

# **Review of Best Practices for a Risk-Based Approach to Integrated Vegetation Management on Distribution Lines**

Dec. 2012

CEATI PROJECT # T124700-6007

## **ABSTRACT**

In order to arrive at best practices for risk based approach to Integrated Vegetation Management on distribution lines, a review of topics related to distribution vegetation management and a survey of 15 utility distribution vegetation managers was conducted. Specific topics of interest included: ROW vegetation management, integrated vegetation management (IVM), remote sensing, light detection and ranging (LiDAR), risk management related to utility vegetation management, utility vegetation management best management practices, new vegetation management technologies, and improved operational management practices.

Several important emerging trends in managing the potential risk of vegetation-caused outages on distribution systems were identified. Among these were an increased use of LiDAR, GIS and geospatial technology as well as associated technologies to identify potential risks, new and improved record keeping systems, increased attention to hazard trees, and the implementation of IVM principles.

Several indicators of best management practices (BMPs) relative to distribution vegetation management (DVM) emerged and have been presented. The importance of utilizing IVM in a distribution setting gradually increased over the periods reviewed.

### **Keywords:**

Distribution vegetation maintenance (DVM), Light Detection and Ranging (LiDAR), vegetation management (VM), risk assessment, ROW vegetation maintenance, integrated vegetation management (IVM), vegetation management, utility vegetation management (UVM), Geographic information system (GIS), best management practices (BMPs), Electric Power Research Institute (EPRI), Institute of Electric & Electronic Engineers (IEEE), American National Standards Institute (ANSI), and Rights-of-Way (ROW).

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