

# Gorgon Downstream LNG Project FEED & EPCM

## PROJECT DETAILS:

Location:	Barrow Island, Western Australia
Contract Value:	A\$3.9 billion (2005)
Contract Period:	January 2005 - 2015
Safety Statistics:	Manhours: 19,685,834 LTIFR: 0.26 (EPCM only) (As at October 2011)



## CLIENT: Chevron Australia Pty Ltd

### Scope of Work:

Clough, as a key member of the Kellogg Joint Venture - Gorgon (KJV-G), was contracted by Chevron Australia to undertake both the Front End Engineering Design (FEED) contract. On completion of the FEED, KJV-G was awarded the Engineering, Procurement and Construction Management (EPCM) contract for all downstream facilities on the Gorgon LNG Project.

The Gorgon Project is a greenfield LNG facility located on Barrow Island, in Western Australia. Following a comprehensive environmental, social and economic review, the Western Australian government granted approval to build the new facilities on Barrow Island, where Chevron has operated an oil field adjacent to a wildlife reserve for the past 45 years. The Gorgon Project commenced in 2005. First LNG exports from Train 1 are scheduled for 2013.

The onshore facilities consist of:

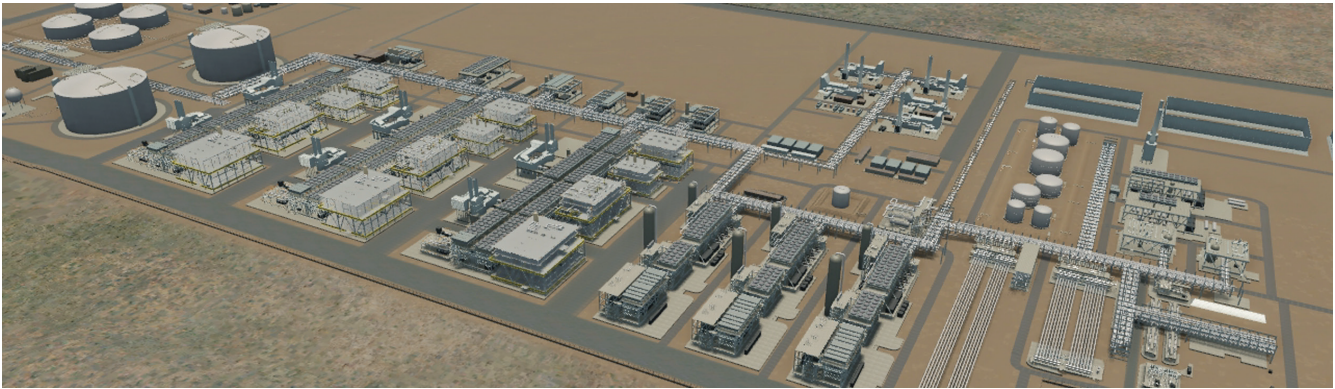
- Three 5 MTPA LNG process trains utilising APCI propane pre-cooled mixed refrigerant process liquefaction.
- Over 250KT of modularised facilities
- Utilities and infrastructure.
- Two 180KT LNG tanks.
- Two Berth LNG load out jetty.
- CO2 compression and sequestration.

## Project Execution

### Design

The following technology and engineering tools were utilised by KJV-G:

- Advanced dynamic simulation.
- Air recirculation modelling.
- Intelligent P&IDs integrated with control systems and piping design.
- Integrated 3D conceptual modelling with layout optimisation, material control and electronic piping and steel fabrication work processes.
- Offshore modelling processes for the design of LNG plant modules and utilities.
- Implement environmental, logistics and AQIS-based quarantine processes to fit the Barrow Island Act.



### Project Management

The Gorgon Project is massive by world scale and execution requires coordination of global activities to deliver the three train LNG plant in one of the world's most isolated locations.

Project Management was undertaken via a Directorate based in London and Perth with Process Design activities in London and a Perth operations centre managing the balance of plant, utilities and infrastructure scopes.

Global procurement and numerous international fabrication yards were used to supply the key components of the project and KJV-G personnel will manage these global sites including the critical supply chain management and logistics processes.

### Site Construction

A work force in excess of 4,500 personnel will be utilised to construct and commission the facilities over a five year period. State of the art site facilities will be established on Barrow Island with due regard to the environmental requirements and the facilities standard required to attract a world class workforce.