



Focus on Reliability Performance

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Network Customer Meeting
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Are all outages of equal
importance?


2009 Reliability Performance

Transmission Line Forced Outage Goal

<i>Reliability Performance:</i>	Weight	50% Target	100% Target	2008 YE
Bulk Power Line Outages >200kV	2.50%	<24	<20 -	24
Direct Customer Impact Line Outages	2.50%	<322	<316 -	322
Other Line Outages <200kV	NA	NA	NA	155
Total Transmission Forced Outages	2.5%	<501	<491 -	501 (512 : 3 yr avg)

ATC Forced Outage History

- 3-Yr Average (2002-2004): 599
- 3-Yr Average (2005-2007): 547
- 2008 Performance: 501
 - Direct Customer Impact Line Outages: 322
 - Bulk Power Impact Line Outages: 24
- 2009 Goal (100%): 491
 - Direct Customer Impact Line Outages: ≤ 316
 - Bulk Power Impact Line Outages: ≤ 20
- Overall average reduction of ~50 outages every 3 years



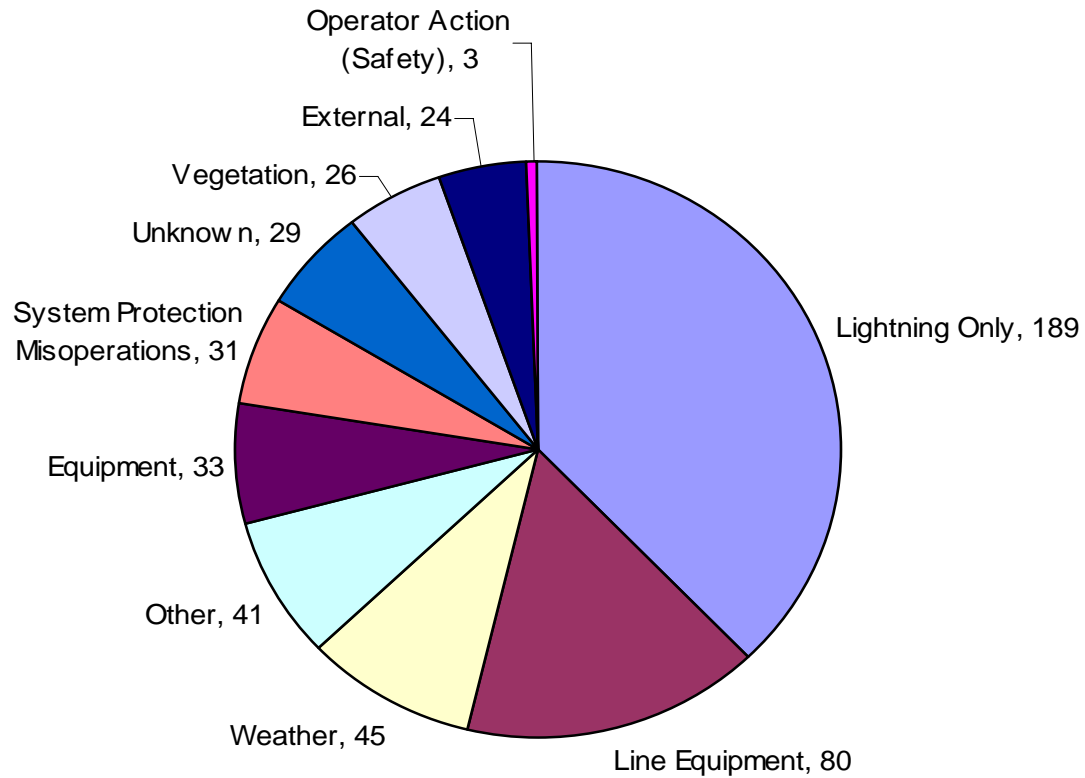
What is the most common
cause of outages?



Lightning
is the #1
cause of
forced
outages



**Number of Forced Outage Events by Cause Code
Through December 2008
501 Forced Outage Events**



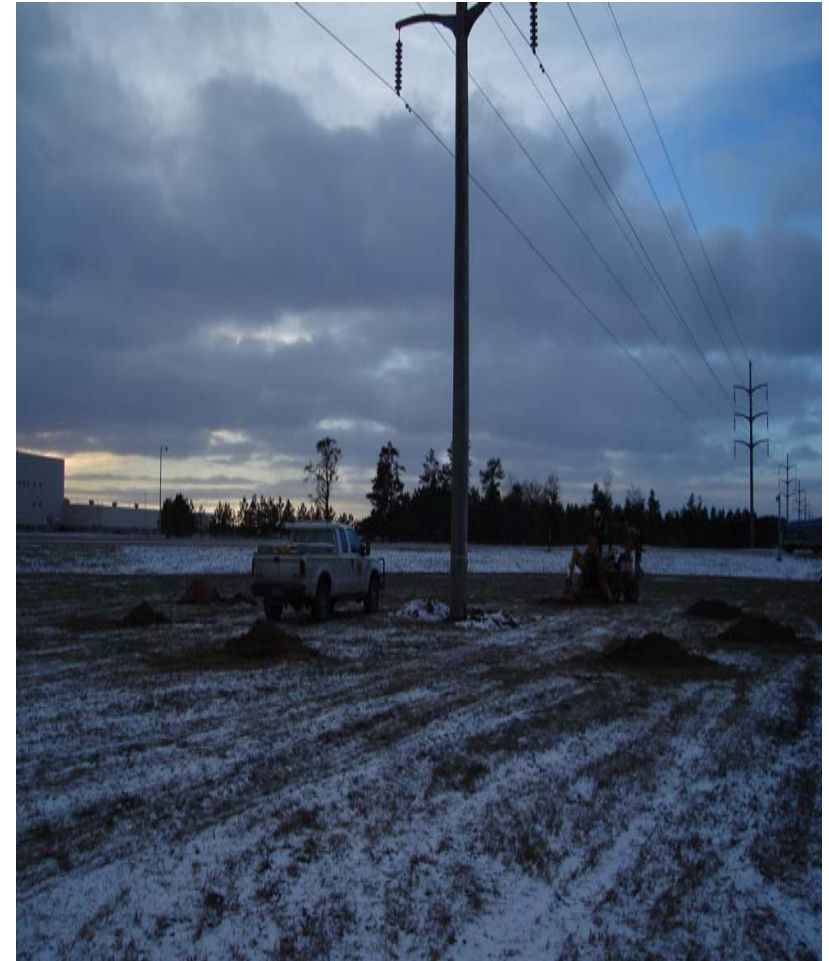
Forced Outage Reduction Plan

- Purpose: To reduce the # of forced outages on the system
 - Identify the most frequent cause of outages
 - Develop programs that target the problem cause code
 - Target worst performing lines by cause code
 - Track post-implementation performance to validate program results
 - Modify programs as applicable



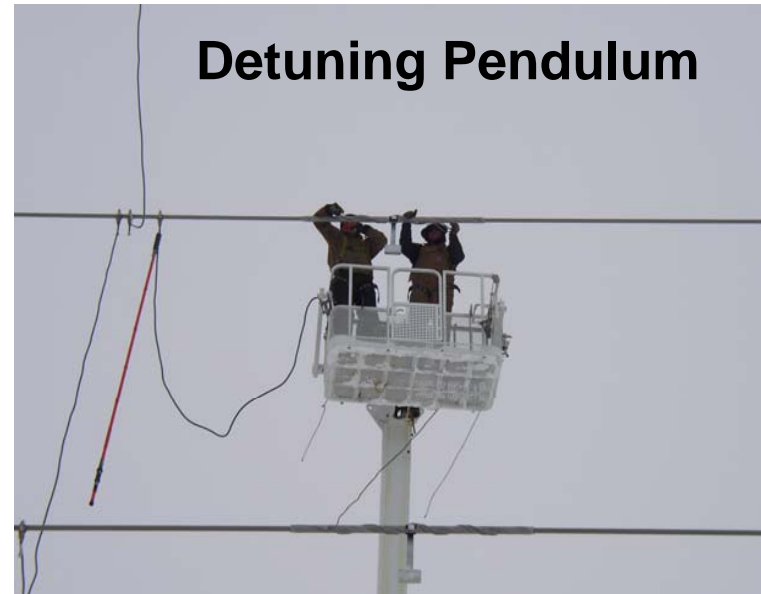
Lightning Remediation

- Target worst performing lines with:
 - Grounding enhancements
 - Lightning arrestors
 - Longer insulators
 - Shield wire modifications



Galloping Mitigation Program

- Program to reduce galloping on 345 kV lines
- Installation of Windampers and detuning pendulums



Vegetation Management

- Reduce outages caused by vegetation:
 - Conduct aerial patrols - identify problem areas
 - Acquire more favorable (wider) easements
 - Reduce amount of vegetation growing beneath lines




Other Programs

- Unique approach to deter bird related outages
 - Install devices to deter birds from nesting on towers
 - Relocate nests to neighboring structures
 - Encourage nesting on non-transmission structures



Human Performance Initiatives

- Analyze Human Performance events
- Trend based upon cause:
 - Maintenance
 - External
 - Commissioning
 - Other
- Develop programs to address problem areas



What is the average amount of time that customers may have experienced an outage due to transmission in 2008?

2009 Reliability Performance

- ***Transmission – Sustained Average Interruption Duration Index (T-SAIDI) Goal***
 - Reduce the average annual outage duration for all customers due to transmission
 - 2009 reduction based upon 2008 duration of 12.6 minutes
 - Subject to revision pending additional customer information

<i>Reliability Performance:</i>	Weight	50% Target	100% Target	2008 YE
Duration (T-SAIDI) % reduction	2.5%	2.5% reduction (<u><</u> 12.3 mins)	5% reduction (<u><</u> 12.0 min)	12.6 mins est



Questions?

