Vegetation Management

Two Emerging Issues Impact Utility Rights-of-Way

The North American Electric Reliability Corporation (NERC) and the U.S. Fish and Wildlife Service have each made recent announcements that may impact how electric utilities manage vegetation on their rights-of-way. With changes set to go into effect over the next several vegetation cycles, utilities can prepare in advance to address this issue across their systems.

NERC to Increase Vegetation Clearances

NERC’s FAC-003-3 mandatory standard addresses electric utility right-of-way vegetation management and is intended to support the reliability of the North American electricity grid. The Federal Energy Regulatory Commission (FERC) had in the past approval orders expressed concern regarding the method used to determine the Minimum Vegetation Clearance Distance (MVCD)\(^1\) and called for testing to verify the propriety of the choice made by the industry. IN 2012 NERC filed a response to FERC’s data requests on the topic. NERC has now completed the required testing and revealed the results, indicating that clearances specified in FAC-003-3 should be increased.

NERC is expected to modify the standard by February 2016 in time for utility 2016 vegetation management programs. Utilities should consider meeting the new mandatory clearance requirements in advance of their formal implementation in order to stay ahead of requirements with their vegetation management programs. An Alert on the impending change was issued by NERC on May 14, 2015.

Background of NERC Transmission Vegetation Management Clearance Standard

NERC’s standard setting for vegetation management is a direct result of the 2003 Northeast blackout and the finding that tree contacts were a significant contributing factor to that event. Transmission facilities cannot be relied on to carry their rated power flow unless clearance to vegetation is assured.

The FAC-003 standard addressing vegetation management has undergone many significant changes leading to the current version. FAC-003-2 created a new framework where it was not only necessary to have a vegetation management plan (as early versions of FAC-003 required) but specified the Minimum Vegetation Clearance Distance (MVCD) as a mandatory requirement. The standard marked a major change in how NERC mandatory

\(^1\) See FERC’s data request to NERC regarding the derivation of the MCVD and the use of the Gallet equations among other topics at: http://www.nerc.com/FilingsOrders/us/NERC%20Filings%20to%20FERC%20DL/FINAL_FAC-003-2%20Data%20Request%20Response_5.25.pdf

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standards are developed in general, shifting to a “results based standards development”\textsuperscript{2} concept. FAC-003-2 which converted the standard from a process-based standard (requiring the creation of a vegetation management plan) to a results-based standard which now requires that Minimum Vegetation Clearance Distances (MCVD) be maintained as a mandatory reliability result. The concept is carried over into the current FAC-003-3 which had the addition of relatively minor changes in terms of applicability to certain generators owning transmission facilities in addition to transmission owners.

**U.S. Fish and Wildlife Service (FWS) Addresses Vegetation Management for Butterfly Conservation**

On April 15, 2015 FWS announced that wildlife protection officials in Canada, the U.S. and Mexico are developing a joint plan to conserve the monarch butterfly species. The FWS has not yet listed the monarch as threatened or endangered, but late last year it formally began the process of determining whether the species should be listed. The plan is in response to a 95 percent decline in the numbers of monarchs in North America over the past two decades. Loss of the milkweed plant, which monarch larvae rely on as their sole source of food, has been the main factor driving its decline. Many of the conservation programs the three countries have spearheaded involve replanting milkweed on public and private lands. FWS has been in talks with utility companies to encourage them to plant milkweed in their rights-of-way and sees utility rights-of-way as part of the overall strategy to conserve the monarch butterfly.

Integrated vegetation management can be used to create habitat for monarchs and other target species. Introduction of low growing, ground cover to make for a more economic and environmentally sound approach for right-of-way management than clear cutting, or extensive herbicide use, is a key element of integrated vegetation management.

**How to Prepare**

A key requirement of any compliance program is to be prepared to address changing regulatory requirements across your system. This combined developing regulatory situation will go into effect in the next several vegetation management cycles. It may be possible for utilities to economically address both sets of requirements with a single program.

\textsuperscript{2} NERC moved to a results based standards design concept beginning in 2010 and first used it extensively in the FAC standard redevelopment. The concept is that the requirements in a standard (which are the enforceable parts) should specify a reliability maintaining result. The art of crafting an effective results based standard is in including the appropriate level of actions or requirements for which there should be accountability. The actions or results in a requirement should not be at too detailed of a level unless the detail is an action necessary for reliability and one for which there should be accountability. The actions or results should also not be at too high of a level; high level actions provide for accountability only when harm occurs and thus does not provide for prevention of harm occurring.
Utilities can get ahead of any potential federal Endangered Species Act listing by locating milkweed seed sources, understanding the biology of the monarch, and planning right-of-ways to include herbaceous plants and bushes that will benefit the monarch and other species. Such plant communities, if properly established and maintained, will produce a dense low-growing plant cover that can discourage invasion by woody species that can disrupt electric transmission and cost utilities and the public time, money and inconvenience.

Once established milkweed “grows like a weed.” Utilities can make a significant impact through milkweed plantings that will not only help keep the iconic monarch butterfly from becoming endangered, but can enhance a utility’s positive impact on the environment, improve public relations and contribute to corporate sustainability goals. Being proactive will yield many benefits.

TRC’s environmental and vegetation management program experts can support both the preparation of integrated vegetation management programs and provide advice regarding advanced implementation of the vegetation management program changes needed to address the forthcoming mandatory standard changes.

**Resources**

FAC-003 Standard development Project Page  
FAC-003 Alert  
NERC Vegetation Management Webinar  
NERC Compliance Support Services  
TRC Power Delivery Engineering Services

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*This regulatory update is a service to our utility clients, helping keep them informed of issues that impact their reliability risk and business goals.*

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