

UNLOCKING THE POTENTIAL AT THE PORT OF GLADSTONE

Case studies

Introduction

The \$2.6 billion privately funded Wiggins Island Coal Export Terminal (WICET) project involves the development of a new coal export terminal by a consortium of eight coal exporters. Once fully commissioned, the terminal will provide over 80 million tonnes per annum (Mtpa) in additional export coal capacity through the Port of Gladstone.

The project has created approximately 1000 jobs on site during construction, while investing heavily in community infrastructure, providing \$35 million toward the development of the East Shores – Gladstone Coal Exporters Maritime Precinct project, which will see delivery of a world-class, waterfront redevelopment.

Using modern technology to assist Queensland to continue its rise as a global competitor in the coal exporting market, WICET, located at Golding Point, forms part of the existing Port of Gladstone.

Project Overview

Stage One works at the terminal include a rail receival facility designed to handle 7600 tonnes per hour (with NHP supplying the purpose-built train loader control system), a 5.5km overland conveyor, a stockyard area for close to 1.6 million tonnes of coal, materials handling and sampling systems feeding the 1.8km long jetty conveyor, a single berth ship loader and associated access roads, workshops, administration offices and amenities.

"The NHP team was called upon to provide a range of products and services throughout the WICET project that reinforces the advantage of partnering with a supplier that offers a complete industrial electrical and automation solutions package", said Mark Pattison, NHP Director - Automation Business.

"One of the key criteria was for a local partner to manage the lifecycle of the project. NHP was able to demonstrate its value proposition by having an office in Rockhampton and the automation technical resources in Gladstone to assist in the execution of the contract".

Solution

NHP completed the supply of the plant control system and power distribution equipment for the new terminal. The WICET project, which is NHP's largest single order to date, consisted of the supply of over 300 automation hardware/ PLC panels, 130 networking panels including the supply of the 200 Allen-Bradley Stratix Ethernet switches. NHP also supplied local control stations, and the train loader control system hardware.

NHP contracted directly to WICET for the supply of this equipment which included the allocation of two specialist design engineers to assist with the design of the Rockwell Automation system. NHP also had a parallel contract for the supply of similar equipment to control the ship loader. This equipment was installed in the ship loader at the point of manufacture prior to delivery to site.

As NHP were responsible for the detailed design and supply of the Plant Control System Hardware including the automation panels and networking panels, a specialist team was assembled consisting of customer and technical support out of Brisbane and Gladstone, project management and document control out of Melbourne, and finally specialist technical support by engineers embedded within the design team at Aurecon Hatch JV in Brisbane.

NHP won the project on a competitive tender which called for the supply of the control system hardware and specified Allen-Bradley® PLCs and a ControlLogix system from Rockwell Automation. The project was also standardised on Eldon enclosures as well as purpose built stainless steel enclosures which had to meet the demanding Gladstone Port Authority specification. The ControlLogix system, FT View and Asset Centre was chosen for its adaptability, flexibility and proven reliability at the existing Gladstone Port facilities.

The WICET project also required a range of stainless steel Concept Plus distribution boards and the associated power distribution and switchgear requirements – all of which were custom engineered at NHP's National Manufacturing and Distribution Centre located in Laverton, Victoria. It was this ability to custom build both efficiently and expeditiously that NHP's Director - Product Quality, Engineering & Manufacturing, Alex Coslovich thought brought great value to the WICET project.

"NHP is a solutions provider - we don't just sell components. It was this technical application knowledge and ability to manufacture automation panels, panel boards and provide engineering support that suited the customer's specific requirement that enabled us to add value to the WICET project. We always strive for customer service excellence and from the various positive feedback we've received from the WICET team, we are confident that we're hitting the mark".



Fact File

Project: Wiggins Island Coal Export Terminal (WICET)

Location: Port of Gladstone, QLD

Details: The project involves the development of a new coal export terminal by a consortium of eight coal exporters.

NHP Products/Services:

- Automation hardware/ PLC panels
- Networking panels
- Allen-Bradley Stratix Ethernet switches
- Control system hardware
- Design Engineers
- Eldon enclosures
- Concept Plus distribution boards

