ERO Best Practices #2011-002 Vegetation Management – Customer Interface and Integrated Vegetation Management

ERO Best Practices provide an opportunity for entities to learn from other industry members by offering examples of best practices that will improve systems, processes and policies that relate to the reliability of the Bulk Power System (BPS).

ERO Best Practices #2011-002 is a publication to spotlight, as a best practice, several registered entities' communication and coordination protocols that promote landowner notification and public education processes, and to implement industry accepted Integrated Vegetation Management (IVM) strategies into a transmission vegetation management program.

The 2003 Blackout Report[1] addressed outages related to vegetation management as an ongoing concern for BPS reliability. NERC Reliability Standard FAC-003-1 (www.nerc.com/files/FAC-003-1.pdf) is intended to prevent such outages by requiring Transmission Owners (TO) to maintain minimum clearances between vegetation and transmission lines by implementing a transmission vegetation management program (TVMP). Often a registered entity's ability to implement its TVMP requires communication and coordination with right-of-way (ROW) landowners. In some cases it also requires implementing sustainable vegetation management strategies, known as IVM.

Transmission Vegetation Management Program (TVMP)

The purpose of a TVMP is to:

- prevent outages from vegetation located on transmission ROWs and minimize outages from vegetation located adjacent to ROWs
- establish a schedule for frequency and type of inspections
- determine clearances to be achieved at the time of transmission vegetation management work
- maintain clearances between transmission lines and vegetation on and along transmission ROWs
- create and implement an annual plan for vegetation management work
- report vegetation-related outages of transmission systems

Communication and Coordination Best Practices

Communication and coordination between TOs and landowners will promote long-term results and minimize disputes that delay or prevent necessary maintenance activities. An effective TVMP will fulfill immediate operating needs while keeping readers abreast of landowner rights and environmental concerns. It will include a communication strategy that engages the landowner in a timely manner and addresses the impacts of ROW maintenance to landowners through public education efforts. The entity's communications strategy should include sufficient advance notice (ex. 4 weeks) of planned vegetation management work using communications tools such as door-hangers, postcards, letters, phone calls, or personal contact. Contact information for the appropriate utility vegetation management personnel should be included in any communications provided to a landowner, and contact information should also be provided through the utility's website.

Entities should clearly communicate that federal law does not mandate the vegetation management method (e.g. tree removal, pruning, or herbicides) to be used to achieve the required minimum clearance between vegetation and transmission lines.

The Utility Arborist Association's (UAA) System Forester Summit researched and evaluated the typical practices involved in customer interface for vegetation management programs and developed the Customer Interface Best Management Practices (BMPs).

The BMPs developed by the UAA System Forester Summit, in part, the following:

- landowner notification process
- public education programs
- landowner feedback
- stakeholder training
- a consistent refusal process

The value of a registered entity's relationship with its ROW landowners should not be underestimated. Creating a cohesive working relationship expedites and simplifies TVMP implementation, which may prevent and minimize future outages related to vegetation, in turn supporting NERC Reliability Standard FAC-003-1.

The UAA BMPs developed by the task force encourages registered entities to implement these practices when applicable. A copy of the BMP is included as Attachment A – System Forester Best Management Practices, Customer Interface. Additional information regarding vegetation management BMPs can be found at the UAA website: http://www.utilityarborist.org/bmp.htm

Integrated Vegetation Management Best Practices

IVM is the practice of cultivating desirable, stable, low-growing plant communities that will resist invasion by tall growing tree species that may contact transmission lines. This is accomplished through the use of appropriate and environmentally sound control methods that may include a

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[1] *Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations (April 2004).*

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combination of chemical, biological, cultural, and mechanical treatments.

The International Society of Arboriculture's IVM Best Management Practices were developed by utility industry experts as a companion publication to the *ANSI A300 Part 7: Tree, Shrub, and Other Woody Plant Maintenance – Integrated Vegetation Management, a. Electric Utility Rights-of-Way.* The publication addresses:

- communications (internal and external stakeholders)
- planning and implementation
- environment protection
- tree pruning and removal

IVM has proven to be environmentally responsible and cost-effective, and it promotes cooperation with landowners by recognizing the value of trees and plant life while addressing the reliability concerns associated with vegetation.

The IVM BMPs developed by the ISA and encourages registered entities to consider implementing these strategies where applicable. Copies of the IVM BMP can be obtained from the ISA at the following: http://secure.isa-arbor.com/webstore/BMPs-C59.aspx

Survey Results

NERC conducted a survey of five registered entities to determine the level of success in implementing customer interface and IVM BMPs. Based on the survey responses, all five registered entities have successfully implemented these BMPs and have provided good examples of Best Practices. The survey participants were:

- Alabama Power Company
- Arizona Public Service
- Baltimore Gas & Electric Company
- MidAmerican Energy Company
- Pacific Gas & Electric Company

Examples of Best Practices observed and identified by the ERO:

- Promoting the Right Tree in the Right Place program.
- Providing replacement trees for trees that are removed (which meets the criteria of the Right Tree in the Right Place program).
- Multi-level notification practices that use a multi-tiered escalation approach to resolve disputes.
- The use of detailed informational pamphlets and door hangers.
- Performing community outreach programs (*e.g.* Arbor Day, providing information with the monthly power bill).

NERC encourages registered entities to use these tools to enhance customer education and to manage their rights-of-way in a cost-effective and environmentally responsible manner.

Prior Communications

NERC has issued prior communications on vegetation management, including:

- Lessons Learned: Vegetation Management LL regarding multiple contractors working on a single line (April 14, 2010); and
- Lessons Learned: Vegetation Management LL regarding tree contact (October 20, 2010).

For more information on best practices, please contact:

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This information is designed to convey compliance guidance from NERC's various activities. It is not intended to establish new requirements under NERC's Reliability Standards or to modify the requirements in any existing NERC Reliability Standards. Compliance will continue to be determined based on language in the NERC Reliability Standards as they may be amended from time to time. Implementation of this compliance bulletin is not a substitute for compliance with requirements in NERC's Reliability Standards.

Powering through FAC-003-2

By Joe Marshall, ACRT Inc.

While many utilities had solid programs in place for many years prior, the year 2003 changed the course of vegetation management dramatically. The event that needs no explanation inspired the most significant legislation in the history of the industry – 2007's North American Electric Reliability Council's (NERC) FAC-003-1 reliability standard.

Indeed, it has been a busy nine years for regulators, utilities and foresters, as we have maneuvered all of the changes in our industry. Soon, the adoption of FAC-003-2 will represent another significant milestone in our history.

Behind FAC-003-2

The 2007 iteration of the FAC-003-1 required utilities to begin documenting vegetation management objectives, procedures and work specifications. It inadvertently created a demand for new market tools, such as LIDAR and software applications. The regulation mandated us to document a schedule for right of way (ROW) vegetation inspections, and to develop an annual vegetation management plan to document its execution.

Documentation was undoubtedly the theme of FAC-003-1 because we had to first lay the groundwork to understand our systems and how our processes could be improved to achieve a higher rate of electric reliability.

The new FAC-003-2, however, was written in such a way that standards will be required and enforced more effectively, according to NERC. The official petition filed by NERC in December 2011 to the Federal Energy Regulatory Commission, stated that the proposed