



**EDM**  
*reliability & innovation*



# 2016 International Conference on Overhead Lines

*Design, Construction, Inspection  
and Maintenance*



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**Conference Announcement and Registration Information**

**April 4-7, 2016**

**Fort Collins Marriott - Fort Collins, Colorado USA**

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*reliability & innovation*

# Conference Announcement

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You are invited to attend and participate in the 2016 International Conference on Overhead Lines – Design, Construction, Inspection, and Maintenance. This conference once again brings you a program focused on technologies and resources to support the leading corporate objectives of electric utility companies today: reduce operations and maintenance (O&M) costs, increase power throughput, and improve line reliability. To this end, the technical presentations will address the related areas of extending overhead line and component life; reducing design, refurbishment, and construction costs; and ensuring health and safety for workers and the environment. In addition, this conference will explore new technology applications that promise attractive future alternatives for overhead line owners.

## Conference Objectives

This conference focuses on technologies and resources in order to support the leading corporate objectives of electric utility companies today, such as reducing operations and maintenance (O&M) costs, increasing power throughput, and improving line reliability. The conference objectives are:

- To provide a forum for professionals to explore the issues that impact the use of utility line structures throughout the world
- To exchange information on the state of the art in research, technology, materials, maintenance, manufacturing, and design
- To showcase products and technologies through the commercial exhibition

Utility executives, managers, and engineers with responsibility for transmission, distribution, substation design, construction, and O&M are invited.

## Registration and Refund Policy

The registration fee includes three luncheons, a dinner banquet, coffee breaks, and an electronic copy of the conference proceedings. A registration form is included in this flyer. A refund on your prepaid registration will be made if you request one, in writing, prior to March 15, 2016. A processing fee of \$50.00 (U.S.) will be deducted from your refund. Substitutions from the same company are allowed.

## Exhibits and Commercial Displays

There is a 1/2-day exhibit and a commercial display forum for vendors to promote products and services. A fee of \$1375.00 (U.S.) will be charged for each 8 x 8-ft (~ 2.5 x 2.5-m) space. Included in your reservation is one conference registration, an electrical hookup, a skirted 6-ft (1.83-m) table, two chairs, and a wastebasket. Reserve booth space by returning the reservation form included in this flyer. Exhibit material that is shipped to the hotel should arrive no earlier than Thursday, March 31, and should be marked as "Exhibit Material – International Conference – April 4" and addressed to the representative from your company. **At least one member of the exhibiting company must be registered as attending the conference.** Anyone wishing to attend any of the technical sessions, the field session, or meal functions must register for the conference. *The number of available booth spaces is very limited!!*

## Available Sponsorships

If you are interested in sponsoring a break or providing a "prize" to be given away during a technical session, please contact Lisa Nelson at EDM.

- Morning Coffee Break Sponsorship: \$400.00 (4 available)
- Afternoon Coffee Break Sponsorship: \$400.00 (2 available)
- Luncheon \$750.00 (2 available)
- Drink coupons at the banquet dinner (1 available) - cost of sponsorship depends on package and could include complete hosting or drink coupons for distribution)

# Program Content

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Interest in the 2016 conference has exceeded our expectations already! Please join us for what we believe will be a very valuable program.

This year's conference will provide information on a vast array of topics, including:

- Asset Management
- Inspection and Assessment
- Design and Construction
- Project Case Studies
- Utility Standards and Animal Protection
- Innovative Materials and Structures
- Emergency Preparedness and Response

## **Panel Discussion: T&D Asset Management -- Solutions to Today's Challenges**

T&D asset management involves applying a combination of art and science to balance opportunities and risks with safety, reliability, service life and economic performance goals over the lifetime of assets to achieve a utility's short and long term objectives. Multidirectional flow of appropriate information among groups ranging from field personnel to executive management is vital to understanding trends and making timely and efficient decisions to ensure asset performance – also referred to as Asset Health. Panelists will share insights on how their utilities are meeting these challenges by collecting, analyzing and using information on their assets in new ways.

## **Panel Discussion: Nondestructive Testing of Wood Poles – Panel Discussion**

While conventional practices of wood pole inspection - including excavation, sounding and boring - have served the industry well, a need exists to develop more non-invasive and quantifiable approaches to determining the condition of wood pole assets. The members of this panel represent state-of-the-art NDT manufacturers and service providers focused on bringing such capabilities to the electric utility industry.

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## **Field Session**

Following the technical session and technology showcase on Wednesday, a bus will transport conference attendees to EDM for this year's Field Session. The field session will offer demonstrations and presentations in a laboratory and outdoor setting. A BBQ lunch will be served at EDM's office and transportation will be provided back to the hotel following the Field Session demonstrations. Be prepared to be outdoors (spring weather in Colorado is unpredictable!).

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## **Privacy Policy**

EDM International, Inc. is committed to protecting your privacy. We use the information we collect from your registration information for internal purposes only. We do not sell, trade, rent or publish any personal information. As an attendee at the conference, your contact information (name, title, company, address and phone number) will be included on a List of Attendees distributed to conference attendees (email addresses are not provided to attendees). The List of Attendees is not available to individuals who do not attend the conference. Prior Lists of Attendees from previous conferences are NOT available. The List of Attendees will not be distributed prior to the conference but rather at the registration desk.

## LIST OF PRESENTATIONS

**Andy Stewart, EDM International, Inc., Colorado, USA**

Welcome, Introductions and Industry Update

**Andy Kudick, INTEC Services, Inc., Colorado USA**

Logistics of Storm Response: What Works and What Doesn't from a Responder's POV

**Bill Galloway & Kirsta Scherff-Norris, Colorado Springs Utilities, Colorado, USA**

Perspectives on 16 years of Raptor Protection (or Birds Don't Read the Books)

**Bill Herdegen, Innovari, Florida, USA (formerly with ComEd, KCPL & CLP)**

From the Executive Suite to the Hot Seat

**Chris Melhorn, Electric Power Research Institute, Tennessee, USA &**

**Jerry Zak, GEI Consultants, Inc., Connecticut, USA**

Utility Pole Types and Configurations outside North America

**Claudia Rocca, PSE&G, New Jersey USA &**

**Rick Harness, EDM International, Inc., Colorado, USA**

Transmission Line Avian Collision Analysis using PLS CADD and GIS

**Clinton Char, Southern California Edison, California & Ajay Mallik, SANPEC, Inc., Texas, USA**

Sustainability Approach in Transmission Line Engineering

**Clinton Char, Southern California Edison, California, USA &**

**Mike Pitacciato, Bureau Veritas North America, Inc., Pennsylvania, USA**

Performance and Pitfalls of Lattice Steel and Monopole Tower Material Source Inspections

**Constant Hoogstad & Mattheus Pretorius, Endangered Wildlife Trust &**

**Michael D. Michael, Rudi Kruger & Bob Branfield, ESKOM, Gauteng, SOUTH AFRICA**

The Development and Performance of Mitigation Measures to Reduce Avian Mortalities on Overhead Lines in South Africa – Lessons Learned and the Way Forward

**Donald Kasten & Stephen Sebo, Ohio State University, Ohio, USA &**

**John Lauletta, Exacter, Inc., Ohio, USA**

High Voltage Diagnostic Measurements for Surge Arrester Condition Assessment

**Eileen Lockhart, Xcel Energy, Colorado, USA &**

**Andy Stewart, EDM International, Inc., Colorado, USA**

Unmanned Aerial Systems: Government, Governance and Gadgets

**Eric Bradley, Southern California Edison, California, USA**

Challenges of Using Existing Rights-of-Ways to Construct New Transmission Lines

**Eric Eriksen, Alaska Electric Light & Power Company, Alaska, USA**

After the Avalanche: Snettisham Transmission Line

**Ike van Cruyningen, LineSpect, British Columbia, CANADA &**

**Paul Schneider, Southern Company, Georgia, USA**

UAVs in Line and Tower Inspection

**Jean Marie George, Sediver, Quebec CANADA**

Mitigation of Severe Contamination Problems on Overhead Lines without the Need for Composite Insulators

**Jeff Morrell, Oregon State University, Oregon, USA**

A Simple Method for Evaluating Fire Resistance of Field-Applied Surface Coatings and Physical Barriers for Wood Poles

**Jessica Dufrene, Entergy, Louisiana, USA &**

**Spencer Loe, Osmose Utilities Services, Inc., Georgia, USA**

Entergy Aqueous Guyed Tower Pile Restoration Project

## LIST OF PRESENTATIONS

### **Jim Downie, Environmental Consultants, Inc. & Chris Vallier, FLOT, Colorado USA**

Leading the Way with Long-Range Unmanned Aerial Systems (UAS)

### **Karen Callery & Ibrahim Hathout, Hydro One, Toronto, CANADA**

Upgrading an Existing 230 kV Single-Circuit Transmission Line – When Engineers Think Outside the Box

### **Ken Sharpless, ASEC, Inc., Texas, USA**

Aesthetic Considerations in Structure Design Process

### **Kevin O'Connor & Pat Eccles, ESB Networks, Dublin, IRELAND**

Transforming ESB Networks Wood Pole Management Strategy

### **Larry Claxton, Xcel Energy, Colorado, USA**

Electric Distribution Avian Protection Standards

### **Lynda Kiejko & Candice Pasley, AltaLink, Alberta, CANADA**

Live Line Maintenance to Design

### **Mark Fletcher, Nebraska Public Power District, Nebraska, USA &**

### **Andrew Rizzetto, Kinectrics, New York, USA**

Update to Inspection of Aged Self-Damping Conductors on NPPD Overhead Power Lines

### **Marlon Vogt, Ulteig Engineers, Inc., Iowa, USA**

NIMBY is BANANAs

### **Parker Wrozek, XCEL Energy, Colorado, USA &**

### **Sarah Beckman, Ulteig Engineers, Inc., Colorado, USA**

Construction and Permitting Challenges in the Rocky Mountain West

### **Peter Catchpole, POWER Engineers, Idaho, USA**

Fun with Wires

### **Rick Bush, Strategic Director - T&D World Magazine, Kansas, USA**

Business... as *UN*usual

### **Ron Spencer, White River Electric Association (*retired*), Colorado, USA**

Ridgway's Hawks in the Dominican Republic

### **Siu Ki Lau, CLP Power Hong Kong Ltd., Hong Kong, CHINA**

Automation Power Restoration System for 11kV Overhead Lines in CLP Power

### **Stephen Parker, TEConnectivity, North Carolina, USA**

The Material Science Behind Raptor Covers and What to Look For

### **Steve Brewer, Hubbell Power Systems, South Carolina, USA**

Transmission Line Lightning Protection and Reliability Performance Enhancements using MOV Arrester Technology

### **Tom Fieldse, Southern California Edison, California, USA**

Standards and Methods for Animal Protection on the Electrical Power System

### **Wes Oliphant, ReliaPOLE Inspection Services Company, Inc., Texas, USA**

Pole and Tower Inspections with "Drones" – It's All About Image!

### **Yancy Gill, Salt River Project, Arizona, USA**

Transmission Line Asset Management at Salt River Project

# PANEL DISCUSSIONS

## Panel Discussion: T&D Asset Management -- Solutions to Today's Challenges

T&D asset management involves applying a combination of art and science to balance opportunities and risks with safety, reliability, service life and economic performance goals over the lifetime of assets to achieve a utility's short and long term objectives. The impacts of aging infrastructure, regulatory requirements, environmental pressures, renewables' integration, storage technologies, and shareholder and customer expectations are just a few of the challenges facing utilities today. Regulators and customers expect that utilities have information on their asset condition and performance and are using it to make good business decisions. The multidirectional flow of appropriate information among groups ranging from field personnel to executive management is vital to understanding trends and making timely and efficient decisions to ensure asset performance – also referred to as Asset Health. The utilities represented on this panel are meeting these challenges within the business environment of their individual organizations by collecting, analyzing and using information on their assets in new ways. Panelists will share insights on their asset management programs including successes, challenges and plans for the future.



Moderated by Andy Stewart, EDM; Panel Participants are from:

- Fortis Alberta
- Salt River Project
- Southern California Edison
- Western Area Power Administration

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## Panel Discussion: Nondestructive Testing of Wood Poles



Many utilities focus on developing a quantifiable approach to evaluating the health and condition of their wood pole assets. This measurable information leads to improved maintenance decision-making, assigning appropriate urgency for maintenance actions and in forecasting mortality and future maintenance expenditures. While conventional practices of wood pole inspection - including excavation, sounding and boring - have served the industry well, a need exists to develop more non-invasive and quantifiable approaches to determining the condition of wood pole assets. The members of this panel represent state-of-the-art NDT manufacturers and service providers focused on bringing such capabilities to the electric utility industry.

Moderated by Rob Nelson, EDM; Panel Participants are from:

- Reliable Lines, New Zealand
- PortaCAT Industries Pty Ltd, Australia
- Utility Asset Management, USA
- Southwest Research Institute, USA

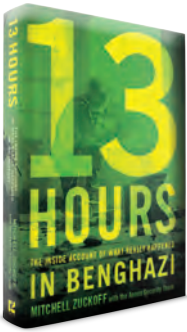
# Banquet Guest Presentation - April 5, 2016

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This year, we will have two of the security team members who were in Benghazi, Libya on September 11, 2012 and who not only have quite a story of survival but also saved many lives in the attack on the U.S. State Department Compound and CIA Annex. These two men are co-authors of the book, **13 Hours: The Inside Account of What Really Happened in Benghazi**.

[Click here to view the movie trailer](#). As **13 Hours** is still out at many theaters and the DVD should be available soon, we wanted to let conference attendees know in advance of their presentation. Here's the synopsis from the book ([you can order on Amazon by clicking here](#)):

**"13 HOURS** presents the true account of the events of September 11, 2012, when terrorists attacked the US State Department Special Mission Compound and a nearby CIA station called the Annex in Benghazi, Libya. A team of six American security operators fought to repel the attackers and protect the Americans stationed there. Those men went beyond the call of duty, performing extraordinary acts of courage and heroism, to avert tragedy on a much larger scale. This is their personal account, never before told, of what happened during the thirteen hours of that now-infamous attack.



**"13 HOURS** sets the record straight on what happened during a night that has been shrouded in mystery and controversy. Written by New York Times bestselling author Mitchell Zuckoff, this riveting book takes readers into the action-packed story of heroes who laid their lives on the line for one another, for their countrymen, and for their country.

**"13 HOURS** is a stunning, eye-opening, and intense book--but most importantly, it is the truth. The story of what happened to these men--and what they accomplished--is unforgettable."

The presentation will be by Mark "Oz" Geist and John "Tig" Tiegen who are now represented by "Team Never Quit" – which was started by Chris Kyle (American Sniper) and Marcus Luttrell (Lone Survivor). The presentation won't be political – they wish to honor those lost that night and don't wish to politicize what happened ... it is quite a story.



Mark "Oz" Geist



John "Tig" Tiegen

We will have autographed book plates available for anyone who would like one for their book or DVD. Unfortunately, we cannot preorder books for the event as we won't know how many to have on hand and they won't have time to do personal autographs ... but you can certainly have a book plate to put into your book or on your DVD case!

*We're sincerely honored to have Oz and Tig with us at this year's International Conference!*

*A very limited number additional dinner tickets are available for spouses/guests of attendees. Contact EDM for information and to purchase.*

## Accommodations

### Fort Collins Marriott

350 E. Horsetooth Road  
Fort Collins, CO 80525 USA  
Phone: 800.548.2635 or 970.226.5200  
Fax: 970.226.9708

[Click Here to Book Your Room Online](#)

The hotel is holding a block of rooms for conference participants at special discounted rates (\$116.00/single or double, excluding tax; call the hotel for government rates). The reservation deadline is March 8. After this date, neither the discounted rate nor room availability can be guaranteed. Contact the hotel at the numbers above to make your reservation, and specify that you are attending the EDM International Conference on Overhead Lines to ensure that you receive the negotiated rate. The hotel suggests that you secure your reservation with a credit card.

## Travel Information

Fort Collins is located 65 miles north of Denver. If flying into Denver, you will arrive at Denver International Airport. There are several car rental agencies located at the airport in Denver, or you can take a ground shuttle (SuperShuttle 970.482.0505) to the full-service Fort Collins Marriott. Reservations on the shuttle are highly recommended.

## Ski Trip

If you would like to join us for a ski trip currently being planned for Sunday, April 3, contact Lisa Nelson (space is limited). The ski trip will depart from the Fort Collins Marriott EARLY on Sunday morning and head to Winterpark, Colorado, for a full day of skiing. The mountains can have great ski conditions in April. We will provide the transportation—you buy your lift ticket from us (we will secure a group rate that is based on the number of participants) and meals. Call EDM right away to reserve your spot. Additionally, you can contact Colorado Ski Country USA (303.837.0793) for information on all the resorts and up-to-date ski conditions. *EDM reserves the right to cancel the trip if weather conditions are not conducive for the day trip or if there are not enough participants.* Thanks!

## Proceedings

Technical papers/presentations at the conference will be published in the conference proceedings. Every registrant for the conference will receive an electronic copy (Adobe PDF format) of the proceedings. Extra copies will be available at the conference for \$100.00 (U.S.). The official language of the conference and proceedings is English.

## Conference Sponsor

The conference is sponsored by EDM International, Inc. (EDM):

Lisa S. Nelson, Conference Technical Director

**EDM International, Inc.**

4001 Automation Way, Fort Collins, CO 80525-3479 USA

Phone: 970.204.4001 • Fax: 970.204.4007

E-mail: [LNelson@edmlink.com](mailto:LNelson@edmlink.com)

## International Conference on Overhead Lines

Monday, April 4	Technical Session: 8:00 a.m. – 5:30 p.m.
Tuesday, April 5	Technical Session: 8:00 a.m. – 1:30 p.m.; Exhibits: 1:30 – 5:00 p.m.
Wednesday, April 6	Technical Session: 8:00 a.m. – 12:30 p.m.; Field Session: 1:30 – 5:00 p.m.
Thursday, April 7	Technical Session: 8:00 a.m. – 12:30 p.m.





# International Conference on Overhead Lines – Design, Construction, Inspection, and Maintenance

April 4-7 2016 - Fort Collins Marriott, Fort Collins, Colorado, USA

Please print or attach a business card:

Name, First and Last (as you wish it to appear on your name badge)

Title/Department

Organization

Address (physical address please)

City

State

Zip

Country

Telephone

Fax

**E-mail Address (registration confirmation and future announcements will be sent via email)**

## Exhibition - Booth Space Reservation – \$1375.00 (U.S.)

Please reserve one 8 x 8-ft (~ 2.5 x 2.5-m) space for the above listed company (the registrant listed above is considered the conference registrant and contact for the exhibit and will receive additional information regarding display setup, dismantling, shipping, etc.) The booth includes one registration, a 6-ft (1.8-m) table, skirting, and an electrical hookup.

Do you need an electrical hookup?  Yes  No

Any special requirements? \_\_\_\_\_

Includes full registration to the conference for one person who is the contact for the booth. Additional personnel wishing to attend any part of the technical session, the field session, or meal functions must register for the conference.

## Payment - *The term "Utility Personnel" refers to professionals working for electric utility companies*

**UTILITY PERSONNEL:** Discounted to \$575.00  **UTILITY PERSONNEL SPEAKER:** Discount to \$525.00

\$650 Conference Registration

\$1375 Booth Space Reservation

\$525 DISCOUNTED UTILITY REGISTRATION (3 or more utility personnel who register at one time)

Yes! I plan to attend the field session on Wednesday afternoon.

Enclosed is a check/money order payable to EDM, Inc. for: \$ \_\_\_\_\_

check no.: \_\_\_\_\_

Please invoice me

P.O. number: \_\_\_\_\_

(if required)

Visa  Mastercard  Discover

Name on Credit Card

Credit Card Number

Billing Address Associated with Credit Card (if different than above)

City

State

Zip

Expiration Date

V Code (on back of card)

## Mail, fax or email your registration information to:

Lisa S. Nelson, Conference Technical Director  
International Conference c/o EDM, Inc.  
4001 Automation Way, Fort Collins, CO 80525-3479 USA  
Phone: 970.204.4001; Fax: 970.204.4007; E-mail: LNelson@edmlink.com