

## Design and Construction of 132kV and 66kV Transmission Line project

**Project:** Design and Construction of Korenan to Granite Creek 132kV Transmission Line and Granite Creek to Agnes Waters 66kV Transmission Line Project

**Client:** Ergon Energy

**Location:** Central Queensland

**Contract Value:** \$7,200,000

**Contract duration:** September 2007 – September 2008

Electrix Pty Ltd was awarded this design and construct project to strengthen the growing need for a reliable power supply for this part of Central Queensland.

The project involved design and construction of a 47 Km long 66 kV single circuit line with an integrated 4 km long double circuit section for future provisions. End to end OPGW stringing and one 1.5 km long 132 kV Inter-connector was also included.

The line is designed with Concrete poles with height up to 26 mts with 7 steel poles used in the Double Circuit section to minimize the land usage in Urban area. The Concrete poles are designed to withstand high wind conditions in this cyclonic area with weights ranging from 7 to 11 tonne each which can only be carried by heavy semi-trailers using mostly dirt roads.

The line was constructed with very strict environmental controls for protecting the natural flora and fauna as the line was built in environmentally sensitive areas including sections in a National Park. A considerable part of the line required strict weed control and wash down for all work access.

The project faced many challenges including extreme weather conditions which made many parts of the line impassible and caused major disruption. The topography of the route contained a wide spectrum of ground conditions including rocky and watery areas.



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