

BULLETIN



**MARIJUANA ISSUES
CONTINUE TO GROW
IN THE NORTHWEST**





On the cover: Marijuana use is now legal in four states within NWPPA's territory—Alaska, Washington, Oregon, and California—and causing load issues. John Morris reviews where the cannabis industry is now (and is going), and explains how the electric utility industry can work with this new class of customers to behoove both parties.

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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NWPPA UNVEILS NEW SUPPLY CHAIN WORKSHOP



On September 11–12, those who work in or support their utility’s supply chain functions should gather for the 2018 Supply Chain Workshop to learn from subject matter experts as well as from each other on the latest developments and best practices. The two-day workshop will be held at the Hotel RL Spokane at the Park in Spokane, Wash. This is the first supply chain workshop since 2014 and has been designed by electric utility supply chain professionals to update you on current issues and topics.

Paul Casey of Growing Forward Services will be kicking off the two-day workshop as the keynote speaker. Casey will be sharing activities and principles for helping you clarify where you are leading your team, how to reach the destination with your team, and how to make leadership part of work culture.

Other sessions planned for the workshop include a panel of your peers discussing their experience with joint purchasing, including a case study from Central Lincoln PUD; a session on how to set up your inventory for continual improvement; warehouse safety and housecleaning awareness; and a walk down the Spokane River to tour Avista’s Upper Falls Dam.

Networking activities include roundtable discussions and a reception. Providers of utility-related products will also be on hand to discuss new products and lead times, and will be available for Q&A during the reception.

Register now for the 2018 Supply Chain Workshop at www.nwppa.org. After you register for the conference, be sure to book your room at the Hotel RL Spokane at the Park before August 13 to receive the discounted NWPPA rate.

For questions about the event or sponsorship opportunities, contact Taryn Johnson at taryn@nwppa.org. **NWPPA**



**3 Cs CONFERENCE:
CUSTOMER SERVICE, CREDIT, AND COLLECTIONS**

October 24–26, 2018 | Hilton Vancouver | Vancouver, WA

ANNUAL 3Cs CONFERENCE SCHEDULED FOR OCTOBER

On October 24-26, members of the customer service, credit, and collection departments of member utilities will gather for the 2018 Annual 3Cs Conference at the Hilton Vancouver in Washington.

At the 3Cs you will have the opportunity to build relationships with others in your field through roundtable discussions, utility snap shots, a networking reception, and an optional dinner outing. In addition, you will be one step closer to completing the Customer Service Certificate Program by attending the conference.

The conference will unofficially start on Tuesday, October 23, with a pre-session led by Tami Mack of North Star Leadership Consulting on how to establish a training program and coach new employees.

The conference will then kick into high gear on Wednesday morning with a keynote presentation from Debra Smith, general manager of Central Lincoln PUD, who will share her vision of the future of utilities.

The remainder of the conference will be filled with general sessions covering hot topics such as blockchain with Northern Wasco PUD General Manger Roger Kline; panel discussions about the realities of pre-pay and best practices of limited-income programs; and de-escalation tips, a bankruptcy teaser, and how to build your personal brand led by Mack.

Register now for the 3Cs: Customer Service, Credit, & Collections Conference and pre-session course at www.nwppa.org. After you register for the conference, be sure to book your room at the Hilton Vancouver before September 22 to receive the discounted NWPPA rate.

For questions about the event or sponsorship opportunities, contact Taryn Johnson at taryn@nwppa.org. **NWPPA**



The Northwest Communications and Energy Innovations Conference (NIC) will be taking over Lake Coeur d'Alene this fall and the NIC Planning Committee has aptly given this year's conference the theme of *Community: The Heart of Public Power*. Coeur translates to heart, but the theme also represents the value of public power.

"The theme this year represents the heart of what drives public power to operational excellence. The communities that we live and work in, the people we serve, and our public power community that is made up of our colleagues and friends all create the community in our hearts," said Clatskanie PUD's Sarah Johnson, chair of the 2018 NIC. "This sense of community is what makes us strong and more powerful together as public power. At this year's NIC we hope to bring that feeling of community to each of our educational sessions so that everyone may take new ideas and inspiration back to their utilities."

For the Sunday night welcome reception, the committee is hoping for good weather so that attendees can enjoy all that this beautiful lake location has to offer. In addition to the great networking opportunity, you will not want to miss the Sunday reception because that is where everyone will get to vote for the People's Choice Awards for best photography. All photographs will be on display and it will be up to attendees to vote for their favorite photos from the entries. Due to the large number and variety of photos submitted last year, this award has been expanded to three categories: Best Photo of an Employee, Best Photo of a Child/Children, and Best Miscellaneous Photo.

On Monday morning, start your day with a fitness walk along the lake front then get right down to business with the first of nine general sessions. This year the planning committee opted to load the conference with more general sessions that feature high-demand topics, such as change in the world of communication, social media, low-income energy programs, electric vehicles, poverty bias, thermal imagery, federal legislation, More Powerful Together in action, and bitcoin/blockchain. Breakout session topics include improving with improv; developing executive presence; social media, feeding the feed, and DIY video; new energy efficiency tools and techniques; communicating across barriers; crisis communications and the California fires; and trials, tribulations, and successes in low-income weatherization programs.

Whether it's a speaker for a general session or for one of our many communication and energy efficiency breakout sessions, our presenters this year are extra special. To give you a taste of who will be there this year, here are a just a few of our experts who will be presenting at the conference:

- Chris Ulrich, keynote speaker, body language expert, political consultant, improvisational actor, and personal coach
- Paul Lowenthal, assistant fire marshal, and Adriane Mertens, marketing and community outreach coordinator, both with the City of Santa Rosa
- Rachel Ravisky, weatherization program coordinator, Washington State Department of Commerce
- Carmen Proctor, EcoSave Program coordinator, Nelson Hydro
- Donna Beegle, CEO and founder, Communicating Across Barriers
- Megan McKoy-Noe, content marketing and development manager, Ruralite Services, Inc.

And as always, two roundtable sessions (one on Monday and another on Tuesday) have been scheduled. These are where attendees can brainstorm ideas and come away with solutions and opportunities to take back to their own utilities—and possibly even implement.

The NIC wraps up on Wednesday morning, but plan on staying for the full day so you can participate in the afternoon post-conference workshop: *The Secrets of Social Media: Clues for Connecting with Electric Utility Customers*. Facilitator Molly McPherson is an expert in social media, crisis communication, and public relations. She started the social media program for FEMA, was the director of communications for the Cruise Line International Association, and is a featured speaker and facilitator for Harvard Kennedy School and NRECA. Her knowledge, energy, and engaging style make this a fun class with real skills and ideas to take away and put into action.

"I am very excited to serve as the 2018 NIC chair and it is an honor and privilege to work with such a fantastic planning committee," said Johnson. "We have worked hard to put together a great agenda for our conference this year. We hope to see a record number of our industry friends and colleagues in beautiful Coeur d'Alene, September 16-19."

To register for the conference and post-conference workshop, visit www.nwppa.org. After you register for the conference, be sure to book your room at the Coeur d'Alene Resort before August 15 to receive the discounted NWPPA rate. If you have any questions about this year's NIC, please contact Elaine Dixon (elaine@nwppa.org) or Debbie Kuraspediani (debbie@nwppa.org) at (360) 254-0109. **NWPPA**

Dale Mayuiers Completes NWPPA's Training Team

Please join the Association in welcoming our newest employee, Dale Mayuiers, who has been hired as one of our training managers. Mayuiers replaces Scott Lowry, who retired in May.

Mayuiers joins Jenny Keeseey and Taryn Johnson as NWPPA's three training managers. His primary areas of focus will be classes and events associated with engineering and operations. He will manage the annual Engineering & Operations Conference and Trade Show; the biennial Alaska Electric Utility Conference; the Staking Technician Certification series; engineering webinars and roundtables; the Lineman Skills series; and the Substation Skills series.



"My first impression of NWPPA is that it is different. When I first walked into the office, I couldn't help but notice that everyone held a deep and sincere care for one another and for the goals of the organization," he said. "Here it feels that we are making a real difference in the lives of those we serve. I can't think of too many other organizations or businesses who take service to heart as much as we do here at NWPPA."

Mayuiers has over 30 years of engineering experience. Previously he worked at the Bonneville Power Administration as a project and training manager for 10 years. There he managed about a dozen training programs and ensured full compliance with federal regulations and requirements. Prior to BPA, he worked for General Dynamics as a senior engineer for 20 years.

"As a senior engineer and project manager, I supported efforts for all military services and most of the U.S. intelligence agencies. The job took me to over 20 different countries and included a wide variety of programs," he said. "My final duties involved five tours in Iraq."

"Dale's excellent background will help us continue to improve and expand our learning curriculum," said NWPPA Director of Education & Workforce Development Elaine Dixon. "In addition to his technical and project management expertise, he has a clear service orientation and a desire to make a difference—key factors that make him a great fit. We are lucky to have Dale join us!"

Raised in San Diego, Calif., he attended Grossmont College in nearby El Cajon before entering the U.S. Air Force. There he maintained all the intelligence and communications equipment aboard the Airborne Command Post aircraft. Outside of work, he loves to repair things and play guitar. He also has an aversion to egg salad sandwiches due to a junior high school field trip gone awry.

Lowry retired from NWPPA after nearly 11 years as a training manager. His main areas of focus were engineering, operations, and regulatory issues. He is already embracing retirement by traveling around the western U.S. to visit friends and family. **NWPPA**



Linecrew Survey Report Now Available

The 2018 NWPPA Linecrew Wage and Benefit Survey Report is now available for all utility general managers and senior human resources employees. The report was sent out to all participating utilities earlier this month; if you are a general manager or senior human resources employee and did not receive a copy of the report, please contact Nicole Farabee at nicolef@nwppa.org or (360) 816-1454 for a copy.

NWPPA

2019 E&O Booth Sales Are Open

Exhibit space for the 2019 E&O Conference & Trade Show in Spokane, Wash., April 9-11, is still available. Less than 50 10x10 booth spaces remain after the presales during the 2018 trade show in April.

If you still need to purchase booth space for the 2019 trade show, please contact Taryn Johnson as soon as possible at taryn@nwppa.org or (360) 816-1446. Current booth sales will close on October 12, or sooner if all booths have been sold before then. **NWPPA**



Driven Materials Available at the End of the Month



We are so excited to unveil the fourth quarter of More Powerful Together at the end of this month! On July 30, we will roll out the fourth quarter of messaging: **Driven.**

This theme highlights public power utilities working with consumers to drive economic development, build community, and create jobs. Ad copy, social media messaging, scripts, and editorials talk about how your utility provides room to grow and a shared vision, as well as builds opportunities. As with the previous materials, we encourage you to make the collateral your own with personalized copy and photos from your utility or community.

Find all the materials—for free!—at www.nwppa.org/mpt. Easy-to-customize content created for the fourth quarter includes:

- Print and digital ads
- Social media posts
- Leadership editorials
- Annual meeting script
- Radio/phone scripts
- Website content
- Pop-up banner art for utility lobbies, community events
- Internal posters
- Short videos
- PowerPoint template – **NEW!**

Also, don't miss the More Powerful Together best practices session, "Come Be More Powerful Together with Us," at the NIC in Coeur d'Alene on September 18. NWPPA's Brenda Dunn and Ruralite's Megan McKoy-Noe will highlight what's been created to date and what they have in store for 2019. Plus, three MPT superstars (Lassen's Theresa Phillips, Blachly-Lane's Pam Spettel, and Benton REA's Elecia Copenhaver) will join them to explain how and why More Powerful Together has worked for them and their utilities.

In the meantime, if you would like to know more about More Powerful Together, the what, why, and how of the project is available at www.nwppa.org/mpt. We have uploaded two webinars that you can watch any time; the webinars describe more about the project's purpose and also walk you through how to customize the collateral. Questions? Contact Brenda at Brenda@nwppa.org.

We are **#MorePowerfulTogether**. **NWPPA**

A Look Back at Public Power

50 YEARS AGO – 1968

Electric consumers served by the Benton County Public Utility District received a booklet titled "600 Amps of Living;" the booklet gave the reader a tour of a new all-electric home in the utility's service area and did an effective job of promoting power use (Wash.) ... Lewis County Public Utility District had a 10-percent increase of energy sales (Wash.) ... Six million dollars' worth of electric improvement bonds were sold by the Eugene Water & Electric Board at an effective interest rate of 4.88 percent (Ore.).

25 YEARS AGO – 1993

Chugach Electric Association's former president John Franklin died at the age of 63 after a year-long struggle with cancer (Alaska) ... Citing the need to improve efficiency, Grant County PUD completed a staff downsize that reduced district employee totals by 16 percent, from 539 to 452 (Wash.) ... The Clinton Administration designated the Bonneville Power Administration as one of the 17 "Reinvented Laboratories" in the federal government (Ore.) ... Tacoma City Light started its second century of service by offering Tacoma, Pierce County, and Washington state residents a tax-free investment in the utility's future and an opportunity to enhance the environment (Wash.).

5 YEARS AGO – 2013

Mason County PUD No.1 received a top honor for their electronic communications from the Pacific Northwest chapter of the American Water Works Association (Wash.) ... Due to health reasons, Placer County Water Agency District 2 Director Alex Ferreira retired from the PCWA Board (Calif.) ... Oregon Rural Electric Cooperation Association Executive Director Ted Case announced the official release of *Power Plays*, his book that explores defining moments in the relationship between electric cooperatives and the U.S. presidency ... Snohomish County PUD was honored with the prestigious 2013 Public Power Wind Award (Wash.). **NWPPA**

AUGUST, SEPTEMBER, AND OCTOBER 2018

Please visit www.nwppa.org to view the full course descriptions for these and other courses.

OREGON UTILITIES RECORDS MANAGEMENT GROUP

Who Should Attend: Records managers, records coordinators, administrative assistants, executive assistants, and anyone managing records for their department.

August 1, 2018–Salem, Ore.

ONLINE — ENGINEERING WEBINAR SERIES: UNDERSTANDING CONSTRUCTION SPECIFICATIONS

Who Should Attend: Engineering personnel and others who would benefit from an understanding of current electric utility engineering principles and practices.

August 14, 2018–Online

NRECA CCD 2640—FINANCIAL DECISION MAKING

Who Should Attend: Directors, policy makers, and general managers of cooperative utilities.

August 21-22, 2018–Eugene, Ore.

CYBERSECURITY GOVERNANCE, RISK, AND COMPLIANCE WORKSHOP

Who Should Attend: Policy makers, including board members, commissioners, and general managers; IT managers and staff; engineers; operations staff; risk management personnel; and those who deal with cybersecurity policies and governance.

September 6, 2018–Portland, Ore.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC)

Who Should Attend: All employees with environmental responsibilities, including supervisors and managers that oversee environmental programs. This includes employees that design or implement oil spill prevention plans and those involved in process, plant, construction, or stormwater discharges.

September 10, 2018–Anchorage, Alaska

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.

September 11, 2018–Anchorage, Alaska

ONLINE — ENGINEERING WEBINAR SERIES: DESIGN AND FRAMING OF RISER POLES

Who Should Attend: Engineering personnel and others who would benefit from an understanding of current electric utility engineering principles and practices.

September 11, 2018–Online

NEW! SUPPLY CHAIN WORKSHOP

Who Should Attend: Those who work in or support their utility's supply chain functions, such as purchasing, inventory, materials management, warehousing, and operations personnel. For more information, see page 3.

September 11-12, 2018–Spokane, Wash.

HAZWOPER 8-HOUR FIRST RESPONDER AWARENESS AND REFRESHER TRAINING FOR UTILITY PERSONNEL

Who Should Attend: First responders who are likely to witness or discover a hazardous substance release and need to initiate an emergency response sequence by notifying the proper people; also individuals who respond to releases of hazardous substances as part of the initial response for the purpose of protecting nearby persons, property, or the environment from the effects of the release.

September 12, 2018–Anchorage, Alaska

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, including engineering, operations, safety, purchasing, information technology, regulatory and rates, customer service, public relations, legal, accounting, utility commissioners, and board members.

September 12-13, 2018–Spokane, Wash.

LEADERSHIP SKILLS #3: UNDERSTANDING TEMPERAMENT AS AN EFFECTIVE SITUATIONAL LEADER

Who Should Attend: People managers with formalized leadership responsibilities for getting work done through others and who have already completed *Leadership Skills #1*.

September 12-13, 2018–Hermiston, Ore.

NORTHWEST COMMUNICATIONS & ENERGY INNOVATIONS CONFERENCE (NIC)

Who Should Attend: Marketing, public relations, communications, energy services, renewable energy, and key accounts employees, as well as any employee and board member with an interest in these areas. For more information, see page 4.

September 16-19, 2018–Coeur d'Alene, Idaho

LINEMAN SKILLS SERIES: PERSONAL PROTECTIVE GROUNDING

Who Should Attend: All electrical workers involved in personal protective grounding.

September 18, 2018–Spokane, Wash.

TRAINING OPPORTUNITIES

RAISING YOUR ENERGY IQ 101

Who Should Attend: All utility employees can benefit from this course, especially those who interact with customers or have the need to explain residential home energy consumption.

September 18-19, 2018—Vancouver, Wash.

QUALIFIED WORKER TRAINING - OSHA 1910.269

Who Should Attend: Individuals who do not hold an electrical journeyman certificate, but as a part of their duties must enter or open secured areas such as substations, pad mounted transformers, switch gear, vaults, and metering cabinets. Engineers, technicians, meter readers, and other operations personnel are required by OSHA 1910.269 to have this training.

September 19, 2018—Spokane, Wash.

LEADERSHIP SKILLS #1: SITUATIONAL LEADERSHIP

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

September 19-20, 2018—Boise, Idaho

ACCOUNTING & FINANCE FUNDAMENTALS FOR UTILITY PERSONNEL

Who Should Attend: Administrative professionals and anyone who wants to understand how each role in the utility impacts the budget and financial statement.

September 20-21, 2018—Boise, Idaho

OREGON ENGINEERING ROUNDTABLE

Who Should Attend: Engineering managers and staff from public power utilities within Oregon. (Only utility employees may attend this event.)

September 20-21, 2018—Newport, Ore.

HARDENING WINDOWS NETWORKS

Who Should Attend: Network, server, desktop, and security administrators and management-level individuals interested in this topic.

September 25-28, 2018—Vancouver, Wash.

LEADERSHIP SKILLS #3: UNDERSTANDING TEMPERAMENT AS AN EFFECTIVE SITUATIONAL LEADER

Who Should Attend: People managers with formalized leadership responsibilities for getting work done through others and who have already completed Leadership Skills 1.

September 26-27, 2018—Hermiston, Ore.

MONTANA ENGINEERING ROUNDTABLE

Who Should Attend: Engineering managers and staff from public power utilities within Montana. (Only utility employees may attend this event.)

September 27-28, 2018—Missoula, Mont.

FOREMAN LEADERSHIP ACCELERATED PROGRAM PART 1

Who Should Attend: Foremen and crew leaders.

October 2-4, 2018—Portland, Ore.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 3: ALL FOUR DAYS

Who Should Attend: Administrative assistants, executive assistants, or employees in administrative or service-oriented roles.

October 2-5, 2018—Spokane, Wash.

ONLINE — ENGINEERING WEBINAR SERIES: PROFESSIONAL ETHICS FOR UTILITY PERSONNEL

Who Should Attend: Engineering personnel and others who would benefit from an understanding of current electric utility engineering principles and practices.

October 9, 2018—Online

LEADERSHIP SKILLS #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.

October 10-11, 2018—Roseville, Calif.

LABOR AND EMPLOYEE RELATIONS GROUP ANNUAL MEETING

Who Should Attend: Members of the NWPPA Labor and Employee Relations Group, which includes general managers, operations managers, and labor relations and human resources professionals. Non-members may attend if they are part of a utility and are members of NWPPA.

October 10-12, 2018—Seattle, Wash.

SENIOR LEADERSHIP SKILLS SERIES SESSION 4: LEAD YOUR ORGANIZATION

Who Should Attend: General managers, directors, and experienced leaders of teams.

October 16-17, 2018—Whitefish, Mont.

LINEMAN SKILLS SERIES: AC TRANSFORMERS, ADVANCED THEORY, AND PRACTICAL APPLICATION

Who Should Attend: Journeyman linemen, foremen/supervisors, engineers, and those involved in planning, scheduling, and engineering operations for a utility.

October 17-18, 2018—Anchorage, Alaska

ENTERPRISE RISK MANAGEMENT: A SUCCESSFUL IMPLEMENTATION

Who Should Attend: Chief financial officers, senior-level accounting staff, auditors, general managers/CEOs, policymakers, and legal counsel. (Please note that *ERM: Adding Value to Your Organization* is not a prerequisite for this class.)

October 17-18, 2018—Vancouver, Wash.

BUDGET BASICS FOR UTILITIES

Who Should Attend: Entry-level and intermediate-level accounting staff, or anyone who is new to the budgeting process.

October 23, 2018—Spokane, Wash.

REGISTER NOW!

NORTHWEST COMMUNICATIONS & ENERGY INNOVATIONS CONFERENCE

SEPTEMBER 16–19, 2018
COEUR D'ALENE, IDAHO

COMMUNITY THE HEART OF PUBLIC POWER

SUBSTATION SERIES: SUBSTATION TRANSFORMERS & LTC DIAGNOSTICS

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

October 24, 2018–Bend, Ore.

EVALUATING CAPITAL PROJECTS

Who Should Attend: Utility accounting and finance personnel, and any employee who budgets for capital projects.

October 24, 2018–Spokane, Wash.

SITUATIONAL SELF LEADERSHIP

Who Should Attend: Individual contributors and team members seeking to be more productive and satisfied at work, potential leaders who do not currently have direct reports, and anyone who reports to managers trained in Situational Leadership II.

October 24-25, 2018–Spokane, Wash.

3 CS CONFERENCE: CUSTOMER SERVICE, CREDIT, AND COLLECTIONS

Who Should Attend: Customer service, credit, and collections managers, supervisors, and employees. For more information, see page 3.

October 24-26, 2018–Vancouver, Wash.

METERING FOR LINEMEN

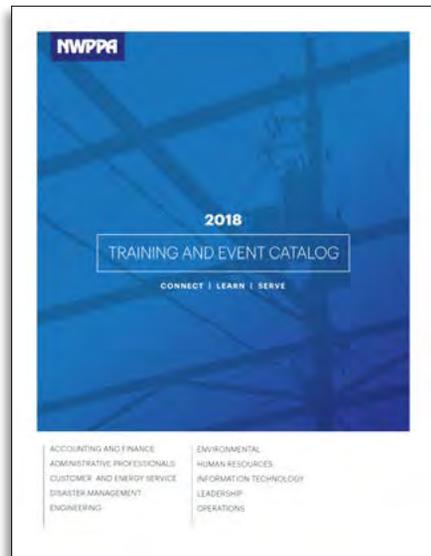
Who Should Attend: Journeyman linemen and other electrical workers who want a better understanding of revenue metering and the hazards associated while working with revenue meters for both single-phase and three-phase meters.

October 25, 2018–Bend, Ore.

SUBSTATION SERIES: SUBSTATION BATTERY MAINTENANCE AND TESTING

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

October 25, 2018–Bend, Ore. **NWPPA**



View the latest Training and Event Catalog online at www.nwppa.org.

NELSON HYDRO'S EcoSave LEADS TO CANADIAN FIRSTS

By Carmen Proctor

The City of Nelson, nestled in the West Kootenay Region of Southern B.C., is a very attractive place with easy access to the lake in the summer and skiing in world-renowned powder in the winter. This gem is shared with just over 10,000 residents plus the thousands of tourists that visit year-round. And everyone benefits from the hydropower created by Nelson Hydro, the locally owned municipal electric utility. Nelson Hydro is the only city-owned electric utility that generates and distributes their own hydropower in all of B.C.

Nelson is well known for its progressive nature when it comes to creating a sustainable community. The city had completed some energy retrofits on its own buildings, saving a significant amount of energy and reducing its corporate carbon footprint. Afterwards, the city decided to put together a program that encouraged the community to do the same with its buildings.

Wanting to design the program in a way that made it simple for homeowners to know what they needed to do inside their homes to save energy, the city hired a consultant late in 2011 to develop and implement the EcoSave Energy Retrofits Program. The results from the two-year pilot showed that the upgrades equated to an average of 30-percent savings on energy.

Registering in EcoSave gets the homeowner a reduced cost on the energy assessment completed by a certified energy advisor, access to rebates, and low-interest financing. Once a homeowner has signed up, he or she receives an outline of the available rebates and a local contractor list, and the program manager offers help every step of the way. Because building owners are faced with barriers to understanding energy efficiency, accessing financing, applying for rebates, and hiring contractors, EcoSave was designed to simplify those processes.



Canada's first community solar garden began generating in June 2017.

During the assessment, the energy advisor uses the blower door test to identify areas of the home that suffer from air leakage. The energy advisor compiles this information into a dimension of how big of a hole would be open to the outside if the leaks were to be added up; this gives the homeowner a vision of how much energy is going out the window and provides motivation to seal up those areas. The energy advisor also provides the homeowner with a customized report that indicates how many gigajoules of energy the home is currently using and how much less it would use if the recommendations were completed. Improvements that homeowners complete in the program include adding insulation; making upgrades to

space and water heating; installing new windows and doors; and draft proofing.

Another unique aspect is on-bill financing. Nelson Hydro is able to offer the residents on-bill financing for energy upgrades because it has its own billing in place. The on-bill financing option is where customers can borrow up to \$16,000 and repay the loan on their Nelson Hydro electric bill. It is not a requirement in the program, just an option. The program has been so well received that currently there are several homeowners who are going through the program for the second time—they sold their first retrofitted home, paid off the loan, and have accessed the loan program for their next home.

Now going into its sixth year, EcoSave continues to help the locals save energy and has been able to offer access to other savings as well, including the recent development of Canada's first community solar garden; a variety of public events designed to help customers lower their bills; working with students on energy conservation; helping other communities get energy programs up and running; and launching B.C.'s first aerial thermal imaging project.

I attended NWPPA's Northwest Communications and Energy Innovations Conference in 2013 after learning Nelson Hydro had won an award for its community engagement strategy for the EcoSave Program. It was at this conference that I learned about community solar gardens, and how this model made solar energy more accessible to those who wanted it. I brought the idea back to Nelson Hydro and the utility made it a reality in June 2017. Nelson Hydro celebrated the opening of Canada's first community solar garden at the customer appreciation day which also offered tours of the hydropower plant.

Nelson Hydro's solar array is in one location, built on the same property as their hydropower plant. Nelson's customers invested on a per-panel basis and will receive a credit on their electric bill in proportion to their investment once per year for 25 years. The project is modeled after similar projects in the United States. This type of project makes solar accessible to those who wouldn't otherwise be able to access it, such as renters, those with unsuitable rooftops, and those who cannot afford an installation of their own. The project is small in scale: it is a 60-kilowatt array with 248 modules. Nelson hoped to encourage others and so far that is happening—it has helped several communities explore options to replicate the concept and one of those communities will be celebrating their grand opening this summer.

The solar has been a win-win all around: customers had the opportunity to invest in local renewable energy, and the utility gained the experience in solar photovoltaic technology and distributed energy. The investors are renters, homeowners, business owners, co-ops, churches, the local school district, and the college, making this a real community endeavor. The name—community solar garden—says it all.

Nelson Hydro continues to explore new and innovative ways to connect with its customers on saving energy. In May 2018, it launched its one-year aerial thermal imaging pilot, the Great Escape. Homeowners access an online platform to find their home and then view the thermal image of their roof to identify where heat may be escaping. Nelson Hydro will be monitoring whether or not having a unique and interesting tool that is relevant to the user increases the uptake in the EcoSave Program. **NWPPA**

Carmen Proctor is the EcoSave Program coordinator at Nelson Hydro in British Columbia. She can be contacted at either (250) 509-2021 or CProctor@nelson.ca.

Blower door test performed by a certified energy advisor at an EcoSave energy assessment.



The EcoSave Program connects with local schools by offering power plant and solar garden tours with energy conservation education.

Meeting Customers Where They Are and Not Getting Lost in the Translation

By Kimberlee Craig



Chelan PUD's George Velazquez shares safety tips with customers at a community health fair.

Bienvenido! Welcome! That's how Chelan PUD hopes every customer-owner feels when they step into the lobby, call the office, and/or click on our website.

Yet, we began to wonder does our community—the whole community—really feel welcome and a part of the public utility family? That point came into focus as we evaluated how well we connected with customers during our last strategic planning effort in 2015.

While more than 6,300 people participated in that strategic plan effort, Chelan County has a 30-percent resident base that identifies as Hispanic/Latino heritage. We knew that our outreach during the campaign didn't have that kind of participation from a significant portion of our community.

Connecting with customers

Stakeholder engagement has been a priority at Chelan PUD, with increased focus since 2010. Some major capital project missteps led us to develop an Outreach Planning Standard and, then

to form an employee-run Stakeholder Engagement Council to help employees use the standard. The result has been to engage with customers early and often. What we lacked, however, was a way to reach all of our communities.

A key outcome of the PUD's strategic plan was creation of what came to be known as the Diverse Leaders Advisory Group, designed to strengthen our connections with Hispanic/Latino and low-income customers.

Their input was critical to the formation of a full-time bilingual outreach coordinator position. This would be someone who would coordinate with fellow employees on outreach efforts from expanded new employee recruitment efforts to providing better access to PUD programs and services by all community members.

Opening the door

So why take these steps?

Chelan PUD wants to make sure that all customers, including those less proficient in English, know who to call if the

power is out or there are problems with any utility service, said Mario Cantu, Community Engagement coordinator.

We knew, as one example, there were times when Spanish-speaking customers might wait until business hours on Monday to report being out of power during the weekend.

"We provide 24-hour service to customers," Cantu said. "We looked for ways to strengthen our customer outreach to get the message about this service to as many customers as possible."

One of our first steps was adding Spanish-language posts on the PUD's Facebook page and Twitter feed. Twitter and Facebook are Chelan PUD's primary communications tools during outages and emergencies. Cantu worked with the communications team and others to extend our reach by sharing posts to a Spanish-language Facebook group known as Wenatchee Vende.

Next up was the website. Cantu, along with the PUD's digital communicator, Christy Shearer, decided that the machine translations we relied on weren't accurate or welcoming.

A new Español section now features key information—translated by people—about customer services, outages and safety alerts, PUD careers, parks, conservation, and hot topics such as cryptocurrency mining.

A planned upgrade of our telephone system offered another opportunity to increase access. PUD employees answer calls during business hours. If a caller asks, "Español?" he or she is transferred to a phone queue staffed by bilingual employees. After hours, a message directs callers seeking help in Spanish to press X to leave a message or hold to be connected with a third-party interpreter and system operators to answer outage and/or emergency calls. The translator has assisted about 50 after-hours outage calls from Spanish-speakers since we began the program in late 2017.

In filling job vacancies, Chelan PUD has added five employees who speak English and Spanish in the last 18 months. Cantu also has opened the door to talk about preparing for PUD careers with Hispanic-Latino high school students in Chelan County through work with the Mariachi Northwest Festival and Wenatchee Valley College.

Being present where it matters

Cantu has helped guide the PUD to understand that simply inviting people to a community meeting was not going to be the way to engage members of a non-Anglo community, particularly when as many as 40 percent of that community are not bilingual. We quickly learned we needed to be present where there was a comfort level of communication and engagement.

Yes, there were a few raised eyebrows when Cantu proposed the first Fiesta Decembrina for the PUD auditorium at 8 p.m. on the Sunday night before Christmas. But collaborating with a local Spanish radio station, Cantu rallied PUD volunteers to staff tables with information ranging from how to apply for PUD jobs to conservation tips to the great PUD parks and Rocky Reach Dam Discovery Center and Museum. A vendor brought in tamales and the radio station brought music and prize drawings.

When the doors opened, with temps in the teens, there was a line of people down the block waiting. We ran out of event passports and tamales within an hour, yet people stayed to enjoy meeting neighbors, learning about the PUD, and hearing the music.

Take it slow

Cantu points out that it's important not to tackle too much at once. Find out first what is working, then start looking at how to improve and extend outreach programs. The important thing is to be consistent and reliable on one or two efforts before moving on to the next.

Pulling it all together

A couple of good examples of how these efforts have paid off and created a new dynamic are the PUD's scam alerts and outage notifications. Even our event invites on social media get great traction when posted in Spanish.

"Stay Connected/Mantente Conectado" puts all the ways customer-owners can contact Chelan PUD on one card in two languages that is easily shared at events and at our lobby counters.

Mean what you say

So when it came time to order a new PUD canopy for use at events the idea for a design theme came easy.

"Hello, Bienvenido, Welcome, Bonjour, Salut, Hola, Willkommen, Hi," greets visitors as they approach along with pictures of dams, parks, customers, and a parade of salmon.

Welcome to Chelan PUD! **NWPPA**

Kimberlee Craig is the public information officer at Chelan PUD in Wenatchee, Wash. She can be contacted at Kimberlee.Craig@chelanpud.org.



Bilingual PUD employees welcome people to the 2018 Northwest Mariachi Festival. (L-R) Sergio Sanchez, Carolina Becerra, Teresa Guerrero, and Mario Cantu.



Chelan PUD GM Steve Wright (L) and Board President Dennis Bolz (R) present scholarships at this year's Mariachi Northwest Festival, sponsored in part by the PUD.

ARC FLASH 101: What You Need to Know

By Erik Kysar, PE

All my guys wear 8-cal clothing and that's plenty. I don't need to worry about doing the calculations and keeping track of the arc flash amounts, right? Unfortunately, wrong!

Some utilities have completed the calculations and use them, some have the calculations collecting dust on a shelf, and others haven't done the calculations yet. Who really needs them? Why? And who cares?

What's the purpose?

Per some estimates, there are one to two deaths per day in the United States due to arc flash injuries, with approximately 20 burn injuries per day. The Occupational Safety and Health Administration has created rules to increase the chance you will go home to your loved ones tonight, still looking like you did when you left for work in the morning.

The rules are not perfect. As stated in the National Electrical Safety Code, section 410, the intent is to "reduce the amount or degree of injury but may not prevent all burns."

Who needs them?

Per OSHA 29 CFR 1926.960 (Subpart V) and 29 CFR 1910.269, all utilities and all contractors doing work on the system need them.

Examples of work where arc flash is a consideration include racking in a circuit breaker; substation or equipment readings while holding conductive equipment that could fall (even if outside the minimum approach distance); or if equipment shows signs of arcing, overheating, or parts of the equipment are showing signs of lack of maintenance. Examples of work not needing arc flash equipment include substation or equipment readings while not holding conductive equipment and remaining outside the minimum approach distance; or maintaining and operating enclosed equipment with no evidence of impending failure.

If you are a utility, have you provided the arc flash calculations to all contractors working on your system? Or at least provided them the information so they can calculate the arc flash risk? If you are a contractor, it is your responsibility to request the information from the host utility system you are working on.

OSHA Appendix E to both 29 CFR 1926.960 (Subpart V) and 29 CFR 1910.269 provides a reasonable approach to arc flash calculations and amounts. Section 410 of the 2017 NESC also contains a nice overview with look-up tables based on actual testing and calculated values.

The problem with computer programs

Many utilities utilize various computer programs, such as Aspen, SKM, WindMil, etc., to calculate arc flash hazards. But most of the computer programs are based on IEEE theoretical formulas for arc flash calculations. The problem? Theoretical calculations are just that—theoretical.

For example, an IEEE calculation of the arc flash hazard for a 480V three-phase transformer might demonstrate a hazard of over 30 cal/cm². However, testing has shown exposures do not exceed 4 cal/cm² (see NESC table 410-1). As a lineman, would you prefer to wear a moon-suit when opening up a transformer, or just your typical arc flash clothes? And what if it is was 98° F while you were doing it?

Report approach

A large, complicated report is almost useless to field personnel. The simpler and better approach is a simple one-line diagram for each substation, plus look-up tables for typical scenarios on the system. The report may have additional assumptions and calculations, but the aforementioned items need to be easily excerpted and handed to operational personnel in a small booklet.

Calculation approach

The use of OSHA Appendix E and NESC 410-1 is easy to use for all voltage levels. However, there are situations where these sources do not provide the needed information, such as for metal-clad switchgear (arc-in-a-box).

Where the aforementioned two sources do not provide the proper information, there are three solutions per OSHA Appendix E, Table 3:

1. Use the IEEE standard 1584b for 15kV arc-in-a-box equipment; this is the method most commercial software uses.
2. Use ArcPro by Kinectrics for anything over 15kV; this is software based on actual testing and is the basis for the NESC tables 410-2 and 410-3. In fact, the only acceptable method to OSHA for voltages above 15kV is ArcPro.
3. Use ArcPro for single-phase faults at any voltage.

Approach to work practices and equipment

Work practices and equipment have a major impact. Here are just a few examples:

Enable hot-line tag on all reclosers and breakers. This can cut arc flash amounts by half or more. The key is in verifying that the hot-line tag programming is set properly.

Add arc flash relays in metal-clad switchgear. This can cut arc flash levels from 30 cal/cm² to less than 8 cal/cm².

Do not work on 480V self-contained meters or panels when energized.

Summary

Take a look at the sidebars. If you do not have completed arc flash calculations, this is a good place to start.

If you do have arc flash calculations, review how useful they are. Are they in a format that you can easily excerpt the pertinent information and provide it to your operations folks? Are they easy to follow? Are the values reasonable?

Finally, if the calculations are collecting dust, blow them off, fix the reason they are collecting dust (complexity, overly conservative, etc.), and use them! After all, going home to your loved ones tonight is always a good thing. **NWPPA**

Erik Kysar, PE is the principal advisor at Brown & Kysar, Inc. Since 1985, BKI has been providing hands-on, practical engineering, permitting, and planning solutions to public power utilities in the Northwest. Kysar can be reached at erikk@bki.cc.

ARC FLASH INCIDENT ENERGY VALUES

Following are a few examples of incident energy values taken from the Table 410-1 of the 2017 NESC, and Table 7 of Appendix E in the OSHA regulations. As long as the values are applied as prescribed by the tables, they can be used without further calculation.

- 120/240V or 208V, single phase or three phase (except motor control centers) are considered 4 cal/cm² or less.
- 480V pad-mount transformers, CT-meters, and control wiring are all considered 4 cal/cm² or less.
- 480V pedestals and pull boxes are limited to 8 cal/cm², but self-contained 480V meters can be as high as 20 cal/cm², and 480V panelboards can be greater than 60 cal/cm².
- 12.47kV and 24.9kV live-line tool exposure in open air is 4 cal/cm² or less with fault currents up to 5,000A and clearing times of up to 18 cycles.

Personal protective equipment requirements

If an employee is exposed to an electric arc hazard, various personal protection equipment must be provided by the employer depending upon the area of the body. Excerpted information from OSHA 1910.269 and 1926.960 (Subpart V) Appendix E are included in the table below:

Body area	Type of arc-rated clothing required
General	Heavy-duty work gloves Electrical-rated hard hat Heavy-duty work shoes or boots Arc-flash-rated personal fall arrest equipment
≤ 2 cal/cm ²	The general list, plus clothes shall not contain flammable material
2 to 4 cal/cm ²	The general list, plus arc flash clothes rated for 4 cal/cm ²
4 to 8 cal/cm ² for single-phase arcs in open air	The general list, plus arc flash clothes rated for 8 cal/cm ²
4 to 8 cal/cm ² for all other faults	The general list, plus electrical-rated hard hat with face shield rated to ≥ 8 cal/cm ² and arc flash clothes rated for 8 cal/cm ²

Lane and Fall River Co-ops Elect Directors

Lane Electric Cooperative (Eugene, Ore.) members exercised democratic member control by electing directors at its May 29, 2018, annual meeting. Incumbent directors **Chris Seubert** (director since 2003) and **Jerry Shorey** (director since 2015) were elected to serve additional three-year terms. The Lane Electric Cooperative Board of Directors elected the 2018-2019 slate of officers as follows: President **Susan Knudsen Obermeyer**, Vice President **Jeannette (Ingrid) Kessler**, Secretary **Kathy Keable**, and Treasurer **Hugh Buermann**.

Fall River Electric's 80th annual meeting of members was conducted on a rainy June 16 at Teton High School in Driggs, Idaho, where nearly 800 owner-members joined the cooperative for breakfast. Board newcomer **Brent "Husk" Crowther** was the top vote-getter in a seven-way race; the race was a result of 15-year board member **Dan Skene** not being eligible for re-election due to having reached the term limits. **Brent Robson** and **Dede Draper** were both re-elected. **NWPPA**



Brent "Husk" Crowther



Dede Draper

Safeco Field to Host Hydro Appreciation Day

A winning baseball team requires reliable power hitters in the lineup in order to be successful. The Foundation for Water and Energy Education and the Seattle Mariners are teaming up to prove that point with Hydro Appreciation Day!

"The hydro appreciation lineup features recreation, transportation, environmental stewardship, water supply, irrigation, and the 'clean' up hitter: low cost, reliable, renewable energy," said Tacoma Power Community Relations Officer **Randall Stearnes**.

Hydropower producers and service providers from throughout the state of Washington are coming to Safeco Field on Sunday, July 22, when the Seattle Mariners host the Chicago White Sox at 1:10 p.m. At the game, a hydropower information table will be on the main concourse at Safeco Field with free information about dams, parks, camping, careers in hydropower, educational opportunities, and more. And hydro representatives will take part in a pre-game recognition ceremony. Visit www.fwee.org for more information.

Each Monday on our way to Hydro Appreciation Day, Chelan PUD (Wenatchee, Wash.) will be sharing social media posts featuring the many benefits of hydropower. **NWPPA**

WRECA Elects Cutrell to Top Position

The Washington Rural Electric Cooperative Association elected **Susan Cutrell** as president for the 2018-2019 term during the association's recent annual meeting. Cutrell is general manager of the Parkland Light & Water Company in Tacoma, Wash.

Cutrell joined Parkland Light & Water in 2001 and served as controller then manager of finance and administration prior to assuming her duties as general manager in 2016.

Also elected as officers for the 2018-2019 term were Vice President **Rob Carr**, CFO, Tanner Electric Cooperative, North Bend, Wash.; Secretary **Buddy Treadway**, trustee, Benton Rural Electric Association, Prosser, Wash.; and **Daniel Hille**, director, Big Bend Electric Cooperative, Ritzville, Wash. **NWPPA**

EPUD Wins APPA Award for Second Time

For the second time in 31 years, Emerald People's Utility District (Eugene, Ore.) has received the American Public Power Association E.F. Scattergood System Achievement Award. The Scattergood award honors public power association member systems that have enhanced the prestige of public power utilities through sustained achievement and customer service.

"EPUD really represents the true spirit of public power with service to its community is its primary strategic goal," said **Sue Kelly**, APPA president and CEO. "Initiatives such as its community solar and green grant programs bring tremendous value and service to its customers."

Other NWPPA member utilities and individuals recognized at the APPA annual conference in New Orleans: UAMPS CEO and General Manager **Douglas Hunter** received the Alex Radin Distinguished Service Award; **Mark Reddemann**, former CEO of Energy Northwest, received the James D. Donovan Individual Achievement Award; UAMPS Chief Government Affairs Officer **Ted Rampton** received the Alan H. Richardson Statesmanship Award; NCPA Assistant General Manager **Jane Cirrincione** received the Harold Kramer-John Preston Personal Service Award; City of Santa Clara Councilman **Patrick Kolstad** received the Spence Vanderlinden Public Official Award; and SMUD received the Community Service Award. **NWPPA**



Emerald PUD CFO Sara Cline accepted the Scattergood Award on behalf of EPUD.

Franklin PUD Hires New Auditor/Director

Franklin PUD (Pasco, Wash.) has hired **Brian Johnson** as the new auditor/director of administrative services. Johnson will be responsible for Franklin PUD's accounting functions, including the annual budget, compliance with all applicable accounting standards, and internal auditing. The position further provides oversight and supervision to the Accounting, Information Technology, and Broadband departments.



Johnson has a Master of Business Administration from Northwest Christian University and has worked in accounting and finance for 17 years. Prior to relocating to the Tri-Cities, Johnson held the position of senior power analyst at Emerald People's Utility District in Eugene, Ore., where he was responsible for rate setting, power cost, and revenue accounting along with other risk management duties. Prior to his work at the utility, he served as plant controller for an international food manufacturer. **NWPPA**

UEC Sells Eastern Oregon Telecom

Umatilla Electric Cooperative (Hermiston, Ore.) announced on May 31 the sale of its subsidiary business, Eastern Oregon Telecom, to the telecom's senior executive team.

With 17 employees and more than 3,500 internet and telephone customers, EOT reported \$4.3 million in revenue in 2017. In April, the company moved into a newly constructed, 12,000-square-foot building on Southeast Kelli Boulevard that it leases from a developer.

With EOT on a firm financial footing, the time is right to take the next step in the evolution of the company, said UEC General Manager and CEO **Robert Echenrode**.

"The employees of EOT have demonstrated their commitment to the company and to the communities they serve," Echenrode said. "An employee-owned business creates a strong base from which it can continue to grow, and we wish them great success in the years ahead." **NWPPA**



SMUD and Uber Bring EV Incentive

On June 22, SMUD (Sacramento, Calif.) and Uber announced a partnership to bring more shared, electric mobility to Sacramento through the EV Champions Initiative. This pilot program empowers electric vehicle drivers to educate riders about the benefits of EVs, provide incentives to expand EV trips, and explore ways to leverage ridesharing to facilitate a greener future for our cities. SMUD and Uber will work together to address the unique challenges faced by shared-use EV drivers and to scale the benefits that EVs can bring to Sacramento.

Under the program, SMUD will provide a per-trip incentive to Uber driver-partners completing trips in a zero-emission vehicle within their service area. SMUD will also provide Uber ZEV driver-partners who join the program with access to free charging through their network of fast charging stations. PHEV and BEV drivers taking trips outside of the SMUD coverage area will still receive a per-trip incentive from Uber.

"SMUD sees considerable value in this initiative as a way to build awareness among both Uber drivers and passengers of the value of electric vehicles ultimately leading to increased adoption of EVs," said **Arlen Orchard**, SMUD CEO. "As we transition to a low-carbon economy, we believe shared, electric mobility will play a crucial and very visible role in reducing greenhouse gas emissions associated with the transportation sector." **NWPPA**



Gerry Lawlor Leaves Rock Island

Three years ago, Rock Island Communications entered into an important partnership with T-Mobile US to deploy LTE Fixed Wireless to the home. Since then, Rock Island, the wholly owned subsidiary of OPALCO (Eastsound, Wash.), has experienced a tremendous period of growth. Rock Island has since signed up over 3,500 internet subscribers under the direction of Rock Island General Manager **Foster Hildreth** and Executive Vice President **Gerry Lawlor**.

The success of the effort has prompted T-Mobile to replicate a similar nation-wide deployment. As a result, Lawlor will be going to work for T-Mobile to help other communities facing similar challenges around the country. Lawlor made the move to T-Mobile last month. While Rock Island conducts a search to find Lawlor's replacement, **Alan Smith** will act as interim executive vice president.

"Gerry has played an instrumental role in making our fiber and LTE deployments in San Juan County a reality," said Hildreth. "I am grateful to Gerry for his dedicated service and look forward to working with him in his new role with T-Mobile where he will continue to deliver and grow our partnership. We wish him all the best." **NWPPA**

MEA Crew's Quick Response Saves Home

Four Matanuska Electric Association (Palmer, Alaska) employees' quick action earlier this spring prevented a fire from destroying a Wasilla couple's residence. Linemen **Corey Randall, Matthew Blum, Toby Tremble, and Cody Hatfield** were working nearby when they noticed flames coming from a shed attached to an adjacent house. The crew immediately alerted homeowners **Sandra and Joe Schmidt** who were inside the residence and unaware of the fire. The men then worked to extinguish the flames.



According to the couple, the MEA crew had almost extinguished the entire blaze before the fire department arrived. "The possibilities of what could have been are mind boggling," said the Schmidts in a letter to MEA. "What most impressed [us] about these brave men is they never hesitated to enter a shed on fire to help. They deserve to be commended on their selfless and courageous acts. They saved [our] house and very possibly [our] lives."

MEA General Manager/CEO **Tony Izzo** echoed the couple's gratitude for the team's efforts. "As a cooperative, it is our responsibility to serve our members with safety at the forefront," he said. "These gentlemen exemplified that cooperative spirit through their actions, and I'm proud of their commitment to go above and beyond for our members."

The Schmidts have been MEA members for 27 years. Randall, Blum, Tremble, and Hatfield bring a combined 19 years of service to MEA and represent four of the cooperative's 18 linemen. They were honored at a recent linemen appreciation ceremony for their efforts and commitment to safety. **NWPPA**



(L-R) Toby Tremble, Cody Hatfield, Matthew Blum, and Corey Randall.

Lane's Seubert Elected to NRTC Board

Earlier this year, Lane Electric (Eugene, Ore.) Board President **Chris Seubert** won election to the board of directors of NRTC, a national technology services cooperative of which Lane Electric is a member.



"NRTC has both electric and telecommunications co-op members across the country. I personally called 190 co-op CEOs to listen to their input about NRTC services and asked for their vote," said Seubert. "Winning a nationwide election is so much a team effort. I had great help from Oregon Rural Electric Cooperative Association Executive Director **Ted Case**, who used his contacts with other statewide directors to get my name in the minds of co-op leaders across the country."

In his three-year term as a director, NRTC will provide Seubert with a travel budget and stipend to serve as both an NRTC policy maker and an NRTC ambassador to members in NRTC's Region 9 that consists of members in Washington, Montana, Idaho, Oregon, Nevada, California, Utah, Alaska, and Hawaii.

Seubert is one of two director-directors along with 15 CEO-directors serving on NRTC's Board. **NWPPA**

Benton PUD Announces Promotions

"Our industry has changed at an accelerating pace in all aspects of our business, primarily in the areas of technology and customer service," said Benton PUD (Kennewick, Wash.) General Manager **Chad Bartram**. "To meet our customer expectations and to better position ourselves for the future, we decided to make these positive changes in our organization."



Chris Folta was promoted from manager of Information Technology to director of Information Technology and Broadband Services. Folta started at Benton PUD in 1996 in the Engineering Department and has provided leadership to key Benton PUD technology projects. In his new role, Folta will assume oversight responsibility for Benton PUD's wholesale broadband program.

Christie McAloon was promoted to manager of Customer Service. McAloon will oversee customer service operations in the Kennewick office. She started at Benton PUD as a customer service representative in 1983 and became manager of key accounts in 2006. She was one of the leads on the successful implementation of SmartHub, an online account management and payment service for customers.

Jenny Sparks was promoted to manager of Customer Service for the Benton PUD Prosser office. She was hired as a marketing specialist and has been part of the Benton PUD customer service team since 2005. **NWPPA**

Jefferson PUD Employees Rally around Coworker

On Tuesday, June 19, over a dozen Jefferson County PUD (Port Townsend, Wash.) employees shaved their heads in support of Meter Reader **Marianne Kline** who is battling cancer. Kline recently began losing hair as a side effect of chemotherapy and was considering shaving her head. Her co-workers didn't want her to have to experience losing her hair on her own, so they organized a group head-shaving day during lunch on Tuesday to support Kline.

Janel Grabner from billing used to cut hair professionally and brought the clippers to do the honors. Linemen, engineers, customer service representatives, and even General Manager **Larry Dunbar** took part.

Kline was touched by the effort. "When I first heard that everyone else was going to shave their heads, honestly I was sad, because I didn't want them to have to lose their hair, too, because of me. But the fact that they were willing to do it, and cared so much about me to not want me to go through it alone – it's like a family here at the PUD," she said. "I am so emotionally grateful, and I just want to thank everybody from the bottom of my heart." **NWPPA**

Top right:

(Back row L-R): Jon Dehnert, Gerrit Van Otten, Bill Graham, David Elias, Tod Eisele, Colton Worley, and Drew McKnight; (middle row L-R): Casey Finedell, Jacob Medley, Matt Rivera, and Brian Van Ness; (front row L-R): Marianne Kline, Janel Grabner, Maureen Whippy, and Larry Dunbar.

Bottom right:

GIS Specialist Casey Finedell and Electrical Meter Reader Marianne Kline.



OTEC Upgrades Substation

Crews from Oregon Trail Electric Cooperative (Baker City, Ore.) have started upgrades to the Conley Creek Substation that cooperative leaders hope will have a direct impact on encouraging economic development in Union County. Once completed, the upgrades will double the electrical capacity in the area and will provide additional capacity to accommodate new businesses in the nearby Baum Industrial Park.

Located off Highway 82 outside of La Grande, the substation upgrade includes a new transformer that will increase the substation's capacity by 10 megawatts; lumber mills typically use approximately five to eight megawatts.

"We continuously monitor our electric distribution system to ensure that we are able to meet the power needs of our members and plan for future growth," said OTEC General Manager and Chief Executive Officer **Les Penning**. "Installing a new transformer and doubling the load capacity at Conley Creek will ensure that we continue to provide reliable power to our current and future members."

The capital budget project is expected to cost approximately \$600,000 when it is completed. **NWPPA**



IBEW Honors Pend Oreille's Kiss

Pend Oreille PUD (Newport, Wash.) Safety Coordinator **Paul Kiss** was presented with an award for his service and dedication by IBEW Local 77.

Before transitioning from a lineman to his current role as safety coordinator,

Kiss spent many years serving IBEW Local 77 on their Exam Board and six of those years he spent as the board chairman. Only two other awards like this have ever been presented.

Kiss says he is going to miss serving on the board but sees his new role as an opportunity to take what he has learned to a different level and establish Pend Oreille PUD as an industry leader in safety. **NWPPA**



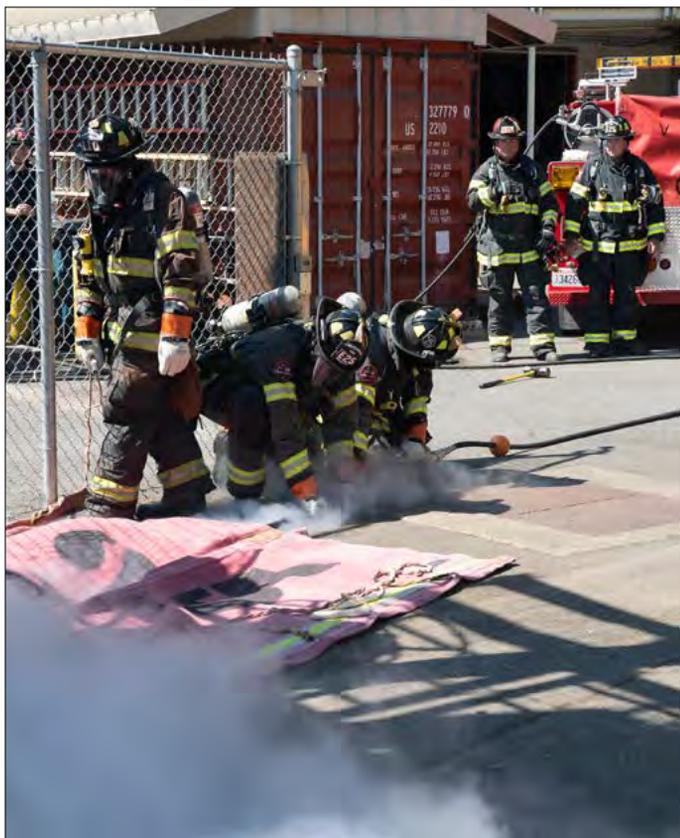
SCL Partners with Seattle Fire Department

At an event and demonstration on June 18 with the Seattle Fire Department and Seattle City Light, Seattle Mayor **Jenny Durkan** announced a first-in-the-nation partnership between Seattle City Light and the Seattle Fire Department to more effectively fight fires in underground electrical vaults.

“Seattle has always been at the leading edge, and thanks to this innovative partnership, Seattle is now at the leading edge of fighting fires that are a danger to the public, our infrastructure, and our economy,” said Mayor Durkan during a demonstration of the new approach at City Light’s North Service Center.

The event included members of the Vault Response Team, which is comprised of specially trained Seattle firefighters as well as executive members from both departments and other advocates of this partnership.

In May, SFD Chief **Harold Scoggins** and City Light Interim General Manager and CEO **Jim Baggs** reached an agreement to solidify the partnership between the two departments and the Vault Response Team. City Light will provide specialized supplies and equipment to treat these fires along with updated intel on City Light’s network maps. **NWPPA**



Vault fire demonstration. (Photo credit K Kennedy.)

Heather Sorensen Promoted at Cowlitz

Last month, Cowlitz PUD (Longview, Wash.) announced that **Heather Sorensen**, manager of Risk and Compliance, has been promoted to the director of Customer Service and Compliance. Sorensen has been with the District for over 10 years and has a strong background in finance.



“Heather has demonstrated her ability to lead, organize, and execute her responsibilities at an extremely high level,” said General Manager **Steve Kern**. “I have no doubt that Heather will transition into her new role and continue to lead our Customer Service in the right direction.”

Sorensen came to the District after a career in the banking industry. Raised in Cowlitz County, she is a wife and mother to two boys and enjoys spending time in her community. “I am honored and excited to have the opportunity to bring my experience into this new role,” she said.

Brent Arnold, the previous director of Customer Service, has accepted the position of key accounts manager, replacing **Dan Eutsler** who is retiring in August. **NWPPA**

NREL Names NWPPA Members on Top-10 Lists

Several public power utilities are included on top-10 lists compiled by the National Renewable Energy Laboratory for utility green pricing programs, and three of them are Californian NWPPA members. The recently released rankings are for 2017.

Using information provided by utilities, NREL has developed top-10 rankings of utility green pricing programs for 2017 in the following categories: total sales, total number of customer participants, and participation rate (the percentage of utility customers that participated in green pricing programs).

SMUD (Sacramento) was ranked second on the top-10 list for green power sales (848,623 MWh). SMUD was in the number-two spot for 2016 as well.

NWPPA members were well represented on the top green power participation rate top-10 list as well: SMUD ranked second, Silicon Valley Power (Santa Clara) ranked sixth, and Alameda Municipal Power ranked seventh.

With respect to the top-10 list of green power sales rates, the same three NWPPA members were represented: Silicon Valley Power ranked second, SMUD ranked third, and Alameda Municipal Power ranked ninth. **NWPPA**



We Remember



Edward "Eddie" Bromiley

Edward "Eddie" Bromiley, a technician for Chelan PUD's Central Maintenance group, died on June 13 in an accident at Rock Island Dam. He was 40 years old.

He was born on April 3, 1978, in Wenatchee to Clark Edward and Melinda Rae (Mickelson) Bromiley, and was raised at the family's ranch on Badger Mountain. During grade school he was active in 4-H and in high school he was president of the FFA. He participated in calf roping and team roping in high school and intercollegiate rodeo. He continued his education at Central Washington University in Ellensburg. While attending college, he accepted a temp position at the Chelan County PUD. He graduated with a bachelor's degree in electrical distribution theory.

Bromiley worked at Chelan PUD since April 2000. He became an apprentice wireman in August 2003 and a journeyman in October 2004. He moved to being a meter relay technician in May 2005 and into the technician position in May 2008. He enjoyed teaching numerous apprenticeship courses for the PUD.

He is survived by his wife, Laura May Bromiley; two children, Hallie May and KC Bromiley; his parents; brothers, Robert "Bobby" (and Lisa) Bromiley and Evan (and Heidi) Bromiley; and numerous in-laws, aunts, uncles, nieces, nephews, and cousins.

Donations can be made to a trust for his children at Cashmere Valley Bank. Everyone is invited to visit his tribute online at www.heritagememorialchapel.com and leave a memory.



Dan Kenney

Dan Kenney, a dedicated director for Plumas-Sierra Rural Electric Cooperative and Plumas-Sierra Telecommunications, recently passed away.

Kenney joined the PSREC/PST boards in 2007. He immediately contributed and worked hard to understand the complexities of both the electric and telecommunications businesses. Kenney represented the cooperative at the Northern California Power Agency and became chairman of the Plumas-Sierra Telecommunications Board. He provided key leadership in the implementation of the American Recovery and Reinvestment Act Fiber Optic Grant received by PST and then the expansion of the system, including the acquisition of the coax network and expansion of the wireless service.

He did this while also being very active with the Long Valley Community Services District, including stints as fire chief, assistant fire chief, and as a member of their board of directors.

Even when Kenney became ill, he fought his illness and worked hard on behalf of the member-owners and his community to the end. He was a gracious, kind, tough, and thoughtful member of the board of directors.



Rob Binder

Rob Binder of Plumas-Sierra Rural Electric Cooperative and Plumas-Sierra Telecommunications recently passed away.

Binder was the cooperative's knowledgeable, dedicated CFO who brought significant telecommunications experience and a great sense of humor to the cooperative. His experience lent a great calming influence in dealing with the shark pit that can be the telecommunications industry. Binder was with Plumas-Sierra for just under a year when he discovered that he had cancer; he spent the next year fighting cancer while staying engaged with work as best as he could. **NWPPA**

New ABB Digital Maintenance Manager Released

ABB industrial customers will soon be able to receive alerts for predictive maintenance of their facility's electrical distribution system. ABB is adding new connectivity functions to its ABB Ability™ Electrical Distribution Control System that make power assets more reliable and simpler to manage.



ABB's Electrical Distribution Control System is a unique cloud-based tool for electrical power systems that increases operational efficiency and productivity by up to 30 percent, maximizing uptime for key processes. Additionally, using plug-and-play modules that provide sensing and a direct connection to the cloud, ABB's unique solution is fully scalable, enabling customers with multi-site operations to manage and supervise remote locations from anywhere.

ABB is a pioneering technology leader in electrification products, robotics and motion, industrial automation, and power grids, serving customers in utilities, industry, and transport and infrastructure globally. For more information, visit www.abb.com. **NWPPA**

Senstar Announces Sale of LM100™

Senstar is pleased to announce the first major sale of its Senstar LM100 hybrid perimeter intrusion detection and intelligent lighting system. Over 1,300 LM100 luminaires will protect the 28,000-foot (5.3 mi) perimeter of a \$1.5 billion brewery being constructed by a Fortune 500 international beverage company.

"The Senstar LM100 is the first perimeter intrusion detection product of its kind to combine two key security features in one cutting-edge product—deterrence (lighting) and detection (vibration-sensing)—illuminating intruders at the fence line and alerting the site's security management system of any attempt to cut, climb, or otherwise break through the fence fabric," said Senstar Product Manager **Todd Brisebois**.

This project, in which the Senstar LM100 will be coupled with layers of video analytics and surveillance cameras, will be the second partnership between Senstar; the beverage company; A&E firm Benham, A Haskell Company; and installer EON Solution SA de CV.

Senstar has been safeguarding people, places, and property with the world's largest portfolio of perimeter intrusion detection sensors for over 35 years. For more information, visit www.senstar.com, www.YouTube.com/SenstarCorp, or www.twitter.com/SenstarCorp. **NWPPA**

BKI's Gordon, Foley Pass Exams

Brown & Kysar, Inc. is pleased to announce that **Thatcher Gordon, E.I.T.**, and **Troy Foley** recently passed their respective engineering exams, granting them new designations. Gordon will become a professional engineer and Foley will become an engineer in training.



"The whole BKI team is thrilled," said **Guy Colpron, P.E.**, director of design. "We firmly believe in the value of continued growth and Thatcher and Troy have bettered themselves while preparing for these demanding exams."

After passing the professional engineer exam, Thatcher said, "I'm stoked and relieved to have earned my P.E. All the studying I did in preparation for this exam has made me a better engineer and will ultimately help our BKI utility partners."

Troy also passed his exam and said, "I'm happy to have passed this exam, but my wife is even more thrilled... she wasn't a big fan of all my late nights up studying."

"We love to share our successes as a team and with our partners," said General Manager **Eddie Jackson**. "Thatcher and Troy have given us all a reason to celebrate."

Brown & Kysar, Inc. provides hands-on, practical engineering, permitting, and planning solutions to public power utilities in the Northwest. For more information, visit www.bki.cc.

NWPPA

Novinium Promotes Peter Christman

Novinium® has promoted **Peter Christman** to the position of vice president of Information Technology. Christman has shepherded his team in the initial development and continuous improvement of Knomentous, Novinium's flagship rejuvenation software. More recently, he has led development for Novinium's subsidiary company, Plenovo, on the PreVent® VaultVision™ data analytics platform. This web portal was created to help circuit owners prevent manhole explosions and fires.

With over 18 years of software engineering and IT experience, Christman is widely considered by his peers as an innovative leader of all things technology. He has spent the last five years in the utility industry leveraging his expertise in architecting enterprise level, cloud-based, multi-tenancy SaaS applications. His unique ability to build long-term effective solutions from the ground up has culminated in a unique focus on user-driven systems, where the experience is equally important to the function. Christman is constantly looking for new ways to join the worlds of business and technology in meaningful ways that engage end users and businesses alike. He can be reached at peter.christman@novinium.com.

Novinium's patented injection process rejuvenates and extends the reliable life of cable up to 40 years. Further information is available at www.novinium.com. **NWPPA**

Terex Opens New Service Center

A new Terex Service Center has opened in the Lancaster, Pa., area. Previously located in Thomasville, Pa., the new service center is closer to a greater percentage of Terex equipment customers and team members. The new facility allows Terex technicians to work safely and more efficiently, while providing room to grow in the 35,000-square-foot facility.

“This is an exciting move as it brings us closer to our customers, closer to our team members, and gives us access to a greater pool of new technician talent to support our growth,” said Regional Operations Manager **Mike Charles**.

The new Terex Service Center in Lancaster is the first in a series of new or updated facilities that are planned for other key markets through 2022. Currently, Terex has locations and field service technicians nationwide that provide service support for Terex electric utility aerials, digger derricks, and auger drills; Terex boom truck cranes; and Genie® telehandlers, scissor, and boom lifts.

Terex Corporation is a global manufacturer of lifting and material processing products and services delivering lifecycle solutions that maximize customer return on investment. More information about Terex is available at www.Terex.com, www.linkedin.com/company/terex, and www.facebook.com/TerexCorporation. **NWPPA**



(L-R) Branch Manager Jason Kober, Director of Terex Services Richard Gunderman, Regional Operations Manager Mike Charles, and Regional Sales Manager Nick Cammisa.

FCS Announces Promotions

FCS GROUP Principals **John Ghilarducci** and **Angie Sanchez Virnoche** have been appointed to the roles of company president and vice president, respectively. Ghilarducci joined the firm in 1991 and Sanchez Virnoche in 2006. With 40 years of combined utility finance, rate development, and fiscal policy analysis experience, they have been significant catalysts throughout FCS GROUP's existence, helping build to a 35-person staff and become one of the largest, most successful independent firms of its kind in the West. Sanchez Virnoche also serves as a trustee on the NWPPA board.

FCS GROUP has also opened two new offices: Boulder, Colo., in 2017, and Spokane, Wash., in 2018. FCS GROUP is also located in Redmond, Wash., and Lake Oswego, Ore.

Since 1988, FCS GROUP has been helping local governments succeed through utility rate, public finance, economic analysis, and asset management consulting services. For more details, visit www.fcsgroup.com or call (425) 867-1802. **NWPPA**

NWPP Corp. to Be Led by Frank Afranji

The Northwest Power Pool Corporation Board of Directors has selected **Frank Afranji** as president of the non-profit that helps coordinate electric grid operations for the Northwestern United States and Western Canada. The NWPP Corporation supports the volunteer membership of the Northwest Power Pool, which includes major utilities, generators and energy managers who together work for increased grid efficiency and reliability.

Afranji was selected by the NWPP Corporation Board after a multi-month search for an experienced energy industry professional with demonstrated knowledge of the increasing regional and interregional grid issues faced by the Western U.S. and Western Canada. Most recently, he served as the director of transmission and reliability services at Portland General Electric, Oregon's largest electric utility.

“Frank brings a wonderful combination of knowledge, experience, and leadership to help energize the Northwest Power Pool,” said BPA Administrator **Elliot Mainzer**. “His focus on the members and the opportunities and challenges they are facing in a very dynamic operating environment will be a real asset for the Northwest. I look forward to working with Frank in his new role.”

Though Afranji will retire from his current job at Portland General Electric (a Northwest Power Pool member) to take on this new role starting August 1, his move is seen as an important continuation of his decades of extensive work on regional grid matters.

Having evolved from its informal origins of three engineers on loan from member utilities in 1941 to the existing staff today, the NWPP Corporation strives to help its customer organizations achieve maximum benefits of coordinated operations. The staffing and governance functions supporting the committees of the Northwest Power Pool Agreement were folded into a nonprofit corporation in 1999. For more information, contact **Hardev Juj** at hardev.juj@gmail.com. **NWPPA**



Council Unveils New Website

The Northwest Power & Conservation Council has updated its website with a new look and features. New features include more tags and topics, especially on the Reports page; the search page separates PDF files from other content; and the ability to click any tags or topics at the right to browse or narrow your search.

Problems or suggestions? Email **Eric Schrepel** at eschrepel@nwcouncil.org and he'll respond quickly to help you find what you're after, and make improvements along the way. Provide any URL or title of what you're after or offer any suggestions.

The heart of the Council's mission is to preserve the benefits of the Columbia River for future generations. For more information, visit www.nwcouncil.org. **NWPPA**

Midterm Elections Impact Legislative Outlook

By Nicole Case



The 2018 midterm elections, while nearly half a year away, were central to discussions at this year's May meeting of the Government Relations Committee. All of the GRC's actions—from earlier 2018 victories, our messaging during our Annual Policy Conference and Rally, and the legislative outlook for the remainder of the year—were, or are likely to be, impacted by the run up to the November 2018 elections.

The significance of midterm elections

The midterm elections are significant as the first major elections since President Trump has taken office. If past voter pattern prevails, the president's popularity will drop as voters react to policy decisions made after being elected to office. The midterm elections see roughly 20 percent less voters than during a presidential election, but the smaller group tends to be made up of more motivated voters. Midterm election voters have been paying close attention to the decisions made by the president and Congress, and will factor those decisions into their votes.

All 435 seats in the House of Representatives will be contested as well as 33 of the 100 Senate seats. The Republican party holds the majority in the House with 235 seats held compared to Democrats holding 193 seats. Democrats, assuming they retain their current seats, may need only 24 seats to regain the majority and gain control of the House. In the Senate, Republicans have 51 seats with the Democrats holding 49 (including 2 Independents). The Democrats need to gain two seats in the Senate to regain the majority and control of the Senate, but have far more seats to defend compared to Republicans.

The president and Congress recognize the significance of the midterm election results and factor in the elections when making policy and legislative decisions. Deals are cut, positions taken, and compromises are sometimes made that would not have otherwise been made without the pressure of mid-term elections. The potential for a shift in the balance of power looms large.

The impact on NWPPA's legislative and regulatory actions

Held in Boise, Idaho, a day before the start of NWPPA's Annual Conference and Membership Meeting, the GRC kicked off the meeting noting our most recent successes: the passage of legislation to provide an efficient process and limited liability protection for vegetation management on rights of way on federal lands; and a budgeting fix for wildfire funding. The legislation passed as part of an omnibus appropriations bill for fiscal year 2018. Both pieces of legislation held some controversy and the final products were the result of compromises reached. It is difficult to say exactly how midterms impacted this legislation, but pressure from the possibility of a loss or gain in majority surely impacted the willingness to compromise.

A common theme threading throughout our discussions on Capitol Hill during our April Policy Conference and Rally was how much can Congress get done with midterm elections right around the corner. The consensus was probably not a lot. Elizabeth Whitney from Meguire Whitney provided a federal legislative outlook for the remainder of the year at the May GRC meeting. This question of the impact of the midterm elections colored her outlook as well.

As mapped out by Whitney, prior “medium-lift, routine business” bills are now the low-hanging fruit. Larger “heavy-lift” bills are no longer moving; Congress addressed major issues like tax reform and healthcare earlier this year and has little appetite remaining for the fight needed to pass major pieces of legislation. With midterm elections looming, all votes on legislation are viewed through the lens of reelection; a vote on a controversial bill could have an impact on the elections. An example is the large infrastructure package which would have combined infrastructure issues like oil and gas with electrical transmission or generation issues. This bill is no longer on the table. Smaller, routine reauthorizations with a higher chance of passage are now in order and work is being done to secure passage. As we witnessed with the “must-pass” omnibus appropriations bill as a vehicle for passage of the vegetation management and wildfire funding bills, any legislation important to NWPPA will have to be attached to an easier-lift vehicle.

Examples of legislative vehicles for passage of high-priority NWPPA legislation include:

- **The Farm bill:** The Farm bill is a priority for Congress this year. The House passed its version and the Senate is moving its version as well. Funding for and support of the Rural Utility Service is a priority for NWPPA and we are monitoring and working with our congressional delegation to support the RUS as this bill moves through Congress.

- **FAA Reauthorization bill:** The House version of the bill addresses testing for beyond-line-of-site use of drones as well as disaster reimbursement policies, both issues for NWPPA.
- **Fiscal Year 2019 Appropriations bills:** These bills will be vehicles to defend against divestiture of PMA transmission assets and to fund work on small modular reactors. Current funding expires this September, so Congress needs to act before midterm elections, whether it be to extend current funding or pass the FY19 bills working their way through the process.

Regardless of whether these bills pass before the elections, Congress will return after the election and attempt to tackle any remaining routine authorization bills and those where work is nearing completion. Any legislation left unfinished at the end of the year will die and need to be reintroduced and negotiated with a brand-new Congress. Political pundits are in constant debate as to the makeup of Congress after the midterm elections; at this point, it is anyone’s guess. NWPPA’s legislative outlook could look considerably different or remain much the same. Stay tuned as NWPPA continues to represent its members during these turbulent political times. **NWPPA**

Nicole Case is NWPPA’s legislative consultant and can be reached at nicole@nwppa.org.

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MARIJUANA ISSUES CONTINUE TO GROW IN THE NORTHWEST

By John Morris

Ten years ago, marijuana was a minuscule blip (if even that) on the radars of electric utilities. In the 2000s, spikes in energy use at a residence oftentimes signaled an illegal grow operation and the utility had policies to deal with the issue. Today, it's a much different playing field. Marijuana use is now legal in four states within NWPPA's territory—Alaska, Washington, Oregon, and California—and it's a popular topic at industry events. NWPPA has even held several Pot and Power Workshops to address marijuana and its effect on electric utilities. Industry outsiders don't immediately see the connection, but insiders do: large legal marijuana grows are causing high-density load issues; energy efficient options remain a way to lower those loads but getting the cannabis industry to adopt these options remains difficult. Small-scale research studies confirm significant energy demand for lighting, HVAC, and dehumidification within cannabis grow facilities.

Today's cannabis industry

Recreational cannabis was legalized in Colorado in 2014. Today, there are 29 states with a legal medical cannabis market and 9 states with a legal recreational market. In the United States, this market represented \$8 billion in revenue for 2017 with a forecast of \$23 billion in 2023. In March 2018, it was reported by the *Cannabist* that the average price per pound of legal cannabis in the United States has been plummeting for 18 months. In 2017, the price dropped 13 percent from 2016.

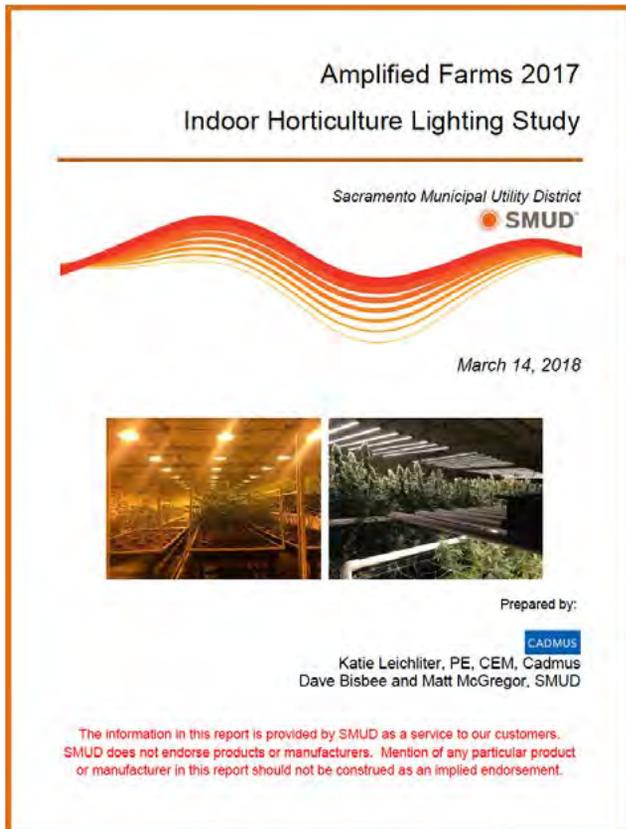
In Oregon, where there is no cap to the number of licenses that can be issued, the state is seeing significant oversupply of cannabis, which is also driving the price per pound down significantly. This is causing wholesale prices to fall on average 20 percent per year in Oregon. Clear market price signals such as these would theoretically motivate the growers to reduce operating costs, specifically energy costs; however, we are not seeing a significant uptick in growers adopting energy efficient practices.

Despite the whirlwind of activity during the past five years, big changes

are still coming! This year, California approved legalized recreational cannabis and licenses are now being granted. Canada is expected to legalize recreational cannabis at the federal level by the end of this summer. By the end of this year, over 8,000 facilities are expected to be licensed nationally.

In the midst of all of the new developments within the cannabis industry, we now have the ability to recognize an emerging utility customer class that represents cultivators who have been growing cannabis for 30+ years with little market intervention. The relationship between a cannabis grower and the utility providing power has been challenging. If growers were not outright stealing power, it was most likely a “don’t ask, don’t tell,” relationship making the interplay between grower and utility tenuous at best. Today we are seeing increasing engagement between utilities and cannabis growers, but there is still an opportunity to have a more dynamic relationship between the utilities and this newly legalized customer class.

A recent example of collaborative efforts between growers and utilities is evidenced by two case studies deployed by California’s Sacramento Municipal Utility District to define savings opportunities with LED lighting in commercial cannabis grow facilities. The Amplified Farms 2017 Indoor Horticulture Lighting Study, one of the two studies, states that, “With the recent legalization of adult-use cannabis in California, SMUD has received numerous requests for electrical service upgrades from commercial customers planning to operate indoor cultivation facilities.”



Thus, we are in a unique and newly regulated market that will require a systemic commitment from the utility industry to better understand what these indoor grow facilities require to increase product yield and, at the same time, reduce operational cost, all while not sacrificing product quality.

Facility hookups and high-density loads

There is a case to be made for utilities starting with a proactive engagement strategy with new and existing cannabis operators within their service territory. This would include the deployment of a Know Before You Grow education campaign that encourages grow facility operators to check in with local utilities even prior to purchasing property for future facilities or upgrading existing buildings with additional power capacity.

SMUD’s Amplified study explains that one 10,000-square-foot grow facility can draw up to 550 KW of power for just lighting alone; a modern commercial building of the same size draws around 8 KW for lighting. And “on an annual basis, the energy consumption to support just one plant is about the same as seven residential refrigerators.” In a 10,000-square-foot facility, a grower can have up to 1,500 plants! Having just a few of these operations within a utility’s service territory is one of the factors causing the high-density load issues that we are seeing in several areas.

The above is why it is critically important to get in contact with your grow customers ideally before they even purchase their property. Many growers are not evaluating property from an energy perspective; instead, they are looking at property only from a cost-per-square-foot basis. We have heard anecdotally that growers are buying property with the assumption that they have the power needed to build out full facilities. In these instances, three-phase power is required to power up the facility, but the existing line is not ready or able to deliver that level of power. This triggers a cascade of unbudgeted costs for the grow facility owner and/or investors, including line extension costs and acquisition of on-site power generation. This is compounded by the fact that the property owner now must wait in the local utility project queue which in some instances can be six months to a year out.

Imagine providing a service to prospective cannabis facility owners where they can see a map of the utility service territory which is already coded for optimal site selection in terms of power capacity. Outreach to growers could include education on property site selection and tools to help prospective owners better understand costs for power upgrades if they already have purchased a property in need of energy upgrades.

Many utilities ask: “How can I proactively reach out to these growers?” One recommendation is that utilities develop working partnerships with state cannabis licensing agencies. These agencies keep detailed records on all cannabis growers for both recreational and medical growers. Some state agencies, such as the Oregon Liquor Control Commission, even require growers to forecast and report annual energy use. This type of data, both access to newly approved growers and how much energy they will use, can be extremely valuable for local utilities. Based on a recent survey of 90 growers in Washington and Oregon conducted by the Northwest Power and Conservation

Council, it was found that only 9 percent of the respondents had been contacted by the utility serving them power. Additionally, 32 percent of respondents want to work with their local utility to make their operations more efficient.

Working with growers at the facility hook-up phase and including information on energy efficiency incentives will ensure that your new customer is set up for long-term business success. For example, Lane Electric Cooperative in Eugene, Ore., has

made a concerted effort to help their customers understand the energy impacts of cannabis grow facilities. To help on the education front, Lane Electric worked with D+R International to develop a line extension calculator designed specifically for cannabis growers.

“This technology will allow our engineering staff and potential growers a way to get estimated electric service costs in a fraction of the time. It’s our goal to accommodate everyone’s needs immediately, but with limited resources, it’s challenging enough to keep up with residential demand,” said John Murray, Lane Electric’s energy services representative.

“We hope that by giving our members the tools they will need to be successful, it will benefit all of us in the long run.”

Lane Electric expects to have the calculator available soon for their customers via their website, laneelectric.com.

Access to energy efficiency services

Fortunately, there are Northwest utilities, such as Lane Electric Cooperative, that are finding creative ways to educate growers on how to ensure their properties have proper power capacity for their future facilities.

To effectively drive customized energy efficiency programs for cannabis facility owners, the energy efficiency community must come together to advocate for equitable research, pilot projects, qualified product lists, training programs, and market relationships. The cannabis industry would like data and tools to help them become more energy efficient. They need all of the things that other customer classes have access to, whether it is a trade ally training course for cannabis facility construction companies, or something as simple as a baseline study.

For utilities that provide incentives based solely on lighting manufacturer performance specifications, I strongly advise you to do follow-up site visits to ensure the LED lights you paid an incentive for are actually still being used. The issue of “measure

life” (the median number of years that a measure, or equipment, is installed and operational) is a huge grey area in the cannabis sector and verification is critical to long-term savings goals for utility programs.

Also, do not assume that just because your utility is offering an incentive on lighting, that all growers will take advantage of the incentive. My best educated guess is that today only 2-3 percent of all recreational and medical growers nationally are using LED technology. Again, can we expect that growers are going to trust manufacturer performance claims? A number of LED manufacturers are working diligently on increasing product quality and yield for plants being grown indoors, but we need consistent LED performance standards to be developed for this sector.

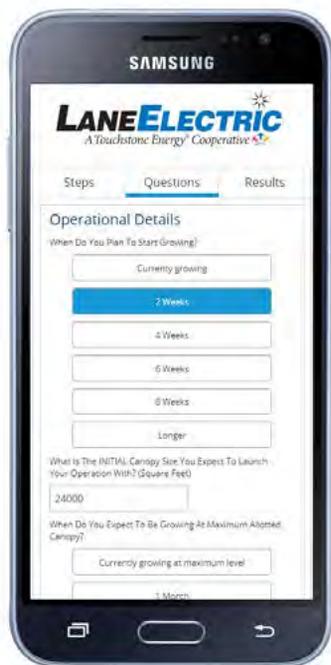
Furthermore, utilities would be best served by offering a systems approach incentive plan. When a grower switches from ceramic metal halide to LED, this has a ripple effect through the entire facility. It reduces the cooling load and, in some instances, can increase the need for additional heat in the facility.

Next steps

We have a phenomenally exciting opportunity to begin relationship building with an entirely new class of customer. The technology advancements that utilities have been focusing on for the past 20 years, including lighting and HVAC, are fundamental to the long-term success of cannabis producers. By proactively providing outreach to growers on how to get facilities hooked up and how to get their facilities more energy efficient, utilities and their implementers will achieve fewer load issues and greater levels of energy savings.

In 2016, the not-for-profit organization Resource Innovation Institute was launched to help utilities drive adoption of energy-efficient technologies for their cannabis growers. Outreach comes in the form of partnerships with local licensing entities and by joining organizations like Resource Innovation Institute that already have deep networks in the cannabis industry. What is needed most right now are baseline studies so we can begin to understand what average energy use looks like across multiple building types; pilot educational training programs; relationships with lighting and HVAC manufacturers; and independent technology rating specifications. It is truly the Wild West right now which makes this customer class really exciting to work with, but there is much work to do! **NWPPA**

John Morris is the vice president of market development at D+R International as well as a founder and board secretary of the Resource Innovation Institute. He can be contacted at (503) 310-2987 and jmorris@drintl.com.



Outstanding Turnout for HDL/Bitcoin Workshop

Marijuana grow operations are not the only factor in play when it comes to high-density loads at our members' utilities. Data centers and blockchain operations are also creating stress on loads. To address this concern, NWPPA hosted an HDL workshop, *Are You Ready for Blockchain, Data Centers, and Grow Operations*, on June 7 in Portland.

Close to 90 utility professionals and board members attended the half-day workshop; the energy was high as they listened to presentations from multiple industry experts. The Energy Authority Managing Director Robert Trinnear spoke about the Big Picture of Blockchain, highlighting both risks and rewards of blockchain. Attorney Ray Kindley discussed legal considerations including the importance of gathering information, creating policy, and a standard contract. Northern Wasco PUD General Manager Roger Kline and Chelan PUD General Manager Steve Wright shared their experiences at their respective utilities.

"The presentation and diversity of perspective shared was valuable," said EWEB Regional Policy Program Manager Megan Capper. "NWPPA hit the right balance of all interests."

The workshop closed with a roundtable discussion for the four panelists and attendees. **NWPPA**



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- 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: [General Manager](#)

COMPANY: Big Horn County Electric Cooperative, Inc. (Hardin, Mont.)

SALARY: DOE

DEADLINE TO APPLY: July 31, 2018

TO APPLY: Email torskkelaw@tctwest.net.

POSITION: [System Engineer](#)

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

SALARY: \$100,000 per year

DEADLINE TO APPLY: July 31, 2018

TO APPLY: Visit www.opalco.com.

POSITION: [Regional Transmission Engineer/Sr. Regional Transmission Engineer](#)

COMPANY: Snohomish County PUD (Everett, Wash.)

SALARY: \$80,133 - \$150,777 per year

DEADLINE TO APPLY: July 17, 2018

TO APPLY: Visit www.snopud.com.

POSITION: [Engineer Technician](#)

COMPANY: Milton-Freewater City Light & Power (Milton-Freewater, Ore.)

SALARY: \$24.60 - \$33.20 per hour

DEADLINE TO APPLY: July 21, 2018

TO APPLY: Visit www.mfcity.com.

POSITION: [Journeyman Lineman](#)

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

SALARY: \$45.35 per hour

DEADLINE TO APPLY: July 31, 2018

TO APPLY: Visit www.opalco.com.

POSITION: [Lineman](#)

COMPANY: City of Port Angeles (Port Angeles, Wash.)

SALARY: \$44.45 per hour

DEADLINE TO APPLY: July 31, 2018

TO APPLY: Visit www.cityofpa.us.

POSITION: [Engineering Tech II](#)

COMPANY: Homer Electric Association (Homer, Alaska)

SALARY: Per contract

DEADLINE TO APPLY: August 17, 2018

TO APPLY: Visit <http://homerelectric.applicantpro.com/jobs>.

POSITION: [Power Resources Specialist](#)

COMPANY: Northern Wasco County PUD (The Dalles, Ore.)

SALARY: DOE

DEADLINE TO APPLY: August 13, 2018

TO APPLY: Visit www.nwascopud.org.

POSITION: [Regulatory Consultant \(R18-246\)](#)

COMPANY: Portland General Electric (Portland, Ore.)

SALARY: DOE

DEADLINE TO APPLY: July 31, 2018

TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Spec II, Designer \(R18-348\)](#)

COMPANY: Portland General Electric (Portland, Ore.)

SALARY: DOE

DEADLINE TO APPLY: August 1, 2018

TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Spec II/III SDPM \(R18-349\)](#)

COMPANY: Portland General Electric (Portland, Ore.)

SALARY: DOE

DEADLINE TO APPLY: July 19, 2018

TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Journeyman Lineman U18-010](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: \$44.91 per hour
DEADLINE TO APPLY: August 9, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Engineer III, Transmission Operations \(R18-210\)](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: DOE
DEADLINE TO APPLY: July 20, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Protection Electrical Engineer II/III \(R17-425\)](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: DOE
DEADLINE TO APPLY: July 25, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [IT System Tech II](#)
COMPANY: Klickitat PUD (Goldendale, Wash.)
SALARY: DOE
DEADLINE TO APPLY: July 22, 2018
TO APPLY: Visit www.klickitatpud.com.

POSITION: [Engineering Manager](#)
COMPANY: Klickitat PUD (Goldendale, Wash.)
SALARY: DOE
DEADLINE TO APPLY: July 22, 2018
TO APPLY: Visit www.klickitatpud.com.

POSITION: [Power Supply Analyst](#)
COMPANY: Flathead Electric Cooperative, Inc. (Kalispell, Mont.)
SALARY: DOE
DEADLINE TO APPLY: July 20, 2018
TO APPLY: Visit www.flatheadelectric.com.

POSITION: [CEO](#)
COMPANY: Valley Electric Association, Inc. (Pahrump, Nev.)
SALARY: DOE
DEADLINE TO APPLY: July 21, 2018
TO APPLY: Email ExecutiveSearch@nreca.coop.

POSITION: [Engineer I/II/III, Elect \(R18-384\)](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: DOE
DEADLINE TO APPLY: July 20, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Energy Services Representative](#)
COMPANY: Flathead Electric Cooperative, Inc. (Kalispell, Mont.)
SALARY: \$68,504 per year
DEADLINE TO APPLY: July 21, 2018
TO APPLY: Visit www.flatheadelectric.com.

POSITION: [Electrical Engineer III, System Control Center](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: DOE
DEADLINE TO APPLY: August 7, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Distribution Engineer](#)
COMPANY: Mason County PUD 3 (Shelton, Wash.)
SALARY: DOE
DEADLINE TO APPLY: August 6, 2018
TO APPLY: Visit www.pud3.org/careers.

POSITION: [Engineer III R17-549](#)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: DOE
DEADLINE TO APPLY: July 25, 2018
TO APPLY: Visit www.portlandgeneral.com/careers.

POSITION: [Journeyman Lineman](#)
COMPANY: Canby Utility (Canby, Ore.)
SALARY: \$44.70 per hour
DEADLINE TO APPLY: August 31, 2018
TO APPLY: Visit www.canbyutility.org/about/jobs.

POSITION: [Staking Engineer I \(White Salmon\)](#)
COMPANY: Klickitat PUD (Goldendale, Wash.)
SALARY: DOE
DEADLINE TO APPLY: July 22, 2018
TO APPLY: Visit www.klickitatpud.com.

POSITION: [Line Superintendent](#)
COMPANY: Klickitat PUD (Goldendale, Wash.)
SALARY: DOE
DEADLINE TO APPLY: July 22, 2018
TO APPLY: Visit www.klickitatpud.com.

POSITION: [Payroll Specialist](#)
COMPANY: Matanuska Electric Association, Inc. (Palmer, Alaska)
SALARY: \$22.13 per hour
DEADLINE TO APPLY: July 31, 2018
TO APPLY: Visit www.mea.coop.

POSITION: [HR Generalists](#)
COMPANY: Matanuska Electric Association, Inc. (Palmer, Alaska)
SALARY: DOE
DEADLINE TO APPLY: July 21, 2018
TO APPLY: Visit www.mea.coop.

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