

Loy Yang Power

Victoria, Australia

Case Study



THE CUSTOMER

Australia's Loy Yang Power owns and operates the 2,200 megawatt Loy Yang power station and the adjacent Loy Yang coal mine. The company supplies approximately one third of the state of Victoria's power requirements, or 10 percent of total power generation for the south-eastern seaboard states.

SITUATION

Loy Yang needed a radio solution that would improve staff safety and any logistical issues that might interrupt daily business activities.

Coverage was minimal in some areas of the 574ft (175m) deep open cut mine, meaning staff risked having substandard radio communication when it was needed most. Poor coverage also had the potential to impact on the timely delivery of coal to the power station. In addition to struggling with poor coverage, radio users were unable to automatically change channels when going from one site to another.

With 100-120 staff using the mobile radio system at any one time, communication is paramount to the site's operation and worker safety.

The Loy Yang site required a radio solution that allowed staff to move seamlessly between the power station and mine site, without the need to change channels. Concurrently, the new system was required to provide better coverage and reduce the occurrence of black spots. As Loy Yang works 24 hours a day to supply one third of Victoria's power requirements, the system installation also needed to be transparent – they could not afford to shut down.

“QS² technology's reliability coupled with Tait's ability to provide manufacturer's support is the reason the QS² solution was chosen for Loy Yang's upgrade.”

Craig Ross,
Crosscom

RESPONSE

Tait partnered with dealer Crosscom to develop a communications system solution for Loy Yang. A cost-effective full solution was achieved through the installation of a two-site, four channel UHF TaitNet QS² simulcast system. The TaitNet QS² installation process was one of many advantages simulcast had for Loy Yang's operations.

The TaitNet QS² Digital Signal Processing (DSP)-based Line Equalizer Modules means it can route audio to each transmitter, analyze the characteristics of a neighboring transmitter and automatically adapt their own signals to match. This exceptional ability to overlay its control equipment over the existing base station infrastructure meant practically no disruptions to the work site.

The QS² system overcomes the problem of dead spots by having one repeater site chosen to provide good coverage to all areas in the mine and another site on top of the power station to provide coverage to all areas surrounding the mine. With radio coverage saturated throughout the working area, staff no longer need to manually change channels.

OUTCOME

The system was installed quickly, and had it not been for the increased coverage and seamless communication between the two sites, the new installation may have gone completely unnoticed by Loy Yang's 500+ employees.

Tait and Crosscom provided Loy Yang with a critical, reliable, "all informed" communications system that was done cost-effectively and with efficient use of spectrum.

The safety and confidence of mine personnel has also improved. Staff now travel anywhere in the mine and surrounding areas and know they can communicate while remaining on the one channel.

MORE INFORMATION

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

CUSTOMER PROFILE

Loy Yang is the largest power station in Victoria, Australia, and includes the largest producing brown coal mine in the Southern Hemisphere.

APPLICATIONS

- ▶ TaitNet QS² simulcast system

BUSINESS BENEFITS

- ▶ Improved clarity of audio aids clearer communications
- ▶ Saturated radio coverage improves worker safety
- ▶ System support for ongoing network optimization
- ▶ Seamless installation providing uninterrupted coverage
- ▶ System diagnostics over Ethernet

PRODUCTS USED

- ▶ Tait TB8000 base station
- ▶ TaitNet QS² simulcast systems



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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