



South of Embley project

Expression of interest

415V AC Motor Control Centres

Package Number: 25977-000-MRA-ECM1-00001

Package Title: 415V AC Motor Control Centres

General Description

Rio Tinto's proposed South of Embley project is located approximately 40 km south-west of Weipa in far North Queensland, Australia. The proposed Project site will require 415V AC Motor Control Centres (MCCs). The scope includes design, manufacture, testing and supply of industrial type metal enclosed factory assembled MCCs for use in 415V AC electrical systems, as well as providing Technical Support during construction and commissioning.

Specific Scope Requirements

There are twenty low voltage motor control centres required for the South of Embley project. MCCs shall be installed indoors in air conditioned switchrooms or outdoors on a platform.

MCCs shall be rated for 3 phase, 415V AC $\pm 10\%$, 50Hz, 80kA symmetrical fault current for 1 second, and lightning impulse voltage of 8kV.

Indoor MCCs are required to be metal enclosed, free-standing, floor mounting, front access, flush fronted and flush backed, and arranged to form a single structure with a common bus bar assembly. The arrangement shall be single sided, suitable for floor-mounting and bottom entry for all cables. The enclosures shall have a minimum degree of protection of IP42. MCC modules shall be the demountable type.

Outdoor MCCs shall be constructed as per the requirements of the Indoor MCCs, and shall be supplied in a "shell" enclosure. The Outdoor MCCs shall have a minimum degree of protection of IP56.

MCCs shall be type-tested assemblies with type tests completed in accordance with AS 3439 on equivalent switchboard assemblies. MCCs shall be type-tested to withstand the maximum short circuit current, rated voltage, arc fault containment and temperature rise.

The Supplier shall be required to supply, install, label and test all of the equipment identified in the applicable project drawings, specifications and project documents unless otherwise agreed in

writing with the Company. Equipment may include air circuit breakers, moulded case circuit breakers, motor protection relays, safety relays, earth leakage devices and PLC equipment.

All MCCs shall be completely assembled, pre-wired, and tested as a complete package prior to shipment. Testing shall include operational checks, functional tests and mechanical checks.

The Supplier may be required to provide technical assistance and on-site services as required to the Company for the setup, testing and/or commissioning of the MCCs in the switchrooms and/or on site.

Only design and technology that have been proven in service for a minimum of five years in a mining environment shall be offered.

The electrical design, construction, installation and testing shall conform with all applicable laws and Australian standards including, but not limited to:

- *Electrical Safety Act 2002 (Qld)*
- *Electrical Safety Regulation 2013 (Qld)*
- *Work Health and Safety Act 2011 (Qld)*
- *Work Health and Safety Regulation 2011 (Qld)*
- *Mining and Quarrying Safety and Health Act 1999 (Qld)*
- *Mining and Quarrying Safety and Health Regulation 2001 (Qld)*
- *Workplace Health and Safety Queensland Code of Practice for Plant*
- *Workplace Health and Safety Queensland Code of Practice for Noise Management at Work*
- *AS 3000 – Wiring Rules*
- *AS 3007 - Electrical Equipment in Mines and Quarries – Surface Installations and Associated Processing Plant*
- *AS 3439 - Low-Voltage Switchgear And Controlgear Assemblies*
- *AS 4871 – Electrical equipment for mines and quarries - General requirements*

Delivery Schedule

Forecast Award Date: 1Q, 2016

In 2015, Rio Tinto is undertaking a detailed feasibility study on the Project that will inform a final investment decision. A decision is expected to be received in the final quarter of 2015. Future procurement decisions are dependent on board approval.

Construction of associated mine infrastructure is anticipated to take 36 months once final board approval is granted.

Instructions to Tenderers

If your business possesses the capability and capacity to perform the stated scope of work, please submit a registration of interest via the ICN Gateway at www.southofembley.icn.org.au.

Please ensure that:

- Your company profile on ICN Gateway is complete, up-to-date and accurate
- You register your interest as a Full Scope or Partial Scope supplier (where applicable), and
- You respond to all project-specific questions via the ICN Gateway.

More Information

Please contact the Industry Capability Network (ICN) Queensland on +61 (7) 3364 0676 should you have any enquiries regarding this scope of work.

More information about the South of Embley Project can be found on the Rio Tinto website www.riotinto.com.

Disclaimer

Scope of Work is indicative only and is intended to be used as a summary description of work which may be required by Rio Tinto and may be subject to change. Full scopes of work will be made available to parties that are invited to tender. There is no undertaking to contract or proceed to a competitive process implied by this form. Further contact with interested suppliers will be at Rio Tinto's discretion.