PLUTO LNG EXPANSION

OVERVIEW
February 2022

Pluto LNG
Woodside has operated the world-class Pluto LNG facility safely and reliably since start-up in 2012. Gas from the offshore Pluto and Xena fields is piped through a 180 km pipeline to Pluto LNG’s single onshore LNG processing train located on the Burrup Peninsula, near Karratha, WA.

Pluto Train 2
Woodside is proposing a brownfield expansion of Pluto LNG through the construction of a second gas processing train. Pluto Train 2 would have a capacity of about 5 million tonnes per annum (Mtpa) (100% project). The composition of gas from the offshore Scarborough field is well suited to Pluto LNG, which is designed for lean gas and nitrogen removal. The Scarborough gas field will be developed through new offshore facilities connected by an approximately 430 km pipeline to the onshore facility. As the appointed engineering, procurement and construction contractor for Pluto Train 2, Bechtel Australia executed front-end engineering design (FEED) activities in 2019 and provided a lump sum price and schedule for the execute phase.

Final investment decisions were announced on Scarborough and Pluto Train 2 in November 2021.

Woodside issued a Limited Notice to Proceed to Bechtel in October 2021 for the engineering, procurement and construction (EPC) scope of work, enabling Bechtel to progress engineering, order materials and equipment for Pluto Train 2 and commence early works for construction of the accommodation village in Karratha. Construction activities commenced in November 2021. Bechtel was issued Full Notice to Proceed in January 2022.

Pluto Train 1
In January 2022, Woodside awarded front-end engineering design (FEED) contracts to both Kellogg Brown and Root and Bechtel for the modifications to Pluto Train 1 which will enable processing of up to 3 Mtpa of Scarborough gas. These modifications, combined with the 5 Mtpa capacity of Pluto Train 2, would enable full utilisation of the 8 Mtpa offshore capacity.
Pluto–KGP Interconnector

Woodside completed construction on a pipeline to transport gas from Pluto LNG to the NWS Project's Karratha Gas Plant (KGP) in Q4 2021.

Transporting gas through the Interconnector will provide opportunities to take advantage of future excess capacity at KGP. It will also provide potential to accelerate future developments of other offshore Pluto gas reserves, as well as third-party resources.

Gas will be treated at new gas conditioning facilities at Pluto LNG before being transported through the 5 km, 30 inch pipeline to KGP, constructed along the existing Dampier to Bunbury Natural Gas Pipeline (DBNGP) corridor. The Interconnector will have the capacity to transport wet gas quantities of more than 5 Mtpa (100% project, LNG production equivalent).

In January 2021, domestic gas arrangements with the Western Australian Government were finalised to allow Woodside to supply Pluto gas through the Interconnector pipeline, for processing at KGP.

Commissioning activities are underway and Woodside is targeting ready for start-up in Q1 2022.

Domestic gas

First domestic gas from Pluto LNG to the DBNGP was supplied at near capacity of 25 terajoules a day (TJ/d) during commissioning of new domestic gas infrastructure in December 2018. The successful commissioning was a significant first step towards long-term supply from the Pluto site.

Additional domestic gas can be delivered from the Pluto LNG truck loading facility, which was constructed in 2019.

The expansion of Pluto LNG includes the construction and installation of additional domestic gas infrastructure with a production capacity of up to 225 TJ/d.

Regulatory approvals

Existing Commonwealth and State primary environmental approvals for Pluto LNG allow for two LNG trains and supporting infrastructure, and its commercial structure is designed to facilitate third-party gas processing. An area for a second train was pre-prepared with the foundation project in 2007-2008. Minimal further earthworks are required for Pluto Train 2.

Associated management plans will be evaluated under these approvals and updated as required.

Environmental management

In compliance with applicable environmental regulatory requirements, Woodside is undertaking rigorous environmental and risk management planning for the Pluto LNG expansion.

While emissions would remain within the impact envelope of the existing environmental approvals, Woodside is committed to continued investment in technologies that reduce emissions and promote energy efficiency in our facilities.

We have set new interim and long-term targets to achieve net zero greenhouse gas emissions by 2050 at Pluto LNG. The targets were approved by the WA Minister for Environment under Woodside's contemporised Pluto Greenhouse Gas Abatement Program in June 2021.

We undertake scientific monitoring and management of air at our Burrup facilities, consistent with industry standards, regulations and environmental licence requirements, and support the State's Rock Art Management Program.

Woodside supports the ongoing protection, conservation and management of the National Heritage Listed values of Murujuga (Burrup Peninsula) and the wider Dampier Archipelago as committed in the 2017 Deep Gorge Joint Statement.

We also support World Heritage Listing of the Murujuga Cultural Landscape on the basis of our demonstrated coexistence with its heritage values.

Woodside continues to work closely with the Murujuga Aboriginal Corporation and the Ngarda-Ngarli traditional custodians to ensure the ongoing protection of cultural heritage values.

Future benefits

The development of Scarborough through Pluto is expected to deliver significant long-term benefits over the life of the projects including:

- A peak construction workforce of almost 3,200 jobs.
- Capital expenditure of A$15.8 billion in WA to 2051.
- Boosting Australia's Gross Domestic Product by A$125 billion to 2063.

These developments will support local operations and WA communities for decades, including long-term investment in education, training and jobs.

Working with Woodside

Woodside and its contractors will use the Karratha Local Jobs portal (karrathalocaljobs.com.au) to advertise appropriate roles. Requirements are still being considered but a FIFO workforce would likely be required to supplement the locally sourced workforce.

Further information

This Overview, along with other information on Woodside’s proposed developments and operations, is available at www.woodside.com.au

Proposed developments are subject to joint venture approvals, regulatory approvals and relevant commercial arrangements, therefore, development concept and timing may be subject to change.

If you require further information or would like to comment, please contact Woodside by email to feedback@woodside.com.au or call toll free 1800 442 977.

All information is current as at February 2022.

www.woodside.com.au

1 Source: Proposed Development of Scarborough Economic Impact Assessment (ACIL Allen, June 2019)