



Transmission & Distribution

Vegetation Management

Joint Conference November 16-18, 2021

Event Overview for Transmission & Distribution

This conference will explore the best available information about the impact of innovative technologies on the operation and maintenance of utility transmission and distribution assets. The emergence of interconnected information and control systems demands new technologies for integrated system monitoring and testing. The focus will be on the application of these technologies, particularly to overhead line maintenance and operations. The discussion will range from state of the art research to firsthand accounts of the benefits of using these new technologies in the utility setting.

The event will feature presentations on the following themes:

1. Condition Assessment
2. New Inspection & Maintenance Techniques
3. Information Management
4. Maintenance Prioritization

Event Overview for Vegetation Management

The effective management of vegetation on transmission and distribution corridors is essential to the reliable supply of electricity and to ensure public and worker safety. Vegetation programs are complex as they are implemented within a multi-faceted regulatory regime; in compliance with new and emerging legislation, in consideration of public and private landowner expectations and objectives, and must consistently improve environmental performance. These elements imply that vegetation managers are continually adapting and developing comprehensive processes to ensure the effective implementation of vegetation management programs that meet a vast array of goals and objectives.

The event will feature presentations on the following themes:

1. Catastrophic Risk Mitigation
2. Program Management
3. Environmental Opportunities – ROW as an Ecological Asset
4. Support Technologies

Who Should Attend?

- Transmission and Distribution Managers and Supervisors
- Transmission and Distribution Engineers and Engineering Supervisors
- Electric Utilities
- Consultants, Service Providers, and Contractors
- Consultants and Contractors from Other Industries with Examples of and Experience with the Application of These Themes
- Equipment Manufacturers and Vendors
- Research Facilities and Laboratory Personnel
- Academics

This conference is created in collaboration with our utility members:



To register and for more information, visit
<https://www.ceati.com/tdvm2021/>

T&D - Vegetation Management Day 1: November 16, 2021

10:30 - 12:00 Session 1 - Welcome and Opening Remarks

10:30 **CEATI Welcome and Introduction**

Moderated by TBC
CEATI International

11:00 **Keynote Presentation**

Ivano Labricciosa, Oshawa Power

11:30 **Essentials for Successful Utility Vegetation Management**

Sig Guggenmoos, Ecological Solutions

12:00 - 12:30 Break

12:30 - 2:00 Session 2AB - Transmission and Distribution: New Inspection and Maintenance Techniques

Session Chair: TBC

12:30 **How are utilities using AI, Predictive & Prescriptive Analytics?**

Alvin Razon, Aerinet & Tony Thomas, NRECA

1:00 **Utility Asset Inspection in the Digital Age: From Image Collection to Collective Insights**

Arne Nowak, Siemens Energy

1:30 **Risk Mitigation: Conducting a Proactive Aerial Inspection Program at Scale**

Renner Vaughn & Adam Saciuk, Cyberhawk

12:30 - 2:00 Session 2C - Vegetation: Catastrophic Risk Mitigation

Session Chair: TBC

12:30 **Am I Prepared for the Next Storm? Anticipating the Next Catastrophe**

Geoffrey Kempter, Asplundh

1:00 **Autonomous Utility Infrastructure and Vegetation Conditions Monitoring, Detection, and Response with iSIU**

Chinmoy Saha & Jeff Pickles, Green Grid

1:30 **Utility Wildfire Prevention Case Study: Retardants as a New Vegetation Management Tool**

Wes Bolsen, Perimeter Solutions

2:00 - 2:30 Break

2:30 - 4:00 Session 3A - Transmission: New Inspection and Maintenance Techniques

Session Chair: TBC

2:30 **Transmission Line Critical Tower Repairs**

Darren Wiebe, Ampjack Industries

3:00 **Enhanced Asset Management Realized Through Remote Sensing Technologies**

Anthony Palizzi, Fugro

3:30 **Innovative Optical Fiber Based Monitoring of Overhead Power Transmission Lines**

Itan Elkin, Prisma Photonics & Marcel Ellenbogen, Israel Electric Corporation

2:30 - 4:00 Session 3B - Distribution: New Inspection and Maintenance Techniques

Session Chair: TBC

2:30 **Evaluating and Improving Wood Structural Resiliency Through Enhanced Inspections and Structural Modeling**

Chad Newton, Osmose

3:00 **Overhead Powerline Inspection Methodology Development Using LiDAR and UAV**

Andre Coelho, Labelec

3:30 **Cost Effective Approaches for Capturing and Analyzing High Resolution Pictures/Data for Distribution Facilities**

Santiago Forteza, Effigis

2:30 - 4:00 Session 3C - Vegetation: Catastrophic Risk Mitigation

Session Chair: TBC

2:30 **Exploration of Emerging Technology for Vegetation Risk Management**

Brent Slone & Theo Laughner, Lifescale Analytics

3:00 **How Satellite Imagery and Machine Learning Can Help Prevent Storm Damage to Utilities**

Sven Przywarra, LiveEO

3:30 **To Be Confirmed**

Mike Parlow, Forsite

All times are in Eastern Standard Time - Agenda is subject to change without notice.

T&D - Vegetation Management Day 2: November 17, 2021

10:30 - 11:30 Transmission: Breakout Room Available

A small virtual breakout room will be available for those who wish to network with other conference attendees.

10:30 - 11:30 Distribution: Breakout Room Available

A small virtual breakout room will be available for those who wish to network with other conference attendees.

10:30 - 11:30 Vegetation: Breakout Room Available

A small virtual breakout room will be available for those who wish to network with other conference attendees.

11:30 - 12:00 Break

12:00 - 2:00 Session 4AB - Transmission and Distribution: Condition Assessment

Session Chair: TBC

12:00 **Using Asset Information Management System (AIMS) for Integrating and Analyzing T&D Equipment Data and Information**

Yury Tsimberg, Kinectrics & Jean Pierre Girard, Hexacode

12:30 **Accelerating Machine Vision Capabilities and Operational Impact**

Joe Blackwell & Joe Gemignani, Leidos

1:00 **A New Technique for Strengthening of Timber Utility Poles and Concrete Foundations**

Mo Ehsani, QuakeWrap

12:30 - 2:00 Session 4C - Vegetation: Program Management

Session Chair: TBC

12:00 **Benefits of Following the ISO 55000 Principles for a More Effective Vegetation Management Approach**

Luc Gaubert, Apines

12:30 **A New IVM BMP Manual Addendum: Managing Compatible Vegetation for Biodiversity and Conservation**

Dan Salas, Cardno & Gabriel Karns, Ohio State University

1:00 **The Evolution and Democratization of Vegetation Management LiDAR Data**

Shane Bruner, NM Group (Trimble)

1:30 - 2:00 Break

2:00 - 3:30 Session 5A - Transmission: Condition Assessment

Session Chair: TBC

2:00 **Intelligence in Remote Sensing in the Utility Environment**

Kristy McDermott, Sharper Shape

2:30 **Improving Groundline Condition Ratings of Transmission Steel Structures**

John Spiller, Osmose Utilities Services

3:00 **Artificial Intelligence Augmentation of Steel Lattice Structure Corrosion Condition Assessment**

Janos Toth, Recognise Technologies & Ruairi, TLI Group

2:00 - 3:30 Session 5B - Distribution: New Inspection and Maintenance Techniques

Session Chair: TBC

2:00 **Underground Vault Remediation - No Excavation**

Karl Stockbridge, Composite for Infrastructure, Cindy Megerdigian, SR Diversified & Louie Mercurio, Southern California Edison

2:30 **Estimating Distribution Transformer Lifetimes with Machine Learning**

Jon Garrity, Tagup & Vincent DeChiaro, National Grid

3:00 **Distribution Transformer Load Monitoring using AMI Data**

Matthew Shellenberger, American Electric Power

2:00 - 3:30 Session 5C - Vegetation: Environmental Opportunities - ROW as an Ecological Asset

Session Chair: TBC

2:00 **Your ROW as an Ecological Asset: Capitalizing on IVM Through ESG Reporting**

Stan Vera-Art, Grow with Trees & Colby Tisdale, ArborMetrics

2:30 **ROW for ESG**

Amy Murray, Davey Resource Group & Lew Payne, NYPA

3:00 **Turning Rights-of-Ways into Sustainable Assets**

Geoffrey Kempter, Asplundh

All times are in Eastern Standard Time - Agenda is subject to change without notice.

T&D - Vegetation Management Day 3: November 18, 2021

12:00 - 1:30 Session 6A - Transmission: Information Management and Maintenance Prioritization

Session Chair: TBC

12:00 **Understanding Corrosion of Transmission Overhead Structures for Improved Lifetime Prediction and Risk Modeling**

Alexandre Hudgins, Exponent & PG&E

12:30 **Utility Wildfire Prevention & Protection - I think I know What I Need to Do, but Where Do I Do it?**

Regan Snyder & Ruth Marks, Tri-State GT & Jim Downie, EDM International

1:00 **To Be Confirmed**
To be confirmed

12:00 - 1:30 Session 6B - Distribution: Information Management and Maintenance Prioritization

Session Chair: TBC

12:00 **Cloud-Based Management of Grid Automation Devices**

Santitos Garcia Z., ENEL Distribucion Peru S.A.A & Andrew West, Subnect Solutions

12:30 **Low Voltage Monitoring for Pre-Fault Detection**

Chris Lowsley, Bill Higinbotham, EA Technology, & Rebecca Kelly, Northern Powergrid

1:00 **Preventative Maintenance Benchmarking and Optimization**
Robert Ota, Kurtis Martin-Sturmey, METSCO Energy Solutions

12:00 - 1:30 Session 6C - Vegetation: Support Technology

Session Chair: TBC

12:00 **Real Time LiDAR - Toy or Useful Tool**

Mantas Vaskela, AISPECO

12:30 **Geospatial Mobile Work Management: Smart Device Solutions for VM Field Crews**
Ryan C. Edwards, Unearth Technologies

1:00 **Identification of the Best Vegetation Pruning Time Through LiDAR Monitoring**
Nur Izzah Hidayah Abdul Aziz, Aerodyne Geospatial

1:30 - 2:00 Break

2:00 - 3:30 Session 7A - Transmission: Information Management and Maintenance Prioritization

Session Chair: TBC

2:00 **Corrosion Risk Assessment Model Development to Prioritize Inspection and Maintenance of Transmission Line Structures**

Kristen Porter & Earl Mayugo, Powertech Labs

2:30 **Work Verification Program at PG&E**

Arya Nakhjavani & Andrew Davies, N Consulting Engineering, TBC, PG&E

3:00 **LineRanger: Field Results of a New Powerline Robot**
Pierre-Luc Richard, Hydro-Quebec

2:00 - 3:30 Session 7B - Distribution: Underground MV Cable Maintenance

Session Chair: TBC

2:00 **Overview of Key Components in an MV Cable Maintenance Strategy**

Sarajit Banerjee, Katrina Lotho & David Rouison, Kinectrics

2:30 **MV Cable Maintenance: Leveraging Cable Diagnostic Testing into Asset Management Plans**

Mike Strykiwsky, Sriram Iyer & Jayden Kaminsky, SaskPower

3:00 **Machine Learning for Investment Planning in the Medium Voltage Grid**

Gregor Taljam, Energienetze Steiermark & Sebastian Frank, Siemens Advanta Solutions

2:00 - 3:30 Session 7C - Vegetation: Support Technology

Session Chair: TBC

2:00 **Digital Transformation: Paperless Asset and Vegetation Work Management**

Chris Kelly, Clearion

2:30 **Technology Stages to Complement and Enhance Vegetation Management Programs**

Anthony Palizzi, Fugro & Kimberly Laing, Arbormetrics

3:00 **Rapid Satellite Monitoring of Strike Trees: An Efficient Alternative to LiDAR**

Dave Marvin & Christopher Anderson, Salo Sciences

3:30 - 4:00 Break

4:00 - 6:00 Session 8AB - T&D Panel Discussion

Session Chair: TBC

4:00 **Transmission Track: Where is the Industry Headed?**

5:00 **Distribution Track: Where is the Industry Headed?**

6:00 **Closing Remarks**
CEATI International

4:00 - 6:00 Session 8C - Vegetation: Support Technology

Session Chair: TBC

4:00 **Take the Next Step in AI-Driven Vegetation Management With Advanced Remote Sensing and Tree Species Identification Technologies**

Robbie Berglund, (IBM)

4:30 **A Comprehensive Survey of Remote Sensing Technologies Applied to Vegetation Management**
Caio Barbosa Melo, Concert Technologies

5:00 **Using LiDAR for Prioritization of Vegetation Management in Distribution Networks**

Jose Carlos Garcia, DIELEMO 3D

5:30 **Closing Remarks**
CEATI International