12 utilities, four universities and several technology partners, as well as BPA.

Habitat purchases up to 5,000 acres

From northwestern Montana to a remote corner of Nevada, land has been set aside to protect acreage around delicate riparian habitat for both fish and wildlife. Just in the current fiscal year, BPA has funded purchase of



Site of 60-acre conservation easement funded by BPA in Okanogan County, Wash.

over 5,000 acres of land to be used as protected habitat as mitigation for habitat losses due to the construction of federal dams.

Agreements now nearing completion include, in Montana, a 70-acre parcel along the north shore of Flathead Lake, a 543-acre conservation easement also along the lake and two conservation easements in the Jocko River watershed. Projects about to conclude in Washington include a 60-acre conservation easement along Hancock Creek in Okanogan County and a 32-acre acquisition along the Yakima River just outside Cle Elum.

Fact sheets on these projects are available at www.efw.bpa.gov/.

Infrared camera searches out habitat

Normally the infrared camera mounted on a BPA helicopter is used to search for hot spots on transmission lines. But recently, the camera was flown over salmon spawning streams in central Idaho to pinpoint areas where habitat restoration would do the most good.

BPA biologist Joe DeHerrera came up with the idea to use thermal-imaging technology to reveal temperatures in the Lemhi and Pahsimeroi rivers. The test used a FLIR (Forward Looking Infrared) camera to identify cool spots that should be protected and hot spots where restoration of streamside vegetation could cool the water and make it more hospitable to fish.

BPA biologists are sharing the video images from this initial test with their counterparts at local, state and other federal agencies concerned with salmon recovery. Temperature data from the images may be especially useful in prioritizing habitat projects for funding.

Meters to help forecast wind

BPA installed the first of 14 anemometers in August specifically designed to help forecast for wind turbines. The installation at BPA's Troutdale Substation just off the Columbia River Gorge is part of a larger plan to help wind developers more accurately forecast this typically unpredictable energy resource.

The wind meters will transmit information about wind direction and speed with improved accuracy. Installers will mount them atop towers in strategic locations around the region. Together, they will help paint a picture of what the wind is doing at any given moment and help forecast what it will do within the next hour.



This will allow power schedulers to more accurately match up resources with demand and in a much shorter time frame. BPA will complete installation of the units in October. The agency will develop a complete wind forecasting system by March 2010, and by September 2010 BPA dispatchers will have display screens of real-time wind generation and next-hour wind forecasts.

Silverstein heads Transmission

Brian Silverstein has been named BPA's senior vice president for Transmission Services. Silverstein has been acting in the position since April. Silverstein oversees the day-to-day operation of about 75 percent of the Northwest region's transmission grid. He also will supervise the most aggressive expansion of BPA's transmission grid since the 1970s, as well as operational solutions to facilitate the rapid expansion of wind energy interconnected to BPA's grid.



Wind reaches 2,000 MW milestone

BPA's transmission grid reached a milestone, carrying more than 2,000 megawatts of wind power for more than an hour on Aug. 6. After flirting with the 2,000-megawatt threshold for weeks, total wind generation on BPA's system blew right past that level at 5:15 p.m., reaching a new all-time peak of 2,089 megawatts at 6:19 p.m. This doubles the peak of 1,000 megawatts recorded in January 2008. To put that in context, wind turbines in eastern Oregon and Washington produced enough electricity to light all of Seattle and Portland for that hour.

Demand response shows promise

BPA's Energy Efficiency team is conducting a pilot project with Seattle City Light and Lawrence Berkley National Laboratory to demonstrate how demand response technologies can be used to reduce energy consumption during peak loads and put some flexibility back into the system.

Demand response technologies are tools that can help utilities maintain service during critical times.

The pilot project called for five Seattle commercial buildings to install demand response technologies and run four test events this past winter. The program was

expanded to include a summer test. This will be the first time this technology will be used to address both summer and winter peaks in the same facility. Results from the initial test showed reductions in energy use ranging from 10 to 20 percent.

Construction under way on new line

This summer, BPA broke ground on the first line in what is proposed to be a major transmission expansion. When energized in late 2012, the 79-mile-long McNary-John Day 500-kilovolt line will allow BPA to provide transmission service to more than 625 megawatts of energy, including service for more than 575 megawatts of new wind energy.

The line will run from McNary Substation in Oregon, across the Columbia River into Washington, and back into Oregon where it will end at the John Day Substation.

The go-ahead on the line was enabled by a \$3.25 billion expansion of BPA's borrowing authority included in the American Recovery and Reinvestment Act. While this is not an appropriation – BPA will pay the U.S. Treasury back with interest – it gave the agency confidence to move forward with construction. Without this economic stimulus, BPA likely would have exhausted its borrowing authority by 2013.

Throughout the summer, crews have been building roads and erecting steel towers for the line. The project is expected to create between 100 and 200 construction jobs at its peak, using regional contractors and buying materials within the region.

BPA also is moving forward with environmental reviews for three additional high-voltage transmission lines. These include the Big Eddy-Knight and Central Ferry-Lower Monumental projects and the I-5 Corridor Reinforcement.

Together, these four transmission projects would add more than 225 miles of lines to the Northwest transmission grid, improving reliability and, together with a related smaller line upgrade, allowing BPA to provide transmission service to about 3,700 megawatts of additional power, the bulk of which is green energy.

Transmission agreements signed

BPA conducted a second Network Open Season this spring. By the August deadline, 16 customers had signed 34 preliminary transmission service agreements with BPA for 1,553 megawatts of transmission service. Approximately 60 percent of the requested service is for wind generation.

Now that agreements have been signed, BPA will determine the available transmission capacity it can use to offer service immediately and then conduct a cluster study to determine whether any system upgrades or new lines are needed to provide additional service.

In a related action, in August, the Federal Energy Regulatory Commission issued a declaratory order approving BPA's 2009 Network Open Season Process.

NEW PROJECTS

Grand Coulee Dam Line Replacement – Okanogan, Grant and Douglas counties, Wash.

The Bureau of Reclamation has asked BPA to design and construct six new 500-kV transmission lines at Grand Coulee Dam. The proposed overhead lines would replace aging underground lines between Grand Coulee's third powerhouse and the 500-kV spreading yard. The project would help ensure safe and reliable transmission from Grand Coulee. BPA and Reclamation held a public scoping meeting in August prior to preparing an EA. Comments will be accepted through Sept. 14. For more information, go to BPA's Web site www.efw.bpa.gov/environmental_services/Document_Library/Grand_Coulee/.

FISH AND WILDLIFE – PROJECTS UNDER REVIEW

Chief Joseph Hatchery Program – Okanogan County, Wash.

This program, sponsored by the Confederated Tribes of the Colville Reservation, would assist in mitigation and recovery of summer/fall chinook salmon in the Okanogan subbasin and the Columbia River below Chief Joseph Dam. A final EIS and ROD are expected in fall 2009. The U.S. Army Corps of Engineers is a cooperating agency in the EIS. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Chief_Joseph/.

Klickitat Hatchery Program EIS – Klickitat County, Wash.

BPA will prepare an EIS on proposed changes to the existing salmon and steelhead hatchery program in the Klickitat subbasin in Klickitat and Yakima counties, Wash. The Washington Department of Fish and Wildlife will participate on the EIS. The proposal calls for modifying the Klickitat Hatchery as well as building new facilities at various sites. BPA accepted comments. For more about the project, go to www.efw.bpa.gov/environmental_services/Document_Library/Klickitat_Hatchery_Program/.

Yakama Nation – Mid-Columbia Coho Restoration Project

BPA will prepare an EIS that addresses reintroducing coho salmon into mid-Columbia River basin tributaries in Chelan and Okanogan counties, Wash. The Yakama Nation would sponsor the project with BPA funding. The tribe has prepared a master plan that would use existing hatchery facilities, construct new permanent and temporary facilities, and modify existing ponds or side channels. BPA held public scoping meetings in August and will accept comments through Sept. 15. For information, go to BPA's Web site www.efw.bpa.gov/environmental_services/Document_Library/Mid-Columbia_Coho_Restoration_Project/.

Northeast Oregon Hatchery Program, Grande Ronde-Imnaha Spring Chinook Hatchery Project – Wallowa County, Ore.

BPA has conducted value engineering, land acquisition and design according to the initial ROD signed March 11, 2005. A ROD authorizing construction is planned for late winter 2010 to coincide with National Marine Fisheries Service review of the program's Hatchery Genetics Management Plan. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Grand_Ronde/.

POWER – PROJECTS UNDER REVIEW

TRM Supplemental Rate Case – Nationwide

BPA earlier issued a draft ROD on proposed modifications to the Tiered Rate Methodology to be used to determine the Priority Firm Preference rate beginning Oct. 1, 2012. The 90-day expedited rate case concludes in early September with release of a final ROD. The TRM, together with new power sales contracts, is a key component of implementing BPA's post-2011 power marketing policy and tiered rate construct. For more information, go to www.bpa.gov/corporate/ratecase.

DSI Service – Nationwide

BPA released for public review a draft contract template that describes terms of a seven-year agreement for power sales to aluminum direct service industries between Oct. 1, 2010, and Sept. 30, 2016. Comment will be accepted through Sept. 9. Although the draft contract was negotiated with Alcoa, Columbia Falls Aluminum Co. could elect to take service under it, as well. For more information, see BPA's Web site at www.bpa.gov/power/pl/regionaldialogue/implementation/documents/.

Tier 2 pricing – Nationwide

Preference customers must elect by Nov. 1 whether they intend BPA to supply all or a portion of their above-high water mark power needs for FY 2012, 2013 and 2014, and, if so, how much and through what rate alternative. BPA is working with customers to bring greater certainty about the types, costs, risks and other characteristics of resources BPA expects to secure. For information, go to www.bpa.gov/power/pl/regionaldialogue/implementation/meetings/.

TRANSMISSION – PROJECTS UNDER REVIEW

Invenergy Winds Project – Gilliam and Morrow Counties, Ore.

Invenergy requested interconnection to BPA for up to 150 MW from the proposed Willow Creek Winds Project in Gilliam and Morrow counties, Ore. BPA has agreed to interconnect up to 72 MW to BPA's Tower-Alkali 115-kV transmission line in Gilliam County. Invenergy is proposing an additional 78 MW of wind power under the existing request. No new infrastructure would be needed to interconnect the remaining 78 MW; however, some metering equipment would be placed within existing substations. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Horn_Butte_Wind_Project/.

Big Eddy-Knight Transmission Project – Wasco County, Ore., and Klickitat County, Wash.

BPA is preparing an EIS on a proposed new 500-kV transmission line between BPA's existing Big Eddy Substation in The Dalles, Ore., to a new substation (Knight Substation) to connect to an existing BPA line about four miles northwest of Goldendale, Wash. The proposed line is needed to respond to requests for transmission service in this area. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Big_Eddy_Knight/. (See calendar of events).

Central Ferry-Lower Monumental Line Project – Garfield, Columbia and Walla Walla counties, Wash.

BPA is proposing a new 500-kV transmission line between the new BPA Central Ferry Substation in Garfield County to BPA's Lower Monumental Substation in Walla Walla County, Wash. The proposed line responds to requests for transmission service in the area. BPA expects to issue a draft EIS in summer 2010. For more information, go to www.bpa.gov/go/centralferry.

Golden Hills Wind Farm Interconnection – Sherman County, Ore.

BP Alternative Energy requested interconnection of 200 MW of power generated from the proposed Golden Hills Wind Project that would be located in Sherman County, Ore. BPA proposes to interconnect the project by installing equipment and expanding PGE's existing Biglow Substation. BPA would also purchase a portion of the substation and the control house. For more information, go to www.transmission.bpa.gov/PlanProj/Wind/.

Hooper Springs Substation and Hooper Springs-Lower Valley Transmission Line Project

BPA is proposing a new 138/115-kV substation near Soda Springs, Idaho, and partial funding of construction by Lower Valley Energy of a new 22-mile, double-circuit 115-kV transmission line. BPA released a preliminary EA for review in May 2009 and hopes to

issue a FONSI this summer. For more information, go to www.transmission.bpa.gov/PlanProj/Transmission_Projects/.

Kittitas Valley Wind Project Interconnection – Kittitas County, Wash.

Sagebrush Power Partners LLC, a wholly owned subsidiary of Horizon Wind Energy LLC, requested interconnection of up to 108 MW of electricity generated from the proposed Kittitas Valley Wind Project in Kittitas County, Wash. BPA proposed to interconnect the project by building a new substation adjacent to its Columbia-Covington 230-kV line. For more information, go to www.transmission.bpa.gov/PlanProj/Wind/.

Whistling Ridge Wind Interconnection Project – Skamania County, Wash.

SDS Lumber Co. has asked BPA to interconnect its proposed Whistling Ridge Energy Project in Skamania County, Wash., to BPA's grid. WRE would independently build, own and operate the wind project and associated facilities. BPA will prepare a joint EIS with the Washington Energy Facility Site Evaluation Council. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Whistling_Ridge/.

FISH AND WILDLIFE – PROJECTS UNDER CONSTRUCTION

Lyle Falls Fish Passage Project – Klickitat County, Wash.

BPA, in cooperation with the Yakama Nation, Washington Department of Fish and Wildlife and the U.S. Forest Service, completed environmental planning for the Lyle Falls Fish Passage Project. The project will improve fish passage into the upper Klickitat River Basin and will improve facilities for fish monitoring, biological data collection and fish management. Construction began in August 2009 and will be completed in 2010. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Lyle_Falls/.

TRANSMISSION – PROJECTS UNDER CONSTRUCTION

Albany-Burnt Woods/Santiam-Toledo Pole Replacement – Linn, Benton and Lincoln counties, Ore.

BPA is replacing wood poles along sections of the Albany- Burnt Woods and Santiam-Toledo lines in Linn, Benton and Lincoln counties, Ore. Construction began in May and is expected to be completed in December 2009. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Albany/.

Chehalis-Centralia No. 1 Transmission Project – Lewis County, Wash.

BPA is replacing structures and transmission wire along the Chehalis-Centralia No. 1, 69-kV transmission line in Lewis County, Wash. The line is being rebuilt to a standard 115-kV design but will continue to operate at 69-kV until load in the area requires 115-kV operation. Most construction will be within BPA's existing easements and access roads. For information, go to www.transmission.bpa.gov/PlanProj/Transmission_Projects/default.cfm?page=CHECEN.

Leaning Juniper II-Jones Canyon Substation Expansion Wind Interconnection Project – Gilliam County, Ore.

Iberdrola Renewables requested interconnection of up to 200 MW generated from the proposed Leaning Juniper II Wind Power Project. BPA will expand its Jones Canyon Substation by about one acre, adding one 230-kV circuit breaker and two disconnect switches. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Leaning_Juniper/.

Libby-to-Troy Line Rebuild – Lincoln County, Mont.

BPA is rebuilding the 17-mile Libby-to-Troy section of the Libby-to-Bonnors Ferry single-circuit 115-kV transmission line to provide stable and reliable transmission service. Access road construction and improvement and line reconstruction has begun and is expected to be completed in 2010. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Libby/.

McNary-John Day Transmission Line Project – Sherman & Umatilla counties, Ore., Klickitat and Benton counties, Wash.

BPA has broken ground on a 79-mile 500-kV transmission line running between McNary and John Day substations in Oregon but mostly located in Washington parallel to the Columbia River. For more information, go to www.transmission.bpa.gov/PlanProj/Transmission_Projects/.

Olympic Peninsula Transmission Line Reinforcement Project – Thurston and Mason counties, Wash.

BPA completed the EA and FONSI and decided to proceed with moving most of its existing Olympia Shelton No. 1 115-kV transmission line from Olympia Substation to Shelton Substation and replacing 14.5 miles of line into Shelton Substation with a double-circuit 230-kV line. This will improve voltage stability during winter-peak load conditions on the Olympic Peninsula. The project is expected to be complete in fall 2009. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Olympic/.

Palisades-Goshen Transmission Line Reconstruction – Bonneville and Bingham Counties, Idaho

An EA and FONSI were completed in May 2008. BPA decided to rebuild the Palisades Goshen line due to its age and deteriorated condition. Construction on remaining roads will continue, weather permitting, until November and is expected to be complete in 2010. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Palisades/.

SUPPLEMENT ANALYSES

SA-400 Dworshak Power House-Dworshak #1, Clearwater County, Idaho

SA-401 Taft-Bell #1, Mineral County, Montana and Shoshone and Kootenai Counties, Idaho

SA-402 South Tacoma-Cowlitz #1, Pierce County, Wash.

SA-403 Cowlitz Tap to Chehalis-Covington #1, Pierce County, Wash.

CALENDAR OF EVENTS

To view BPA's public involvement calendar, go to www.bpa.gov/corporate/public_affairs/Calendar/.

CLOSE OF COMMENT

Sept. 9 – Draft DSI seven-year contract

Sept. 14 – Grand Coulee Dam Line Replacement

Sept. 15 – Mid-Columbia Coho Restoration Project

The Journal is a monthly publication of the Bonneville Power Administration. If you have questions or comments, or you want to be added to the mailing list for any project, call toll free (800) 622-4519.

To order copies of documents, call: (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. BPA home page: www.bpa.gov. For details on BPA environmental reviews listed above, including site maps and documents issued to date, see www.efw.bpa.gov/environmental_services/nepadocs.aspx. Process Abbreviations: EA-Environmental Assessment, EIS-Environmental Impact Statement, ESA-Endangered Species Act, FONSI-Finding of No Significant Impact, NOI-Notice of Intent, ROD-Record of Decision.