



CASE STUDY >

PEC PILBARA TRANSMISSION PROJECT

PROJECT OVERVIEW

The Pilbara Transmission Project aims to integrate Fortescue Metal Group's ("FMG") iron ore mining and port operations in the Pilbara into one common 220kV network. This will enable the FMG's existing Solomon Mine power station to supply power to the Iron Bridge Magnetite Project, currently in development. It will also have the ability to expand and connect to other assets. The Project will establish a ~400km high voltage transmission lines, broken into 3 stages:

1. Stage 1- Solomon to Iron Bridge: 223km, 220kV dual circuit (Stage 1),
2. Stage 2- Lambda to Cloudbreak: 78km, 220kV single circuit (Stage 2).
3. Stage 3- North Star to Port Hedland: 97km, 220kV single circuit (Stage 3).

SCOPE OF WORK

RSGx have been tasked with supporting the Pilbara Energy Company ("PEC") (a fully owned subsidiary of FMG) with the planning, execution, tracking and recording of all activities required to progress Stage 1 of the Project from Construction Verification through to Network Operation. This initially began with the FAT of Power Transformers in Victoria. RSGx's responsibility then extends to the supply personnel resources, plant and equipment necessary to support PEC in achieving Project Practical Completion and system integration of the power network for the four 220kV substations at Solomon, including a 132kV interconnection, Lambda, North Star Junction and North Star.

In preparation for commissioning phase, RSGx have delivered the development of the following commissioning documents, work packs, Commissioning Test Procedures (CTP), Functional Test Procedures (FTP), Inspection Test Procedures (ITP) and Inspection Test Records (ITR).

SOLUTION

RSGx's teams are tasked with a number of commissioning activities and has performed all requests to date in a professional manner, leaning on our extensive HV commissioning experience:

- ◆ System pre-commissioning and commissioning as described in the CTP's and FTP's.
- ◆ Training PEC's operators.
- ◆ Assisting PEC in development of all process and procedures required for successful commissioning and high voltage energisation and handover to operations.
- ◆ Support PEC in developing and building operation and maintenance manuals for the substations.
- ◆ Site inspections, agreeing and accepting the (system commissioning) punch list for each system and sub-system. Close out of commissioning punch list items.

ACHIEVEMENTS TO DATE

The test plans and FAT's have been fully handed over with RSGx contributing to the following:

- ◆ 36 Inspection Test Records (ITRs)
- ◆ 34 Inspection Test Plans (ITPs)
- ◆ 13 Functional Test Procedures (FTPs)
- ◆ 13 Commissioning Test Procedures (CTPs)
- ◆ 37 Complete Work Packs across 4 x different sites
- ◆ 8 x Power Transformer Factory Acceptance Tests (FAT) witnessed

CLIENT

PILBARA ENERGY COMPANY (PEC)

SERVICES PROVIDED

**COMMISSIONING
COMPLETIONS**

SCOPE

HV COMMISSIONING

INDUSTRY

MINING

LOCATION

PILBARA, WESTERN AUSTRALIA

