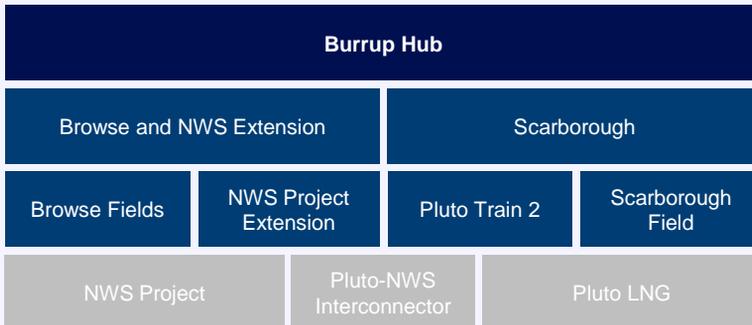


Burrup Hub

ECONOMIC IMPACT ASSESSMENT JUNE 2019

DEVELOPMENT MAP



BURRUP HUB OVERVIEW

The Burrup Hub involves the proposed development of an additional 20 to 25 trillion cubic feet of gas resources from the Scarborough and Browse fields off the north west coast of Western Australia. The Burrup Hub builds on the existing Pluto LNG and North West Shelf projects, linking two of the State's largest pieces of economic infrastructure to create a regional LNG production centre on the Burrup Peninsula.

The Burrup Hub has the potential to enable the long term processing of gas resources to supply both domestic and international markets and create significant employment and regional development opportunities, including logistics support through Broome to service the proposed Browse to North West Shelf development concept .

The vision for the Burrup Hub also includes initiatives not modelled as part of this report, such as additional fields that could tie in to the Hub, as well as new initiatives designed to abate and offset emissions from operations and to improve energy efficiency. Woodside is pursuing options for integrating solar with gas fired power generation to run facilities.

This summary report has been independently prepared by ACIL Allen Consulting for Woodside to provide a high level overview of the estimated direct and indirect economic impacts on the Australian and Western Australian economies, and the regional economies of Karratha and Broome, over the life of the projects that make up the Burrup Hub. The results represent the incremental economic impacts over and above current production levels from the North West Shelf and Pluto LNG projects.

ESTIMATED DEVELOPMENT PRODUCTION



LNG: 3,026 MMBOE

Domestic gas: 450 MMBOE



Condensate: 390 MMBOE

LPG: 62 MMBOE

Average annual LNG production is equivalent to over 30% of WA's projected LNG exports

Average annual domestic gas production is enough to generate electricity to power over 1.2 million WA homes each year from the Burrup Hub



Direct contribution

The Burrup Hub is expected to result in a significant **direct** contribution to the Australian economy through capital and operational spending, employment, taxation and royalty payments, and exports. The majority of these direct impacts will be realised in Western Australia including in the Pilbara and the Kimberley regions. A summary of the **direct** impacts of the proposed development are set out below.

Capital expenditure of **\$52 billion** in Western Australia between **2019-2063**



...including over **\$1.3 billion** in Karratha and Broome

Peak construction workforce of over **4,600 jobs** in 2023



...or on average **950 jobs** per annum between 2019 and 2063

Almost **1,100 operations jobs** will be created or sustained on average during operations



...including up to **460 jobs** in the Karratha region during operations

\$703 million of annual average operational expenditure in Western Australia



...including **\$15 million** of spend per annum for **Broome** logistics support activities

Over **\$82 billion** of total taxation and royalty payments estimated to be directly paid as a result of the Burrup Hub



Proposed capital expenditure from the development of the Burrup Hub is equivalent to the construction costs of 33 Optus Stadiums



x33

Businesses in **Karratha** will on average benefit from over **\$86 million per annum** of direct localised spending required to operate the Burrup Hub



The annual average operational spend of the Burrup Hub is equivalent to the average annual retail spending of 54,000 Western Australian residents each year



54,000

Economic impacts

The Burrup Hub is expected to deliver significant long term benefits across Australia over the life of the project. The estimated economic impact of the development is presented below in the form of the **direct and indirect** impacts to incomes, output, and full time equivalent (FTE) jobs at a regional, state and national level, as well as the estimated direct and indirect tax and royalty payments generated as a result of the development. It is estimated the Burrup Hub will...

Boost the Gross Domestic Product of Australia by
\$414 billion
between 2019-2063



Equivalent to 23% of Australia's GDP in 2017-18

...of which 99% will be in Western Australia

Increase the real incomes of Australian residents by
\$370 billion
between 2019-2063



The boost to national income is over 3 times the total incomes earned by WA residents in 2017-18

...of which over **\$22 billion** will be retained in Karratha, and a further nearly **\$4.8 billion** in Broome

Create an average of more than
4,000 jobs
per annum nationally between 2019-2063



Equivalent to the employment created by more than 650 new small businesses each year

...with over **1,900 jobs** located in Karratha and Broome

Generate direct taxation and royalty payments to the Commonwealth and State Governments of

\$82 billion

between 2019-2063, and indirect taxation payments of

\$44 billion



Average annual tax payments of \$2.8 billion could construct over 180 km of national highway every year between 2019-2063



Image courtesy of Woodside

Assumptions

The economic impact assessment has been undertaken on the assumption that joint venture and regulatory approvals are obtained and commercial agreements finalised.

The study period for the economic impact assessment is 2019-2063.

All results presented are for the total share of the development and therefore include the Woodside share as well as joint venture share. Only the Woodside operated assets are included in this report.

All values are reported in real Australian dollars (2018). Production values are reported in millions of barrels of oil equivalent (MMBOE).

All estimated construction and operation spending data for each proposed development has been supplied by Woodside and publicly available information. Capital expenditure includes initial construction costs, ongoing capital costs and end of life abandonment costs.

A flat \$86.66 (USD\$65) per barrel price for oil has been assumed, with prices for LNG, LPG and Condensate benchmarked to this.

Reported direct taxation and royalty payments paid by Woodside and its joint venture participants include all Company Taxation, Petroleum Resources Rent Taxation (PRRT), Payroll Taxation, development specific royalty payments, Condensate Excise, and carbon payments.

Methodology

Economic impacts have been estimated using ACIL Allen's proprietary computable general equilibrium model *Tasman Global*.

Economic impacts include the direct and indirect (or flow on) impacts of each proposed development by Woodside and its relevant joint venture participants. The indirect impact is a result of changes in demand in other industries from the initial impact created from the construction and operation of the developments. Economic impacts are reported in terms of:

Gross product or real economic output

A measure of the size of an economy or the output generated by an economy over a period of time.

Real income

A measure of the welfare of residents in an economy through their ability to purchase goods and services and to accumulate wealth.

Real employment (jobs)

The number of net full time equivalent job years created as a result of a project. Real employment creation is the direct and indirect (flow on) employment as a result of a project. Real employment is measured in full time equivalent (FTE) job years which is equivalent to the employment of one person on a full time basis for one year.

Total taxation

The direct taxation paid by the development as well as the indirect taxation created as a result of additional economic activity resulting from the development.

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