

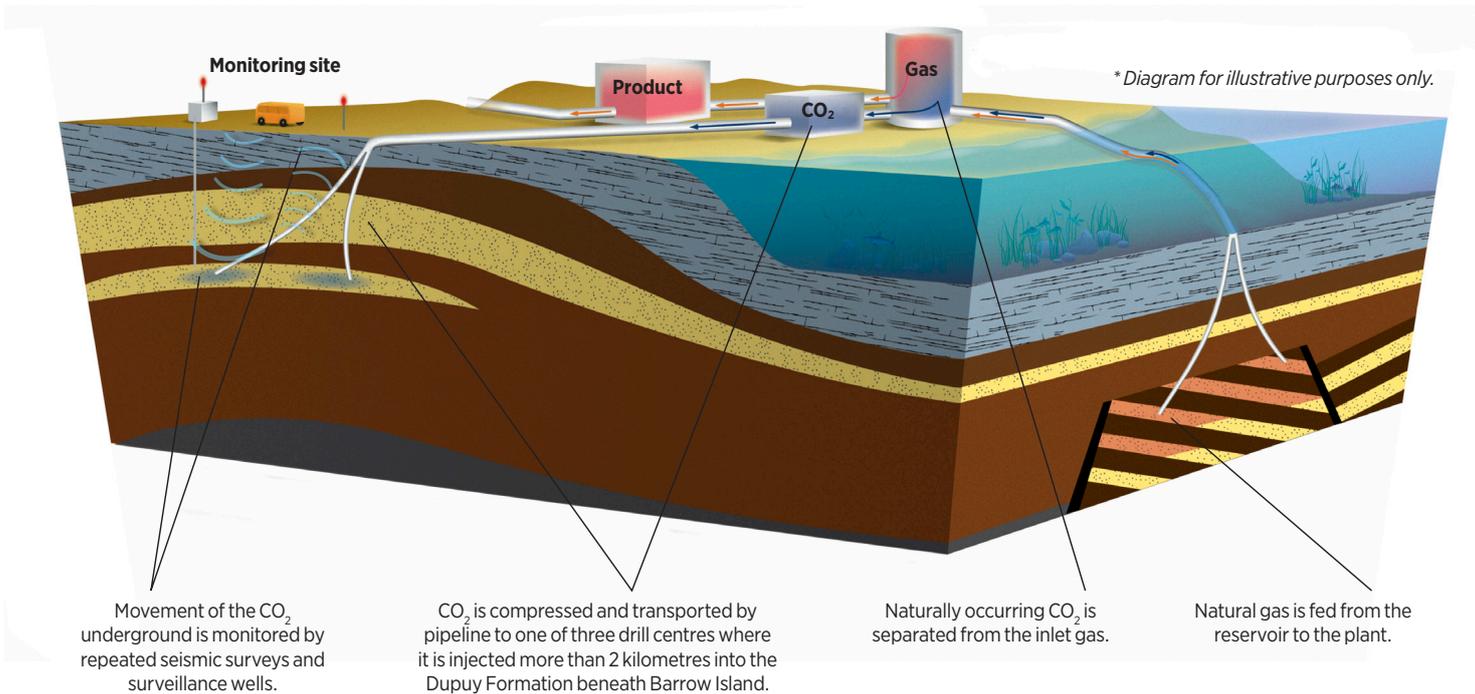


fact sheet

carbon dioxide injection project

the world's largest commercial-scale carbon dioxide injection project

human energy*



overview

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.

The Gorgon Project is developing two gas fields – Gorgon and Jansz-Lo. The gas in the Gorgon Field contains on average 14 percent naturally occurring reservoir CO₂ while the Jansz-Lo Field contains less than one percent.

During the liquefaction process, when the natural gas is cooled to -162° C, if CO₂ remained in the natural gas stream it would freeze into a solid.

For this reason the reservoir CO₂ is separated from the natural gas stream prior to gas processing and liquefaction.

While standard industry practice is to vent the separated CO₂ to the atmosphere, the Gorgon Project will inject the reservoir CO₂ into the Dupuy Formation beneath Barrow Island.

The reservoir CO₂ will be separated at the liquefied natural gas (LNG) plant site and transported by pipeline to one of three drill centres. To minimise the environmental footprint on the Island, nine injection wells have been directionally drilled from the three drill centres. Once the CO₂ is injected, it will migrate through the Dupuy Formation until it becomes trapped.

An on-going monitoring program, which includes observation wells and seismic surveys, will assist in managing the performance of the injected reservoir carbon dioxide in the Dupuy Formation.

Gorgon Project

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facilities

CO₂ Injection Project facilities on Barrow Island are expected to include:

- Nine CO₂ injection wells at three drill centres
- Two pressure management drill centres
 - Four water production wells
 - Two water injection wells
- Two reservoir surveillance wells
- A seven kilometre underground pipeline from the LNG plant site to the drill centres
- Three CO₂ compressor modules

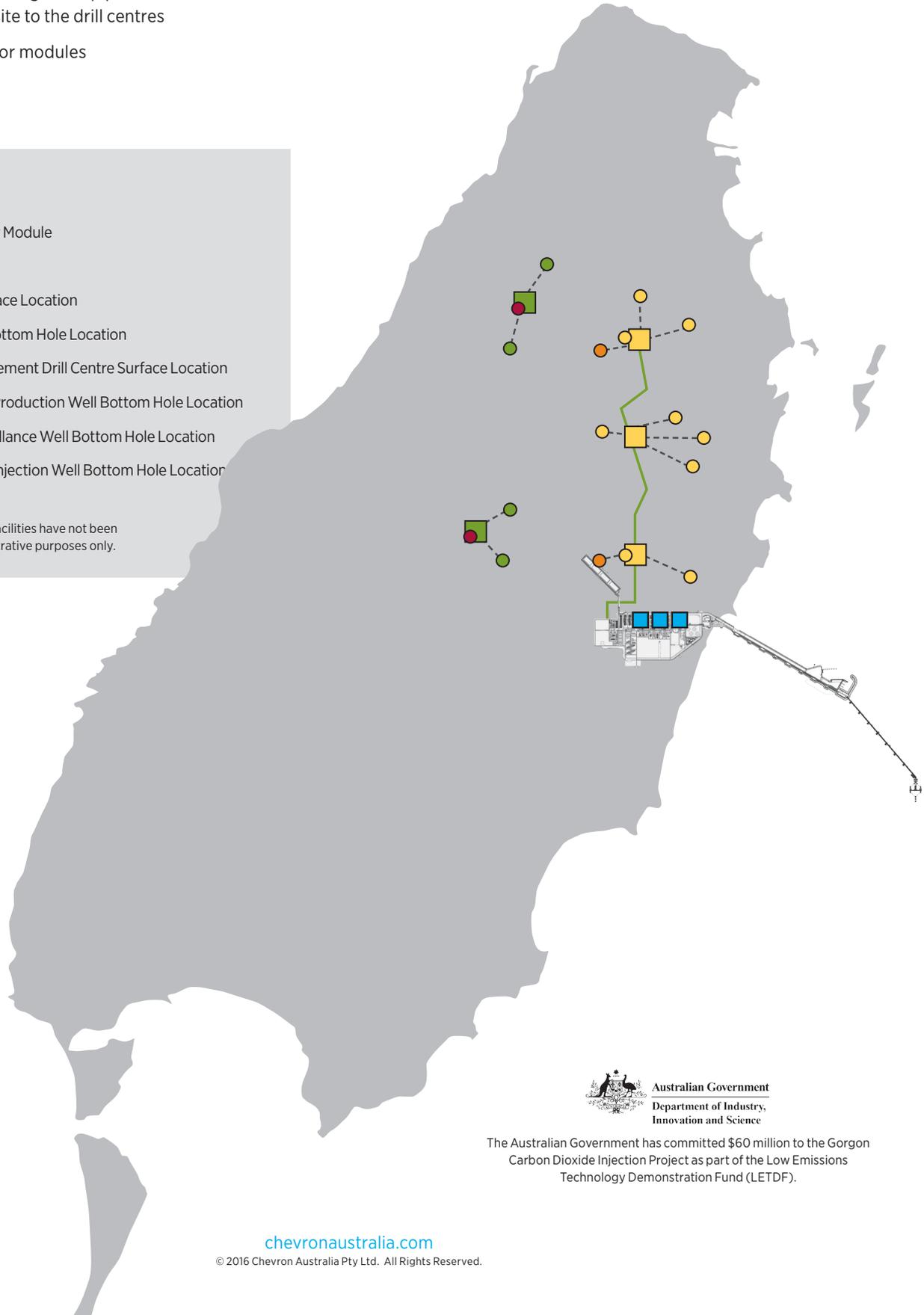
fast facts

- Commissioning of the CO₂ Injection Project and commencement of injection operations is planned to occur once the gas processing plant is in steady-state operations.
- The Project plans to inject between 3.4 and 4 million tonnes of reservoir carbon dioxide each year. This will reduce greenhouse gas emissions from the Gorgon Project by approximately 40 percent.
- It is expected that 100 million tonnes of CO₂ will be injected into the Dupuy Formation over the life of the Gorgon Project.

legend

- CO₂ Compressor Module
- CO₂ Pipeline
- Drill Centre Surface Location
- Injection Well Bottom Hole Location
- Pressure Management Drill Centre Surface Location
- Planned Water Production Well Bottom Hole Location
- Reservoir Surveillance Well Bottom Hole Location
- Planned Water Injection Well Bottom Hole Location

* CO₂ Injection Project facilities have not been drawn to scale. For illustrative purposes only.



Australian Government
Department of Industry,
Innovation and Science

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