gorgon project overview

The Chevron Australia-operated Gorgon Project is one of the world’s largest natural gas projects and the largest single resource development in Australia’s history.

human energy

The Gorgon Project is located on Barrow Island, around 60 kilometres off the northwest coast of Western Australia (WA). It includes a three-train, 15.6 million tonnes per annum (MTPA) liquefied natural gas (LNG) facility and a domestic gas plant with the capacity to supply 300 terajoules of gas per day to Western Australia.

The first LNG cargo departed Barrow Island on 21 March 2016. Domestic gas supply to the Western Australian market commenced in December 2016.

project participants

The Gorgon Project is operated by Chevron Australia and is a joint venture of the Australian subsidiaries of Chevron (47.3 percent), ExxonMobil (25 percent), Shell (25 percent), Osaka Gas (1.25 percent), Tokyo Gas (1 percent) and JERA (0.417 percent).

offshore facilities

A subsea gas gathering system is located on the ocean floor at the Gorgon and Jansz-10 fields, located about 65 and 130 kilometres respectively off the west coast of Barrow Island. Hydrocarbons from the two fields are transported to Barrow Island by subsea pipelines.

A 90 kilometre domestic gas pipeline runs from Barrow Island to the WA mainland, where it ties-in to the existing Dampier to Bunbury Natural Gas Pipeline.

onshore facilities

The Project’s facilities on Barrow Island include:

• A three-train, 15.6 MTPA LNG processing plant.
• Domestic gas processing plant.
• Two LNG tanks.
• Four condensate storage tanks.
• Marine facilities including a 2.1 kilometre materials offloading facility (MOF) and 2.1 kilometre long LNG jetty.
• Operations and maintenance buildings.
• Workforce accommodation village – Butler Park.
• Carbon dioxide removal and injection facilities.
local benefits

Gorgon has provided economic benefits on a scale never seen in Australia. During construction the Project:

• Spent more than $40 billion on local goods and services.
• Generated more than 10,000 jobs at peak in Australia.
• Awarded more than 700 contracts to Australian companies.

With Gorgon’s operations expected to span more than 40 years, the Project will continue to provide enduring benefits. According to an independent analysis by ACIL Allen Consulting, from 2009 to 2040 the Gorgon Project is expected to contribute:

• $400 billion to Australia's Gross Domestic Product.
• More than 60,000 direct and indirect full-time equivalent jobs in Australia.
• $69 billion in direct taxation revenue to the Federal Government.

carbon dioxide injection project

The Carbon Dioxide (CO₂) Injection Project involves the design, construction and operation of facilities to inject and store reservoir CO₂ into a deep reservoir unit, known as the Dupuy Formation, more than two kilometres beneath Barrow Island. This will reduce greenhouse gas emission from the Project by approximately 40 percent.

The Australian Government has committed $60 million to the Gorgon Carbon Dioxide Injection Project as part of the Low Emissions Technology Demonstration Fund.

environmental stewardship

Barrow Island has been a Class A Nature Reserve since 1910.

The Island supports 24 terrestrial species and subspecies not known to occur elsewhere and another five with restricted distribution. Four species of marine turtle nest on Barrow, with flatback and green turtles being the most common. There are also 378 species of native plants on the island.

Non-indigenous species represent the greatest threat to Barrow Island’s native flora and fauna. Central to the Gorgon Project’s commitment to protect the conservation values of Barrow Island is the Quarantine Management System (QMS), the largest non-government quarantine initiative in the world. The QMS includes hundreds of procedures, specifications, checklists and guidelines to protect the ecology of Barrow Island and its surrounding waters.

The Gorgon QMS has been acknowledged by the Western Australian Environmental Protection Authority as ‘likely to be world’s best practice’ and has also been recognised with a Commonwealth Department of Agriculture Biosecurity Award.

LNG sales and marketing

The Gorgon Joint Venture Participants have signed a number of sales agreements to market LNG in key customer countries and have adopted a flexible and innovative marketing approach where each participant secures markets for its share of gas.

domestic gas sales

Gorgon is a major new source of gas to Western Australia and a key supplier of energy for the State for years to come. Long term contracts have been signed with Western Australian customers (both industry and government trading enterprises) for volumes from the first tranche (~150 terajoules per day).