

# Barossa Project

Overview - Q3 2018

The Barossa Project is an offshore gas and condensate project that proposes to provide a new source of natural gas to the existing Darwin LNG (DLNG) facility in the Northern Territory. 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.

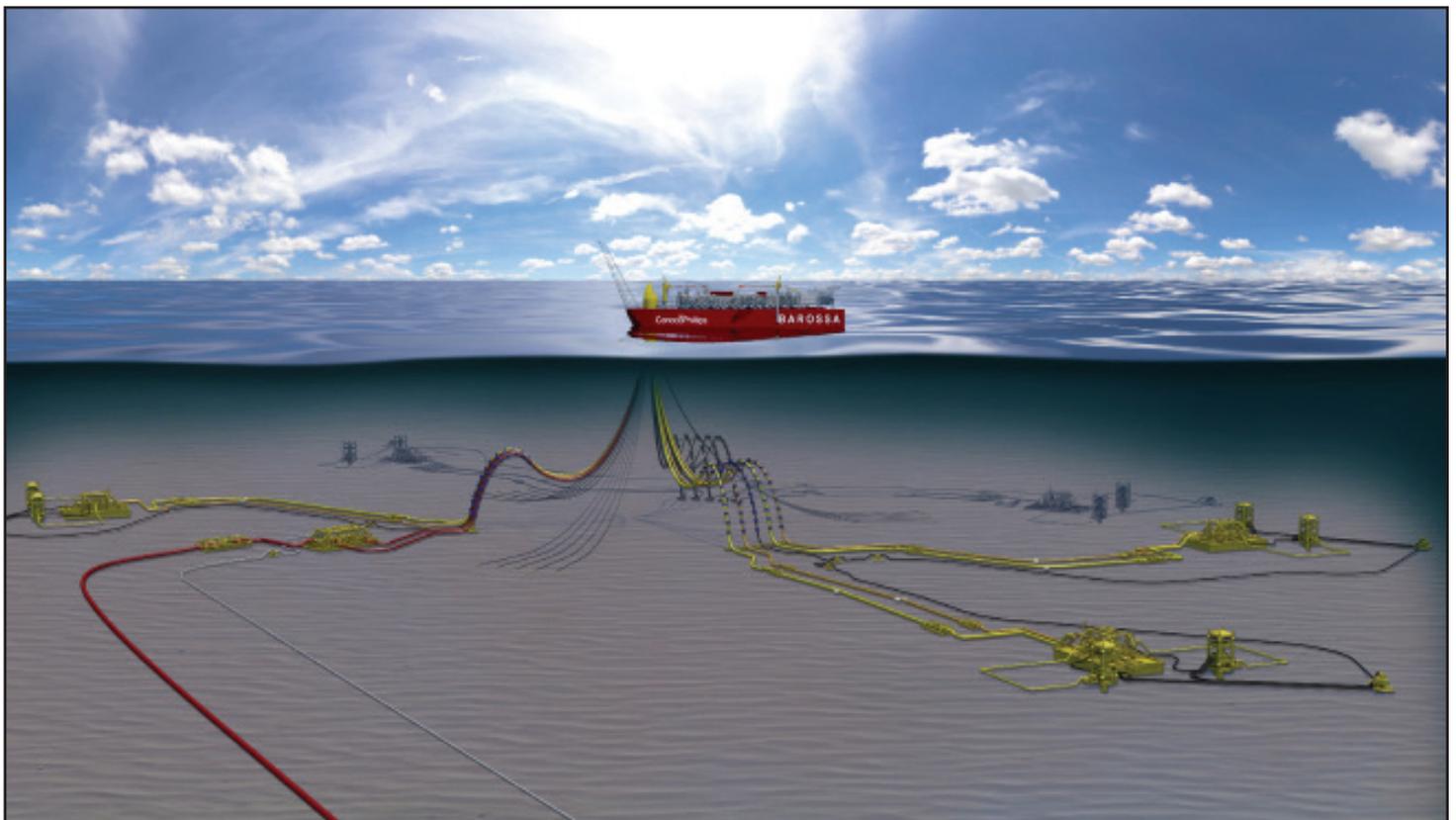
The offshore development concept includes a Floating Production Storage and Offloading (FPSO) facility, subsea production system, supporting subsea infrastructure and gas export pipeline, all located in Commonwealth waters about 300 kilometres north-northwest of Darwin.

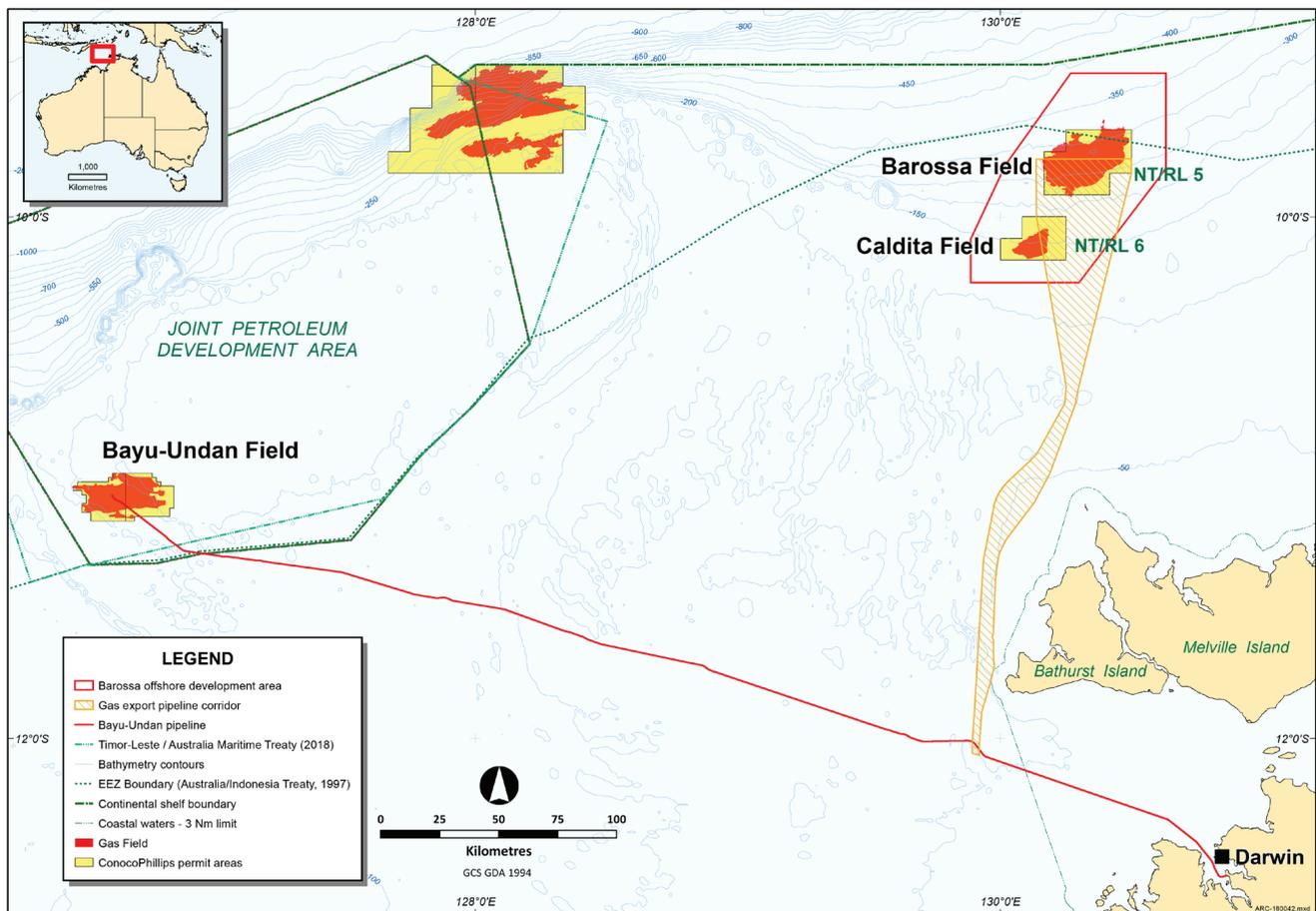
The DLNG infrastructure owners are currently assessing options to backfill the facility's existing LNG train from 2023 when the current gas supply from the Bayu-Undan offshore field is expected to be exhausted.

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

In April 2018, Barossa entered the Front-End Engineering Design (FEED) phase of development which will continue until approximately the end of 2019. During the FEED phase, the costs and technical definition for the project will be matured, LNG and condensate sales agreements progressed, and access arrangements negotiated with the owners of the DLNG facility and Bayu-Undan pipeline to Darwin.

The major FEED contracts for the FPSO, subsea infrastructure and gas export pipeline have been awarded. A Final Investment Decision (FID) on the project would be made following the FEED phase.





Map of the Development Area and Pipeline Corridor

### Development Concept

The Barossa Project area encompasses petroleum retention lease NT/RL5 (the Barossa Field), where initial development would occur, and potential future phased development in the smaller Caldita Field to the south in retention lease NT/RL6.

The development concept notionally involves drilling 10 subsea wells in two phases. The subsea production gathering system lies on the ocean floor at a water depth of approximately 250 metres.

Gas and condensate would be gathered from the wells by the subsea production system and then brought to the FPSO via a network of subsea flowlines and risers.

Initial processing to separate the gas, water and condensate extracted from the field would then occur on the FPSO.

Condensate would be transferred from the FPSO to specialised tankers for export. Gas would be exported to DLNG via a new 260 km export pipeline tied into the existing Bayu-Undan to Darwin pipeline about

### Barossa to date

Exploration	<ul style="list-style-type: none"> <li>Lynedoch-1 and Lynedoch-2 drilled by Shell in 1973 and 1996</li> <li>ConocoPhillips acquired acreage with Santos and drilled Caldita-1, Barossa-1 and Caldita-2 during 2005 to 2007</li> </ul>
Appraisal	<ul style="list-style-type: none"> <li>3D seismic undertaken by ConocoPhillips during 2007/2008</li> <li>SK E&amp;S farmed-in to the acreage in 2012 and drilled in 2014/15</li> <li>ConocoPhillips drilled Barossa-2, Barossa-3 and Barossa-4 during 2014/2015</li> <li>New 3D seismic acquisition in 2016</li> <li>Barossa-5A and Barossa-6 were drilled in 2017</li> </ul>
Pre-FEED	<ul style="list-style-type: none"> <li>Completed March 2018</li> </ul>
FEED	<ul style="list-style-type: none"> <li>Commenced April 2018</li> </ul>

100 km from Darwin, subject to access arrangements being negotiated with existing infrastructure owners.

The exact route of the new pipeline from the Barossa Field is not final and is subject to further studies, but would be located in the gas export pipeline corridor as outlined in the map above.

## Barossa at a Glance



Field covers an area of 400 square kilometres = 20 Rottnest Islands



FPSO is 330m in length = 2 Australian Rules Football Ovals



Pipeline is 260 kilometres in length = distance from Perth to Busselton



FPSO topsides weigh more than 30,000 tonnes = 250 road trains



One cargo of LNG will power over 220,000 homes in Tokyo for one year



FPSO can store 650,000 m<sup>3</sup> of condensate = 38 Olympic-size swimming pools

## Environmental Management and Approvals

ConocoPhillips has developed a detailed understanding of the environment within which development would occur based on a comprehensive baseline studies program that included collaborations with the Australian Institute of Marine Science and scientific experts.

In March 2018, the Barossa Area Development Offshore Project Proposal (OPP) received environmental acceptance from the National Offshore Petroleum Safety and Environment Management Authority (NOPSEMA). An accepted OPP is required in accordance with the Australian government's environmental assessment process for any new petroleum project in Commonwealth waters. It is prepared during a project's early design phase and considers all potential environmental impacts and risks over the project's life-cycle.

The Barossa OPP was published in July 2017 for an eight-week public comment period to provide opportunity to comment on the project during its early development stage. Following the public comment period, the OPP was re-submitted after taking comments received into consideration. The accepted OPP and all supporting technical appendices are available on the NOPSEMA website.

Acceptance of an OPP by NOPSEMA provides approval of the development concept design and key development assumptions. Acceptance also enables the subsequent submission of separate Environment Plans (EPs) for project activities to NOPSEMA for assessment and acceptance. The activity specific EPs, including corresponding Oil Pollution Emergency Plans (OPEPs), are required to be submitted to, and accepted by NOPSEMA before project activities can commence. EPs provide detailed evaluation of the impacts and risks associated with specific activities, while the OPEPs detail arrangements for responding to and monitoring oil pollution.

A series of EPs will be developed to cover the following project activities:

- development drilling;
- subsea structure installation (including gas export pipeline installation);
- tow-out and hook up of the FPSO facility;
- commissioning;
- operations; and
- decommissioning.

Other approvals and plans that will be required include production, pipeline and infrastructure licenses, Safety Cases for vessels and operations and management plans for well operations. Assuming all the required approvals are in place, offshore development work would commence with the drilling of development wells. Consultation with all stakeholders will continue during preparation of each EP to further understand and seek feedback on key issues and concerns, with the outcomes fully documented in the EPs submitted to NOPSEMA.

## Australian Industry Opportunities

The majority of activities associated with the Barossa Project will occur offshore.

The FPSO will be a very large and complex facility that a relatively small group of global companies have the experience and proven capability to deliver. However, with such a large development, opportunities will exist for smaller/domestic companies to sub-contract for specific equipment and services.

During the FEED phase, ConocoPhillips will be working with our key engineering contractors to identify and promote opportunities for the supply of goods and services to the project.

FEED for the FPSO facility will be conducted as a design competition between two contractor groups. Following an extensive bid process, separate FPSO FEED contracts have been awarded to MODEC and to a consortium between TechnipFMC and Samsung Heavy Industries. FEED for the subsea infrastructure (umbilicals, flowlines and risers) and gas export pipeline has been awarded to INTECSEA.

An approved Australian Industry Participation (AIP) Plan is now in place for the Barossa Project, in compliance with requirements under the **Australian Jobs Act 2013**. The plan states how Barossa will provide “full, fair and reasonable opportunity” to Australian industry to supply goods and services to the project and includes an indicative list of these opportunities.

ConocoPhillips Australia has engaged the Industry Capability Network - Northern Territory (ICNNT) to assist with Australian vendor identification on this project. To register for potential opportunities on the Project please visit [barossaoffshore.icn.org.au](http://barossaoffshore.icn.org.au).

## 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, Greater Poseidon and Greater Sunrise.

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, including Barossa-Caldita.



### Contact and more information

For more information about the Barossa Project and ConocoPhillips, including career opportunities, go to [www.conocophillips.com.au](http://www.conocophillips.com.au)

To register for potential supplier opportunities on the Project please visit [barossaoffshore.icn.org.au](http://barossaoffshore.icn.org.au) or contact [elena.tsangari@icnnt.org.au](mailto:elena.tsangari@icnnt.org.au)

For general enquires about the Barossa Project contact [barossa@conocophillips.com](mailto:barossa@conocophillips.com)

Find out more [www.conocophillips.com.au](http://www.conocophillips.com.au)

