

ACCR

# FORK IN THE ROAD

Under new leadership, it's time for Woodside to look towards value

12 February 2026

**CATALYSING CHANGE  
FOR A SECURE FUTURE**



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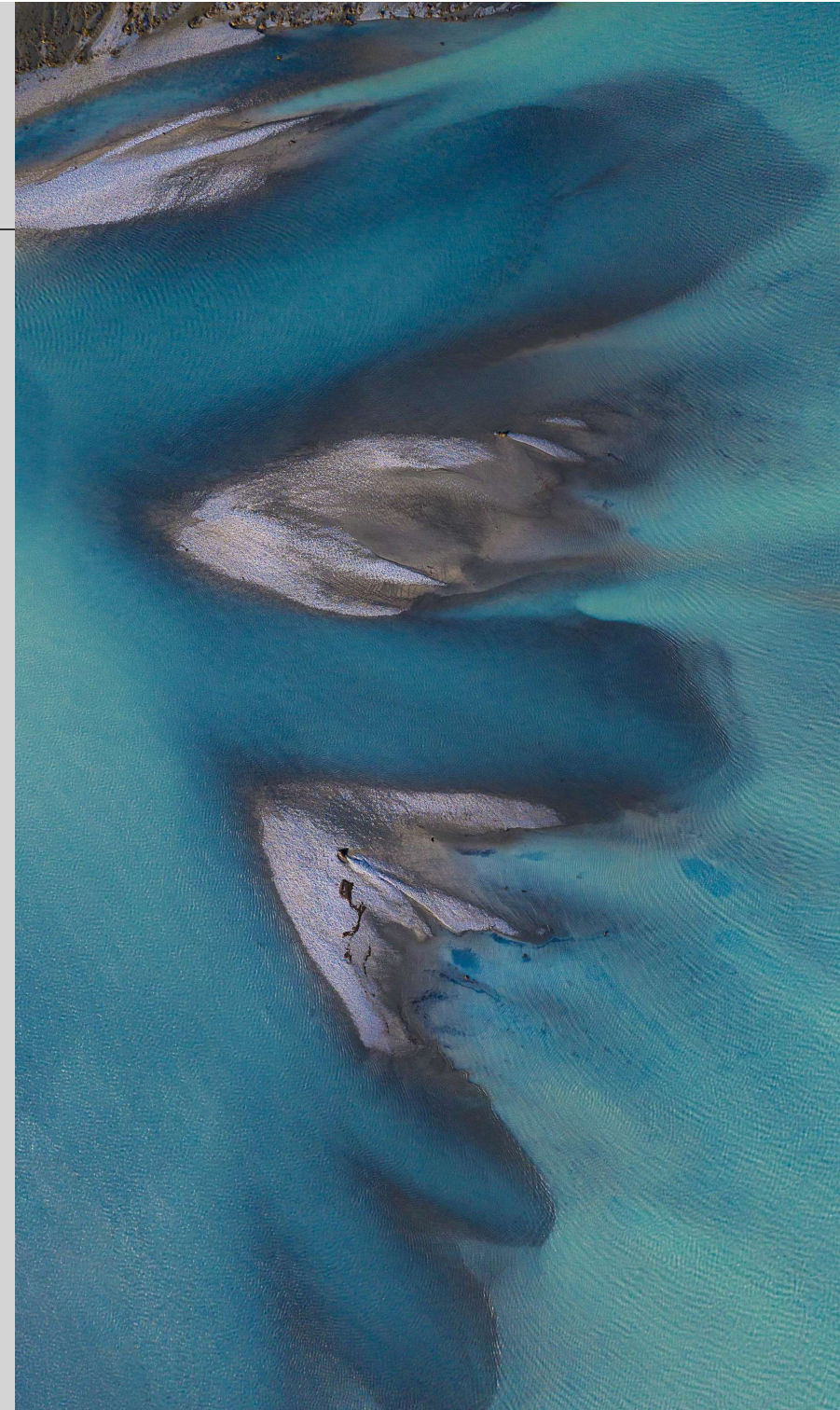
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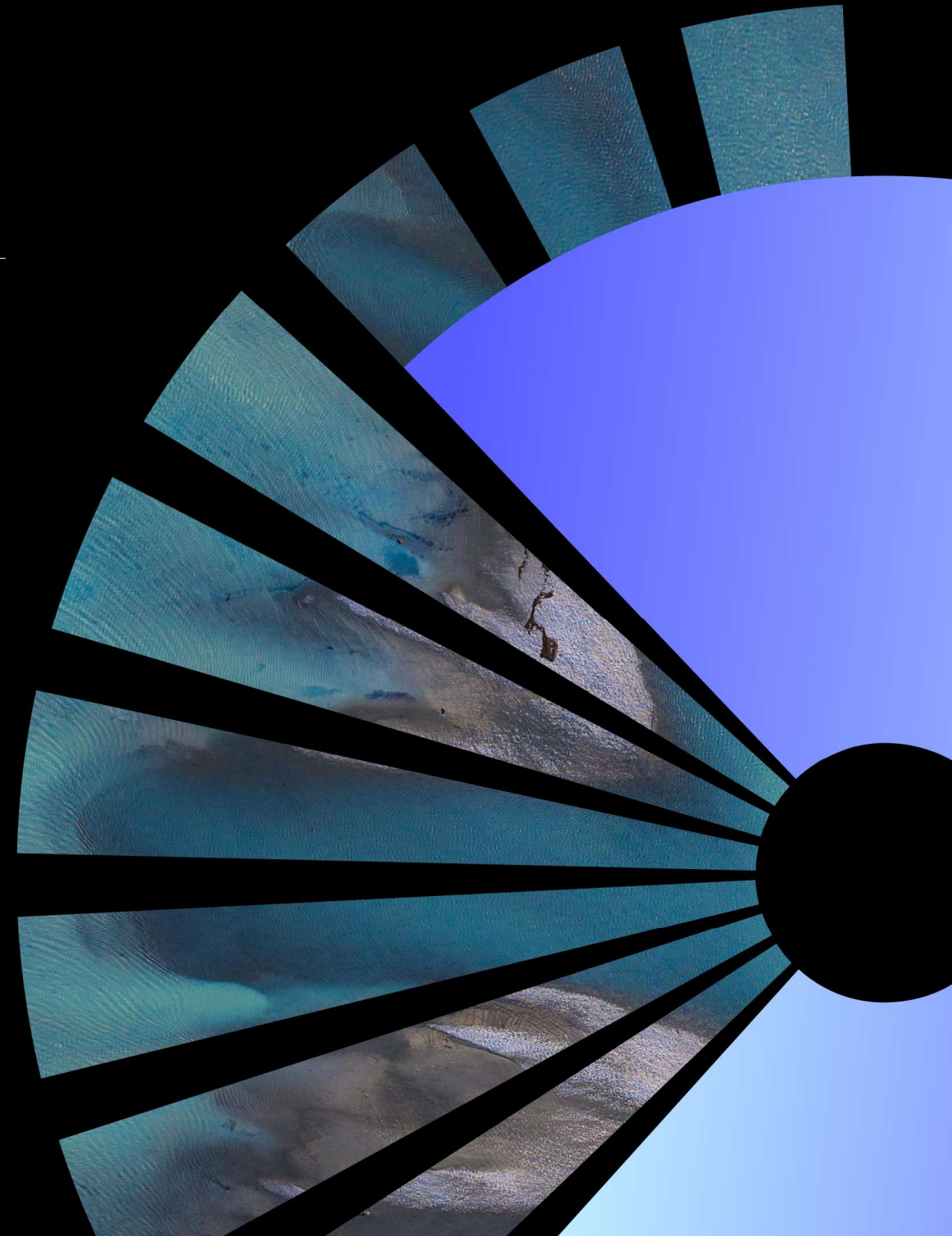
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# EXECUTIVE SUMMARY

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**An aggressive growth strategy over the past five years has delivered increased production for Woodside but not value for investors. The departure of former CEO, Meg O'Neill, is a chance to take stock and consider alternative strategies that could deliver billions of dollars more value.**

Since 2020, Woodside has invested in five billion barrels of new oil and gas production, which will increase production by 370% through the 2030s. Despite this, the company has underperformed the sector plus local and global markets. Our analysis shows that Woodside's four major oil and gas projects which made FID on since 2020 have eroded \$3.5 billion<sup>1</sup> of net present value (NPV).

Woodside's project hopper shows little cause for optimism. Its pre-FID LNG projects are high cost, its material gas projects uncompetitive, and its largest oil project is immaterial.

Our analysis shows that at this point in time, ceasing oil and gas exploration and development would generate almost \$3 billion more NPV than a business-as-usual strategy.

**Investors can take this opportunity to engage with Woodside's board on expectations for the incoming CEO.**

Now is the time to advocate for a refreshed capital allocation strategy that prioritises shareholder returns over production, including realistic commodity price/project execution assumptions and a justify-in approach to exploration capex.

This refresh would be more effective if supported by a remuneration structure that removes incentives for value dilutive capex or increases in production.

Investors could convey to Woodside that a gradually declining production profile is acceptable if it results in higher value.

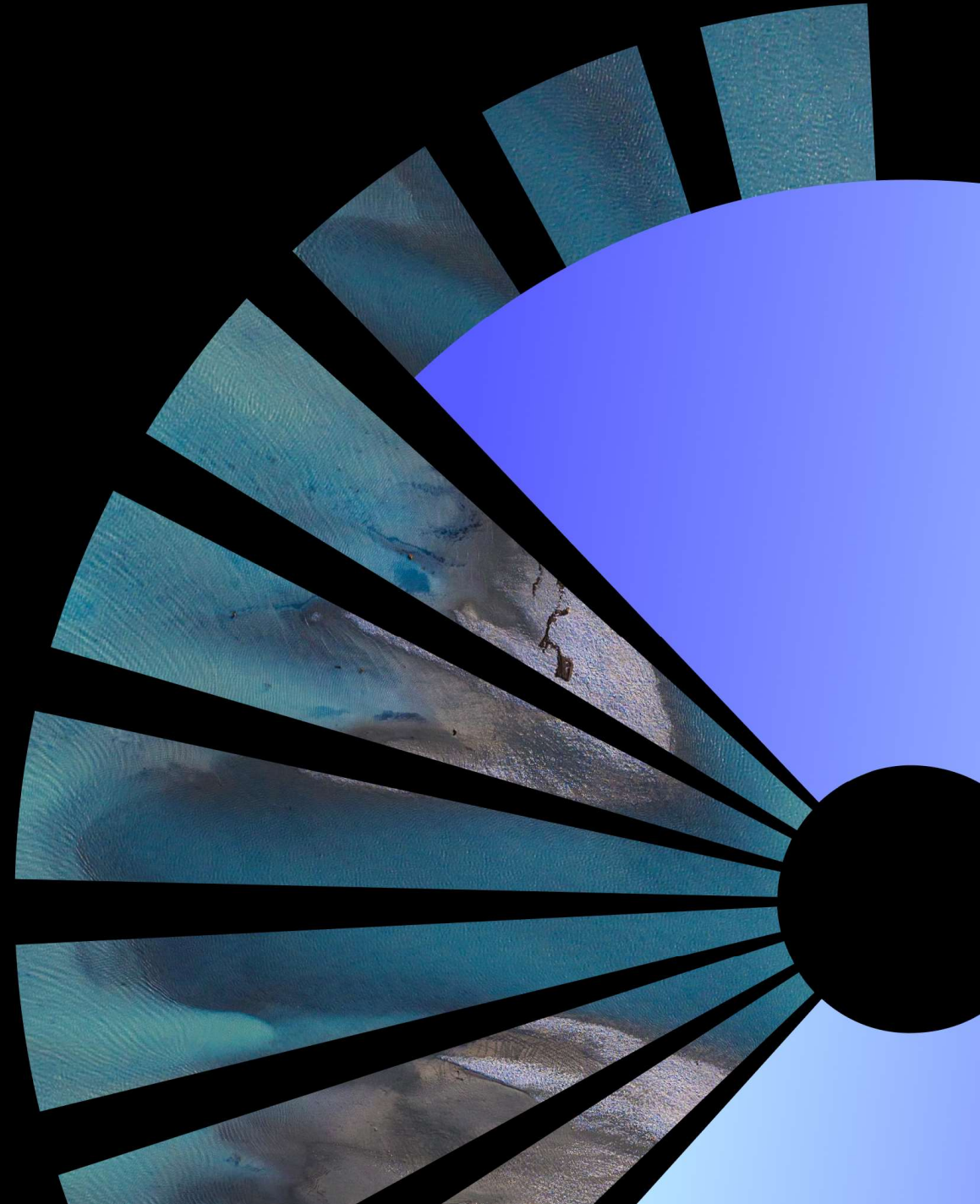
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1. All \$ currency values are USD. All production and financial values are Woodside share, unless stated otherwise.

# WOODSIDE HAS GROWN PRODUCTION, NOT VALUE

The aggressive production growth strategy pursued by Woodside over the past five years has eroded value and failed to drive returns.

01.

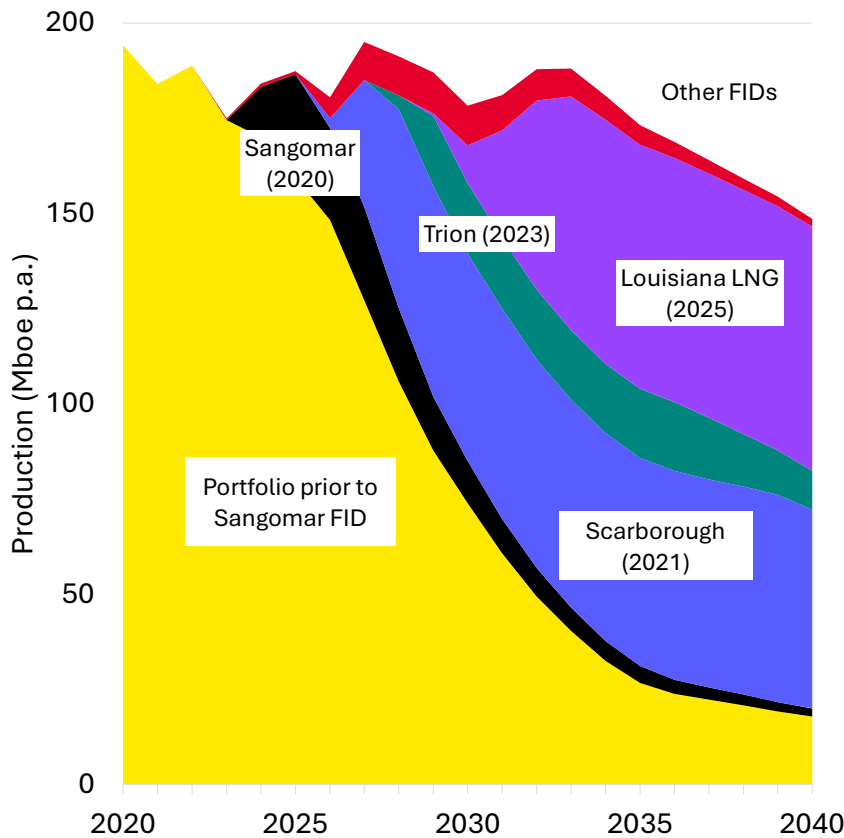


# DESPITE APPROVING FIVE BILLION BOE OF PRODUCTION, WOODSIDE HAS STILL UNDERPERFORMED THE SECTOR AND THE MARKET

Since 2020, Woodside has approved \$5 billion boe of future production. It will increase production in the 2030s by 370% and increase scope 3 emissions by 1.4 GtCO<sub>2</sub>e (2.5 GtCO<sub>2</sub>e at 100% share).

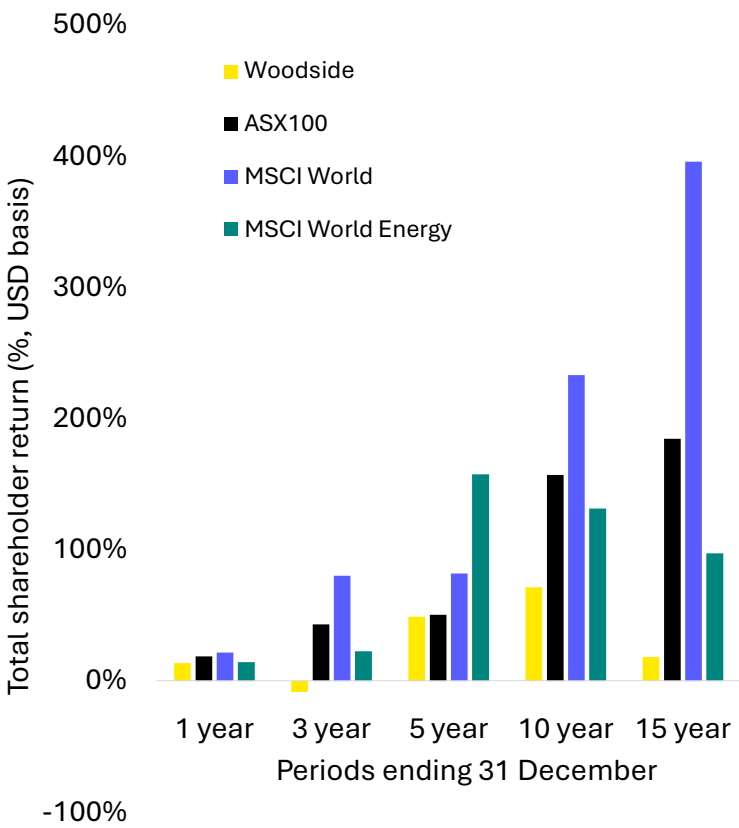
Despite this, Woodside has consistently underperformed the ASX100, MSCI World and MSCI World Energy indices.

Recent FIDs increase Woodside’s 2030s oil and gas production forecast by 370%<sup>1</sup>



Source: ACCR analysis of Rystad Energy data. Numbers in labels refer to FID year.

Woodside has consistently underperformed the sector plus local and global markets<sup>2</sup>



Source: Bloomberg

1. Based on Woodside’s current ownership of each asset. Louisiana and Scarborough LNG production is based on Woodside’s ownership of the LNG infrastructure as recorded in Rystad, which underrepresents Woodside’s share of production (see slide 9 for more information).

# WOODSIDE'S RECENT OIL AND GAS PROJECTS HAVE ERODED AN ESTIMATED \$3.5 BILLION IN NPV

Woodside has made four major oil and gas FIDs since 2020:

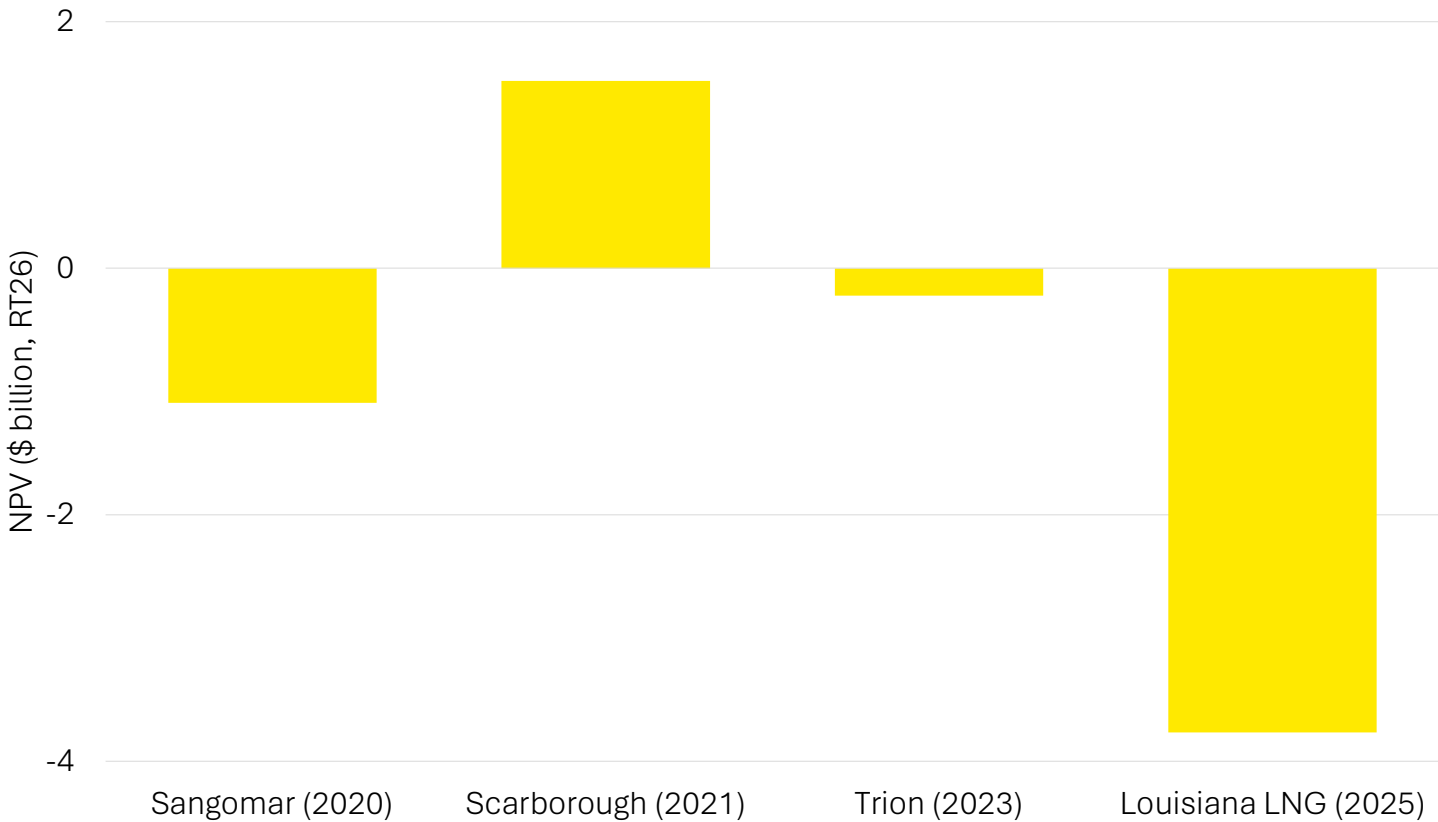
- **Sangomar** (FID 2020) is a \$5 billion oil project off the coast of Senegal. It was 20% over budget and one-year late. We estimate it has eroded \$1.1 billion in NPV.
- **Scarborough** (FID 2021) is a \$12.5 billion LNG project in Western Australia. It is currently marginally over budget but on target to start up in 2026.
- **Trion** (FID 2023) is a \$7.2 billion oil project in the Mexican waters of the Gulf of Mexico. We estimate that it is eroding \$220 million in NPV and carries significant partner risk.
- **Louisiana LNG** (FID 2025) is a 16.5 Mtpa, \$17.5 billion LNG project in the United States. It is a relatively high-cost project, and we estimate it will erode \$3.8 billion in NPV.

Under a higher price sensitivity, using Rystad Energy’s base price deck,<sup>1</sup> these projects have eroded \$1.6 billion in NPV.

Modelling assumptions, cost benchmarking and additional information for each project are included in Appendix 1.

Scarborough’s higher relative returns are likely due to it being more competitive than the other projects and Woodside’s familiarity with Australia.

Woodside’s last four greenfield projects have eroded an estimated \$3.5 billion in NPV



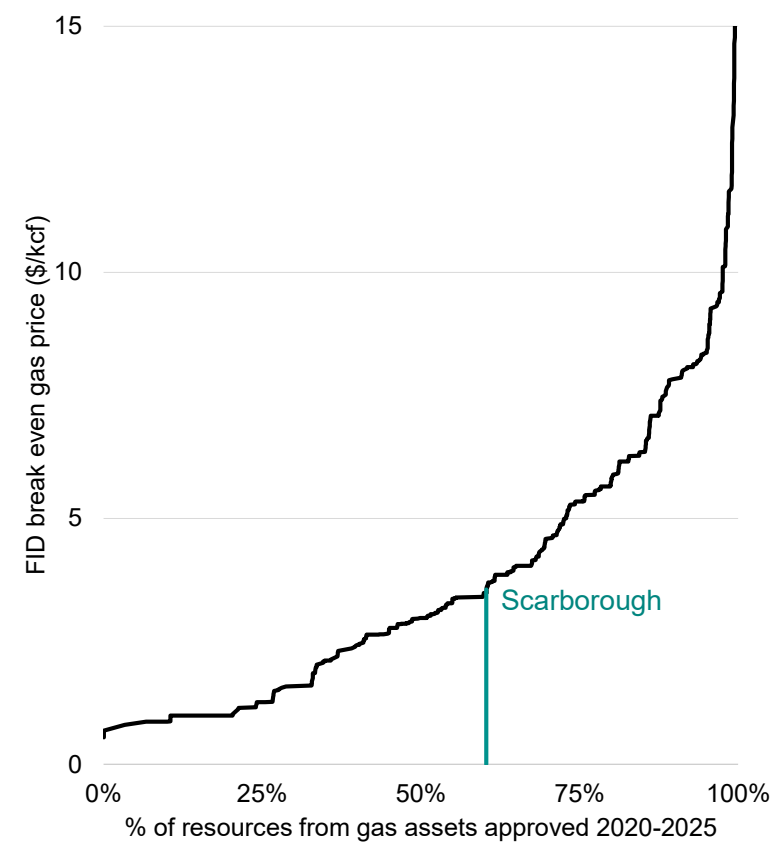
Source: ACCR analysis using Rystad Energy data and economic model.

1. Brent, East Asian LNG and North American gas prices are \$57/bbl, \$11.4/ksf and \$2.8/ksf respectively in the forward price deck; and \$70/bbl, \$11.6/ksf and \$4.9/ksf in the Rystad Energy base price deck (2026-2050 simple averages; RT24).



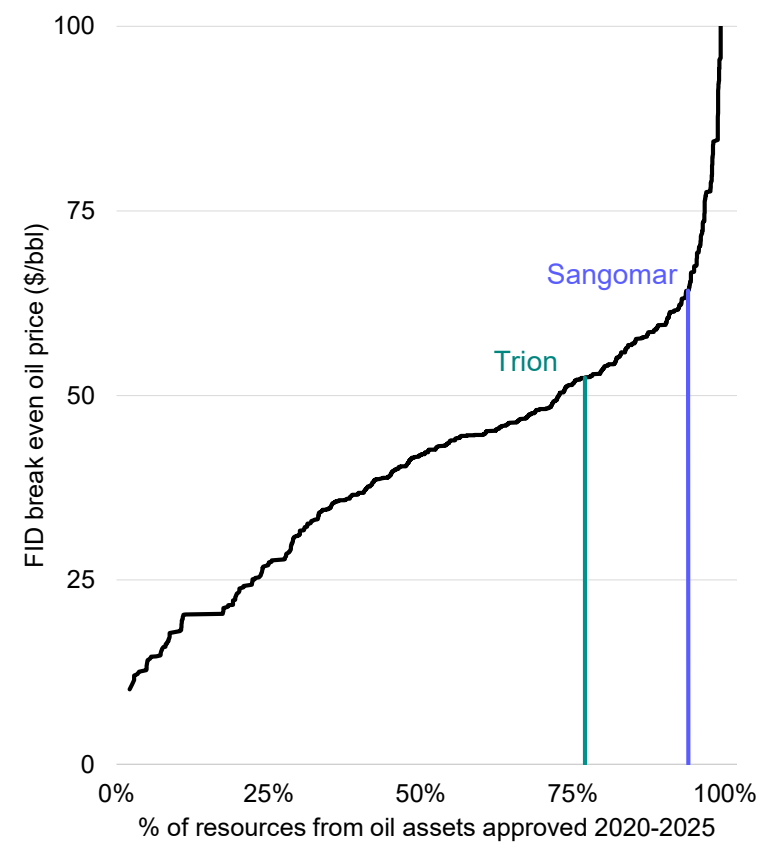
# WOODSIDE'S RECENT FIDS HAVE BEEN RELATIVELY EXPENSIVE

Scarborough is more expensive than 60% of gas resources approved globally since 2020



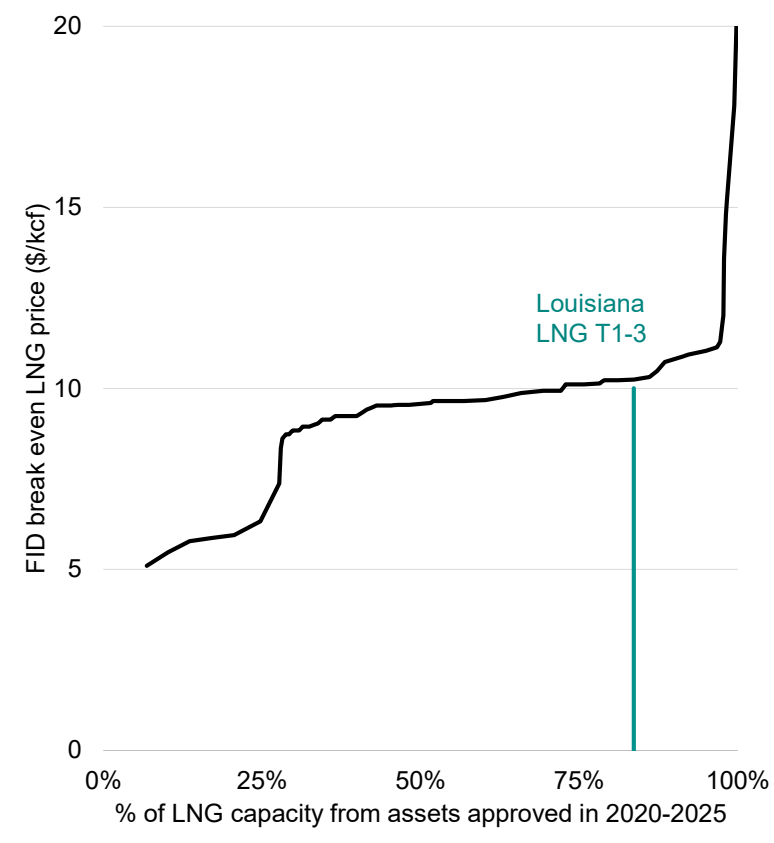
Source: ACCR analysis of Rystad Energy data.

Woodside's oil projects are more expensive than 75% of oil projects approved globally since 2020



Source: ACCR analysis of Rystad Energy data.

Louisiana LNG is more expensive than 80% of LNG production capacity approved globally since 2020



Source: ACCR analysis of Rystad Energy data.



# ALL OF WOODSIDE'S MAJOR PROJECTS OCCURRED IN HIGH-RISK JURISDICTIONS OR CONCENTRATED RISK IN ITS BALANCE SHEET

Like many companies, Woodside’s investment framework does not explicitly consider country risk.

Investments in higher risk countries should still see a commensurate return. However, this has not been the case with Woodside’s recent projects in Senegal and Mexico:

- **Sangomar** demonstrates that country risk is real, with the Senegalese government announcing potential changes to the fiscal regime years after Woodside made a positive FID.<sup>1</sup> The company is currently disputing a Senegalese tax ruling relating to the project.<sup>2</sup>
- **Trion:** Based on Woodside’s analysis, Trion’s business case was <2% above Woodside’s hurdle rate, providing a modest premium to compensate for Mexican country risk.<sup>3</sup>

Woodside concentrates risk through JV arrangements.

Woodside sold down portions of **Pluto 2** and **Louisiana LNG** while retaining disproportionate risk. It retained:

- the schedule, carbon pricing and regulatory approvals risk when it sold 49% of Pluto 2 to GIP<sup>4</sup>
- all upstream and downstream market risk when 40% of Louisiana LNG Infrastructure LLC was sold to Stonepeak.<sup>5</sup>

Woodside created and sold low risk portions of these projects to infrastructure players.

In our view, Woodside needs to disclose additional information, such as the tolling fees within these deals, to enable the market to assess if these deals are creating or eroding value.

1. Angela Macdonald-Smith, “Fears for \$8b Woodside project under Senegal’s new government”, *Australian Financial Review*, April 4, 2024, <https://www.afr.com/companies/energy/fears-for-8b-woodside-project-under-senegal-s-new-government-20240404-p5fhc5>.  
2. Woodside, *Half-year report for period ended 30 June 2025*, (Self-Published, 2025), p. 8, [https://www.woodside.com/docs/default-source/asx-announcements/2025/044-half-year-2025-report.pdf?sfvrsn=179aac84\\_3](https://www.woodside.com/docs/default-source/asx-announcements/2025/044-half-year-2025-report.pdf?sfvrsn=179aac84_3).  
3. Woodside, “Woodside approves investment in Trion development”, *ASX Announcement*, 20 June, 2023, p. 5, [https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02677547-6A1154698?access\\_token=83ff96335c2d45a094df02a206a39ff4](https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02677547-6A1154698?access_token=83ff96335c2d45a094df02a206a39ff4). ACCR, *Can Woodside try harder than Trion?*, (Self-published, 2023), pp. 6-7, [https://www.accr.org.au/downloads/20220303\\_accr\\_try\\_harder\\_than\\_trion.pdf](https://www.accr.org.au/downloads/20220303_accr_try_harder_than_trion.pdf).  
4. Woodside, “Woodside agrees to sell 49% stake in Pluto train 2 to GIP”, *ASX Announcement*, 15 November, 2021, p.1, [https://files.woodside.com/docs/default-source/asx-announcements/2021-asx/056-woodside-agrees-to-sell-49-stake-in-pluto-train-2-to-gip.pdf?sfvrsn=9182c771\\_4](https://files.woodside.com/docs/default-source/asx-announcements/2021-asx/056-woodside-agrees-to-sell-49-stake-in-pluto-train-2-to-gip.pdf?sfvrsn=9182c771_4).  
5. Woodside, “Woodside completes Louisiana LNG sell-down to Stonepeak”, *ASX Announcement*, 25 June, 2025, p. 2, [https://www.woodside.com/docs/default-source/asx-announcements/2025/038-woodside-completes-louisiana-lng-sell-down-to-stonepeak.pdf?sfvrsn=306cc8de\\_3](https://www.woodside.com/docs/default-source/asx-announcements/2025/038-woodside-completes-louisiana-lng-sell-down-to-stonepeak.pdf?sfvrsn=306cc8de_3).

# WOODSIDE'S MAJOR INVESTMENTS HAVE BEEN BASED ON BULLISH OIL PRICE ASSUMPTIONS

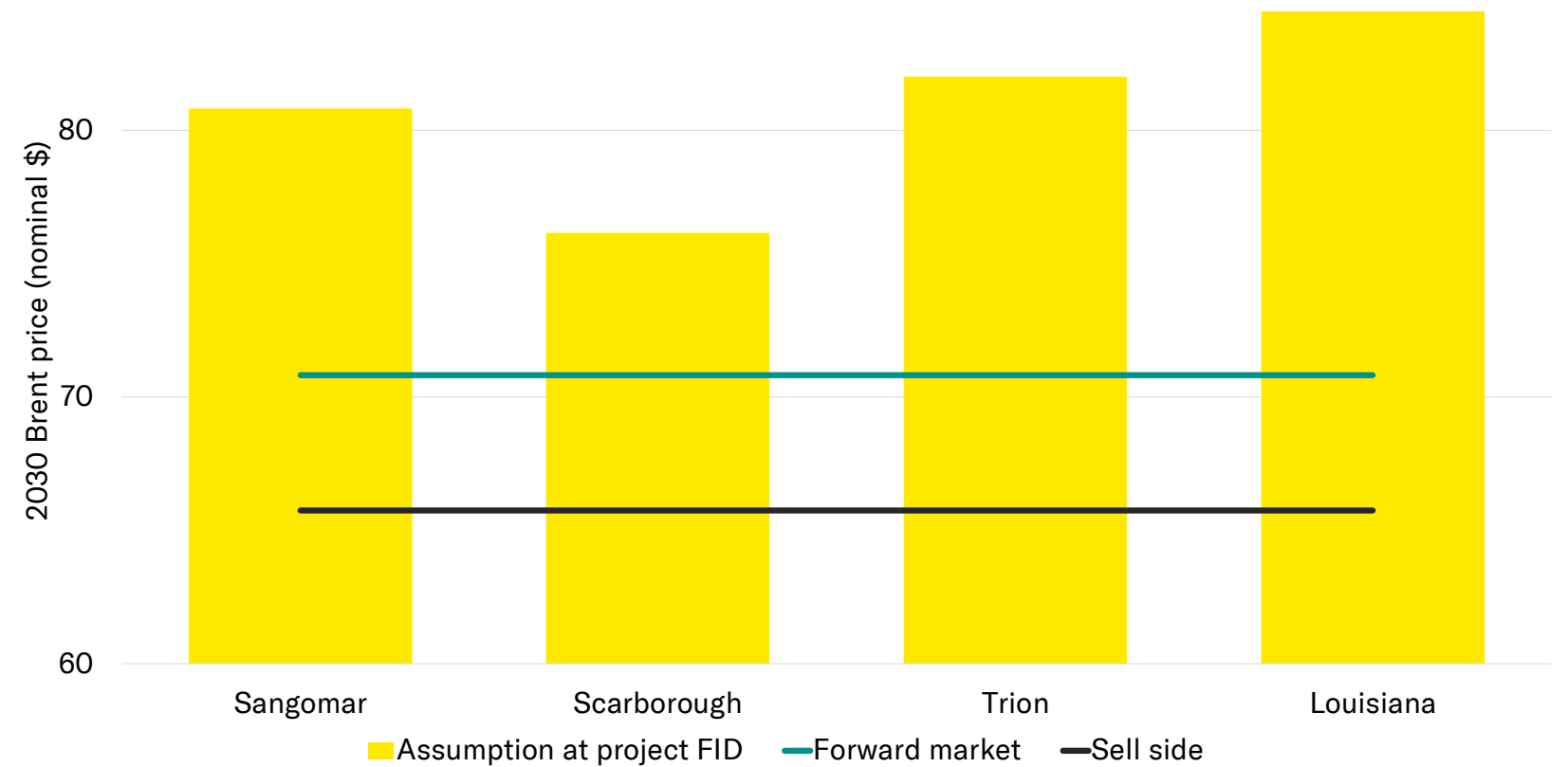
Woodside’s high price assumptions have enabled the approval of high cost, value-erosive projects.

All four of the company’s major oil and gas greenfield higher than the current forward FIDs have been based on Brent price assumptions 8-19% market.

These assumptions have also been above the current sell-side Brent price estimate.<sup>1</sup>

Further, Woodside’s oil price assumption has remained above both the forward market and sell-side consensus despite reducing its assumption twice in 2025.<sup>2, 3, 4</sup>

Woodside’s oil price assumptions have been above the current forward price when approving major projects.



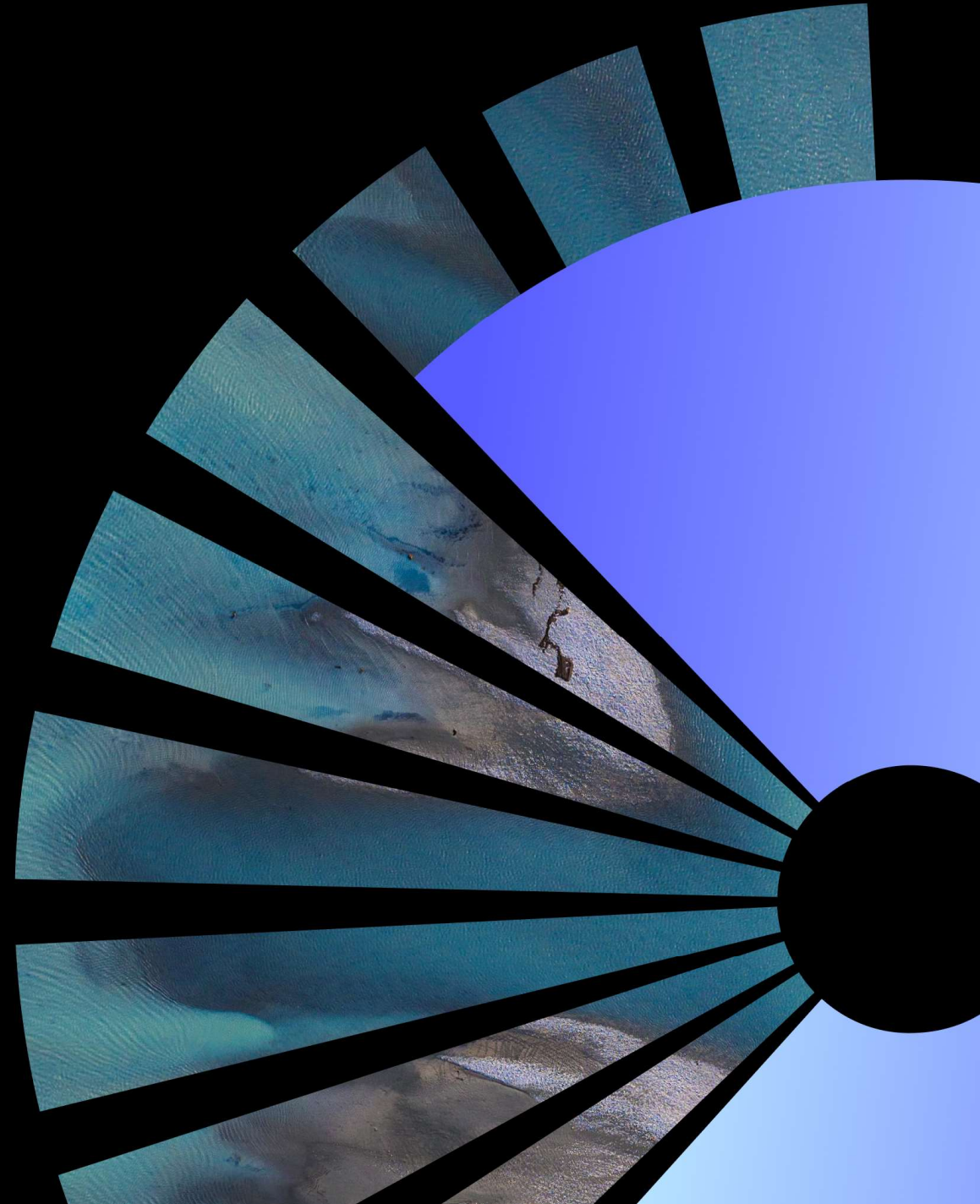
Source: ACCR analysis of company disclosures and Bloomberg data.

1. Sell-side estimate is the average of sell-side analysts in Bloomberg as of 15 Jan 2026.  
2. \$78/bbl (RT24) in February. Woodside, 2024 Annual Report, (Self-Published, 2025), p. 154, [https://www.woodside.com/docs/default-source/investor-documents/major-reports-\(static-pdfs\)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c\\_2](https://www.woodside.com/docs/default-source/investor-documents/major-reports-(static-pdfs)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c_2).  
3. \$75/bbl (RT24) in April. Woodside, "Woodside approves Louisiana LNG development", ASX Announcement, 29 April, 2025, p. 3, [https://www.woodside.com/docs/default-source/asx-announcements/2025/028-woodside-approves-louisiana-lng-development.pdf?sfvrsn=461ba43c\\_3](https://www.woodside.com/docs/default-source/asx-announcements/2025/028-woodside-approves-louisiana-lng-development.pdf?sfvrsn=461ba43c_3).  
4. \$70/bbl (RT24) in November: Woodside, "2025 Capital Markets Day", ASX Announcement, 5 November, 2025, p. 3, <https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-03018966-6A1295506&v=undefined>.



# WOODSIDE'S PRE-FID PORTFOLIO IS RELATIVELY HIGH COST

## 02.



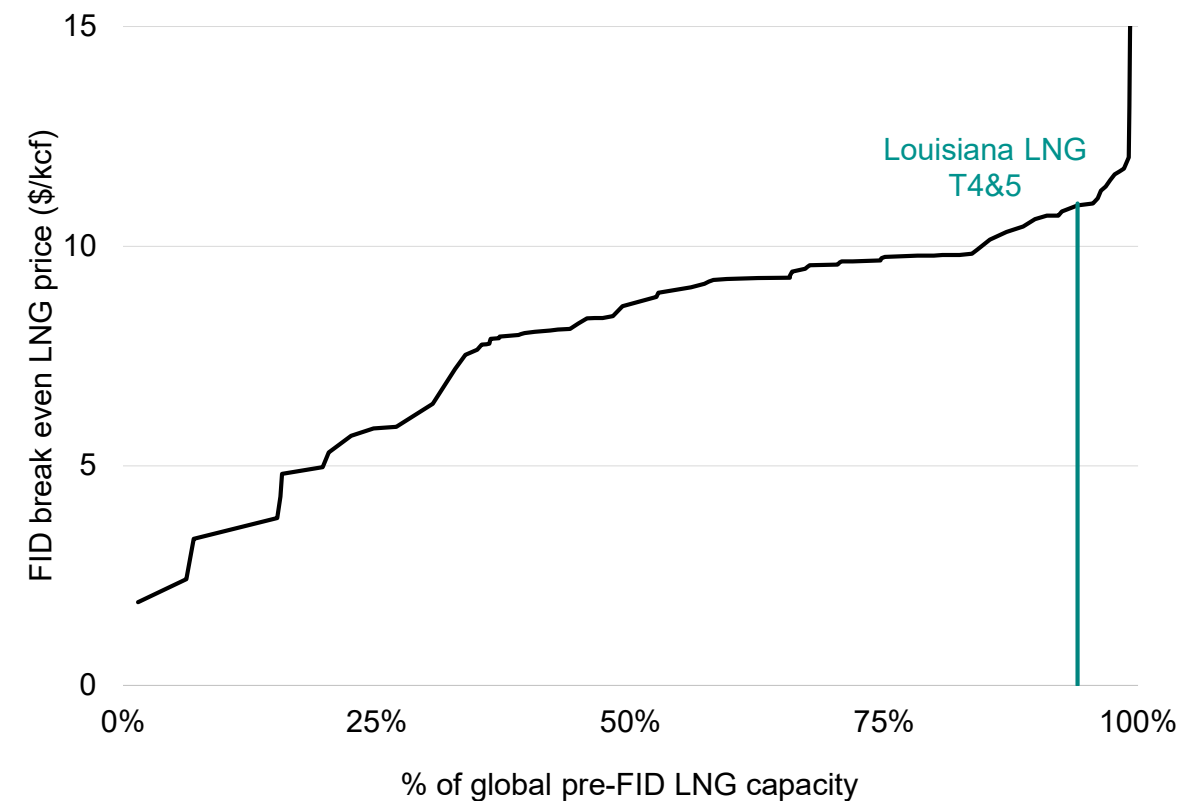
# WOODSIDE'S MIDSTREAM GROWTH PORTFOLIO IS NOT COST-ADVANTAGED

**Louisiana LNG trains 4 and 5 are more expensive than 90% of global pre-FID capacity. Rystad categorises the assets as uncommercial.**

At Woodside's 2025 Capital Markets Day, none of the six disclosed pre-FID projects were included in the company's low-case scenario. The Louisiana expansion is the only one of the six that is included in the mid-case scenario.<sup>1</sup>

Woodside is constructing Louisiana LNG trains 1-3 and has indicated an intention to also make FID on trains 4 and 5 to capture construction synergies with the initial development.

Woodside's pre-FID midstream portfolio is not cost-advantaged



Source: ACCR analysis of Rystad Energy data.

1. Woodside, "2025 Capital Markets Day", ASX Announcement, 5 November, 2025, p. 87, <https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-03018966-6A1295506&v=undefined>.



# WOODSIDE'S PRE-FID UPSTREAM GROWTH PROJECTS ARE UNCOMPETITIVE OR IMMATERIAL

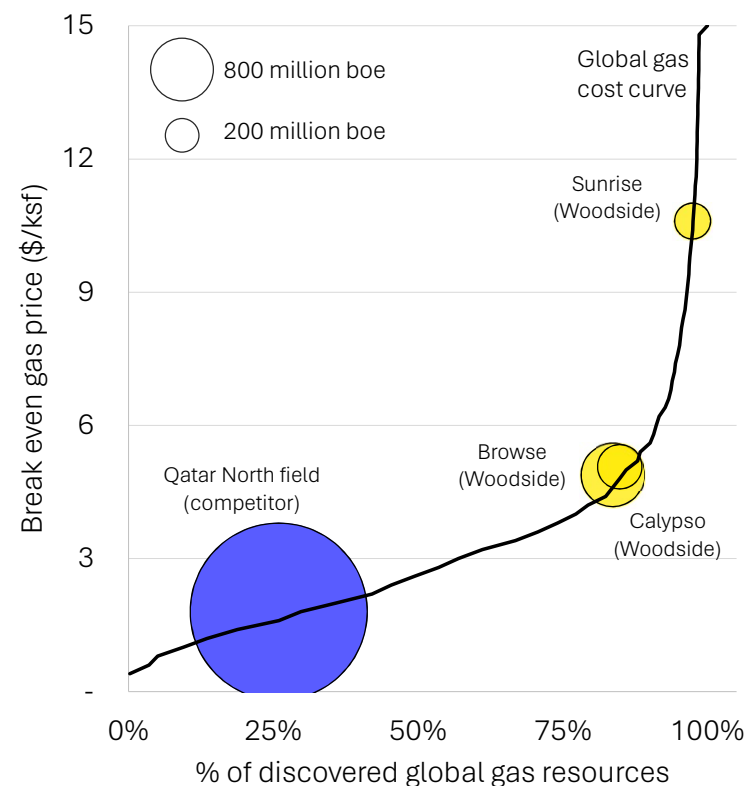
Woodside's material gas projects are more expensive than 80% of competing gas resources.

Its largest pre-FID gas project, Browse, has:

- not been developed in the 55 years since it was discovered
- more than twice the unit cost of much larger competitors (e.g. Qatar's potential expansion)
- consumed over \$800 million of capex

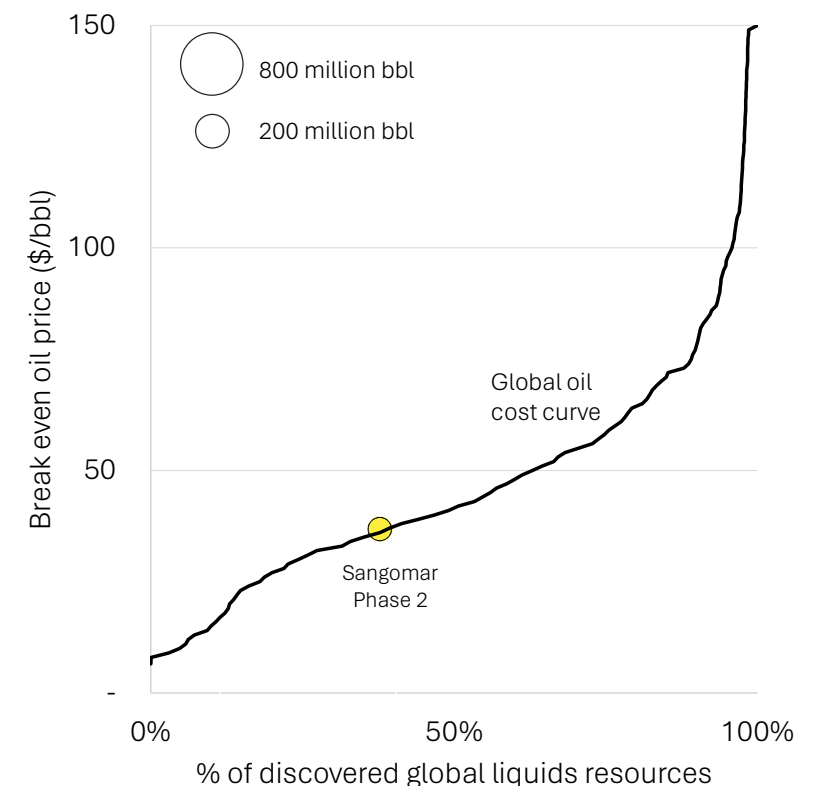
The company's most significant oil project, Sangomar Phase 2, is competitive but contains less than 120 million barrels of potential production.

Woodside's material pre-FID gas projects are uncompetitive



Source: ACCR analysis of Rystad Energy data.

Woodside's pre-FID oil project is immaterial



Source: ACCR analysis of Rystad Energy data.

# EXPLORATION HAS NOT BEEN A COMPETITIVE ADVANTAGE FOR WOODSIDE

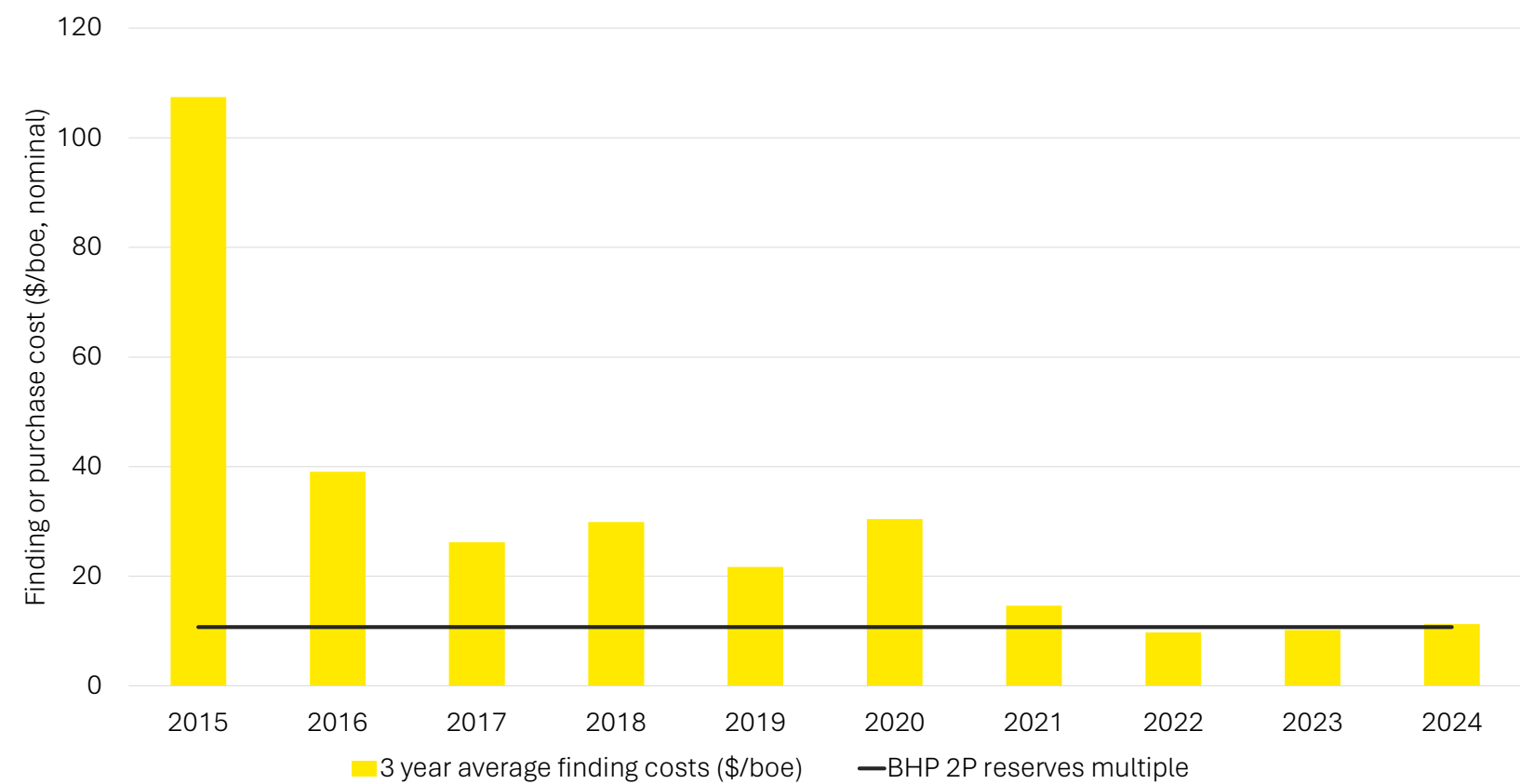
Over the last decade, Woodside's discovery costs have been higher than the assessed BHP Petroleum 2P reserves multiple.

In general terms, this means it has cost Woodside more to find fields that it *may* be able to develop, than the value of assets which have *already* reached FID, including some that are already producing.

Woodside has:

- not made a material discovery in 20 years, since (Pluto – in 2005/06).<sup>1</sup>
- spent \$500 million per annum on exploration over the last three years.<sup>2</sup>

Woodside’s finding costs have typically exceeded the value of 2P reserves



Source: Woodside 2024 Annual report, p. 260; KPMG Independent Expert Report and Financial Services Guide, p. 162.

1. ACCR analysis of Rystad Energy data.  
2. Woodside, 2024 Annual Report, (Self-Published, 2025), p. 216, [https://www.woodside.com/docs/default-source/investor-documents/major-reports-\(static-pdfs\)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c\\_2](https://www.woodside.com/docs/default-source/investor-documents/major-reports-(static-pdfs)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c_2). Defined as gross exploration expenditure, including capitalised exploration expenditure; geological and geophysical expenditure; and development evaluation costs charged to income as incurred.

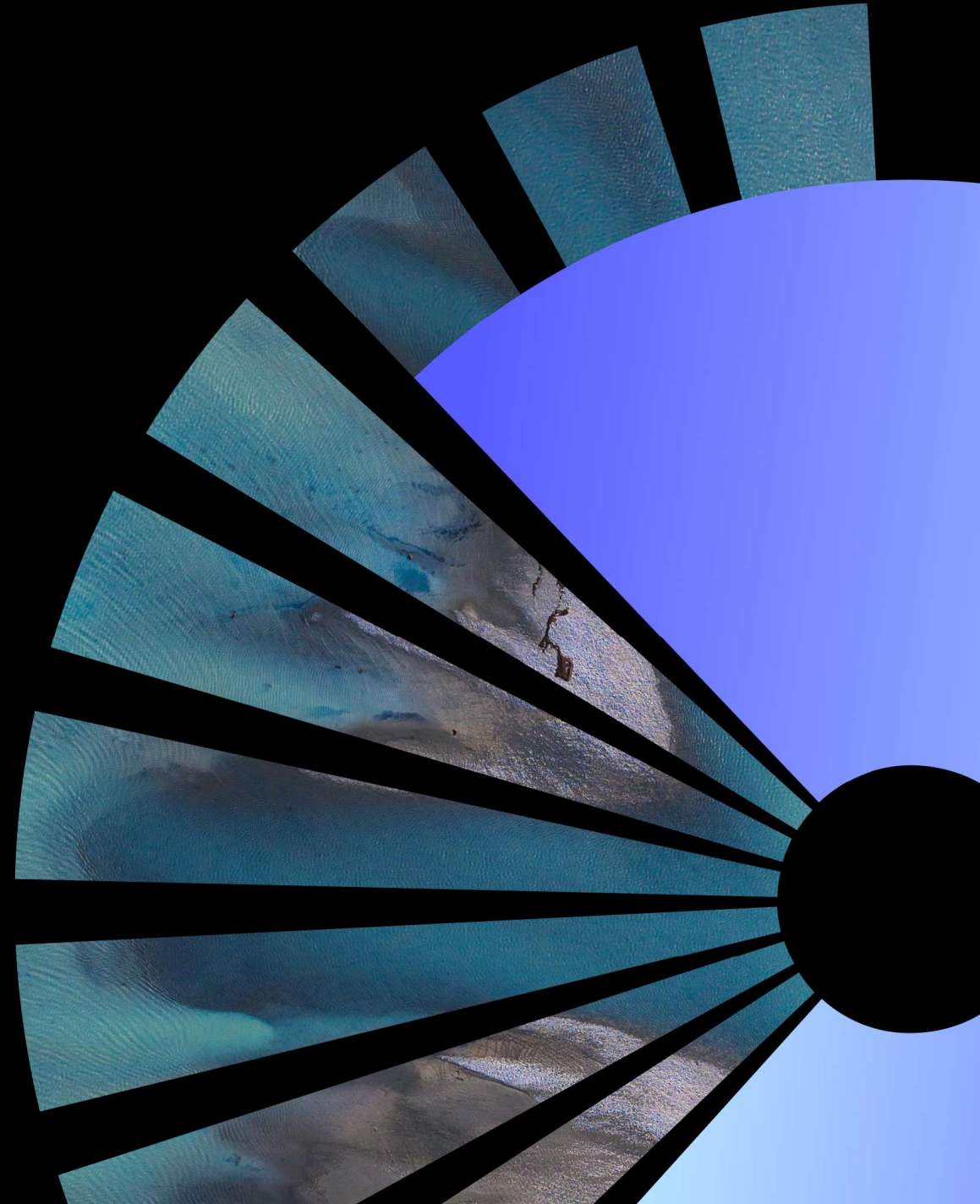


# AN ALTERNATIVE CAPITAL ALLOCATION STRATEGY

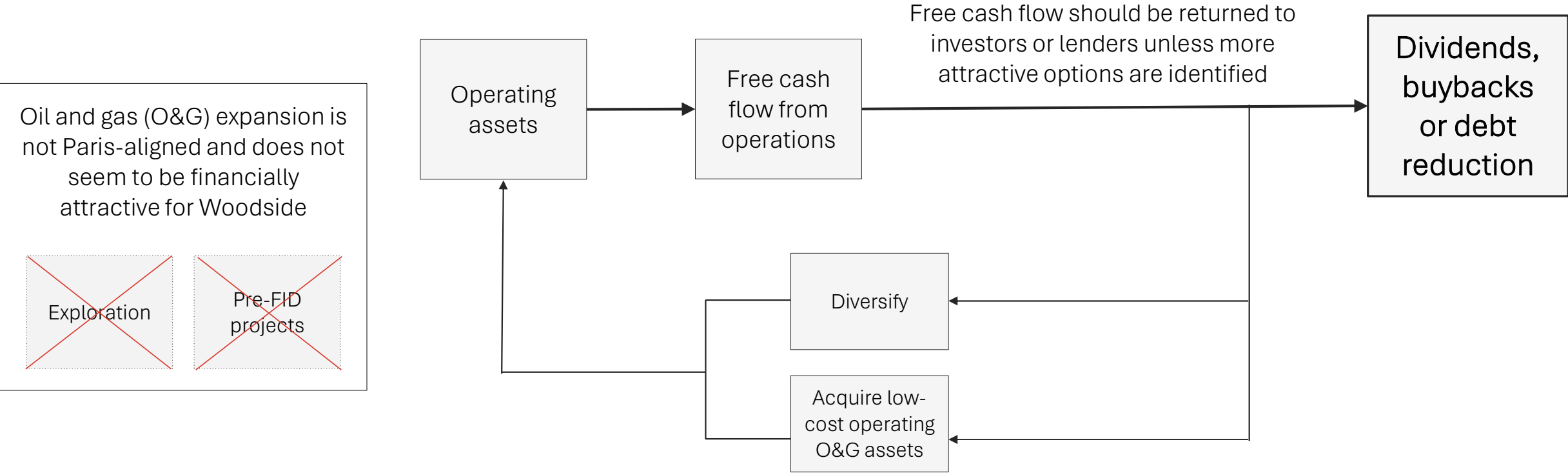
Our analysis finds that Woodside could be \$3 billion more valuable if it ceased exploration and development.

Remuneration should be reviewed to ensure it incentivises value, not growth without value.

# 03.



# A MORE VALUABLE USE OF CASH MAY BE SHARE BUYBACKS



# STOPPING EXPLORATION AND DEVELOPMENT WOULD CREATE VALUE THROUGHOUT WOODSIDE'S BUSINESS



**Avoided project execution risks**

Oil and gas projects are typically late and over budget



**Lower risk**

A company building fewer projects is simpler and less risky



**Avoided exploration**

Exploration is costly and a major destroyer of value



**Leaner organisation**

A simpler business has lower corporate overheads



**Potential for increased buybacks**

Buybacks could be funded from cost savings

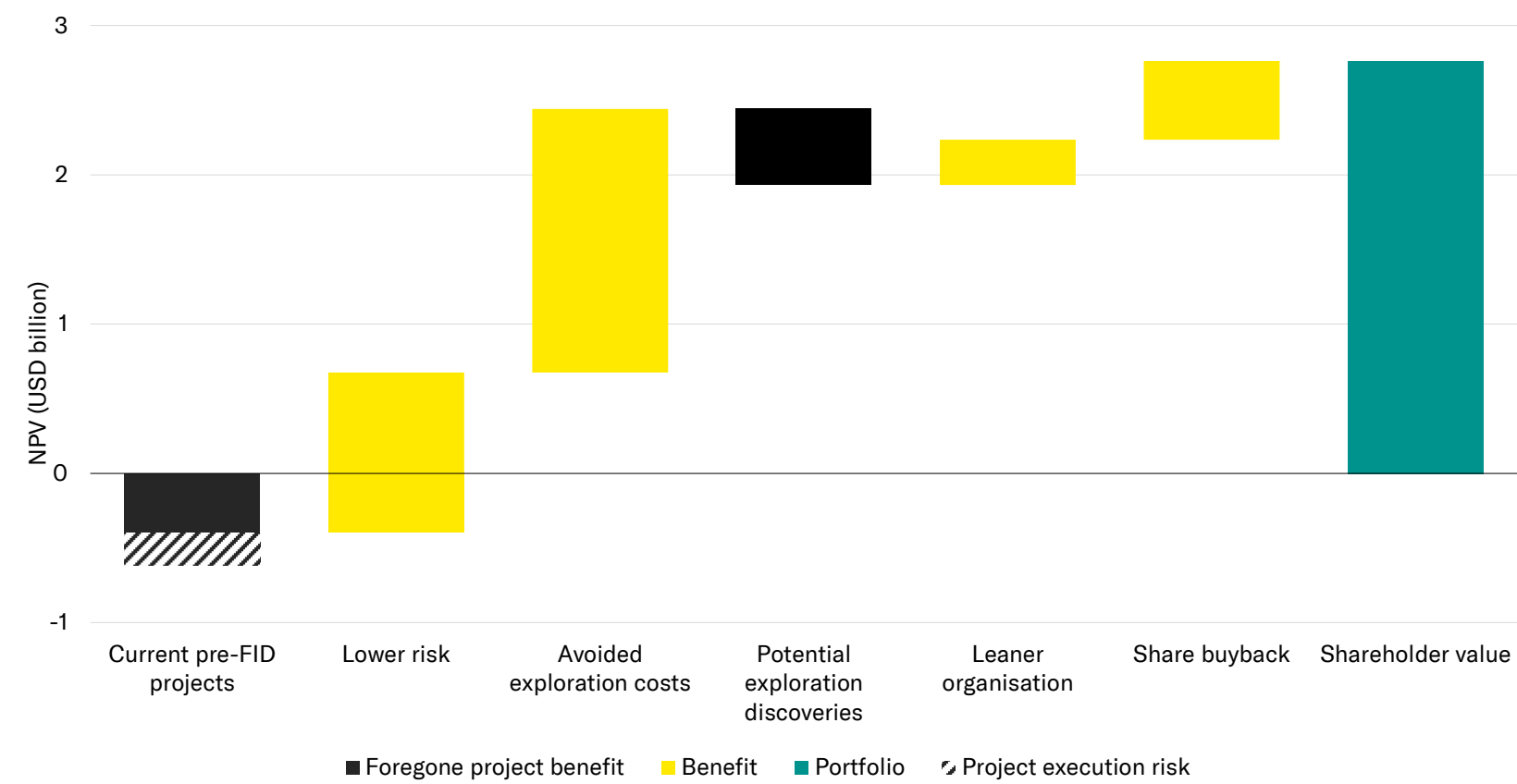


# WOODSIDE COULD BE \$3 BILLION MORE VALUABLE IF IT CEASED EXPLORATION AND DEVELOPMENT

## Key assumptions in our model:<sup>1</sup>

- Pre-FID assets are modelled from 2026 to end-of-field life, using a forward pricing deck.
- Project execution risk represents a 20% cost overrun and one-year delay to start up.
- Lower risk reflects 1% lower discount rate for operating and under construction assets.
- Avoided exploration costs reflect the last decade’s average annual real exploration cost, capitalised using a 6x post-tax multiple.
- Potential exploration discoveries are 29% of avoided exploration costs, based on the long-term industry average.
- A leaner organisation reflects a 10% head count reduction, capitalised with a 6x post-tax multiple.
- Share buybacks assume that shares trade at a 10% discount to underlying value.

Woodside would be more valuable if it ceased exploration and development



Source: ACCR analysis of Rystad Energy data, Bloomberg data, Damodaran and company disclosures.

1. More detailed assumptions and methodology: ACCR, *When growth no longer pays*, (Self-published, 2025), pp. 31-36, [https://www.accr.org.au/downloads/accr\\_whengrowthnolongerpays\\_101225.pdf](https://www.accr.org.au/downloads/accr_whengrowthnolongerpays_101225.pdf).

# WOODSIDE'S REMUNERATION REWARDS GROWTH, EVEN WHEN IT DOESN'T GENERATE SHAREHOLDER RETURNS

Woodside’s corporate scorecard incentivises growth that may not necessarily create shareholder value, and should be reviewed.

## Growth

With Woodside’s capex profile heavily weighted towards oil and gas projects, this metric directly incentivises increases in production. It is unclear what financial controls are incorporated into this scorecard component.

## Earnings before interest, taxes, depreciation and amortisation (EBITDA)

EBITDA does not consider the time value of money, reducing its alignment with long-term shareholder value.

Woodside also shields its executives from some downside risk associated with poor investments by excluding impairments from the EBITDA metric. Woodside has booked more than \$5.2 billion of net impairments since 2020 (~15% of EBITDA, excluding impairments).

Woodside’s 2025 Corporate Scorecard

<b>SAFETY</b> Protecting the health and safety of our people, our contractors and our host communities is a top priority.	<b>CLIMATE</b> Ensures appropriate emphasis on meeting gross equity Scope 1 and 2 reduction targets and progress of new energy projects.	<b>EBITDA</b> EBITDA is a key contributor to annual profitability and a driver of short-term shareholder value.	<b>OPEX</b> Controlling Operating Expenditure brings a focus on efficient operations, cost competitiveness and shareholder returns.	<b>BASE BUSINESS</b> Revenue is maximised and value generated from our assets when they are fully utilised in production.	<b>GROWTH</b> Growth focuses on achievement of capital project milestones and business developments aligned to our strategic plan.
15%	15%	15%	15%	20%	20%

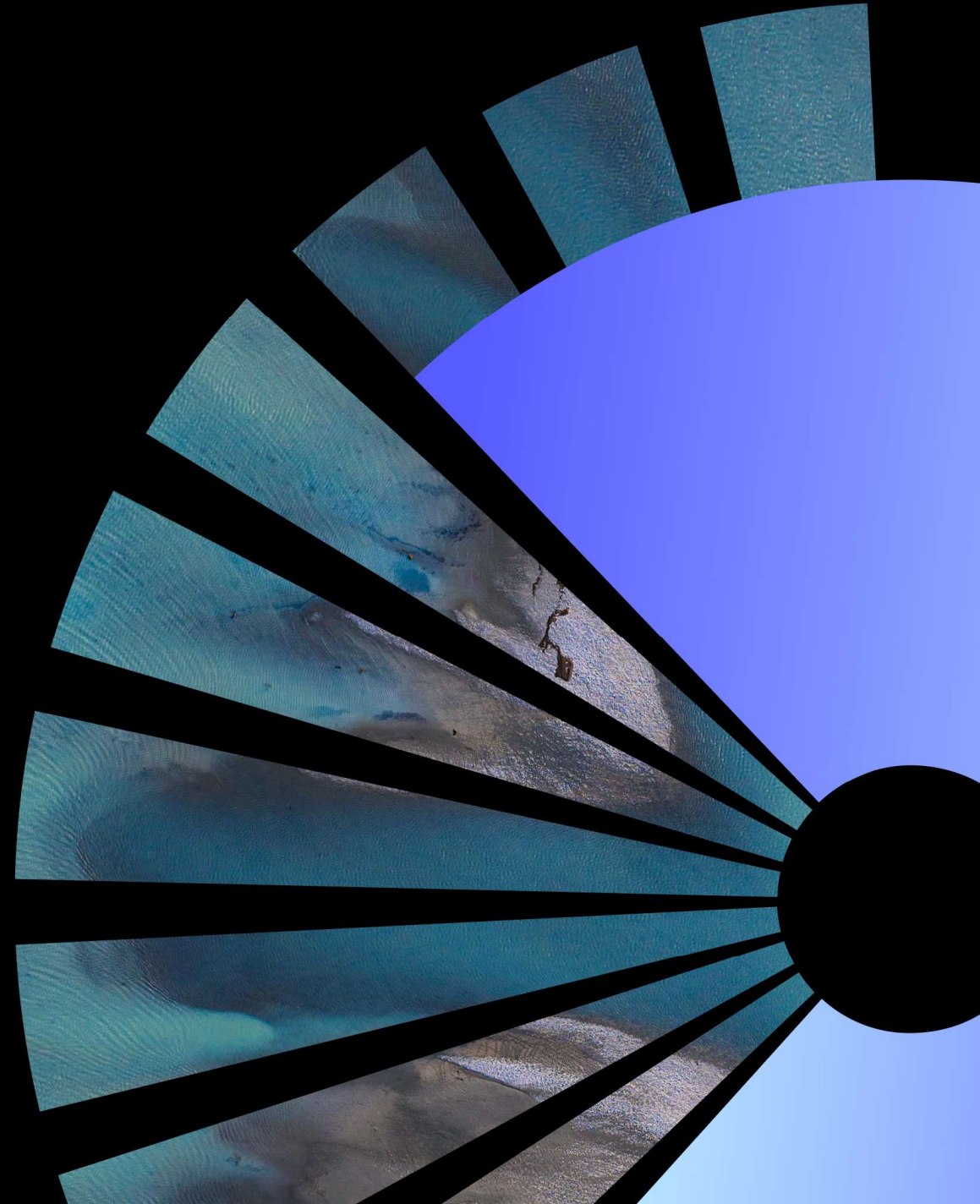
Source: Woodside, 2024 Annual Report, p. 127, [https://www.woodside.com/docs/default-source/investor-documents/major-reports-\(static-pdfs\)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c\\_2](https://www.woodside.com/docs/default-source/investor-documents/major-reports-(static-pdfs)/2024-annual-report/annual-report-2024.pdf?sfvrsn=b48b241c_2).

# AN OVERSUPPLIED LNG MARKET IS A RISK TO WOODSIDE

The LNG market is forecast to enter a period of oversupply driven by new capacity and LNG being too expensive to compete with other energy sources for many legacy uses.

This will likely compress medium-term LNG margins, which is particularly pertinent to Woodside's LNG-heavy portfolio.

# 04.





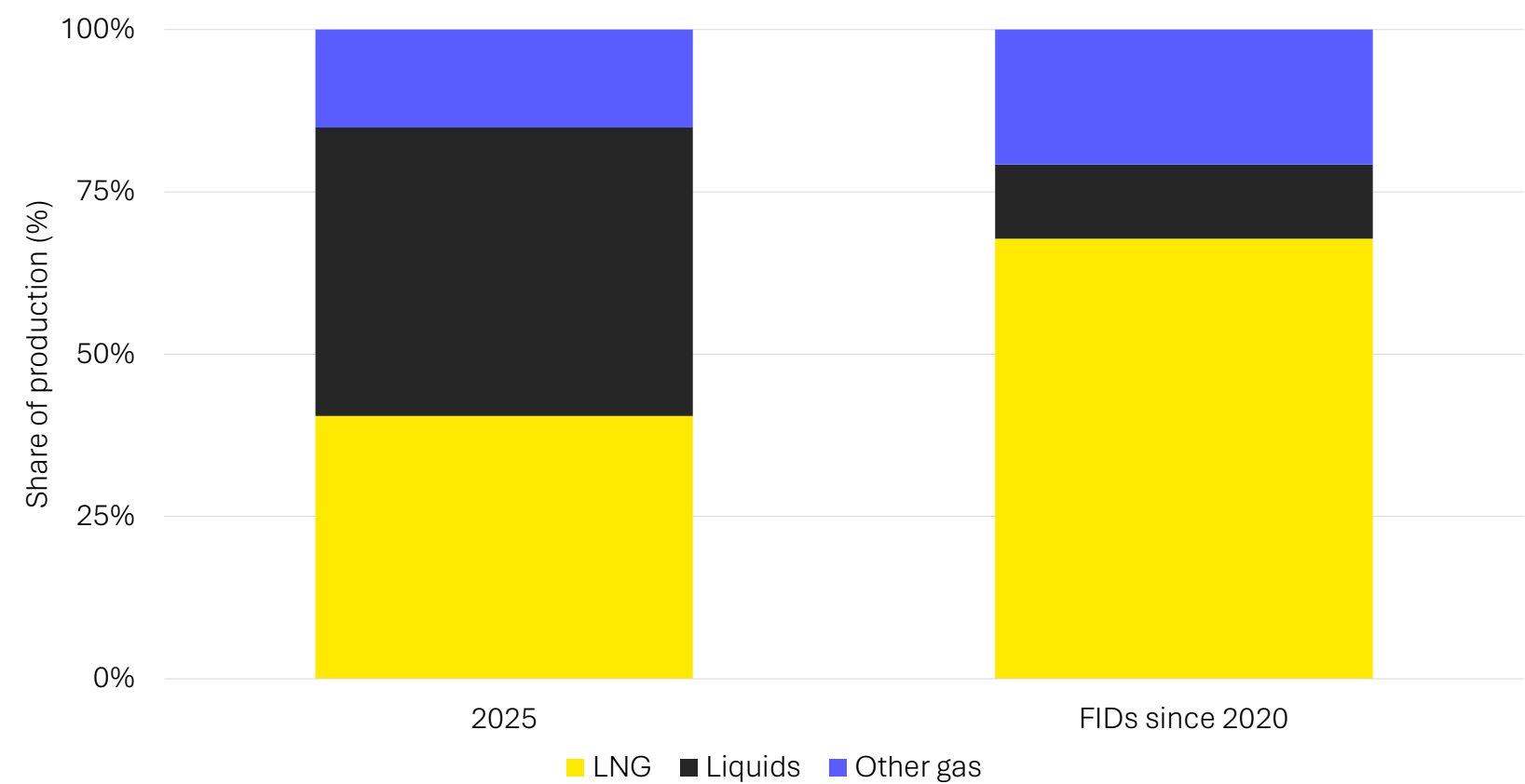
# WOODSIDE HAS GROWN ITS EXPOSURE TO LNG

**Woodside’s performance is heavily and increasingly exposed to LNG markets.**

Woodside’s two recently approved oil projects, Trion and Sangomar, provide a short-term increase in Woodside’s oil production.

Louisiana LNG and Scarborough are much larger and result in an increased share of LNG in Woodside’s portfolio over the longer term.

LNG has made up two thirds of Woodside’s recent FIDs<sup>1</sup>

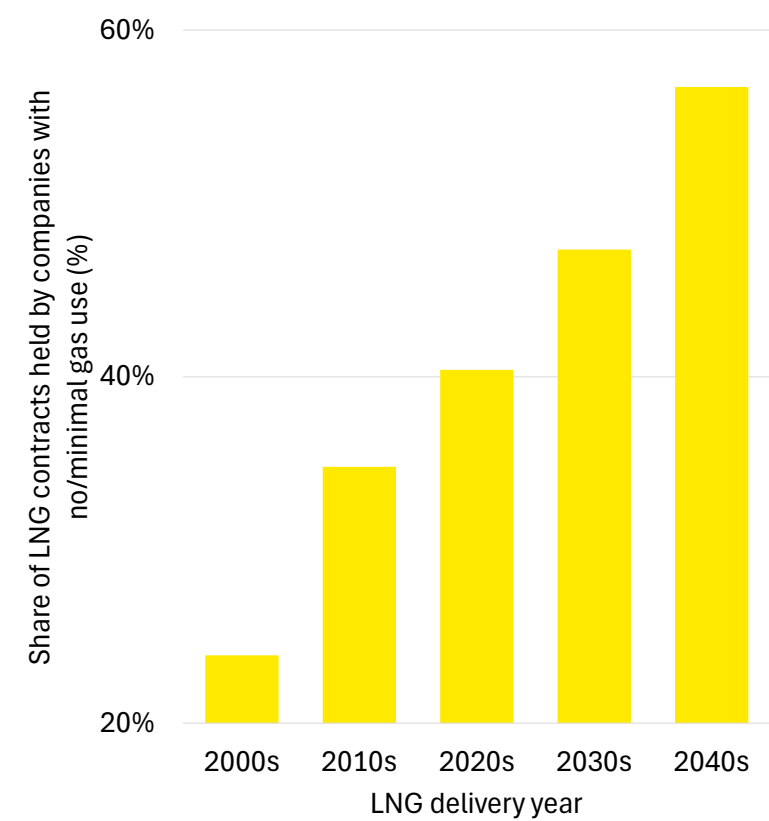


Source: ACCR analysis of Rystad Energy data.

1. Based on current ownership of assets, as per Rystad Energy. Production for “FIDs since 2020” represents lifetime production and includes LNG where Woodside is processing third party gas.

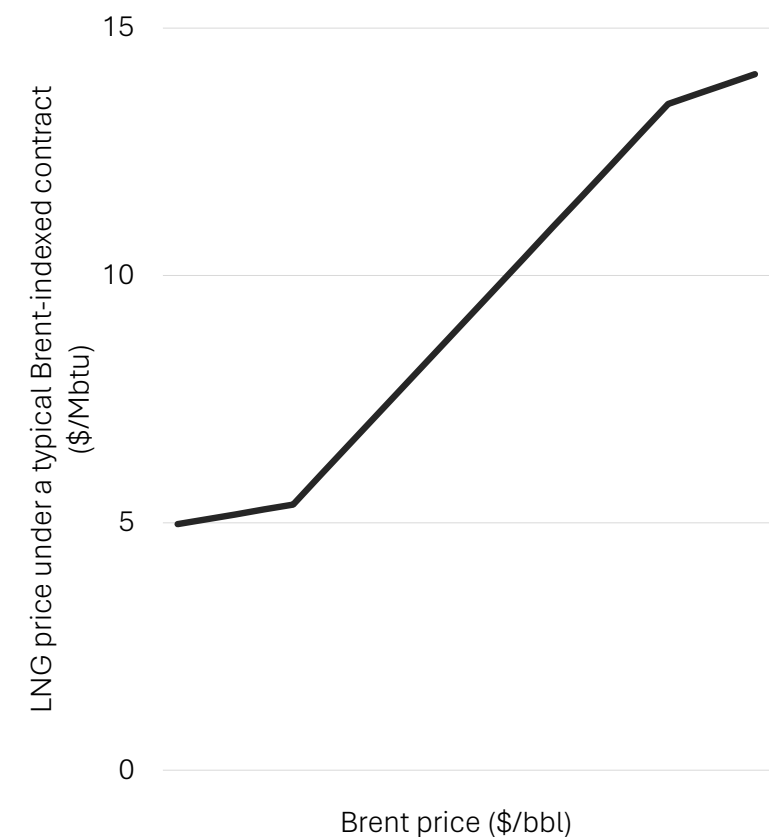
# WOODSIDE'S LNG CONTRACTS DO NOT MATERIALLY PROTECT IT FROM PRICE RISK

LNG contracting activity is becoming a weak indicator of demand as LNG resellers take an increasing share of purchases



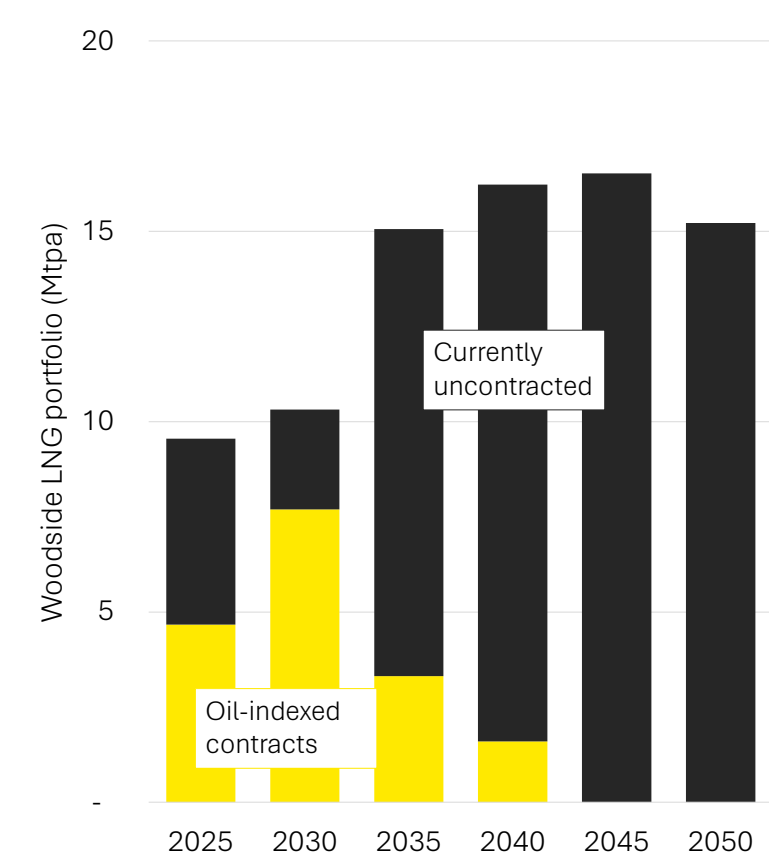
Source: ACCR analysis of Rystad Energy data.

Most LNG contracts are oil-indexed, rather than fixed price - they are exposed to oil market prices



Source: ACCR analysis

Over 70% of Woodside's LNG portfolio is uncontracted



Source: ACCR analysis of Rystad Energy data.<sup>1</sup>

1. Excludes minor gas-indexed contracts; includes Woodside's LNG offtake contract from Mexico Pacific LNG that has not yet reached FID.

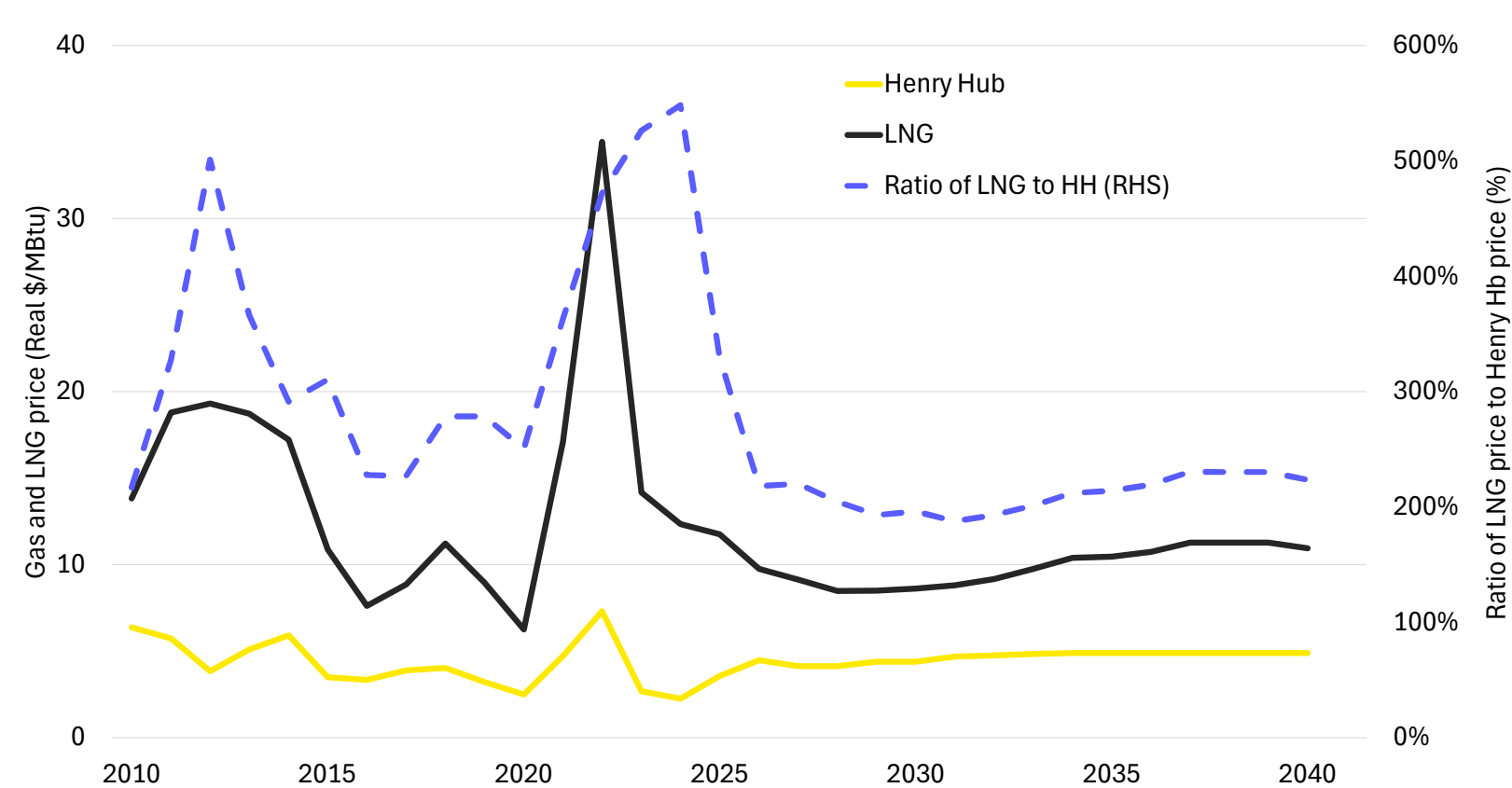
# LNG IS EXPENSIVE AND VOLATILE

Between 2010 and 2025, LNG was, on average, 3.5 times the cost of US gas prices.<sup>1</sup> It has also suffered significant price spikes.

Rystad projects that LNG will remain more than twice as expensive as Henry Hub gas.

The Australian market demonstrates that customers consume less gas when it is expensive. The construction of LNG export facilities on the East Coast tripled domestic gas prices and reduced consumption as the local gas market became coupled to the global LNG market.<sup>2</sup>

LNG<sup>1</sup> is between two and five times the cost of US pipeline gas



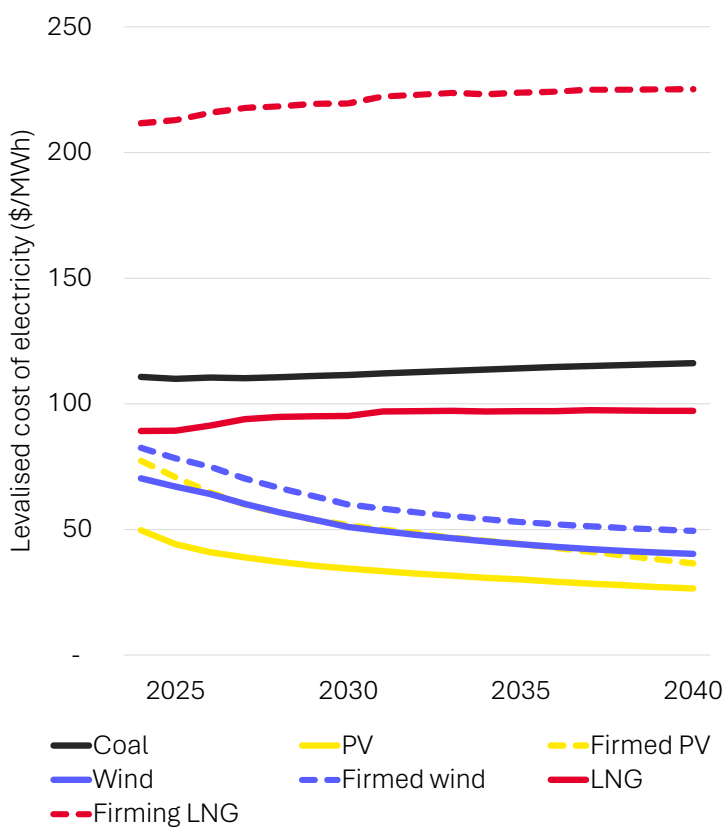
Source: ACCR analysis of Rystad Energy data.

1. LNG prices calculated as the simple average of East Asia LNG and Title Transfer Facility prices, based on Rystad Energy data.  
2. IEEFA, *The hidden costs of the LNG boom*, (Self-published, 2025), [https://ieefa.org/sites/default/files/2025-10/IEEFA\\_report\\_The\\_hidden\\_costs\\_of\\_the\\_LNG\\_boom\\_October2025.pdf](https://ieefa.org/sites/default/files/2025-10/IEEFA_report_The_hidden_costs_of_the_LNG_boom_October2025.pdf).



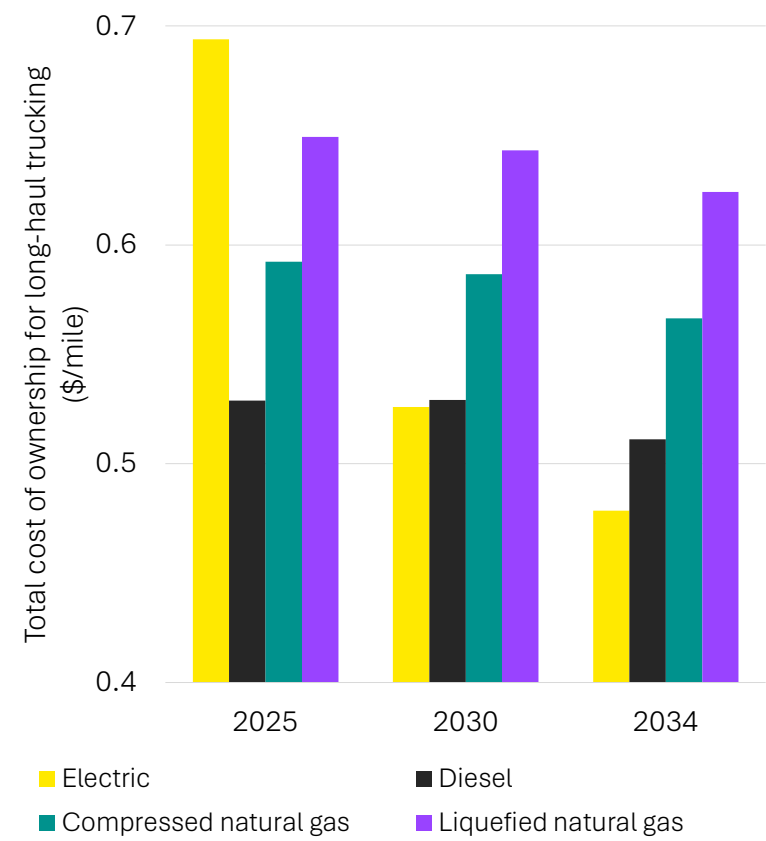
# NATURAL GAS IS MORE EXPENSIVE THAN COMPETING SOURCES OF ELECTRICITY, TRANSPORT AND MEDIUM-GRADE HEAT

LNG-generated electricity costs more than firmed PV and wind, and will be twice the cost by 2040



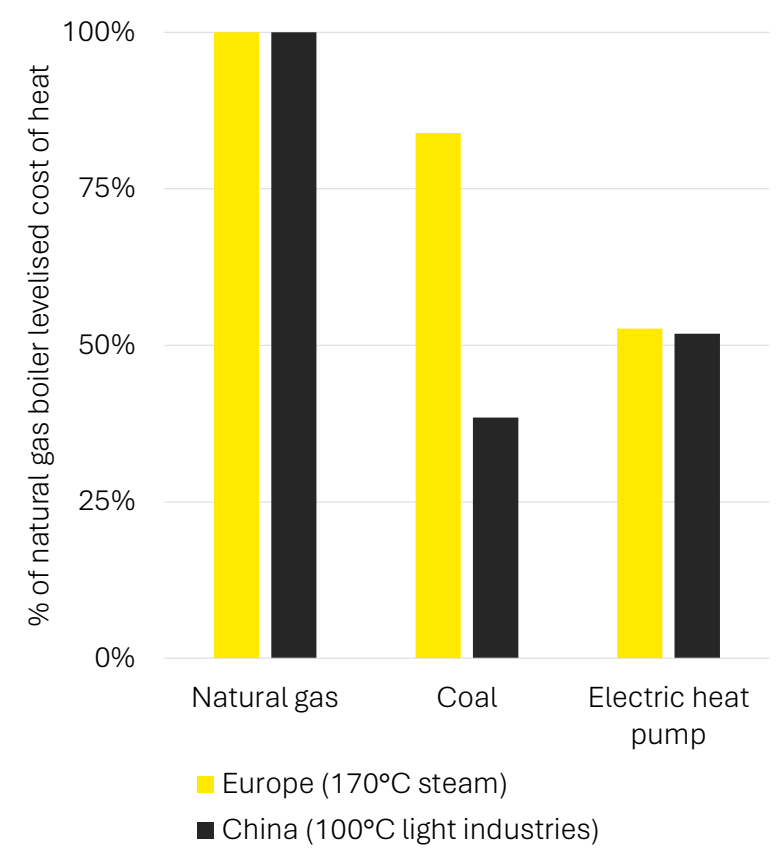
Source: BNEF, Levelised cost of electricity tool. With LNG power based on gas power, adjusted for a \$9/MBtu gas price.

Gas is too expensive to play more than a niche role in road transport, even for long-haul freight



Source: ACCR analysis of BNEF, Total Cost of Ownership (TCO) tool. Average of Chinese, US and German TCO for medium-duty commercial vehicles in long-haul freight.

Electric heat pumps are now cost-competitive for medium-grade heat



Source: Heat pumps in China, 2024. Fig 3.13, 2022 data; Global efficiency intelligence, Electrification of Industry in the EU27, 2024. Fig 5.

# CHINA IS THE WORLD'S LARGEST LNG IMPORTER, BUT ITS LNG IMPORTS HAVE PLATEAUED

Analysts, including the International Energy Agency<sup>1</sup> and Wood Mackenzie,<sup>2</sup> see LNG growth as dependent on Asia.

China has been responsible for 93% of net growth in Asian<sup>1</sup> gas consumption since 2015 and is the world's largest LNG importer.

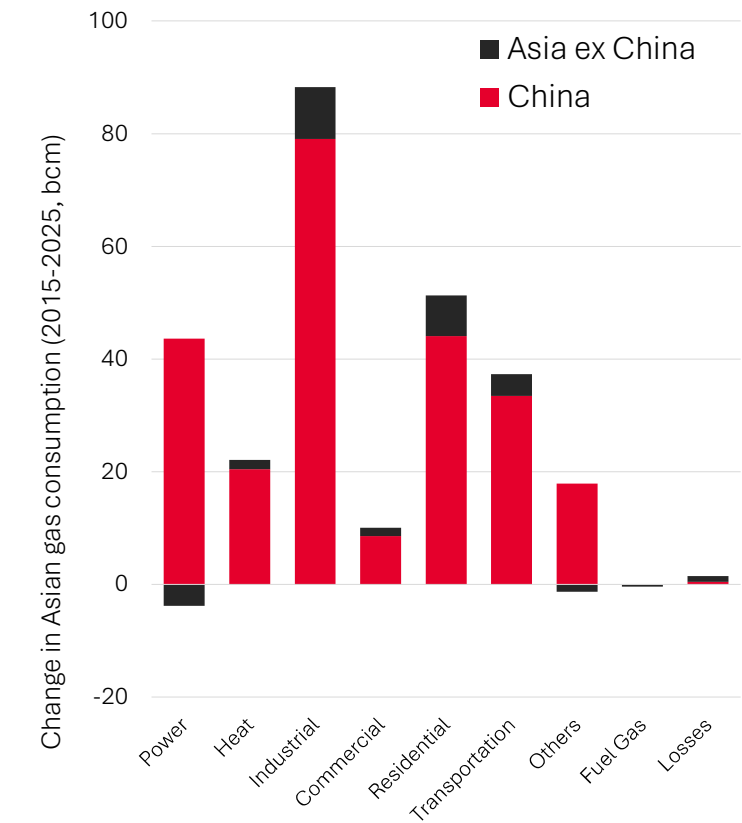
Chinese LNG imports have remained flat since 2020. Meanwhile, gas consumption grew at 6% CAGR.

Most other Asian markets are either:

- post-peak LNG imports (e.g. Japan)
- price sensitive (e.g. Pakistan, Vietnam).

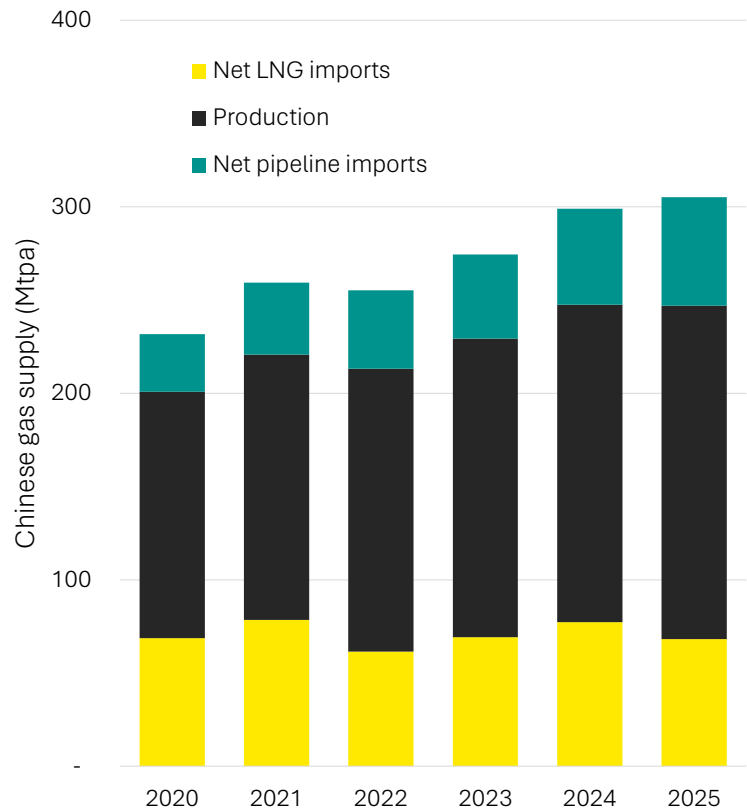
Remaining markets (e.g. South Korea and Singapore) are not large enough to drive material LNG demand growth.

93% of the net increase in Asian<sup>2</sup> gas consumption since 2015 was due to China



Source: ACCR analysis of Rystad Energy data.

While Chinese gas consumption has increased, its LNG imports have plateaued since 2020



Source: ACCR analysis of Rystad Energy data.

1. IEA, *World Energy Outlook 2025*, (Self-published, 2025), p. 217, <https://iea.blob.core.windows.net/assets/1438d3a5-65ca-4a8a-9a41-48b14f2ca7ea/WorldEnergyOutlook2025.pdf>.  
2. The following is based on Wood Mackenzie data: Shell, *Shell LNG Outlook 2025*, (Self-published, 2025), slide 26, [https://www.shell.com/what-we-do/oil-and-natural-gas/liquefied-natural-gas-lng/lng-outlook-2025/\\_jcr\\_content/root/main/section\\_125126292\\_co/promo\\_copy\\_copy\\_copy/links/item0.stream/1740435994709/e82e04e3feeead3c5948e8b339352060efa0e807/Shell LNG Outlook 2025 FULL report, final approved 24.02.pdf](https://www.shell.com/what-we-do/oil-and-natural-gas/liquefied-natural-gas-lng/lng-outlook-2025/_jcr_content/root/main/section_125126292_co/promo_copy_copy_copy/links/item0.stream/1740435994709/e82e04e3feeead3c5948e8b339352060efa0e807/Shell%20LNG%20Outlook%2025%20FULL%20report%20final%20approved%2024.02.pdf).  
3. Asia refers to South East Asia, South Asia and East Asia as defined by Rystad Energy. It excludes Central Asia and Russia since they are not major gas importers, so will not drive LNG demand.

# THE OPPORTUNITY TO DISPLACE LNG WITH RENEWABLES IS GROWING RAPIDLY

**Solar and wind have grown from a small base to now provide more energy than LNG.**

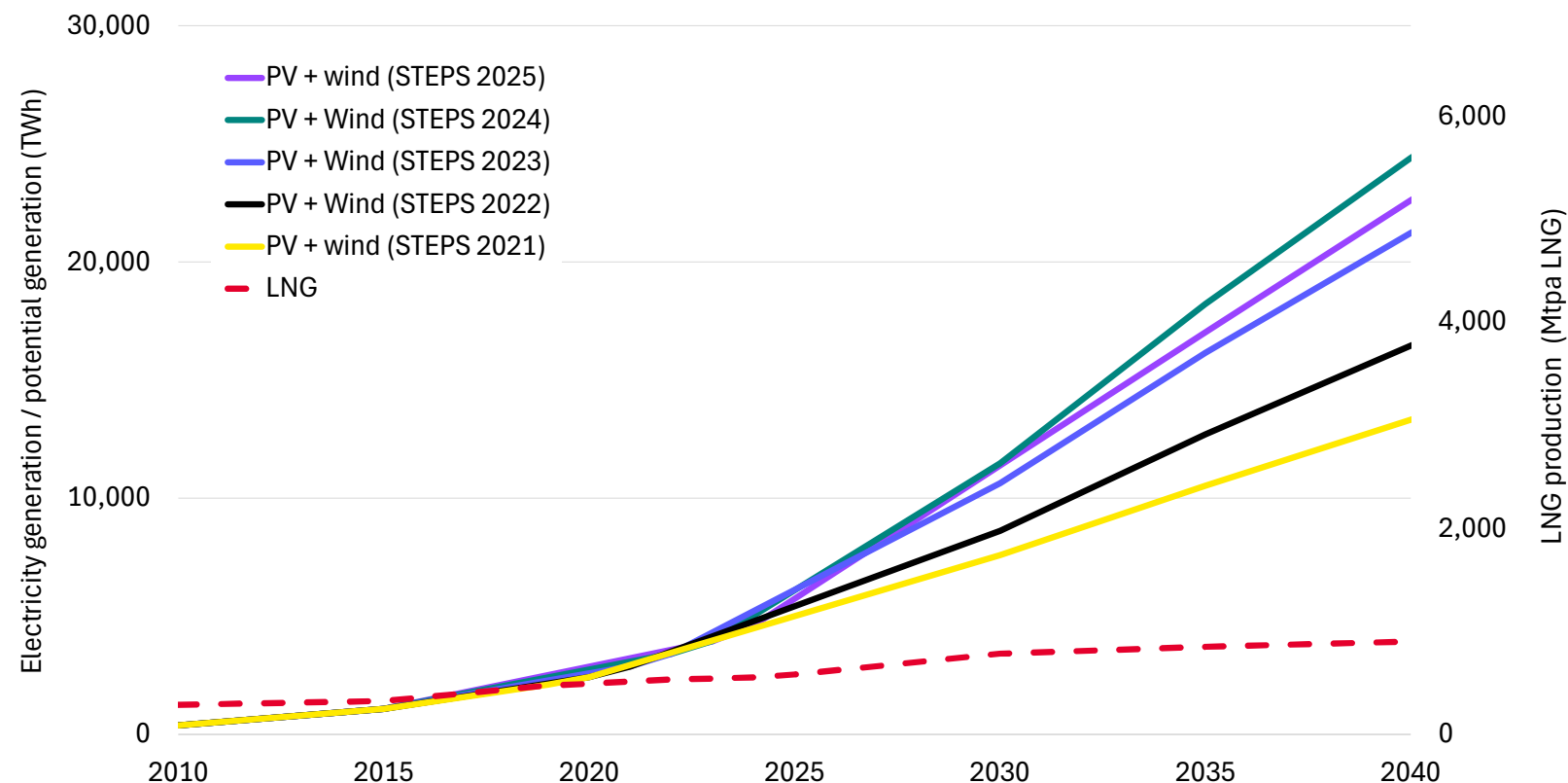
Even under the Stated Policies Scenario (STEPS), which assumes no further climate policies, solar and wind will produce five times as much energy as LNG by 2035 (on an electricity equivalent basis).

This will increase the opportunity to displace expensive LNG with plentiful and cheaper renewables.

Solar and wind may be deployed faster than the STEPS is projecting because it models a significant reduction in the growth rates of renewables.

The latest STEPS sees annual growth slowing from a relatively stable 16-19% p.a. since 2020 to less than 6% p.a. between now and 2050.

Solar and wind will soon dwarf the energy provided by LNG<sup>1</sup>



Source: ACCR analysis of Shell's 2025 LNG Outlook, Rystad Energy data and IEA's World Energy Outlooks.

1. All data series can be read on both y-axes. The PV and Wind source data is in TWh, and the "LNG production" shows how much LNG would be required to generate the same amount of electricity. The LNG source data is in Mtpa and the 'Electricity generation' axis shows how much electricity it could produce. The conversion between the two axes assumes gas generation is 44% efficient (equivalent to the current US CCGT fleet's efficiency).

# MULTIPLE AGENCIES ARE PROJECTING A PERIOD OF EXCESS SUPPLY

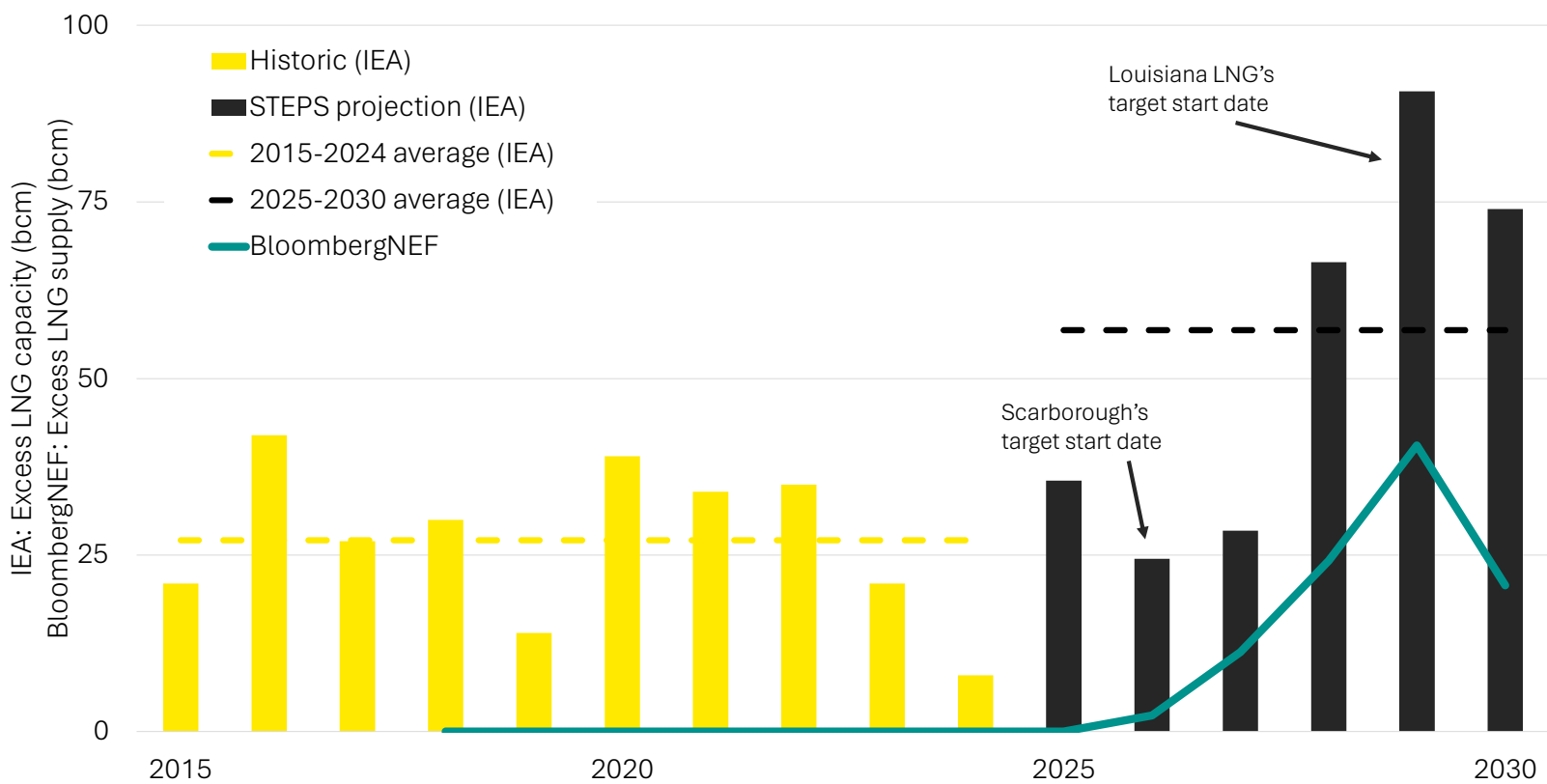
The IEA’s 2025 World Energy Outlook showed a higher level of LNG demand than the 2024 version in its iteration of the STEPS scenario.

However, it still shows an unprecedented level of excess capacity, with excess capacity during 2026-2030 more than doubling the last decade’s average.

BloombergNEF forecasts that “the LNG market is heading into oversupply, with supply set to exceed demand between 2027 and 2030”.<sup>1</sup>

Excess supply is likely to place downward price pressure on the early years of Scarborough and Louisiana LNG’s revenue.

The IEA projects a doubling of excess LNG capacity over the next five years



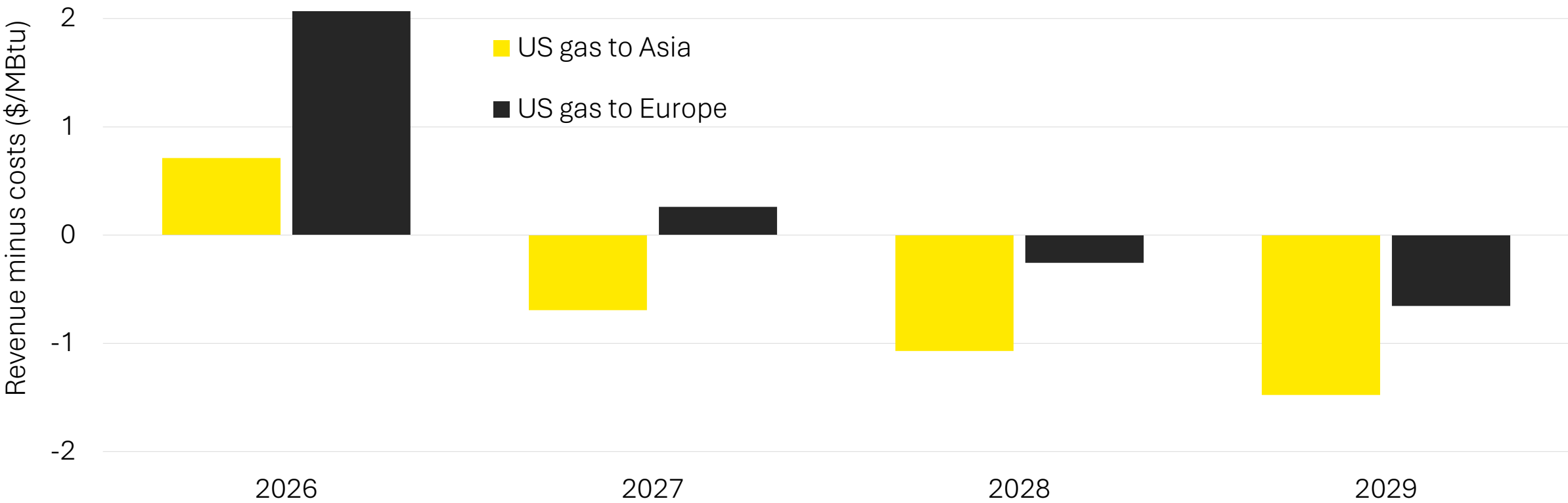
Source: ACCR analysis of IEA and BloombergNEF.

1. BloombergNEF, *Global LNG Market Outlook 2030*, (Self-published, 2025), p. 2, provided under license. BloombergNEF does not forecast the LNG market beyond 2030.



# US LNG WILL NOT ALWAYS COVER ITS COSTS UNDER FORWARD MARKET CONDITIONS

For the rest of the 2020s, US LNG will often cost more than what forward markets will pay<sup>1</sup>

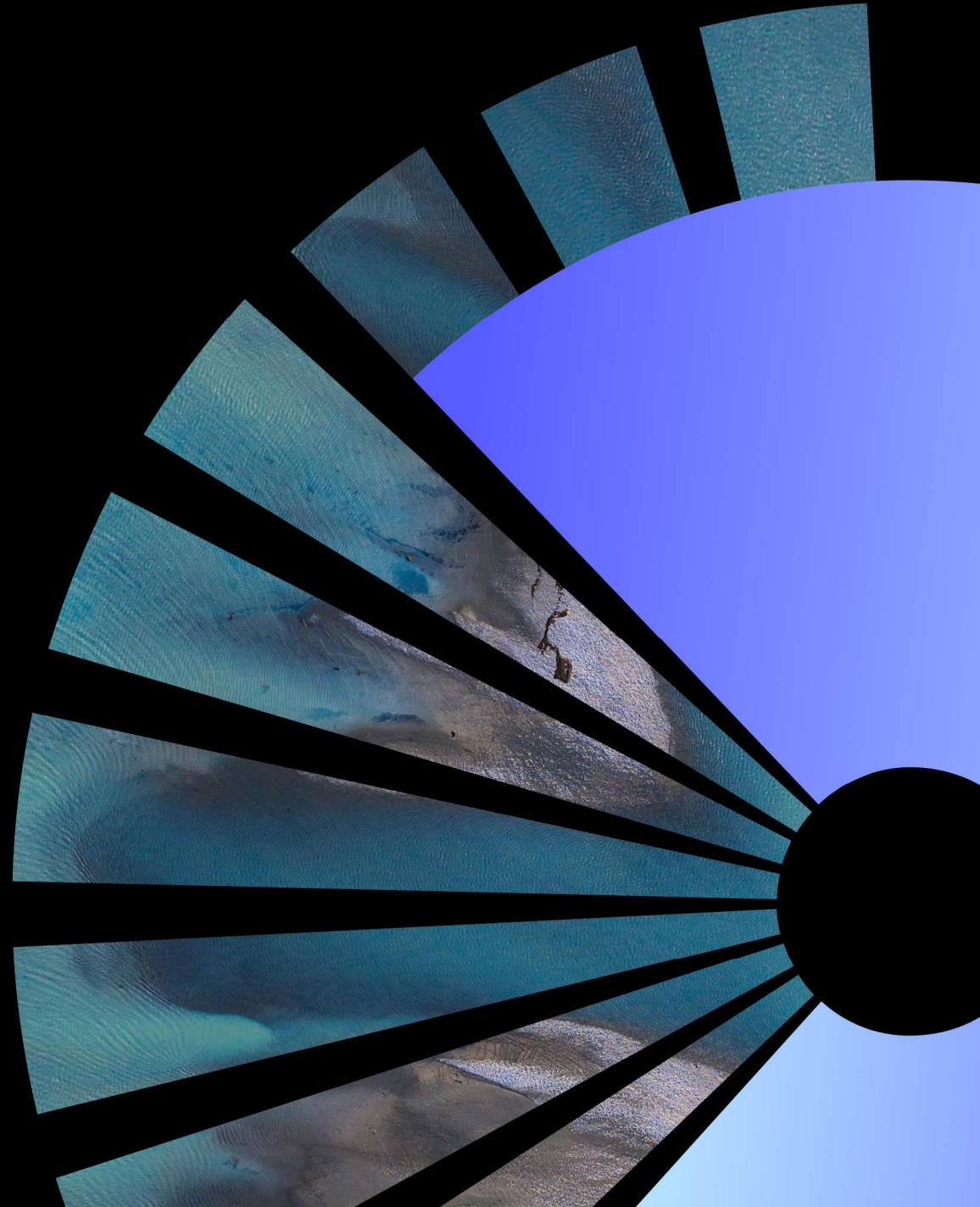


Source: ACCR analysis of data from Bloomberg and Rystad Energy.

1. Revenue: Forward curves for Title Transfer Facility (TTF, Europe) and Japan-Korea Market (JKM, Asia). Gas cost: Henry Hub (HH) forward curve. Liquefaction costs:  $(HH \times 1.13) + \$2.66/\text{MBtu}$  (Rystad's average US HH contract, adjusted for 2.5% p.a. inflation). Shipping and regassification: \$1.5/MBtu to Europe; shipping to Asia: \$2.6/MBtu to Asia (Rystad Gas Market Cube, adjusted for 2.5% p.a. inflation).

# APPENDIX 1

Additional project information



# SANGOMAR: LATE, OVER BUDGET AND \$850 MILLION OF ERODED NPV

Sangomar Phase 1 is a \$5 billion (100% share) oil project off the Senegalese coast. It reached FID in 2020 and started production in 2024.



## Value-erosive

When accounting for acquisition and pre-FID costs, the project eroded \$0.85 billion of NPV.<sup>1</sup>

The IRR at FID was 12% – below Woodside’s current hurdle rate.

It is more expensive than 90% of oil projects that have been approved since 2000.<sup>2</sup>



## Late and over budget

While Woodside describes the project start up as “outstanding”,<sup>4</sup> the project started up 12 months late and 20% over the original \$4.2 billion budget, reflecting poor project execution.<sup>3</sup>



## Joint venture challenges

Despite attempting to sell down its original 35% stake, Woodside ended up purchasing FAR and Cairn’s stakes, resulting in its current 82% share of the project.<sup>4</sup>



## Mixed start up performance

Production ramped quickly to name plate capacity with high reliability.

In its first operating year the project emitted 1.1 MtCO<sub>2</sub>e (scope 1, 100% share). This is more than the combined emissions from the three FPSO’s that Woodside was operating in Australia at the time.<sup>5</sup>

1. \$0.85 billion is 2016 NPV basis (based on when the first acquisition was made; or \$1.1 billion RT26). Calculations use Rystad Energy’s economic model adjusted for acquisition costs, a forward price deck and a discount rate adjusted for a country-risk premium (15.9%).  
2. ACCR analysis of Rystad Energy data.  
3. Full references at: ACCR, *Woodside’s growth portfolio: what’s in it for shareholders?*, (Self-published, 2023), p. 13, [https://www.accr.org.au/downloads/wds\\_growthportfolio\\_20230821.pdf](https://www.accr.org.au/downloads/wds_growthportfolio_20230821.pdf).  
4. Woodside, “Woodside releases Reserves Statement and Sangomar update”, *ASX Announcement*, 17 February, 2025, <https://www.woodside.com/docs/default-source/asx-announcements/2025/woodside-releases-reserves-statement-and-sangomar-update.pdf>.  
5. ACCR analysis of Woodside’s 2024 climate data table, accessed 26 February 2025, <https://www.woodside.com/sustainability/sustainability-databook/climate-data-table>; Clean Energy Regulator data; Okha Operations Environmental Plan, pp. 241-242, <https://docs.nopsema.gov.au/A739486>.

# SCARBOROUGH: \$1.2 BILLION NPV, ON SCHEDULE, BUT TIMED FOR LNG GLUT

Scarborough is a \$12.5 billion LNG project, that will build a new train to extract an 11 Tcf gas field offshore of Western Australia (100% share). It reached FID in 2021 and is targeting first LNG in 2026.



## Value-accretive

When accounting for acquisitions, sell downs and pre-FID costs, the project has generated \$1.2 billion of NPV.<sup>1</sup>



## On schedule, broadly on budget

Woodside’s latest guidance is that the project is on track for first LNG in 2026.

The budget has increased by \$500m which is broadly on budget when considering typical oil and gas performance.<sup>2</sup>



## Joint venture partners

Our analysis shows that Woodside has generated value by progressing the project and reducing its stake.

Woodside should expect a higher return on its remaining stake in Pluto 2 since it has retained budget, market, carbon pricing and regulatory risk when selling down 49% to GIP.<sup>3</sup>



## A good project, poorly timed

Scarborough is targeting first LNG in 2026. Its early years of production and revenue will therefore coincide with unprecedented levels of excess LNG supply, according to the IEA’s STEPS (see slide 27).

1. \$1.2 billion is on a 2016 NPV basis (based on when the first acquisition was made; or \$1.5 billion RT26). Calculations use Rystad Energy’s economic model, adjusted for acquisition and sell down costs; a forward price deck; and a 10% discount rate. Woodside’s ownership of Pluto 2 is as per Rystad Energy ownership, which underrepresents Woodside’s share of production (see slide 9 for more information).

2. Woodside, *Second quarter report for period ending 30 June 2024*, (Self-published, 2024), p. 1, <https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02830362-6A1216784&v=4015c7b87631faf94ecd96975272ff9ad5cb14c3>.

3. Woodside, “Woodside agrees to sell 49% stake in Pluto Train 2 to GIP”, 15 November, 2021, [https://files.woodside/docs/default-source/asx-announcements/2021-asx/056-woodside-agrees-to-sell-49-stake-in-pluto-train-2-to-gip.pdf?sfvrsn=9182c771\\_4](https://files.woodside/docs/default-source/asx-announcements/2021-asx/056-woodside-agrees-to-sell-49-stake-in-pluto-train-2-to-gip.pdf?sfvrsn=9182c771_4).



# TRION: A RISKY PROJECT THAT HAS ERODED \$210 MILLION IN NPV

Trion is a \$7.2 billion (100% share) oil project in the Mexican waters of the Gulf of Mexico. It reached FID in 2023 and is targeting first oil in 2028.



## Value-erosive

When accounting for Pemex’s carry cost, the project erodes \$210 million in NPV.<sup>1</sup>

Trion is more expensive than 75% of oil projects that have reached FID since 2020.<sup>2</sup>



## Optimistic pricing

FID assumed a \$70/bbl (RT22) Brent oil price. This is 30% above the current forward Brent price.<sup>3</sup>

Under Woodside’s current oil price assumption (\$70/bbl RT24), our analysis shows that the project would not meet Woodside’s hurdle rate.<sup>4</sup>



## Joint venture partner risk

Pemex, Mexico’s state-owned oil company, owns 40% of the project.

Pemex has a poor environmental and safety record, faced serious corruption allegations<sup>5</sup> and has recently received significant state support to help manage its high levels of debt.<sup>6</sup>

1. -\$210 million is 2023 NPV (based on FID date; or -\$220 million RT26). Calculations use Rystad Energy’s economic model, which includes Pemex’s \$460 million of carry costs; a forward price deck; and an 11.7% discount rate that includes country risk.  
2. ACCR analysis of Rystad Energy data.  
3. The 2026-2050 average forward Brent price is \$57/bbl (RT25).  
4. Using Woodside’s current Brent price assumption of \$70/bbl (RT24), we calculate an IRR of 13.9%. This is below Woodside’s 15% hurdle rate for oil projects which is applied at FID and has not since changed.  
5. ACCR, *Can Woodside try harder than Trion?*, (Self-published, 2023), pp. 6-7, [https://www.accr.org.au/downloads/20220303\\_accr\\_try\\_harder\\_than\\_trion.pdf](https://www.accr.org.au/downloads/20220303_accr_try_harder_than_trion.pdf).  
6. Fitch Ratings, “New Pemex Financial Support Broadly Neutral for Mexican Sovereign”, *Fitch Wire*, 19 August, 2025, <https://fitchratings.com/research/sovereigns/new-pemex-financial-support-broadly-neutral-for-mexican-sovereign-19-08-2025>

# LOUISIANA LNG: EXPENSIVE CAPACITY AS THE MARKET ENTERS OVERSUPPLY

Louisiana LNG is a three-train, \$17.5 billion, 16.5 Mtpa LNG development (100% share). It was acquired by Woodside in 2024, reached FID in 2025 and is targeting first LNG in 2029. There is potential to expand the project to a five-train facility.



## Value-erosive

When accounting for acquisition and pre-FID costs, we estimated that the project erodes \$3.6 billion of NPV.<sup>1</sup>

Louisiana is targeting first LNG in 2029, which coincides with a peaking of excess global LNG production according to the IEA’s STEPS (see slide 27).



## High cost

Louisiana LNG Phase 1 is more expensive than 80% of LNG capacity approved globally since 2020.<sup>2</sup>



## Unusual business model

US liquefaction facilities are typically highly leveraged assets owned by infrastructure companies targeting ~9% project IRR.

As per Scarborough, Woodside has sold down a derisked portion of the asset to an infrastructure player. It is unclear why this should generate higher returns than the established business model.

1. \$3.6 billion is on a 2024 NPV basis (based on the acquisition date; or \$3.8 billion RT26). Calculations use Rystad Energy’s economic model, adjusted for the acquisition cost; divestment revenue from William; and assuming a forward price deck and a 10% discount rate. Woodside’s ownership is as per Rystad Energy data, which underrepresents Woodside’s share of production (see slide 9 for more information).

2. ACCR analysis of Rystad Energy data.

# BEAUMONT NEW AMMONIA (BNA): EXPENSIVE ACQUISITION JUSTIFIED BASED ON AN UNLIKELY EXPANSION

BNA is a 1.1 Mtpa blue ammonia project in Louisiana that Woodside acquired in 2024. It produced first ammonia in 2025 and is targeting first deliveries in 2026.



## Value-erosive

Based on our analysis of Woodside’s disclosures, BNA Phase 1 will struggle to generate its cost of capital. To achieve a 10% IRR, we estimate that Woodside would need to sell ammonia at 25% above the forward curve, or have paid 35% less for the asset.<sup>1</sup>

This is consistent with our thesis that Woodside does not effectively allocate capital.



## Poorly executed project

While Woodside is not responsible for construction, risk cost estimates for the project increased from ‘<\$1 billion’ in 2022,<sup>2</sup> to \$1.55 billion in 2024<sup>3</sup> and \$1.7 billion in 2025.<sup>4</sup>



## Train 2 unlikely

Even after a >70% cost overrun, Woodside paid \$500 million above the facility’s latest cost estimate.

It seems unlikely that Woodside can recover this value through a second train since it has been removed from the company’s low- and mid-case scenarios.<sup>5</sup>



## Outsized market share

BNA Phase 1 represents ~6% of internationally traded ammonia production.<sup>6</sup>

Woodside will control about three times more of the internationally traded ammonia market than it does the LNG market.

There is a risk that Woodside is boldly entering an unfamiliar market and may not generate strong returns.

1. Calculations use Woodside’s disclosed ammonia price (\$420/tNH<sub>3</sub>), opex (\$305/tNH<sub>3</sub>), carbon premium (\$120/tNH<sub>3</sub> by 2034), as well as a 20% tax rate, 25-year operating life and 2% upstream fugitive emissions.  
2. OCI, *Q4 and FY2022 Results Presentation*, (Self-published, 2023), slide 18, [https://oci-global.com/wp-content/uploads/2023/02/oci-nv-q4-2022-results-presentation\\_vf.pdf](https://oci-global.com/wp-content/uploads/2023/02/oci-nv-q4-2022-results-presentation_vf.pdf).  
3. OCI, *H2 2024 Results*, (Self-published, 2025), slide 21, <https://ociwordpress.s3.eu-west-2.amazonaws.com/assets/OCI-Global-H2-2024-Results-Presentation.pdf>.  
4. OCI, “OCI Global Q3 2025 Trading Update”, self-published media release, 9 December, 2025, p. 2, <https://ociwordpress.s3.eu-west-2.amazonaws.com/assets/OCI-Q3-2025-Trading-Update.pdf>.  
5. Woodside, *2025 Capital Markets Day*, (Self-published, 2025), slide 87, <https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-03018966-6A1295506&v=undefined>.  
6. ACCR analysis of: Georgy Eliseev, *Ammonia Outlook August 2023*, (S&P, 2025), slide 3, <https://ammoniaenergy.org/wp-content/uploads/2025/06/Georgy-Eliseev-APAC-2025.pdf>.