



COAL SEAM GAS CENTRAL PROCESSING PLANT FEED STUDY

Key Capabilities:

- Front End Engineering
- Cost Estimation and Analysis

Overview

Our Client is a large Australian pipeline company looking to move into downstream gas processing by exploiting coal seam gas in Queensland.

In 2017, the Client engaged Vecta to conduct a FEED study for a new coal seam gas 80 TJ/d central processing plant in the Surat Basin Queensland. Part of this FEED study would comprise a 10% cost estimate for the detailed design, procurement, construction and commissioning phases of project delivery.

Scope

The scope of work included:

- Front end engineering design. This included:
 - Development of drawings and documents in the Process, Mechanical, Civil, Electrical, Instrumentation & Controls disciplines;
 - Development of detailed 2D layout plans for the plant.
- Scope preparation for detailed design and construction
- Preparation of vendor packages including technical specifications and datasheets for market pricing of major equipment items.

- Project management including schedule, budget and technical queries;
- +/- 10% cost estimate for detailed design, procurement, construction and commissioning. This included performing a Monte Carlo analysis to quantitatively analyse project risks.
- Level 1 schedule.

Challenges

- The Client’s request was for the FEED and cost estimate to be executed over the Christmas period with an aggressive schedule. The deadline was fixed as the client required the information to present a proposal to the owners of the coal seam gas field in competition with other companies.
- Lack of specific design information.
- The client had an expectation of a capex \$/TJ of gas processed. During the course of the work the design and equipment specifications were challenged based on experience and modified to achieve the capex expectation.
- Delays in vendor pricing due to the Christmas period holidays.

Solutions

Vecta’s design team consisted of engineers who possessed extensive coal seam gas experience and with design of similar central processing plants. The team was involved in coal seam gas projects since the inception of the industry. The combined knowledge and experience of the team was critical to addressing gaps that were caused by a lack of design information. Without the team’s experience the work could not have been completed in the aggressive schedule required.

Outcomes

The FEED phase of the project was completed on time and within budget.

The Client was pleased with the design proposed as well as the +/- 10% cost estimate produced.

Want to Know More?

For more information please contact our office on +61 (03) 9326 9384, email info@vectagroup.com.au, or visit our website vectagroup.com.au