

# Municipal Utility Achieving Remarkable Reliability Levels Uses Exacter for Continuous Improvement & Visibility into Asset Health



## Summary

- Eliminated over \$135,000 in future outage costs
- Received 300% ROI on Project
- Identified 26 points of risk & made repairs during normal business hours
- All 26 locations verified at each location

When an electric utility achieves an 18.5 SAIDI, everyone will acknowledge it's been a great year for electric service. When that same utility sustains a five-year average SAIDI of just 21.2 minutes, you want to know what they are doing, and how they are accomplishing it.

The Electrical Utility Supervisor of the Midwest municipal utility achieving these results shared his insights on how they accomplished this level of reliability. "We work as a team, and are disciplined in how we approach growth and problems. Before we create a plan and make decisions about our system, we like to explore different possibilities and get as much useful data as we can to guide us. We also value exploring new technologies that can help the city deliver better electric service, or lower operating costs for our community members."

## A CONTINUOUS IMPROVEMENT APPROACH

As part of the community's effort for continuous improvement, each department was tasked with determining the best way to develop a program that would provide asset assessment and tracking for their system, while also making the best use of capital budgets. "In 2016 as part of the electric utility's process, we felt the smartest way to steward our capital budget would be to understand the health of our system in its current state," stated the Supervisor.

A number of years earlier, the city used a cutting edge asset health technology called Exacter that

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enabled the city to identify areas at risk of causing outages on the overhead system. "In the 2008 pilot survey, Exacter had correctly located three places where equipment had at-risk conditions over a very small sample area. We went out and checked each one at the time and verified the problems. Our goal in 2016 was to get an overall health assessment of our overhead assets, as well as to specifically identify issues that we could repair and make an impact on reliability."

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The premise behind Exacter is that by removing these risks from the grid, the overall system reliability is improved and potential failures are mitigated before they occur.

"Our distribution grid is 94% underground with 58 miles of overhead. We had Exacter survey all 58 miles for us in 2016. The results of the survey confirmed 26 locations where these conditions were putting our system and customers at risk. They provided us with the data we needed to know exactly where to send our operations teams to address these issues – down to the pole and specific com-

ponent. The report data was also able to integrate into our GIS system, which was very convenient," continued the Supervisor.

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"This was an excellent technology tool for jump starting our asset management program. We not only received an overall assessment that gave us a clear picture of the health of our system, but what we received was actionable data that could improve reliability. The data made the repair process very easy for our maintenance crews."

## EVALUATING ROI OF THE NEW TECHNOLOGY

"We overlaid the Exacter locations with our GIS circuit data and determined that outages at these locations would have cost the city over \$135,000 over the next three to five years. We received more than 300% ROI on the project, which did not even include the intangible societal benefits related to

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schools or hospitals not being out of power." In addition, the city was able to minimize the safety issues associated with 26 emergency repairs being performed at night or in the winter. "When you get ahead of problems like this, it's not only safer for our people, but we can schedule the work during the daytime on normal business hours, which integrates very efficiently into existing work schedules. It also eliminates overtime and saves the community money," concluded the Supervisor.