

Madison Gas and Electric



be the energy in our community

MGE is #1 for electric system reliability

Madison Gas and Electric Co. (MGE) ranked No. 1 in electric service reliability in a 2007 nationwide utility industry survey.

MGE customers experience the fewest and shortest electric outages compared to other service territories across the country, according to the survey. On average, for an MGE customer, an outage occurs once every two-and-a-half years and power is restored in 48 minutes.

MGE ranked in the top ten utilities for electric service reliability from 2002 through 2007 in the annual survey.

“Achieving the #1 position is a direct result of our employees’ meticulous planning and proactive approach to electric reliability,” said Dave Blankenheim, director – Operations Support. “In 2007, we experienced spring flooding and a snowy winter – and our electric system made it through beautifully. That is exactly what we aim for.

“In order for the system to perform as well as it does, in addition to careful analysis and planning, the people who build and maintain the system must do an outstanding job as well. The Electric Construction and Operations crews are the people who make the improvements to the system real,” Blankenheim said.

“There is no magic to this. MGE employees in Engineering, Construction and Operations, Meter and Connection, Substations, Operations Support and the Distribution Operations Center all have a part to play. If all these people weren’t dedicated to outstanding performance, we’d be just another utility.”



Tom Wapneski, an MGE line technician, works on an upgrade project in a Madison neighborhood. Improvements make the electric system more efficient and help prevent service interruptions.

Approach pays off

Year after year, MGE scores among the top utilities in the country on this survey. Our reliability group helps drive that achievement. The group meets monthly to review activity, analyze it and act, if needed.

“It comes down to the fact that we really pay attention – examining each outage to pinpoint causes and catch minor glitches before they become major problems,” Blankenheim said. “We are in our third year of working with the CEMI (customers who experience multiple interruptions) index, which helps us identify patterns and determine causes of repeated interruptions.”

(Continued on reverse.)



Regular maintenance is critical for a reliable electric system. Rob Priestley (left) and Bob Harper, MGE line technicians, replace a power pole.

“Over the past few years, we have refined our data analysis procedures to help determine the root cause of outages,” said Nick Schroeder, supervisor - GIS data quality control - Operations Support. “We map our outages. A visual is a great tool that makes it easier for us to identify patterns and address issues.”

Proactive measures

Over the past five years, MGE has taken a more aggressive approach to protecting the electric system.

“We have been installing specialized equipment on poles throughout our system,” Blankenheim said. “If something goes wrong with the system, this protective equipment will briefly interrupt the system and reenergize it. Without this protective equipment, we would experience more customer outages and inconvenience. About 70% of faults on the system are temporary. Using more reclosers allows us to ride through more without an outage. In addition, the instrumentation in modern reclosers is very helpful in determining the cause of problems we do see.”

Other ongoing efforts that help keep MGE’s electric system strong include:

- Specialized processes for checking substations before they come online and after major maintenance.
- An organized cable replacement effort.
- Several voltage conversion projects where aging transformers and poles are replaced.
- Programs for inspecting MGE equipment and updating it when needed.

MGE and other utilities are required to prepare a reliability report annually for the Public Service Commission of Wisconsin. The report outlines areas that could hinder reliability and need attention.

“Our report consistently indicates that we have already implemented solutions,” Blankenheim said. “We do not sit back and wait for problems to escalate. If something needs attention, we fix it – it’s our culture.”

“Our electric system is in excellent shape,” Blankenheim added. “We will continue to work hard to keep it in this condition. It costs a little more to run the system the way we do. We take good care of the electric system all of the time – repairing things in a timely way and designing for performance from the outset. And, relying on the people who build and maintain the system to do high quality work. These are the best ways to achieve outstanding performance while keeping costs in line.”



Chris Erickson and Tim Cole, MGE engineers, review plans before meeting with crews.