

A wide-angle photograph of a snowy landscape with several high-voltage power line towers and their associated cables stretching across the scene under a blue sky with light clouds. The ground is covered in a thick layer of snow, and some small evergreen trees are visible in the foreground.

OUTCOME

24/7

**reliable communication
through extreme winters
for Black Hills Power, with a
Tait trunked radio solution.**

CASE STUDY: BLACK HILLS POWER, USA

THE CUSTOMER

Black Hills Power (BHP) is an investor-owned electric utility serving 63,500 customers in 20 communities located in western South Dakota, northern Wyoming, and south-eastern Montana. BHP employs over 350 people in nine offices and five electric power plants.

SITUATION

The mountainous topography of Black Hills poses a challenge for radio coverage, with plains at 3000ft and peaks up to 7000ft. Extreme winter weather is common and up to 40 inches of snow can fall, meaning some radio sites are inaccessible for up to six months each year. Severe winter storms causing power outages are not uncommon.

BHP's old simplex radio system had poor network coverage. Users and dispatchers often had to search for the right channel to communicate with workers in the field, creating delays and risks to safety.

BHP was also tasked with providing interoperable utility communications for Wyoming-based Cheyenne Light Fuel and Power, which serves 39,800 electric customers and 33,300 natural-gas customers in the greater Cheyenne area.

“There’s a hundred-percent confidence in the Tait Communications system that people are going to be able to get through when they need to.”

Rick Dobbe
Communications Engineer
Black Hills Power

RESPONSE

An independent consultant recommended a TaitNet MPT 1327 trunked radio solution comprising a 13-site network to cover BHP and four sites to cover Cheyenne.

Tait experts worked closely with BHP to design the utility communications solution around its primary purpose—to maintain a safer working environment for BHP staff.

The BHP and Cheyenne systems interface to an Avtec console at a single dispatch center, where calls can be dispatched to both coverage areas. Radio users are able to roam seamlessly between the two areas using the same Tait mobiles and portables.

Tait provides ongoing services including a support contract that offers 24/7 response for any network issues.

OUTCOME

With its TaitNet trunked network, BHP has been able to set up regional talk-groups to enable dispatchers to communicate efficiently with specific teams of users on a day-to-day basis. Dispatchers no longer have issues searching for specific users and can now select a talk-group to make calls to multiple users.

In particular, outage teams have been assigned to talk-groups for prompt response during storm-restoration work.

With seamless interoperability and coverage between BHP and Cheyenne Light Fuel and Power, dispatchers are able to co-ordinate responses to outages throughout both areas with improved speed and efficiency.

In-built system redundancy minimizes the risk of network failure, improving both service and worker safety.

MORE INFORMATION

For news, product specifications, comprehensive technical information and contact details of your nearest Tait service facility, please visit www.taitcommunications.com



CUSTOMER PROFILE

Black Hills Power (BHP) is an investor-owned electric utility in South Dakota, USA.

APPLICATIONS

- ▶ Two TaitNet MPT 1327 Trunked Radio systems, comprising 13 sites and four sites ad connected by a T1 facility
- ▶ Two Line Dispatch Terminals (LDT)
- ▶ Tait TN5100 Nodes each including a Digital Audio Switch (DAS)
- ▶ Tait mobiles
- ▶ Tait portables
- ▶ Network support.

BUSINESS BENEFITS

- ▶ Incorporated system redundancy to minimize the risk of network failure
- ▶ Excellent radio coverage improves worker safety
- ▶ Assigned talk groups allow efficient response to outages
- ▶ Tait support provides peace of mind if things go wrong
- ▶ Future-proof system supports remote diagnostics, AVL and migration to digital.



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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