

# Basin Electric Power Cooperative

## USA

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### Case Study



#### THE CUSTOMER

Basin Electric is one of the largest electric generation and transmission (G&T) cooperatives in the United States. It generates and transmits energy to 120 member rural electric systems in nine states, including North Dakota, South Dakota, Wyoming, Montana, Minnesota, Iowa, Nebraska, Colorado and New Mexico.

These member systems distribute electricity to approximately 1.8 million people and encompass 430,000 square miles.

#### SITUATION

In support of its generation and transmission systems, Basin Electric required a new, updated radio system for each of its three major generation facilities, as well as its Transmission Systems Maintenance (TSM) group, which is responsible for maintaining Basin Electric's high-voltage transmission towers and lines.

With these systems being crucial in covering Basin Electric's entire operations area, it was determined that a new consolidated multi-site trunked system in the UHF band would be the most reliable and cost-effective solution.

The existing TSM and power-plant radio systems had been in service for 30 years. Over that time, the transmission system had expanded into areas without radio or cell-phone coverage. Crews were unreachable when working on the transmission system in these expanded areas.

Interoperability between different state systems was difficult, making it extremely hard for crews to work together on transmission repair.

**“The new system will allow the Transmission Systems Maintenance (TSM) group to seamlessly travel throughout Basin Electric’s radio coverage area.”**

Boyd Trester,  
Senior Electrical Engineer



**RESPONSE**

The Tait solution was to replace Basin Electric’s existing conventional radio systems with a new trunked radio system that would better serve its transmission and generation facilities.

Tait’s MPT 1327 Trunked System was put in place and included the use of Tait base stations as well as Tait mobile, portable and fixed-base field units and Line Dispatch Terminals.

**OUTCOME**

The new Tait system allows TSM crews to seamlessly travel throughout Basin Electric’s radio coverage area and is as simple as using a cell phone.

The radios automatically register and de-register at tower sites as the user travels through different areas.

To make a call, the user simply selects the unit or group they want to call and then keys-up the radio. The new radio system includes 93 repeater/tower sites and approximately 1900 field units.

**MORE INFORMATION**

For news, product specifications, comprehensive technical information and contact details of your nearest Tait service facility, please visit [www.taitradio.com](http://www.taitradio.com)

**CUSTOMER PROFILE**

Basin Electric Power Cooperative is a regional, consumer-owned wholesale power supplier headquartered in Bismarck, North Dakota.

**APPLICATIONS**

- ▶ TaitNet MPT system

**BUSINESS BENEFITS**

- ▶ Complete coverage of service territory
- ▶ Cost-effective, reliable communication system
- ▶ Reduced downtime for customers

**PRODUCTS USED**

- ▶ Tait base stations
- ▶ Tait field units including:
- ▶ Mobiles
- ▶ Portables



Tait is a global leader in designing, delivering and managing innovative communication solutions that help utilities and public safety organizations to keep the lights on and communities safe.

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