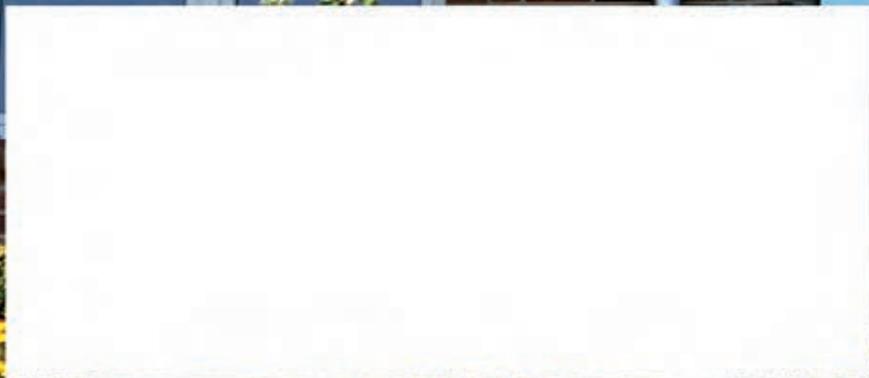


Northwest Public Power Association
BULLETIN

October 2014
Volume 68, Number 10

**Preparing for distributed
generation in the Northwest**





11



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26

On the cover: While distributed generation (DG) has yet to make large inroads into the electric utility sector in the Pacific Northwest, further changes in technologies and policies could make distributed generation more viable and could spur broader growth in this area. Charlie Black offers a primer on what DG is; its pros and cons; and some of the projects already in the works by NWPPA members.

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The NIC's Seattle venue attracted many first-time attendees and positive reviews



Sessions were very well attended at this year's NIC in Seattle, which saw a high number of first-time attendees along with the many long-time supporters of the conference.

Over 115 communications and energy specialists came together to “Rendezvous at the Renaissance” last month at the Renaissance Hotel in Seattle, Wash., for the 2014 Northwest Communications & Energy Innovations Conference (NIC). This was the first time the NIC has travelled to Seattle, and from the positive feedback for the location, it will probably not be the last time. For many attendees (nearly 20 percent!), it was also their first time attending the NIC — and hopefully it will not be their last time either.

“Thanks to all who attended the conference this year! Not only did we enjoy a great location in Downtown Seattle, but the speakers were top-notch,” said 2014 Conference Chair Erika Neff from Kootenai Electric Cooperative. “We also had one of our best turnouts ever, and that number included over 20 first timers — so I think word is getting out about what an amazing conference the NIC is. I hope to see everyone back — and more first timers again — in Tahoe next year.”

“This is always a great event!” said Lane Electric Cooperative’s Dave D’Avanzo. “It was wonderful to see as many new faces as we did this time!”

The annual NIC has become well known among our membership — both new and old — as always having great



(L-R) Sponsor Erik Rheam, from Automated Energy, Inc., gives the conference a thumbs up while brainstorming with Wells Rural Electric Company’s Jeff Cromie.

educational sessions, pertinent keynote speakers, and an overall fun atmosphere, and this year’s conference was no different. On Sunday evening, CLEARresult sponsored a reception at the top of the hotel to officially kick off the conference. Attendees used the time to connect with old friends and network with new ones before getting down to business on Monday morning.

“For me, networking with the vendors and my colleagues is the most useful portion of this conference,” said Emerald PUD’s Jaime Cranmer. “Again this year I made great connections with vendors to work with when I get home.”

After Monday’s highly rated opening general session, David Rabiner’s “Leading through Challenging Times,” attendees were able to choose between the communications track or the energy-efficiency track — or a mix of the two — during five separate breakout sessions. When not in breakout sessions, attendees came back together for five more general sessions over the course of the two and a half days. Session speakers included staff from several member utilities,

as well as subject matter experts from Bonneville Power Administration, Public Power Council, Efficiency Services Group, Northwest Water & Energy Education Institute, and Ruralite Services, among others.

Continued on page 4

“I really enjoy this conference and I’m glad to be part of it,” said Cranmer. “Thank you to the hard work of the committee to try and find something for everyone.”

In addition to the breakout and general sessions, attendees stayed busy with roundtable discussions, which are a conference favorite. Last year, NWPPA added a second roundtable discussion to the agenda and again used that format this year. The first one on Monday was split up by hot topics, and the second one on Tuesday was split up by utility size.

“I enjoy learning from others and their experiences,” said Fall River Electric’s Brand Hathaway. “It is a great barometer to see where we are at compared to the other utilities.”

After two days of educational sessions, attendees were ready to have some fun at the masquerade-themed reception and awards banquet sponsored by Touchstone Energy Cooperatives on Tuesday night. Interspersed between Seattle-themed games and contests, chairmen past, present, and future presented the annual Excellence in Communications awards, the Tom Hougan Award for Overall Excellence in Communication, and the Lacy Peoples Award. (See pages 5-6 for more information about the awards.) After all of the awards were presented, the 2015 chairman, Joel Myer of Mason County PUD No. 3, announced that next year’s NIC will be in Tahoe. Then it was back to business for the last half day of the conference on Wednesday morning with two final general sessions.

“This was my first NWPPA conference and I quite enjoyed it,” said Snohomish County PUD’s Krysta Rasmussen. “A great group of people attended this year!”

Peninsula Light’s Brian McLean, another first-time attendee, agreed: “As a newbie to the industry, it was really helpful to make connections at the NIC.”

NWPPA and the Conference Committee thank all of the sponsors, attendees, and speakers for their support of this year’s conference! Please mark your calendars for the 2015 NIC, September 13-16, 2015, in Lake Tahoe, Nev. Look for more details about the conference in the *Bulletin* and on www.nwppa.org in the late spring.

For more photos of this year’s NIC, visit NWPPA’s Facebook page or search #2014NIC on Twitter. **NWPPA**



Many attendees got into the spirit of the masquerade-themed awards ceremony and reception. Above is Benton PUD’s Jodi Henderson.



(L-R) Mason County PUD No. 3’s Joel Myer and Ruralite’s Megan McCoy-Noe knocked their social media presentation out of the park. Their session was the highest rated one at this year’s conference.



(L-R) Flathead Electric Cooperative’s Ross Holter, Sun River Electric Cooperative’s Ross Oveson, and Snohomish PUD’s Neil Neroutsos discuss hot topics at Monday afternoon’s roundtable session.



(L-R) Parkland Light & Power Company’s Charles Nelson and Richland Energy Services’ Dawn Senger share some laughs at Tuesday evening’s banquet.

2014 Excellence in Communication awards presented in Seattle



Above: Congratulations to this year's Excellence in Communication winners, and thank you to our members for submitting a record-breaking 192 entries.

Right: (L-R) NIC Chair Erika Neff presents the Tom Hougan Award for Overall Communications to Melissa Carlin, who was on hand to accept the award for Homer Electric Association.



Now in its 21st year, the Excellence in Communication contest recognizes the top communication efforts from NWPPA member utilities and associations. NWPPA presented the awards at its Northwest Communications & Energy Innovations Conference (NIC) awards banquet at the Renaissance Hotel in Seattle, Wash., on Tuesday, September 16.

This year, NWPPA received a record-breaking 192 entries from 45 different utility and association members!

NIC Chair Erika Neff from Kootenai Electric Cooperative congratulated the attendees for the record-breaking numbers. "Thank you to everyone for sending in your entries and continuing to support this conference, and for making this contest the highly regarded event that it has become," she said.

Categories are broken up into four groups: Group A utilities having the smallest number of customers and Group D having the largest. Eight local marketing and communication professionals — the majority of whom work in the utility field — volunteered their time to judge the entries. A complete list of the first-, second-, and third-place winners can be found at www.nwppa.org.

In addition to the Excellence in Communication awards, NWPPA presented the 2014 Tom Hougan Award for the best overall communication effort of the year to Alaska's Homer Electric Association (HEA). The judges agreed that HEA entered exceptionally high-quality communication pieces; the cooperative submitted the only perfectly scored newsletter, received a near-perfect score (49 out of 50) on its first-place advertising campaign, and earned a 47 out of 50 on its photo entry to receive third place. HEA Communication Specialist Melissa Carlin accepted the award on the utility's behalf at the banquet.

"It is an honor to be recognized and to receive such a prestigious award from NWPPA. It is a privilege for Homer Electric and its communications department to be in the company of such talented and high-caliber professionals," said Carlin. "Thanks again to NWPPA!"

The 2015 Excellence in Communication awards will be presented in Lake Tahoe on September 15, 2015. **NWPPA**



NWPPA honors Lackey with Lacy Peoples Award

The 2014 Northwest Communications & Energy Innovations (NIC) Planning Committee selected Midstate Electric Cooperative's Teresa Lackey as this year's winner of the Lacy Peoples Award. The NIC Planning Committee selects the Lacy Peoples Award recipient based on his or her lifetime commitment to the public power industry and remarkable work in the areas of marketing and communication.

"I have had the pleasure of working with Teresa for the past 20 years. Her dedication to serve our members through marketing and communications can be seen in her quality of work; her attention to the details is second to none," said Midstate General Manager Dave Schneider. "Teresa understands and embraces the privilege of serving our members and is very deserving of the Lacy Peoples Award."

The award was presented to Lackey on Tuesday, September 16, at NWPPA's NIC awards banquet at the Renaissance Hotel in Seattle, Wash.

"Winning the award is quite an honor. I truly appreciate the recognition and it means so much to me," said Lackey. "It is a privilege to work with such a great group of public power professionals."

Lackey has spent nearly 30 years in the industry — the last 15 at Midstate in La Pine, Ore., working as the marketing/communications manager. Under her leadership, Midstate has received numerous communications awards from both NWPPA and NRECA. Recently, she received the Touchstone Energy Brand Champion Award; this is presented to dedicated employees who have shown exceptional leadership, effectiveness, and consistency while locally or regionally building the Touchstone brand.

"Teresa has been a great contributor and leader in the areas of marketing and communications and promotion of public power," said Clark Public Utilities Senior Manager of

Communication Lena Wittler. "Teresa has been a great ambassador for public power and is deserving of this award."

Wittler was one of three different managers at three different utilities who inquired about nominating Lackey for this prestigious award.

First given to Lacy Peoples of Cowlitz PUD at the Consumer Services/Communications Conference in 1978, the award is now presented to recipients at the annual Northwest Communications & Energy Innovations Conference. Current or former employees of NWPPA member utilities are eligible to receive this award. The Conference Planning Committee selects recipients based on accomplishments through at least 10 years of marketing and communication experience; at least 20 years of service to the industry; and promotion of public power through efforts such as community service and energy efficiency.

Recent Lacy Peoples Award winners include Phil Steyer of Chugach Electric Association (2012), Julee Cunningham of Snohomish County PUD (2011), and Dave D'Avanzo of Lane Electric (2010). **NWPPA**



(L-R) Midstate Electric Cooperative's Teresa Lackey receives the 2014 Lacy Peoples Award from NIC Chair Erika Neff.

NWPPA's 2015 E&O is heading to Tacoma!

Now is the time to get registered for NWPPA's 2015 Engineering & Operations Conference and Trade Show happening the week of April 6, 2015, in Tacoma, Wash. Next year will be NWPPA's 75th anniversary, so the Planning Committee chose to go with a theme that embodies that: *Celebrating Our Past with an Eye on the Future*. At the event, you will have a great opportunity to network with your utility peers and vendors; visit one of the largest utility trade shows in the West with over 185 exhibit booths; and attend educational sessions designed by utility employees for utility employees.

For the 2015 E&O, we'll house the conference and trade show at the Tacoma Convention Center; the host hotel is just a block away at the Hotel Murano. Overflow accommodations can be found at the Courtyard Marriott Downtown Tacoma.

Whether you are looking for new utility hardware, tools, trucks, or services to plan and get your work done, this E&O is simply the best deal around. The E&O is designed for utility engineering and operations personnel, as well as those in information technology, safety, purchasing, environmental, communications, or any area where a more in-depth knowledge of engineering and operations would be beneficial.

For vendors who support the electric utility industry through products or services, there is still time to request an exhibit booth. Booth sales will close on October 17; request your booth space now before we sell out.

For more information on attending or exhibiting at the conference, please contact Jenny Keesey at jennifer@nwppa.org. **NWPPA**

Getting to know the NWPPA Board

- **Name:** Dave Anderson
- **Company:** Electrical Consultants, Inc. (ECI)
- **Position:** Principal and vice president
- **Education:** Attended Montana State University in Bozeman, Mont. (architecture curriculum); and Eastern Montana College in Billings, Mont. (engineering curriculum).
- **Years in utility industry:** Over 31 — the last 25 years being with ECI.
- **Years on NWPPA Board:** First year.
- **What are the current challenges at your company?** One of the largest company-wide challenges — and with our entire industry — includes finding and hiring qualified engineering staff to handle the increasing workload and number of utility projects generated by the abundance of high-voltage and EHV T&D work; the work resulting from ongoing and recent NERC requirements; and the large amount of projects generated by renewable energy developers. Another challenge is developing a strong mentoring program for young engineering staff as senior engineers retire or move to part-time status. Both of these issues require a lot of time and effort on the part of company principals and senior staff.
- **What do you see as the current challenges in the industry?** Same as above.
- **How does NWPPA help your company and the industry with these challenges?** The relationships we have developed over the last couple of decades with NWPPA members have been beneficial in developing project work with many of the utilities in this association. NWPPA has also been a great resource of information and I am very happy to count many of the employees as friends. Events such as the annual E&O Conference have not only generated business for our firm, but they have resulted in many long-term relationships (some dating back over 25 years) that have often times been a resource for engineering talent as utility personnel retire or make the decision to change their career paths.
- **Any hobbies outside of the public power world?** I enjoy golfing, fishing, and traveling. For over the past 20 years, my family and I spend multiple weeks in the Hawaiian Islands every year. We have also traveled in Asia and Europe, and enjoy exploring new places. **NWPPA**



A look back at public power

50 years ago — 1964

WPUDA released a 10-year summary report of the progress made by 22 Washington PUDs; the report showed that total kilowatt-hours increased by 154 percent in the last 10 years while cost to consumers dropped by 23 percent ... Fall River REC cut rates a total of \$60,000; in addition to the new lower rates, the cooperative gave a 10-percent discount for prompt payment of current bills when accounts were paid in full (Idaho) ... Lewis County PUD lowered street lighting rates and simultaneously launched a countywide program to upgrade lighting and standardize a 175-watt horizontal burning mercury vapor luminaire (Wash.).

25 years ago — 1989

Central Lincoln PUD Energy Services Coordinator Julie Flansberg received an individual certificate of achievement from BPA for her outstanding personal contributions to the Super Good Cents program in her service area and in the region (Ore.) ... The Northwest Power Planning Council established a 10-year goal of replacing approximately 35 percent of wildlife habitat affected by hydroelectric dams along the Columbia River ... Eugene Water & Electric Board began using a new computerized system with an energy management and control system that is expected to save \$800,000 per year (Ore.).

5 years ago — 2009

Turlock Irrigation District installed a 73-kilowatt AC array of photovoltaic panels atop its newly renovated parking structure (Calif.) ... The 2009 Green Power Leadership Awards named Puget Sound Energy as a Utility Green Power Provider of the Year (Wash.) ... Cordova Electric Cooperative's Valerie Covell received the Hatcher-Williams-Turkington Employee Award from the Alaska Power Association ... The Sacramento Municipal Utility District's one-megawatt solar photovoltaic plant located at the Rancho Seco site celebrated 25 years of service (Calif.) ... Clark Public Utilities and The Port of Vancouver USA finalized an agreement to exchange property in order to accommodate rail construction (Wash.). **NWPPA**

November and December 2014

Please register 30 days in advance to receive the Early Bird discount. See www.nwppa.org for more information.

STAKING TECHNICIAN CERTIFICATION — BASIC SURVEYING

Who Should Attend: Staking technicians.

Overview: This three-day course is part of the comprehensive staking technician program. It will teach students the basic and advanced methods of line route surveying. This course also includes a basic overview of GPS and its application to line design and staking. To complete the study, the student will learn how to transfer both paper and electronic field data to hand drawings or computer-aided drafting programs.

NOVEMBER 3-5, 2014 — STOCKTON, CALIF.

ELECTRIC UTILITY SYSTEM OPERATIONS

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

Overview: This popular two-day course presents a clear understanding of the technical heartbeat of the utility by providing employees with a comprehensive understanding of electric utility system operations, including generation (fossil fuel, hydro, and nuclear generation), transmission, and distribution (down to 120v/240v residential connections).

NOVEMBER 5-6, 2014 — SPOKANE, WASH.

STAKING TECHNICIAN PROGRAM — EASEMENT ACQUISITION

Who Should Attend: Staking technicians.

Overview: This course is part of the Comprehensive Staking Technician Program. Experienced line designers say obtaining the right-of-way easement is the toughest part of staking. A well-designed power line is of little use if it cannot be built on the land.

NOVEMBER 6-7, 2014 — STOCKTON, CALIF.

FRONT LINE LEADERSHIP #3: PERSONALITIES AND ATTITUDES IN THE WORKPLACE

Who Should Attend: Front line supervisors and managers that have completed *Front Line Leadership Session #1: Situational Leadership*, as well as those front line employees who will be transitioning to a supervisor or manager role in the near future and have completed *Front Line Leadership Session #1: Situational Leadership*.

Overview: This course, as taught by the Ken Blanchard Companies, begins with a self-discovery pre-workshop exercise to determine your personality type. The session continues with an explanation of how best to identify and deal with the different personality types you work with. Learn why it takes a different approach with members of your workgroup and how to bridge their temperaments to their developmental levels.

NOVEMBER 13-14, 2014 — PORTLAND, ORE.

NEW! FRAUD IN UTILITIES

Who Should Attend: All utility accounting staff, policymakers, managers, purchasing, engineering, and human resources staff.

Overview: In this one-day course, attendees will explore common types of fraud in utilities, gain an understanding of the controls that fail, and how to protect your utility against fraud. Learn the most common types of fraud in utilities, gain an understanding of the reasons fraud occurs, and learn how a strong internal control system can minimize the chance of fraud.

NOVEMBER 18, 2014 — VANCOUVER, WASH.

FOREMAN LEADERSHIP SKILLS #3: REDUCING CONFLICTS; COMMUNICATION AND CUSTOMER SERVICE

Who Should Attend: Foremen and crew leaders. (Please note that classes in this series may be taken in any order.)

Overview: Day 1: *Reducing Conflicts and Attitude Problems*. This class is designed to provide participants with an understanding of the dynamics of workplace conflicts and strategies of how to better manage those conflicts and improve relationships. Day 2 : *Communication and Customer Service for Line Crews*. The purpose of this one-day seminar is to improve the company's business relationships through the skills of interpersonal communication with internal and external customers.

NOVEMBER 18-19, 2014 — VANCOUVER, WASH.

ADVANCED UTILITY ACCOUNTING

Who Should Attend: Senior level accounting staff, chief financial officers, and finance directors.

Overview: This two-day class will cover advanced accounting issues currently affecting utilities: new FASB and GASB reporting standards and regulatory accounting, and how they can benefit a utility. The course will conclude with a roundtable discussion on issues that are a priority for your utility. Attendees should be prepared to discuss top priorities and provide feedback.

NOVEMBER 19-20, 2014 — VANCOUVER, WASH.

ORECA WINTER MEETING — 957.1: HOW TO EVALUATE AND IMPROVE BOARD PERFORMANCE

Who Should Attend: Policy makers of electric cooperatives and public utility districts.

Overview: All effective organizations, corporations, and institutions do at least one thing: they implement a formal process to evaluate their performance to find areas where they can improve. This course is designed for cooperatives and public power district boards.

DECEMBER 2-3, 2014 — SALEM, ORE.

UNDERSTANDING DIFFERENCES IN UTILITIES: A HISTORICAL PERSPECTIVE

Who Should Attend: Accounting and finance staff, policy makers, and any staff interested in learning about public power history.

Overview: This one-day workshop provides an introduction for employees about the history of electricity, the rise of public power, and current trends in the electric utility industry. The history of public power is rich and enduring because of the work of a grass-roots group of men and women with a vision for a better life.

DECEMBER 3, 2014 — SPOKANE, WASH.

BASICS OF BUDGETING AND FINANCIAL FORECASTING

Who Should Attend: Finance and accounting employees; senior management or policy makers; or any employee seeking to increase his or her knowledge of the budgeting process that takes place at electric utilities.

Overview: In this one-day seminar, attendees will create a basic budget that ties the following elements together. A Work Plan, a verbal presentation of what will be accomplished during the next budget year; an operating (profit and loss) budget analyzing income and expenses anticipated to accomplish the work set out in the Work Plan; a capital budget outlining what assets will be purchased or built as outlined in the Work Plan; a cash budget tying

together the operating and capital budget; and a balance sheet outlining changes to assets, liabilities, and owner equity (net assets).

DECEMBER 4, 2014 — SPOKANE, WASH.

FRONT LINE LEADERSHIP SESSION #5: SUPERVISING UNION EMPLOYEES

Who Should Attend: Operations directors, managers, line superintendents, labor relations professionals, and human resource managers who supervise union employees and deal with stewards and officers of the union.

Overview: The MARC program provides a well-organized format to produce uniform interpretation of the contract, rules, and policies, which reduces inconsistencies in dealing with employees. It also ensures that union procedures with proper documentation are consistently followed in handling grievances, providing job performance counseling, administering disciplinary action, and making job promotion decisions.

DECEMBER 9-11, 2014 — SPOKANE, WASH.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: ALL FOUR DAYS

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

Overview: This is a four-day series of classes that provide utility-specific information directed toward administrative assistants and executive secretaries that want to become more effective in managing their tasks and in communicating with others. Courses include: Day 1: *Critical Thinking and Decision Making*; Day 2: *Positive Assertiveness in the Workplace*; Day 3: *Personal Strategies for Navigating Change*; and Day 4: *Organizational Skills: Time & Stress Management*. By registering for all four classes, you will receive \$100 off the total registration (\$25 off each of the regular daily rates).

DECEMBER 9-12, 2014 — SACRAMENTO, CALIF.

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

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

Overview: This one-day class is designed to help individuals develop and build decision-making, critical-thinking, and problem-solving skills. Participants will learn about various methods for assessing and resolving problems and for understanding the role of inferences and assumptions. The class is intended to serve as a means for building confidence for how to ask the right questions and in overcoming the stress that sometimes accompanies making decisions.

DECEMBER 9, 2014 — SACRAMENTO, CALIF.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 2 — POSITIVE ASSERTIVENESS IN THE WORKPLACE

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

Overview: This one-day class focuses on how to be assertive by sending the right signals and getting the right responses. The session provides insight into how you can handle yourself without appearing to be either shy or pushy. Participants will learn how to get things done; better manage conflicts; recognize one's own strengths and weaknesses; and build a positive image.

DECEMBER 10, 2014 — SACRAMENTO, CALIF.

NEW! HACK ATTACK!

Who Should Attend: General managers and policy makers.

Overview: Cyber-attacks are eclipsing terrorism as the primary threat facing the United States. To help our executive and policy maker members keep current with cyber security, we have prepared *Hack Attack!*, a half-day workshop in Portland that will address some of the major emerging cybersecurity risks faced by electric utilities and provide some best practices of utilities who are keeping pace with their cybersecurity programs.

DECEMBER 10, 2014 — PORTLAND, ORE.

Continued on page 10



**A hack attack can happen anytime,
anywhere, without warning!**

December 10, 2014
Sheraton Portland Airport Hotel in Portland, Ore.

TRAINING OPPORTUNITIES

FOREMAN LEADERSHIP SKILLS #4 — DEVELOPING MANAGEMENT SKILLS & BUILDING AN EFFECTIVE WORK GROUP

Who Should Attend: Foremen and crew leaders. (Classes in this series may be taken in any order.)

Overview: Day 1: *Developing Valuable Organization Management Skills.* One of the more difficult tasks any leader faces is learning to effectively manage his or her job and that of others. The realities of shorter deadlines, competing priorities, endless meetings, constant interruptions, and higher quality expectations are just a few of the challenges individuals face on a day-to-day basis. Day 2: *Building a More Effective Work Group.* Almost everything we do in our work is done within the context of a team effort. However, more often than not, the difficult part facing the team leader is inspiring individuals to work together toward a common end or goal.

DECEMBER 10-11, 2014 — VANCOUVER, WASH.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 3 — PERSONAL STRATEGIES FOR NAVIGATING CHANGE

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

Overview: In today's workplace, employees are experiencing tremendous changes in organizational strategies, in the way work gets done, and in the way people work together. These changes present new demands and challenges for every individual in the organization. Without personal strategies for dealing productively with change, employees can become overwhelmed and communication can break down. This module provides an effective approach to navigating change that people in any organization can use.

DECEMBER 11, 2014 — SACRAMENTO, CALIF.

ADMINISTRATIVE PROFESSIONAL CERTIFICATE LEVEL 2: DAY 4 — ORGANIZATIONAL SKILLS: TIME & STRESS MANAGEMENT

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

Overview: This one-day seminar is intended to help participants understand how to stay focused on their goals, whether work or personal, while ups and downs occur around them. Participants will gain insight into developing personal flexibility to deal with uncertainty and to find meaning in what they are doing. This seminar will focus on the important personal skill of self-control and self-determination. Participants will learn to recognize their personal stressors and to deal with stress.

DECEMBER 12, 2014 — SACRAMENTO, CALIF.

NWPPA



Focusing on
Keeping You Connected

You've got a lot on the line.
Your co-op works hard day-in, day-out to provide the best service to your members. And, although all that hard work may go unrecognized, your reputation is on the line the moment the lights go out. That's where Cooperative Response Center, Inc., takes over. We're here 24 hours a day, 7 days a week, 365 days a year so you can keep the lights on today, tomorrow, and everyday.

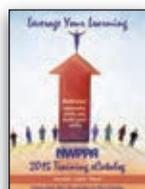
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f t in



To access our 2015 Training eCatalog, simply visit www.nwppa.org and click on Education/Register on the left-hand menu; a dropdown menu will appear and the 2015 eCatalog is on that list.

by Wendy Ostrom Price

Flathead Electric's co-op conversion garners national press

With the installation of a ground source heat pump in the 30,000-square-foot warehouse at its headquarters in Kalispell, Mont., Flathead Electric Co-op (FEC) completed full conversion from electrical resistance heating to geothermal heating and cooling in 2011. Last year, the project became the subject of a case study by the Oak Ridge National Laboratory (ORNL), a nationally renowned laboratory on science and energy.

Throughout the past decade, FEC has seen vast growth in its customer base and subsequent need for expanded facilities. Consequently, the ground source heat pump (GSHP) system serves an existing warehouse, maintenance shop, and parking garage area, as well as the facility expansion. The system is enhanced by variable water temperature and flow controls, low-temperature radiant heat for the floors in the building, and a heat recovery ventilator. The ventilator warms incoming air with exhausted air as it exits the building, which then purges the garage of harmful carbon monoxide.

"When we were looking at heating systems, the GSHP came out on top," said FEC Director of Energy Services Cheryl Talley. "The shallow aquifer in this area makes it very easy to pull water out for heat (and recirculate the water back into the aquifer), so this was the most cost-effective choice we could make. This is a modern, technically advanced, and highly efficient system."

Financial support for the system was provided in part by the Bonneville Power Administration (BPA) and the U.S. Department of Energy (DOE). In granting stimulus funding for the heating system, the DOE referred to the co-op's project as "unique" and "innovative."

"This was a distinctive project because ground source heat pumps haven't typically been used on a commercial scale," Talley said. "Energy utilization of our facility as a whole, has been reduced by 37 percent, so not only do we enjoy energy savings of over \$20,000 a year, but we also monitor our system to provide valuable data for the industry."



Flathead Electric Key Accounts Representative Don Newton checks the temperature gauges on the system. Photos courtesy of Flathead Electric Cooperative.

FEC Key Account Representative Don Newton worked on the system and says it is quiet and goes unnoticed by employees as well as being "virtually maintenance free." Newton also helped provide data to various entities, such as BPA; the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE); and the ORNL, which is the DOE's largest science and energy laboratory. Dr. Xiaobing Liu and Dr. Mini Malhotra of ORNL, along with other authors, released an overview of Flathead's system last year: "Case Study of a Heating Only Central GSHP System Using a Shallow Aquifer for a Warehouse." Dr. Liu said that high initial cost and lack of public awareness of the GSHP technology have been the two major barriers preventing rapid deployment of these energy-saving systems in the United States. To tackle those barriers he says, 26 such projects were competitively selected by the DOE and provided with a grant under the American Recovery and Reinvestment Act to demonstrate the benefits.

In highlighting FEC's system, Dr. Liu says the case study was based on the analysis of measured performance data, utility bills, and calculations of energy consumptions as compared to conventional heating systems. The conclusion of his comprehensive report is that "Flathead Electric's

Continued on page 12

ENERGY EFFICIENCY

system achieved significant energy savings and CO₂ emissions reductions over electric and natural gas baselines. Compared with the electric baseline, it resulted in a 66-percent reduction in site and source energy use and cost for space heating the facility.”

Talley says besides the fact that the ground source heat pump is energy efficient and therefore cost-effective, it also utilizes an abundant and clean natural resource and ultimately strengthens the co-op’s renewable energy commitment and stewardship for the environment. **NWPPA**

Wendy Ostrom Price is the public relations officer at Flathead Electric Cooperative, Inc. in Kalispell, Mont. She can be reached at either (406) 751-1820 or w.ostrom-price@flathead.coop.



The project included installing a ground source heat pump in the 30,000-square-foot warehouse at Flathead Electric’s headquarters in Kalispell, Mont.

A collage of four images. The top-left image shows a sunset over a power plant with the text "Powering a Clean Energy Future" overlaid. The top-right image shows a dam with water flowing over it. The bottom-left image shows a landscape with rolling hills and wind turbines. The bottom-right image is a blue abstract background with diagonal lines.

Powering a Clean Energy Future

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

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by John Dobken

Is it time your utility got into video? (And if you are, are you doing it right?)

Video's the thing and it has been for a long time. That's why Cisco, the everything-IT company, predicts that by 2018 about a million minutes of video content will zip across the Internet — every second.

What that says is that your team members and customers are watching a lot of video on their laptops, desktops, tablets, and smart phones. Is there room for a local utility to find a place amidst all the traffic and noise? Is there an audience for its message? Yes and yes! All one has to do is get started.

Beginnings

Whether there is someone on staff who has a video production background or not, it is possible to start from scratch and develop a competent video communications tool for your utility.

Before buying a single piece of equipment, figure out your purpose. Will the communications be primarily customer-focused? Is leadership looking for a new way to connect to team members (something a little more exciting than email)? Maybe it's both. Figure out why the organization is communicating with video — and then move on to the how.

At Energy Northwest, we use video to both educate the public (for example, about refueling outages) and internally to highlight the good work our team does on various maintenance projects. If one of our senior leaders has an important message to deliver to the entire team, we may opt for video instead of text in an email. This works particularly well in conveying emotion or urgency.

Now that the decision to get into video has been made, decide on a budget. As with most things, you can spend as little as you want or as much. But a general baseline budget for the equipment will be roughly \$4,000, give or take. The bulk of that will be for the camera. The compact HD camcorders available now are very forgiving to novice videographers, and can be set to fully automatic to make things easy. A good one can run \$2,500. Other essential start-up equipment includes:

- Tri-pod
- A (portable) light kit



A shot of John Gallegos, Energy Northwest engineer, atop one of six cooling towers at Columbia Generating Station. The video was used to promote job opportunities at Columbia for new career engineers.

- Wireless microphones
- Video-editing software (we use Sony Movie Studio HD at Energy Northwest because it is simple, inexpensive and can handle large video files; but there are many options)
- A robust laptop/desktop for editing

If a TelePrompTer might be needed, kits are available that turn your tablet into such a device. Investing in a photo-editing software program, such as Photoshop, can help create better graphics to use in the videos.

Now that we have all the tools, what's our story?

The message

No one knows your organization as well as you. For external audiences, take them behind the curtain or where the action is. At the recent Northwest Communications & Energy Innovations Conference in Seattle, Mason PUD 3, located in Shelton, Wash., shared a video they created at the scene of a power outage, with poles down and their crews responding. It was immediate, local, and showed that they valued their customers enough to get out there and make an effort to give them information quickly. Other examples showcased what we in the utility industry might consider routine work, but to the faces behind the windshields passing by (i.e. ratepayers), they are answering questions and

Continued on page 14

providing educational opportunities. Get curious again about your business and organization — you'll be surprised what cool stories you can find and tell.

For internal audiences, look for opportunities to convey key messages. Ask if the upcoming announcement is an opportunity to pick up the video camera instead of settling for the keyboard; you may find you convey the message differently. Find the natural storytellers; there are employees who feel very comfortable speaking on camera — learn who they are and utilize them whenever possible.

Keep it simple — but make it sparkle

One of the urges those new to video editing have is using every tool in the editing toolbox. Wipes, dissolves, fly-ins, page turns, you name it. However, straight cuts and simple dissolves are all that's needed. Make the text graphics legible — no funky fonts or strange effects. The rule should be not to distract from the message, but enhance it. As a storyteller, keep the focus on the story, not the gimmicks. Watch network news to understand how to frame talking heads. Not too wide, not too close — except when it comes to the action; for that, get as close as you can so the audience is still able to tell what it is looking at. An easier formula to remember is to take a wide shot, medium shot, and close-up of each element in the story. That will help when it comes to choosing shots when editing. It is always good to have choices. And when interviewing someone, make sure to get what are called "cutaways." This is video of the person from a different angle or performing the action they are explaining. It helps break up long sound bites and allows you to cover edits. And always, always shoot more than what's needed. Last tip for voiceover narration: see dog, say dog. In other words, don't confuse the viewer by showing one thing while talking about another.

Who's watching ... and where?

Now that we have videos to show, where do we display them? Videos for an external audience can be uploaded to myriad video websites, such as YouTube or Vimeo. Each offers various analytics tools for tracking views and the length the average viewer sticks with the product, among other metrics. If using these sites, be sure to cross-promote the new videos on other social media channels, such as Twitter and Facebook.

If the IT department allows it, internal videos can also be hosted on these sites. Just make sure the privacy settings require a specific link to view the video. At Energy Northwest, internal videos are hosted on an internal server. Links to the videos are either emailed to all employees or posted on a video-specific SharePoint homepage, which employees can browse at their convenience.

Make it happen

Chances are, once a utility starts shooting videos, it will find more and more opportunities to do so. Employees may be slow to embrace them, but keep finding new ways to engage them. Start off with shorter pieces. Add some music to enhance the feel (use good judgment here) and try to create a style unique to your organization. Finally, benchmark what others are doing and ask questions. What they say about operating experience in the field applies to video production as well — the best operating experience is always someone else's. **NWPPA**

John Dobken spent 14 years as a broadcast journalist, working as an anchor, reporter, producer, and videographer before leaving the field for public relations. He now works at Energy Northwest as a senior public affairs analyst. He can be contacted at jcdobken@energy-northwest.com.

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OSHA updates arc flash requirements

In April 2014, OSHA announced a rule revising the general industry and construction standards for work on electric power generation, transmission, and distribution installations, and for electrical protective equipment. This affects both 29 CFR 1926.960 (Subpart V) and 29 CFR 1910.269.

This article provides a summary of the following: 1) timeline of responsibilities, 2) applicability, 3) estimating incident energy values, 4) personal protective equipment (PPE) required, and 5) examples of incident energy values. The comments herein are based on the arc flash requirements in each standard contained in a paragraph titled “Protection from flames and electric arcs,” and each standard’s Appendix E. As always, for official interpretations, refer to your own safety program, safety trainer, and the actual OSHA standards.

Timeline

The employer must make reasonable incident energy estimates by January 1, 2015, and to ensure each employee wears the required arc flash protective clothing and other PPE by April 1, 2015.

Applicability

The arc flash rules are only applicable to those personnel who are exposed to contact with energized live parts operating at more than 600 volts or if the incident energy is greater than 2.0 cal/cm². Personnel not exposed to live parts do not fall under the PPE requirements. However, if you are a manager, how do you know if your personnel are considered exposed to live parts?

Appendix E, Part II of the OSHA standards states the following situations do not expose personnel to electric arc hazards. We interpret this to mean no incident energy calculations or PPE is required.

- Normal operation of enclosed equipment, such as opening or closing a switch, if there is no evidence of impending failure.
- Inspection of equipment if the employee is not holding conductive objects and if the employee remains outside of the minimum approach distance. For example, opening a standard dead-front transformer is acceptable as long as a plastic flashlight is used and the employee does not touch any of the conductor; a metallic flashlight is not acceptable.

OSHA considers that the following tasks do place an employee into a position of being exposed to an electric arc hazard. Incident energy calculations and PPE are required.

- Servicing equipment, such as racking in a circuit breaker, within the minimum approach distance of energized objects.
- Using open flames.
- Operating equipment if there is evidence of arcing, over heating, or other problems.

Estimating incident energy values

There are multiple methods of estimating incident energy values:

- Any method included in Appendix E of the OSHA standards is automatically considered acceptable per Note 1 in the requirements.
- Also in Note 1 of the requirements, an employer may choose a method not included in Appendix E if the chosen method reasonably predicts the incident energy to which the employee would be exposed. We interpret this as allowing the use of look-up tables in Section 4 of the *NESC*.

PPE 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, as included in table 1 below:

Body area	Incident energy value	Type of arc-rated clothing required
Hands	Any value	Not required for hands if wearing rubber insulating gloves with protectors
	≤ 14 cal/cm ²	Leather work gloves, if the gloves meet the OSHA
Feet	Any value	Not required if wearing heavy-duty work shoes or boots
Head	≤ 9 cal/cm ² for single-phase arcs in open air, or ≤ 5 cal/cm ² for everything else	Not required if wearing an electrical rated hard hat
	≤ 13 cal/cm ² for single-phase arcs in open air, or ≤ 9 cal/cm ² for everything else	Hard hat with a face shield rated at least 8cal/cm ²
	Anything higher	Arc-rated hood or face shield with balaclava
Other clothes	Any Value	Clothes containing acetate, nylon, polyester, rayon, polypropylene, and other flammable materials are not allowed unless arc-flash rated
	≥ 2 cal/cm ²	Arc-flash clothes rated for the incident energy

Table 1

Examples of incident energy values

Table 2 lists a few examples of incident energy values taken from Table 410-1 of the 2012 *NESC*, and Table 7 of

Continued on page 16

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.

Summary

In summary, employers must make reasonable incident energy estimates by January 1, 2015. Additionally, employers must ensure each employee exposed to an arc flash hazard wears the required arc flash PPE by April 1, 2015.

There are various methods of making reasonable incident energy estimates listed in the OSHA regulations, including formal calculations and use of look-up tables. Also, PPE requirements vary depending upon the area of the body being protected.

We hope the intent of OSHA's regulation to decrease arc-flash-related accidents and deaths will be fulfilled. **NWPPA**

Erik Kysar and Merritt "Buz" Ketcham are with Brown & Kysar, Inc. in Battle Ground, Wash. They can be contacted at bki@bki.cc or (360) 687-3966.

Voltage and phases	Incident energy value	Notes
120/240V, 1-phase	4 cal/cm ² or less	True for any equipment at this voltage, with an exception for motor control centers
208V, 3-phase	4 cal/cm ² or less	True for any equipment at this voltage, with an exception for motor control centers
240V, 3-phase	4 cal/cm ² or less	True for any equipment at this voltage, with an exception for motor control centers
CT-meters and control wiring	4 cal/cm ² or less	
480V, 3-phase	4 cal/cm ² or less	3-phase pad-mount transformers
480V, 3-phase	8 cal/cm ² or less	Pedestals and pull boxes
480V, 3-phase	20 cal/cm ² or less	Self-contained 480V meters
480V, 3-phase	Can be \geq 60 cal/cm ²	Panelboards – de-energization is recommended
12.47kV, 1-phase arcs	4 cal/cm ² or less	Live-line tool exposure in open air, up to 10kA fault current, and 73 cycle clearing time*
12.47kV, 1-phase arcs	4 cal/cm ² or less	Live-line tool exposure in open air, up to 10kA fault current, and 73 cycle clearing time*
3-phase faults above 600V	Must calculate	

Table 2

* Most breakers and fuses will open much faster than this at maximum fault currents. Also, most rural distribution lines have fault currents well below 10kA.

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One of the steps in repairing the turbine hub of Unit C10 at Rocky Reach Dam was turning it over for easier access. Left to right are PUD journeymen hydro mechanics Greg Allyn, Cody Ledbetter, and John Conner. Photo courtesy of Chelan County PUD.

Chelan to invest in fish protection, turbine repair

On September 2, Chelan County PUD (Wenatchee, Wash.) commissioners agreed to long-term repairs for the four largest units at Rocky Reach Dam to restore the moveable turbine blade capability and make other repairs expected to extend the life of the equipment for at least another 30 years. The investment is expected to increase value for PUD customer-owners.

The decision came following consideration by board members of results from nearly a year of analysis on options for future operation of units C8-11, the largest of the 11 turbine-generators at Rocky Reach Dam.

The turbine blades on the four large units were welded into fixed position late last year and earlier this year as an interim step to return them to service after a crack was discovered in the stainless steel servomotor shaft of unit C10 last September. PUD crews also found more damage to the C10 turbine as they prepared for interim repairs. The four units have similar design.

General Manager **Steve Wright** said restoring adjustable blade capability is important to enhance power generation and assure continued successful fish passage at Rocky Reach Dam. The repairs also will result in reduced future major maintenance, saving the time and expense of another unit outage.

Overall cost, including design, engineering, and repairs, is forecast at \$42 million to \$45 million over six years. There is insurance for portions of the damage and lost revenue, and power purchasers will pay about half the remaining cost.

Costs to Chelan County PUD are estimated at \$12 million to \$15 million. The work is expected to generate \$12 million to \$63 million in value to PUD customer-owners as a return on the investment.

No impacts to PUD electric rates or plans to continue to pay down debt are expected as a result of the District paying its share. **NWPPA**

SMUD Board appoints unopposed candidates

Acting at the request of county voting officials, the Sacramento Municipal Utility District (Calif.) Board of Directors appointed three incumbent board members and one first-time candidate to serve as SMUD directors because no other candidates filed to challenge them in the November election.

At a special meeting on August 19, the board appointed **Genevieve Shiroma** (Ward 4), **Rob Kerth** (Ward 5), **Dave Tamayo** (Ward 6), and **Bill Slaton** (Ward 7). Tamayo is the unopposed first-time candidate who will replace **Larry Carr** who is not seeking re-election; Shiroma, Kerth, and Slaton are unopposed incumbents.

Recently enacted legislation establishes an appointment procedure for municipal utility districts if no candidate or only one candidate files for candidacy by the deadline, which was August 13. The law requires the board to make the appointment no later than August 20. Although the board has made the appointments, the appointed directors will not take office until January 1, 2015.

The rationale behind the legislation is to spare SMUD customers the expense of an election in the event that a candidate is running unopposed. The legislation became effective last January 1. **NWPPA**

WREC announces board results

Wells Rural Electric Company (Wells, Nev.) owners voted to return three incumbents and elected one newcomer to serve on the cooperative's board of directors in balloting that ended on August 20. Incumbents **Gerald Anderson**, **Lois Nannini**, and **Bruce Widmer**, as well as challenger **Kirk Dahl**, were all elected to three-year terms. The new directors will start their terms at the October board meeting.

The election saw a 14-percent return of all ballots sent. A total of 4,127 ballots were mailed to WREC owners on the last Monday in July. Of that total, 586 were returned to attorney **Gary E. DiGrazia's** law office by the election deadline.

The cooperative thanks Election Committee volunteers **Karen Winchell**, **Judy Bradshaw**, **Neil McQueary**, and **Patty Whitlock** for their assistance. **NWPPA**

OPALCO releases survey results

Orcas Power & Light Cooperative (Eastsound, Wash.) is listening to its members. A Web-based member satisfaction survey was recently offered to all 11,281 members in exchange for a \$5 bill credit. Participation was great: 2,172 surveys were completed between May 3 and June 20, representing about 20 percent of the membership. The full results are available at www.opalco.com/news.

The results show that the large majority of the membership (91 percent) are satisfied (or very satisfied) with their electric cooperative, and 81 percent trust OPALCO to run efficiently. The most frequently cited areas for improvement included how the cooperative communicates, increasing member participation in energy savings programs, and addressing Internet services in San Juan County.

Member participation in the survey was proportional to the islands population: San Juan Island (40 percent), Orcas Island (36 percent), Lopez Island (19 percent), and other islands (5 percent). Respondents also reflected the demographics of the islands: 50 percent were retired and 50 percent were working either at home or outside the home; 75 percent identified themselves as full-time residents and 25 percent as part-timers.

OPALCO management is very grateful to its membership for their participation in this survey. It is often the case that the majority voice remains silent — until asked. OPALCO's goal is to improve service to the entire membership. The cooperative's leadership will be using these findings to inform policy and decision making going forward, and regularly report on concrete progress made in addressing this member feedback.

This survey was the first in what OPALCO plans to make a regular feature of its cooperative culture. The cooperative will ask members to take comprehensive member satisfaction surveys periodically, but will also be offering shorter surveys on targeted topics, such as how its rebate program is working for those who use it, and how much of a priority local distributed power should be for OPALCO.

NWPPA

Grant celebrates September anniversaries

Materials Specialist Foreman **Harold Franks**, Hydro Mechanic Foreman **Richard Andersen**, and Mechanical Planner **Derik Albertson** all are marking 30 years of service with Grant PUD (Ephrata, Wash.) in September.

Others celebrating anniversaries include: Data Analyst **Anna Hirz** and Administrative Assistant **Robby Noga** (10 years for each); and Attorney **Mitchell Delabarre** and Engineering Services Supervisor **Julie Pyper** (5 years for each). NWPPA

Adult fall Chinook returns shatter record

As of Sunday, September 7, more than 180,354 adult fall Chinook had climbed the fish ladders at Bonneville Lock and Dam on their annual migration into the Columbia River Basin.

Sunday's count of 67,024 Chinook was soon surpassed by Monday's return of 67,521 — marking the largest, single-day return since counting began with the construction of the dam in 1938. The previous record of 63,870 had been set less than a year ago on September 9, 2013. On Tuesday, the numbers held strong with 45,809 Chinook swimming past the fish counting windows at the dam.

The fish are among the 359,258 fall Chinook seen thus far at Bonneville Dam. These numbers are only a fraction of the predicted 1.5 million adult fall Chinook returning by the end of 2014. These returns are the result of a host of federal, tribal, state, and non-profit organizations in the region working together over the past decade to improve conditions in the tributaries and main stem river using an “all H” approach — harvest, habitat, hydro, and hatcheries — as well as favorable ocean conditions.

“With our many partners, we work to balance the needs and interests of the region with large-scale improvements for fish,” said **David Ponganis**, Northwestern Division Programs director for the U.S. Army Corps of Engineers. “These record-breaking numbers show that the structural and operational improvements made at the dams have resulted in safer passage conditions for juvenile and adult fish.”

These efforts represent one of the largest fish and wildlife programs in the nation, largely paid for by the region's electric ratepayers along with funding from federal taxpayers.

“The results we are seeing reflect a tremendous collaborative effort within the Columbia River Basin,” said BPA Administrator **Elliot Mainzer**. “We look forward to working with our existing and future partners towards a common vision of continuing to bring back more fish to the rivers.”

NWPPA

Energy Northwest garners over \$23M for ratepayers

On August 28, the Department of Energy (DOE) settled to provide Energy Northwest with \$23,575,043 in damages for the construction and licensing of a used fuel storage area at Columbia Generating Station. This final settlement adds nearly \$4.3 million to the previous \$19.3 million provided by a court ruling in March.

The court's March decision came nearly eight years after the court first determined that the DOE was in breach

of contract for failure to accept Columbia's used nuclear fuel.

"This is another big win for Northwest ratepayers," said **Mark Reddemann**, Energy Northwest's CEO. "We can safely store the fuel indefinitely on site — it takes up little space. That doesn't lessen the federal government's legal obligation to nationally develop and manage a used fuel process."

Though Energy Northwest and the nuclear energy industry continue to advocate completion and use of a national repository, Columbia's used fuel can continue to be safely and securely kept at the nuclear station's above-ground dry storage area.

The settlement also provides for an annual claims process with the DOE, which allows Energy Northwest to recover damages for DOE's breach through 2016 without having to expend costs for litigation.

"This has been a long journey for our legal team," said **Bob Dutton**, Energy Northwest's general counsel. "The federal decision in March ultimately led to approval of the then-pending settlement by our executive board, and more than \$1.2 million in litigation cost savings." **NWPPA**

SMUD promotes Rogers to AQS manager

Effective August 25, **Claire Rogers** was appointed manager of Audit and Quality Services (AQS) of the Sacramento Municipal Utility District (Calif.). SMUD General Manager and CEO **Arlen Orchard** appointed Rogers, with the concurrence of the SMUD Board of Directors.

Rogers now has responsibility for identifying and assessing business risk areas for SMUD, and developing annual and long-range audit plans to monitor risk areas, with an emphasis on the areas of greatest risk. Rogers succeeds **John Rusteika**, who recently retired after more than 25 years at SMUD.

The manager of AQS has a dual reporting relationship. While the position reports to the GM and CEO, the manager also provides independent, objective assurance and consulting services to the SMUD Board of Directors.

Rogers has worked at SMUD for 22 years and began her career at SMUD in AQS. Over the last 12 years, she's held several leadership positions in SMUD's Customer & Community Services department and has overseen operations, business performance management, resource center management, training, and customer programs and services.

Before joining SMUD, Rogers advanced steadily in auditing at the Sacramento office of KPMG, one of the largest professional services companies in the world. She



started as an auditor and was promoted to senior auditor and then manager.

She is a certified public accountant and certified internal auditor in the state of California and holds a bachelor's degree in business administration from California State University, Sacramento.

"Claire brings a wealth of auditing and business experience and the leadership skills to help SMUD successfully manage business risk as our industry changes," Orchard said. "Her operational experience will enhance her ability to effectively serve as SMUD's internal auditor." **NWPPA**

SnoPUD customers embrace solar energy

Customers of Snohomish County PUD (Everett, Wash.) have hit another milestone: their combined solar energy capacity stands at 3 megawatts, up 50 percent from just one year ago. About 500 PUD customers now generate part of their electricity with photovoltaic solar units.

"We've seen system prices drop to about half of what they were a few years ago," said PUD Energy Efficiency Program Manager **Leslie Moynihan**, who manages the utility's solar programs. "A collection of incentives and tax breaks make solar even more attractive."

The bulk of the small-scale solar energy production comes from customers participating in the PUD's Solar Express program, which offers financial incentives and technical assistance for solar photovoltaic and solar hot water systems.

For the PUD, which serves a growing area, customer-generated solar energy is a wise investment as it reduces the utility's need to purchase new energy. Renewable energy projects, such as rooftop solar units, help customers reduce their environmental impact and utility bills.

Residential customers can qualify for up to \$2,500 for solar photovoltaic systems and commercial customers can qualify for up to \$10,000. All customers with electric hot water systems can qualify for a \$500 incentive for solar hot water systems. Customers also may qualify for additional federal tax credits and state production incentives.

For PUD customers who don't want to install their own solar units, they can still support solar energy through the utility's Planet Power program. It uses voluntary customer contributions to support local solar energy projects at local schools, non-profits, and public agencies. About 2,000 customers participate in the program. **NWPPA**

Ellensburg may expand fiber-optic network

The city of Ellensburg (Wash.) will research expanding its under-construction fiber-optic network to possibly include Internet service for commercial businesses or residences.

The Ellensburg City Council voted unanimously in August to direct city staff to offer a request for qualifications from contractors to write a long-term strategic plan for the city's telecommunications utility.

The city has operated a fiber-optic cable network that supports information services for multiple public institutions in Ellensburg, from the police department to Central Washington University.

Charter Communications built the network, which the city managed. When Charter asked to change the deal to require the city to pay for use of the lines, city staff determined the city would save money in the long run if it built its own, and awarded a \$961,000 bid for construction to Cannon Construction last December. The project was slated for completion late this summer.

Charter's deal asked for a \$10,000 per month lease.

Right now, the city ordinance that established the utility only provides for servicing public entities, as the Charter-owned network did before.

"Typically, for this type of an activity, (a strategic plan) would include a strengths, weaknesses, opportunities, and threats analysis for the telecom utility," said Energy Services

Director Larry Dunbar. "We would look at different business cases for different service opportunities like providing Internet access to perhaps commercial businesses, perhaps Internet access to the general public. A variety of other service opportunities are possible."

Dunbar said the plan would also look at how the service would be delivered, and if the city would provide it.

"These are some pros and cons that need to be fleshed out very carefully as this unfolds," he said. **NWPPA**

PCWA Board declares King Fire emergency

Critically important power generation, residential, maintenance, and storage facilities of the Placer County Water Agency (Auburn, Calif.) are in the path of the mammoth King Fire as reported on September 18 to the PCWA Board of Directors.

The directors declared and enacted an emergency resolution and authorized General Manager **David Breninger** and staff to take all steps necessary to protect and to repair any damages the agency's Middle Fork American River Hydroelectric Project may sustain.

The board's action followed a report by PCWA Director of Strategic Affairs **Einar Maisch** and other staff members. Maisch has been designated by Breninger to serve as agency spokesperson and information officer for the duration of the fire emergency.

Maisch said, "Assessment of damages was difficult because fire, smoke, and access precluded it. But as of early Thursday, PCWA structures (residential units, dormitory, maintenance, and other facilities) necessary for the operation of the agency's water and power systems at Hell Hole Reservoir appeared intact but remained endangered because of unstable fire conditions there."

Jay L'Estrange, director of Power Generation Services, reported that "a plant operator who resides in one of the agency residential units at Hell Hole Reservoir, had to evacuate the site just ahead of the advancing wind-swept fire as it approached the Hell Hole area."

The King Fire started on Saturday, September 13, and had spread to 76,379 acres by early Friday, September 19, when 4,425 personnel were involved and the fire was reported 10-percent contained. Fire investigators said the fire was caused by arson and announced that a suspect was arrested.

The King Fire follows other major fires that have burned in Placer County watersheds in recent years including the 2013 American Fire, the 2006 Ralston Fire, and the 2001 Star Fire. **NWPPA**

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HD Supply Power Solutions promotes Sommers

On September 4, HD Supply Power Solutions, a leading provider of an extensive and dynamic portfolio of products, services, and solutions for public power, investor-owned utilities, construction, and industrial customers, announced the promotion of **Mark Sommers** to vice president of Category Management.

“Mark brings more than 30 years of experience to the Category Management team,” said **Steve Margolius**, CEO and president of HD Supply Power Solutions. “I’m confident that his leadership, deep understanding of the needs of our customers, and drive for excellence will propel growth for the company.”

Sommers joined HD Supply Power Solutions in 2012, where he led the company’s East Region Public Power sales team. Prior to HD Supply, Sommers worked for Crescent Electric Supply for eight years as vice president of the Eastern Region. Prior to Crescent Electric, he had a 20-year career with General Electric (GE), with roles including general manager of GE Supply’s Northeast Ohio District and vice president of sourcing and inventory management. He is a graduate of GE’s Financial Management Program and has significant experience in sales, operations, purchasing, customer service, and finance. Sommers earned a Bachelor of Arts degree from the University of Notre Dame.

HD Supply Power Solutions (www.hdsupplypowersolutions.com) offers the industry’s most extensive portfolio of products, services, and solutions for the public power, investor-owned utilities, construction, and industrial markets. It is a business of HD Supply (www.hdsupply.com), a leading industrial distribution company. **NWPPA**



Meyer Steel Structures acquired by Trinity

Trinity Industries, Inc. has acquired the assets of Meyer Steel Structures (Meyer), the utility steel structures division of Thomas & Betts Corporation, a member of the ABB Group. Established over 85 years ago, Meyer is one of North America’s leading providers of tubular steel structures for electricity transmission and distribution.

As previously disclosed, the purchase price was approximately \$600 million (before transaction fees) and was funded entirely with cash on hand. Trinity will report revenue and earnings from Meyer within its Energy Equipment Group beginning with the third quarter 2014 financial results.

“We are pleased to complete this transaction which establishes for Trinity a market leadership position in the electric transmission structures industry,” said **Timothy R. Wallace**, Trinity’s chairman, CEO, and president. “Meyer’s strong engineering reputation, manufacturing capabilities, and products with high steel content align well with Trinity’s existing competencies and offer opportunities to create additional value. We look forward to a smooth integration of our companies and welcoming a new team of employees.”

Trinity Industries, Inc., headquartered in Dallas, Texas, is a diversified industrial company that owns a variety of market-leading businesses which provide products and services to the energy, transportation, chemical, and construction sectors. For more information, visit www.trin.net. **NWPPA**

GenPac expands Tech Services

Businesses and utilities increasingly consider the costs of their IT infrastructure to the organization and their ability to manage the physical security as well as the cyber security of their servers and data. As a result, General Pacific’s Technical Services data center continues to expand. Many customers like the idea of knowing that their data is in GenPac’s data center here in the Northwest; plus knowing that they are taking advantage of GenPac’s security is also a relief for them. Reliability and saving money is nice, too!

General Pacific also offers Microsoft® Exchange Services, which is a choice all of its own. Experience tells the story: “Exchange Services have never been more reliable since we changed to GenPac,” said **Clay Fitch**, Wells Rural Electric Company CEO.

General Pacific (GenPac) is one of the leading wholesale stocking distributors in the Northwest. Serving the electrical utility, water utility, and contractor markets since 1965 has helped General Pacific build long-lasting relationships with its customers by providing them with quality products and value-added services. For more information, go to www.generalpacific.com or call (800) 547-9744. **NWPPA**

VanderZanden joins Ruralite

Ruralite Services has chosen **Kathi VanderZanden** to be its new communications and marketing director.

VanderZanden’s experience in the power industry spans 12 years, and she has been a marketing and communications professional for more than 20 years. Most recently, she was director of communications for the Western Electricity Coordinating Council (WECC), a company focused on the reliability of electricity for the Western Interconnection. There, she was responsible for developing, executing, and managing an internal communications program in support of a complex, fast-growing organization and its brand.

Continued on page 22

Prior to WECC, she was the communications and marketing manager for PNGC Power from 2001 to 2012 and public relations manager for KinderCare Learning Centers from 1998 to 2001. While at PNGC Power, she was responsible for developing and executing internal and external communications that integrated the organization's strategic direction and furthered the brand. At all three companies, VanderZanden was responsible for leading the development and implementation of internal newsletters. She also has extensive experience leading website development.

"We are excited to have someone with Kathi's experience on our team," said Ruralite Services CEO **Russell Green**. "Her understanding of energy efficiency will also benefit our subsidiary, Efficiency Services Group."

VanderZanden succeeds **Megan McKoy-Noe** who continues with Ruralite Services on the marketing team in a special projects role.

Ruralite Services make communications simple for members. Ruralite Services publishes magazines; helps spread news; and provides an array of communication and marketing services to members, helping them from planning to completion and the direct mailing of products. For more information, visit www.ruraliteservices.org. **NWPPA**

STR announces new partnership

Substation Technical Resources (STR) announced that it is now the Pacific Northwest's regional operation center for the largest independent transformer field servicing company in the United States: North American Substation Services.

The quality service, expertise, and reputation customers rely on will now be enhanced to include an easily accessible network of skilled and experienced electrical apparatus engineers, technicians, and support staff offering 10 times more available equipment and resources.

STR specializes in transformer and substation apparatus installation, services, and repair. The owner and employees are all reputable and skilled professionals with many years of experience and specialized training. For more information, visit www.substationfix.com. **NWPPA**

David Wallis joins ESCI

ESCI is very excited to announce that **David Wallis** has joined ESCI. Wallis retired as the director of Electrical Standards Federal Occupational Safety and Health Administration (OSHA) on July 25, 2014, and joined ESCI on July 28. Wallis is the primary author of most OSHA electrical standards, including OSHA 1910.269, OSHA 1926 Subpart V, OSHA 1910 Subpart S, and OSHA 1926 Subpart K. He also contributed to the promulgation of several other OSHA safety standards, such as the permit-required confined space standard in OSHA 1910.146. Wallis has represented OSHA as an expert witness in several cases before the OSHA Review Commission.

He holds a bachelor's degree in electrical engineering from Stevens Institute of Technology, and is nationally recognized as a preeminent expert in electrical safety standards and work rules. He recently retired after over 40 years of developing OSHA electrical safety standards. Wallis directed the OSHA Office of Engineering Safety for the last 10 years; authored 10 OSHA safety and health standards; and contributed to dozens of others. He has examined the records of more than 6,000 electrical accidents and thousands of non-electrical accidents to determine their cause, allowing him to draft rules preventing the re-occurrence of those accidents.

ESCI is an industry leader in safety, training, and consulting services. For more information, visit www.esci.net. **NWPPA**

OMICRON announces new MONTRANO system

OMICRON's new MONTRANO

online monitoring system is focused on assessing the dielectric health of power transformers under load.

The system records changes in capacitance (C), dissipation/power factor (DF/PF), partial discharge (PD), and transient over-voltages. These are primary indicators of insulation breakdown, which can lead to dielectric failure in bushings and transformers.

Dielectric flashover of insulation in bushings and inside transformers is one of the most frequent causes of failure in power transformers. Aging insulation progressively degrades to the point that it can no longer withstand electrical stress. This can cause bushings to explode, transformer destruction, and long outages for repair. The continuous monitoring of the dielectric state of bushing and transformer insulation is therefore essential for managing transformer health.

OMICRON is an international company serving the electrical power industry with innovative testing and diagnostic solutions. For more information, contact **Martina Stieglmeier** at martina.stieglmeier@omicron.at. **NWPPA**



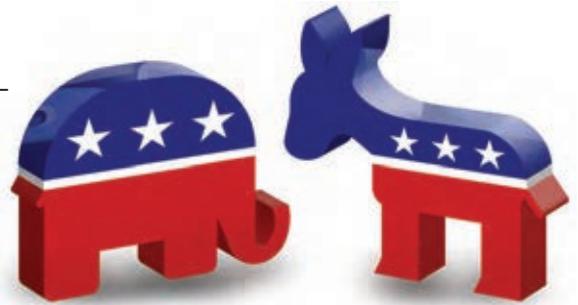
Correction:

Please note, the address listed in the 2014-2015 *Northwest Electric Utility Directory* for Joshua Doering, IEC Corporation, (page 95) is incorrect. The correct address is 5000 Meadows Rd., Ste. 430, Lake Oswego, OR 97035. Please mark this change in your copy of the *Directory*.

NWPPA regrets the error.

Politics of divided government likely to intensify after November elections

With many polls predicting the November elections will see Republicans take control of the Senate — albeit narrowly — speculation is swirling as to what the shift might mean for the President’s final term. Eight seats are rated as toss-ups; six of them held by Democrats. Just six Senate seats are needed to flip; three of them in red states without an incumbent running. The math bodes well for the GOP in an election that favors the party out of power in the White House.



If these polls bear out, the Democratic White House could be negotiating with an entirely Republican 114th Congress, at a time when neither party sees room for compromise on the direction of the country.

For the energy industry and public power, a potential all-Republican Congress may not lead to enactment of significant legislation, because the President still has veto power. But having the House and Senate speak with one voice on energy policy matters may bring increased attention to — and pressure to resolve — some of the challenges the utility sector is facing. In years past, a divided Congress often found areas of federal policy compromise. But if recent years are an indicator, the 114th Congress is more likely to focus on actions designed to highlight partisan policy differences, force presidential vetoes, and drive a wedge between a presumptive Democrat nominee and voters.

The power of the majority

Even with a one- or-two vote majority, the shift in power would be significant if Republicans win the Senate. The majority controls the legislative and oversight agenda; chooses committee chairs with the power to call hearings on subjects, and with witnesses, of their choice; determines which bills advance to the floor and when; and serves as the “gate-keeper” on Presidential nominations — which now need only a majority vote to take office.

The first and most visible shift if Republicans take the Senate will be in the leadership of the chamber overall — with Minority Leader Mitch McConnell (R-Ky.) stepping into the powerful Majority Leader role, now held by Sen. Harry Reid (D-Nev.). If McConnell is leader, he would likely continue efforts to block what he calls the President’s “War on Coal” and to advance bills promoting development and delivery of fossil fuels. Reid, in contrast, has championed renewables and the President’s climate change agenda. McConnell would also be an ally of the more conservative House — although probably not conservative enough to please many House members on the far right — and would enable new Republican commit-

tee chairs to exercise rigorous oversight of the Administration’s environmental agenda.

Committees would also see shifts in priorities. Of significant interest to NWPPA, Sen. Lisa Murkowski (R-Alaska), known for her bipartisan pragmatism, is in line to head the Senate Energy and Natural Resources (ENR) Committee. Murkowski’s home state of Alaska is rich in oil and gas resources, making her a natural ally with energy producers looking to push oil exports, expand domestic production, and reduce regulatory burdens. She is supportive of NWPPA, public power, and the electric utility industry, generally, and has consistently questioned the impact of EPA regulations on electric reliability.

Murkowski worked closely with then-ENR Committee Chairman Ron Wyden (D-Ore.) to enact two small hydropower bills in the 112th Congress and in putting the brakes on grid-only cyber security legislation that would have given FERC more regulatory authority in grid security matters and imposed duplicative regulations on the sector.

If she becomes chair, Murkowski could also push for passage of the bipartisan Shaheen-Portman energy efficiency bill that is designed to boost energy efficiency in buildings. The bill also contains a provision that would allow grid-enabled electric water heaters to continue to be used in utility demand response programs, which NWPPA has supported. The bill failed to advance earlier this year after Majority Leader Reid blocked Republican efforts to vote on amendments to the bill.

Murkowski has a reputation for working well with the opposing party. If she becomes chair, her counterpart in the Ranking Member position would either be Sen. Mary Landrieu (D-La.) — who is locked in a contentious race to keep her seat this November — or Sen. Maria Cantwell (D-Wash.), the next-most-senior Democrat on the panel.

Cantwell is a strong supporter of the President’s climate change agenda, and the Production Tax Credit for wind and other renewable resources. She is also a friend to public power and the power marketing administrations. Of note to

Continued on page 24

It is difficult to envision President Obama signing a comprehensive, partisan Republican tax overhaul or energy bill, but that does not mean that a unified Republican Congress would not try to advance such legislation.

NWPPA, she has been a vocal proponent — along with Sens. Wyden and Murray — of maintaining independence for the Bonneville Power Administration from the Department of Energy, and on preserving municipal bonds. On energy issues, she and Sen. Murkowski would likely be able to find common ground.

In terms of broad committee influence, the Northwest would lose some clout if Budget Committee Chair Patty Murray (D–Wash.) is replaced by Sen. Jeff Sessions (R–Ala.), whose priorities, understandably, would be issues of concern to the Southeast.

If Republicans take the Senate, Sen. Thad Cochran (R–Miss.) is in line to chair the powerful Appropriations Committee; this could be significant in advancing many of the controversial policy “riders” in the House funding bills, which have been dead on arrival in the Democratic Senate. Those riders include prohibitions on finalization of Environmental Protection Agency (EPA) rules to implement the greenhouse gas rule for existing power plants, and efforts to broaden Clean Water Act jurisdiction with the “Waters of the U.S. rule.”

The Clean Air Act and other environmental issues, strictly speaking, are within the jurisdiction of the Environment and Public Works Committee, which is historically far more partisan than the Energy or Appropriations panels. There, if Sen. James Inhofe (R–Okla.) re-takes the chairmanship from Sen. Barbara Boxer (D–Calif.), he would be able to blast the EPA on multiple fronts, particularly on climate change, which he has called a “hoax.” Inhofe has said that he would challenge every final EPA rule under the Congressional Review Act, which could allow Congress to send regulations back to the drawing board.

On the Senate Finance Committee, Sen. Orrin Hatch (R–Utah), the most senior Republican in the Senate, would take over from Sen. Ron Wyden (D–Ore.). Both have strong public power constituencies but have been somewhat ambiguous on municipal bonds. With Hatch at the helm, the focus on reforming the tax code would likely continue, and the two like-minded chambers could probably produce legislation advancing conservative tax principles. Whether such a draft would contain harmful changes to municipal bonding authority is up for speculation, as is whether Republicans would be open to compromise with Democrats in either chamber.

It is difficult to envision President Obama signing a comprehensive, partisan Republican tax overhaul or energy bill, but that does not mean that a unified Republican Congress would not try to advance such legislation.

Setting the agenda

As noted above, it is the prerogative of the majority to set the agenda by determining which legislation will come to the Senate floor. If Republicans control the Senate, they will likely advance bills to slow or block EPA’s greenhouse gas rules; force Keystone approval; permit more LNG and oil exports; and re-open the debate progress on the Yucca Mountain nuclear waste repository — an issue long blocked by Majority Leader Reid. They may even attract the votes of some Senate Democrats on these issues, but it is unlikely they would garner the votes needed to override an inevitable White House veto.

In addition, Reid would still wield significant influence with the White House, which has strongly supported him on Yucca and other initiatives. The Administration has followed Reid’s lead on nominees to the Nuclear Regulatory Commission and the Federal Energy Regulatory Commission. A Republican-controlled Senate would be able to block nominees they do not support, but Reid would still have a decisive voice with the White House.

Checks and balances

Even if a Republican majority in both chambers does come to pass, the White House and Congressional Democrats would still have a significant role to play in the debate. For starters, a Republican Senate would still have to contend with the 60-vote threshold that has become the de facto requirement for passing legislation. The Senate rules also make it easier for the minority to offer — or threaten to offer — political amendments to thwart passage of a bill or put members of the majority on the record on controversial issue, as GOP senators have successfully done this year.

Further, the President will still occupy the bully pulpit and hold veto power over legislation that he does not support. In his final two years, President Obama will likely vigorously defend completion of his key priorities — such as the greenhouse gas limits on power plants in EPA’s Clean Power Plan as well as send back bills that don’t comport with his agenda. Even if they sweep the vulnerable seats in November, Republicans in Congress won’t have the three-fourths majority needed to override a presidential veto.

The White House also has a number of administrative initiatives — such as the proposed rule to expand federal jurisdiction over “Waters of the United States” under the Clean Water Act, and its proposal to expand the definition of “critical habitat” and measures that affect critical habitat under the Endangered Species Act. The Administration can push to finalize these rules regardless of the partisan breakdown in Congress.

These initiatives would certainly take heat from a Republican Congress throughout the President's final two years — but they are unlikely to be blocked by legislation, leaving the ultimate decisions up to the federal courts.

By the time the final rules are evaluated by the courts, there will be a new Administration defending those efforts. The next two years will likely be about political positioning for the 2016 presidential elections, which will determine whether the next president is one that will continue those priorities, or reverse course. **NWPPA**

Morgan Meguire, LLC is NWPPA's Washington, D.C., consulting firm. For more information, or to contact a consultant, visit www.morganmeguire.com.



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by Charlie Black

Preparing for distributed

In recent years, electric utility customers have begun showing greater interest in distributed generation.

Declining costs and expanding availability of on-site electric generating systems, such as roof-mounted solar photovoltaic equipment marketed and installed by third-party service providers, are causing residential and business customers to consider self-supply as an attractive alternative to relying exclusively on centrally generated power delivered via the utility grid.

Distributed generation can create benefits as well as challenges for electric utilities. Examples of benefits include increased production of clean, locally based power supplies and choice for customers. In terms of challenges, metering and system operation can become more complex when power is produced as well as consumed at the end-use level. Further, utilities' traditional retail electric services, cost allocation methods, and rate designs were not developed with distributed generation in mind. A resulting consequence can be cost shifts between customers who adopt distributed generation and customers who continue to depend on their utility to meet all of their power needs.

So far, the Northwest region has not seen extensive penetration of distributed generation into the electric utility marketplace. Adoption here has mostly been limited to comparatively small numbers of customers who are uniquely situated or highly motivated. However, several other areas of the country are seeing much more rapid growth. Potential adoption of new policies, incentives to encourage distributed generation, and further technological advances could trigger significantly increased interest and development within the Northwest.

By preparing for distributed generation now, Northwest public power utilities can be responsive should significant numbers of their customers become interested in adopting it in the future. Advance efforts can also help position utilities to work closely with their customers to capture the benefits and effectively manage the challenges.

What is distributed generation?

Simply put, distributed generation is the production of electricity at or near the point of end-use consumption. Some or all of the power generated may be consumed on-site, displacing electricity that the customer would have otherwise purchased from the local utility. Depending on the size and operating characteristics of the distributed generation system, at certain times its output could exceed the electric customer's load and the surplus may be fed into the utility grid, thus reversing the typical flow of power.

Various technologies can be used for distributed generation, including renewable resources like roof-mounted solar photovoltaic panels and small wind turbines. Fuel-consuming generators may also be used, such as packaged micro-

turbines, fuel cells, or internal combustion engines.

Additional on-site equipment is also needed; for example, inverters to convert the direct current power that solar panels produce into usable alternating current power.

Batteries or other forms of on-site energy storage may also be used to help offset imbalances between generation and loads. Changes to customer service panels, metering, and interconnection equipment are typically required, too.

A more expansive view of distributed generation would add microgrids that link multiple customers in a neighborhood or business park to shared local generation, as well as utility-sponsored distributed generation facilities like a community solar power project.

Multiple factors are combining to make distributed generation a more viable option for homes and businesses. These driving forces for growth include:

- Recent rapid technological advances and declines in the cost of distributed generation equipment, particularly solar photovoltaic panels
- Policies and subsidies that are helping to reduce costs and increase availability of distributed generation to customers
- Environmental advantages offered by renewable forms of distributed generation
- Customer interest in benefits of cost certainty and other perceived benefits of self-supply
- Emergence of third-party service providers who provide plug-and-play installation and, in some cases, offer fixed long-term costs to customers

Distributed generation capacity installations in the United States

Recent estimates of the total amount of distributed generation capacity installed in the United States vary depending on the reporting methodology. The National Regulatory Research Institute has reported that 4,000 megawatts of distributed generation was installed in the U.S. as of 2011. In recent years, the installed capacity of distributed generation has been growing rapidly, with the majority of development occurring for solar photovoltaic.

The Solar Energy Industries Association has reported that 792 megawatts of solar generation was installed in the residential sector in 2013, representing 60 percent annual growth over installations in 2012. In the non-residential (commercial, government, school, and nonprofit) sector, 1,112 megawatts of capacity was installed in 2013, up four percent from 2012. The total of 1,904 megawatts of residential and non-residential solar generation installed in 2013 compares with 2,847 megawatts of solar generation installed in the utility sector in 2013.

generation in the Northwest



Right: Homer Electric Association Board Member Bill Frye owns and operates Bear Creek Winery & Lodging in Homer, Alaska. In 2009, he installed a wind turbine on the property to offset his electrical use.

The five leading states for development of distributed solar generation in 2013 were:

1. California (700 megawatts)
2. New Jersey (225 megawatts)
3. Massachusetts (200 megawatts)
4. Hawaii (135 megawatts)
5. Arizona (130 megawatts)

In general, the greatest amount of recent development has been focused in areas where plentiful sunlight makes solar photovoltaic generation more productive, and where retail electric utility rates are comparatively high. However, interest is also growing in other areas, including states where sunlight conditions are not as favorable for solar generation.

Northwest distributed generation programs

Some Northwest public power utilities are already implementing distributed generation programs. Here are some examples of member utilities' projects:

Homer Electric Association

In 2010, Homer Electric Association (HEA) became the first utility in Alaska to adopt net metering standards designed to encourage the development of member-owned renewable energy systems, including solar, wind, biomass, hydroelectric, geothermal, hydrokinetic, ocean thermal, or biogas. HEA's net metering program allows a member to reduce the amount of electricity purchased from HEA by interconnecting on-site member-owned or -leased generation facilities. The amount of member-generated power offsets the member's electric consumption, with the member either billed for net electric consumption or credited for generating more electricity than was used. The size of the member generation systems is limited to 25 kilowatts.

Currently, Homer Electric has 68 member-owned interconnections, with 33 wind generators and 35 solar panels producing locally owned renewable power on the Kenai Peninsula.

Idaho Falls Power

Idaho Falls Power offers a net metering program for its electric customers who use their own wind, solar, biomass,

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Above: In 2012, King Estate Wines (a member of Lane Electric Cooperative) installed a four-acre solar power system featuring 4,144 solar panels.

Below: Arlin Van Groningen, co-owner of New Hope Dairy, stands with some of the 1,200 dairy cows that produce the waste that is converted into enough biogas to power about 250 single-family homes in SMUD's territory.



geothermal, hydro, or fuel cell generation with peak capacity of up to 125 kilowatts. The utility charges participating customers at its standard retail rates for applicable non-energy charges and for net energy the customer uses during each billing period. If the customer generates more power than it uses during a billing period, the utility credits the customer for power delivered into its system at a price equal to utility's average cost of wholesale power.

Lane Electric Cooperative

A four-acre solar power system featuring 4,144 solar panels at King Estate Wines (a member of Lane Electric Cooperative) in Eugene, Ore., has been in use for over two years now. There is no direct line from the power system to the King Estate meter; instead, the 1.2 to 1.3 million kilowatt-hours of power that are produced annually go to Lane Electric and then King draws what electricity it needs from the cooperative's pool. It is estimated, however, that the new solar panels are producing about 60 percent of the power that King Estate annually uses (2 million kilowatts).

Sacramento Municipal Utility District

Biogas is a significant resource in SMUD's renewable energy portfolio. Approximately 25 percent of SMUD's current energy supply comes from resources classified as renewable by the state.

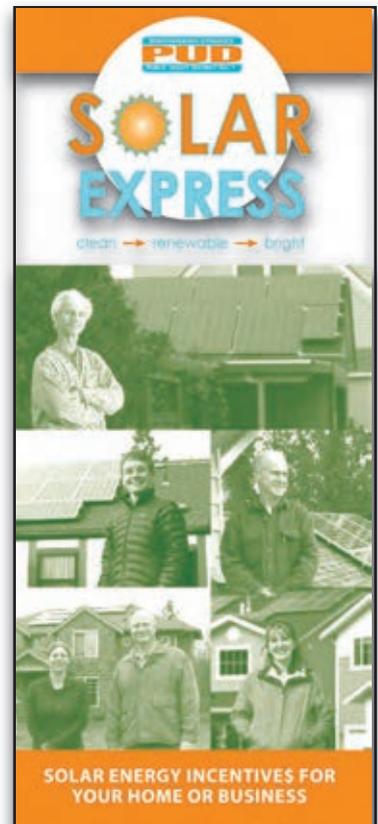
With SMUD's assistance, two local dairies recently installed anaerobic digesters that convert cow manure into clean, renewable electricity. While the typical dairy cow on a daily basis produces six to seven gallons of milk, it also generates 120 pounds of manure and urine.

The New Hope dairy uses an above-ground tank to digest manure from 1,200 dairy cows and convert that waste into biogas. The New Hope digester has a generating capacity of 450 kilowatts — enough electricity to power about 250 single-family homes. The Warmerdam dairy uses a covered lagoon as a digester and produces enough electricity to also power about 250 homes in Sacramento.

Snohomish County PUD

For residential and business solar systems up to 100 kilowatts, Snohomish PUD in Everett, Wash., offers its Solar Express Program. The program provides a step-by-step process for PUD customers to apply for, obtain approval, and proceed with installation of qualified systems. The utility provides an incentive of \$500 per kilowatt, in addition to other available federal and state incentives and subsidies. In addition to its Solar Express Program, Snohomish PUD also offers a net metering program for generation using water, wind, solar, or biogas, or for fuel cell or cogeneration systems, up to 100 kilowatts of capacity.

For projects greater than 100 kilowatts and less than two megawatts, Snohomish PUD has a Small Renewables Program. This program is designed as a power purchase agreement with a contract term of up to five years and a stated contract price that includes an energy price; transmission and distribution loss credit; tradable renewable energy credit value; and other cost credits where applicable.



Snohomish PUD's Solar Express Program provides information and cash incentives for installation of solar photovoltaic or solar hot water systems.

Capturing benefits and managing challenges of distributed generation

As noted earlier, distributed generation creates potential benefits as well as challenges for electric utilities and the customers they serve. Potential benefits include economic, technical, and environmental advantages, particularly for distributed generation based on renewable resources. Challenges include implementation complexities and costs, as well as reliability and financial impacts.

Further, the benefits and challenges of distributed generation are not uniformly distributed among all parties. This is an important factor to be taken into account when developing policies and practices for distributed generation.

One approach that utilities can use when preparing for distributed generation is to explicitly address the topic from three perspectives: 1) customers who are or may become interested in adding distributed generation; 2) customers who are less likely to be interested in or able to implement distributed generation; and 3) the local electric utility.

1. Customers who are more likely to be interested in distributed generation

These customers may be driven by the perceived opportunity to save money on their electric bills, or to achieve greater certainty over their costs in the future. They may also value the ability to self-supply or to directly participate in the development of clean, renewable power. The number of interested customers could change over time if, for example, costs for distributed generation equipment, including energy storage, fall in the future. To the extent that these customers see a net benefit to distributed generation, they are likely to expect their local utility to be responsive to their interests.

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NWPPA workshops to help utilities prepare for distributed generation

Taking steps to prepare now can help Northwest public power utilities position themselves to capture the benefits and effectively manage the challenges of distributed generation in the future. To assist its members in their efforts to address distributed generation, NWPPA will hold a series of workshops on each of these topics beginning in early 2015:

- Policy and strategy
- Finance and rates
- System operations
- Engineering
- Customer service

The workshops will provide timely and relevant information about each topic, and will be led by industry experts. They will also provide excellent opportunities for participants to share their own experiences and knowledge in a group learning environment. Participants will leave the workshops with information, ideas, and tools that they can put into action at their own utilities.

For more information about the workshops, please contact Arnie Winkler at (360) 816-1445 or Arnie@nwppa.org.

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2. Customers who are less likely to adopt distributed generation

Meanwhile, some electric customers may prefer to retain their existing utility service and would not be interested in the process or perceived risks of adopting distributed generation. Still other customers may be unable to install distributed generation, including for technical reasons such as insufficient access to direct sunlight at their homes. Customers who are not interested or able to directly participate in distributed generation programs can be expected to react unfavorably if a utility's distributed generation program shifts costs to them or negatively impacts the quality of their retail electric service.

3. Northwest public power utilities

Another important perspective is that of electric utilities themselves. Distributed generation has the potential to impact utilities in a variety of ways. These include:

- Potential changes to the utility's power supply portfolio
- System operational impacts
- Revenue and financial impacts

- Impacts on utility rate design, including fixed customer and volumetric energy charges
- Meeting changing and diversifying customer needs

As always, in dealing with distributed generation the utility will need to balance multiple objectives and be responsive to its customers' needs.

Distributed generation has yet to make large inroads into the electric utility sector in the Pacific Northwest. However, it has recently begun growing rapidly in other regions. While the future is difficult to predict, it is reasonable to anticipate that further changes in technologies and policies could make distributed generation more viable and could spur broader growth. **NWPPA**

Charlie Black is a Northwest-based consultant serving the electric utilities industry. He provides analytical, planning, policy, and communications services to help his clients evaluate, select, and execute sound energy decisions. He can be contacted at cjbenergy@msn.com or (425) 765-3321.

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JOB OPPORTUNITIES

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

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

POSITION: Federal Power Resource Program Manager
COMPANY: Northern California Power Agency (Roseville, Calif.)
SALARY: \$115,815-\$144,768 annually.
DEADLINE TO APPLY: October 17, 2014.
TO APPLY: Submit Agency online application available at www.ncpa.com.

POSITION: Staff Accountant/Office Manager
COMPANY: Tongue River Electric Cooperative (Ashland, Mont.)
SALARY: DOE.
DEADLINE TO APPLY: October 17, 2014.
TO APPLY: Send resumé, letter of interest, and three references to General Manager, Tongue River Electric, Box 138, Ashland, MT 59003, or email to alansee@rangeweb.net.

POSITION: Transmission & Distribution System Planning Engineer
COMPANY: City of Tacoma (Tacoma, Wash.)
SALARY: \$64,188.80-\$104,915.20 annually.
DEADLINE TO APPLY: October 23, 2014.
TO APPLY: Apply online at www.cityoftacoma.org/jobs.

POSITION: Transmission & Distribution Engineer, Professional or Principal
COMPANY: City of Tacoma (Tacoma, Wash.)
SALARY: \$81,827.20-\$116,688.00 annually
DEADLINE TO APPLY: October 23, 2014.
TO APPLY: Apply online at www.cityoftacoma.org/jobs.

POSITION: Customer Service Manager
COMPANY: Grays Harbor PUD (Aberdeen, Wash.)
SALARY: Competitive.
DEADLINE TO APPLY: October 25, 2014.
TO APPLY: Application packet and job description available online at www.ghpud.org or the PUD office at 2720 Sumner Ave., Aberdeen, WA 98520.

POSITION: Manager of Member Services
COMPANY: Glacier Electric Cooperative (Cut Bank, Mont.)
SALARY: DOE.
DEADLINE TO APPLY: October 31, 2014.
TO APPLY: Direct inquires to Betty McCormick. Submit a cover letter, resumé, and three professional references or letters of recommendation to bmccorm@glacierelectric.com.

POSITION: Chief Hydro Plant Operator
COMPANY: Northern Wasco County PUD (The Dalles, Ore.)
SALARY: DOE.
DEADLINE TO APPLY: November 5, 2014.
TO APPLY: Send completed application, resumé, and cover letter to HR Answers, Inc., 7659 S.W. Mohawk St., Tualatin, OR 97062, nwcpud@hranswers.com (include *Chief Operator* in subject line), or fax to (503) 885-8614.

POSITION: Power Generation Technician - Terror Lake Hydroelectric Facility
COMPANY: Kodiak Electric Association, Inc. (Kodiak, Alaska)
SALARY: \$43.83 per hour.
DEADLINE TO APPLY: November 24, 2014.
TO APPLY: Contact Nancy B. Sweeney, Human Resources, Kodiak Electric Association, Inc., for more information and an application packet at nbsweeney@kodiak.coop, (907) 486-7709, fax (907) 486-7767, or P.O. Box 787, Kodiak, AK 99615

POSITION: Senior Engineer
COMPANY: Golden Valley Electric Association (Fairbanks, Alaska)
SALARY: DOE.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Application and full job description can be found online at www.gvea.com. GVEA application must be submitted; resúmes alone will not be considered.

POSITION: Journeyman Meterman (U13-115)
COMPANY: Portland General Electric (Portland, Ore.)
SALARY: \$40.98 per hour.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Apply online at https://PGN.igreentree.com/CSS_External/CSS_Page_Referred.ASP?Reg=U13-115.

POSITION: Real-Time Marketing Supervisor
COMPANY: Grant County PUD (Ephrata, Wash.)
SALARY: \$45.67-\$63.94 per hour.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Apply online at http://www.appone.com/applinkportal.asp?R_ID=910482&AdCode=NW00371583.

POSITION: Operations Manager
COMPANY: Inside Passage Electric Cooperative (Auke Bay, Alaska)
SALARY: DOE.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Submit a completed application and resumé to IPEC, P.O. Box 210149, Auke Bay, AK 99821. Applications available at 12480 Mendenhall Loop Rd., Juneau, AK or by calling (907) 789-3196, ext. 35.

POSITION: General Manager
COMPANY: Nespelem Valley Electric Cooperative (Nespelem, Wash.)
SALARY: DOE.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Submit cover letter, resumé, recent salary history, three business and personal contact information references to General Manager, Nespelem Valley Electric Cooperative, Inc., P.O. Box 31, Nespelem, WA 99155. A complete job description can be found at www.nvec.org.

POSITION: Journeyman Lineman
COMPANY: Klickitat PUD (Goldendale, Wash.)
SALARY: \$40.61 per hour.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Application and job description available at www.klickitapud.com and at the Goldendale office. Submit written application to Klickitat PUD, c/o Human Resources, 1313 S. Columbus, Goldendale, WA 98620, or fax to (509) 773-4969, phone (509) 773-7648.

POSITION: Engineering Tech II
COMPANY: Homer Electric Association, Inc. (Homer, Alaska)
SALARY: DOE.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Apply online at <http://homerelectric.applicantpro.com/jobs>.

POSITION: High Voltage Line Worker
COMPANY: City of Redding (Redding, Calif.)
SALARY: \$41.88 per hour.
DEADLINE TO APPLY: Open until filled.
TO APPLY: Apply online at www.ci.redding.ca.us. **NWPPA**

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