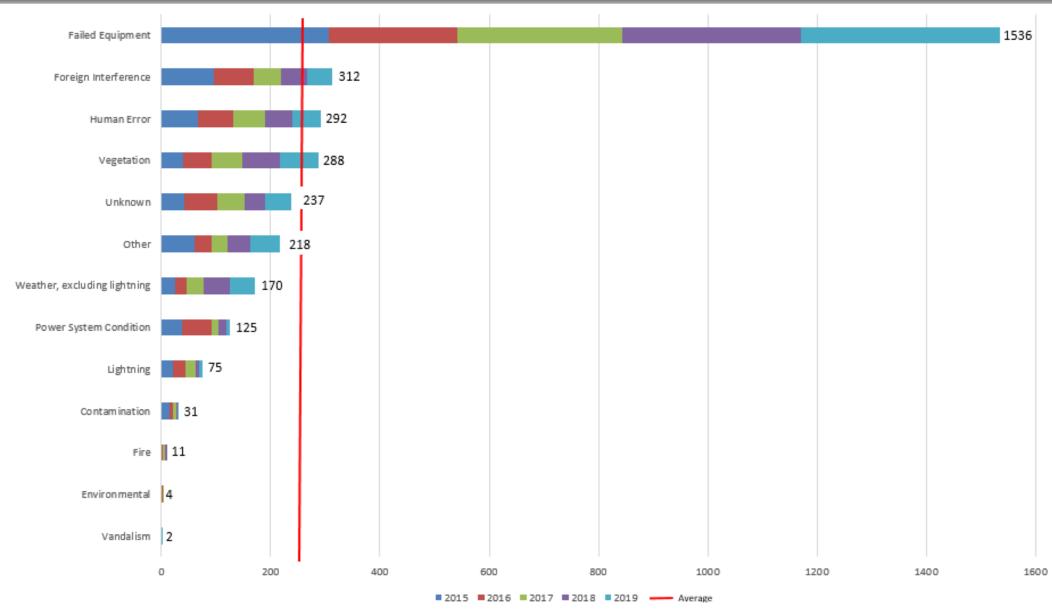


Vegetation Management Update Lessons Learned and Audit Approaches

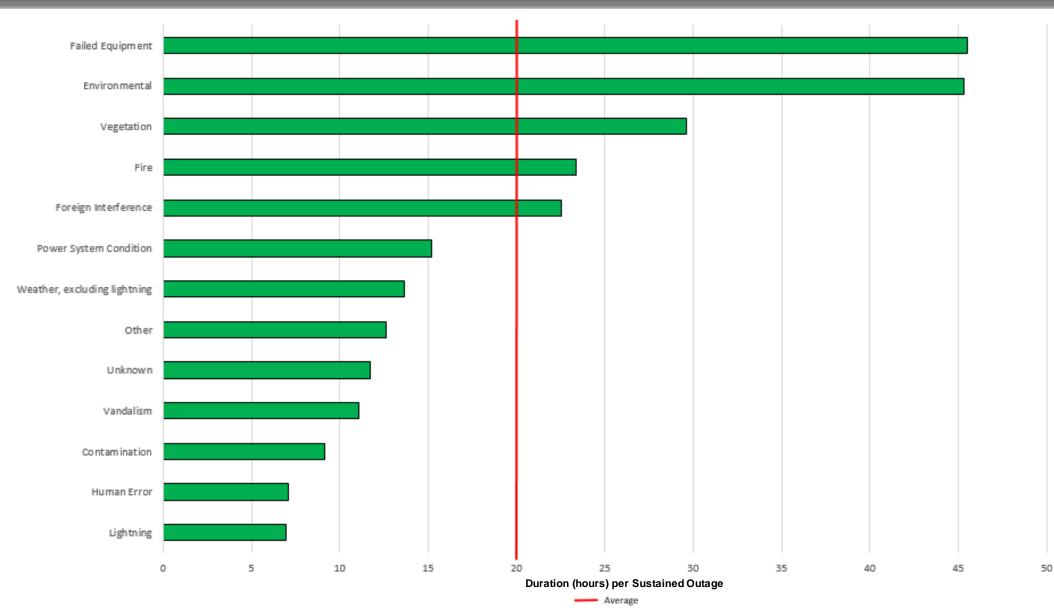
Beth Rettig – Technical Auditor, O&P Compliance Monitoring
Johnny Gest – Manager, Engineering & System Performance
Max Reisinger – Counsel, Enforcement
November 16, 2020
Technical Talk with RF



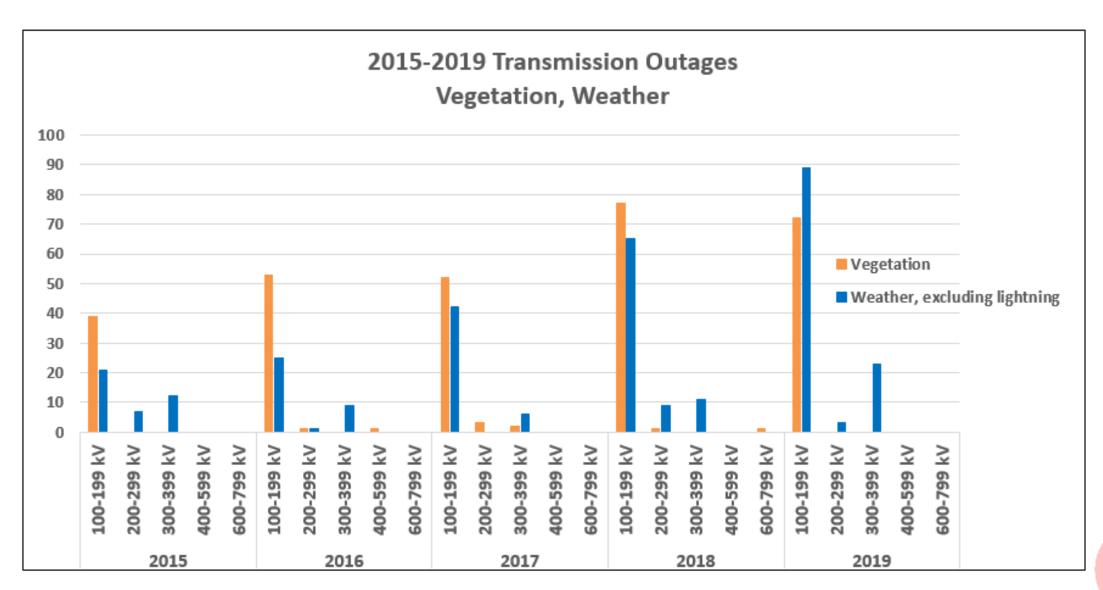
2015-2019 Sustained Overhead Line Outages



2015-2019 Duration (hrs) per Sustained Outage

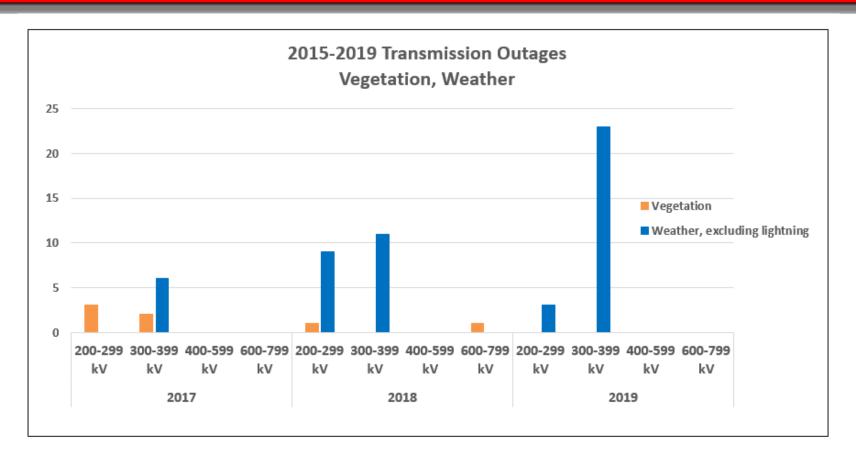


2015-2019 Vegetation Related Outages





2018-2019 Vegetation/Weather Related Outages



- System resiliency studies and projects vs. weather related outages
- > 2018 sustained 2 FAC-003-4 outages
- 2019 experienced 0 Category 1 or 2 FAC-003-4 outages



FAC-003 Field Walk Downs

- > RF began conducting as part of the audit process in March 2020
- > Auditor works with entity to select locations based on:
 - Higher risk/Critical circuits
 - Travel time to and between locations
 - Noted Restrictions (legal, easement widths, environmental, permitting etc.)
 - Rural vs. Urban
 - Geographical territorial divisions
- > Field findings should directly correlate with reviewed evidence
- > Findings documented through measuring tape, photos or other applicable tools
- > At a minimum, SME and PCC should attend walk downs



FAC-003 Violations in Settlements Since 2017 (ERO)

> 9 Violations of FAC-003-4 R2

- "An encroachment due to vegetation growth into the line MVCD that caused a vegetation-related Sustained Outage"
 - All of these had monetary penalties

> 1 Violation of FAC-003-4 R3

- Each applicable TO and GO "shall have documented maintenance strategies or procedures or processes or specifications it uses to prevent the encroachment of vegetation into the MVCD of its applicable lines."
 - This did not have a monetary penalty

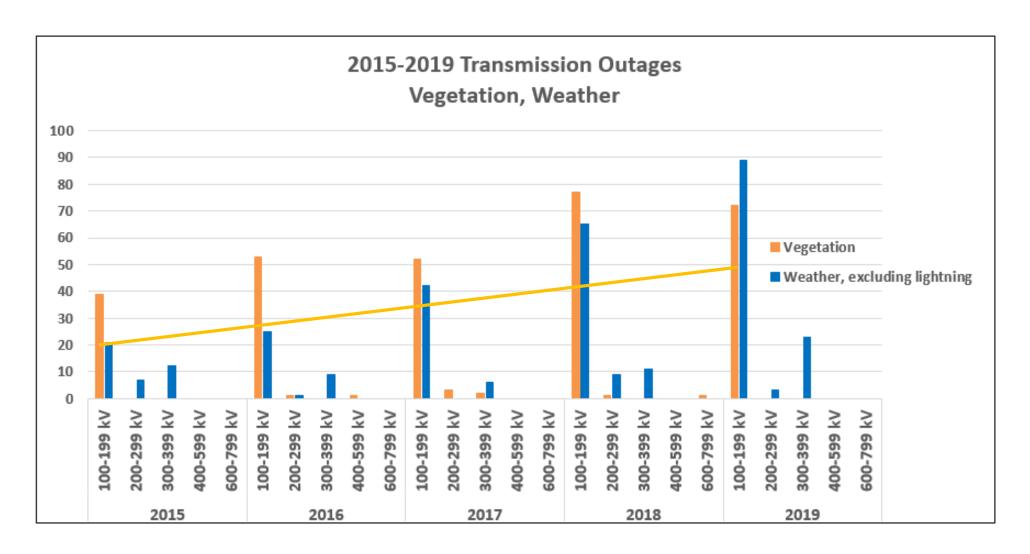


Enforcement Lessons Learned

- > Common Root Causes
 - Ineffective program design and implementation
 - Misinterpretation of scope of Standard and Requirement (FAC-003-4 R3)
 - Lack of effective internal controls to ensure inspections are completed timely
 - Inadequate resources
- Review and update your Transmission Vegetation Management Program (TVMP) frequently
- > Work with peers to determine best practices
- > Consider investing in LiDAR



2015-2019 Vegetation Related Outages





RF Vegetation Management Community of Practice

A Community of Practice (CoP) is a group of people who share an interest or passion for something they do, and learn how to do it better as they interact regularly with other colleagues in their field of expertise.

Intended Audience:

Vegetation Management professionals from ReliabilityFirst entities





RF Vegetation Management Community of Practice (cont'd)

What We Hope to Accomplish

We strive to help our entities' experts closest to the work in transmission reliability related work areas (e.g., vegetation management, operations, support areas, asset management, design, protection, maintenance and others) to share and learn from each other to help improve their own asset management, internal controls, procedures, and practices.

This effort also strives to build relationships among our entities so that we may all succeed!

> Logistics

- RF staff will facilitate the meetings
- Discuss the topics of choice in a round table and free-form format
- No meeting minutes (take your own notes)
- RF staff will maintain a roster to notify everyone of the meeting dates and times and will
 provide an email group address to make sending group emails easier
- "Las Vegas" rules apply!



Potential Discussion Topics

- Best methods to notify adjacent landowners of planned and emergent work
- > Approaches to common questions obtained from landowners
- > Frequency and approach for various practices:
 - inspection techniques
 - maintenance practices
- > Detection and mitigation of environmental concerns
- > Experience with new emerging techniques and technology



Contact Information

Compliance and Enforcement Questions

https://rfirst.org/ProgramAreas/EntityEngage/AssistVisits



Vegetation Management Community of Practice (CoP)

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aware Illinois Indiana Kentucky Maryland Michigan New Jersey insylvania Ohio Tennessee Virginia Washington, DC West Virginia Wisconsin elaware Illinois Indiana Kentucky New Jersey Michigan Maryland nio Pennsylvania Tennessee Virginia Washington, DC West Virginia Wisconsin elaware Illinois Indiana Michigan Maryland Kentucky New Jersey ennsylvania Questions & Answers Wisconsin Forward Together Reliability First
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