

Distribution Assets Life Cycle Management Interest Group

Mission Statement

The mission of the Distribution Assets Life Cycle Management Interest Group (DALCM) is to help electric utilities with full life cycle costs of their existing systems and to ensure utilities are ready to improve their distribution system. 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. The program is intended to assist DALCM utilities in minimizing the cost of existing plants over their life, and optimizing equipment/material selection while helping utilities ready for the future distribution system with smart grid technologies. An in-depth understanding of the problems associated with distribution assets provides utility operations and maintenance personnel with the necessary tools to precisely evaluate the state of the plant and suggest an appropriate course of action.

The result of this mission will be a transfer of knowledge through initiatives such as projects, technology reviews, research, studies, tutorials and workshops with an overall aim to obtain the maximum life of distribution assets at minimum cost.

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

Improving the Distribution
System by an Analysis of New
Material and Equipment



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.ceati.com/dalcm

Underground Distribution

- Arc Flash and Arc Blast Hazards On Underground Utility Systems, Phase I: Scoping Study for Arc Flash Testing
- Cable Accessory Installation Training and Standards
- Distribution Cable Health Index
- Demonstration of an Advanced Protection Scheme for a Secondary Network System
- Demonstration of an Advanced Protection Scheme for a Secondary Network System, Phase II

Overhead Distribution

- Non-Destructive Condition Assessment of ACSR Distribution Conductors, Phase 2
- Synthetic Cross-Arms Testing Requirements
- Distribution Power Line Inspection Training and Standards
- Utility Guide to Forensic Root Cause Analysis of Distribution Failure
- State of the Art Assessment of Requirements for Attachment of Wi-Fi Equipment to Electric Utility Facilities
- Resiliency of Overhead Lines to Trees and Branches

Support Structures

- Remedial Treatment of Utility Poles Using Borate Rods and In-Situ Butt Encapsulation
- Remedial Treatment of Utility Poles Using Borate Rods and In-Situ Butt Encapsulation, Phase II

Improving the Distribution System

- Firefighting Guidelines near Electrical utility Structures
- The Impact of Variable Distributed Renewable Generation on the Distribution Grid
- An Assessment of Distribution System Neutral Grounding Alternatives
- Solar Power Variability Impacts on the Distribution System
- Update of the Surge Arrester Application Guide
- Distribution Planner's Manual
- State-of-the-Art of Handled Partial Discharge Measurement Technologies
- Nanotechnology Applications with Utility Benefits
- DALCM Database
- Engineering Guide for Distribution Overcurrent Protection
- Corrosion on the Distribution System: Mitigation Strategies
- Life Cycle Costs of Overhead vs Underground Installations
- Distribution Utility Self-Evaluation for Asset Condition Assessment, Phase 1
- Distribution System Phasing Using AMI and DSCADA Information
- Evaluation of LEDs and Power Supplies for Outdoor Lighting Applications
- State-of-the-Art Review of Management of Technical and Non-Technical Losses in Distribution Systems
- Arc Flash on Utility Systems
- Effects of Demand Side Management / TOD Rates on Load and Loss Factors
- Worker Protection on De-Energized Distribution Lines
- Roadmap of Anticipated Customer Loads
- Limits for the Connection of Distributed Generation to the Distribution System
- Cost of Reliability Methodologies
- Replacement/ EOL Criteria for Distribution System Assets
- Electric Distribution Utility Roadmap, Phase II:
 - Planning for Now and for 2010; A Common Infrastructure; The Case for Change
- Asset Management Practices of Leading Distribution Utilities
- Deficiency Ranking Method for Distribution System Inspections



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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