

EXACTER's Predictive Technology Prioritizes Preventive Maintenance Planning & Identifies 19 Problems.

By Dane Nagel, Village of Versailles, Ohio

The Village of Versailles is small community located about 40 minutes north of Dayton, Ohio. It is a community that prides itself on hard work and excellence as evident by its high school's six state football championships, and state championships in girl's cross country and girls basketball. This value of excellence is also evident in the services provided by its municipal government.

As the Utilities Superintendent, my responsibility is to insure that the highest quality electrical service is provided to the village residents. In Versailles, this is a priority. In our community there is an expectation to not only work hard, but to bring new ideas, and better ways to serve the community. It's just part of the culture.

The service corporation for our electric utility is AMP Ohio. Like us, they are very proactive in bringing new ideas and better ways to provide service to their members. At one of their seminars, I heard John Lauletta from Exacter, Inc. sharing a new technology that allowed you to identify failing overhead equipment before an outage occurred. I knew right then that we had to try it in Versailles. AMP Ohio was thinking the same thing and actually negotiated a deal that allowed EXACTER technology to be shared by its over 120 municipal members.

We received one EXACTER unit, and together with our staff of five, worked with Exacter on best practices for surveying the overhead lines in our community. The unit was mounted in our truck and over a 30 day period we drove our entire electrical service area 10 different times.

At the end of the period, we were given maps that showed the specific locations where failure signatures were discovered. The Exacter people told us that because we had

10 passes across our entire geography, the quality and reliability of the data was probably the best they had seen to-date.

The maps showed a specific GPS coordinate for each problem (event) and where it was plotted on the map. Each re-occurring problem, or cluster of problems at the same location, is called a group. Different groups have different preventive maintenance priority ratings based on EXACTER data.

Exacter shared with us that some problems (events) are discovered because of atmospheric conditions or other variables. These are actually more of an intermittent emission than a real problem that requires maintenance. Their "group" system helps separate the real problems (which demonstrate continual and consistent emissions after many passes on different days) from the random events. Because our survey included 10 passes over 30 days, our study found 19 problems (groups) with a very high rate of certainty.

Our next step was to investigate and validate each problem and determine the best course of action. We contracted that out to an outside service group. They went to each GPS problem site, and identified the street location, pole number, and piece of failing equipment using Radar Engineer's equipment. They also took photographs of the failing units and submitted a report – which for us amounted to be 19 detailed work orders. We discovered that one of the problems was actually on a pole belonging to our area IOU.

The Report coupled with Exacter's grouping system has been very helpful in prioritizing our maintenance plan. Our Foreman, Scott Riley, is in the process of planning our maintenance schedule at this time. Having this kind of information allows us to pinpoint every trouble spot on our system and take pre-emptive action to prevent outages.

Our experience with EXACTER has been great. It mounted in our vehicle easily. We did the surveys without any real extra effort, and the result is a profile of the condition

of our distribution system – complete with work orders. We literally have predictive intelligence on the condition of every piece of equipment on our overhead lines. For someone in my job, that is powerful! The residents of our community are going to benefit by fewer outages and a more reliable electrical system. This is the proactive approach we try to live by here in Versailles, and we believe the EXACTER experience has been just that.

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