

Journal

December 2011

Student program brings new brains to BPA

Natalie Husmann, a young BPA electrical engineer, flew to Libby, Mont., this fall to see the site of her first substation. BPA's planned Sedlak Park Substation will provide power to what could be the largest copper mine in North America. It's Husmann's first from-scratch substation design assignment.

How'd she get there? Science and math. Math and science.

At the University of Washington, Husmann majored in electrical engineering. She found a summer internship at BPA through a school career fair. When school resumed, Husmann stayed on with BPA.

"It was great. BPA paid for my last two quarters, and I had a job waiting for me when I graduated," she said. BPA's Student Career Experience Program gave Husmann pay, benefits and on-the-job experience while she studied. She came on board permanently in April 2010 after successful completion of her student work and her degree.

Husmann worked initially on equipment repair and setting standards for mobile equipment. Now, she's an outdoor substation designer, heading to the field with a hardhat strapped to her backpack.

For information on BPA employment opportunities, go to www.jobs.bpa.gov.

Long-retired BPA engineer and his work still revered

It could be said that William F. Tinney is a father of the modern, digital electric grid. After all, he cracked the code that enabled the expansion and safe operation of today's power networks. That was more than 40 years ago, yet his work at BPA still wins recognition.

Most recently, Tinney was presented with the 2011 Institute for Electrical and Electronics Engineers Medal in Power Engineering. This is no small honor. The IEEE is the world's largest technical professional association

dedicated to advancing technology for the benefit of humanity.

Find out how Tinney solved the power flow problem, giving rise to the modern-day grid, at www.bpa.gov/go/news.

Big savings shine through new windows

If you're looking out an inefficient window, you're spending more than you should to heat or cool your home. Windows can account for half of a home's heat gain and loss. That's why BPA's Technology Innovation Office is funding a research project that evaluates high-performance energy efficient windows. The testing phase of the study is under way at the Department of Energy's Pacific Northwest National Laboratory in Richland, Wash.

According to DOE, advances in window insulation quality, such as three panes of glass and coatings, substantially reduce heat loss and gains. High performance windows are also framed with low conductance materials, such as wood, vinyl and fiberglass, which perform better than aluminum,

Watch us work

FIND OUT WHAT WE'RE UP TO. This month, we show you how:

- **NORTHWEST TRIBES PROVIDE** electricity, prove power to lead. Ten years ago, Northwest tribes and BPA formed a powerful agreement creating the agency's first tribal-owned utilities. This video celebrates the partnership's success.
- **BPA IS HELPING RESTORE** wild salmon habitat on the Middle Fork John Day River. This previously mined section of the river could become the best spawning grounds in the entire John Day basin.

TO WATCH these and other videos, go to www.bpa.gov/go/news. You can also visit our **Facebook** page and **YouTube** channel.



and use special insulating spacers to minimize heat conduction through the frame.

The testing involves two well-insulated, 1,500 square-foot single-wide manufactured homes. The home that functions as the control for the test resembles an average home with windows rated for cold climates; the other home has high-performance windows.

For the next nine months, researchers will analyze the data to determine the energy savings of the home with the high-performance windows compared to the control home. Researchers also will compare the comfort in the two homes, as well as the installation costs and structural requirements.

The project is a partnership with PNNL; DOE; the City of Richland, Wash.; Tri-Cities Research District; and Battelle Memorial Institute. BPA and DOE jointly funded the \$200,000 window experiment.

BPA's Technology Innovation Office funds projects that advance technologies for a more efficient Northwest power system. The agency expects to fund about \$10 million on research and development projects this fiscal year.

BPA, CAISO enhance coordination

Northwest wind energy producers can now balance the variable output of their resources by scheduling electricity into California every 30 minutes instead of only once an hour.

A new intra-hour scheduling pilot created by a partnership between BPA and the California Independent

System Operator Corporation will reduce operational issues and expand opportunities for wind power developers.

The first utility to participate in the initiative is Southern California Edison.

The new pilot project doubles the pace of the interstate energy transfers to better match the ups and downs of wind energy, helping to reduce costs for both balancing authorities. Participants can adjust schedules if a wind facility is generating less energy than scheduled, making up the difference with a California resource. Without the pilot's ability to adjust schedules closer to real time, the expected delivery from wind resources is subject to reductions, and that means the ISO has fewer grid dispatch options.

Traditional power plants provided such steady output that utilities have long bought and sold electricity on an hourly basis. But wind is changing that because the energy it produces can vary within mere minutes. The variability of generation must be compensated for because the input and use of electricity must match perfectly in real time to assure reliable service. Opening markets to respond to that variability in smaller time increments is one way to better integrate renewable wind power.

New outlets for wind energy may also ease the need for federal hydroelectric dams to balance unexpected changes in wind generation. In some instances, intra-hour transactions have helped wind producers sell additional energy instead of cutting generation off when the balancing capacity of the hydroelectric system was exhausted.

Public Involvement [Updates & Notices]

AGENCY PROJECTS

Southeast Idaho service (Boardman to Hemingway transmission line option) [Regionwide]

BPA will hold a public meeting Dec. 15 and accept comments through Dec. 23 on its proposed participation in Idaho Power Company's Boardman to Hemingway transmission line. This is one alternative BPA is considering to provide service to its customers in southeast Idaho following the end of deliveries under the South Idaho Exchange in June 2016. For information and to comment, go to www.bpa.gov/comment. [SEE CALENDAR]

Strategic capital discussion [Regionwide]

BPA invites all interested parties to provide input through Dec. 12 on the agency's capital funding scenarios. Demands for capital are exceeding BPA's forecast of available capital financing, requiring the agency to rethink its capital funding strategy. If no action is taken, BPA anticipates its access to borrowing from the U.S. Treasury could be exhausted as early as FY 2016. Discussions on capital funding began in September. Over the past months, BPA analyzed the available borrowing authority with current assumptions about long-term capital

spending and financing and considered options to maintain available Treasury borrowing authority through FY 2022, including the potential impact on long-term rates. For information, go to www.bpa.gov/corporate/Finance/FinancePublicProcesses/2011CapitalStratDisc.cfm

Future programs, costs and rates [Regionwide]

BPA Administrator Steve Wright will lead a high level strategic discussion with regional interests Jan. 31, 2012, on future programs, costs and rates. The discussion will serve as a foundation for the upcoming Integrated Program Review process for the FY 2014 – 15 rate period. [SEE CALENDAR]

Quarterly Business Review [Regionwide]

BPA will hold its Quarterly Business Review Jan. 30. For information, go to www.bpa.gov/corporate/finance/ibr/qbr.

POWER – PROJECTS UNDER REVIEW

Proposed CFAC power sales agreement [Regionwide]

The NEPA analysis for the proposed power sales agreement between BPA and the Columbia Falls Aluminum Company is largely complete.

Under the agreement, BPA would sell 140 average megawatts to CFAC, which could allow CFAC to operate two of five potlines at the Columbia Falls, Mont., smelter. BPA is reviewing this proposal in light of its Direct Service Industry Options EIS and is preparing a Supplement Analysis pursuant to NEPA regulations. The draft agreement is at www.bpa.gov/go/cfacpowersales. The DSIO EIS is at http://efw.bpa.gov/environmental_services/Document_Library/Direct_Service_Industry_Options/.

Albeni Falls winter operations [Regionwide]

A new winter operating regime at Albeni Falls Dam in Bonner County, Idaho will provide increased generation flexibility to serve the winter power needs of Pacific Northwest electricity consumers. The U.S. Army Corps of Engineers, Seattle District and BPA signed an EA evaluating the potential effects of more flexible winter operations Nov. 4. Completion of the Albeni Falls EA allows the Corps to support BPA's requests to store water for power during the winter months under certain conditions. View the EA and its appendices on the Corps website at <http://bit.ly/vEF7EW>.

FISH AND WILDLIFE – PROJECTS UNDER REVIEW

Lolo Creek permanent weir fish trapping facility [Clearwater County, Idaho]

BPA accepted comments through Dec. 2 on a proposal to fund the replacement of a 10-year old seasonal fish weir. A weir is a fence or other structure placed across the creek to block passage for the purpose of catching and retaining fish. The weir would be used to monitor federally-listed Snake River steelhead and for the collection of spring chinook salmon adults to support ongoing supplementation programs in the watershed. For information, go to www.bpa.gov/go/lolocreekweir.

Kootenai River Native Fish Aquaculture Program [Boundary County, Idaho]

BPA expects to release a preliminary EA in spring 2012. For information, go to www.bpa.gov/go/kootenaiaquaculture.

Klickitat Hatchery Complex Program [Klickitat and Yakima counties, Wash.]

BPA expects to release a final EIS in May 2012. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Klickitat_Hatchery_Program/.

Kalispel Memorandum of Agreement [Pend Oreille County, Wash.]

The Kalispel Tribe and the three federal action agencies are proposing to enter a 10-year MOA for fish and wildlife mitigation projects. For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Kalispel_MOA/.

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

BPA expects to release a final EIS in March 2012. For information, go to www.bpa.gov/go/midcolumbiacoho.

Springfield Sockeye Hatchery Project [Bingham County, Idaho]

BPA expects to release a draft EA in December 2011. For information, go to http://efw.bpa.gov/environmental_services/Document_Library/Springfield_Sockeye_Hatchery/.

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

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

TRANSMISSION – PROJECTS UNDER REVIEW

Alvey-Fairview Line Rebuild Project [Lane, Douglas and Coos counties, Ore.]

BPA will accept comments through Dec. 28 on a proposal to rebuild the Alvey-Fairview No.1 transmission line. BPA hosted a public meeting Nov. 30 and will host additional meetings on Dec. 6 and 7. For information, go to http://efw.bpa.gov/environmental_services/Document_Library/Alvey-Fairview/. [SEE CALENDAR.]

Network Open Season and Generation Interconnection Reform [Regionwide]

BPA will host a customer meeting Dec. 6 on Precedent Transmission Service Agreement reforms related to the 2008, 2009 and 2010 Network Open Season processes and results. BPA will announce its decision about customer requests to terminate or modify existing PTSAs. For information, go to http://transmission.bpa.gov/customer_forums/open_season_2011/. [SEE CALENDAR]

I-5 Corridor Reinforcement Project [Oregon and Washington]

BPA will host a public meeting Dec. 8 in Battle Ground, Wash. to provide a project update and listen to input from the public. A draft EIS is scheduled for spring 2012 followed by a formal comment period. For information, go to www.bpa.gov/go/i5. [SEE CALENDAR]

Midway-Benton No.1 Replacement Project [Benton County, Wash.]

BPA is accepting comments through Dec. 14 on a proposal to rebuild the 115-kV Midway-Benton No. 1 transmission line. For information, go to http://efw.bpa.gov/environmental_services/Document_Library/MidwayBentonRebuild/.

Lund Hill Wind Interconnection Project [Klickitat County, Wash.]

BPA is deciding whether to interconnect up to 60 MW from the proposed Lund Hill Wind Project. BPA will complete a ROD in fall or winter 2011. For information, go to www.bpa.gov/go/lundhillwind.

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

BPA expects to release a final EA and FONSI in December. For information, go to www.bpa.gov/go/coulee.

Creston-Bell Transmission Line Rebuild [Lincoln and Spokane counties, Wash.]

BPA is proposing to rebuild approximately 54 miles of 115-kV wood pole transmission line. For information, go to http://efw.bpa.gov/environmental_services/Document_Library/Creston_Bell/.

Albany-Eugene Transmission Line Rebuild [Lane and Linn counties, Ore.]

BPA is proposing to rebuild approximately 32 miles of a 115-kV wood pole transmission line. A draft EIS will be issued in December 2011. For information, go to http://efw.bpa.gov/environmental_services/Document_Library/Albany-Eugene_Rebuild/.

Hooper Springs Transmission Project [Caribou County, Idaho]

BPA is proposing a new 115-kV transmission line and a new 138/115-kV substation, called Hooper Springs Substation, in Caribou County, Idaho. For information, go to www.bpa.gov/go/hoopersprings.

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

BPA is deciding whether to interconnect up to 101 MW from the proposed Juniper Canyon II Wind Project. To interconnect the project,

BPA would build a new substation, the Wood Creek Substation, along an existing BPA transmission line near Roosevelt, Wash. BPA will complete a ROD in fall or winter 2011. For information, go to www.bpa.gov/go/juniper canyonll.

Radar Ridge Wind Project Interconnection [Pacific County, Wash.]

The project sponsor, Energy Northwest, recently announced a decision to cancel this project.

Whistling Ridge Energy Project [Skamania County, Washington]

BPA expects to issue a ROD in winter 2011. For information, go to www.bpa.gov/go/whistling.

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/.

Antelope Mountain Communication Project [Deschutes County, Ore.]

For information, go to www.bpa.gov/corporate/public_affairs/docs/2010/.

Transmission Services Facility Project [Vancouver, Wash.]

For information, go to www.efw.bpa.gov/pdf/Transmission_Services_September_2009.pdf.

Antelope Mountain Communication Project [Deschutes County, Ore.]

For information, go to www.bpa.gov/corporate/public_affairs/docs/2010/.

FISH AND WILDLIFE – PROJECTS UNDER CONSTRUCTION

Chief Joseph Hatchery Program [Okanogan County, Wash.]

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

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

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

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Big_Eddy-Knight/.

Bandon-Rogue No.1 Transmission Line Rebuild [Coos and Curry counties, Ore.]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Bandon-Rogue_Rebuild/.

Walla Walla-Tucannon River Transmission Line Rebuild [Walla Walla and Columbia counties, Wash.]

For information, go to www.efw.bpa.gov/environmental_services/Document_Library/Walla_Walla-Tucannon_River_Rebuild/.

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

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

Albeni Falls-Sand Creek Transmission Line Project [Bonner County, Idaho]

For information, go to www.transmission.bpa.gov/PlanProj/Transmission_Projects/default.cfm?page=albe.

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.bpa.gov/environmental_services/Document_Library/Palisades/.

CALENDAR OF EVENTS

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

PTSA process reform workshop

- **Dec. 6, 8:30 a.m. to 4:30 p.m.**, BPA Rates Hearing Room, 911 N.E. 11th Ave., Portland, Ore.
- **Alvey-Fairview line** rebuild public meeting
- **Dec. 6, 5:30 to 7:30 p.m.**, Coos County Commissioner's Office, Owens Building Annex, 201 N. Adams, Coquille, Ore.
- **Dec. 7, 5 to 7 p.m.**, Council Chambers, City Hall, 400 E. Main Street, Cottage Grove, Ore.

I-5 Corridor Reinforcement Project public meeting

- **Dec. 8, 6 to 9 p.m.**, Battle Ground Community Center, Lewis River Reception Hall, 912 E. Main Street, Battle Ground, Wash.
- **Boardman to Hemingway** transmission line option for southeast Idaho service
- **Dec. 15, 9 to 11 a.m.**, BPA Rates Hearing Room, 911 N.E. 11th Ave., Portland, Ore.

Discussion on future programs, costs and rates

- **Jan. 31, 10 a.m. to 5p.m.**, BPA Rates Hearing Room, 911 N.E. 11th Ave., Portland, Ore.

CLOSE OF COMMENT

Submit comments to www.bpa.gov/comment.

- **Dec. 2**, Lolo Creek permanent weir fish trapping facility
- **Dec. 12**, Strategic capital discussion
- **Dec. 14**, Midway-Benton No. 1 Replacement Project
- **Dec. 23**, Boardman to Hemingway transmission line
- **Dec. 28**, Alvey-Fairview Line Rebuild 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.

