



# 1.5mVA Dual Underground Mining Substations

## PT Freeport Mine - Indonesia

**Client:** PT Freeport Indonesia

**Date:** 2018

### SCOPE

In 2018, PT Freeport awarded i.Power Solutions business a contract to design and construct 7x 1.5mVA Dual Mining Substations for use at their Freeport Copper and Gold Mine in Irian Jaya, Indonesia.

#### A brief overview of the contract includes:

- IP56 2.5mm 304 S/Steel Powder-coated Switch Gear Enclosures
- Structural, enclosed skid base unit complete with stub axials and wheels.
- ABB VD4 series 630A Main Circuit Breaker
- ABB NAL E24 Earth Switch
- SEL 787 Protection Relay
- Dong Woo PTs and CT's
- ABB 1.5mVA 11.0 / 1/0 /0.48 kV ONAN Mining Transformer
- Live Line Indication
- Fluke IR Windows
- Shark Power Measurement Meters
- Explosion Vents
- Anti-condensation heaters
- ABB S5 series 1000V and 480V Feeder Circuit Breakers
- Amp Control ELM series Earth Leakage Relays
- 120VAC Control Circuits
- Minto AG series 1000V and 480V receptacle outlets

### OUTCOMES

The design is a standard designed Mining Substation which i.Power Solutions has been supplying to the Freeport Mine for many years.

Recent innovations to these designs include more updated and advanced Power and Control equipment plus some minor changes to the structural design. In 2017, certified type testing was conducted on the HV Enclosures and the designs passed all testing successfully.

PT Freeport are very happy with the quality and promptness of this supply program and are looking at ordering further units in the future

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SOLUTIONS

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