

Journal

February 2010

New wind technique moves forward

With 2,500 megawatts connected, BPA's system has the highest ratio of wind-to-peak load in the country, and the agency is continually working to improve transmission management for variable wind generation. To that end, BPA sought comment on a draft dynamic transfer business practice last month and expects to begin using the business practice Feb. 15 on a pilot basis.

Dynamic transfer is one of the most promising techniques to reliably and cost-effectively integrate large amounts of variable renewable generation. Essentially, it allows a utility to remotely control and manage a power plant in another utility's transmission system.

The practice will go into effect when a companion study identifying available capacity on key paths is complete. This study will show how much dynamic transfer capability BPA can reliably allocate on 11 high-priority transmission paths. It also will produce a methodology for determining available dynamic transfer capacity on other BPA transmission paths.

A credible, repeatable, transparent methodology for determining dynamic transfer capability could potentially allow BPA to serve more variable generation than the federal hydro system alone could support. The study is expected to be released in mid February.

For more information, go to www.transmission.bpa.gov/wind/dynamic_transfer/default.cfm.

BPA, EPRI work on linemen safety

BPA's High Voltage Lab in Vancouver, Wash., hosted a recent Electric Power Research Institute study on how to protect high-voltage workers from arc flashes and arc-related injuries. This research could make linemen across the country, even the world, safer.

The goal is to help protect the live-line workers who may be on a structure during an unintended flashover. When an insulator flashes over, it produces an arc, which is extremely hot and poses a danger to workers. In a test at the BPA lab, researchers triggered a flashover and measured temperatures to see what workers would be exposed to.

The test gave researchers real-world data to confirm the validity of computer analyses. This information will help determine what sort of protective clothing linemen should wear to keep them safe in the event of a flashover.

PSU researches invasive mussel risk

Portland State University is conducting a BPA-funded study near Lake Mead in Nevada to test the vulnerability of the Columbia River system to invasive zebra and quagga mussels. The alien mussels have already infested Lake Mead and the Colorado River, encrusting dam structures, obstructing pipes and crowding out local species. The Columbia is the last major American river without them.

Because it is illegal and dangerous to bring mussels to the Northwest to test, a researcher had to haul 100 gallons of Columbia River water to Lake Mead to find out how well the mussels will take to it. Columbia River water naturally contains less calcium than other rivers and lakes where the mussels have spread. The mussels need calcium to build their shells and cinch the shells tight.

Researchers will place quagga mussels in cups of Columbia River water to see if they grow. They'll also test whether certain calcium levels fuel mussel growth.



Trucking Columbia River water to Lake Mead, Nev., will help researchers learn whether the Columbia's low calcium content might help protect the rivershed from quagga mussel proliferation.



Since calcium levels typically depend on local geology, it could help officials prioritize efforts to keep mussels out of areas where they might most likely multiply.

Studies suggest that the costs of controlling mussels in the Columbia River hydro system could total more than \$20 million up front, with additional continuing costs. Their spread could also wreak ecological havoc by displacing native species.

BPA, working with the Pacific States Marine Fisheries Commission and the interagency 100th Meridian Initiative, helps fund monitoring of Northwest waters for signs of quagga or zebra mussels. BPA also helps fund public awareness and prevention efforts urging recreational boaters to make sure they do not inadvertently bring invasive mussels to the Northwest.

Coho comeback exceeds expectations

Record returns of coho salmon to the middle and upper Columbia River signal the comeback of fish that 20 years ago were virtually extinct in upriver tributaries.

Reintroduction programs led by the Yakama Nation and funded in part by BPA have combined with restored habitat, improved dam passage and positive ocean conditions to bring unrivaled numbers of coho back to the rivers and streams, according to 2009 counts.

Ten years ago, 12 adult coho returned past Rock Island Dam near Wenatchee, Wash. In 2009, nearly 20,000 passed the dam. Returns past McNary Dam near Hermiston, Ore., climbed from just under 5,000 coho a decade ago to more

than 33,000 last year — by far the most since counting began at the dam in 1954.

The rise in adult coho returning past seven or more mainstem Columbia dams to spawn this winter in upriver tributaries exceeds all expectations, according to Tom Scribner, the Yakama Nation's project leader. While most of the fish came from hatcheries, an expanding share comes from natural spawning that biologists hope will resurrect self-sustaining wild stocks.

The return of spawning coho to the upper Columbia reflects the success of a pioneering reintroduction strategy that no one had attempted before. The program is funded by BPA, Chelan County Public Utility District, Grant County Public Utility District and NOAA Fisheries.

Irrigation diversions and development wiped out some 90 percent of native coho from the middle and upper Columbia during the late 1800s. A remnant population hung on but largely vanished by about 1980. Upriver coho did not receive protection under the Endangered Species Act, since none were left to protect.

Comments plentiful on I-5 project

More than 400 people commented on BPA's proposed I-5 Corridor Reinforcement Project (transmission line) during the formal scoping period late last year, and a summary of these comments is available online at www.bpa.gov/go/i-5.

Commenters included landowners, concerned citizens and interest groups. BPA also heard from local, state, tribal and federal government agencies. Concerns centered on a wide range of issues, including:

- location and design of the proposed line
- access to private property
- potential health risks related to transmission lines
- impact to property values, ability to sell land and inherent quality of life
- impacts to natural environment including plants and wildlife

BPA is using comments and additional studies to shape the scope and content of its draft environmental impact study. The agency is considering new options for segments and considering underground transmission options. BPA also will study potential effects of electric and magnetic fields and will include a third-party review of current scientific literature in the draft EIS.

The project arises out of increasing transmission congestion in southwest Washington and northwest Oregon, where the system has reached limits that now threaten reliability. BPA has not built new transmission in the area for 40 years. The agency has used a combination

Earn cash for reporting crimes



Two recent substation break-ins in Oregon and Washington are the latest in a string of crimes in BPA's transmission system.

Vandalism on BPA property has serious economic

consequences including disrupting power to communities, hospitals, police and fire. Vandalism to the transmission system also can kill. Downed power lines can lead to deadly ground voltages and can ignite forest or field fires.

Through its Crime Witness Program, BPA will pay up to a \$25,000 reward for information leading to the arrest and conviction of individuals who commit a crime on BPA property. Anyone with information about such crimes should call BPA's confidential and toll-free Crime Witness Hotline at 800-437-2744 or contact local law enforcement.

of aggressive conservation measures and technical solutions to keep pace with the area's energy needs. The agency expects to decide whether to build the line in 2012. If the decision is to build, a final route would be identified.

For more information, go to www.bpa.gov/go/i-5. To see the full comment summary, select "Search Comments."

BPA extends Port Townsend agreement

BPA has extended the Port Townsend Paper Co. contract through May 2011 to coincide with a similar contract term for a power sale contract with Alcoa. The loads from the power sale agreements for the direct service industries provide additional benefits from transmission savings and demand shift. Both Port Townsend and Alcoa are direct service industries.

BPA signed the original 14-month contract with the paper company last November for power sales from Nov. 15, 2009, to Dec. 31, 2009. When BPA signed a subsequent and similar agreement with Alcoa, Inc., on Dec. 21, 2009, the agency used an updated method to determine equivalent benefits consistent with a court ruling. Therefore, the same method was applied to all DSIs, including the block contract with Port Townsend.

As a result, BPA forecast it will achieve additional benefits from serving the company that would support extending the contract through May 2011, resulting in a 19-month power sale agreement. The final power sale agreements and records of decision are posted on BPA's Web page at www.bpa.gov/power/pl/regionaldialogue/implementation/documents/#SDSI.

Public Involvement [Updates & Notices]

NEW PROJECTS

Albany-Alderwood Tap transmission line rebuild [Lane and Linn counties, Ore.]

BPA is proposing to rebuild approximately 25 miles of a 115-kilovolt wood pole transmission line. The line dates to 1940 and is deteriorating. Maintenance is no longer adequate to provide reliable service. The line would be upgraded to the current standard conductor and hardware for 115-kV lines, replacing most double wood-pole structures in the same location. Some wood poles may be replaced with single-pole steel structures. BPA will begin scoping this month. A public meeting will be scheduled for late February or early March. BPA will produce a preliminary EA in fall or winter 2010 and hold another comment period.

Bandon-Rogue No.1 transmission line rebuild [Coos and Curry counties, Ore.]

BPA seeks comment on a proposed rebuild of the 115-kilovolt wood-pole Bandon-Rogue line. The 46-mile line extends from the Bandon Substation to the Rogue Substation near Nesika Beach. The project calls for replacing wood poles and conductor, road improvements and vegetation removal. The line would continue to operate at 115-kV. BPA will accept comments Feb. 22 through March 19. Public meetings will be held this month in Bandon and Port Orford, Ore., (see calendar). BPA will produce a preliminary EA in fall or winter 2010 and hold another comment period.

Juniper Canyon I Wind Interconnection Project [Klickitat County, Wash.]

Iberdrola Renewables, Inc., has asked BPA to interconnect up to 150 megawatts from the proposed Juniper Canyon I Wind Project. This would require BPA to expand its existing Rock Creek Substation to construct an additional 230-kV terminal and install communication and metering equipment. Iberdrola would independently build, own and operate the wind project and associated facilities. BPA accepted comments on the proposed project through Jan. 30. After the scoping period, BPA will determine if the decision to interconnect this project is consistent with its Business Plan EIS and will prepare a ROD tiered to the plan's EIS and ROD. BPA would then complete the environmental review of the proposed action in early spring 2010. For more information, go to www.efw.bpa.gov/environmental_services/Document_Library/Juniper_Canyon_Wind/.

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 benefit summer/fall chinook salmon in the Okanogan subbasin and the Columbia River below Chief Joseph Dam. A final EIS was released in November 2009, and a ROD is expected in spring 2010. The U.S. Army Corps of Engineers is a cooperating agency in the EIS. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Chief_Joseph/.

Klickitat Hatchery Program EIS [Klickitat County, Wash.]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Klickitat_Hatchery_Program/.

Yakama Nation Mid-Columbia Coho Restoration Project [Chelan and Okanogan counties, Wash.]

For information, go to 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.]

A ROD authorizing construction, operations and maintenance is planned for spring 2011, after NOAA Fisheries Service's review of the program's Hatchery and Genetic Management Plan. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Grande_Ronde/.

POWER – PROJECTS UNDER REVIEW

Draft Resource Program [Regionwide]

BPA took comments on a draft Resource Program through Nov. 30. The draft examines the agency's projected power supply needs for 2012–2019 under Regional Dialogue contracts. BPA will revise the draft, in part based on comment, and expects to release a final Resource Program this summer. For information, go to www.bpa.gov/power/P/ResourceProgram/Index.shtml.

TRANSMISSION — PROJECTS UNDER REVIEW

I-5 Corridor Reinforcement Project [Oregon and Washington]

BPA is proposing a new 500-kilovolt transmission line from a new substation near Castle Rock, Wash., to a new substation near BPA's Troutdale Substation, Troutdale, Ore. BPA hosted an extensive public comment period to help identify issues for the EIS. The formal scoping comment period closed Dec. 14. On Dec. 21, BPA announced it would eliminate four segments from the project. BPA will accept comments throughout the life of the project. A scoping summary report will be released in February summarizing comments. A draft EIS is scheduled for spring 2011 followed by another formal comment period. For information, go to www.bpa.gov/go/i5.

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

BPA is proposing a new 500-kilovolt transmission line between BPA's existing Big Eddy Substation in The Dalles, Ore., and a new substation (Knight) under an existing BPA line about four miles northwest of Goldendale, Wash. BPA sought comment on the project and hosted two public meetings to help determine issues it should study in the EIS. In December 2009, BPA invited additional comments on refinements to the proposal. BPA expects to issue a draft EIS in spring 2010. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Big_Eddy_Knight/.

Central Ferry Substation [Garfield County, Wash.]

BPA accepted comments through Nov. 13 on a proposed 500/230-kilovolt substation to interconnect Puget Sound Energy's Lower Snake River Wind Energy Project. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Central_Ferry_Substation_Project/.

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

The Bureau of Reclamation asked BPA to construct six new 500-kV overhead transmission lines at Grand Coulee Dam to replace aging underground lines between the dam's third powerhouse and the 500-kV spreading yard. A draft EA is scheduled for release in March 2010. BPA will hold a public meeting in Grand Coulee to seek comment on the draft EA. The final EA is scheduled for release in May 2010. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Grand_Coulee/.

Whistling Ridge Wind Interconnection Project [Skamania County, Wash.]

BPA is currently preparing a joint EIS with the Washington Energy Facility Site Evaluation Council. A draft EIS should be available in spring 2010. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Whistling_Ridge/.

Transmission Services Facility Project [Vancouver, Wash.]

BPA is considering building a new office building on its Ross Complex in Vancouver to meet work space needs. For information, go to www.efw.bpa.gov/pdf/Transmission_Services_September_2009.pdf.

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 and BPA's Lower Monumental Substation in Walla Walla County, Wash. BPA expects

to issue a draft EIS in spring 2010. For information, go to www.bpa.gov/go/centralferry.

Horn Butte Wind Project [Gilliam and Morrow counties, Ore.]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Horn_Butte_Wind_Project/.

Kittitas Valley Wind Project Interconnection [Kittitas County, Wash.]

For information, go to www.transmission.bpa.gov/PlanProj/Wind/.

FISH AND WILDLIFE — PROJECTS UNDER CONSTRUCTION

Lyle Falls Fish Passage Project [Klickitat County, Wash.]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Lyle_Falls/.

TRANSMISSION — PROJECTS UNDER CONSTRUCTION

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

For information, go to www.transmission.bpa.gov/PlanProj/Transmission_Projects/.

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

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Leaning_Juniper/.

Palisades-Goshen Transmission Line Reconstruction [Bonneville and Bingham counties, Idaho]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Palisades/.

SUPPLEMENT ANALYSES

SA-412 Ross-Lexington — Clark and Cowlitz counties, Wash., 12/18/09

SA-414 Custer-Intalco #1 — Whatcom County, Wash., 1/8/10

SA-415 Custer-Intalco #2 — Whatcom County, Wash., 1/8/10

SA-416 Raver-Covington #1 & #2 — King County, Wash., 1/13/10

SA-417 Custer-Ingledow #1 & #2 — Whatcom County, Wash., 1/13/10

CALENDAR OF EVENTS

To view BPA's public involvement calendar, go to www.bpa.gov/corporate/public_affairs/Calendar/. For Americans with Disabilities Act accommodations, please call toll free 800-622-4519.

Quarterly Business Review:

- **Feb. 2**, 1 to 4 p.m., Rates Hearing Room

Bandon-Rogue public meetings:

- **Feb. 23**, 4 to 7 p.m., Bandon Community Center, Bandon City Park, 1200 11th St. SW, Bandon, Ore.
- **Feb. 24**, 3 to 7 p.m., Port Orford Community Building, 419 E. 11th St., Port Orford, Ore.

CLOSE OF COMMENT

March 19, 2010 — Bandon-Rogue No.1 transmission line rebuild

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.

