



Human Energy™

A guide to the Wheatstone Project





Contents

- 4 The Resource
- 6 Overview
- 8 Liquefied Natural Gas (LNG)
- 10 The Environment
- 12 Community Partners
- 14 Economic Contribution

On the Cover

The Wheatstone Platform is situated 225 kilometres off Ashburton North.

The Resource

Chevron Australia discovered the Wheatstone offshore gas resource, about 200km north of Onslow, in 2004. In March 2008 the company announced its intention to develop Wheatstone via an onshore liquefied natural gas (LNG) and domestic gas plant. A final investment decision to proceed with the Wheatstone Project was made in September 2011, with construction starting in December that year.

Site selection

Chevron embarked on a site screening and selection process which considered sites from Karratha to Onslow in the Pilbara region of Western Australia. The study identified three potential sites along the West Pilbara coast. After extensive consultation and social, environmental and engineering studies, Ashburton North was chosen as the preferred site.



What's in a name?

The name Wheatstone comes from the Wheatstone Channel in the Montebello Islands, an archipelago of 174 small islands 130km off the Pilbara coast and 95km south of the Wheatstone gas field.



Overview

The Wheatstone foundation project, located 12 kilometres west of Onslow on the Pilbara coast of Western Australia, includes two liquefied natural gas (LNG) trains (8.9 million tonnes per annum) and a 200 TJ/per day domestic gas (DomGas) plant, with potential to expand to five LNG trains producing up to 25 million tonnes per year.¹

Chevron has invited third parties to bring their gas through the Wheatstone Project's shared facilities, positioning the Project as Australia's first gas production "hub."²

1. The Wheatstone Project is a joint venture between Australian subsidiaries of Chevron (64.14 percent), Kuwait Foreign Petroleum Exploration Company (KUFPEC) (13.4 percent), Woodside Petroleum Limited (13 percent), and Kyushu Electric Power Company (1.46 percent), together with PE Wheatstone Pty Ltd, part owned by TEPCO (8 percent).

2. Eighty percent of the Wheatstone Project's foundation capacity will be fed with natural gas from the Wheatstone and Iago fields, which are operated by Chevron Australia in joint venture with Australian subsidiaries of Kuwait Foreign Petroleum Exploration Company (KUFPEC) and Kyushu Electric Power Company, together with PE Wheatstone Pty Ltd (part owned by TEPCO).

The remaining 20 percent of gas will be supplied from the Julimar and Brunello fields held by Australian subsidiaries of Woodside Petroleum Limited and Kuwait Foreign Petroleum Exploration Company (KUFPEC).



The Wheatstone Project

Offshore

Offshore facilities will gather and partially process gas and associated condensate and deliver it onshore for further processing.

Key components include:

- well infrastructure and subsea installations
- gas processing platform in 73m of water
- 225km trunkline to transport gas from the platform to the onshore facilities

Onshore

Once onshore, the gas and condensate will be processed further.

Key onshore components include:

- slug-catcher to separate the gas and liquids
- initial two-train LNG processing plant
- DomGas plant and pipeline connecting to the Dampier-to- Bunbury Natural Gas Pipeline
- LNG and condensate storage tanks
- marine facilities including a shipping channel, turning basin, harbour and export jetty
- workforce accommodation village and associated infrastructure at Ashburton North

Liquefied Natural Gas

Natural gas is an important source of energy, but many gas reservoirs are located far from the areas that need it. So how do you transport liquefied natural gas (LNG) across the ocean where there are no pipelines? Simple – technology.

How It Works

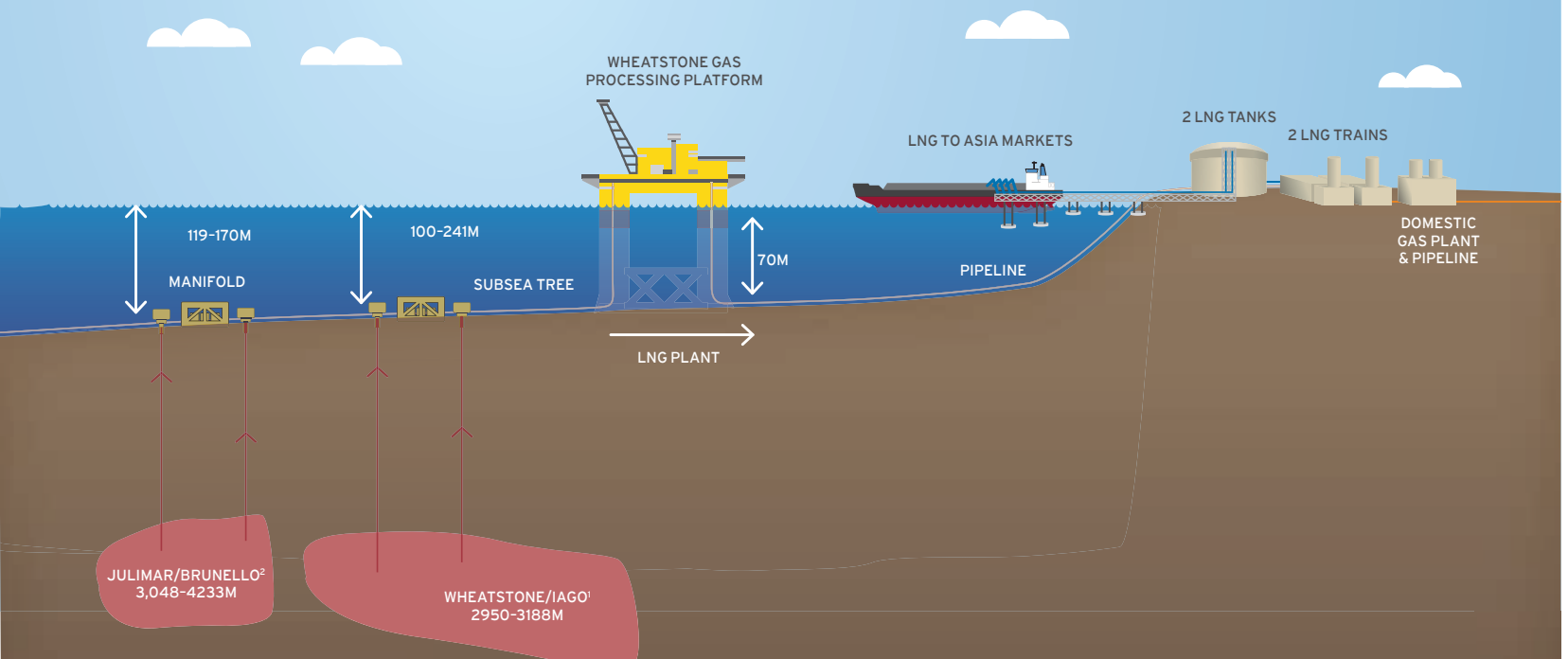
By liquefying natural gas you reduce its volume by 600 times so it can be shipped safely and efficiently around the world.

Transporting LNG

The North West Shelf off Western Australia, is one of the country's largest natural gas producing areas. It's believed to hold more than 60 trillion cubic feet of probable gas reserves.

Due to the great distances between Australia and key natural gas markets, there are no options for transporting gas by pipeline. By transforming natural gas into LNG, it can be shipped to customers in countries such as Japan and South Korea.

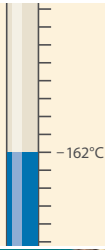
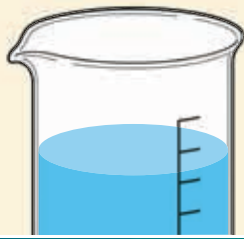
Natural gas from the Wheatstone domestic gas plant will be delivered from Ashburton North via pipeline to an inlet point on the Dampier Bunbury Natural Gas Pipeline. Once operational, Chevron will become one of the major suppliers of domestic gas in Western Australia.



Producing LNG

STEP 1

Natural gas produced from offshore fields is sent through pipelines to a facility onshore.



STEP 2

When chilled to around minus 160 degrees, natural gas transforms into a liquid 600 times smaller than its original size.

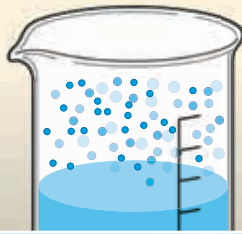
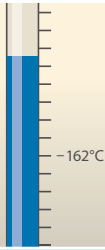


STEP 3

LNG ships are specially designed with double hulls and heavy insulation.

STEP 4

At its destination, LNG is warmed, changing it from a liquid back into a gas.



STEP 5

Natural gas is delivered directly to customers through a network of pipelines.



STEP 6

Power plants and industry use most of the natural gas produced worldwide.



STEP 7

Natural gas that was once half a world away also is used in homes.



The Environment

Chevron works closely with the local community and government stakeholders to ensure the Project is developed in a safe and environmentally responsible manner.

The Wheatstone Project's plant site was carefully selected to avoid areas of conservation and cultural heritage significance.





Environmental Management

Since 2009, Chevron's team of environmental specialists has surveyed marine habitats in the Onslow and Ashburton Region, gathering important information about the baseline state of these ecosystems. Monitoring the marine and land environments during the construction of the Wheatstone Project and into operations allows us to detect change and proactively manage activities to conserve marine habitats.

Chevron contributes funding to State and Commonwealth environmental research projects for improved management of critical habitats for humpback whales, dugongs and snub fin dolphins in Pilbara waters.

In 2015, the Chevron-operated Wheatstone Project was awarded WA's most prestigious environmental accolade, winning a Golden Gecko Award for its micro-tunnel shore-crossing at Ashburton North. Cutting-edge technology was employed to reduce impacts to local onshore mangroves, lagoons and fauna.



Community Partners

The Wheatstone Project is committed to working with the local community to enhance the quality of life for people who live and work in Onslow and the Pilbara region.

Wheatstone has a number of key partners including the Shire of Ashburton, the Onslow Chamber of Commerce and Industry (OCCI), The Business Centre Pilbara, RSM and Many Rivers, who work together to develop local business capability and capacity.

Wheatstone's long term partnership with the Chevron V-Swans Active program delivers year-round education and community activities in Onslow through a residentially-based team.

The Onslow Kids Kitchen Garden partnership runs gardening and cooking classes for local students, delivering health and wellbeing benefits as well as practical learning outcomes.

Onslow Community Spirit Fund

The Onslow Community Spirit Fund provides support to local community groups. Previous recipients of funding:

- Buurabalayji Thalanyji Aboriginal Corporation
- Onslow Goods Shed Museum
- Onslow Playgroup
- Onslow Rodeo Association
- Onslow School P&C Association
- Onslow Sports Club
- Onslow Tennis Club
- Saving Animals from Euthanasia
- St John Ambulance Onslow Sub-centre
- Taylor Made Arts Onslow

Investment Focus

The Wheatstone Project's social investment program contributes to a wide range of activities, events and initiatives in Onslow. Funding focuses on health, education and training, economic development, community and the environment.

unity

Thalanyji People

In 2010, Chevron reached agreement with the Thalanyji People, who hold Native Title in the Onslow area. This agreement has driven a range of new education, employment and business opportunities and long-term sustainable benefits for their community.



\$250 million

More than \$250 million has been committed to social and critical infrastructure projects that will upgrade health, education and recreation services and facilities, as well as road, power and water infrastructure. With these improvements, Onslow will be well equipped for the forecast population growth.



Investment Beyond Construction

Wheatstone has made a significant contribution to the Australian economy during its construction phase and will continue to do so in operations. Over the life of the Project, Wheatstone is forecast to add more than \$180 billion to Australian GDP, nearly \$6 billion per year.*

Onslow Subcontracts

Onslow-based NTC Contracting has been awarded a number of subcontracts on the Wheatstone Project with works including road construction and sealing, line marking, drainage construction and warehouse support. As a result of the Project's subcontracts, NTC has expanded its local workforce and now employs more than 120 staff.



The Kiewit Ertech Joint Venture was awarded the Construction General Services 3 (CGS3) contract on Wheatstone. Under the agreement, Kiewit Ertech Joint Venture created up to 200 jobs in Western Australia.

Economic Contribution

Chevron is committed to providing full, fair and reasonable opportunity for Australian industry.

The Wheatstone Project has awarded billions of dollars in contracts to Australian companies, including more than 75 Onslow businesses for site construction contracts and town based services such as transport, catering, venue hire and general supplies.

The Project has also supported the Australian economy through local employment. More than 7,000 Australian jobs have been created by the Project and its associated contractors.

Over the life of the Project it is expected more than 30,000 direct and indirect FTE jobs will be created in Australia, nearly 1,000 jobs per year.*

Part of Local Industry

Chevron is a member of the Onslow Chamber of Commerce and Industry (OCCI) which is an active, independent not for profit organisation that promotes the interests of members and the business community in Onslow and the Shire of Ashburton.

In 2013, the OCCI signed a partnership agreement with Wheatstone that supports the delivery of key services and programs.

*Source: ACIL Allen Consulting, Chevron Australia - A Snapshot of Chevron's realised and forecast economic benefits in Australia, October 2015.



Wheatstone in Onslow

Western Australia

Useful contact details

Wheatstone Project Onslow Office

16 Second Avenue
Onslow, Western Australia 6710

Phone: +61 8 9159 9316
Email: abuwheatstonesionslow@chevron.com

Community Staff

Shawn Heiderich
Mobile: +61 477 361 983

Mike Edmondson/Iain McCoy
Mobile: +61 409 061 391



Wheatstone Project

Chevron Australia Pty Ltd
ABN 29 086 197 757

250 St Georges Terrace
Perth Western Australia
6000 Australia

Tel +61 (8) 9216 4000
Fax +61 (8) 9216 4444
chevronaustralia.com/contact



Printed on 100%
Recycled Paper



ABU150600263