

Project Information

Project: Greenfield Energy Centre -230kV Switchyard



Owner: Calpine/Mitsubishi
Contractor: Burns & Roe
Design/Build & Engineering: EPTCON Ltd.

EPTCON Ltd. provided the design/build and complete engineering services for an 8 breaker, 230kV Ring Bus Switchyard. The scope of work included:

- Installation of 8- 230kV SF6 circuit breakers Mitsubishi Type SFMT-63.
- Supply and installation of 8- 230kV motor operated disconnect switches and 16- 230kV manually operated disconnect switches.
- Design, supply and installation of the 230kV switchyard structural steel including 9- A-Frame dead end towers, 6- transformer type structures and miscellaneous switch support steel. All of which weighed in at approximately 390,000kgs in total.
- Design, supply and installation of the new switchyard grounding system.
- Design and construction of the new switchyard civil works including all foundation, cable trench system, site back fill, and fencing.
- Design, supply and installation of the 230kV Bus Systems.

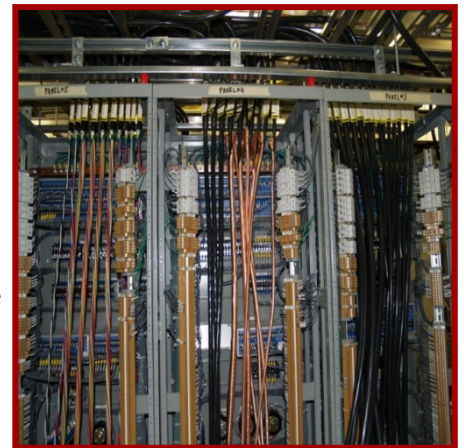
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- Design, supply & installation of a pre-wired modular type control building complete with building services, P&C panels, termination racks, & 125V DC battery system.
- Design, supply & installation of the switchyard bus and transformer protection panels including the SCADA RTU system.



Complete Engineering included:

- Station layout and section views
- Protection and Control systems
- SCADA and RTU system
- Grounding system
- Bus systems
- Civil works
- Structural steel fabrication details
- I/O lists
- Revenue metering system
- Logic diagrams

Complete commissioning Included:

- Relay settings and programming
- SCADA & RTU programming
- In-Service planning
- Testing of all breakers and switches
- Functional testing of P&C logic