


Slide 1

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## Advanced Predictive Maintenance Strategy

Osmose Overhead Distribution Assessment System  
powered with  
EXACTER<sup>®</sup> Technology

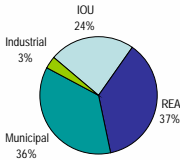
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Slide 2


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## EXACTER Experience

- Exacter Technology Used at 100+ N. American Utilities
- Summer 2009
  - UK/Ireland Alliance
  - Australian Alliance
  - U.S. Patent
- Based in Columbus, OH
- 2 Million+ Poles Surveyed
- Over 60,000 Pole Miles
- Reliability Conference



Sector	Percentage
REA	37%
Municipal	36%
IOU	24%
Industrial	3%



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Slide 3

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## Wabash Valley Power



Slide 4

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**The Industry Problem  
Addressed by EXACTER**

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**The 31% Problem**

**All Studies Agree:  
31% of Outages  
Are Due to  
Failing Equipment**

APPA  
IEEE  
WE Energies  
National Rural Electric  
Cooperative Association  
EERC  
EMERSON ELECTRIC  
INSTITUTE  
ENERGY  
DTE Energy

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Slide 6

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**Causes of Power Outages**

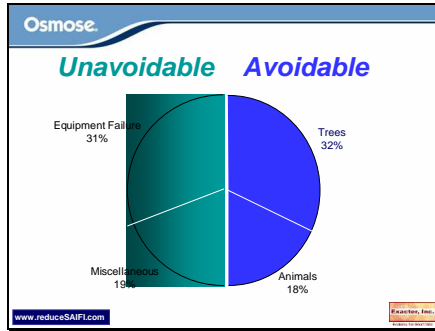
Cause	Percentage
Equipment Failure	31%
Trees	32%
Miscellaneous	19%
Animals	18%

ENERGY

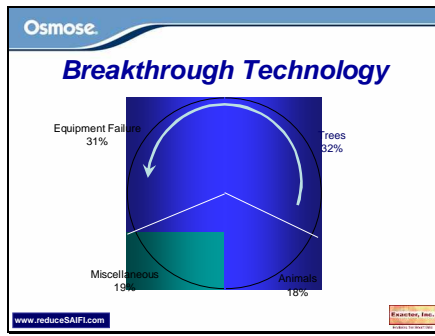
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Slide 7



Slide 8



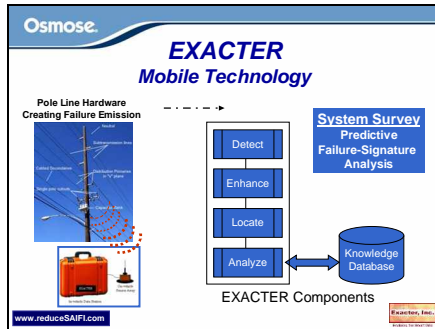
Slide 9

**How EXACTER Works**

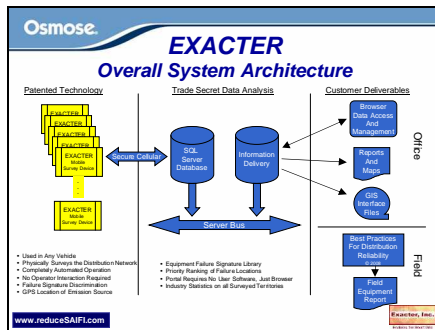
Slide 10



Slide 11



Slide 12



Slide 13

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**EXACTER Turnkey Services**

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This slide features the Osmose logo in the top left corner. The main content is the text "EXACTER Turnkey Services" centered on the slide. At the bottom left is the URL "www.reduceSAFI.com" and at the bottom right is the Exacter, Inc. logo and website "www.exacter.com".

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**Managed Best Practices**  
A 4-Phase Process

- 1) Survey Circuits
- 2) Locate Failing Components
- 3) Field Assessment
- 4) Project Analysis

SAMPLE ONLY

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This slide features the Osmose logo in the top left corner. The main content is the text "Managed Best Practices" and "A 4-Phase Process" centered at the top. Below this is a numbered list of four phases: 1) Survey Circuits, 2) Locate Failing Components, 3) Field Assessment, and 4) Project Analysis. To the right of the list are several small images: a person in a hard hat, a map, and a document. Below the list is a "SAMPLE ONLY" watermark. At the bottom left is the URL "www.reduceSAFI.com" and at the bottom right is the Exacter, Inc. logo and website "www.exacter.com".

Slide 15

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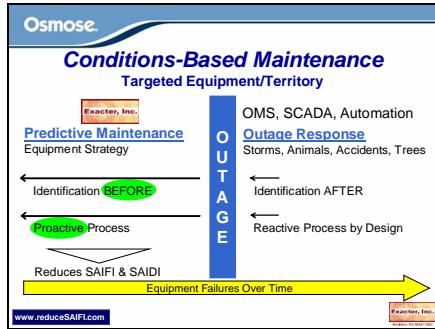
**How is EXACTER Used?**

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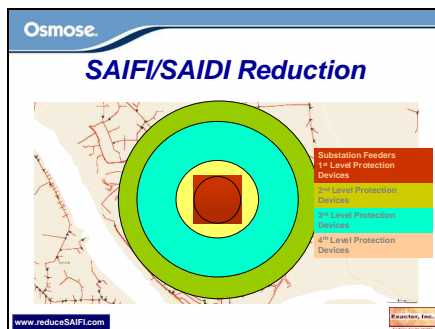
Slide 16



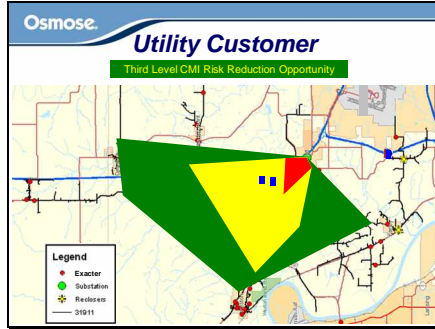
Slide 17



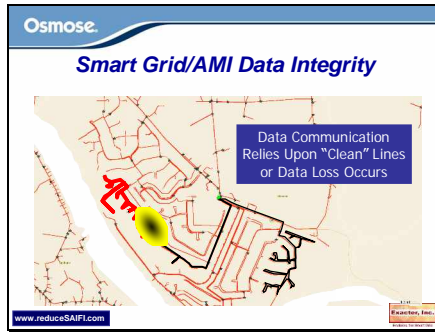
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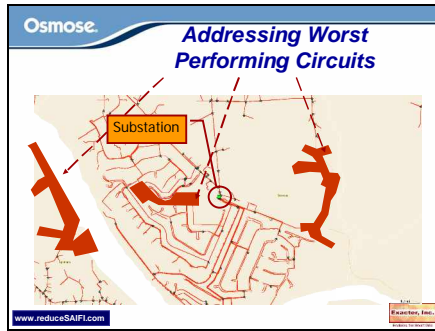
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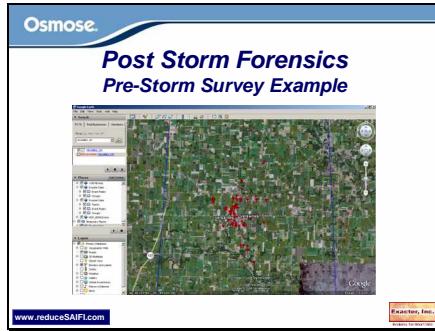
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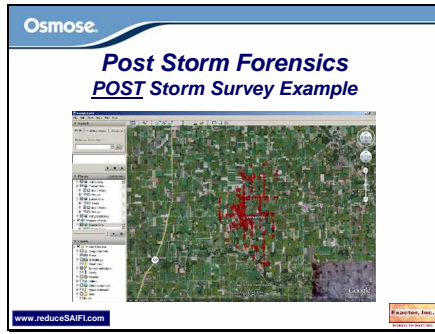
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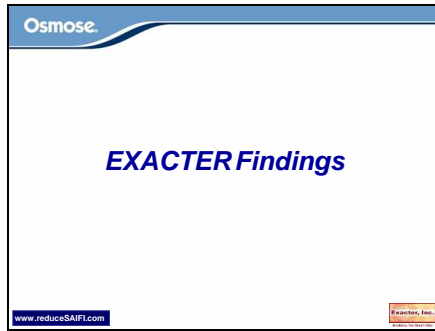
Slide 22



Slide 23

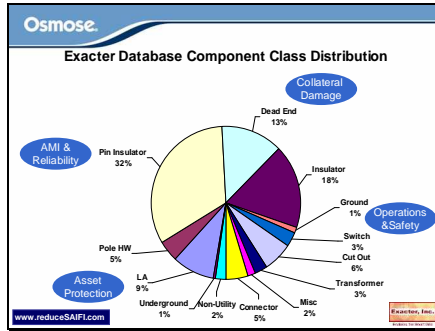


Slide 24

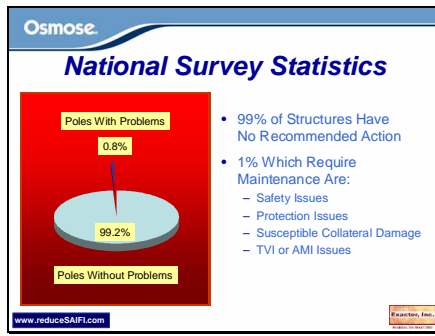




Slide 25



Slide 26



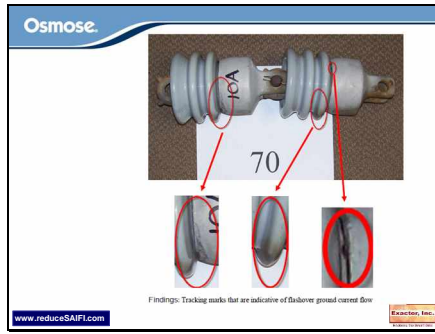
Slide 27



Slide 28



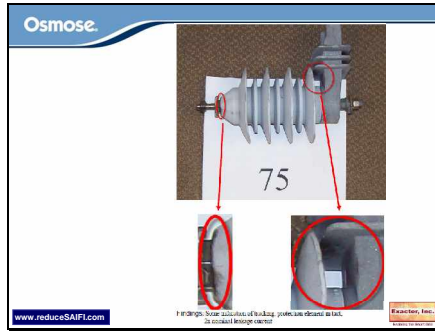
Slide 29



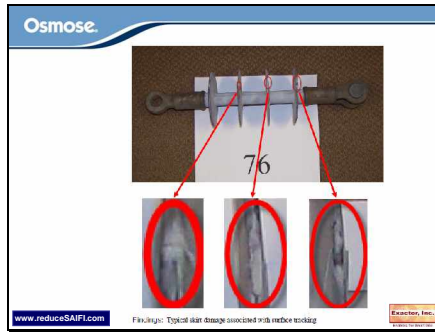
Slide 30



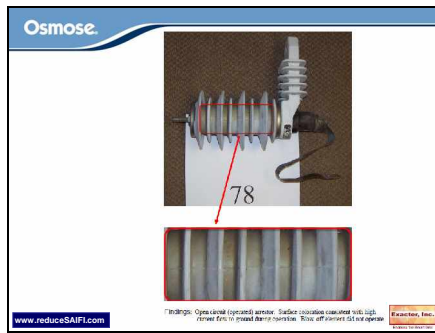
Slide 31



Slide 32



Slide 33






Slide 37

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### Cutout Case Study

- Problem:** A Midwest IOU experienced 6000 cutout failures in 2006 with an estimated cost of \$3500/failure. Avoidable cost \$21MM.




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**EXACTER locates problems that can turn into pole or cross-arm fires if not addressed in time**



By Jennifer P. ...  
Have you ever ...  
outages or ...  
fire program

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### ROI Impact Analysis

Business Value through SAIDI Contribution

ABC Utility Project ROI Summary	
Category	Scope
Project	750
Initial Cost (incl. repair)	\$ 334,200
Repair	\$ 60,000
CM for targeted circuits	\$ 260,400
<b>Cost Benefit Analysis</b>	
ROI year	1.500,275
Repair Rate	10%
ROI Break-even	693,874

Incl. Repair Costs at \$500/Location (actual utility costs are used)

CM for targeted circuits

Contribution Minutes (Assuming population of 1.2M)

SAIDI CONTRIBUTION	
Value @ 1.0M SAIDI/Min	\$ 623,550
Cost @ 1.0M SAIDI/Min	2470
Value @ 0.75M SAIDI/Min	\$ 3,372,000
Cost @ 0.75M SAIDI/Min	4,000
Value @ 0.50M SAIDI/Min	\$ 1,421,250
Cost @ 0.50M SAIDI/Min	5,000

**ROI SUMMARY**  
1 Minute SAIDI Reduction = \$ Business Value  
Larger Utilities = Avg. \$3M-\$4M Per SAIDI Minute

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