

CASE STUDY

DEEPDALE PROJECT RIO TINTO



The future of mining

Next generation mining is about mastering the delicate relationship between human interface and machine with communication networks.

We work with you to understand your project requirements and collaborate to deliver smart solution that improve the performance, safety and efficiency of your mines.

Optimising Rio Tinto's communications networks

Visionstream has been working with Rio Tinto since 2007 when the team assisted them with their Deepdale rail line project. This project involved design, construction and commissioning of a turnkey optical fibre communications network along Rio Tinto's remote Deepdale rail line. This flowed into additional projects that involved the development of a solar/diesel hybrid system for mine and rail communications.

The project involved laying 143km of optic fibre and installing all associated power and transmission equipment. The scope also included building,

Customer Profile

Customer:

Rio Tinto

Time Scale:

June 2007 to March 2008

Location(s):

WA

Industry:

Resources

Solution:

Optical Fibre Communications Network

Services:

Design, Construct, Commissioning

Approximate Value:

\$7M

Highlights

- The solution to use modular array frames that could be prewired and partly preassembled in Perth provided significant cost savings and ensured a more productive and safer project.
- Our work on the Deepdale project led to an ongoing partnership with Rio Tinto to complete a further three projects.

Business benefits

- The new hybrid solar system designed and constructed by Visionstream provided a much larger load capacity and incorporated a passively cooled system. It included diesel generators with DC powered intelligent fan systems which controlled the DC powered air-conditioners. The final system was designed to survive extreme temperatures and cyclones common to this area of WA.



Visionstream has built some of the largest fibre optic networks in Australia and New Zealand. We have the experience and expertise to deliver comprehensive turn-key solutions for your unique project needs.

designing and refurbishing older communications areas in existing buildings to service the new optical fibre link.

The Deepdale rail project involved upgrading Rio Tinto's original solar system with new, larger solar frames to double the array capacity. We considered the challenges of the project including the remoteness of the work and the length of time it would take to construct the new solar frames in these areas.

We came up with a solution to use modular array frames that could be prewired and partly preassembled in Perth. This initiative provided significant cost savings to the client as work at the Perth site would be more productive and safer than constructing in the remote, hot, on site locations. As the work involved working at heights, pre-assembly in Perth allowed walking platforms to be erected behind the arrays, providing a much safer working environment than on-site. It also saved time - each modular array frame was constructed in approximately two weeks, as compared to the normal time of four weeks on site.

Our work on the Deepdale project led to further projects with Rio Tinto, including:

- The upgrade of seven solar power sites from Mount Tom Price to Karratha in 2012
- Solar/diesel hybrid system for Rio's mine and rail communications. This turnkey project involved civils, earthing, building and power systems
- A solar/gas hybrid system for Telstra for the east west rail mobile communications and rail communications. This turnkey project involved civil, earthing, building, gas and power systems.

A safe pair of hands

With more than two decades of industry experience, Visionstream has designed and completed many of the country's largest communications networks across a wide range of fixed and wireless technologies.

Our end-to-end project commitment to you is backed by industry leading project performance, robust project management, in-house technical capabilities and 24/7 real-time support. We also work seamlessly with our extensive sub-contractor network and a

wide range of technology vendors and carriers to provide the best solution for you.

Contact us

For more information on how Visionstream can support your infrastructure project, please visit www.visionstream.com.au