ConocoPhillips Australia

Barossa Gas Export Pipeline Installation

Environment Plan – Consultation Update
April 2019

Overview

Barossa is an offshore gas and condensate project located 300 kilometres west of Darwin that proposes to provide a new source of natural gas to the existing Darwin LNG (DLNG) facility at Wickham Point from 2023.

The project is being progressed by joint venturers ConocoPhillips Australia Barossa Pty Ltd (Operator), SK E&S Australia Pty Ltd and Santos Offshore Pty Ltd. The Development Area is located in Commonwealth Waters and encompasses petroleum retention lease NT/RL5 (the Barossa Field), where initial development would occur, and potential future development to the south in retention lease NT/RL6 (the Caldita Field).

In March 2018, the Barossa Offshore Project Proposal (OPP) was accepted by the Commonwealth Government's offshore oil and gas industry regulator, the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), following an eight-week public comment period.

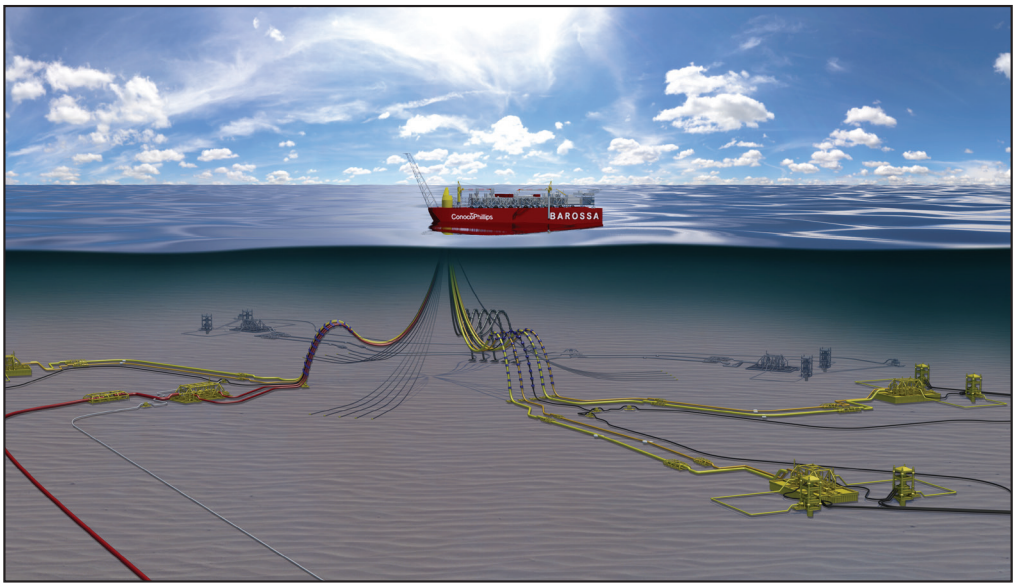


Figure 1: Barossa Offshore Development Concept with Gas Export Pipeline shown in red.

The OPP describes the project activities and provides an assessment of the potential environmental impacts and risks associated with the project. It defines measurable, project specific key management controls and environmental performance outcomes (EPOs) that will be applied to manage the potential environmental impacts and risks associated with the project to ensure they are of an acceptable level and consistent with the principles of ecologically sustainable development (ESD) as set out in the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The OPP is the over-arching environmental management plan that guides the preparation of more detailed Environment Plans (EPs) for each project activity.

Development Concept

Gas and condensate would be gathered from subsea wells and brought to a Floating, Production, Storage and Offtake (FPSO) vessel via a network of subsea flowlines and risers **(Figure 1)**. Initial processing would then occur on the FPSO to separate the gas, water and condensate.

The condensate would be transferred from the FPSO to specialised tankers for export. The resulting dry gas would be sent to Darwin via a new 260 km pipeline connected to the existing Bayu-Darwin pipeline, subject to commercial arrangements being negotiated with the existing infrastructure owners.

At the existing Darwin LNG Facility at Wickham Point the dry gas would be converted into Liquefied Natural Gas for export. Connecting to the existing Bayu-Darwin pipeline means there is no need to install additional pipeline in Northern Territory coastal waters.

Project Status

The Barossa Project is now in the Front-End Engineering Design (FEED) phase of development which will continue until late 2019. During the FEED phase, the costs and technical definition for Barossa are matured in order to provide sufficient certainty of cost, schedule and execution planning.

Following FEED, subject to a Final Investment Decision (FID) and required approvals being in place, offshore development work would start in 2020/21.

The existing DLNG infrastructure owners are currently assessing options to backfill the facility's existing LNG train from 2023 when the current gas supply from the Bayu-Undan offshore field is expected to be exhausted.

If Barossa is selected as the DLNG backfill option, it would enable continued operation of the DLNG facility for a further 20 plus years, contribute significant income, employment and other benefits to the Northern Territory and Australia and help meet future global demand for natural gas.

Regulatory Process

The Offshore Petroleum and Greenhouse Gas Storage Environment) Regulations 2009 require a titleholder to have an accepted Environment Plan (EP), including corresponding Oil Pollution Emergency Plans (OPEPs), accepted by NOPSEMA before any petroleum activity or greenhouse gas activity can commence.

The regulations exist to ensure that any petroleum activity undertaken in an offshore area is managed in a manner consistent with the principles of ecologically sustainable development (ESD) as set out in the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and carried out in a manner by which the environmental impacts and risks of the activity will be reduced to as low as reasonably practicable (ALARP) and acceptable levels.

Acceptance of the Barossa OPP in March 2018 authorises ConocoPhillips Australia to submit activity specific EPs to NOPSEMA for assessment and acceptance.

The first EP being developed for submital is for the installation of the nominally 260-kilometre gas export pipeline from the Barossa field that would connect to the existing Bayu-Darwin Pipeline, about 120 kilometres offshore of Darwin.

During the development of each EP, the proponent must undertake consultation with relevant persons and provide them with information about the proposed activities, the potential impacts and risks and the control and mitigation measures proposed to reduce the impacts and risks to As Low As Reasonably Practicable (ALARP) and acceptable levels.

This notice marks the start of consultation by ConocoPhillips Australia with external stakeholders to help prepare the Gas Export Pipeline Installation EP prior to its submittal in 2019

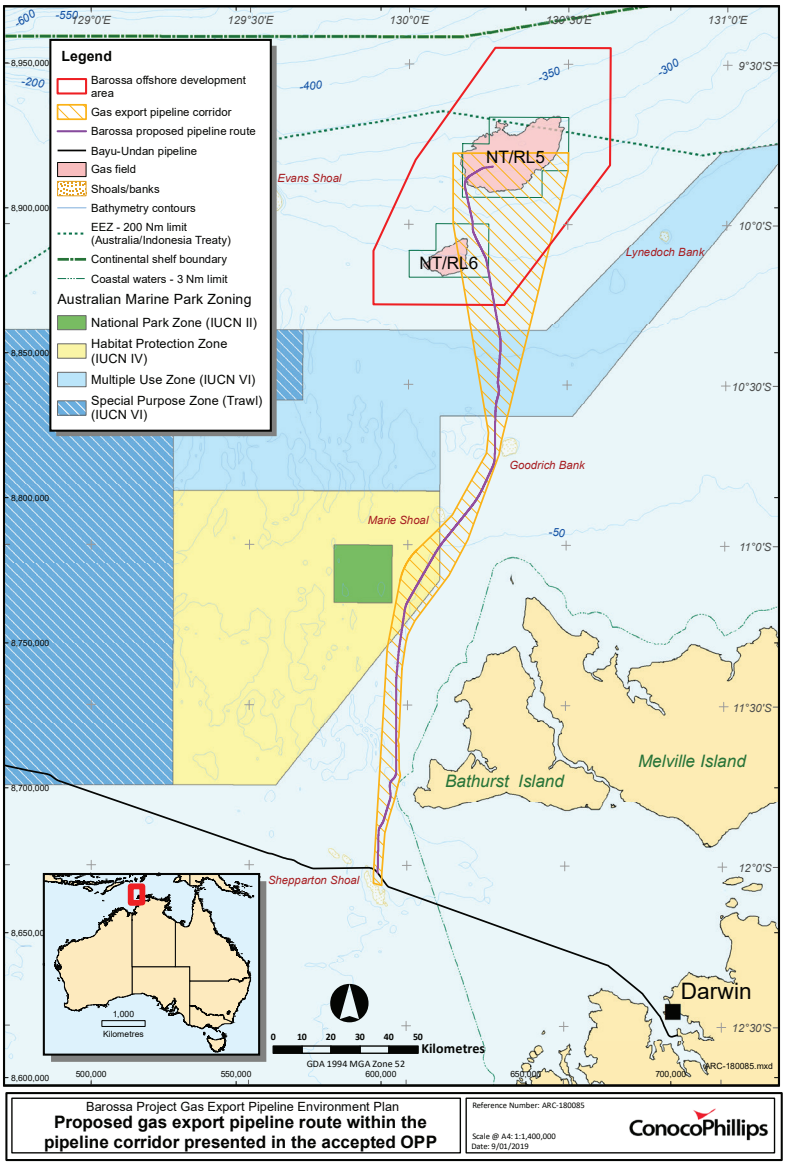


Figure 2: Proposed pipeline route within the hatched corridor presented in the OPP

to NOPSEMA for formal assessment.

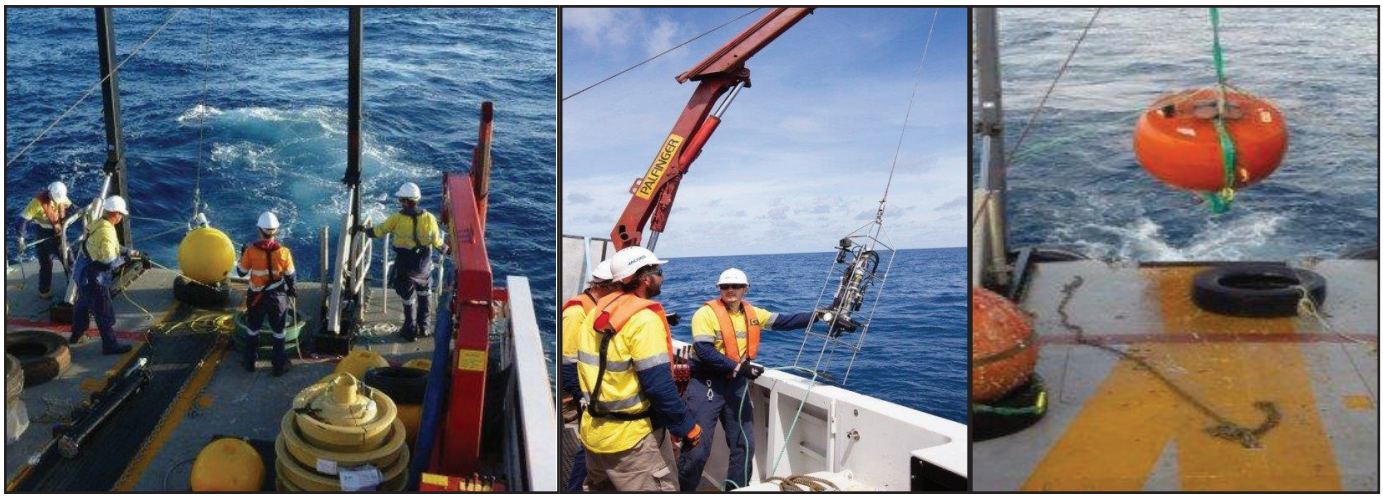
In addition to the Gas Export Pipeline Installation EP, other EPs will be developed to cover the following project activities:

- development drilling
- subsea structure installation
- tow-out and hook up of the FPSO facility
- commissioning
- operations
- decommissioning

Pipeline Route

The Barossa OPP presented a pipeline corridor within which the pipeline would be installed. Based on additional field survey and engineering studies, and after considering water depths, seabed features, including sediment types and topography, engineering and environmental considerations, ConocoPhillips has identified a proposed pipeline route, shown as the purple line within the hatched corridor area **(Figure 2)**.

The proposed route traverses two areas within the Oceanic Shoals Marine Park. A 30 km section through the Multiple Use Zone (IUCN Category VI) and 31.5 km through the Habitat Protection Zone (IUCN Category II).



Deploying metocean, water quality and noise logging equipment during marine baseline studies.

Oil and gas operations in the Oceanic Shoals Marine Park Multiple Use Zone have been authorised through a class approval which requires activities to be undertaken in accordance with an EP accepted under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 by NOPSEMA.

In accordance with the North Marine Parks Network Management Plan, construction and operation of a pipeline in the Habitat Protection Zone is an allowable activity subject to assessment and issuance of a licence by the Director of National Parks.

Following ongoing consultation with Parks Australia since 2016, and after extensive evaluation of alternative routes and impact assessment work, ConocoPhillips Australia concluded that routing the pipeline further east to remain outside the marine park would require greater seabed intervention works during installation and would result in greater environmental impacts. Consequently, an application to construct and operate the pipeline within the Habitat Protection Zone was made to the DNP.

In December the Director of National Parks (DNP) gave in-principle authorisation for the proposed route. ConocoPhillips will ensure the environmental values/sensitivities along the route are considered and installation is consistent with the North Marine Parks Network Management Plan requirements, including the specific conditions set by the DNP, and other relevant legislation.

Installation Procedure

The new gas export pipeline would be 26 inches in diameter and installed on the seabed. The pipeline will be constructed from carbon steel and have an external anti-corrosion coating and anodes to maintain integrity.

The primary method of maintaining pipeline stability on the seabed, where required, will be through a concrete weight-coating. The undulating seabed along the pipeline route results in the creation of pipeline spans. Seabed intervention is required to minimise the length of spans and ensure pipeline integrity is maintained.

Several seabed intervention methods could be used to manage spans and stability where concrete weight-coating alone is insufficient. These methods could include concrete mattresses, sand/grout bags, local modification to the seabed, steel structures, rock bolting and gravity anchors.

Following installation of the proposed pipeline, the following activities will also be undertaken prior to its commissioning:

- flooding, cleaning and gauging of the pipeline
- hydrostatic pressure testing of the pipeline with treated seawater to confirm the structural integrity
- dewatering of flooding fluid at the Barossa field location.

Operational Area

The operational area is the geographic extent of the GEP installation campaign, which is considered and risk assessed in the EP.

The operational area is defined as 2,000m either side of the pipeline route, except in the following areas:

- Adjacent to Goodrich Bank and adjacent to Bathurst Island where the width of operational area has been reduced to the east of the pipeline centreline to remain within the pipeline installation corridor presented in the accepted OPP.
- At both PLET locations where the operational area has been extended to a radius of 3,000 m for operational purposes (whilst remaining within the pipeline installation corridor in the accepted OPP).

The operational area encompasses the installation of the GEP and support vessel movements in the immediate vicinity of the pipelay vessel.

Timing/schedule

Installation of the GEP is expected to commence as early as Q1 2021 and finish as late as Q1 2024. However, pre-lay survey could commence up to nine months earlier than pipeline installation, and pre-lay span rectification may occur up to 30 days prior to pipeline installation.

The total infield duration of the offshore installation activities is expected to be approximately nine months. The schedule is indicative only; exact timing and duration of GEP installation

activities is subject to pipelay vessel availability, sea state, weather conditions and operational efficiencies.

The accepted Barossa OPP includes additional detail relevant to the Gas Export Pipeline Installation and the preparation of this EP. The table below lists the OPP section titles and page numbers for ease of reference.

The full document and all supporting technical appendices, including a summary of the submissions received and responses that were provided, are available on the ConocoPhillips Australia website www.conocophillips.com.au

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Consultation

ConocoPhillips understands the importance of thorough, meaningful and ongoing consultation with stakeholders as part of its regulatory commitments and social licence to operate.

For the Barossa Project, consultation has been ongoing since the start of exploration and appraisal and will continue during development and throughout the life-cycle of the project.

The broad range of relevant and interested stakeholders includes community members, Commonwealth and Territory governments, spill response agencies, commercial fishing associations and licence holders, educational and scientific organisations, other oil and gas industry operators, contractors and non-government organisations.

This stage of consultation provides stakeholders with the opportunity to seek further information and provide input that will assist ConocoPhillips in preparing the Gas Export Pipeline Installation EP prior to its submittal to NOPSEMA in 2019. The initial step in the process is distribution of information (this document) to all interested and relevant stakeholders under NOPSEMA's consultation guidelines.

Full details of the requirements and guidelines for public consultation on EPs is available on the NOPSEMA website at www.nopsema.gov.au/environmental-management/assessment-process/environment-plans/ All correspondence received by ConocoPhillips during the consultation period will receive a written response and be considered in the preparation of the EP prior to its formal submittal to NOPSEMA.

During this initial consultation period, ConocoPhillips will contact all relevant stakeholders to ensure the opportunity to gain additional information and provide feedback is provided.

Following the initial consultation period, ConocoPhillips will provide a written update to all stakeholders on preparation of the EP and provide a further opportunity for feedback prior to finalisation and submittal to NOPSEMA.

About ConocoPhillips

ConocoPhillips is the world's largest independent Energy & Production company based on production and proved reserves. Operations were established in Australia almost two decades ago.

Our Australia and Timor-Leste portfolio includes the Bayu-Undan field in the Joint Petroleum Development Area of the Timor Sea, the Darwin LNG facility in the Northern Territory and Australia Pacific LNG facility in Queensland as well as exploration and appraisal projects in northern Australia including Barossa-Caldita and Greater Poseidon.

The DLNG/Bayu-Undan Project has paid more than US$20B in revenue to Timor-Leste and Australia with several years left. ConocoPhillips and its joint venturers have invested more than US$1.6B in exploration across northern Australia.

Please provide written feedback on the gas export pipeline installation via email to barossa@conocophillips.com by the final closing date of Wednesday, 30 April 2019.

If you would like information additional to that provided in this documentation or have other queries related to the EP please contact this email address or telephone External Relations Adviser Michael Marren on (08) 6363 2644.

SK E&S

ConocoPhillips Australia

Santos
We have the energy.