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About the Right of Way Stewardship Council

The Right-of-Way Stewardship Council (ROWSC) is an accreditation program that establishes standards for responsible right-of-way vegetation management on corridors. The program promotes the application of integrated vegetation management (IVM) and best management practices to the utility vegetation management industry in order to maintain power system reliability and address ecological concerns.

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Right-of-Way Stewardship Program in a Nutshell

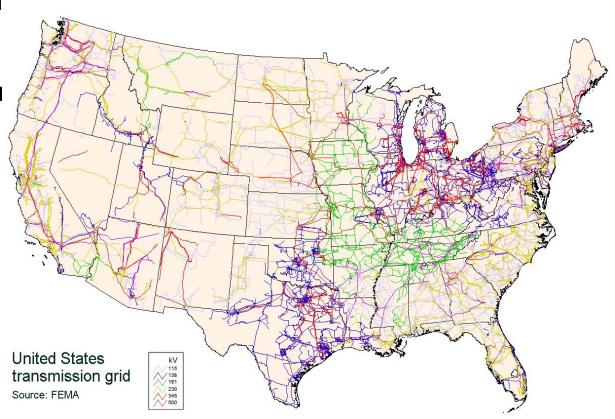
- The intent is to recognize and validate excellence in the practices of Integrated Vegetation Management (IVM) on Rights of Way (ROW).
- The initial focus was on the North American high voltage grid
- Since 2016, includes pipelines



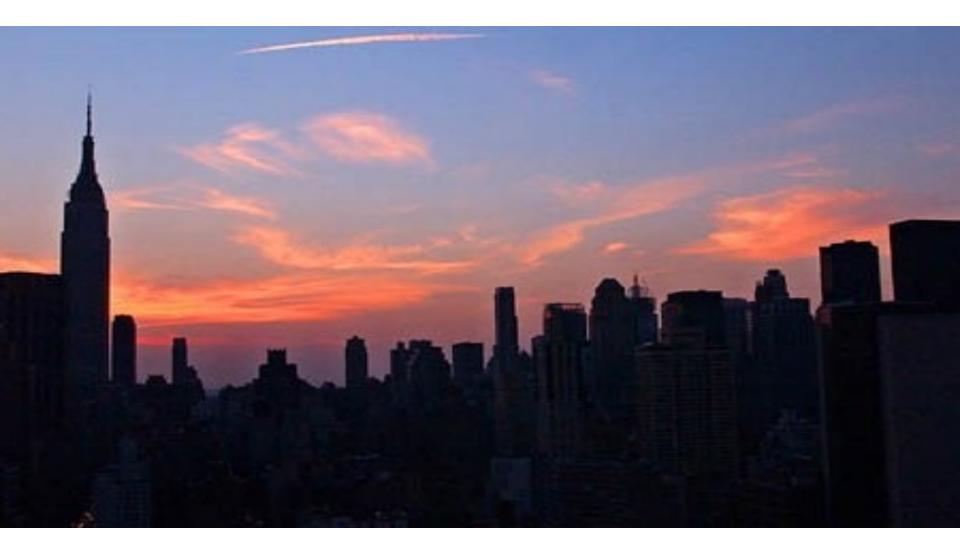


The US High Voltage Transmission Grid

- 160,000 miles of transmission line operating at 230-765 kV,
- North American transmission system in total, including those lines that operate at 35 kV and above is estimated at over 450,000 miles.
- Total land area being managed as transmission corridors is estimated at between 8.6 -11million acres.



Sunset in New York City, August 14, 2003



Industry's Response to 8/14/03

- 2006 NERC Standard FAC-003, subsequent fines
- 2006 ANSI A300 (Part 7) IVM
- 2007 ISA IVM BMP
- 2008 "Standards for Assessing Performance of Integrated Vegetation Management on Rightsof-Way", Electric Power Research Institute (EPRI)
- 2009 UAA "Closed Chain of Custody" BMP

Forming ROWSC

- Asplundh Tree Expert
- Audubon International
- BioCompliance Consulting
- Bonneville Power Admin.
- Charlton & Associates
- CN Utility
- Cornell University
- Dovetail Partners, Inc.
- Dow AgroSciences
- DuPont
- Duquesne Light
- Electric Power Research Institute
- Energy Initiatives Group
- Environmental Consultants, Inc.

- EPA
- Exelon
- First Energy
- IVM Partners
- NY Power Authority
- Pacific Gas & Electric Company
- PacifiCorp
- Pollinator Partnership
- Private Citizen
- Progressive Solutions
- Purdue University
- The Nature Conservancy
- Utility Arborist Association
- Wildlife Habitat Council

Brief History of ROW Stewardship Council (ROWSC)

- 2010- Genesis of an idea and Conceptual proposal to professional association (UAA)
- 2011- Basic design, concept developed, and discussions within industry
- 2012 Detailed design, working with stakeholders
- 2013 ROW Stewardship Council formed and three pilots completed.
- 2014 ROWSC Accreditation Standards established and first utilities accredited.
- 2016 ROWSC Standards revised and first natural gas utility accredited.
- 2018-19 –Re-accreditations of Founding Utilities
- 2020 New Utility Accreditations



ROWSC Accredited Utilities

Founding Accredited Utilities

The following Utilities have been recognized as a "Right-of-Way Steward Utility".





Bonneville Power Administration (BPA)

AltaLink

Arizona Public Service (APS)



PG&E



New York Power Authority (NYPA)

Pacific Gas and Electric Company (PG&E)

Sacramento Municipal Utility District (SMUD)



Vermont Electric Company (VELCO)

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ROWSC in Detail

The Right-of-Way Stewardship Council (ROWSC) is an accreditation program that establishes standards for responsible right-of-way vegetation management along corridors.

- •Promotes the application of Integrated Vegetation Management (IVM) and best management practices to utility vegetation managers in order to maintain power system reliability and address ecological concerns.
- •Accreditation provides standards of excellence for environmental stewardship and independent, third-party recognition to these types of IVM programs.
- •The ROWSC has established management standards based on a set of predetermined principles, requires a formal application process, and enlists third-party auditors to ensure compliance with standards.
- •The ROWSC model follows the lead of the Electric Power Research Institute's (EPRI) Standards for Assessing Performance of Integrated Vegetation Management on Rights-of-Way and is informed by other well-established forestry accreditation programs such as the Forest Stewardship Council and Sustainable Forestry Initiative.





Accreditation Standards for Assessing IVM Excellence

March 1 2016

This document establishes the technical requirements for applicants seeking ROW Steward accreditation of IVM practices on electric transmission and pipeline rights of way. It is used in an independent audit of an applicant's integrated vegetation management program. It is intended to aid in identifying excellence.

This document has been developed with the direct participation of the electric transmission, natural gas, and liquid petroleum pipeline industries. The document is also based on input from subject matter experts, and a diverse group of stakeholders including environmental non-governmental organizations, academia, and the public.

ROW Steward Technical Requirements

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ROWSC Principles

- 1. Compliance with Laws, Standards, and BMPs
- 2. Tenure and Use Rights and Responsibilities
- 3. Community Relations
- 4. Management Planning
- 5. Understanding Pest and Ecosystem Dynamics
- 6. Establishing Tolerance Levels
- 7. Compilation of an Array of Vegetation Maintenance Techniques
- 8. Accounting for Economic and Ecological Effects of Treatments
- 9. Site-Specific Implementation of Treatments
- 10. Monitoring and Adaptive Management

INTEGRATED VEGETATION MANAGEMENT

- Establish objectives for compatible vegetation communities.
- Set thresholds for vegetation management action.
- Evaluate current site conditions.
- Choose appropriate control methods from mechanical, chemical, biological, cultural techniques.
- Implement control measures and monitor results.
- Adapt plans in response to meet objectives.



Accreditation Process

<u>Application</u>: gather sufficient info from applicant to develop a cost estimate for accreditation

<u>Gap Analysis</u>: determine the level of readiness of applicant, Go/No-go decision to proceed

<u>On-site Assessment</u>: team of technical experts evaluate systems and procedures on the ground to ensure compliance

<u>Report</u>: findings are basis of determination if accreditation granted and provides an opportunity for feedback and clarify next steps

<u>Recurring Assessments:</u> annual assessment and determination of continued accreditation









Erin Creekmur • 1st

Forestry & Special Programs Supervisor at Arizona Public Service (APS) 1w • Edited

Arizona Public Service - APS is a proud Right-of-Way Steward founding
Utility. Today we were recognized by the Utility Arborist Association and the
Arbor Day Foundation at this year's Trees & Utilities Conference as we
embark on the next 5 years. #utility #arizona #proud #steward
#iworkataps #treesandutilities





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Benefits of IVM

- 1. Creates habitat for wildlife and pollinators.
- 2. Decreases inputs and impacts from mowing & pesticides.
- 3. Reduces management and maintenance costs
 - Recent case studies have shown that IVM strategies utilizing selective herbicide application reduce vegetation management or reclamation costs between a third and a half when compared to just mechanical treatment.
 - Conversely, the same case studies have shown that going from an IVM strategy back to repeated mowing only will double maintenance costs.



Benefits of ROWSC Accreditation

- 1. Direct benefits to the IVM program through adoption of best practices
- 2. Potential for favorable regulatory consideration, compliance and siting
- 3. Customer education and brand enhancement
- 4. Active inclusion of a diverse stakeholders
- 5. Improved habitat and reduced environmental impacts



ROWSC Feedback

- Participants from Founding Utilities were asked to respond to an online questionnaire
- There were 13 respondents from 5 utilities
- They were asked 28 questions, with 21 closeended and 7 open
- Respondent information was also gathered
- Respondents were also asked to indicate areas for improvement and to provide general recommendations

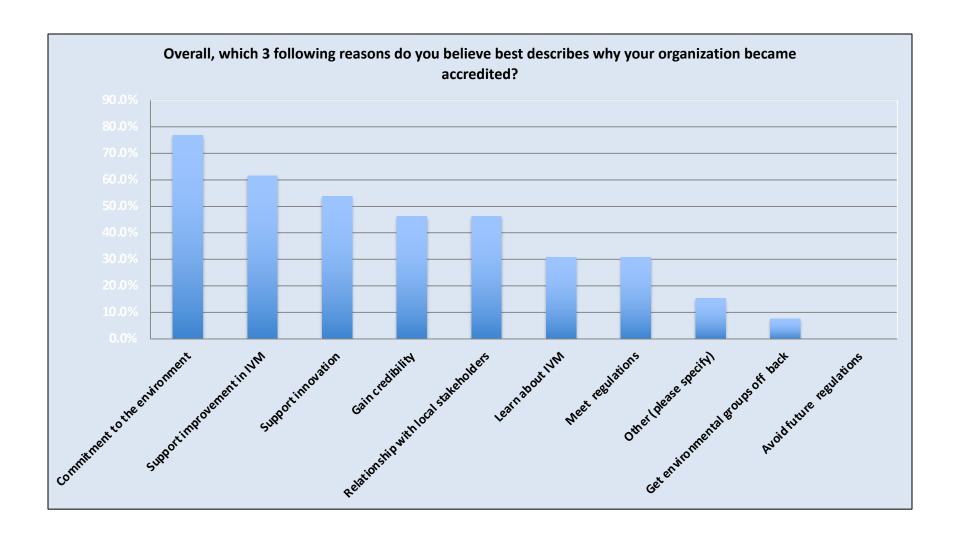
Research Process Continued

- Partial examples of questions include:
 - ...which of the following...best describes why you became ROW accredited?
 - To what degree did the accreditation process meet your expectations?
 - Did you find the process to be a beneficial experience?
 - Select phrases that best represent your agreement with statements about process.

Benefits achieved to date...

Answer Options	Response Percent
We have learned more about IVM	76.9%
Accreditation has helped gain support for improvement in IVM process	76.9%
It is clearer to all that we meet/comply with current government regulations	69.2%
We gained credibility in the marketplace	61.5%
Accreditation provides support for innovation in utility management	53.8%
People report that we have more clearly demonstrated our commitment to the environment	53.8%
We have received positive feedback from environmental groups	46.2%
Accreditation has helped with our relationship with local stakeholders (e.g. abutters)	23.1%
Other (please specify)	15.4%
We expect to avoid increases in future government regulations	7.7%

Reasons for Seeking Accreditation



Current Developments

- Increase awareness of program, especially to government agencies
- Get more environmental groups actively supporting the program
- Create benchmarking for utilities (a way to evaluate how they did against others)

ws Standards

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ROWSC Resources













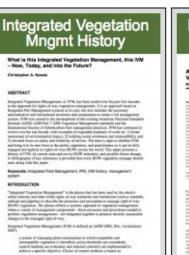
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The Cost-Efficiency of IVM



THE COST-EFFICIENCY OF IVM

A Comparison of Vegetation Management Strategies for Utility Rights-of Way

ABSTRACT

This report establishes a business case for the practice of Integrated Vegetation Management (IVM) on electric and gas transmission rights-ofway, both in terms of cost savings and the benefits that are produced.

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