BONNEVILLE POWER ADMINISTRATION

# Journal

July 2014

## Crews repair lines after wildfire

BPA line crews from Pasco, Ellensburg and Grand Coulee, Wash., sprang into action May 29 to repair 49 wood poles on 115-kilovolt transmission lines damaged by a fast-moving brush fire.

The crews quickly and safely restored power to Alcoa's Wenatchee, Wash., aluminum-smelting operation and roughly 200 Chelan PUD customers who had lost power.

More than 70 firefighters from county, state and federal agencies worked to extinguish the blaze south of Wenatchee. The fire, reported on the afternoon of May 28, did not damage any homes or businesses, but it did damage transmission lines owned by Chelan and Douglas County PUDs, in addition to those owned by BPA.

The fire was approximately 4 miles long by a half-mile wide.

*BPA equipment is staged to begin repairing fire-damaged wood poles on the Columbia-Valhalla 115-kV lines near Wenatchee, Wash.*

## BPA honored for heat pump technology

The Electric Power Research Institute has recognized BPA with a Technology Transfer Award for supporting new, high-efficiency heat pump technology.

"BPA has been at the forefront of the push to understand the latest generation of variable capacity heat pump technology," says Ron Domitrovic, program manager for EPRI's Power Delivery and Utilization sector, which develops technologies and approaches to facilitate energy efficiency, grid transformation and reliability.

Instead of running at constant speed and cycling on and off, variable capacity heat pumps meet heating and cooling loads using variable-speed compressors and fans. By varying capacity, these systems are up to three times more efficient than electric furnaces, baseboards and wall heaters, and they are more efficient, flexible and quiet than traditional heat pumps.

While variable capacity heat pumps have been used in Asia for almost 30 years, they were only introduced to the U.S. market about 10 years ago and are not yet widely adopted. So BPA's Emerging Technologies team sought to learn more about how they operate and how they would perform in Northwest climate zones in different seasons and operating modes.

"We know intuitively that these new high-efficiency heat pumps are going to save energy," says BPA mechanical engineer Kacie Bedney. "But we need to verify that they can deliver reliable, cost-effective savings for Northwest residents."

BPA and others rely on ratings to predict real-world performance and inform their decisions about providing incentives for new heating and cooling equipment. Since current third-party tests of this equipment don't vary compressor or fan speeds, or manipulate controls, BPA pursued further testing.

As part of an EPRI project, BPA teamed up with Oak Ridge National Laboratory, Tennessee Valley Authority and other utilities to evaluate the energy-savings potential of variable capacity heat pumps at TSA's Campbell Creek Energy Efficient Homes in Knoxville,

Tenn. The research homes are equipped with automated devices and temperature and humidity sensors that mimic typical behavior in residential environments.

"The load-based lab testing and research at the Campbell Creek homes allowed us to gather more true-to-life performance data," explains engineer Mira Vowles, who received the EPRI award for leading BPA's role in a collaborative project designed to better understand the performance of variable refrigerant-flow heat pumps, a type of variable capacity heat pump used in commercial buildings.

BPA also partnered with Ecotope in the region's first field test of variable capacity heat pumps. Central Electric Cooperative members Robert and Kay Rozendal are happy with their new heat pump. "It delivers a more even heat," Robert observes. "And our home is now more comfortable at a lower thermostat setting."

Collectively, these projects have given BPA significant insight into the operation and proper application of variable capacity systems. And BPA has already rolled out incentives. As part of its Performance Tested Comfort Systems® program, BPA and Northwest publicly owned utilities are offering incentives ranging between $500 and $1,900 to homeowners who swap their heating and cooling systems for a new VCHP. To date, the program has processed more than 320 rebates.

"Widespread adoption of variable capacity heat pumps could help Northwest homeowners and businesses dramatically cut their energy use," says Ryan Fedie, BPA engineering team manager in Energy Efficiency. "And that could translate to lower energy bills for consumers and reduced peak demand for utilities."

## Grand Coulee unveils new laser light show

"One River — Many Voices" is the name of the new laser light show at Grand Coulee Dam. The 30-minute show will be screened nightly on the face of the dam through September. The best views are from the visitor center and the park just below it, both on the Columbia River.

LumaLaser, an Oregon company known nationally for its multimedia productions, won the Bureau of Reclamation contract to reinvent the program that will entertain and inform thousands of visitors this summer and for years to come. The laser light show has been a summer staple at the northeastern Washington dam since 1989.

New brighter and more efficient laser equipment will use about 75 percent less energy than the systems it replaced. The upgrades will also address the frequent technical difficulties and maintenance problems that plagued the older system, and the revamped story brings greater perspective and balance to the presentation.

LumaLaser and Reclamation worked with stakeholders and tribes to incorporate their points of view into the new show. The result is a more comprehensive story about Grand Coulee Dam, its role in the lives of people and communities in the area as well as its importance in the nation's energy infrastructure.

BPA funded the laser light show update, which supports a Northwest business as well as the people and businesses around Grand Coulee Dam. Through the project, Reclamation and BPA hope to provide an additional reason for travelers to visit the engineering marvel of Grand Coulee Dam, Lake Roosevelt and the surrounding area.

Grand Coulee Dam, completed in 1941, serves as a multipurpose project providing water for irrigation, hydropower, flood control, recreation, and fish and wildlife.

## Films chronicle dawn of NW hydro

Take a cinematic journey into the early years of the Northwest hydropower and transmission systems with a collection of recently released BPA-produced films from the 1930s, '40s and '50s. The DVD set, titled "BPA Film Collection Volume 1, 1939–1954," is the first compilation of films from BPA's archives ever made available. And it has received a warm reception.

"The series forms a composite portrait of the river – a forceful, magnetic, photogenic presence — and of the people who spent their lives attempting to tame it," says Anne Richardson, host of the website Oregon Movies, A to Z.

## Watch us work

**ONE PART HABITAT RESTORATION, ONE PART CLASSROOM:** See how a habitat restoration project on an island north of Portland offered a unique educational experience for middle school students. The work, funded by BPA ratepayers, will ultimately reconnect tidal wetlands on Sauvie Island with the Columbia River to provide fish habitat and refuge as well as additional food resources in the estuary for juvenile salmon in the estuary.

**TO WATCH** this and other videos, visit *www.youtube.com/user/BonnevillePower*.

For regional historian and filmmaker Ellie Belew, the films are a captivating introduction for those who want to begin to understand the management of the Columbia River Basin. "These DVDs bring to life not only the actual build-out of regional infrastructure, but also the attitudes and assumptions that supported development of publicly owned power utilities in the Pacific Northwest," Belew observes.

Since the DVD's release in January, the BPA Library has been flooded with requests and mailed more than 1,800 copies to people all over the region.

The new collection includes three of the most notable films made by BPA: "Hydro" (1939), the first film produced by BPA's motion-picture division; "The Columbia: America's Greatest Power Stream" (1949), the most famous BPA-produced film, containing songs Woody Guthrie wrote while employed by BPA; and "Highline" (1950), about the building of the Northwest's high-voltage electric transmission system.

It also showcases three films about the Columbia River power system and the Pacific Northwest in transition: "Power Builds Ships" (1942), about how the ship-building industry in the Northwest helped win World War II; "25,000 Volts Under the Sea" (1952), about the remarkable design, transport and laying of the underwater high-voltage cable that electrified Washington's San Juan Islands; and "Look to the River" (1954), a rather impressionistic color film about the expansion of the dam system, with a score by Oscar-winning composer Ernest Gold. As a bonus, the set includes a booklet of movie posters and photographs, as well as introductions by Burke, who offers insight to the films on each disc.

To receive a free copy, contact BPA's Public Information Center in Portland at 800-622-4520 or *pic@bpa.gov*. You can also visit *www.bpa.gov/news/AboutUs/History/Pages/Vintage-Film-Vault.aspx* to view, share and learn more about the films.

## Remembering Alex Radin, "Mr. Public Power"

Alex Radin, known as the face of the public power industry, died April 11. He was 92. A memorial was held June 21 in Washington, D.C. to celebrate his life.

Radin was the chief executive officer of the American Public Power Association from 1951 to 1986. During that time, he met with Presidents Harry Truman, John Kennedy, Lyndon Johnson, Jimmy Carter and Ronald Reagan to discuss energy policy and push for pro-consumer legislation.

After retiring from APPA in 1986, Radin remained committed to the public power industry in a range of capacities, from consultant for public power utilities to chairman of a special federal commission on the temporary storage of spent nuclear fuel. Radin was also one of the founders of the Consumer Federation of America. His autobiography, Public Power-Private Life, chronicles his personal life and the public power industry during his years at APPA.

The APPA has posted a video commemorating his life: *http://videos.publicpower.org/alex-radin-in-memoriam*. His obituary is in the Washington Post.

# Public Involvement [Updates & Notices]

## AGENCY PROJECTS

### 2014 Debt Management Process

BPA is accepting comments through July 15 on debt management scenarios, including the scenario BPA proposes to include in the initial intial proposal for the BP-16 rate case. Stakeholders are encouraged to review the debt management publications and comment on the proposed scenario as well as future debt management opportunities and planning. For information, go to *www.bpa.gov/goto/accesstocapital*.

### 2014 Integrated Program Review

BPA is accepting comments through July 15 on programs and associated spending estimates. The IPR, which occurs every two years, gives participants an opportunity to review and comment on spending-level estimates for BPA's programs before they are set for inclusion in the rate case. For information, go to *www.bpa.gov/goto/IPR*.

### Spring Operations and Oversupply [Regionwide]

BPA will monitor hydropower and transmission system conditions through the spring. As conditions warrant, BPA will host conference calls to provide updates on system conditions and the potential for oversupply. Current operations information is available at *www.bpa.gov/goto/oversupply.*

### BP-16 Rate Case Workshops [Regionwide]

BPA will hold a series of workshops through August in preparation for the BP-16 rate proceeding to set power, transmission and ancillary service rates for fiscal years 2016-2017. For information, go to *www.bpa.gov/goto/BP16.*

## Environment, Fish and Wildlife

### Crystal Springs Hatchery [Bingham County, Idaho]

BPA will prepare an environmental impact statement to analyze the effects of the Crystal Springs Hatchery, proposed by the Shoshone-

Bannock Tribes of the Fort Hall Reservation. The U.S. Forest Service is a cooperating agency in the EIS. A notice of intent was published in the federal register in late May. BPA and the Forest Service are accepting comments through July 7. For information, go to *www.bpa.gov/goto/CrystalSprings.*

### Walla Walla Basin Spring Chinook Hatchery Program [Umatilla County, Ore., and Walla Walla County, Wash.]

BPA is seeking additional public input on the proposal by the Confederated Tribes of the Umatilla Indian Reservation to construct and operate a hatchery for spring chinook salmon. BPA and the tribes have adjusted the hatchery design by replacing rectangular concrete raceways with circular tanks and are adding an alternative to the environmental impact statement that would include transferring some fish production from another facility to the Walla Walla hatchery. BPA is accepting comments on the changes through July 1. For information, go to *www.bpa.gov/goto/WallaWallaHatchery.*

## POWER

### Energy Efficiency Post-2011 Policy Review [Regionwide]

BPA released proposed revisions to its energy efficiency policy framework and associated implementation elements that were put into place on Oct. 1, 2011. The proposed revisions are based on recommendations from five work groups that met over winter and spring 2014. BPA is accepting comments on the proposed revisions through July 19. For information, go to *www.bpa.gov/Energy/N/post-2011/.*

### Rate Period High Water Mark public process

BPA is beginning the formal process for establishing Rate Period High Water Marks that will be used to setestablish power rates for fiscal years 2016 and 2017. The RHWM is the amount of energy a customer is eligible to purchase at BPA's lowest-cost Ttier 1 rates in the upcoming rate period. BPA will hold a formal comment period in August and host a meeting Aug. 5 to gather input. During this meeting, BPA staff will discuss the inputs to the RHWM calculations, including customer load forecasts, the Ttier 1 system firm critical output and RHWM augmentation amounts. Staff will also be prepared to discuss initial RHWM calculations, per the Tiered Rates Methodology. Information will be posted before the meeting at *www.bpa.gov/goto/RHWM.*

## TRANSMISSION

### Hooper Springs Transmission Line Project [Caribou County, Idaho]

BPA released a supplemental draft environmental impact statement that includes a preferred alternative for the proposed transmission line. BPA will accept comments on the supplemental draft through Aug. 7. For information, go to *www.bpa.gov/goto/hoopersprings*.

### Transmission System Segmentation Policy Review [Regionwide]

BPA is conducting a public review of its segmentation policy. This process is a result of the BP-14 rate case, in which a number of parties weighed in on a variety of segmentation concerns and offered recommendations for alternative methodologies. Segmentation is a part of the cost-allocation process in determining transmission rates. For information, go to *www.bpa.gov/goto/BP16.*

### Pacific Direct Current Intertie Upgrade Project [Lake, Jefferson, Crook, Deschutes and Wasco counties, Ore.]

BPA expects to issue the final environmental assessment this month. The project includes proposed upgrades on the DC transmission line from Celilo Substation south to the Nevada-Oregon border. For information, go to *www.bpa.gov/goto/PDCIUpgrade.*

## CLOSE OF COMMENT

**July 1** – Walla Walla Basin Spring Chinook Hatchery Program

**July 7** – Crystal Springs Hatchery

**July 15** – 2014 Debt Management Process

**July 15** – 2014 Integrated Program Review

**July 19** – Energy Efficiency Post-2011 Policy Review

**Aug. 7** – Hooper Springs Transmission Line Project

## CALENDAR OF EVENTS

### Rate Period High Water Mark public meeting

- **Aug. 5**, 1 to 5 p.m., BPA Rates Hearing Room, 1201 Lloyd Blvd., Suite 200, Portland, Ore.

### Spring Operations Conference Calls

Meetings are tentatively scheduled for Thursdays at 1 p.m., but will only be held as conditions warrant. Check the BPA calendar for meeting notices and phone-bridge information.

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

## FOR MORE INFORMATION

Information on other projects under environmental review is available at *www.bpa.gov/goto/NEPA.*

For information about the National Environmental Policy Act in general, go to *www.bpa.gov/goto/environmentalplanning.*

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. Email 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.