



CASE STUDY: KANSAS CITY POWER & LIGHT, MISSOURI, USA



THE CLIENT

Kansas City Power and Light (KCP&L) is an electric utility company based in Kansas City, Missouri, servicing 850,000 customers in an area of 18,000 square miles throughout Missouri and Kansas. Supporting 3,600 miles of high voltage transmission lines and 22,300 miles of distribution lines in both metropolitan and rural areas, KCP&L has a reputation as one of the most reliable energy suppliers in the Midwest.

SITUATION

As a result of an acquisition of another utility company, KCP&L found themselves with three entirely separate radio systems covering different parts of their service area. Any time crews based in different regions were brought together in storm situations, they had no interoperability between radio networks, forcing them to resort to cell phones as backup. This resulted in a dangerous lack of communication when they needed it most.

Coverage was also a problem. Their radio networks suffered large gaps in service, often in areas where cellular coverage was also unreliable, creating locations with virtually no communication options at all. Safety is the top priority at KCP&L, and the potential human risk was unacceptable. As one of their radio networks was quickly approaching end-of-life, they seized the opportunity to find a better option.

RESPONSE

Many vendors were considered for the new radio network. "Through an evaluation process about quality, about past experiences with other customers and about cost, the selection of Tait was made." says Chris Kurtz, Senior Director of Operations at KCP&L.

Tait provided a Digital Mobile Radio (DMR) Tier 3 trunked network. The 23 site deployment utilized the TN9300 core network to support 1,200 subscriber units, made up of TP9300 portable radios and TM9300 mobile radio units in their fleet of trucks. For worker safety, radio units are equipped with Man Down, Lone Worker and GPS location services.

The Tait solution also included product integrations from several industry leading partners to meet the specific needs of KCP&L. Zetron supplied 52 Acom EVO consoles for the dispatch center at KCP&L. X10DR supplied secure wireless microphones to extend communication capabilities away from vehicles, and Tallysman supplied a GPS location services solution.



CUSTOMERS

850,000



LOCATION

MISSOURI
USA



EXPERTISE

ELECTRICAL
UTILITY

APPLICATIONS

- ▶ Tait DMR Tier 3 trunked network
- ▶ Man Down & Lone Worker
- ▶ Zetron dispatch consoles
- ▶ Tallysman location services
- ▶ X10DR wireless microphones

BUSINESS BENEFITS

- ▶ Improved worker safety
- ▶ Faster response time
- ▶ Greater service uptime
- ▶ Improved customer satisfaction
- ▶ Coordination in storm situations



OUTCOMES

“The Tait system has been very good. It’s improved our safety, which at KCP&L is the number one priority.” says Cory Miller, Senior Manager of Emergency Response, KCP&L.

Staff working on power lines can do so with confidence, supported by a great system of safety technologies. In emergency situations, workers can easily communicate their distress with the push of a button. If they’re unable to communicate, then Man Down or Lone Worker can send automatic notification to Dispatch. GPS location services alert dispatch to the worker’s exact location, enabling help to arrive as quickly as possible.

“Partnering with Tait, we were able to deliver a communication system that is reliable, dependable and available all the time.” says Melvin Charuvilayil, Supervisor, IT Network Planning & Engineering, KCP&L. As the new radio network all runs on the DMR Tier 3 standard, the problem of having several separate networks was immediately solved. Coverage is better than ever, and staff can get in touch with each other instantly without having to resort to phone backups. Coordination during emergencies is greatly improved, and resources can be allocated more efficiently on a day to day basis.

The DMR communication network has vastly improved the response time of KCP&L, helping them provide a better service to their customers, more safely and efficiently than ever before. Tina Andrews, Supervisor Distribution System Operations Control Center, said it best, “Our job is to keep the lights on. The Tait system allows us to communicate faster with the field during storm situations, to restore power, get problems fixed, and keep the lights on.”



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Tina Andrews
Supervisor Distribution
System Operations
Control Center
KCP&L