

# Distribution Assets Life Cycle Management Interest Group

More than ever before it is imperative for electric utilities to maximize the lives of existing systems. A full life cycle management process includes quantification of customer and shareholder expectations, a business assessment of alternatives and the maintenance and continuous assessment of plant conditions.

To minimize the cost of existing plants over their life spans, optimal equipment/material selection and life cycle management has to be applied. Current trends utilize existing equipment at ever-higher capacity levels, in some cases exceeding nameplate or accepted equipment ratings, in order to defer the capital investment in new facilities or in the refurbishment of existing facilities. Utility planners require advanced techniques to assess the risks and benefits associated with these actions.

An in-depth understanding of the problems associated with distribution assets will provide utility operations and maintenance personnel with the necessary tools to precisely evaluate the state of the plant and suggest an appropriate course of action.

## Topics & Issues

Evaluation of Plant Condition

Prediction of Remaining Life

Development of Action Plans for  
Life Cycle Asset Management

Preventive and Predictive  
Maintenance

Recycling, Re-use or Disposal  
Costs

Distribution Automation



### Technology Coordinator

Mr. David Laking heads the Distribution Assets Life Cycle Management Interest Group (DALCM). Having graduated from the University of New Brunswick, Mr. Laking accumulated over 31 years of experience with Nova Scotia Power, working in the area of Distribution standards before his retirement in 2004. While beginning his career at a field office, he quickly moved up to the standards department at NS Power's head offices. There he developed overhead and underground standards and material specifications before becoming involved with developing standard work methods for the distribution system. Mr. Laking has been a member of a number of CSA standard committees and was National Chairman of the surge arrester group.



## Projects

for a complete project listing, please visit: [www.ceatech.ca/dalcm](http://www.ceatech.ca/dalcm)

- Roadmap of Anticipated Customer Loads
- Non-Destructive Condition Assessment of ACSR Distribution Conductors, Phase 2
- Limits for the Connection of Distributed Generation to the Distribution System
- Cost of Reliability Methodologies
- Utility Guide to Forensic Root Cause Analysis of Distribution Failure
- Replacement/ EOL Criteria for Distribution System Assets
- CSA Standards for Polymer Cutouts
- Engineering Guide for Distribution Overcurrent Protection
- Implementation Roadmap for Utilities Deploying BPL Networks
- Short-Circuit Cable Rating for CYMCAP
- Deficiency Ranking Method for Distribution System Inspections
- Remedial Treatment of Utility Poles Using Borate Rods and In-Situ Butt Encapsulation
- Demonstration of an Advanced Protection Scheme for a Secondary Network System
- Distribution Power Line Inspection Training and Standards
- Electric Distribution Utility Roadmap, Phase II
  - Planning for Now and for 2010; A Common Infrastructure; The Case for Change
- Development of a Fault Alert Device for Distribution Transformers
- Asset Management Practices of Leading Distribution Utilities
- Metal Streetlight Pole Inspection Standards
- Current State of the Art in Cable Design and Technology
- Assessment Criteria Used to Repair, Refurbish or Replace Underground Cable
- Testing of Radio Frequency Detection as a Predictive Distribution Maintenance Tool for Underground Cable Accessories.
- An Assessment of the Structural Reliability of Distribution Overhead Lines
- Detection and Location of Corrosion in Medium Voltage Cable Shields or Neutrals
- Technical Requirements to Help Formulate a Polymer/Composite Cutout Specification
- Evaluating Energy Efficiency of Distribution Systems
- Detection and Interruption of Arcing Faults on Distribution Utility Secondary Voltage Conductors
- Comparison of Wood and Non-Wood Materials for Use in Crossarms
- Non-Destructive Condition Assessment of ACSR Distribution Conductors
- Review of Practical Field Condition Assessment Methods for Utility O/H Distribution Class Composite Mechanical Support Products
- Best Practices in Preventive Inspection and Maintenance of Overhead Distribution Facilities
- Electric Distribution Utility Road Map
- State of the Art with Respect to Protection of Multiple Primary Source Distribution Secondary Networks
- Determination of the Mechanical Resistance of Soils for Distribution Systems
- Wood Pole Inspection Training and Standards
- Extended Application of Internal Fault Detectors
- Condition Assessment of Porcelain Insulated Fused Cutouts
- Improved Performance of Switched Capacitor Banks
- Remaining Life Estimation of Distribution Transformers
- Evaluation of Condition of Anchor Rods Used in Distribution Poles
- Distribution Systems - New Designs and Aesthetic Integration of Overhead Equipment
- Recycled Oils
- Evaluation of Refurbishment Options to Optimize Pole Replacement
- Reliability of Steel Distribution Poles
- Distributed Resources Workshop
- Distribution Automation Workshop
- Utility Pole Structures Workshop



## Annual Activities

3 Meetings

Technology Watch Workshop

5-7 Conference Calls

Weekly Information Exchange

## Participation is open to:

Electric Distribution Utilities

## Project Reports

Over the years more than 1300 projects have been completed and published in the fields of:

### **Generation; Transmission Distribution; Utilization**

For a complete listing, please consult our website.

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