



Asset Management

August 2018



Asset Management





Asset Management

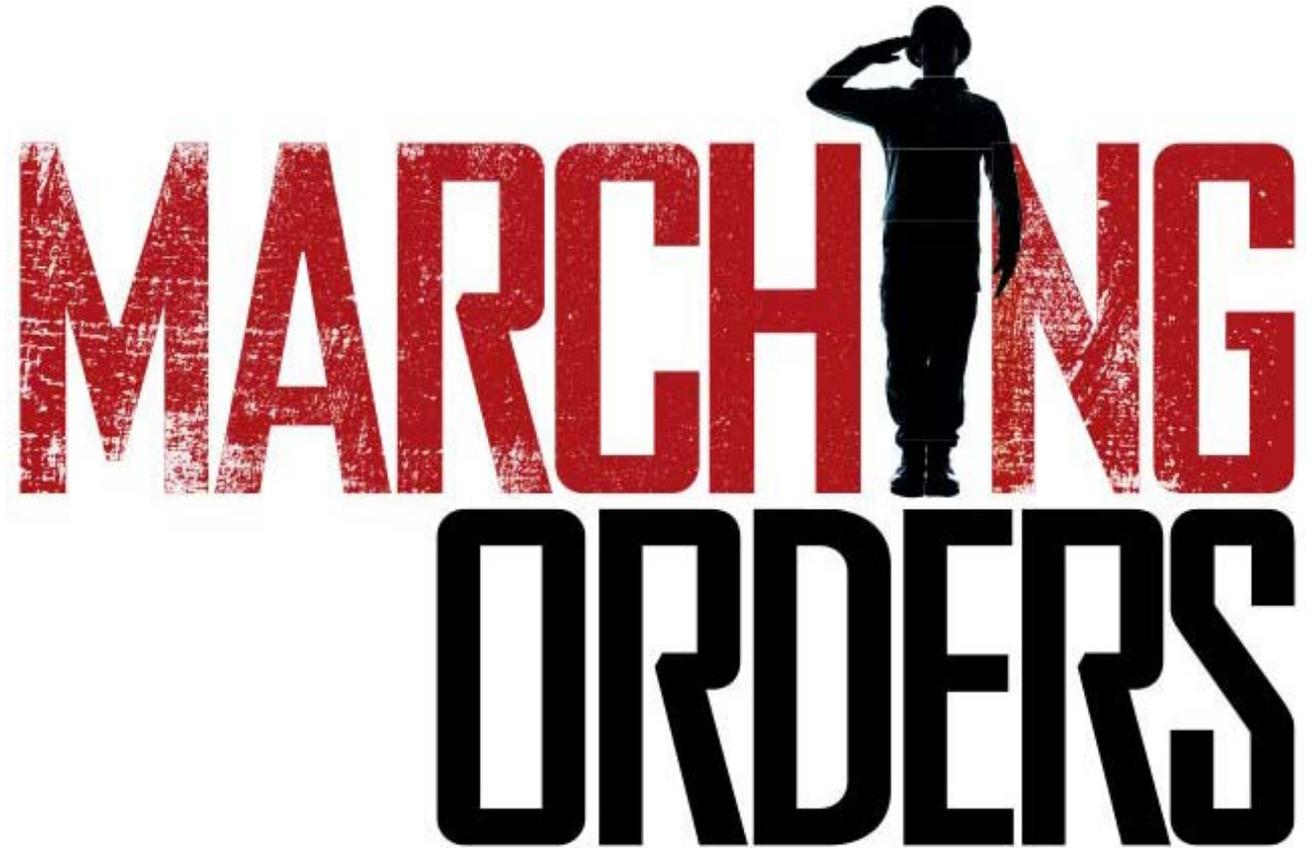
Why Asset Management?

- ✓ Demonstrated compliance with stakeholders (transparency and competency)
- ✓ Improved reputation and trust with stakeholders
- ✓ Higher customer satisfaction
- ✓ Demonstrated compliance with regulators
- ✓ Better financial results (greater ROI and cost reduction)
- ✓ Better alignment with corporate goals
- ✓ Increase reliability
- ✓ Informed decisions

**BEGIN
WITH
THE END
IN MIND**

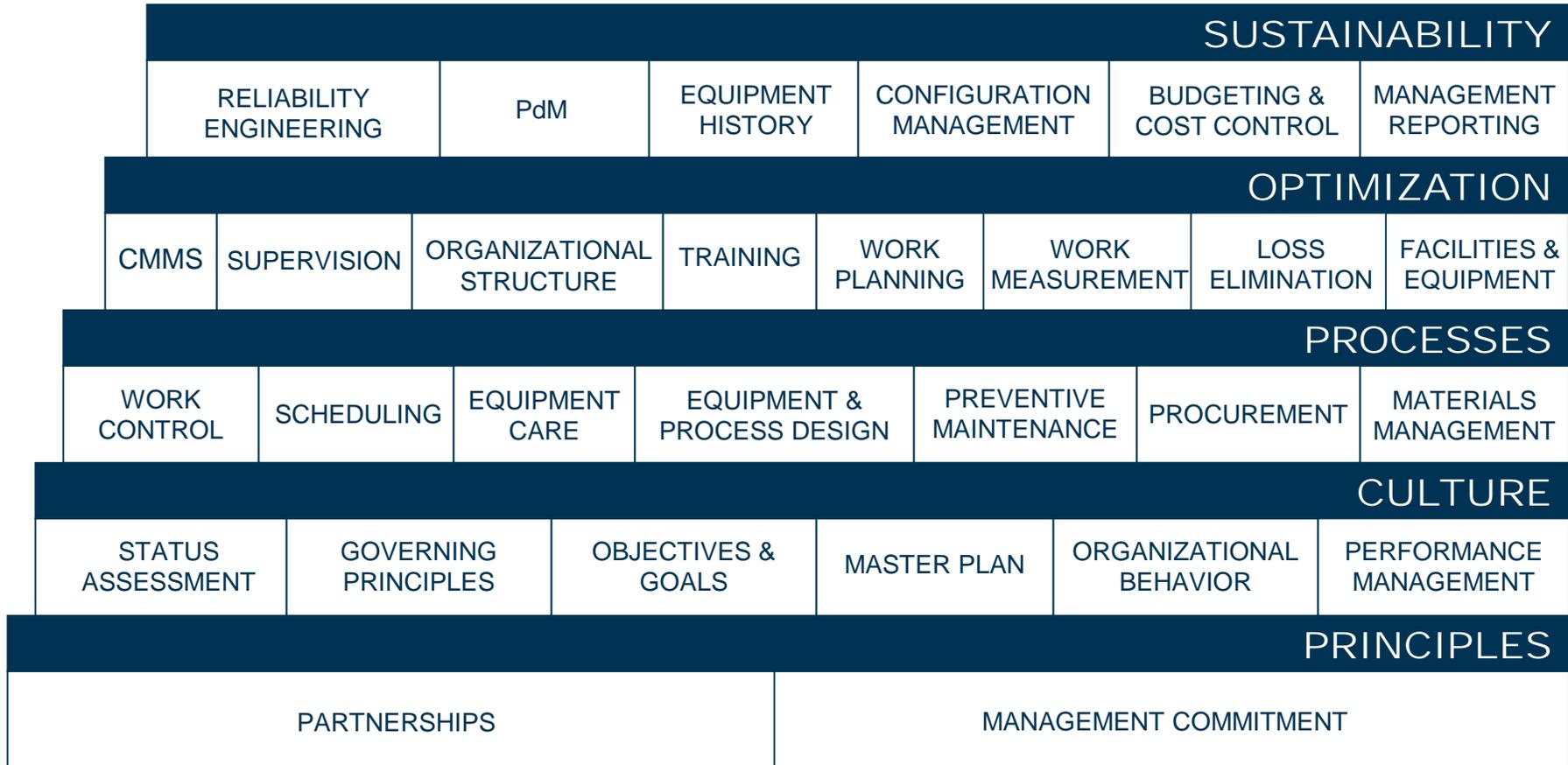
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- Develop an asset management program
- Implement a planning and scheduling program/culture
- Improve the predictive maintenance program for substation and transmission
- Ensure transmission and substation stay compliant with NERC and other agencies



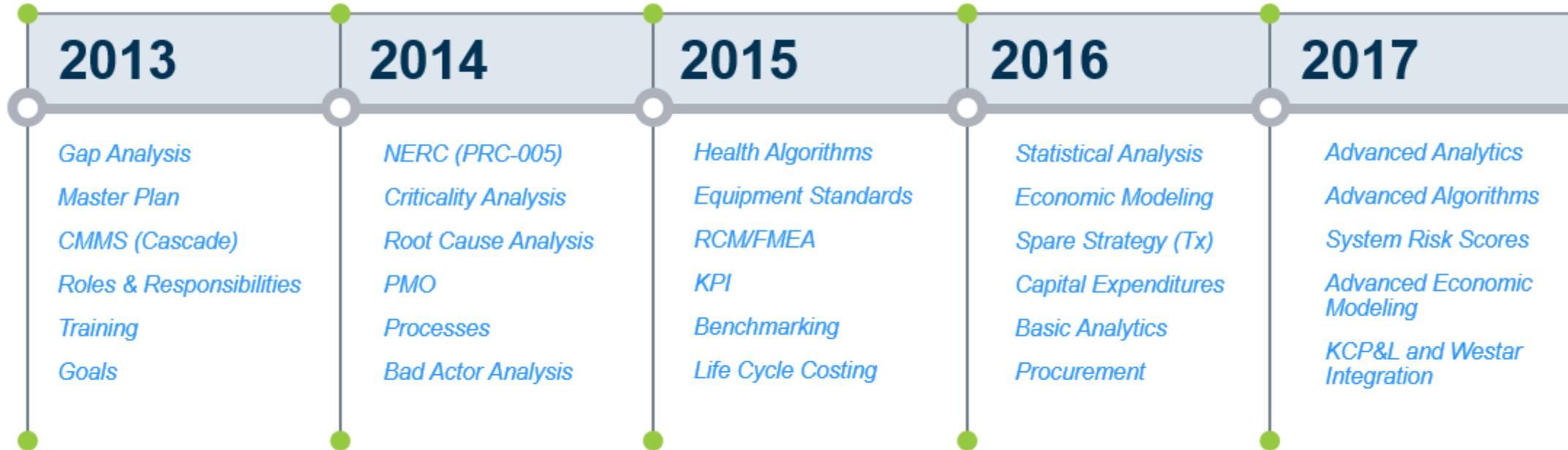


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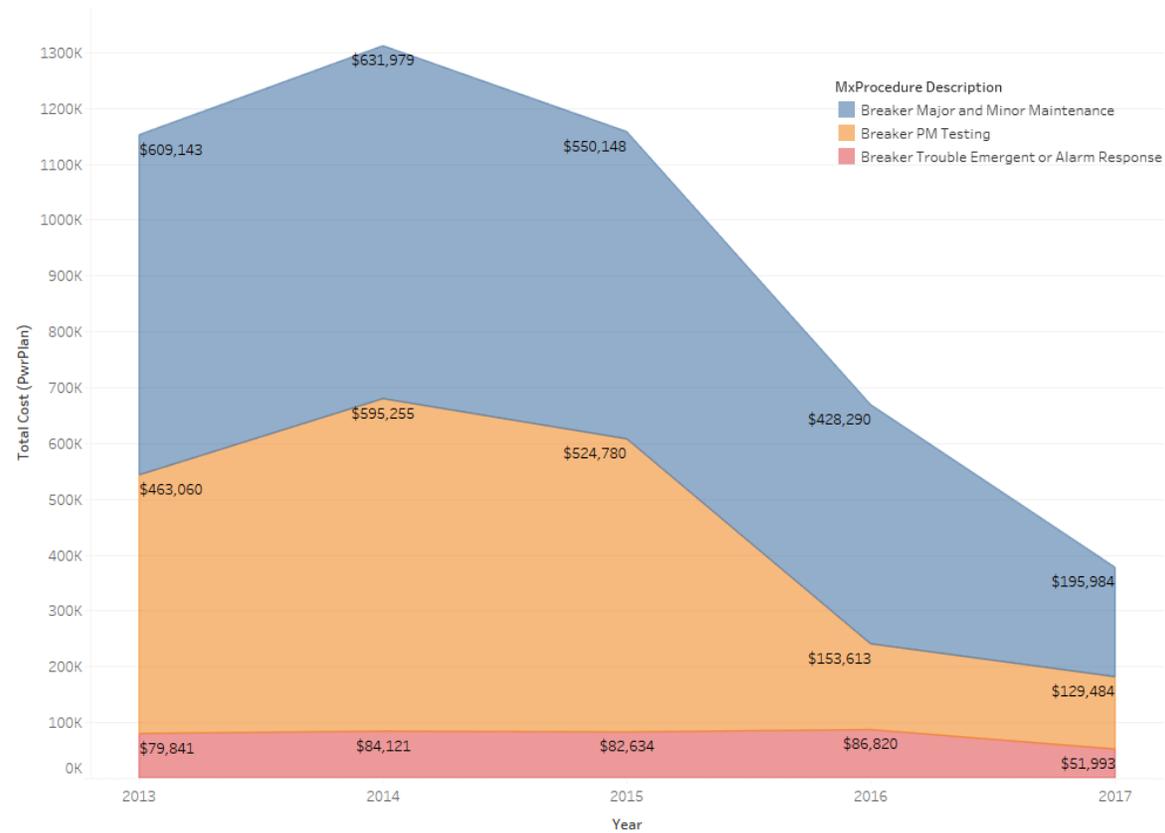
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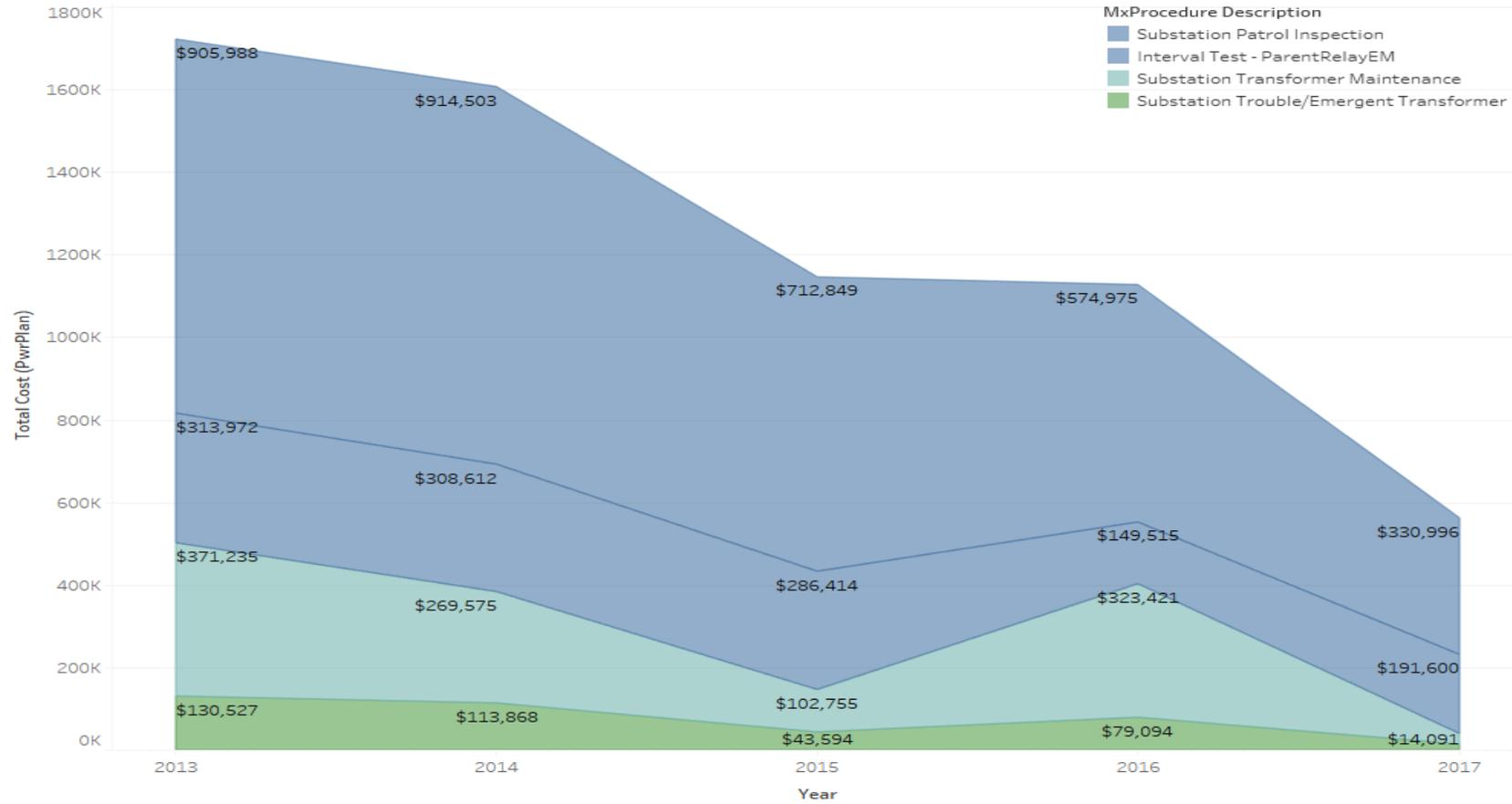
Breaker Cost 2013 - 2017





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Equipment Trends

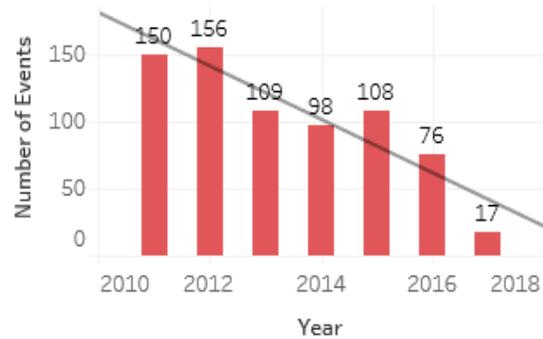




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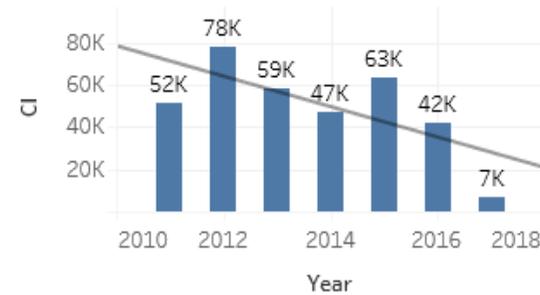
Equip. Event Count 2011 - 2016

(failed substation equipment only)



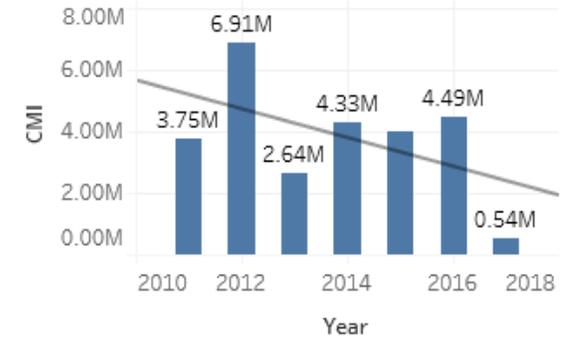
Count of Customers Interrupted 2011 - 2016

(Failed Substation Equipment Only)



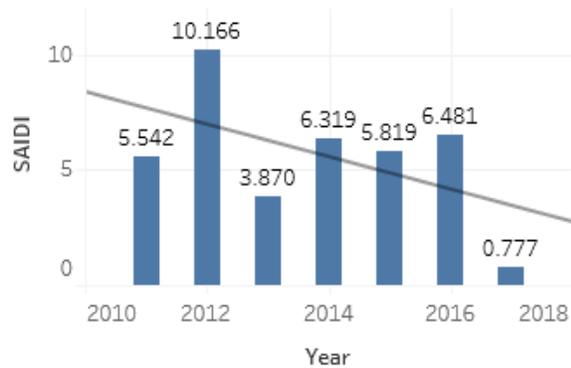
Customer Minute Interruptions

(failed substation equipment only)



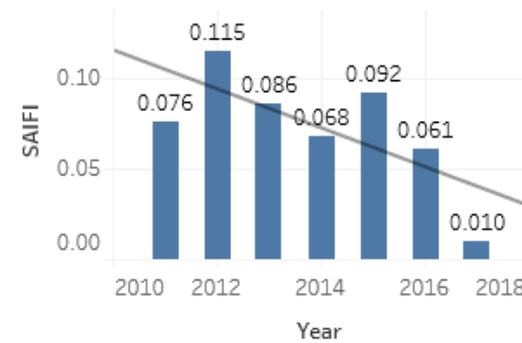
SAIDI 2011 - 2016

(failed substation equipment only)



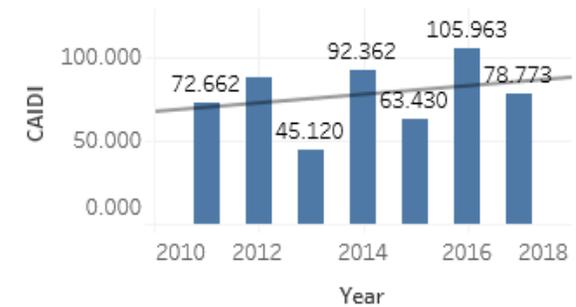
SAIFI 2011 - 2016

(failed substation equipment only)



CAIDI 2011 - 2016

(failed substation equipment only)





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- 2015 Cost Savings \$3.6M
- 2016 Cost Savings \$2.1M
- 2017 Cost Savings \$2.4M

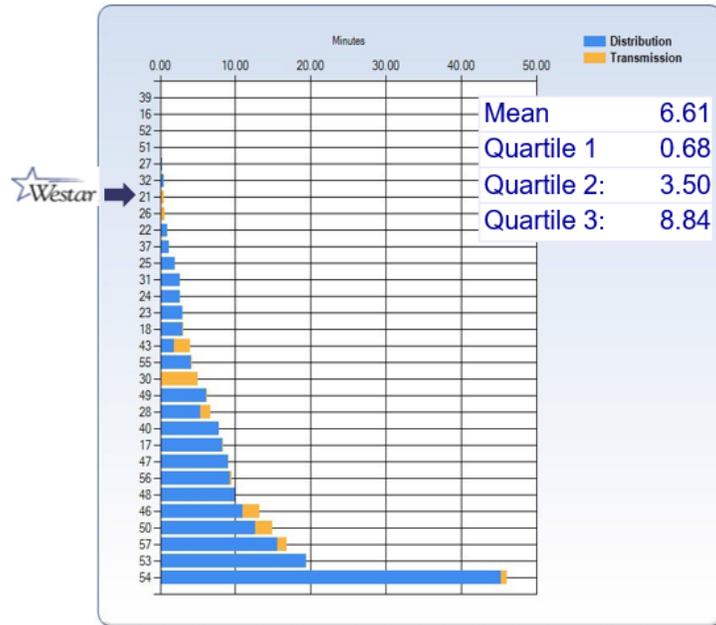
- ❖ PdM Cost Avoidance
- ❖ Preventative Maintenance Optimization Savings



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Westar substations contribute very little to customer interruptions. Mostly coming from transmission substations.

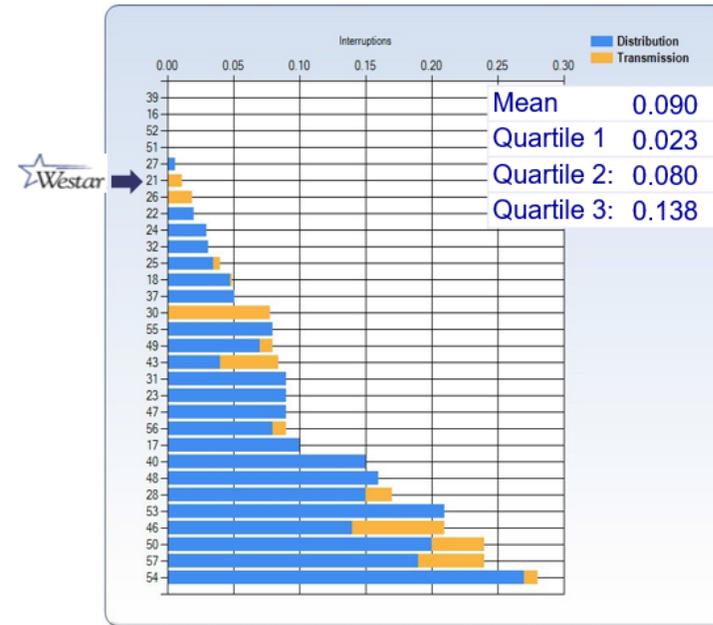
SAIDI



Substation Reliability Page 6
Source: DR30



SAIFI

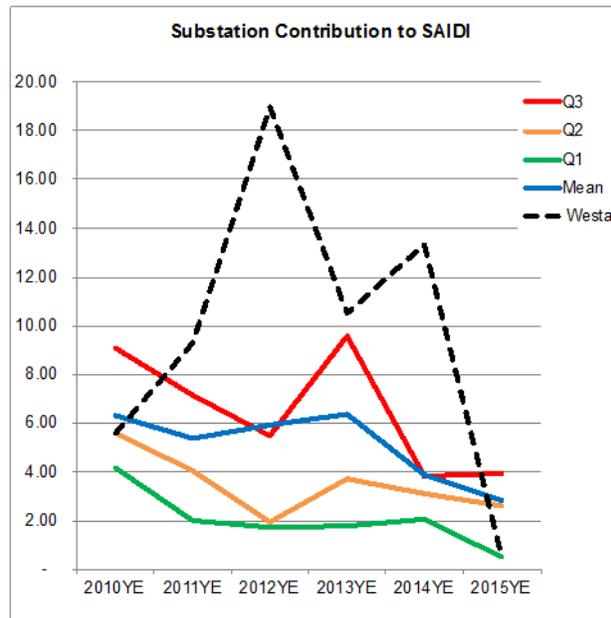
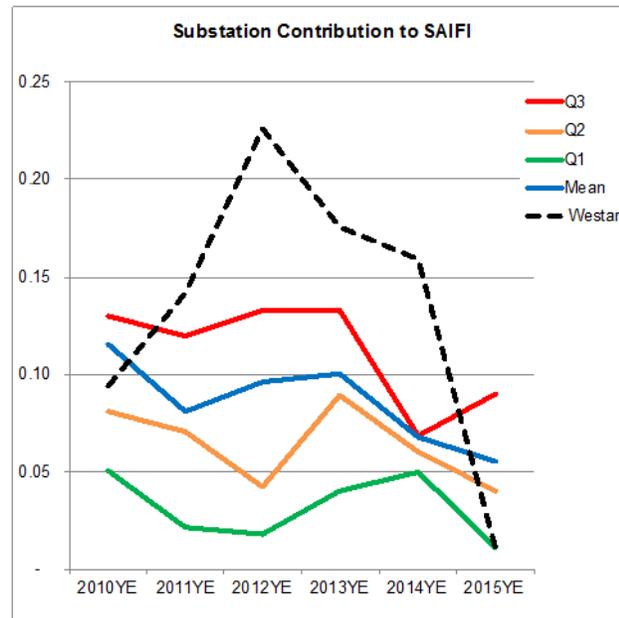


Substation Reliability Page 2
Source: DR40



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Westar has seen a dramatic decline in substation contribution to system outages – both in frequency and minutes.





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