Use Your Member Benefits in 2014

YOU’RE A MEMBER IF YOUR COMPANY IS A MEMBER

RMEL EVENTS, PUBLICATIONS, member services and resources are focused on enabling the electric energy industry to face new regulations and workforce challenges while integrating renewables, adding transmission to the grid and reaching consumers with an affordable and reliable electricity message.

New questions are arising every day, but employees at RMEL member companies benefit from the collaboration and trust of the RMEL community. Is your company making the most of your RMEL membership? Use this article to navigate member resources for you and every employee at your organization.

Activate Your Electric Energy Association Professional Development for Your Top Concerns Begins Here

RMEL is a not-for-profit energy trade association that has served the electric utility industry with a variety of education and networking services since 1903. Dedicated to fostering a thriving community of electric energy professionals, RMEL’s 300 corporate members share ideas, techniques and programs to better serve the industry and its customers. Lobbying is not part of RMEL’s mission. The association is only focused on education for utility personnel.

The must attend events this year are the Spring Management, Engineering and Operations Conference—May 18-20, 2014 in Austin, TX and Fall Executive Leadership Convention—September 14-16, 2014 in San Antonio, TX. Agendas are underway for both events and are slated to cover the latest projects, trends and issues that you want to hear about.

RMEL Sections

Content Related to Your Interests is Easy to Find

RMEL sections make your experience finding tangible value with the association easier than ever before. In some ways, you’ve probably identified with an RMEL section without even trying. RMEL sections include generation, transmission, distribution, safety and management. Visit your section microsites to learn more about these section benefits:

• Vital Issues Roundtables
• Core Events
• Electives
• Course Catalog

Identify Your RMEL Section

RMEL Benefits Start When You Update Your Profile

Identify your interests by updating your profile on www.RMEL.org then watch for the content and benefits of your section in your inbox. You can select the section(s) you wish to participate in, along with identifying your specific area of expertise and responsibility.

Join the RMEL Community

Membership to Keep Your Organization Running at Maximum Efficiency

Join 300+ electric energy organizations you know and respect. Working side by side in a cooperative manner, members band together for the common goal of bettering the industry and improving service for utility customers. For more than 100 years, these key principles have proven successful and more importantly are tried and true methods for building strong business relationships.

Publications

Content Dedicated to Electric Energy Vital Issues

RMEL publishes a variety of hard copy and electronic resources each year. The Member Directory is a year round resource for finding key industry contacts. RMEL News provides association and member news to you. Vital issues are covered twice annually in Electric Energy magazine and every month in the e-Newsletter which is emailed to members. All publications can be found on the RMEL web site. If you would like to receive one or more of these publications, contact RMEL.

Networking

RMEL is Where Electric Energy Leaders Gather

RMEL is a diverse community of utilities and service companies you’ll recognize. Most organizations are headquartered in 17 states west of the Mississippi, excluding the west coast, but the association’s reach extends...continued on page 9

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RMEL Awards Program Now Recognizing Emerging Leaders

NOMINATE EMERGING LEADERS BY FEBRUARY 25

Each year, RMEL acknowledges outstanding members, influential non-members and RMEL leaders who have shown dedication, hard work and leadership within the industry and RMEL. In 2014, RMEL is adding the Emerging Leader Award, which will be given at the 2014 Spring Management, Engineering and Operations Conference. The Honorary Life Membership, the Industry Leadership and the Distinguished Leadership will be awarded during RMEL’s 2014 Fall Executive Leadership and Management Convention.

Emerging Leader Award
Nomination Deadline - February 25
Recognizes and honors RAML members who are up and coming in their company with 5-10 years of experience in the industry, establishing significant contributions within their organization and those who have demonstrated the potential for leadership and continuing service in the electric utility industry.

Distinguished Leadership Award
Nomination Deadline - June 3
Awarded as merited to an employee of an RMEL member company who has demonstrated singular dedication, service and leadership to the electric utility industry and has been active and supportive of RMEL in a noteworthy and particular way. The person must be active in the field at the time of the award.

Industry Leadership Award
Nomination Deadline - June 3
Awarded as merited to an individual who has demonstrated singular dedication, service and leadership to the electric utility industry. The person must be active in the field at the time of the award.

Honorary Life Membership Award
Nomination Deadline - June 3
Honorary members in RMEL must be at least 55 years of age and retired from a current or former RMEL member company. They must be a person acknowledged in the electrical field, or one recognized for cooperative endeavor within the electrical industry for long and valuable service to RMEL. Honorary Life Members have all the privileges of RMEL membership except that of the holding office and are exempt from payment of dues.

A nomination form and associated supporting documentation is required for each nominee. Deadline for nominations is June 3, 2014. Nomination forms are available in the Members-Awards section of the RMEL web site, or by calling the RMEL office at (303) 865-5544.

RMEL Introduces Member-get-a-Member Program

RECEIVE ADDITIONAL BENEFITS FOR RECRUITING NEW MEMBERS

Introduce your contacts to RMEL’s trusted, 110-year-old network, including IOUs, munis, coops, G&Ts, REAs, Government Utilities, IPPs and services and supplier companies. Refer any new RMEL member company and your company could receive benefits, such as:
- Discounted Membership Dues
- Spring or Fall Registrations
- Core Event Coupons
- Corporate Promotion

The new member just needs to add your name to their membership application, and RMEL will contact you with benefit information. For more information, contact RMEL at (303) 865-5544.

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MOVERS & SHAVERS
THE LATEST NEWS FROM RMEL MEMBERS

Basin Electric Power Cooperative

The first of three, 45-megawatt (MW) power plants about 15 miles northwest of Williston, ND, was placed in commercial operation in early September. Construction of the $64.5-million Pioneer Generation Station began in the summer of 2012. The unit is owned and operated by Basin Electric and is fueled by natural gas.

Nebraska Public Power District, Sempra U.S. Gas & Power Finalize Wind Farm Agreement

The Nebraska Public Power District announced that its Board of Directors approved a 25-year agreement with a Sempra U.S. Gas & Power affiliate to purchase the future renewable energy of a new wind farm to be built in Custer County, near Broken Bow. When the Broken Bow II facility is complete, it will generate approximately 75 MWs of electricity. NPPD will purchase all of the facility’s output and then sell 60 percent of the energy to the Omaha Public Power District.

NV Energy – One Nevada Transmission Line Begins Serving Customers

NV Energy and Great Basin Transmission

South officially dedicated the 231-mile long One Nevada Transmission Line (ON Line), marking the completion of a three-year project that electrically connects NV Energy’s northern and southern service areas for the first time. ON Line also enables the development of renewable energy in remote parts of Nevada. The bulk transmission line is energized to 500,000 volts and has an initial capacity of up to 800 megawatts.

Basin Electric Power Cooperative names Paul Sukut interim CEO and General Manager

Basin Electric announced that Executive Vice President and CFO Paul Sukut has been named interim CEO and general manager effective immediately. Former CEO and General Manager Andy Serri tendered his resignation. Sukut has been employed with Basin Electric since 1983 and has worked in the energy industry since 1979.

Colorado Springs Utilities Chief Energy Officer to Retire

After more than 26 years with Colorado Springs Utilities, Chief Energy Officer Bruce McCormick is retiring. McCormick, 54, joined CSU in the late 1980s after working at Salt River Project in Phoenix. In 2006, McCormick was named chief water officer and oversaw the city’s application for the Southern Delivery System, perhaps the biggest project he oversaw during his career. The $1 billion water pipeline will deliver water by 2016 from Pueblo Reservoir, increasing the city’s supply by a third.

Black & Veatch Launches New Report Focusing on Utility Automation, Integration and Data Analytics

Black & Veatch announced the availability of the new Strategic Directions: Utility Automation & Integration report. The inaugural report highlights many of the common issues that utilities of all types face with regard to adding greater levels of intelligence to their network operations. “Black & Veatch believes that the performance of all utilities can be improved through the greater use of intelligent technologies,” said Paul Miller, Vice President of Black & Veatch’s Private Networks business line.

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UTILITY MEMBERS

Complete member list at www.RMEL.org

Arizona Electric Power Cooperative, Inc.
Arizona Public Service
Arkansas River Power Authority
Associated Electric Cooperative, Inc.
Austin Energy
Basin Electric Power Cooperative
Black Hills Corporation
Black Hills Electric Cooperative
Boone Electric Cooperative
Butler Public Power District
Carbon Power & Light, Inc.
Center Electric Light & Power System
Chimney Rock Public Power District
City of Alliance Electric Department
City of Aztec Electric Department
City of Cody
City of Farmington
City of Fountain
City of Gillette
City of Glenwood Springs
City of Imperial
City of Yuma
Co-Mo Electric Cooperative
Colorado Springs Utilities
Continental Divide Electric Cooperative
CPS Energy
Delta Montrose Electric Assn.
El Paso Electric Company
The Empire District Electric Company
Empire Electric Association, Inc.
Estes Park Light & Power Dept.
Fort Collins Utilities
Gallup Joint Utilities
Grand Island Utilities
Grand Valley Rural Power Lines, Inc.
Gunnison County Electric Association, Inc.
Highline Electric Assn.
Holy Cross Energy
Howard Electric Cooperative
Incorporated County of Los Alamos Department of Public Utilities
Independence Power & Light
Intercounty Electric Coop Association
Intermountain Rural Electric Assn.
Kansas City Board of Public Utilities
Kansas City Power & Light
Kit Carson Electric Cooperative
La Junta Municipal Utilities
La Plata Electric Association, Inc.
Lake Region Electric Coop Inc.
Lamar Utilities Board
Las Animas Municipal Light & Power
Lincoln Electric System
Longmont Power and Communications

Lincoln Electric System
Movers & Shakers

Arizona Public Service Completes Purchase at Four Corners Power Plant

Arizona Public Service completed its purchase of Southern California Edison’s ownership in Units 4 and 5 of the Four Corners Power Plant near Farmington, N.M. As part of its plan – originally announced in November 2010 – APS has permanently closed the plant’s older, less efficient Units 1, 2 and 3, and will install additional emission controls on the remaining cleaner, more efficient units.

Rocky Mountain Power (PacifiCorp) and Navajo Tribal Utility Authority Reach Agreement on Transfer of Utility Assets

Rocky Mountain Power (a division of PacifiCorp) and the Navajo Tribal Utility Authority (NTUA) have reached an agreement to transfer Rocky Mountain Power electric facilities on tribal land in southeastern Utah to NTUA. The agreement is subject to review and approval by both the Navajo Nation President, the Navajo Nation Council, and the Public Service Commission of Utah, a process that will take a number of months.

Black Hills Corporation Again Named to Achievers 50 Most Engaged Workplaces in the United States

For the second year in a row, Black Hills Corp. has been recognized as one of the Achievers 50 Most Engaged Workplaces™ in the United States. The annual award recognizes the top employers in the U.S. and Canada that display leadership and innovation in engaging their employees. The Achievers 50 Most Engaged Workplaces Awards panel of judges evaluated each applicant based on eight elements of employee engagement.

Platte River Power Authority Joins “Efficiency Works” Partnership

Efficiency Works is a new approach to support efficiency in Northern Colorado. Developed as a partnership between Platte River Power Authority and the utilities of its owner municipalities—Estes Park, Fort Collins, Longmont and Loveland—Efficiency Works unites all of the five utilities’ efficiency offerings under one program. Together, the five Efficiency Works partners expect to provide over $3 million in funds in 2014 to help commercial customers pay for projects that will reduce their electricity consumption and lower utility costs.

Continued from page 3

Westar Energy to Invest in Solar Projects to Benefit Kansas Organizations, as R&D Energy Source

Westar Energy is inviting Kansas schools, non-profit organizations and government agencies to submit proposals for solar projects and, for selected projects, the utility will partner with them by providing funds to purchase and install the solar panels. Target projects for the program will be 10 to 30 kilowatts and must provide electricity to a facility in Kansas.
RMEL's Transmission and Operations Conference will be held on March 11-12, 2014 at the Denver Marriott South at Park Meadows in Lone Tree, CO.

2014 Conference Topics:
- Implementing FERC Order 1000
  Gary DeShazo, Director, Regional Coordination, California ISO

- Top Issues Facing Utilities Panel
  Location, Location, Location!
  Dan Lesher, Routing & Land Rights Lead
  CapX2020, Great River Energy

- Coping with the Regulatory Vise

- Physical Security
  Rocky Sease, CEO, SOS Intl

- Evaluating Transmission Fiber Options
  Don Veseth, Asset Value Consultant, Nebraska Public Power District

- Implications of SF6 on a Current EPA Permit in Process for a Greenfield Power Plant Project
  Roger Chacon, Environmental Department Manager, El Paso Electric Company

- Western Imbalance Energy Market
  Don Fuller, Director, Strategic Alliances, California ISO

- Northwest Power Pool Market Assessment and Coordination Initiative
  Rachel Dibble, Project Manager, Bonneville Power Administration

Applications are currently being accepted for the 2014 RMEL Foundation scholarships. Scholarships are awarded to deserving, qualified students for the purpose of encouraging young people to pursue careers in the electric power industry.

In addition to baccalaureate degree seeking students, the Foundation accepts scholarship applications for craft or certificate programs. Applicants must be a high school senior or college undergraduate enrolled in and pursuing an undergraduate or associate degree or entering an appropriate certificate program with the intent to enter the electric energy industry. Applicants must be a permanent resident of the U.S. The RMEL Foundation scholarship program also awards named scholarships. This year, named scholarships will be awarded on behalf of Black & Veatch Corp., Ulteig Engineers, Inc., Wärtsilä North America, Inc. and Zachry Holdings, Inc. If your company is interested in providing a scholarship, please contact RMEL at (303) 865-5544.

The online scholarship application can be accessed from the RMEL Foundation website at www.RMEL.org, click on Foundation and then scholarships. All requirements and instructions are included on the application. RMEL member companies are the primary avenue by which these scholarships are promoted. The Foundation encourages all members to share this opportunity throughout your company and your community. Students anywhere in the U.S. are eligible to apply.

For event registration and information, download a brochure at www.RMEL.org or call the RMEL office at (303) 865-5544.
In early June 2013, as five wildfires raged across Colorado, Public Service Company of Colorado, an Xcel Energy company, like other utility companies in the area, was carefully monitoring its assets in the fire zones. Xcel Energy’s Vegetation Management group had spent the last six years preparing for days like this.

“Our journey using geospatial and remote sensing technologies to better protect our assets began in 2006 with GeoDigital in large part before the forest health issues had gained much attention from the public or press,” said Jim Downie, director of Xcel Energy’s Vegetation Management. 

“We eventually expanded the use of that technology from the identification of imminent threats – trees growing too close to our lines – to hazard tree identification – to looking at how we could expand the use of the technology to try to protect our assets from passing wildfires.”

LiDAR

The company first started testing the use of the remote sensing technology known as Light Detection and Ranging (LiDAR) in an effort to identify and manage incompatible vegetation near thousands of miles of transmission lines throughout its eight-state service territory.

“A LiDAR device or pod is typically mounted on a helicopter and can survey approximately 100 miles of right-of-way in a day,” Downie said. “When coupled with high-resolution cameras, airborne LiDAR-based systems more accurately determine the vegetation heights, clearances and locations.”

Xcel Energy first explored using LiDAR as a way to better ensure compliance with the Vegetation Management NERC reliability standard FAC-003 that went into effect in July 2007. This standard specifically applied to higher voltage transmission lines. Xcel Energy had 5,700 miles of transmission lines that fell under the scope of this standard – a distance that’s a little more than driving from New York City to Los Angeles and back again.

The Mountain Pine Beetle Epidemic and Hazard Trees

Then in 2008, declining forest health issues across North America began to impact Xcel Energy’s electric distribution and transmission assets in Colorado specifically in the form of the Mountain Pine Beetle epidemic.

In order to manage this unique threat, the company once again turned to LiDAR for solutions. Trees that die as a result of beetle infestation will eventually fall, potentially striking power lines, causing outages and possibly wildfires. Large areas of beetle infestations greatly increase the potential for outages and fires.

“Colorado’s mountain pine-beetle (MPB) epidemic created an exponential increase in the number of hazard trees along our transmission system,” Downie said. “We started out surveying more than 650 miles of higher voltage transmission lines in areas susceptible to beetle kill looking for hazard trees, or any tree tall enough that if it fell could strike a power line.”

Using the combination of LiDAR and near infrared high resolution imagery collected at the same time, these technologies identified 263 hazard tree areas. By the end of 2009, the company had removed 660 individual hazard trees identified, proving that this combination of technology could be used to continue to manage the threat of hazard trees on transmission systems as the epidemic progressed. From 2008 to the writing of this article approximately 250,000 hazard trees have been mitigated from Xcel Energy electric distribution and transmission facilities in the MPB epidemic area alone.

Proactive Routine Maintenance

Utility vegetation management can be one of the largest maintenance costs at any electric utility. An estimated $2 billion is spent annually in the United States alone to maintain vegetation near power lines. So, more efficient operations and lower costs can spell big savings for any electric utility.

To improve proactive maintenance activities, the challenge for Xcel Energy involved distilling the vast amount of data that LiDAR generates to create simple proactive work-management solutions that could be used in the field at a reasonable cost.

The first generation of work-management tools came in the form of maps with vegetation being identified by various colored polygons. The colored areas are generated from the LiDAR data and other high-resolution images.

“By using these maps, we were able to move some work planning functions to the office, most importantly critical work identification like hazard trees, work that needs to be done to achieve NERC Clearance 1 distances, etc.,” Downie said.

It has been the integration of these remote sensing technologies with software that has helped the company go on the offensive to mitigate imminent threat issues, hazard trees as well as performing routine maintenance.

Transmission Wildfire Protection

Better understanding and managing the damaging effects wildfire can have on the electric transmission system provided yet another opportunity to leverage the already
acquired LiDAR and imagery information to solve problems. As forest health declines, the incidents and severity of wildfire tend to increase.

Xcel Energy formed a fire science team in 2010 to gain a better understanding of the vulnerability of our transmission facilities to wildfire damage and to determine if there were ways vegetation could be better managed in high risk areas to reduce the potential for damage.

The focus for protection quickly became the structures themselves and, typical of most utilities, the majority of them consisted of wood poles, aluminum lattice and steel towers. Understanding the heat tolerances for these materials became an important first step in the process.

Once heat tolerances were determined, the next step was to understand how heat from both surface and crown fires could be expected to behave near structures, from fuels both on and off the right-of-way. The most important factors were surface fuel load (accumulation of woody debris along the right-way floor) and crown closure (density of trees adjacent to the right-of-way).

Once threshold triggers were determined for both, Xcel Energy needed a way to quantify these factors quickly and efficiently across thousands of transmission structures. The idea was hatched to have the fire scientist visit approximately 70 randomly selected structures and quantify fuel load and crown closure near the structures. At the same time the company challenged GeoDigital with doing the same remotely using the LiDAR data already collected from previous surveys. When the results were compared it showed a strong correlation between the field-gather information and algorithmic results. In fact, Xcel Energy had reason to believe that the LiDAR-generated results might be more accurate.

This work has laid the foundation for state-wide wildfire protection work, prioritizing higher risk, higher consequence lines and structures for protective mitigation efforts. Of course, there are implementation challenges, but we have a solid framework from which to commence activities. What Xcel Energy has learned from this journey is being used initiate similar efforts in other parts of its service territory outside of Colorado.

Learn more about how Xcel Energy’s used LiDAR on YouTube: http://www.youtube.com/watch?v=sRCLvbMassE&feature=youtu.be

LIDAR EQUIPMENT ATTACHED TO THE BOTTOM OF A HELICOPTER TO CAPTURE DATA ALONG TRANSMISSION LINES.
RMEL Distribution Conference Returns to Denver in March

The RMEL Distribution Overhead and Underground Operations and Maintenance Conference will be held on March 13-14, 2014 at the Denver Marriott South at Park Meadows in Lone Tree, CO.

Conference Topics Include:

Pole Attachments
Ginny Halvorson, Engineering Support Coordinator, Colorado Springs Utilities

Facilities Attachments
Lisa Miller, Facility Attachments Consultant, Xcel Energy
Kayla Jones, Facility Attachments Consultant, Xcel Energy

Permits and Land Rights – Best Practices
Al Morganfield, Contract Agent, Right of Way & Permits, Xcel Energy

FEMA/ESF #12 Power Restoration
Steven Thaxton, Mission Assignment Manager, Federal Emergency Management Agency

Using Substation Voltage to Reduce Electrical Losses and Improve Distributed Generation/ Storage Compatibility for Distribution Circuits
Phil Powell, Director, Grid Innovations, Dominion – Alternate Energy Services

Cable Fault Location
Farris Jibril, Electric Distribution Engineering Manager, Westar Energy

How Do Cable Systems Fail? Historical Myths and the Science Behind the New Life Cycle Paradigm
Ben Lanz, Manager, Applications Engineering, IMCORP

The Design Behind Power for 40 Years

- Electrical and Steam Generation
- Plant Betterment
- Power Delivery
- Field Services
- Controls Upgrades
- Plant Information Management

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Richard Hyatt, Manager, Security Services, TEP

LEDs – Lighting the Future
Kathy Eaton, Regional Utility Sales Manager, Acuity Brands Lighting

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Lauren Engineers & Constructors is a Top 400 EPC Contractor serving the Heavy Industrial sector. We maintain offices across North America staffed with dedicated engineering and construction professionals who have the experience to effectively manage complex projects. From conceptual design studies to plant modifications to complete greenfield power stations, Lauren has the technical expertise, experience and resources to help our customers succeed.

Member Benefits
continued from page 1

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throughout the rest of the country and internationally. RMEL’s community is comprised of companies and individuals that are leaders of the industry.

In Person and At Your Desk
RMEL’s Resources are Available Wherever You Are

Whether you’re at an RMEL event, in the field or at your desk, RMEL is your resource for professional development. RMEL’s website is full service and members can use the library of resources to develop their knowledge and expertise, network and register for an event. Additionally, section microsites, the searchable member directory and evolving online community functionality bring thousands of electric energy professionals to your computer. Visit www.RMEL.org to access RMEL today.

Explore Your Benefits
There’s Something for Everyone at Your Organization

Membership is by company, so employees from every level of your organization can take advantage of the benefits RMEL has to offer. Explore the website or sign up for an event today and enjoy the diversity of opinions and methods from all types of utility ownership and vendors that is present throughout every RMEL resource.

Your participation in the diverse and robust RMEL community is welcomed and eagerly anticipated in 2014.
New Three-Day Format for April Safety Conference

RMEL’s Health, Safety and Security Conference has a new three-day format and will include two tracks of presentations. The event is set for April 23-25th at the Denver Marriott South in Lone Tree, CO. This conference will include discussion on safety, health and training initiatives and programs and take that focus throughout the organization to include discussions about personal efforts to stay safe.

Presentations on Day 1, April 23rd will include:

Keynote Address - “Journey to Zero Harm”
Chad Hymas, President, Chad Hymas Communications, Inc.
A risk-free environment will never exist. Therefore, employees must be self-motivated to develop a ‘personal safety culture’ to reduce accidents. This content filled presentation is fun, lively, entertaining and highly interactive. The message will enable attendees to become self-motivated and embrace safety as a personal value to improve the quality of their lives. After hearing this message, unsafe behaviors are reduced and attendees practice “Safety 24/7.”

Achieving Excellence In Reliability and Safety - The Human Factor
Kent Peterson, Human Performance Manager, Xcel Energy
Chris Overman, Safety and Human Performance Manager, Nebraska Public Power District
This presentation will consist of an introduction to and real-life examples of how the application of proven “Human Performance Improvement” concepts and tools are helping to improve results in reliability, safety, cost-effectiveness and many other business functions in utilities nationwide. Specific topics will include understanding and respecting human fallibility, recognizing and dealing with error-like situations, reducing the frequency and severity of human error, and understanding and managing latent organizational weaknesses and upstream defenses.

TRACK A
A Case-Study of Best Practices in Ergonomics at Colorado Springs Utilities
Tami Blackwell, Ergonomics Program Coordinator, Colorado Springs Utilities
Ergonomics programs seek to identify and correct factors that negatively impact the physical health of workers. Participatory ergonomics programs aim to improve workplace ergonomics by maximizing the involvement of the workers in the ergonomic process based on the simple fact that a worker is an expert on his or her job. Colorado Springs Utilities ergonomics program strives to involve workers in implementing ergonomic knowledge, procedures and solutions in the workplace. This presentation will focus on best practices and lessons learned implementing and sustaining a participatory ergonomics program at Colorado Springs Utilities.

TRACK B
Electrical Safety in the Workplace including Arc Flash
Ken Mastrullo, President, MES Consulting Services, Inc.
This presentation will provide an overview of electrical safety in the workplace from a worker and compliance perspective. The subject matter to be covered includes identifying the electrical hazards, working on live parts, personal protective equipment, lockout/tagout, DC power, and being a qualified person. This presentation will focus on addressing electrical safety issues including utilizing the applicable OSHA regulations, NESC, and the 2012 edition of NFPA 70E. Case studies are included to demonstrate the consequences utilizing strategies of providing safety versus compliance.

TRACK A
Lockout/Tag Out for Electrical Generating Facilities
Gary Barsness, Sr. Safety Representative, Colorado Springs Utilities
This presentation focuses on sharing industry best practices related to lockout tag out (LOTO) at electrical generation facilities. The presentation includes brief overviews of peer-utility generation facility LOTO processes and procedures including change management challenges associated with new procedures implementation and monitoring. A facilitated group discussion covering what other utilities are doing, what is working, what is not working, and plans for the future will follow the presentations.

TRACK B
Fall Restraint, Pole Climbing & Bucket Trucks Panel
Lessons Learned: The End of Free Climbing at Westar Energy
Steve Charland, Manager of Field Training, Westar Energy
A historical walk through the massive cultural change, and lessons learned along the way, in one company’s movement away from ‘Free Climbing’ wood pole utility structures. Covering the whole process starting with familiarization with the equipment, through the training process, including dealing with the lineman culture and equipment drawbacks, and ending with where the company is today.

The Implementation and Incorporation of Fall Arrest with Wood Poles
Sean McCaville, Business Manager, IBEW Local Union 111
With the diverse membership that IBEW Local Union 111 represents, the incorporation of Fall Arrest with Line workers has posed a number of challenges. From Partners with the OSHA Electrical Transmission and Distribution Best Practices, to collectively negotiated Safety manuals that language need to be addressed with the loud minority often dominating conversations. The challenges will continue into the future as the industry continues to draw attention, and as technology continues making its way into an industry that had been sheltered from such intrusion for so long.

TRACK A
Combustible Dust: Conflagration is NOT a Nice Word
Ben Scriven, Manager, Plant Safety, Westar Energy
This presentation will explore the lessons learned since Westar’s introduction to OSHA’s National Emphasis Program on Combustible Dust in 2008. While we’ll touch briefly on the applicable standards, most of the program will focus on the questions & problems we have encountered, & how we have attempted to answer
them to date.

TRACK A
Incentive Programs and Use of Metrics
John Phillips, Director, Corporate Safety & Technical Training, Black Hills Corporation
Black Hills Corporation, in considering a more leading indicator approach to safety for our annual incentive program (AIP), collaborated with the American Gas Association (AGA) to conduct a member survey to benchmark others. The presentation will provide an overview of survey results gathered from AGA, a review of Black Hills’ approach for 2014 and a brief discussion of related challenges/opportunities in general.

TRACK B
Accident Investigation and Reconstruction: Techniques to Determine the Root Cause
Neal Carter, Sr. Engineer, Accident Reconstruction, Kineticorp, LLC
After an accident occurs, physical evidence and witness memory begins to deteriorate, and proper documentation of physical and witness evidence provides the greatest opportunity to determine what truly caused the accident. This presentation discusses procedures to properly preserve evidence in the wake of an accident, as well as concepts and techniques that accident reconstructionists use to analyze and determine the factors that caused an accident. Proper determination of these causal factors can play a crucial role in preventing future accidents.

TRACK A
Instructional Design

TRACK B
Equi-potential grounding and a Grounded Work Site: Is there a Difference?
Gary Zevenbergen, Electrical Engineer, Western Area Power Administration
This presentation will address shock hazard awareness while working on de-energized equipment. It will introduce the concept of equi-potential grounding and how it is utilized for protecting against electric shock hazards at the work site. The distinction between equi-potential grounding and a grounded work site will also be discussed with examples from recent shock incidents.

Presentations on Day 2, April 24th will include:

Keynote Address - “Setting the Standard - Leadership’s Role in Fostering a Culture Where Compliance is Seen as the Minimum Standard”
Mark Gabriel, Administrator, Western Area Power Administration
Mark Gabriel was selected to be the Administrator of Western Area Power Administration (WAPA) in April 2013. WAPA, one of four Power Marketing Administrations that are part of the U.S. Department of Energy, markets and delivers Federal hydropower to nearly 700 wholesale customers across 15 states. As WAPA’s Administrator, Gabriel is responsible for managing the non-profit federal agency, which delivers power from 57 power plants operated by the Bureau of Reclamation, the U.S. Army Corps of Engineers and the International and Water Commission to the western region of the United States. Gabriel has more than two decades of leadership experience in the electric sector and was most recently the Chief Executive Officer and President of Power Pundits LLC in Conifer, Colo., a management consulting firm specializing in the energy industry.

A Lineman’s Journey - Safety from the Outside to Inside
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In the year 1909, the City first dabbled in providing power to its residents and businesses. The first attempt at being a municipal power provider only lasted a few short years before being sold to what became Southern Utah Power.

According to the history published in 'Making the Desert Bloom, The story of Water and Power in St. George' the transition to a municipal electric provider wasn’t without serious debate. One former city council member, Clair Terry, was quoted in 1991 as recalling the investor owned utility as offering to drop rates and the proponents of a city owned utility as being able to offer the same lower rates. There was also discussion regarding the tax revenue collected from the private utility versus the franchise fee amount the municipal would add to city coffers.

The overwhelming feeling in the city was that the community needs could be better served by a municipal energy provider rather than the privately owned utility. In 1941, City residents approved a $500,000 bond by a vote of 982 in favor and 287 against to establish a municipal utility. The first acquisition was a pair of diesel generators, which were located in a power generation facility near what is now Vernon Northern Park and went on line in April of 1942. The power department started with a crew of five men.

Over the years what was the Water and Power Department has evolved to meet the needs of a growing and diversifying customer base. In the beginning, power was generated from the diesel fired generation station and a small hydro on the Cottonwood Canal. The city’s peak load at that time was 640 kilowatts (kW). As the city continued to grow, it was evident more power sources would be needed. Along with adding more diesel fueled capacity, in 1966 the city started taking power from the Bureau of Reclamation via the Colorado River Storage Project (CRSP) which was hydro generated power along the Colorado River.

As the city grew, the Water and Power Department evolved as did the resource portfolio. In the 1990’s the resource portfolio included the CRSP project and energy from coal generation provided through participation in various power plants. The diesel fired generation was used primarily as back up generation and voltage support. The power division had approximately 40 employees at this time.

As the 21st century arrived, power markets and regulations changed the industry dramatically. With more issues to address in both the energy and water departments, it was determined reorganization was needed in order to address both critical services. In the year 2002, the Water and Power Department was split and the Energy Service Department was created (SgESD). Phillip T. Solomon, who first joined the department in 1985 as an engineer, was appointed Energy Services Director.

Mr. Solomon took the helm at a time of significant and pressing issues facing the department. The most pressing issues are listed below:

- In just over two years, the department lost approximately $15 million due to the rapidly changing energy market and deregulation of utilities.
- The resource portfolio was primarily coal and with changing environmental regulations and market volatility, it was clear the portfolio needed diversification.
- Morale among much of the staff was low. Safety was a real concern as there had been some incidents as a result of how the meter reading was done.
- Equipment, both in the field and in the office, was aging and there was no plan in place to replace or update the equipment or software.
- There was a need to address transmission into the county with the other municipal utilities and the IOU that serves Washington County.

To address these issues, Mr. Solomon changed the focus and organization of the utility and defined some specific goals.

1. Lower costs and improve the revenue stream
2. Improve the safety record
3. Develop a plan to update equipment and software
4. Improve overall operating efficiency
5. Improve transmission capacity into the area

A Resource Division was created to bring activities such as hourly energy scheduling and long term resource procurement in house. This division was tasked with evaluating current resources and recommending alternatives that better matched the load profile and diversified the types of fuels as well as lowering the overall cost of energy. The other component to consider was addressing environmental concerns as various energy sources were evaluated.

To address safety issues related to meter reading, a plan was developed to transition to Automatic Meter Reading (AMR) technology. Over two years all meters on the system were updated to allow for AMR.
This eliminated several problems.

- Meter reading is now accomplished by driving a truck through an area and picking up the readings wirelessly rather than meter readers driving scooters to each individual meter. Unfortunately, cars did not always see the scooters and more than once a meter reader had been hit.
- This also eliminated the need to enter backyards which are sometimes inhabited by dogs which resulted in dog bites on occasion.
- Meter readers no longer have to lift heavy lids to read meters, eliminating back injuries.
- It reduced the number of meter readers needed from seven to two.

To address transmission, the Southern Utah Task Force which is made up of representative of the area utilities including the municipals, co-ops and the IOU, had been working for several years to address issues related to transmission. Mr. Solomon pushed to finalize a Joint Operating Agreement (JOA), which was a One System Plan to identify ways to improve transmission as well as the steps needed to accomplish the tasks and allocate the costs. The one system plan saved all utilities a significant amount of money. The JOA was adopted in the year 2005. In the year 2006 an Integrated Transmission System agreement was adopted.

The goals set in 2002 in many respects have been accomplished. Currently the resource portfolio includes coal as a base resource, but the amount of coal fired generation has been reduced. The Millcreek Natural Gas Generation Facility was built in two 40 megawatts (MW) phases. It is located inside the City and is operated by SGESD staff. This facility provides much of the peak power needs during the summer months.

Participation in the Jordan Valley Hydro project, a certified low impact hydro has increased the amount of renewable energy in the portfolio. The City also worked with Dixie Power to build a solar photovoltaic (PV) facility, Sunsmart, located on City owned property. Currently the capacity is 250 kW, with room to expand to 2 MW. A Net Metering Program was also adopted in the year 2005 and now has a PV capacity of 750 kW behind customer meters. The goal to lower the overall cost of power as well as to address environmental concerns as related to energy resources is ongoing. As a result of this change in focus, the $15 million lost has been recovered and a reserve fund is back in place.

Other major accomplishments include developing an apprentice program for the System Control Operators to provide for NERC certification as well as a career path. Brian Jeppson, the System Control Operator Supervisor is the first in the state of Utah to complete the Load Dispatcher apprenticeship, which he earned in January of 2014. The other operators are in various stages of completing the apprenticeships.

SGESD has also earned the American Public Power Association (APPA) designation as a Reliable Power Provider (RP3) for the last three cycles. Various safety awards from Intermountain Power Suppliers Associations (IPSA) and APPA have recognized the steps made by the department to improve its safety record.

Currently the SGESD serves over 28,000 metered accounts made up of residential, commercial and industrial customers and peaks at 180 MW. The department revenue is approximately $55 million and employs 54 individuals.
Safety Conference

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Michael Lanckriet, Operations Safety and Construction Supervisor, United Power, Inc.
Thomas Maddalone, Safety Coordinator, Holy Cross Energy
These presentations will discuss the unique efforts of their individual organizations to engage dedicated safety supervision from those who know best! The Lineman themselves. The Electric T & D Journeyman Lineman’s position requires extensive training, is highly specialized and comes with a multitude of inherent dangers. Finding safety professionals who have the appropriate knowledge base and approach in this field is very difficult. These presenters have been assigned the task as salaried safety supervisors in their field and this panel will focus on the benefits and challenges of this type of organizational structure.

Achieving a World Class Safety Culture
Steven I. Simon, Ph.D., President, Culture Change Consultants, Inc.
Jere Zimmerman, Culture Change Consultants, Inc.
This session will present a logical, common sense approach to changing individual behavior and improving safety culture. Participants will learn specific, practical tools used in transforming the safety culture of their organizations. The presenters will offer real examples that draw upon 20 years of experience working with numerous utilities in successful safety culture transformation initiatives.

Contractor Safety Panel
Designing a Contractor Safety Program
Harry Bieling, Department Leader, Health & Safety, Arizona Public Service
A shared commitment of the values of safety within the workplace should be jointly owned by the utility and their contractors. Roles, responsibilities and expectations for contractors should be clear. A written contractor safety program will assist in achieving consistency in contractor performance. This presentation will look at some key elements that should be considered in designing a contractor safety program. Key elements include Pre-Qualification, Orientation, Oversight and Performance Monitoring.

Working with Contractors and OSHA
David Nelson, Area Director, Englewood Area OSHA Office
This presentation will discuss OSHA regulations when working with contractors. Among the topics Mr. Nelson will cover are: “5(a)(1) of the OSH Act, what is it, and how can it affect your company?” and “The Multi-Employer workplace policy, how many different employers can potentially be cited for a single hazard in the workplace, you might be surprised”.

Near Miss Reporting - Best Practices
Cathy Benecke, Corporate Safety and Risk Management Administrator, United Power, Inc.
Kevin Jensen, OCC Safety & Health Manager, Western Area Power Administration
This presentation will introduce and discuss how the clear establishment of a successful near miss reporting system can prevent future incidents. The term “Near Miss” will be defined. Best practices and examples of near miss reporting systems will be presented. The required roles and participation of leaders and employees will be presented in order to have a successful near miss reporting system. The dynamics of near miss reporting motivation will also be discussed.

Near Miss Mini-Presentations
On Day 3, April 25th, RMEL will host a Safety Roundtable.

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