



CLIENT

Jemena

LOCATIONS

Melbourne, Australia

Tennant Creek, NT

Mount Isa, Qld

CORE CAPABILITIES

- Detailed design – automation and electrical engineering
- Fire and gas detection
- Panel fabrication
- Factory Acceptance Testing (FAT)
- Site Acceptance Testing (SAT) and Commissioning
- Remote Telemetry Systems (RTU) with DNP3 communications
- System compliant with Functional Safety Standards IEC61508 / IEC61511 - SIL3 safety functions.

TECHNOLOGIES:

- Honeywell R2020 Flow Computers
- Rockwell ControlLogix PLCs
- Schneider Triconex Trident Safety PLCs
- Honeywell Experion

PROJECT SUMMARY

Synertec was engaged by Jemena to deliver a project to design, supply and commission the process control & safety system for Jemena's \$800 million Northern Gas Pipeline (NGP).

The NGP will span between Tennant Creek in the Northern Territory and Mount Isa in Queensland. The aim of this 622km pipeline is to connect gas fields in the Northern Territory to Australia's east coast gas market.

THE CHALLENGE

Jemena required a control system, including remote onsite commissioning, for its gas processing plan, compressor stations and remote pipeline monitoring stations. The system also needed to comply to International Functional Safety Standards.

SYNERTEC'S SOLUTION

Synertec provided the detailed design, including CHAZOP and HAZOP, and supply of a large-scale PLC automated control system and flow computers, including electrical design and panel fabrication to meet the required functional safety standards. The system also included the integration of numerous plant packages and an integration into Jemena's SCADA system to allow remote operations from Melbourne.

Synertec conducted FAT on the control system and electrical panels in Melbourne prior to installation and commissioning, including SAT, on site in Mount Isa, Tennant Creek, and monitoring sites in between.

Synertec successfully navigated the key challenges involved in delivering the project to remote sites in the Northern Territory and Queensland and managing the safety aspects associated with remote sites and travel.