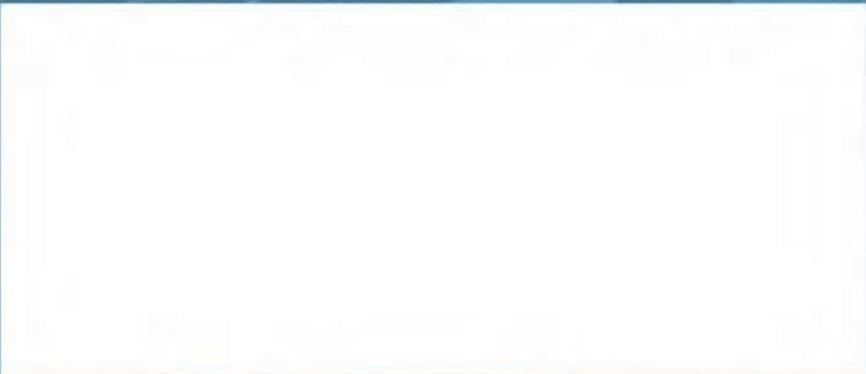


Northwest Public Power Association **BULLETIN**

January 2016
Volume 70, Number 1

Snohomish PUD and its employees take on cybersecurity

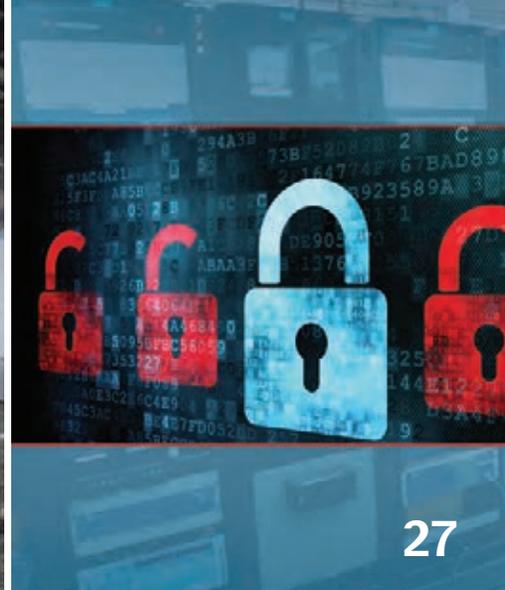




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27

On the cover: Recognizing that cyber risks impact all utilities, Snohomish County Public Utility District in Washington state has moved on several fronts to enhance its security measures. The PUD recognizes that no matter how thick and high your walls are, it's your employees' lack of awareness that's the weakest link. Education is critical!

JANUARY 2016 • VOLUME 70 • NUMBER 1

- 3 NWPPA NEWS**
- 7 TRAINING OPPORTUNITIES**
- 10 COMMUNICATING WITH YOUR MEMBERS**
- 11 DISTRIBUTED GENERATION**
- 13 MARKETING & COMMUNICATION**
- 15 SAFETY**
- 17 MEMBER NEWS**
- 23 ASSOCIATE MEMBER NEWS**
- 25 WASHINGTON, D.C., REPORT**
- 27 COVER STORY**
- 31 JOB OPPORTUNITIES**

Opinions expressed in single articles are not necessarily policies of the Association. For permission to reprint articles, write or call the associate editor.

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Safety award nominations still being sought

The annual NWPPA Safety Contest recognizes the combined efforts of all areas of a utility in maintaining a safe work environment for its employees. Awards are based upon your utility's annual reporting to OSHA for 2015. The winning utilities will be announced at the 2016 NWPPA Engineering & Operations Conference and Trade Show in Spokane, Wash., during the evening banquet on April 14.

Contest entries are due by February 12, 2016. For entry forms and rules, go to www.nwppa.org and select the 2016 E&O Conference and Trade Show banner. For additional

information, please contact Jenny Keesey at (360) 816-1458 or jennifer@nwppa.org.

Remember to also register yourself and others for the 2016 E&O. With the annual E&O, you won't find a better buy for an event that includes linemen and engineering roundtables; over 30 speakers on a variety of timely topics; over 190 exhibiting companies; and networking with colleagues (new or known) that are important to get your job done. Registration is open at www.nwppa.org. **NWPPA**

Register today to attend NWPPA's Engineering & Operations Conference and Trade Show



April 11-14, 2016 in Spokane, Wash.



Coming soon: a new project management class in February

You asked for it and we heard you. A new project management class will debut on February 10-11, 2016, at the Heathman Lodge in Vancouver, Wash. NWPPA and Energy Northwest's David Jordan, a certified project manager, have developed a class following the Project Management Institute's guidelines.

During the two-day *Project Management* course, attendees will learn the project management life cycle (initiating, planning, executing, controlling, and closing) in accordance with guidelines established by the Project Management Institute; create a project using the life cycle; understand and utilize earned value management; and learn the steps to closing a project. Attendees will learn to effectively use the project management life cycle; understand and utilize the earned value management; and take away useful tools to implement successful project management at work.

You may register now for *Project Management* at www.nwppa.org. If you have any questions about the class, please contact Jenny Keeseey at (360) 816-1458 or Jennifer@nwppa.org. **NWPPA**



Annual nominations are due this month

Deadlines are quickly approaching! Submit your nominations today!



If you have not yet submitted your nominations for the 2016-2017 NWPPA Board of Trustees, 2016 annual awards, and/or 2016 resolutions, you still have a few weeks to do so. As a reminder, the due dates for each are:

- **January 21, 2016:** Submissions for any new draft resolutions or updates to the existing 2015 resolutions.
- **January 29, 2016:** Nominations for the Life Awards, Paul J. Raver Community Service Award, John M. George Public Service Award, William "Bill" McCrorie Distinguished Service Award, and Homer T. Bone Award.
- **February 1, 2016:** Nominations for the one vacant utility member seat on the 2016-2017 NWPPA Board of Trustees. Please note that the December 2015 *Bulletin* incorrectly named the utility type of the one vacant utility member seat on our board of trustees; the correct vacant position is for a **general manager** from a **Washington municipal**, not a PUD.

If you have questions about any of the above categories, please contact NWPPA at (360) 254-0109 or nwppa@nwppa.org. **NWPPA**

Save the date!

NWPPA's 76th Annual Conference & Membership Meeting



**May 15–18, 2016
Tulalip Resort
Tulalip, Wash.**

Thank you for finding all of those diamonds!

In every 2015 issue of the *Bulletin*, we hid one diamond graphic (like this one ) somewhere in the magazine to help celebrate our diamond anniversary. For each issue, we selected a random person who emailed the correct page and location to the associate editor. The winners were all notified by the end of the month and received a gift card from NWPPA. Participation exceeded our expectations and we would like to send a heartfelt thank you to everyone who looked for the diamond — some took a stab at the location for an issue or two, while others dutifully reported its location every issue.

December's issue was the final one; the diamond was on page 16 in the sky bridge.

Congratulations to December's winner: Lance Johnson from Clearwater Power Company in Lewiston, Idaho. **NWPPA**



A look back at public power

50 years ago — 1966

Chelan County PUD's Rocky Reach won one of six national "Plant America" institutional classification awards in the American Association of Nurserymen's 13th annual Institutional Landscape and Beautification competitions (Wash.) ... The California State Assembly referred to an interim committee the study of installation of underground wiring facilities ... Pend Oreille PUD applied to the FPC for a license to build the \$4.7-million 13,600-kilowatt Sullivan Lake hydroelectric project (Wash.).

25 years ago — 1991

Clark Public Utilities developed their Life Support Program, which watches and helps customers on life-support (Wash.) ... Inland Power & Light Company members voted to accept a \$4.2-million offer from Pend Oreille PUD to purchase a portion of the co-op's distribution system (Wash.) ... Russell Dorran retired from Umatilla Electric Cooperative and was replaced by Steven Eldrige (Ore.) ... The Columbia River Alliance for Fish & Commerce was formed ... Gus Norwood, NWPPA's first executive director, published *Gift of the Rivers — Power for the People of the Southeast* (Wash.).

5 years ago — 2011

Clatskanie PUD delivered 60 bikes and helmets to less fortunate children in its community (Ore.) ... The California Energy Commission approved the construction of Turlock Irrigation District's proposed Almond 2 Power Plant (Calif.) ... The Oregon Rural Electric Cooperative Association presented District 7 Rep. Bruce Hanna (R-Roseburg) with its Cooperator of the Year award ... Chelan County PUD successfully auctioned another share of the future electric power production from Rocky Reach and Rock Island dams (Wash.) ... Tony Toncray returned to Lane Electric Cooperative to be the new manager of construction and maintenance (Ore.). **NWPPA**

Mark your calendars now to attend NWPPA's 2016 conferences!

Annual IT Conference

March 9-11, 2016
Peppermill Resort
Reno, Nev.

Engineering & Operations Conference and Trade Show

April 11-14, 2016
DoubleTree by Hilton Spokane City Center
Spokane, Wash.

Annual Conference and Membership Meeting

May 15-18, 2016
Tulalip Resort
Tulalip, Wash.

Power Supply Conference

August 1-2, 2016
Marriott — Portland Waterfront
Portland, Ore.

Northwest Communications & Energy Innovations Conference (NIC)

September 11-14, 2016
DoubleTree by Hilton
Missoula, Mont.

Labor and Employee Relations Group Annual Meeting and Conference

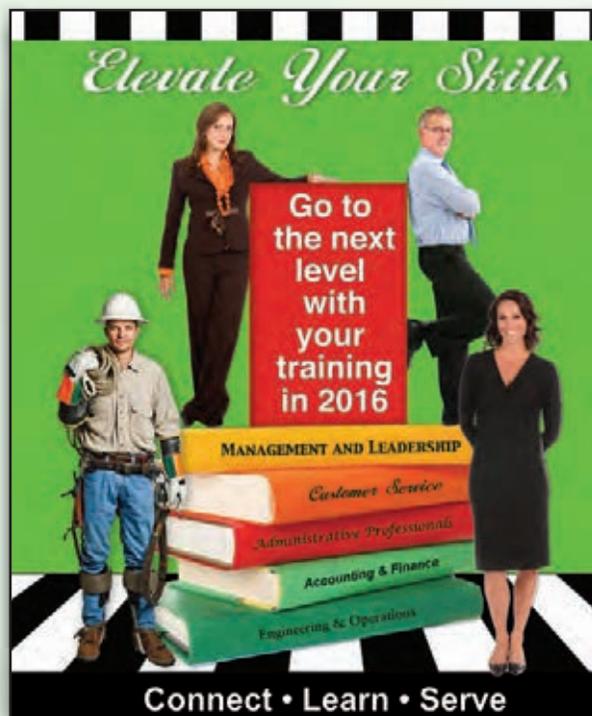
October 12-14, 2016
Coeur d'Alene Resort
Coeur d'Alene, Idaho

3 Cs Annual Conference

October 26-28, 2016
Tulalip Resort
Tulalip, Wash.

New! Western Distributed Energy Resources Conference

November 8-9, 2016
Location TBD
Spokane, Wash.



You can find the most recent information on these and other events in the 2016 eCatalog located under the Training and Education tab at www.nwppa.org.

February, March, and April 2016

Please go to our website (www.nwppa.org) to view the full descriptions for these and other courses.

STAKING TECHNICIAN CERTIFICATION PROGRAM: PROTECTION/ BASIC SECTIONALIZING DESIGN

Who Should Attend: Staking technicians.
FEBRUARY 1-2, 2016 — VANCOUVER, WASH.

STAKING TECHNICIANS CERTIFICATION PROGRAM: LINE INSPECTION

Who Should Attend: Staking technicians.
FEBRUARY 2-3, 2016 — VANCOUVER, WASH.

STAKING TECHNICIAN CERTIFICATION PROGRAM: SIZING TRANSFORMERS AND CONDUCTORS

Who Should Attend: Staking technicians.
FEBRUARY 3-4, 2016 — VANCOUVER, WASH.

ONLINE — LABOR RELATIONS WEBINAR SERIES

Who Should Attend: HR and labor relations personnel who work with union employees and union business managers.
FEBRUARY 4-18, 2016 — ONLINE PRESENTATIONS

ONLINE — EMPLOYEE AND LABOR RELATIONS BASICS

Who Should Attend: HR and labor relations personnel who work with union employees and union business managers.
FEBRUARY 4, 2016 — ONLINE PRESENTATION

STAKING TECHNICIAN CERTIFICATION PROGRAM: UNIQUE STRUCTURES

Who Should Attend: Staking technicians.
FEBRUARY 4-5, 2016 — VANCOUVER, WASH.

LINEMAN SKILLS SERIES: AC TRANSFORMER THEORY AND APPLICATION (2 DAYS) AND LINEMAN RIGGING (1 DAY)

Who Should Attend: Linemen, linecrew foremen, substation personnel, electrical engineers, safety managers, and all personnel that would benefit from a theoretical and practical knowledge of AC transformers, regulators, capacitors, and grounding.
FEBRUARY 9-11, 2016 — IDAHO FALLS, IDAHO

NEW! PROJECT MANAGEMENT

Who Should Attend: Administrative assistants, executive assistants, and anyone new to project management. For more information, see page 4.
FEBRUARY 10-11, 2016 — VANCOUVER, WASH.

ONLINE — DISCIPLINE: JUST CAUSE AND DUE PROCESS

Who Should Attend: HR and labor relations personnel who work with union employees and union business managers.
FEBRUARY 11, 2016 — ONLINE PRESENTATION

SENIOR LEADERSHIP SKILLS SERIES (formerly Pathways to Leadership): ALL FIVE SESSIONS

Who Should Attend: Directors, managers, graduates of the Leadership Skills series (formerly Front Line Leadership), and newly appointed leadership and individual contributors.
FEBRUARY 16, 2016 – JANUARY 22, 2017 — LOCATIONS VARY

SENIOR LEADERSHIP SKILLS SERIES (formerly Pathways to Leadership): SESSION #1, SERIES #4: LEAD YOURSELF

Who Should Attend: Directors, managers, graduates of the Leadership Skills series (formerly Front Line Leadership), and newly appointed leadership and individual contributors.
FEBRUARY 16-18, 2016 — VANCOUVER, WASH.

NEW! ONLINE — ENHANCED COMMUNICATION SKILLS WEBINAR SERIES

Who Should Attend: Anyone who wants to increase his or her communication skills to be more effective working with internal and external customers.
FEBRUARY 17-MARCH 11, 2016 — ONLINE PRESENTATIONS

NEW! EXCEL FOUNDATIONS

Who Should Attend: Anyone who would like to use Excel in a more efficient and effective manner. This course is ideal for anyone new to Excel or for users who are self-taught.
FEBRUARY 17, 2016 — VANCOUVER, WASH.

NEW! ONLINE — COMMUNICATION STYLES

Who Should Attend: Anyone who wants to increase his or her communication skills to be more effective working with internal and external customers or members of their teams.
FEBRUARY 17, 2016 — ONLINE PRESENTATION

ONLINE — GRIEVANCE HANDLING

Who Should Attend: HR and labor relations personnel who work with union employees and union business managers.
FEBRUARY 18, 2016 — ONLINE PRESENTATION

LEADERSHIP SKILLS SERIES (formerly Front Line Leadership) SESSION #4: HR BASICS; BUILDING A MORE EFFECTIVE WORKPLACE

Who Should Attend: Supervisors and managers, and those employees who will be transitioning to a supervisor or manager role in the near future.
FEBRUARY 24-25, 2016 — SPOKANE, WASH.

SUBSTATION SERIES: SUBSTATION OVERVIEW & INSPECTIONS

Who Should Attend: Line and substation personnel, distribution engineers, and supervisors who have responsibility for transmission and distribution substations.
MARCH 2-3, 2016 — VANCOUVER, WASH.

NEW! PowerShell FOR ADMINISTERING WINDOWS WORKSTATIONS, SERVERS, AND DOMAINS

Who Should Attend: Windows system or domain administrators or support staff who want to learn how to integrate PowerShell into daily basic and advanced tasks. (Previous experience with any scripting or programming language will enhance the attendee's experience, but is not required.)
MARCH 8, 2016 — RENO, NEV.

BASICS OF BUDGETING & FINANCIAL FORECASTING

Who Should Attend: Finance and accounting employees; senior management or policy makers; and any employee seeking to increase his or her knowledge of the budgeting process that takes place at electric utilities.
MARCH 8-9, 2016 — ANCHORAGE, ALASKA

EXCEL MASTERY

Who Should Attend: Anyone who currently uses Excel and would like to increase knowledge and efficiency applying calculations and database tools.
MARCH 9, 2016 — VANCOUVER, WASH.

Continued on page 8

TRAINING OPPORTUNITIES

ELECTRIC UTILITY SYSTEM OPERATIONS

Who Should Attend: Any electric utility industry employee (utility or vendor) whose job performance will benefit from a basic understanding of the operations side of the utility business.

MARCH 9-10, 2016 — SACRAMENTO, CALIF.

FOREMAN LEADERSHIP SKILLS #2 — EFFECTIVE PROBLEM SOLVING; TRANSITIONING FROM EMPLOYEE TO FOREMAN

Who Should Attend: Foremen and crew leaders.

MARCH 9-10, 2016 — RICHLAND, WASH.

NEW! HIGH-BILL INQUIRIES: BUILDING YOUR HBI TOOLKIT

Who Should Attend: Customer/member service and field representatives who respond to customer inquiries regarding energy use.

MARCH 9-10, 2016 — ANCHORAGE, ALASKA

IT CONFERENCE: PARTLY CLOUDY WITH A CHANCE OF RECOVERY

Who Should Attend: IT professionals and others who are responsible for information technology programs as well as members of the operations and engineering functions who would like to build a stronger relationship with IT.

MARCH 9-11, 2016 — RENO, NEV.

NUTS AND BOLTS OF WORK ORDERS

Who Should Attend: Employees involved in any aspect of preparing and/or processing work orders for their electric utility, or employees outside the accounting area who want a better understanding of the work order process.

MARCH 10-11, 2016 — ANCHORAGE, ALASKA

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 1 — CRITICAL-THINKING AND DECISION-MAKING SKILLS

Who Should Attend: Executive secretaries, administrative assistants, and secretaries.

MARCH 15, 2016 — COEUR D'ALENE, IDAHO

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 2 — POSITIVE ASSERTIVENESS

Who Should Attend: Executive secretaries, administrative assistants, and secretaries.

MARCH 16, 2016 — COEUR D'ALENE, IDAHO

NEW! ONLINE — LISTENING FOR SUCCESS

Who Should Attend: Anyone who wants to increase communication skills to be more effective working with both internal and external customers.

MARCH 16, 2016 — ONLINE PRESENTATION

NEW! SUBSTATION SERIES: PRINT READING

Who Should Attend: Line and substation personnel and distribution engineers who have responsibility for distribution and transmission substations.

MARCH 16, 2016 — SPOKANE, WASH.

INCREASING COLLECTION EFFECTIVENESS

Who Should Attend: Members within the customer service, credit, and collections departments of public power utilities.

MARCH 16-17, 2016 — PORTLAND, ORE.

LEADERSHIP SKILLS SERIES (formerly Front Line Leadership) SESSION #1: SITUATIONAL LEADERSHIP

Who Should Attend: Supervisors and managers, and employees who will be transitioning to a supervisory or managerial role in the future.

MARCH 16-17, 2016 — COEUR D'ALENE, IDAHO

OPERATIONS MANAGER & LINE SUPERINTENDENT BOOTCAMP: SESSION 3

Who Should Attend: Newly appointed operations managers, line superintendents, or those who have leadership potential. (It is not required that each session of the series be taken in order.)

MARCH 16-17, 2016 — SPOKANE, WASH.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 3 — ORGANIZATIONAL SKILLS; TIME & STRESS MANAGEMENT

Who Should Attend: Executive secretaries, administrative assistants, and secretaries.

MARCH 17, 2016 — COEUR D'ALENE, IDAHO

NEW! SUBSTATION SERIES: SUBSTATION TRANSFORMER & REGULATOR MAINTENANCE

Who Should Attend: Line and substation personnel, as well as engineers who have responsibility for distribution and transmission substations.

MARCH 17, 2016 — SPOKANE, WASH.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 4 — PERSONAL STRATEGIES FOR NAVIGATING CHANGE

Who Should Attend: Executive secretaries, administrative assistants, and secretaries.

MARCH 18, 2016 — COEUR D'ALENE, IDAHO

NWPPA LABOR AND EMPLOYEE RELATIONS MEMBER MEETING (formerly the Northwest Wage & Hour Group)

Who Should Attend: Members of the NWPPA Labor and Employee Relations Group, which includes general managers, labor relations managers, and human resource professionals.

MARCH 18, 2016 — RICHLAND, WASH.

NEW! SUBSTATION SERIES: SUBSTATION BATTERY MAINTENANCE & TESTING

Who Should Attend: Line and substation personnel and engineers who have responsibility for distribution and transmission substations.

MARCH 18, 2016 — SPOKANE, WASH.

REVENUE METERING: INTRODUCTION AND APPLICATION

Who Should Attend: Metering, service, engineering, and operations personnel; service and meter sales representatives; purchasers of meter products; supervisors; and other individuals who require an understanding of revenue meters.

MARCH 22-23, 2016 — VANCOUVER, WASH.

DISTRIBUTION ENGINEERING SERIES: SESSION 2 — OVERCURRENT PROTECTION

Who Should Attend: Engineers and senior technical personnel involved in selecting and coordinating overcurrent protection devices.

MARCH 30-31, 2016 — VANCOUVER, WASH.

SENIOR LEADERSHIP SKILLS (formerly Pathways to Leadership) #2, SERIES 4: LEAD YOUR TEAM(S)

Who Should Attend: Directors, managers, graduates of the Leadership Skills series (formerly Front Line Leadership), and newly appointed senior leaders.

APRIL 5-6, 2016 — COEUR D'ALENE, IDAHO

ENVIRONMENTAL TASK FORCE MEETING

Who Should Attend: Utility environmental professionals (new and experienced), government agency staff, vendors, and anyone who is tasked with or interested in environmental issues, regulatory compliance, or mitigation in the environmental arena of electric utilities.

APRIL 11, 2016 — SPOKANE, WASH.

ENGINEERING & OPERATIONS CONFERENCE AND TRADE SHOW

Who Should Attend: Electric utility engineering and operations personnel, as well as those in information technology, safety, purchasing, environmental, accounting, communications, or any area where a more in-depth knowledge of engineering and operations would be beneficial.

APRIL 11-15, 2016 — SPOKANE, WASH.

NEW! ONLINE — COACHING FOR PERFORMANCE: A WINNING RECIPE

Who Should Attend: Managers, supervisors, and human resources personnel.

APRIL 14, 2016 — ONLINE PRESENTATION

NEW! HIRING AND ONBOARDING GREAT TALENT

Who Should Attend: Managers, supervisors, and human resources personnel.

APRIL 19-20, 2016 — VANCOUVER, WASH.

NEW! ONLINE — KEEPING OTHERS IN THE LOOP

Who Should Attend: Anyone who wants to increase his or her communication skills to be more effective working with both internal and external customers.

APRIL 20, 2016 — ONLINE PRESENTATION

NEW! ONLINE — EMPLOYEE RE-ENGAGEMENT: CLEARING THOSE NEGATIVE “ODORS IN THE FRIDGE”

Who Should Attend: Managers, supervisors, and human resources personnel.

APRIL 21, 2016 — ONLINE PRESENTATION

TELEPHONE EXCELLENCE

Who Should Attend: Customer service professionals and others who work with customers by phone.

APRIL 26-27, 2016 — VANCOUVER, WASH.

INTRODUCTION TO RATE MAKING

Who Should Attend: Staff/analysts who are new to rate setting or the utility industry, as well as those new to demand response or interested in developing a demand response program for their utility.

APRIL 27, 2016 — SEATTLE, WASH.

NEW! ONLINE — TERMINATIONS: PAST THE PERFORMANCE EXPIRATION DATE

Who Should Attend: Managers, supervisors, and human resources personnel.

APRIL 28, 2016 — ONLINE PRESENTATION **NWPPA**



Balancing the New Energy Horizon

A diverse mix of energy generated at Energy Northwest provides enough reliable, affordable and environmentally responsible power for more than one million homes.



www.energy-northwest.com



by Brenda Dunn

MECA provides valuable net metering video for utilities to use with their customers

Editor's note: This year, NWPPA has added a new column to the Bulletin: Communicating with Your Members. The purpose of this column is to pass along tools that you, our members, can then use when communicating various industry hot topics with your customers/members. We hope you find these useful.

In the fall of 2015, the Montana Electric Cooperatives' Association (MECA) released a six-minute video, "The Cost Shift of Net Metering," with the intent of having it shared among public power utilities as an aid for utility representatives when talking to their customers about net metering. The video consists of both live actors and cartoon graphics, coming together in a smart and clever (and perhaps most importantly, easily understood!) educational piece.

MECA said that the drivers for this video included the need to educate members and legislators about the cost shift of net metering.

"The legislature has an interim committee to address net metering, and we wanted to make sure to educate them about our concerns about potentially being placed under the state's net-metering policy," said MECA Communications Director Ryan Hall. "We also wanted to educate our cooperatives' members so that as co-ops make changes to the rate structure to correct this cost shift, they can understand why this is happening."

According to Hall, the main purpose of the video — which was crafted through a MECA taskforce — is to educate members enough that they feel comfortable asking questions. MECA wants utilities to show this video at board meetings, employee meetings, annual meetings, and any special meetings held as part of a rate-structure change. Ideally, the video would be shown first, and then cooperative leadership would talk about what the plan is for that cooperative. The hope is that between the explanation of the plan and the video's explanation of cost shift, the member — who may have never heard of the cost shift or even net metering prior to this — would feel comfortable and informed enough to ask questions.

"The idea of a video is to repeatedly present a uniform, consistent message to legislators and members. It also



The video's colorful cartoon graphics and animation help keep viewers interested in a topic that may be somewhat dry and complicated for people outside the industry.

allows for a more engaging experience with the animation and changing screens, to hopefully keep people interested in a topic that can be dry and is complicated for people outside the industry," said Hall. "Additionally, it allows versatility in how it is distributed, including allowing members who can't make a meeting to see it online, and for member co-ops to put it on their websites."

Anyone can find "The Cost Shift of Net Metering" on either YouTube at <https://youtu.be/83CvoAPCjj0> or Vimeo at <https://vimeo.com/142928376>. (A generic, non-Montana version is also available at https://www.youtube.com/watch?v=zI-By_QBh8M.)

Once you have viewed it, share it with your employees and, ideally, with your customers/members. **NWPPA**

Brenda Dunn is the associate editor of the Bulletin. Have a great way to communicate with customers/members? Let her know by sending a brief description to brenda@nwppa.org. We would love to hear your success stories and share them with our members.

by Christopher Capra, Sr.

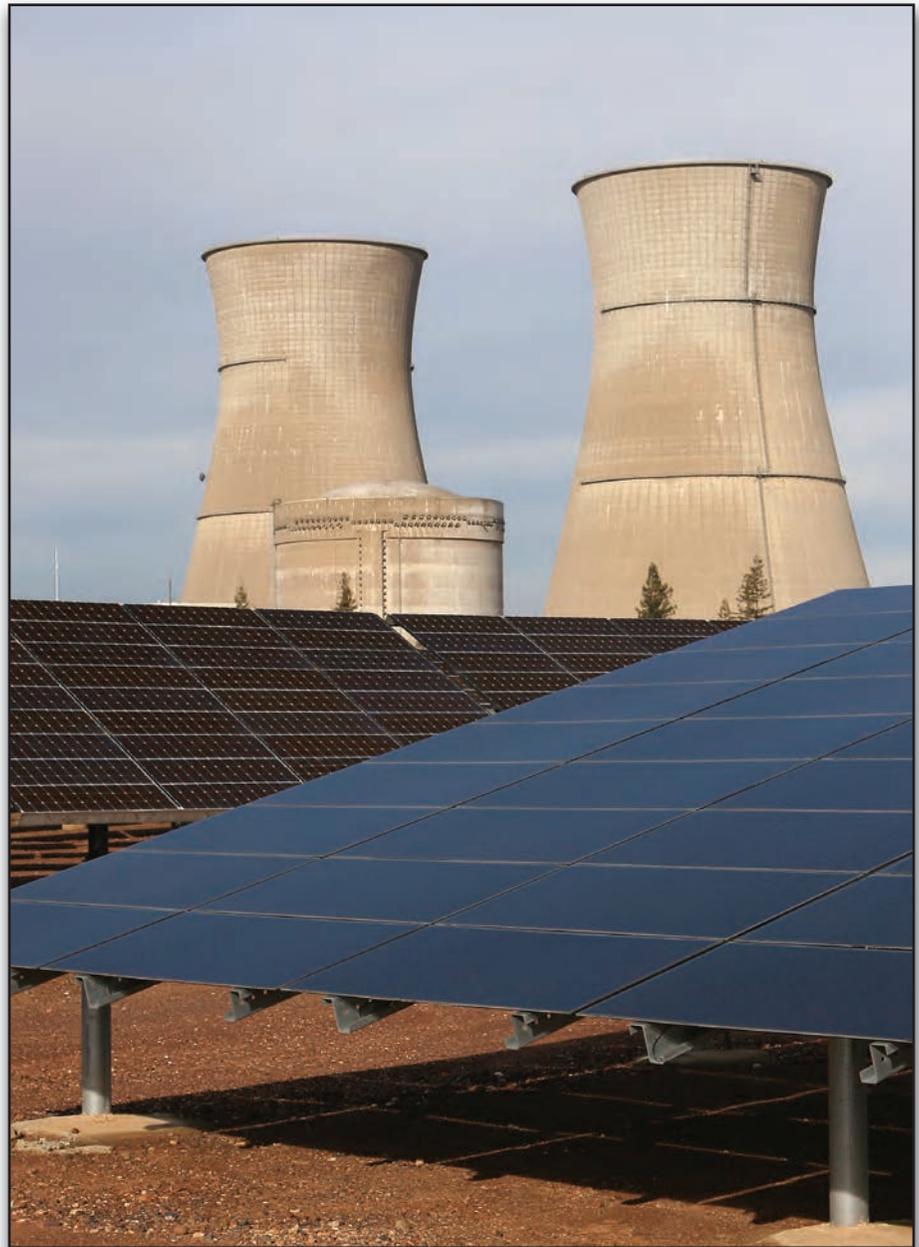
More off-the-rack solar power available for SMUD customers

Former nuke plant site to host shiny new 10-megawatt solar array

More solar power for our customers is on the way. Call it off-the-rack solar, if you will, bought from an array not too far away, without building it on your own roof. It is solar power they can get without having to sift through advertisements and Web searches to find a contractor and then wonder if they got the best deal. It is solar power they can get without holes being drilled in the roof and then wondering if they'll be able to sell the house with that big rack of aluminum and silicone up there. It's SMUD's innovative SolarShares community solar program, and it just got bigger and more powerful. Last September, the SMUD Board of Directors approved a solar PV construction project and a 20-year power purchase agreement for a 10.88-megawatt AC solar array. The array is sited on approximately 62 acres of SMUD property in the foreground of the cooling towers of the now-decommissioned Rancho Seco Nuclear Generation Station in rural Herald, Calif., in the southern part of our service territory.

The solar power generating facility will be owned by First Solar, a utility-scale PV power plant developer and PV panel manufacturer. The power SMUD purchases from the project will provide energy for SMUD's commercial version of the SolarShares program, which allows SMUD business customers to utilize the benefits of solar energy that supports sustainability goals, but can't be accomplished through installation of panels for reasons that may include shading, cost, roof orientation, or other factors. The SolarShares program, the first of its kind when SMUD launched it in 2008,

Continued on page 12



The massive cooling towers of the decommissioned nuclear station in the backdrop of the original solar field created an interesting juxtaposition for passers-by in 1984. Photo provided by SMUD.

helps commercial and residential customers achieve those goals. The new Golden 1 Center, home of the NBA's Sacramento Kings, is the first announced customer that will receive electricity generated by this new array at Rancho Seco.

The Rancho Seco PV project will also provide many energy and environmental benefits to SMUD customers. With nearly 11 megawatts of capacity, the project annually will deliver nearly 23,000 megawatt-hours of clean, renewable, non-carbon-emitting power at peak demand (hot summer afternoons), precluding the need to use or purchase the same amount of fossil-fuel-generated power. The project makes use of existing previously developed land and existing SMUD-owned power lines, which helps to minimize the environmental impact of the project.

This project will further enhance the renewable aspect of our power mix, which is already about 50 percent non-carbon-emitting, helping us meet our board of directors' and the state's carbon objectives.

The Rancho Seco site hosted one of the first utility-scale solar arrays in the world when it was built in 1984, while the nuclear station was still operating. It would be another five years before our customers voted to close the nuclear facility in a 1989 referendum. The first Rancho Seco solar arrays had a capacity of 3.2 megawatts — a lot of power in 1984. Five of the six arrays were decommissioned in 2013 as the technology reached its end of life.

The ubiquitous cooling towers of the decommissioned nuclear station in the back drop of the solar field will certainly provoke journalists, writers, documentarians, and even passers-by to ponder nuclear-to-solar transition visions. It will certainly attract a lot of media coverage as did the previous installation. Last decade, the old array drew National Geographic; NBC's *Today Show*; reporters from Germany; and journalists and documentary crews from South Korea and Japan, as well as many other places. They used the visual to try to illustrate how solar power and renewables in general have helped SMUD replace the 913 megawatts of lost nuclear power. It's my job as public information officer to point out that we really accomplished that task by taking several long-term strategies:

- **Diversifying our energy supply and increasing our investment in energy efficiency programs.** Our energy efficiency programs, which include loans, incentives, and rebates, have resulted in customer savings of more than \$600 million. In 2007, the SMUD Board approved an aggressive goal of helping customers reduce their power use by 15 percent over 10 years. While this is the most ambitious energy-efficiency goal of any California utility, it makes good sense: every kilowatt-hour saved through energy efficiency means one less kilowatt-hour that needs to be generated by a power plant.
- **Constructing three co-generation plants and later building the Cosumnes Power Plant, a 500-megawatt**

The Rancho Seco site hosted one of the first utility-scale solar arrays in the world when it was built in 1984, while the nuclear station was still operating. It would be another five years before our customers voted to close the nuclear facility in a 1989 referendum.

facility powered by natural gas. Natural gas currently represents about 45 percent of SMUD's power supply.

- **We've been very successful in adding more renewable, non-carbon supplies to our power mix.** SMUD was the first large California utility to have 20 percent of our power supply come from sources classified by California lawmakers as renewable — wind, solar, biomass, and geothermal. We're on track to meet the state mandate requiring utilities to increase their renewable portfolio to 33 percent by 2020. In the past decade and a half, the portion of our power mix classified as "renewable" by the state of California has grown from 7 percent to 27 percent.
- **Making the most of our hydro resources.** While large hydroelectric facilities are not classified as "renewable" by the state, the power coming out of SMUD's 688-megawatt Upper American River Project emits no carbon. Factoring in the carbon-free electricity produced by our hydroelectric facilities and the additional hydro power we purchase from the Western Area Power Administration, we deliver the aforementioned nearly-50-percent no-carbon SMUD power mix.

Community solar programs like SolarShares provide significant benefits to all customer classes. The first array that launched the program back in 2008 is built on a turkey farm not far from Rancho Seco. It provides a 1-megawatt capacity and was sold by subscription to residential customers. The capacity sold out in just a few months, bought by customers seeking to be greener in their lifestyles and for the locked-in rate on that portion of their bill. Since the power is bought through a contracted power purchase agreement, the rate doesn't change over the term. Capacity, including the new Rancho Seco array, approaches 12 megawatts. The SMUD Board approved the Rancho Seco PV project following completion of the California Environmental Quality Act study. The next step is construction, which begins soon. We expect to start producing and delivering this energy by the end of 2016. **NWPPA**

Christopher Capra, Sr. is a public information specialist with SMUD News Media Services in Sacramento, Calif. He can be contacted at Christopher.capra@smud.org.

by Matt Evans

Idaho Falls Power markets, hosts successful Celebrate Our Hydro Heritage event

As part of its 150th anniversary in 2015, the City of Idaho Falls paid special tribute to its hydro-power heritage. 2015 found the city-owned and -operated utility, Idaho Falls Power, retiring all debt associated with construction of the four locally owned and operated hydropower plants on the Snake River in Idaho Falls.

Idaho Falls Power celebrated the retirement of \$96 million in bonds with an event honoring the past city leaders who played a key role in planning and development of its hydro fleet.

The Celebrate Our Hydro Heritage event provided an opportunity to reflect on the importance of investing in locally owned infrastructure and tools, such as tax-exempt financing, that aid communities as they work to meet basic infrastructure needs. The event offered an opportunity for the community to celebrate the value of public power and honor those leaders who had the vision and conviction to see the projects through to completion.

Background

Energy has played a prominent role throughout the city's history. The first mayor was swept into office vowing to bring energy independence to the fledgling community. The utility commissioned its first hydropower generator in 1900 when a generator was installed in an irrigation canal to supply electricity for street lights.

That plant was replaced in 1912 by a larger hydro-power facility on the Snake River. A second hydro plant was built a decade later, and a third was purchased in the 1940s.

These facilities allowed the city to generate the bulk of its electricity until mid-1976, when a Bureau of Reclamation storage dam, Teton Dam, 40 miles north of Idaho Falls, failed.

The ensuing flood crippled the city's hydro generation, destroying one plant,

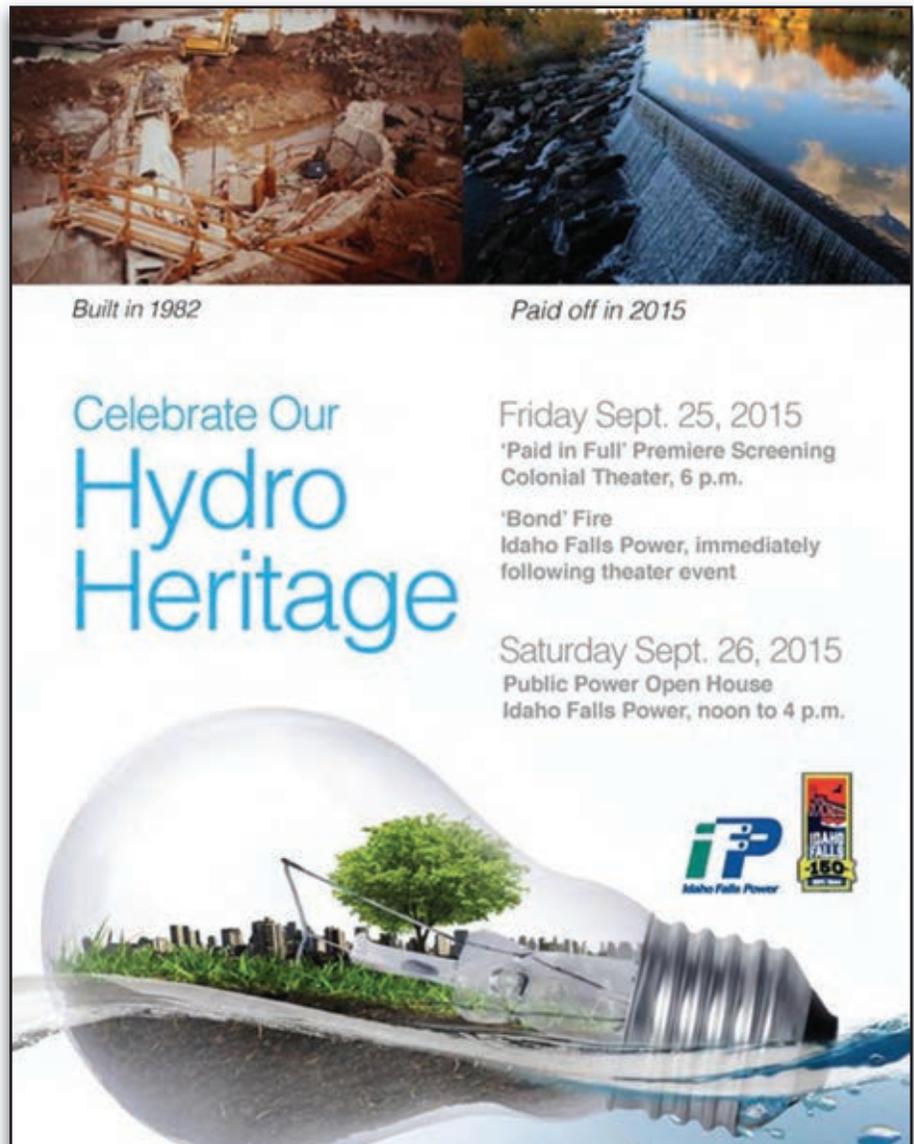
damaging the other two, and leaving Idaho Falls residents with a choice — abandon the city's legacy of energy independence and public power, or reinforce it.

At the time, state law in Idaho required a super majority vote to finance

construction of infrastructure, including generation.

The community overwhelmingly supported reinvesting in its hydro generation by passing a \$48-million bond to rebuild the plants. That bond election

Continued on page 14



Built in 1982 **Paid off in 2015**

Celebrate Our Hydro Heritage

Friday Sept. 25, 2015
'Paid in Full' Premiere Screening
Colonial Theater, 6 p.m.

'Bond' Fire
Idaho Falls Power, immediately
following theater event

Saturday Sept. 26, 2015
Public Power Open House
Idaho Falls Power, noon to 4 p.m.

IP
Idaho Falls Power

150

Idaho Falls Power used social media to help market their event via posts and hashtags. For example, the utility posted the above flier to their Facebook page and used it as their cover photo for the month leading up to the celebration.



At the celebration, Councilman Mike Lehto (left) led a panel discussion of former city leaders reminiscing about development of the plants. (L-R) Former Mayor Tom Campbell, City Councilman Paul Hovey, Mel Erickson, Art Chandler, and former Chief Engineer Jeff Paine. Photos provided by Idaho Falls Power.

saw an approval rate of more than 90 percent of the voters in late 1978.

Another \$48-million bond for a fourth hydro plant was approved six years later, that bond election received a 77-percent approval rate.

Planning the event

With the bonds set to retire in 2015, plans were launched to celebrate the debt-free status of the utility with a layered community awareness campaign and events that would coincide with our annual Public Power Open House celebration and the city's sesquicentennial.

The Celebrate Our Hydro Heritage theme was developed early in the planning stage and used to brand the September event. All social media posts carried this theme, along with a template and the hashtags #builtbybonds, #hydroheritage, and #publicpower.

In addition to traditional media and bill stuffers, the social media campaign consisted of daily posts of newspaper clippings that had been collected and preserved in photo albums. The clips provided a historical record spanning from the days immediately following the Teton Dam flood to the lead-up to the bond vote to the construction of the plants.

The utility recorded interviews of city officials and community leaders who played prominent roles in development of those facilities. Those interviews were aired in social media leading up to and at the events.

Infographics highlighting the significance of the investment to the community were developed.

Social media following doubled during the campaign. The utility did not have any notable power outages during this period, which tend to drive up social media following, so the spike can largely be attributed to the campaign marking the bond retirement.

The utility distributed commemorative coins, with a hydro facility on one side of the coin and the city's 150th



The ceremonial bond documents going up in flames.

anniversary logo on the other side, to event attendees and participants.

A videographer was commissioned to produce a six-minute video documenting the history of the city's hydropower assets. That film was debuted at the event.

The big day

Community turnout to the bond retirement event in September was better than expected! Attendees at the event included representatives from Idaho's congressional delegation, Bonneville Power Administration, NWPPA, APPA, UAMPS, and a number of state legislators and community leaders. The highlight was a panel discussion involving the former mayor and city councilmen, plus Idaho Falls Power's chief engineer at the time, discussing their roles in the bonds passage and development of the plants.

The utility presented more than \$650,000 in energy efficiency rebate checks to some of its largest customers at the event; this offered an opportunity to showcase the important role that energy efficiency plays in extending our resources.

Attendees then gathered at the Idaho Falls Power office for a "bond" fire where an extra copy of the bond documents were ceremoniously burned; the official records associated with the bond documents remain safely stored in a vault with the city clerk. The following day, the annual Public Power Open House occurred with special focus on the history of the hydropower plants, retirement of the debt, and videos of community leader interviews.

The event provided an opportunity to celebrate a heritage that is unique to Idaho Falls and underscore the importance of public power to the community. **NWPPA**

Matt Evans is a customer service supervisor at Idaho Falls Power. He can be contacted at MMEvans@ifpower.org.

by Jim Boyd

Tacoma Power embraces new wood pole fall protection gear

A change in the rules for protecting the country's line workers went into effect about a year ago, bringing with it a major improvement to the technology designed to prevent electrical workers from falling off poles.

The change was made by the Occupational Safety and Health Administration (OSHA), which regulates what workers wear to stay safe on the job. In fact, OSHA has a special set of rules for high-voltage electrical workers.

The new technology is commonly referred to as wood pole fall protection. It helps workers more easily negotiate around obstructions on the pole, like telecommunication lines or guy wires, while maintaining fall protection.

It's a good move because for more than 100 years, the basics of pole climbing and wood pole fall protection had not changed much. It used to be that fall protection for pole climbers was achieved almost solely by using the pole strap, which relied on friction against the pole or it being placed over a pole attachment to prevent falls. As time passed and injuries added up, there were multiple attempts to improve climbing safety with devices that would cinch around the pole to help prevent the line electrician from falling. The devices, however, were cumbersome and seemed impractical for the job at hand, which is to efficiently moving up a pole to reach the point where repairs can be made.

The new equipment is better and works like this: Before leaving the ground, pole climbers attach the fall protection device to the pole and then climb. When they encounter an obstruction, like a phone line, they put a secondary lanyard over the top of the obstruction. Then, they remove the fall protection device and reattach it to the pole above the obstruction. This new climbing process maintains 100-percent fall protection at all times.

At Tacoma Power, we like this new equipment because of the ease with which the device can be engaged and disengaged with one hand while the climber is in an elevated position. Some of the old devices required two hands to engage and disengage while moving around pole attachments. While it was possible to work that way, it was difficult and could frustrate climbers.

Where people used to have to hitchhike up the pole with their pole strap, now an additional strap chokes the pole. Finding a way to make pole choking work is the advancement; the choker strap is the new part, and its ability to easily engage and disengage is the technology improvement. The choker strap has to engage within a short distance to prevent a fall to the ground.

Long-term perspective

Craig Lohrey started as a line apprentice straight out of high school 37 years ago. In all of that time, the importance of safety on the job has not changed.

"I'm a huge advocate for safety," said the Tacoma Power veteran. "It's my number-one goal and our utility's number-one goal."

For him, the responsibility has particular weight because of his role as Construction and Maintenance Operations manager for the utility's Transmission & Distribution group. He's responsible for keeping his team safe — a job that's not always welcome among a group

Continued on page 16



Apprentice Line Electrician Trentin Echegoyen models one of the new, safer line belts with four D-rings that Tacoma Power is now using. Photo provided by Tacoma Power.

known for its willingness to take occasional risks to get the job done.

“This is the most significant change to fall protection equipment. My team may not like me for it, but it’ll protect them down the road,” he said. “It’s going to save somebody from a serious injury.”

In Tacoma, the change affects about 100 climbers, including a handful of employees outside of our Transmission & Distribution group. Some climbers have already been trained to use the new equipment and recertified in pole top rescue, although Washington’s law for using the equipment doesn’t go into effect until mid-2016.

To accommodate the change, Tacoma Power is buying all new line belts that have four D-rings instead of the traditional two. The belts will allow the fall protection and the secondary lanyard to be attached to the belt at the same time, which will decrease the chances of the snap hooks from interfering with each other in the D-ring.

“There’s a big safety factor and peace of mind in this equipment,” said Jeff Stevenson, a senior line electrician for

Tacoma Power; he’s also the climbing school instructor for apprentices. “There’s a lot more belting and unbelting, but it’s well worth the time for the safety it provides. Everybody kind of resists change; that’s natural. There are a lot of good climbers out there, and they don’t want to be slowed down or less efficient. But I know my opinion changed when I saw people using this equipment. You can move up the pole efficiently with this stuff.”

In addition to the improved safety, there are some other perks. “You can sit in this device a little more; you can almost anchor to the pole and treat it more like a saddle,” Stevenson said. “There’s a little bit less stress on your legs and attachment points. It’s more comfortable.” **NWPPA**

Jim Boyd is the Transmission & Distribution safety manager for Tacoma Power in Washington state. He can be contacted at either (253) 396-3308 or jjboyd@cityoftacoma.org.

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Charter Member ET&D Strategic Partnership

Alaska students awarded for taking EE pledge



The winning class of 30 students received a behind-the-scenes tour of the new Eklutna Generation Station.

Chugach Electric Association, Matanuska Electric Association (MEA), Municipal Light & Power (ML&P), and Renewable Energy Alaska Project (REAP) held the 2015 Power Pledge Challenge for middle school students in the Anchorage School District and the Matanuska-Susitna Borough School District. The grand-prize-winning class is from Romig Middle School and was presented with an award by Alaska First Lady **Donna Walker** on December 11.

More than 2,000 local middle school students, from 74 classrooms in 10 middle schools, participated in the 2015 Power Pledge Challenge. This two-week challenge, held in cooperation with the Alaska Energy Authority, aimed to help youth better understand how they use energy, how to calculate the cost of their usage, and the importance of taking measures to use energy efficiently at home and school.

Representatives from Chugach, MEA, ML&P, and REAP visited participating classes and presented on how to calculate energy usage, the importance of using energy efficiently, and specific and realistic ways in which students can reduce their usage. Students completed a hands-on activity from the AK EnergySmart curriculum, a resource developed in Alaska to teach kids about energy. To qualify for the challenge, students then conducted an online home energy audit with their families and identified specific actions they would take to use energy more efficiently.

“Today’s Alaskan students are the key to our energy future and educating them about energy efficiency is one piece in creating scientifically literate citizens,” said **Ben Walker**, science teacher for the grand prize-winning class. “Considering the big issues they will face as adults, such as climate change, students need to understand there is no one solution to Alaska’s energy challenges and energy efficiency is one piece of a bigger puzzle.” **NWPPA**

Skagit PUD’s Bob Powell retires

At a regular board meeting on December 8, Skagit PUD (Mt. Vernon, Wash.) commissioners announced that General Manager **Bob Powell** has decided to retire. Powell has held the general manager position at the PUD since February 2011.

CFO/Treasurer **Vanessa Dales** has been designated as the interim general manager. The commissioners will begin the process of filling the open general manager position, and will consider both internal and external candidates.

Powell came to the district following 10 years as the managing principal for the Burlington office of HDR Engineering, Inc., an international architecture, engineering, and consulting firm. This was Powell’s second stint with Skagit PUD. He was a district employee from 1993 to 2001, where he served as the operations manager. **NWPPA**

Bui-Thompson elected to be SMUD Board president

Sacramento Municipal Utility District (Calif.) Director **Nancy Bui-Thompson** has been elected president of the SMUD Board of Directors. Her term as president will run from January through December 2016. Bui-Thompson served as the board president in 2012 and served as vice president in 2011 and 2015. She was elected to the SMUD Board of Directors in November 2008 to represent Ward 2.



Bui-Thompson is currently a director in Technology Consulting at Public Consulting Group (PCG). Prior to PCG, she was a consultant at Accenture and a senior consultant at Deloitte. She is a technology and management professional who has worked with state and local government agencies as well as large energy and health-care organizations. She has served as a consultant to executive-level management for many large employers, bringing efficiency and project management to their organizations.

The *Sacramento Business Journal* named her as one of the “40 under 40,” as did the New Leaders Council National. In 2012, the German Marshall Fund of the United States (GMF) awarded the prestigious Marshall Memorial Fellowship (MMF) to Bui-Thompson. The GMF is a non-partisan American public policy and grant-making institution dedicated to promoting better understanding and cooperation between North America and Europe on transatlantic and global issues.

In 2010, she was selected to be a part of Class XIV of the American Leadership Forum (ALF) which is comprised of Sacramento’s top business, political, cultural, and non-profit leaders. She is currently a senior fellow with ALF.

NWPPA

Clallam celebrates opening of main office



(L-R) Clallam PUD Commissioners Hugh Haffner and Will Purser get ready for the ribbon cutting.

On December 12, Clallam County PUD #1 (Port Angeles, Wash.) celebrated the grand opening of its new main office at 104 Hooker Road in Carlsborg. Approximately 300 people attended the event.

The event began with opening remarks by PUD General Manager **Doug Nass** and was followed by remarks from PUD Commission President **Will Purser**.

Noting the importance of the year 2015 as not only the 80th anniversary of Washington's first initiative which allowed the formation of PUDs, but also the 75th anniversary of the formation of PUD #1 of Clallam County, Nass said, "It's only appropriate we open this facility this year."

Nass also discussed the reasons for the construction of the new main office. "Today we celebrate the grand opening of our 30,000-square-foot facility that is designed to not only improve internal efficiencies, create a one-stop shopping convenience for our customers, and to be the cornerstone of the PUD for the next 50 years," he said.

The official ribbon cutting, with PUD Commissioners **Hugh Haffner** and Purser joined by Nass and PUD employees, followed the remarks. Once the ribbon-cutting ceremony was complete, visitors enjoyed refreshments provided by Lawhead Architects and Neeley Construction Company. Self-guided tours were available with PUD staff strategically located throughout the facility offering information on what the various departments of the PUD do for the benefit of the customer.

The PUD thanks everyone who came out to the grand opening. **NWPPA**

Western, SMUD begin review of CoSu Line

The Western Area Power Administration (Western) and the Sacramento Municipal Utility District (SMUD) are studying the environmental effects to constructing and operating a 500-kilovolt transmission line in Colusa and Sutter counties in California.

The proposed Colusa-Sutter Transmission Line (CoSu Line) would enhance the reliability of the electrical grid in Northern California by providing a new connection to the existing California-Oregon Transmission Project line in Colusa County, Calif. The proposed line would link to a new substation near the existing O'Banion Substation in neighboring Sutter County. The project would increase SMUD's ability to deliver clean power to the Sacramento area from the Pacific Northwest and other energy markets.

A notice of intent to prepare an environmental impact statement was published in the Federal Register on December 18, initiating a 60-day public scoping period under the National Environmental Policy Act. SMUD will serve as the lead agency preparing the concurrent environmental impact review under the California Environmental Quality Act.

Visit www.cosuline.com/ for more information on the project. **NWPPA**

Salem Electric recognizes long-term employees

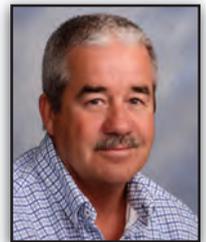
At Salem Electric's (Ore.)

annual dinner on December 11, several employees were recognized for their years of dedicated service.

Of the employees receiving service awards, **Chris Krieck** reached the 25-year mark as Salem Electric's controller; crew foreman **Jon Charnetzki** received a 30-year award; and **Paul Nelson**, Salem Electric's senior customer credit representative, received a 35-year-service award. **NWPPA**



Chris Krieck



Jon Charnetzki



Paul Nelson

Sanders to lead Benton PUD Board

Benton PUD (Kennewick, Wash.) Commissioner **Lori Sanders** was elected president of the Benton PUD Commission for 2016; **Barry Bush** was elected vice-president and **Jeff Hall** was elected secretary.

Sanders became commissioner for Benton PUD in January 2005. She is the owner and president of Energy Incentives, Inc., a consulting firm on conservation and renewable resources. She also serves on the Energy Northwest Executive Board. **NWPPA**

Member utilities busy with budget planning

The end of the year brings about budget planning for a lot of our utilities. The following is a brief summary of some of the budget news from the past month:

Grant PUD (Ephrata, Wash.) commissioners have adopted a \$257.5 million budget and set electric prices for all customer groups in 2016. The 2016 budget, adopted on November 10, allows Grant PUD customers to continue enjoying some of the most affordable energy in the nation. The budget has \$7.5 million less in expenditures than the prior year. The budget calls for a 2-percent revenue increase from local (retail) customers.

At its November 19 meeting, the Placer County Water Agency (Auburn, Calif.) Board of Directors adopted the Agency's 2016 budget. The \$101.3 million budget represents an evolving financial landscape primarily due to California's historic drought.

OPALCO's (Eastsound, Wash.) board of directors has approved the 2016 budget with measures in place to keep the co-op financially healthy, following two years of declining energy sales. Members' bills will go up by an average of 5 percent beginning in January and a new Energy Assistance Program will provide a monthly discount to qualified households.

On December 3, the SMUD Board of Directors approved a \$1.59-billion budget. The 2016 budget provides funding for all operations and maintenance (O&M), and capital programs, projects, and initiatives needed to meet the strategic directives set by the board. The 2016 budget represents an 8-percent increase in spending over 2015.

On December 7, Chelan PUD (Wenatchee, Wash.) commissioners unanimously approved the utility's 2016 budget that carries out priorities for investing in physical assets and employees, continuing to pay down debt, and supporting the Public Power Benefit projects chosen by community members during strategic planning. There is no general electric rate increase in next year's budget.

Echoing the sentiments of commissions, boards, and councils throughout the county, the Grays Harbor PUD (Aberdeen, Wash.) Board of Commissioners have approved

a "hold the line" budget for 2016. The \$89.3 million O&M budget maintains current staff levels and represents only 1-percent growth, while the \$7.8 million capital budget maintains system maintenance and reliability efforts while coming in nearly \$2.5 million below the 2015 total.

During the December 14 commission meeting, Clallam County PUD #1 (Port Angeles, Wash.) commissioners voted to approve the 2016 budget. As part of that budget approval, commissioners approved a staff-recommended 3.8-percent increase in retail electric utility rates and a 6-percent retail rate increase for water and sewer customers.

The Columbia River People's Utility District (St. Helens, Ore.) Board of Directors has approved a \$33.8 million Operating & Capital Budget for 2016 that will hold rates steady, maintain cash reserves, and fund \$2.5 million in system maintenance and improvement work. No rate changes are planned. **NWPPA**

Bickford reaches 20 years at Douglas PUD

Douglas County PUD Commissioners **Ron Skagen**, **Jim Davis**, and **Molly Simpson** awarded Natural Resources Supervisor **Shane Bickford** with his 20-year-service award during the December 14 commission meeting held at the District's East Wenatchee, Wash., office.



(L-R) Douglas County PUD Commissioner Ron Skagen, Commissioner Jim Davis (seated), Commissioner Molly Simpson, and Shane Bickford.

Commissioner Skagen thanked Bickford on behalf of the citizens of Douglas County for his years of service and Bickford thanked the commission. **NWPPA**

PCWA voices concerns to state water board

In a letter addressed to the State Water Resources Control Board, the Placer County Water Agency (Auburn, Calif.) called for modifications to the urban water conservation mandate adopted by the state in May. The letter responded to questions posed by the State Water Resources Control Board, in advance of its public workshop on the regulations on December 7, 2015. The PCWA Board of Directors dis-

Continued on page 20

cussed the letter and the Agency's proposed modifications at its meeting on December 7.

"The current conservation regulations ignore California's geographic and climate diversity, and are not a long-term solution to the current drought," PCWA General Manager **Einar Maisch** said. "Our staff has done a tremendous job working with agencies across the state to develop common-sense adjustments which produce greater equity. We hope the State Water Board will consider our suggestions."

In the letter, PCWA stressed the need for adjustments that recognize differences in climate and land use density to equalize the impacts of conservation. Because hotter, inland areas had much higher conservation requirements than cooler, coastal areas, PCWA customers suffered significantly higher financial and quality of life losses in terms of dead and dying landscapes and stressed urban forests. The Agency also argued that conservation requirements should not limit the use of local drought-resilient water supplies, and must be flexible and responsive to developing hydrologic conditions through the winter and spring of 2016.

PCWA Director **Robert Dugan** testified on behalf of the Agency at the State Water Resources Control Board's Urban Water Conservation Workshop in Sacramento. **NWPPA**

Looney selected as new PNGC Power CEO

PNGC Power (Portland, Ore.) has selected **Beth Looney**, an electric cooperative executive from Kansas, as its incoming CEO. Last year, **John Prescott**, PNGC CEO since 2006, announced that he will retire in April 2016.

Looney is the assistant general manager at Wheatland Electric Cooperative, the largest distribution electric cooperative in Kansas. Before taking the position at Wheatland she was the senior manager of power contracts and marketing at Sunflower Electric Power Cooperative, a Kansas generation and transmission cooperative. She currently serves as a board member at Sunflower representing Wheatland. She has an M.B.A. from Kennesaw State University and a B.A. in finance from Missouri State University.

In 2005, Looney began her career in public power as a power marketer at Associated Electric Cooperative, a generation cooperative serving six transmission cooperatives that, combined, serve 51 distribution cooperatives in Missouri, Oklahoma, and Iowa. She is an active participant representing Sunflower and Wheatland at the Southwest Power Pool, Kansas Electric Cooperatives (the Kansas statewide service organization), the Kansas Corporation Commission, and on numerous policy formulation committees.

"In Beth we have found the range of experience required to be successful in our business," said **Dave Hagen**,

PNGC Power Board chair and general manager of Clearwater Power Company of Lewiston, Idaho. "She has been on both the G&T and distribution sides and has experience in management, power supply, and public policy. We are very excited to bring her here to the Northwest." **NWPPA**

Kline named as new Northern Wasco GM

At their November 17 board meeting, the Northern Wasco County PUD (The Dalles, Ore.) Board of Directors announced their selection of the district's next general manager, **Roger Kline**. The selection was made after a thorough regional search and assistance from the consulting firm of Mycoff Fry & Prouse LLC.

Kline has worked in the energy industry for more than 22 years, holding positions in enterprise risk, generation operations, maintenance, and senior management. Before coming to Northern Wasco County PUD, he worked for the Eugene Water & Electric Board (EWEB), and has held positions with the U.S. Army Corps of Engineers, Calpine Corporation, Texas Independent Energy, Solar Turbines Inc., and the United States Navy. He holds a bachelor's degree cum laude in business administration from Colorado Technical University and a graduate certificate in utility management from Willamette University. Kline has also completed the American Public Power Association's *Certified Public Power Manager* course along with many other industry-specific trainings.

As general manager, Kline will lead a 49-employee utility that provides electric power services to 9,866 customers. **NWPPA**



Myhr retires from OPALCO Board

OPALCO (Eastsound, Wash.) has announced that Board Member **Bob Myhr** retired at the end of last year; he had been serving as vice president and represented District 3. Myhr joined the co-op in 1967 and was elected to the board in 1986.

President **Jim Lett** invited members to attend the December 17 board meeting to honor Myhr at his last meeting as a director. "Bob's long-time commitment to the co-op membership, his wisdom on the board, and his deep caring for the community will be missed," said Lett. "Those are some pretty big shoes to fill."

"It has been an honor to serve our co-op," said Myhr. "OPALCO is at the heart of our communities in the islands

and I hold the utmost regard for my fellow directors, the OPALCO staff, and especially our general manager, **Foster Hildreth**, for their commitment to continually improving our quality of life in San Juan County.” **NWPPA**

The Power of the Columbia River now open

Grant PUD (Ephrata, Wash.) opened its new visitor center, The Power of the Columbia River, on December 1. The center, which is open to the public, houses new displays that highlight the balancing act between hydropower, fish passage, recreation, and natural resource management.

Located adjacent to Wanapum Dam, about seven miles south of the Vantage Bridge, The Power of the Columbia River provides an opportunity for visitors of all ages to experience firsthand how Grant PUD operates its dams on the Columbia.

There are many interactive exhibits within the 2,000-square-foot facility that allow visitors to travel through time as they see how the Columbia River shaped Grant County. A theater features several videos that describe how the Columbia Basin was formed and how Wanapum Dam works. Visitors will also generate their own electricity, learn about fish in the river, as well as where to enjoy recreation along the Columbia River.

“We want this to be a center where schools, families, and members of the community can visit and use as an educational resource,” said Grant PUD Commission President **Dale Walker**.

The visitor center will be open from 9 a.m. to 4 p.m., Monday through Friday in October through April, and open daily (including Saturday, Sunday, and holidays) in May through September. Admission is free. The center is a component of Grant PUD’s federal license requirements to provide educational opportunities and access to customers.

NWPPA

PenLight announces rate increase

The Peninsula Light Company (Gig Harbor, Wash.) Board of Directors approved a 5.5-percent electric rate increase at its October board meeting, marking just the third time since 2001 that PenLight members have experienced an increase in their electric bills. The increase will take effect with the April 2016 billing cycle.

Residential members will see an average of \$7.74 added to their bill, which is currently estimated at \$88.44 for an average usage of 1,285 kilowatt-hours per month. The board also approved a \$3 increase in the monthly base

charge, effective in January 2016. The new base charge will be \$20.50.

Every two years, the Bonneville Power Administration (BPA) adopts a new rate structure for all Northwest utilities. PenLight absorbed all of the 2013 BPA increase but received another increase this year of 5.69 percent for power and 4.28 percent for transmission. Similar to other Northwest utilities, PenLight is increasing member electric rates to help defray this BPA charge. The company also needs to meet the green power state mandates of Initiative 937, in addition to its commitment to invest in system reliability.

“Now that we have reached the first quartile in system reliability, we have to maintain this level of service,” PenLight CEO **Jafar Taghavi** said. “It’s what our members expect, according to our member survey.” **NWPPA**

Grays Harbor PUD reaches Harbor Paper agreement

After two years of activity, the Grays Harbor PUD (Aberdeen, Wash.) has reached an agreement with Rayonier A. M. Properties, LLC to bring the utility’s involvement at the former Harbor Paper site in Hoquiam to a close.

On December 7, the PUD’s board of commissioners was presented with a final agreement terminating the lease the utility has held at the now-demolished paper mill site. Under the terms of the agreement, the PUD will place \$385,000 in an escrow account to cover the cost of removing the concrete from the site. If after a four-year period the money remains, \$200,000 will be returned to the PUD, while \$185,000 will be paid to Rayonier to cover the cost of removing the remaining rubble. Under the terms of the agreement, the rubble is available for third-party use and transportation off of the former mill site.

“When the utility became involved with Harbor Paper, the goal was to help maintain hundreds of family-wage jobs and be responsible for the generation of renewable energy (at the facility’s biomass turbines),” said PUD General Manager **Dave Ward**. “When the facility closed its doors, the goal shifted to completing our contractual obligations at the lowest possible impact to our customers. In that we were successful.”

Over the past two years the PUD was responsible for the demolition and disposal of the mill’s wastewater treatment facility and the disposal of tens of thousands of tons of paper production byproducts, ranging from clarifier solid waste to a large hill of boiler ash. **NWPPA**

WPUDA presents 2015 awards



(L-R) Roger Sparks receives the Lifetime Achievement Award from WPUDA President Dennis Bolz.



(L-R) Bolz presents the Lifetime Achievement Award to Ron Hatfield.

One of the highlights of WPUDA's Annual Conference was the recognition of outstanding individuals within the PUD family.

This year there were two PUD commissioners presented with WPUDA's highest honor, the Lifetime Achievement Award. Kittitas County PUD Commissioner **Roger Sparks** and Pacific County PUD Commissioner **Ron Hatfield** were presented with the Lifetime Achievement Award for their exemplary service.

In addition to the Lifetime Achievement Awards, employees from four PUDs received WPUDA's Good Samaritan Award, and an employee from Chelan County PUD honored for outstanding public service.

Clark Public Utilities Journeyman **Noah Mawae** was honored for performing the Heimlich maneuver on a co-worker choking on food. The quick actions by Mawae cleared food that was blocking his co-worker's airway, allowing him to breathe.

Mason County PUD Servicemen **Mel Ferrier** and **Kevin Phillips** came to the aid of an injured motorist, contacted emergency responders, and comforted the woman until assistance could arrive.

Grant County PUD Commissioner **Larry Schaapman** was honored for coming to the aid of his neighbors when a wildfire threatened their homes. He mounted his tractor and helped build a fire line to contain the blaze, preventing it from burning homes and threatening lives.

The employees of Okanogan PUD were honored for their heroic actions to preserve property and protect the community in the face of raging wildfires. The crews not only protected PUD infrastructure, but selflessly protected the homes of citizens even when their own homes were threatened.

Chelan County PUD Rocky Reach Visitor Services Manager **Debbie Gallaher** was honored with the Elmgren Public Service Award in recognition of her commitment and dedication to serving her community. **NWPPA**

Delwiche receives Presidential Rank Award

BPA Deputy Administrator Greg Delwiche was selected by President Barack Obama to receive a Presidential Rank Award on December 15 in Washington, D.C. Only one percent of senior executive service employees can earn the award in Delwiche's category for Distinguished Executive.



Delwiche was recognized for his more than 15 years as an executive where he played an integral role in issues of regional and international significance, including the Columbia River Treaty review, the \$1 billion Columbia Basin Fish Accords, implementing BPA's 20-year power sales contracts with its 142 utility customers, and the Department of Energy's nearly \$800 million uranium tails agreement with BPA partner Energy Northwest.

"I was speechless," said Delwiche of his reaction to the news. "More than anything else, this award speaks to what BPA is all about and the opportunity for employees to address critically important challenges and opportunities that are vital for enhancing the long-term value of the Columbia River power system and the natural environment within which the power system exists."

His approachability, honesty, and transparency in decision making have contributed to positive and productive outcomes for BPA's customers, stakeholders, and staff.

"Through it all, Greg has also devoted time and personal attention to mentoring and developing employees across BPA, and fostering an environment of trust, cooperation, and teamwork," said Administrator **Elliot Mainzer**.

Delwiche will retire in January after 32 years of federal service, which he started at the U.S. Army Corps of Engineers before coming to BPA in 1992. **NWPPA**

Lewis County PUD announces 2016 officers

On December 29, Lewis County PUD (Chehalis, Wash.) commissioners unanimously elected their slate of officers for 2016. Lewis PUD Commissioner **Chuck TenPas** will lead the board as president, with **Dean Dahlin** as vice president and **Ben Kostick** as secretary. **NWPPA**

DragonWear™ introduces three new products

This month, DragonWear™ introduced the rugged Elements™ Flak Jacket, the Cold Warrior™ Convertible Balaclava, and the Cold Snap™ Balaclava, all for the utilities, safety, and petrochemical markets.

The new Elements™ Flak Jacket is a revolution in the FR performance outerwear market. An innovative fusion of Polartec's® fan-favorite Wind Pro® and brand new, patented HardFace® FR fabrics, this garment provides superior weather protection and rugged usability. This inherently FR dual-hazard hybrid combines the best features of a versatile, full-zip outer layer with a one-of-a-kind, built-in fleece balaclava.



The new, inherently FR and arc-rated Cold Warrior™ Convertible Balaclava stands between you and punishing temperatures, while safeguarding you against the hazards of the job. The top portion utilizes Polartec® Power Grid FR® fabric with high-/low-interior grid construction, and maximizes warmth without sacrificing breathability. The bottom is made from durable, wind-resistant Polartec® Wind Pro FR® technology with lofted fleece interior to retain body heat.



The new Cold Snap™ Balaclava is the face-saving solution to reach for when the mercury drops. Inherently FR and arc-rated, this headwear packs a punch with excellent stretch, flat-stitch design on the top portion for increased hard-hat comfort and fast moisture-wicking for increased breathability and dry time. Made from fan-favorite Polartec® Power Grid FR® fabric, the top has high-/low-interior grid construction that maximizes warmth without forfeiting air flow.



DragonWear™, a partner brand of True North®, is a designer-manufacturer of innovative, performance-based FR and arc-rated clothing and accessories for the utilities, industrial safety, and petrochemical industries. For more information, please visit www.dragonwear.com. **NWPPA**

Minnesota co-op selects Tantalus for AMI

People's Energy Cooperative, an electric cooperative utility in Minnesota with 23,000 members, has selected Tantalus Systems to deploy a state-of-the-art hybrid IP-based network to support advanced metering infrastructure (AMI). People's Energy is among hundreds of cooperative utilities across the country faced with the imminent need to

replace aging power line carrier systems due to increasing data requirements associated with sophisticated energy management applications. The new wireless RF AMI network will leverage best-in-class signal range and unparallelled frequency agility to serve as a powerful platform to support advanced functionality including remote meter disconnects, pro-active outage notification, and prepaid metering.

Tantalus' smart grid enterprise platform, TUNet®, includes embedded distributed computing capability, utilizing a multi-core, Linux-based operating system with 32MB of memory in every communications module. These modules are field-proven and capable of running parallel processes and simultaneous advanced applications such as load management, CLVR™ (closed-loop voltage reduction), and distribution automation.

"Tantalus is excited to include People's Energy Cooperative in our user community, which is quickly approaching 100 utilities across North America, Latin America, and the Caribbean," stated Peter Londa, president and CEO for Tantalus. "By migrating from a legacy PLC system to our TUNet system, the team at People's Energy will be able to leverage TUNet's embedded distributed computing capability at every endpoint to deliver long-term and sustainable value to its members."

Tantalus provides a two-way, multi-purpose platform that enables access to data to power advanced smart grid applications for monitoring and control of electric, water, and gas municipal and cooperative utilities. For more information, please visit www.tantalus.com. **NWPPA**

ABB expands UL-listed product selection

Available in one-, two-, and three-pole configurations, the E90 30-amp and 60-amp Class J fuse holder family, new from ABB, expands the leading power and automation technology group's selection of UL-listed fuse holders and other protective devices.



"The E90 Class J fuse holder family expands ABB's line of protective devices for the North American industrial market," said Ed Rogin, product marketing manager at ABB. "We now offer a comprehensive line of fuse holders, miniature circuit breakers, surge protection devices, and residual current devices."

The E90 Class J fuse holder family, designed specifically for the North American industrial market, ensures safety during maintenance operations with the capability to be sealed in the closed position and be padlocked in the open position. The E90 Class J fuse holders are designed for industrial installations; motor and transformer protection; heating systems; and control circuits.

Continued on page 24

ABB (www.abb.com) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. **NWPPA**

S&C named founding sponsor for PEER program

A smart grid leader shaping the future of power delivery, S&C Electric Company announced it is being recognized as the Founding Sponsor of Energy Innovation for Green Business Certification Inc.'s (GBCI) new Performance Excellence in Electricity Renewal™ (PEER) program. Modeled after LEED, PEER is the driving force behind the U.S. Green Building Council's vision to transform the way power systems are designed, operated, and evaluated.

Administered by GBCI, PEER enables stakeholders to dramatically improve power system performance. PEER is a comprehensive framework for defining, assessing, and verifying the overall sustainable performance of electricity delivery system design and operations. The standards enable project teams to assess their current state, develop strategies for improvement, improve the business case, and verify the value of system changes.

"As our energy landscape continues to evolve and change, and cities continue to embrace new technologies like solar, energy storage, and microgrids, it is crucial to create tools to benchmark the performance of these power systems," said **David Chiesa**, senior director, Business Development at S&C Electric Company. "We are proud to have had a part in the creation of PEER and will continue to work alongside USGBC and GBCI to have utilities, cities, and other power customers achieve PEER certification."

S&C Electric Company is a global provider of equipment and services for electric power systems. For more information, visit www.sandc.com. **NWPPA**

NEEA celebrates leadership in energy efficiency

On December 3, the board of directors of the Northwest Energy Efficiency Alliance (NEEA) honored winners of the 2015 Leadership in Energy Efficiency Awards. This was the inaugural year of these awards, which recognize outstanding achievement in collaboration, innovative solutions, and achievement that have significantly contributed to greater energy efficiency in the Northwest.

Rich Arneson and **Bruce Carter**, who work in conservation at Tacoma Power, garnered the Leadership in Energy Efficiency Award for Innovation for their work with

Habitat for Humanity and to improve energy codes in Washington state.

Jim West, assistant general manager at Snohomish County PUD, won the Leadership in Energy Efficiency Award for Collaboration for serving as a model collaborator for energy efficiency for utilities throughout the region.

Tom Eckman, power planning director for the Northwest Power and Conservation Council, won the Leadership in Energy Efficiency Award for Lifetime Achievement. Eckman has more than 30 years of experience in power planning and energy efficiency, including a lead role in developing all seven of the Northwest's Power Plans.

"We are fortunate to have such experienced leadership that brings innovation and collaboration to our alliance. Their dedication makes a huge contribution to energy efficiency in the Northwest," stated **Susan E. Stratton**, NEEA's executive director.

The Northwest Energy Efficiency Alliance (NEEA) is an alliance of more than 140 utilities and energy efficiency organizations working on behalf of more than 13 million energy consumers. For more information, visit www.neea.org. **NWPPA**

T&B's Blackburn® MLG25020 connectors assemble easily

Blackburn® MLG25020 mechanical lay-in connectors from Thomas & Betts (T&B), a member of the ABB Group, feature an innovative, swing-away design that allows for easy assembly without the need for special tools.



"We designed the Blackburn® MLG25020 mechanical lay-in grounding connector for easy assembly when extending existing ground grids," said **Ralph Donati**, product marketing director at T&B. "When the proper molds and shots aren't available on the job site for exothermic installation, or the appropriate tools for compression installation aren't available, the MLG25020 is a cost-effective alternative that saves time."

The Blackburn® MLG25020 mechanical lay-in grounding connector will accommodate cables ranging from 250 MCM through 2/0 STR. Cables can be run in parallel or perpendicularly to each other. As it is a mechanical connector, it can be installed in any weather conditions. An anti-corrosive compound is applied at the factory.

Blackburn® MLG25020 mechanical lay-in grounding connectors comply with IEEE 837-2014 substation applications and cULus 467, and are listed for direct burial (DB).

Thomas & Betts Corporation, a member of the ABB Group, is a global leader in the design, manufacture, and marketing of essential components used to manage the connection, distribution, transmission, and reliability of electrical power in utility, industrial, commercial, and residential applications. For more information, please visit www.tnb.com. **NWPPA**

Morgan Meguire rounds up 2015's federal issues



Several issues that NWPPA members actively engaged in the first session of the 114th Congress were resolved by adding them to the “must-pass” tax and spending bill. Others, including “riders” to block implementation of certain Administration regulations, were excluded and may be back on the table next year.

In an end-of-session deal reminiscent of old-fashioned political “log-rolling,” Congressional leaders drafted and swiftly passed bills to fund the federal government through the end of Fiscal Year (FY) 2016 and extend a number of expiring tax benefits before adjourning for the year. The negotiations involved only a few high-level officials, including the White House representatives and House and Senate leaders and staff.

The House passed the measures as separate bills on December 17 and 18. The Senate combined the two bills into one and approved it on the 18th, and the President signed it later that day.

Several issues that NWPPA members actively engaged in the first session of the 114th Congress were resolved by adding them to the “must-pass” tax and spending bill. Others, including “riders” to block implementation of certain Administration regulations, were excluded and may be back on the table next year. Overall, the results for NWPPA and its members were positive.

Issues of direct interest to NWPPA included in the spending/tax bill are the following:

- The final House-/Senate-agreed-upon text of the Cybersecurity Information Sharing Act (CISA), legislation that the electric sector, including NWPPA, strongly supported. The bill authorizes information-sharing about cybersecurity incidents and defensive measures from the federal government to the private sector, and voluntary information-sharing by private entities to the government, with liability protection and protection against disclosure for entities that choose to do so. CISA represents a much better approach to cybersecurity than had been introduced but failed to pass in prior Congresses.
- A prohibition on the use of funds by the Bureau of Land Management (BLM) to list the sage grouse as a threatened or endangered species under the Endangered Species Act, and strong report language directing the BLM to work closely with affected states and communities to address issues unique to each state and seek to

collaboratively resolve all issues. The report also directs the BLM to provide guidance to its state offices and partners on how they will update sage grouse habitat maps, adopt new scientific information, and engage state, local, non-governmental, and private partners in developing state management plans. NWPPA members and others have consistently urged that the federal government work with the states to develop a recovery plan, rather than issue a “top down” federal directive. Hopefully, these directives from Congress will allow more time and space for such processes to occur.

- Authorization to the Bureau of Reclamation (Bureau) to construct “additional project benefits” when the agency (which owns and operates many of the dams that generate power for NWPPA members) undertakes repairs under the Reclamation Safety of Dams Act. APPA, NRECA, and others succeeded in amending the provision to specify that costs of those “additional project benefits” will be borne exclusively by those who benefit from those additional works, not existing project beneficiaries as in the original bills.

Issues **not** included in the omnibus/tax bill:

- “Riders” to the FY 16 spending bill to block implementation of Administration regulatory initiatives, including the Clean Power Plan (CPP), Waters of the United States (WOTUS) final rule, and other initiatives generally opposed by the GOP and the electric and agriculture sectors, including NWPPA. The President had vowed to veto any bill with these kinds of riders, and preventing their inclusion was a top priority for congressional Democrats. NWPPA had expressed strong concerns about both the CPP and WOTUS rules, and had hoped that legislation would succeed in addressing those concerns. Both rules are now being challenged in federal courts.
- A House-drafted version of drought legislation being negotiated among House and Senate members from

Continued on page 26

California, and a second group of senators from other western states. Its inclusion was blocked when lead Senate sponsor, Sen. Dianne Feinstein (D-Calif.) objected. Nevertheless, in a December 16 letter to Senate Energy and Natural Resources Committee leaders, Sen. Feinstein and other western senators (including Sens. Orrin Hatch (R-Utah) and Steve Daines (R-Mont.)) pledged to bring a drought bill to the committee early in 2016. NWPPA's interest in the bills has been — and will continue to be — to ensure that power operations are not diminished and mitigation costs are not unfairly shifted to power customers.

- H.R. 2358, the bipartisan Electric Reliability and Forest Protection Act vegetation management bill, that was approved by the House Natural Resources Committee, with support from NWPPA and other western utility organizations. The bill would expedite the process of gaining access to federal lands to manage vegetation around transmission and distribution facilities, thus reducing the risk of wildfires and increasing electric reliability. Sponsors of the vegetation management bill and its supporters, including NWPPA, are expected to continue to try to advance the bill in 2016.

Energy provisions in transportation measure

Before adjourning for the year, Congress also approved a five-year transportation reauthorization bill, including a handful of provisions from H.R. 8, the House-passed energy bill.

H.R. 8 began as a bipartisan effort, but became a bitterly partisan fight in full committee. Recognizing the opportunity that the “must-pass” transportation bill offered, House Energy and Commerce Chair Fred Upton (R-Mich.) won support for the inclusion of certain key provisions — including three affecting the electric utility sector — to the transportation measure. The Senate concurred, and the bill became law on December 4.

These provisions include:

- Emergency authority to the Department of Energy (DOE) to order utilities and the North American Electric Reliability Corporation (NERC) to take action in the event of an imminent cyber, physical, electro-magnetic pulse, or geomagnetic storm threat to the bulk electric system. The electric sector cyber coalition has long said it would be willing to accept this kind of authority as long as it required a written declaration by the President, were short-lived, and responsibility for it were given to the Department of Energy instead of the Federal Energy Regulatory Commission, as does this new law.
- A reliability “safety valve” that allows a utility to avoid penalties and citizen suits when ordered by the DOE to run a power plant beyond its carbon limits

for grid reliability reasons, when such operations violate environmental rules. This potential conflict was highlighted in congressional hearings on the Environmental Protection Agency's CPP and inclusion of a safety valve enjoyed broad support in the electric industry, including strong support from NWPPA.

- Direction to the DOE to develop and submit to Congress a plan to create a Strategic Transformer Reserve to ensure the availability of replacement transformers essential to the reliability of the electric grid. Congress and the industry have expressed concern for the last several years about the length of time it takes to order and take delivery of certain critical-size transformers and the lack of domestic manufacturers. This provision directs the DOE to give Congress its thinking about the specifics of such a reserve, including options for funding. The details of the transformer reserve will be of keen interest to NWPPA members, particularly the financial options.

Next year, a lot of congressional time and attention will likely be focused on the 2016 elections, and the spirit of bipartisanship that made possible passage of the omnibus tax and spending bill and other measures is likely to fray.

Nevertheless, NWPPA will continue its focus on federal energy and environmental priorities, keeping its congressional delegation informed on regional issues and developments, and supporting the public power mission and values. The “dance of legislation” is usually a long one, and it takes time to build and nurture the relationships that are essential to making NWPPA's voice heard in Washington, D.C.

In addition to the above activities, the Administration will begin a public process to develop a second Quadrennial Energy Review (QER), less than a year after the first QER was released. Its focus will be on electric transmission and distribution, and the challenges presented by distributed generation and other industry changes — a topic on which NWPPA's voice should be heard. **NWPPA**

Deborah Sliz and Tim Robison are with Morgan Meguire, NWPPA's Washington, D.C., consulting firm. They can be reached at either dsliz@morganmeguire.com or trobison@morganmeguire.com respectively.



COVER STORY

by Neil Neroutsos



Snohomish PUD Engineer Sunny Kim works in the utility's smart grid lab. The testing facility helped the PUD simulate a cyberattack with the Washington National Guard. Photos provided by Snohomish PUD.

Snohomish PUD and its employees take on cybersecurity

The unfortunate reality of our modern world is that hackers routinely attempt to wreak havoc on our computer information systems. Numerous U.S. corporations have been targets, including Target, Sony Pictures, and Premera Blue Cross.

The nation's electric grid also is a primary target. The North American Electric Reliability Corporation recently held its Grid Ex III exercise, designed for electric utilities to test their response to cyber and physical security threats. The two-day event helped strengthen crisis plans and overall information-sharing across the electricity industry.

Proactive measures

Recognizing that cyber risks impact all utilities, Snohomish County Public Utility District has moved on several fronts to enhance its security measures.

"We've developed a cybersecurity program as part of our smart grid grant from the U.S. Department of Energy,"

PUD Chief Information Officer Benjamin Beberness said. "It includes a set of security controls and lays the foundation for a cybersecurity risk management framework, as well as education and awareness for our employees."

The PUD recognizes that no matter how thick and high your walls are, it's your employees' lack of awareness that's the weakest link. Education is critical.

Employees at the PUD are regularly required to take online training courses to alert them to the latest scams and give them the tools they need to protect systems. Training covers areas such as security awareness, anti-phishing, and security of corporate information.

The training reinforces for employees the many risks both to an organization and individuals. Among these dangers, for example, are viruses erasing an entire system; someone breaking into a system and altering files; someone using an individual's computer to attack others; or someone stealing credit card information and making unauthorized

Continued on page 28

In the coming months, the PUD will launch a phishing exercise in which employees will receive fraudulent requests that they must detect and report. The exercises will be conducted by an outside vendor and the emails and other schemes will be designed to look authentic. If employees take the bait, they will be redirected to a short 90-second training session to show them how to identify phishing threats in the future.



PUD staff work in the smart grid test lab that was utilized to mirror actual systems from EMS/SCADA to substations. (L-R) Smart Grid Program Manager Will Odell, Principal Engineer Chris Fate, and Manager of Substation Engineering Jason Zyskowski.

purchases. And while there's no 100-percent guarantee that even with the best precautions some of these things won't happen, there are steps everyone can take to minimize the chances.

"You need to find multiple ways to clearly communicate cybersecurity to employees, through presentations at staff meetings, brochures, fact sheets, employee newsletters, and online resources," said Paul Jacobsen, the PUD's information technology security architect. "Getting support from senior leadership is critical to a successful program."

A special Web page that the PUD has created for employees includes a collection of tips and publications to help them be better informed about potential cyber risk — both in their professional and personal lives. Employees are repeatedly reminded to report any unusual emails and online activity.

In addition, the PUD's IT department regularly shares warning notices from the Department of Homeland Security with employees when specific phishing and malware campaigns are identified. During the holiday season, for example, there may be fake advertisements or shipping notifications with infected attachments. Phony email messages and posts on social media sites may also request support for illegitimate causes.

The PUD offers its employees guidance about these specific steps they can take to help protect them and the organization:

- Make your passwords complex. Use a combination of numbers, symbols, and letters (uppercase and lowercase).

- Change your password regularly (every 90 days).
- Do not give any of your user names, passwords, or other computer/website access codes to anyone.
- Do not open emails or attachments from strangers.
- Do not install or connect any personal software or hardware to your organization's network or hardware without permission from your IT department.
- Make electronic and physical back-ups or copies of your most important work.
- Report suspicious or unusual problems with your computer to your IT department/help desk.
- Immediately report unusual activity to IT, including suspicious emails or attachments; attempts to gain your passwords or sensitive information; and any unusual computer behavior.

In the coming months, the PUD will launch a phishing exercise in which employees will receive fraudulent requests that they must detect and report. The exercises will be conducted by an outside vendor and the emails and other schemes will be designed to look authentic. If employees take the bait, they will be redirected to a short 90-second training session to show them how to identify phishing threats in the future.

Forging partnerships

In recent years, the PUD has partnered with other utilities and public and private organizations to organize cybersecurity summits in order to identify threats and share response plans.

Last year, the utility worked with a Washington National Guard team to assess the PUD's cybersecurity defense as part of a groundbreaking, two-week "penetration test," the first such operation ever conducted by a National Guard team. During the exercise, the team attempted to attack utility systems, including operational areas such as substation controls and administrative systems such as human resources and customer service.

The exercise proved invaluable for both the PUD and the National Guard, and it helped to better identify the types of risks the utility should be looking for from hackers. During the simulation, the PUD also learned ways to fine tune its response processes if and when an actual cyberattack occurs.

"Electric utilities need robust response and recovery plans that include sharing of information and other mechanisms to protect against cybersecurity events," said Beberness. "The National Guard team's expertise was top notch, and the output will help the PUD improve its response and recovery plans."

Most utilities leverage table top exercises as a key tool for testing cybersecurity response. According to Beberness, penetration tests take it to the next level by exposing weaknesses in the plans since they test actual detection and responses to attacks in real time. In the PUD exercise, a smart grid test lab was utilized to mirror actual systems from EMS/SCADA, to substations, including battery storage devices and distribution automation systems.

In order to respond to a cyber event, the PUD has to be able to detect the event. To help the PUD test its detection capability, the team knew the Guard's attack would come during a two-month window but it didn't know the actual timing or what means would be used to penetrate the utility's systems. This allowed for a better test of the PUD's detection capabilities.

The Guard is looking at ways of replicating the penetration test for other utilities and critical infrastructure around the country. Such operations have significant value, particularly for smaller utilities that may not have the same levels of security and funding to pay for these exercises.

In addition to these exercises, the PUD's ongoing employee communication and training safeguards the integrity of utility systems. For the PUD, cybersecurity is fundamental to its business operations. It invests time and resources in order to continuously monitor and prepare for constantly evolving cyber risks. **NWPPA**

Neil Neroutsos is media liaison for Snohomish County Public Utility District, which serves 333,000 customer accounts north of Seattle, Wash. He can be contacted at NSNeroutsos@snohud.com.



Interested in learning more about cyber security? This year's IT Conference, being held in Reno in March, includes sessions on cybersecurity, penetration testing, email security, and disaster recovery. For more information or to register, visit www.nwppa.org.

The whys, whats, and hows of PUD cybersecurity

Why did the PUD start a cybersecurity program?

All utilities face risks from hackers and other cybersecurity threats. Utilities need to consider if they're taking all necessary measures to protect their systems. Snohomish PUD has always taken cybersecurity seriously and understands that it needs to continuously be aware of the evolving cyber risks.

What has the utility done so far?

Employees at Snohomish PUD are regularly required to take online training courses to alert them to the latest scams and give them the tools they need to protect systems. The utility also participates in several national forums with organizations such as EnergySEC, the Large Public Power Council, American Public Power Association, Western Energy Institute, and others. The PUD has worked with other Northwest organizations to hold two cybersecurity summits to share information and brief congressional staff and government officials. It's also participated in emergency exercises, organized by the Department of Homeland Security and the U.S. Department of Energy, which simulated cyberattacks and tested the utility's level of response. In addition, the PUD has formed a Cybersecurity Steering Committee, comprised of its senior leadership.

How have these measures benefited the utility?

The entire region has benefited by sharing cybersecurity best practices among public agencies, such as the City of Seattle and the National Guard, and major corporations, such as Microsoft and Amazon. Through participation in regional and national cyber events, the utility identified areas for improvement. Internal communications, for example, have improved as it has learned how, what, and when to communicate cyberattack information to outside authorities and among internal divisions. Increased employee awareness has been central to the program.

Is there other advice for regional utilities about staying on top of cybersecurity?

The active involvement of a utility's senior leadership and the information sharing and communication components are critical. Utilities need robust response and recovery plans to protect against vulnerabilities. Smaller utilities with limited resources should consider adopting programs available through the Department of Homeland Security or the U.S. Department of Energy's Electricity Subsector Cybersecurity Capability Maturity Model, which is risk based and allows a utility of any size to focus its resources on its highest risk. The SANS Institute also provides organizations with a series of 20 critical security controls to help them with cyber defense. **NWPPA**



Other good security habits

Snohomish PUD shares many best practices with its employees, such as these tips from Carnegie Mellon University:

- **Lock your computer when you step away**, even if it's only for a few minutes. The PUD's computers automatically go into lock mode after 10 minutes of inactivity, and then they require a password for access.
- **Check your security settings.** Using certain features to increase convenience or functionality may leave you more vulnerable to being attacked.
- **Protect your computer against power surges.** Some power strips provide protection. During lightning storms or construction work (times of increased power surges), consider shutting down your computer and unplugging it from power sources.
- **Back up your data.** Regularly backing up data on external drives or a network reduces the stress and other negative consequences from losing important information. **NWPPA**

Cybersecurity apprenticeship programs announced

In 2016, EnergySec is creating several workforce development programs to answer the need for cybersecurity professionals in the utility industry. These programs will provide a career pathway for those interested in pursuing a cybersecurity profession. Among the programs offered will be a summer internship opportunity available to college students who are pursuing a cybersecurity degree. EnergySec is also developing a two-year apprenticeship program and a professional development program for those already in the industry but who are interested in advancing their career opportunities. For more information on these programs, go to <http://www.energysec.org/workforce-development/>. **NWPPA**

Cybersecurity guide available

The PUD has joined with several federal and state agencies and industry leaders to develop the "Cybersecurity Guide for Critical Infrastructure for the State of Washington." The guide provides examples of best cyber practices and tools that can be used by IT departments and senior leadership to help keep infrastructure protected as threats develop. It has particular value for smaller utilities and critical infrastructure operators with limited resources and expertise to strengthen their cybersecurity protections. The guide is available at www.snopud.com (click on "About Us/Cybersecurity Summit"). **NWPPA**

JOB OPPORTUNITIES

The Job Opportunities is a service provided to NWPPA member systems and associate members. Member price is \$110 per listing for a 30-day period.

- Job Opportunities ads are also accepted from non-members. Ads are \$330 per listing for a 30-day period.
- *Copy must be received before the 25th of the month prior to the month of publication* (for example, February 25 for March issue).
- The *Bulletin* is mailed by the 15th of each month.
- Complete the online Job Opportunities ad placement form at www.nwppa.org.
- NWPPA reserves the right to edit all listings in order to fit size requirements in the publication.

POSITION: Work Flow Technician

COMPANY: Idaho Falls Power (Idaho Falls, Idaho)

SALARY: \$18.60-\$25.61 per hour.

DEADLINE TO APPLY: January 18, 2016.

TO APPLY: Apply online and attach an electronic resumé at www.idahofallsidaho.gov.

POSITION: Business Systems Analyst II - Database Administration

COMPANY: Franklin PUD (Pasco, Wash.)

SALARY: \$61,004 annually.

DEADLINE TO APPLY: January 20, 2016.

TO APPLY: Apply online at www.governmentjobs.com/careers/franklinpud.

POSITION: Journeyman Lineman

COMPANY: Elmhurst Mutual Power & Light Company (Tacoma, Wash.)

SALARY: \$83,000 annually, plus overtime.

DEADLINE TO APPLY: January 22, 2016.

TO APPLY: For an application package and full job description, email Administrative Assistant Diane Young at dianey@elmhurstmutual.org or contact her by phone at (253) 531-4646. Mail completed application to 120 132nd St., South, Tacoma, WA 98444-4808.

POSITION: Journeyman Lineman

COMPANY: McMinnville Water & Light (McMinnville, Ore.)

SALARY: Per IBEW Local 125 contract.

DEADLINE TO APPLY: January 22, 2016.

TO APPLY: Submit application and resumé to Human Resources, McMinnville Water & Light, P.O. Box 638, McMinnville, OR 97128. Application available at www.mc-power.com.

POSITION: Working Fleet Supervisor

COMPANY: Midstate Electric Cooperative, Inc. (La Pine, Ore.)

SALARY: DOE.

DEADLINE TO APPLY: January 26, 2016.

TO APPLY: Submit cover letter with resumé to Human Resources, Midstate Electric Cooperative, Inc., P.O. Box 127, La Pine, OR 97739; fax (541) 536-1423; or email sstreeter@mse.coop. No phone calls accepted.

POSITION: Journeyman Lineman — Glennallen

COMPANY: Copper Valley Electric Association (Glennallen, Alaska)

SALARY: \$46.00 per hour.

DEADLINE TO APPLY: January 27, 2016.

TO APPLY: Complete application packet available at www.cvea.org, Careers section.

POSITION: Generation System Engineer — Electrical

COMPANY: Alaska Electric Light & Power Co. (Juneau, Alaska)

SALARY: DOE.

DEADLINE TO APPLY: January 30, 2016.

TO APPLY: Apply online at www.aelp.com.

POSITION: Electric Operations Manager

COMPANY: Nushagak Electric & Telephone Cooperative, Inc. (Dillingham, Alaska)

SALARY: DOE.

DEADLINE TO APPLY: January 31, 2016.

TO APPLY: Submit resumé and employment application to Nushagak Cooperative Attn. Gayla Powers, P.O. Box 350, Dillingham, AK 99576, fax to (907) 842-2780, or email to gpowers@nushagak.coop.

POSITION: Apprentice Lineman

COMPANY: Orcas Power and Light Cooperative (Eastsound, Wash.)

SALARY: DOE.

DEADLINE TO APPLY: January 31, 2016.

TO APPLY: Download detailed job description and application form at

www.opalco.com. Submit OPALCO employment application, resumé, cover letter, and reference to Bev Madan, 183 Mt. Baker Rd., Eastsound, WA 98245 or bmadan@opalco.com.

POSITION: Treasurer

COMPANY: Columbia Basin Hydropower (Ephrata, Wash.)

SALARY: DOE.

DEADLINE TO APPLY: February 5, 2016.

TO APPLY: Send resumé outlining education, experience, and at least three work references to Secretary of Board, P.O. Box 219, Ephrata, WA 98823.

POSITION: General Manager

COMPANY: Brown & Kysar, Inc. (Battle Ground, Wash.)

SALARY: TBD.

DEADLINE TO APPLY: March 30, 2016.

TO APPLY: Send resumé to employment@bki.cc or call Erik Kysar at (360) 931-4424.

POSITION: Human Resources Manager

COMPANY: Public Utility District #1 of Pend Oreille County (Newport, Wash.)

SALARY: DOQ.

DEADLINE TO APPLY: February 3, 2016.

TO APPLY: Submit application, resumé, and cover letter to Human Resources, Pend Oreille County PUD #1, P.O. Box 190, Newport, WA 99156 or to careers@popud.org. Application and full job description can be found at www.popud.org.

POSITION: Journeyman Lineman

COMPANY: Cordova Electric Cooperative (Cordova, Alaska)

SALARY: \$39.40 per hour.

DEADLINE TO APPLY: Open until filled.

TO APPLY: Submit resumé, cover letter, and application (found at www.cordovaelectric.com under Career Opportunities) detailing your interest and qualifications, to Cordova Electric Cooperative, P.O. Box 20, Cordova, AK 99574-0020 or email to info@cordovaelectric.com.

POSITION: Manager of Engineering & Operations

COMPANY: Cordova Electric Cooperative, Inc. (Cordova, Alaska)

SALARY: \$95,000-\$105,000 annually, DOE.

DEADLINE TO APPLY: Open until filled.

TO APPLY: Submit resumé and cover letter detailing your interest and qualifications with three professional references to Cordova Electric Cooperative, Inc., P.O. Box 20, Cordova, AK 99574-0020, or email to info@cordovaelectric.com.

POSITION: Instrument & Electrical Technician

COMPANY: City of Redding (Redding, Calif.)

SALARY: \$41.88 per hour.

DEADLINE TO APPLY: Open until filled.

TO APPLY: Apply online at www.cityofredding.org.

POSITION: Chief Executive Officer

COMPANY: Ruralite Services, Inc. (Hillsboro, Ore.)

SALARY: DOE.

DEADLINE TO APPLY: Open until filled.

TO APPLY: Contact jobs@ruralite.org for an application. Completed application and cover letter may be sent to mfarmer@clatskaniepub.com. **NWPPA**

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Henkels & McCoy	16
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