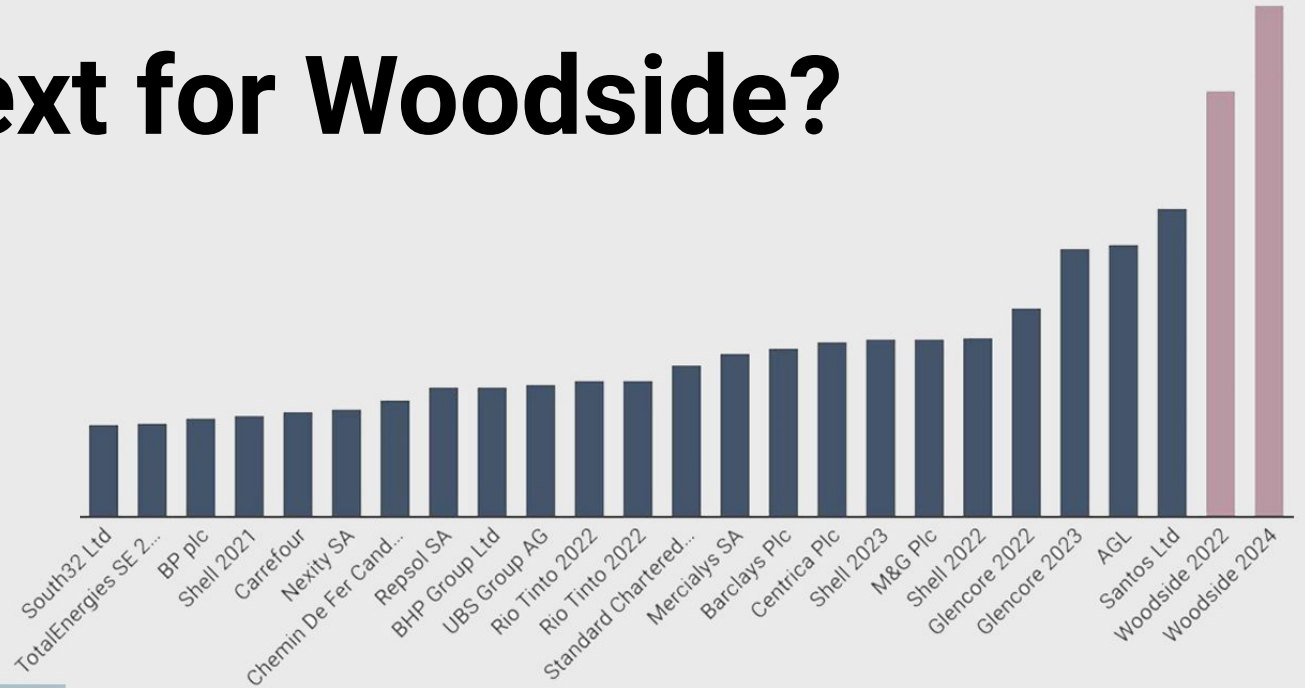


What's next for Woodside?

August 2024



Executive Summary

At Woodside's 2024 AGM, a majority (58%) of shareholders voted against the company's Climate Transition Action Plan (CTAP). This is the largest vote ever against a company climate plan, superseding the previous record of 49%, which was set by Woodside last time it put its climate plan to shareholders.

This research considers how Woodside can deliver a credible strategy for managing climate risk and securing shareholder value.

It finds that ceasing development of its high-cost, high-emissions, pre-FID greenfields gas projects offers Woodside a significant opportunity to enhance shareholder value and reduce exposure to climate risk. A capital allocation framework that returns free cash flow to investors currently offers more value and less risk than fossil fuel production growth.

The recent acquisition of Driftwood LNG adds another long-duration, high-cost, high-emissions project to Woodside's pre-FID portfolio - underscoring the urgent need for a reassessment of its current company strategy.

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Key findings

An alternative capital allocation strategy appears to be more attractive.

Key findings

- Woodside's pre-FID greenfields gas projects are not Paris-aligned or low-cost.
 - Browse is more expensive than 70% of the world's unapproved gas projects; Sunrise and Calypso are even more expensive.
 - Share buybacks would deliver 140% more NPV upside than executing Browse and Sunrise.¹
 - Not developing Browse, Sunrise and Calypso would move Woodside towards Paris alignment by avoiding 80% of the emissions from its pre-FID upstream portfolio.
- Like Trion, the recent Driftwood announcement is another example of Woodside pursuing a long-duration, high-capex and uncompetitive project. Driftwood is more expensive than 76% of other pre-FID US LNG projects.
- Woodside's track record on exploration is poor. It hasn't made a major discovery since 2005 and this has led to Woodside paying more to find oil and gas resources than it costs to buy developed reserves.
- Oil and gas has underperformed the broader market for more than a decade, and Woodside has underperformed its peers.
- Ceasing fossil fuel exploration and development could create >\$4 billion more NPV upside than if Woodside executed its current pre-FID upstream oil and gas portfolio.

** The analysis uses independent data from Bloomberg, the IEA and Rystad Energy. Rystad Energy has verified that the data and methodologies have been used appropriately, but is not responsible for our assumptions or conclusions.*

1. Even though Woodside is actively progressing Calypso, it is excluded since it has a negative NPV based on Rystad data and assumptions.

Woodside's pre-FID greenfields gas projects are not Paris-aligned or low cost

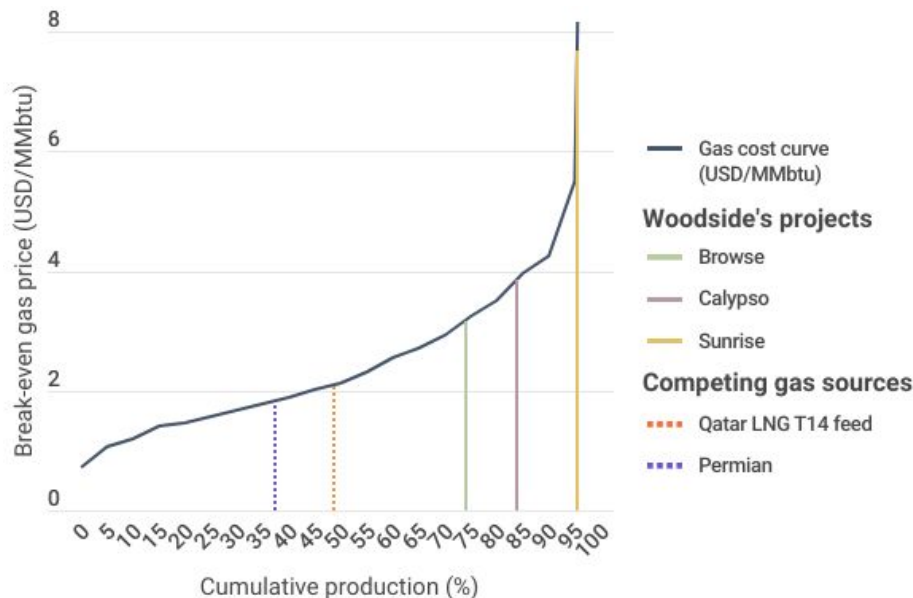
Browse:

- is more expensive than 70% of the world's unapproved gas projects
- over 50% more expensive than sanctioned Qatar and unconventional Permian projects
- makes up half of Woodside's upstream pre-FID portfolio by capex, production and emissions
- has not been developed, despite having being discovered in the 1970s, had multiple FEED studies completed and suffered one negative FID
- is not Paris-aligned.

Sunrise and Calypso:

- are even more expensive than Browse
- are being progressed by Woodside despite being classified by Rystad as 'uncommercial' or commercial 'uncertain'.

Woodside's pre-FID gas projects are high cost



Recommendations

Investors have voiced discontent with Woodside's climate plan for several years, but Woodside has not responded with material changes.

1. We think it is now appropriate for investors to become more specific and to challenge Woodside's executives and board on allocating capital to:
 - pre-FID, long-duration, high-cost, high-emission, low-value projects, specifically Browse, Sunrise, Calypso and Driftwood
 - oil and gas exploration, especially considering Woodside's poor track record.

Unless these points are addressed, it is not possible for Woodside to produce a credible climate transition plan. However implementing these changes is likely to enhance shareholder value.

2. In addition, investors should assess whether the board has the right mix of high-calibre and appropriately skilled directors, with the requisite judgement to serve shareholder interests during the energy transition.

Is oil and gas production growth a value-accretive strategy?

The oil and gas sector has underperformed the broader market for more than a decade, and Woodside has underperformed its peers.

Temporary periods of sector outperformance against the broader market have correlated with an increasing oil price, not production growth.

In the context of a forecast peak in oil and gas demand, and with Woodside using more bullish investment assumptions than its peers, production growth is a high-risk strategy.

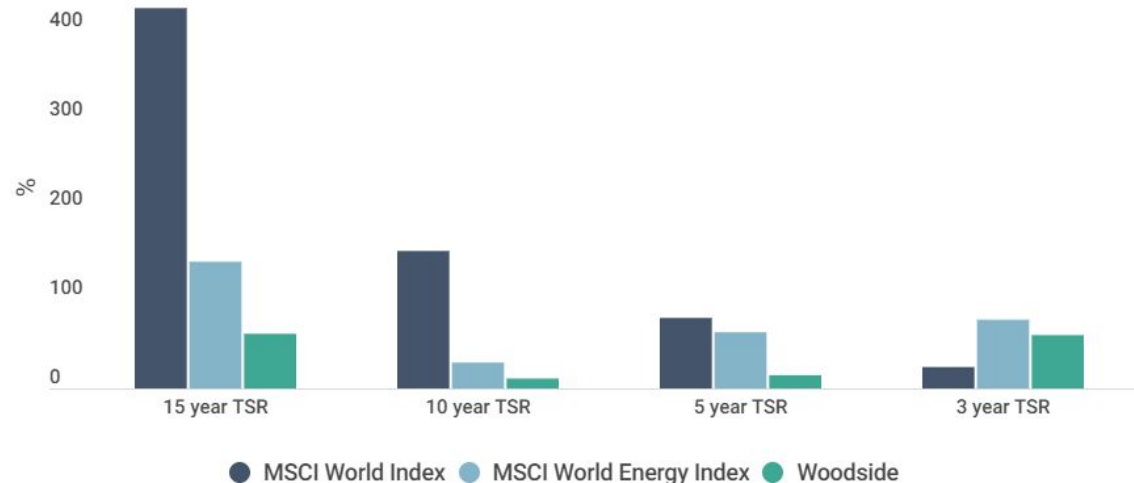
Oil and gas has underperformed the broader market and Woodside has underperformed the sector for more than a decade

Despite delivering significant cash flow, the oil and gas sector has underperformed the market for a sustained period (see chart).

The exception is the last three years, during which the oil and gas sector has been boosted by supply disruptions resulting from the Ukraine war.

Woodside has consistently underperformed the sector.

Oil and gas has underperformed the broader market, except when supported by increasing oil prices¹



1. Periods refer to calendar years finishing on 30 June 2024. Calculated on a USD basis.

The oil and gas sector is highly cyclical with poor returns on capital

The IEA calculated that Return on Capital Employed (ROCE) from 2010 to 2022 for the oil and gas sector has been 6-9% p.a. depending on the subsector.

These returns, except for pipelines, are also highly volatile.

Through the cycle ROCE <10% for the oil and gas sector¹



IEA, CC BY 4.0

Investment opportunities in clean energy can yield average returns that are similar to those of the oil and gas industry and, for clean power, are much less volatile.

IEA, The Oil and Gas Industry in Net Zero Transition, p88

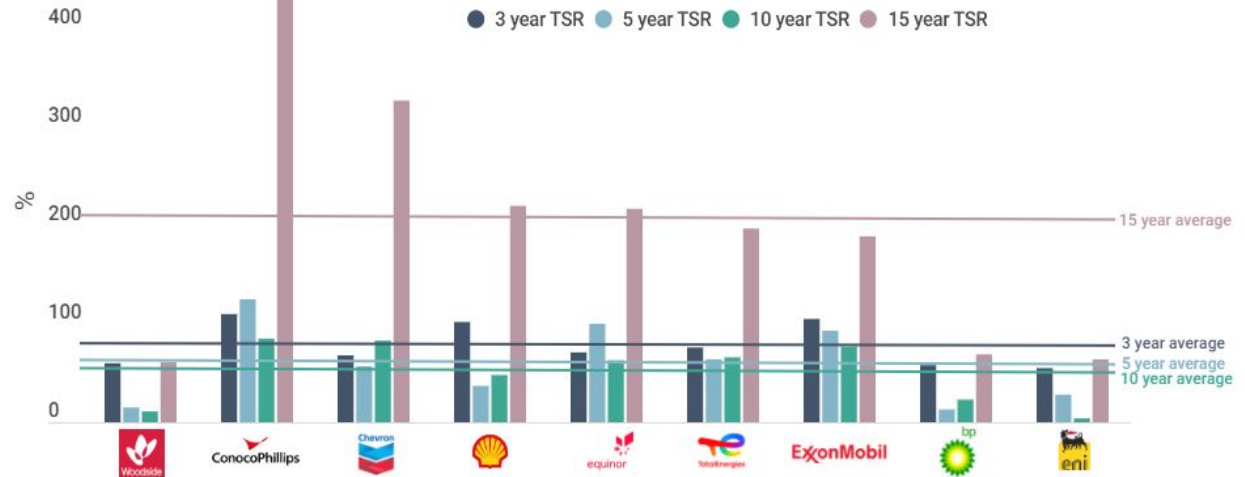
1. IEA Notes: High-price environment is 2022 (oil price >\$95/bbl, imported natural gas price >\$15/MMBtu); low-price environment is 2016 (oil price <\$50/bbl, imported natural gas ~\$6/MMBtu). For clean power technologies, high-price environment is 2014 and low-price environment is 2020. Source: IEA analysis of a sample of 800 companies from 2010 to 2022 based on data from S&P global (2023).

Woodside has delivered lower returns than peers

Relative to a group of international peers Woodside has:

- delivered the lowest TSR over three years
- underperformed the peer group average over 5, 10 and 15 years (all periods).

Woodside has underperformed its peers' total shareholder returns¹



Bloomberg Finance LP, Used with permission of Bloomberg Finance LP

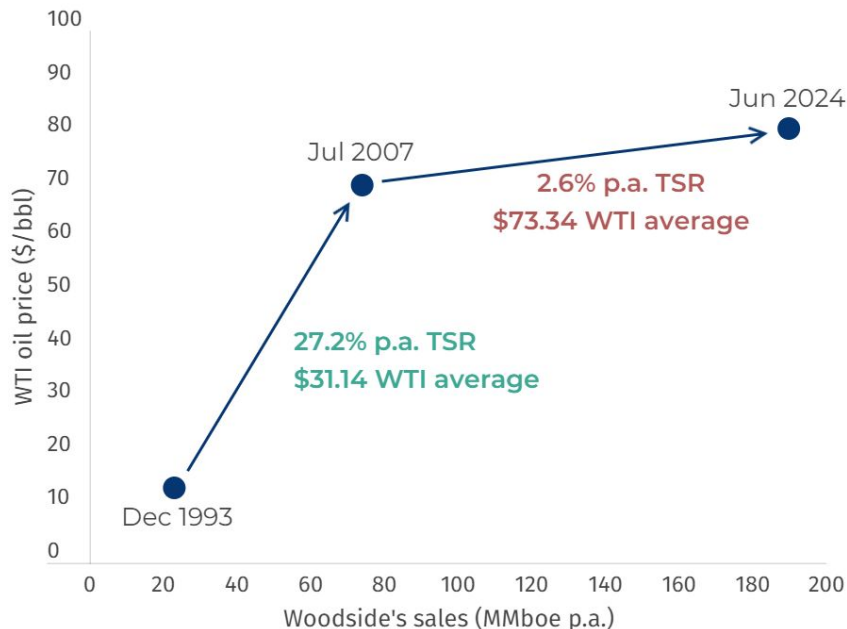
1. Periods refer to financial years finishing on 30 June 2024. Calculated on a USD basis.

Over the long-term, Woodside has underperformed except when supported by oil price growth

Woodside has generated strong TSR when the oil price has risen rapidly.

However, when the oil price has grown more slowly, TSR has been sluggish. Woodside has generated 2.6% p.a. TSR since making FID on Pluto in July 2007. This is despite production tripling.

Production growth on its own, does not seem to deliver strong returns



Company disclosures, Bloomberg Finance LP, Used with permission of Bloomberg Finance LP

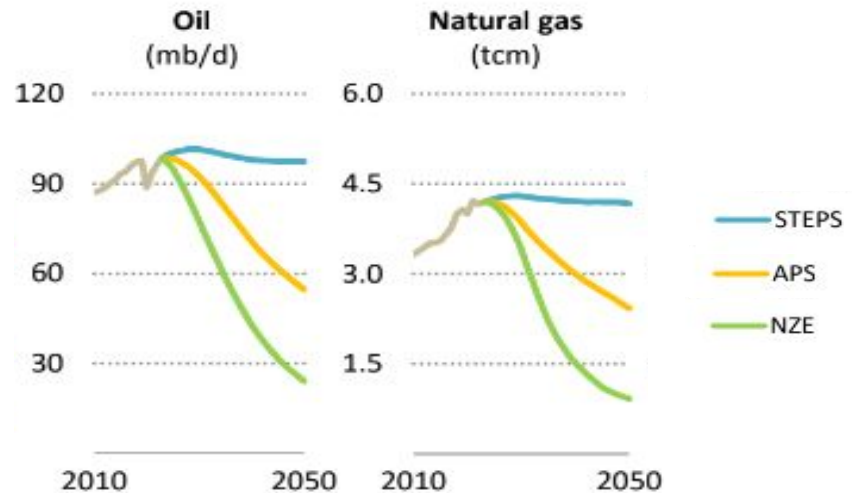
Woodside's major pre-FID projects would start production in a declining market

The IEA projects a peak in oil and gas consumption by 2030 in every one of its published scenarios.

This marks a pivot away from the consistent growth of previous decades.

Woodside's major pre-FID projects are all due to start up from 2029, meaning they would be coming online in a period of structural demand decline.

Oil and gas demand is due to peak this decade under all IEA scenarios



IEA WEO 2023, slide library, p21

Case study: Driftwood – rescue raft, or sinking ship?

Driftwood is another example of Woodside pursuing a project with:

- weak economics
- high emissions
- significant downside risk.

Woodside's decision to acquire Tellurian suggests it remains committed to a high-capex, high-emissions business model.

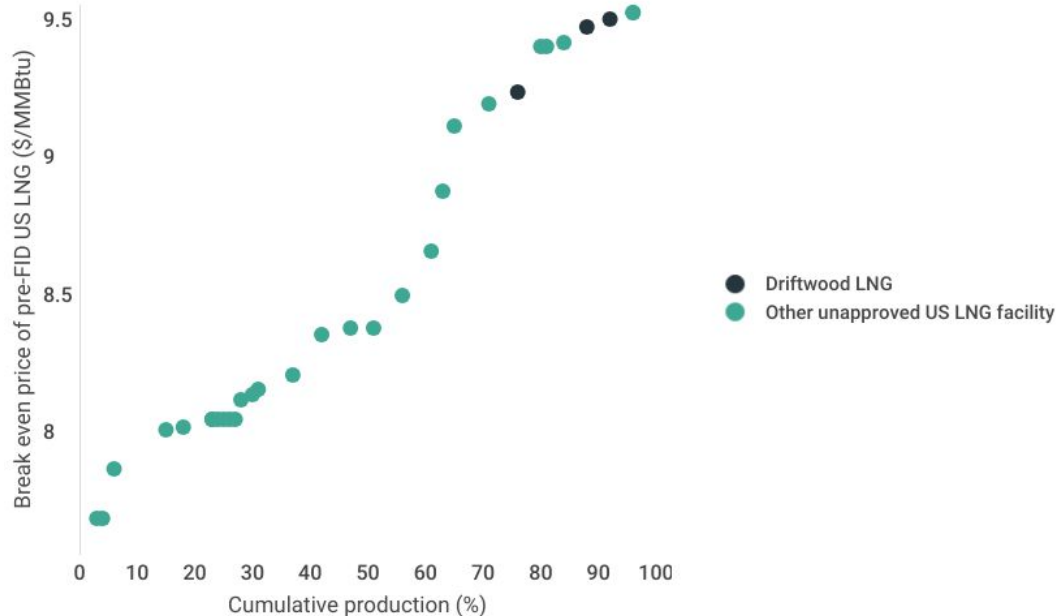
Woodside's pending acquisition of Tellurian increases its exposure to high-cost pre-FID assets

Woodside recently announced the acquisition of Tellurian, which owns the Driftwood LNG project.

Woodside is targeting FID for the 11Mtpa first phase in early 2025.

Rystad data¹ shows that Driftwood is more expensive than 76% of unapproved US LNG facilities.

Driftwood is an expensive US LNG project



1. The graph includes trains from Driftwood Phases 2 and 3. Phase 1 is excluded since Rystad considers it to be non-commercial.

Risks of the Driftwood deal

- Just like Trion, Woodside is planning to invest significant capex in a long-duration project that benchmarks poorly.
 - With a capex forecast of \$16bn¹, phases 1 and 2 equate to 40% of Woodside's current market capitalisation. This is material, even if Woodside manages to sell down 50% of the project.
 - Woodside's Scarborough and Sangomar projects show that it regularly misses capex guidance on greenfields developments.
- Driftwood is targeting a 2029 start-up, when the IEA projects an LNG glut. Trading opportunities may dwindle as potential LNG demand growth shifts increasingly to price-sensitive customers in Asian emerging markets.
- Woodside's proposed model of lower gearing and vertical integration is novel in the US LNG market. If Woodside can generate value by trading US LNG, it can avoid capital risk by using offtake agreements.
- If all four phases are executed and operate at capacity, Driftwood will cause 68 MtCO₂e p.a. of scope 3 emissions, more than 90% of Woodside's 2023 scope 3 emissions. This would exacerbate Woodside's already high exposure to climate risk.
- Driftwood's non-FTA export authorisations from the US Department of Energy will need to be extended post May 2026 - underscoring ongoing regulatory risks.

1. Midpoint of Woodside's guidance, rounded up to account for pipeline costs.

“It takes a brave company to dive headfirst into a wave of overcapacity ...”



Between 2025 and 2027, 175mn tonnes per annum (Mtpa) of new LNG are set to hit the market, according to broker Bernstein. On top of that, developers are looking to take final investment decisions on projects that could deliver a further 230 Mtpa. That will lead to oversupply in the early part of the 2030s. Many of the earlier-stage projects will probably fall by the wayside.

This abundance of sellers will compress returns. By way of example, the cost of selling US LNG to Asia might be \$8.15 per million British thermal units, thinks Christopher Wheaton at Stifel. Long-term gas prices in the region might be around \$8.50 per million British thermal units. Multiply that sliver of profit by the capacity of the Driftwood project and Woodside could expect operating cash flow of \$300mn. That looks paltry in the context of a \$16bn capital spend.

Source: FT Lex, [Woodside's US LNG deal could founder in a capacity bust](#), 23 July 2024

Case study: The trouble with Trion

Trion did not have a strong case to support a positive FID, due to:

- weak economics
- high emissions
- significant downside risk.

Woodside's decision to proceed with Trion in June 2023 should be a red flag for investors.

FID on Trion illustrates the impact of Woodside's aggressive growth strategy

Trion¹ is a 479 MMboe (100% share) greenfields oil project in the Gulf of Mexico that reached FID in June 2023.

Woodside (60%) is operator, partnering with Pemex (40%).

ACCR analysis suggests Trion only met Woodside's hurdle rate due to the company's elevated oil price assumption.

Capex (USD billion)	IRR (% pa)	NPV (USD million)	Peak emissions (MtCO ₂ e pa)
\$4.6	13.6%	\$310 - 466	10
>10% market capitalisation	Doesn't meet 15% hurdle	<2% of market capitalisation	13% of current portfolio

1. Trion Data in this section is from ACCR, [Can Woodside try harder than Trion?](#), 2023, except for the cost of supply data which is from Rystad. Our Trion report's conclusions are broadly consistent with Woodside's FID briefing pack, when adjusted for market-based oil prices.

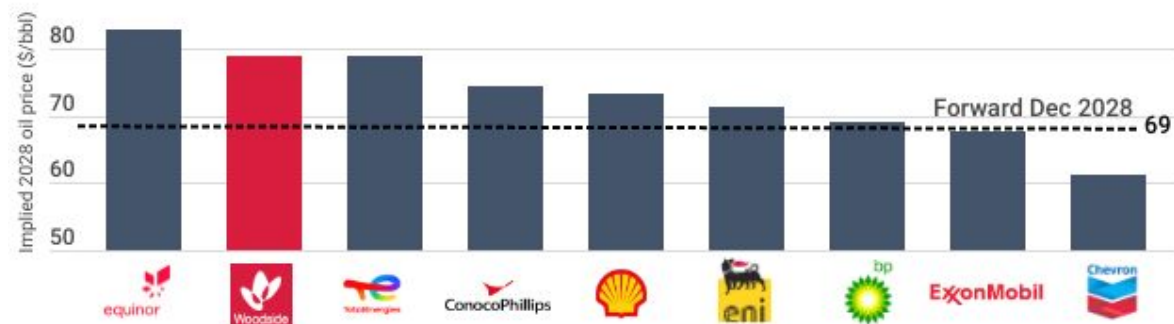
Woodside's investment assumptions are more aggressive than peers'

Woodside has a higher oil price assumption and/or a lower hurdle rate than every one of a selection of global peers.

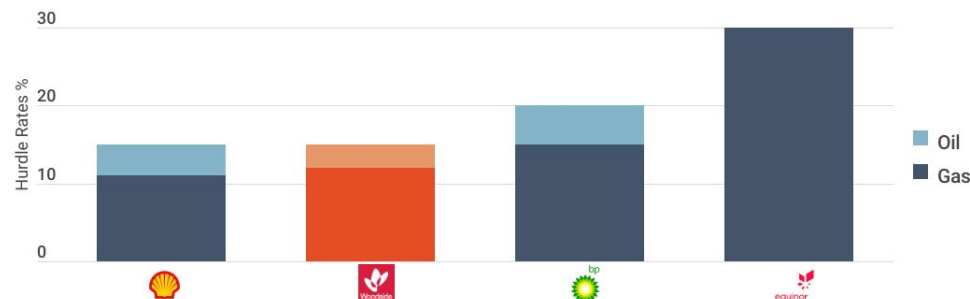
This has real-world impacts for shareholders.

Based on their internal investment criteria, we found it unlikely any of these peers (possibly aside from Shell) would have invested in Trion.

Woodside has a higher long-term oil price assumption than most peers



Woodside has a lower hurdle rate than most peers (where disclosed)



Our analysis suggests Trion is neither NZE-aligned nor cost-competitive

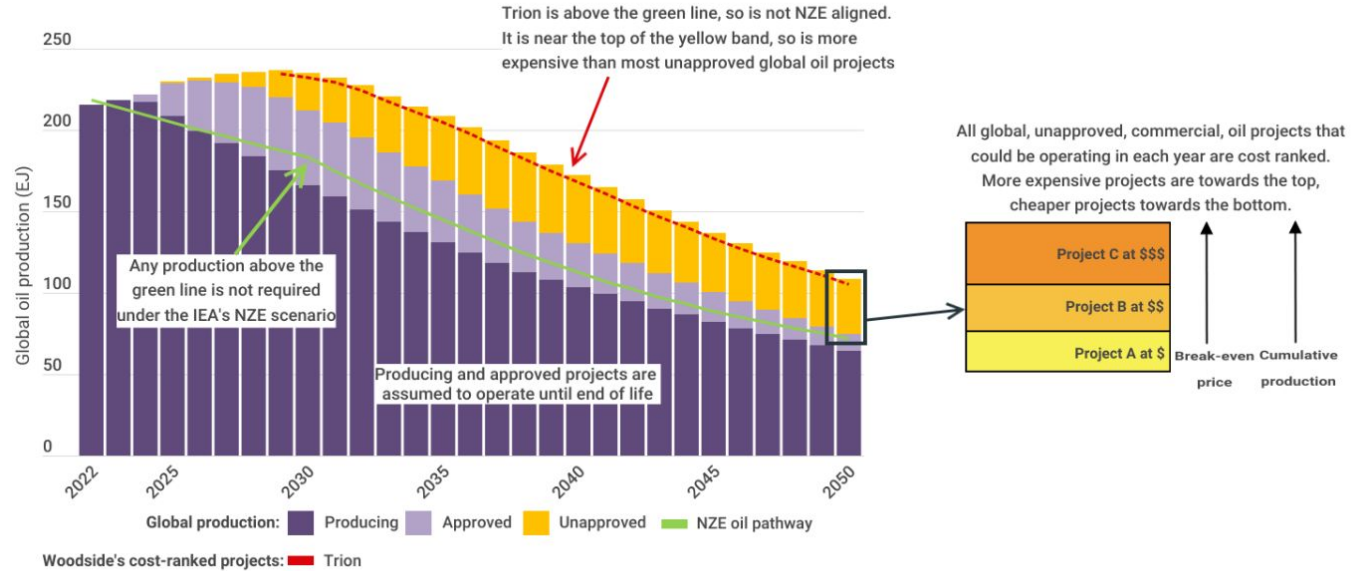
At FID, Trion was:

- not aligned with the IEA's NZE
- more expensive than 90% of global unapproved oil projects.

It is forecast to operate until 2066, adding to the risk of fossil fuel lock-in.

More detail on our methodology is included in Methodology (slide 40).

At FID, Trion was more expensive than 90% of unapproved global oil projects



Trion faces a number of risks beyond NZE misalignment and poor financial returns

Country risk: KPMG¹ included a 2.5% country/project risk that isn't reflected in the target IRR

Partner risk: Pemex faces serious corruption allegations and credit rating risk

Production risk: Hurricanes in the Gulf of Mexico are likely to impact production

Oil price risk: Paris-aligned scenarios have significantly lower oil prices

Political risk: As a state-owned company, Pemex is strongly impacted by political changes

Licence risk: The production licence expires in 2052, but the field produces until 2066

Franking credits: They do not apply to tax paid to the Mexican government

Remuneration: Incentives reward scale, which may not align with shareholder value

1. KPMG, Independent Expert Report and Financial Services Guide, p249.

Assessing Woodside's unsanctioned growth portfolio

On a least-cost basis, we found that none of Woodside's pre-FID oil and gas projects sit in the top quartile of unapproved oil or gas projects globally, and are not Paris-aligned.

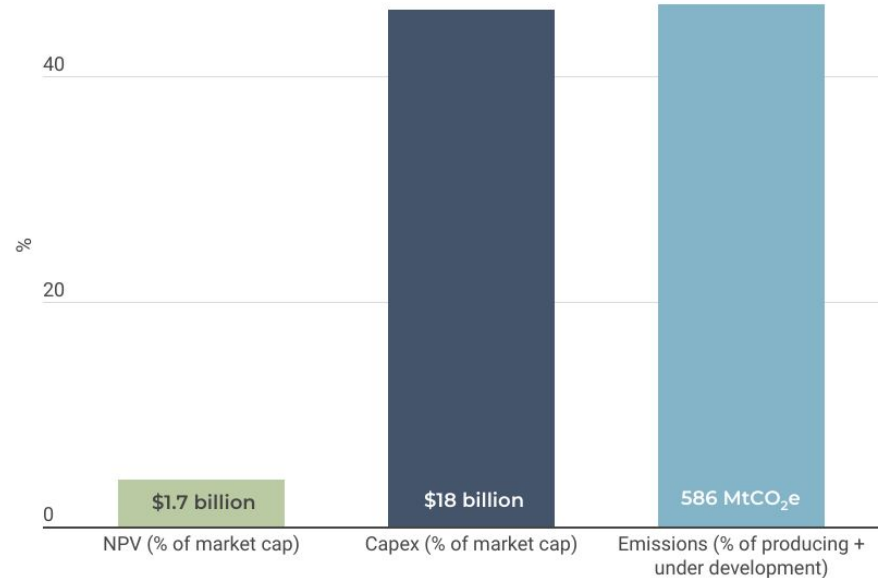
Woodside's pre-FID projects are high-capex, high-emissions and low-value

Woodside's pre-FID project portfolio¹ is:

- high-capex and high-emissions, principally due to:
 - Browse
 - Sunrise
 - the Sangomar expansion
- low-value

The Mad Dog backfill appears to be Woodside's most appealing project, representing about 1% of pre-FID production and emissions, but 12% of pre-FID NPV.

The pre-FID portfolio's NPV is estimated at 4% of Woodside's market capitalisation



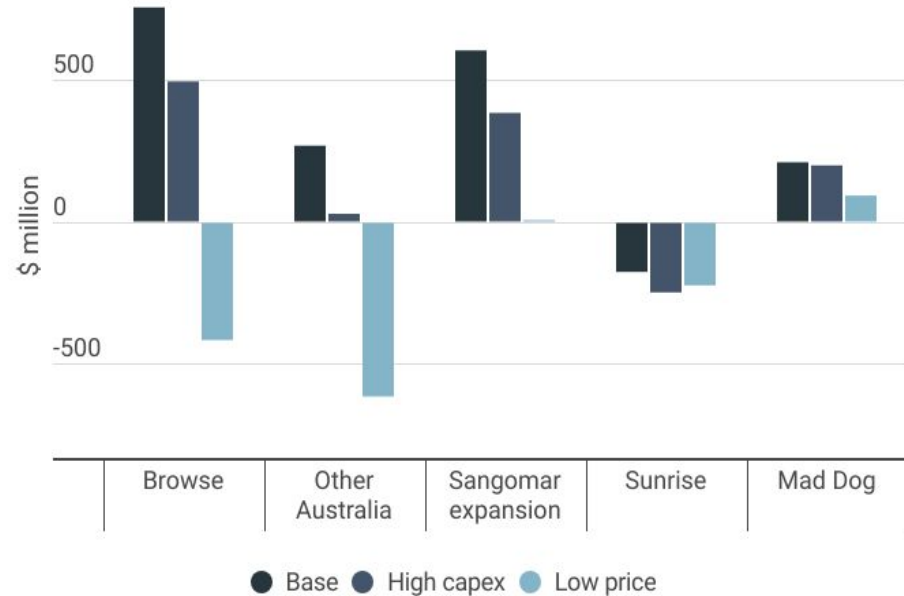
1. Even though Woodside is actively progressing Calypso, it is excluded from this slide since it has a negative NPV based on Rystad data and assumptions. Several immaterial projects have been screened out of the capex and NPV data.

Woodside's pre-FID projects are not resilient to low prices, apart from the Mad Dog backfill

Most pre-FID projects¹ are not resilient because:

- a 20% cost overrun² would erode 50% of the portfolio's value
- under Rystad's low-price case (\$40/bbl), only the Mad Dog backfill remains materially NPV positive.

Mad Dog is the only pre-FID project that is resilient to low oil prices



1. Calypso has been excluded since it has a materially negative NPV based on Rystad's default assumptions. Several minor projects have been screened out.
2. ACCR, [Australia's LNG growth wave: did it wash for shareholders](#), Nov 2023. Previous research by [Merrow](#) found that major oil and gas projects were, on average, 25% over budget.

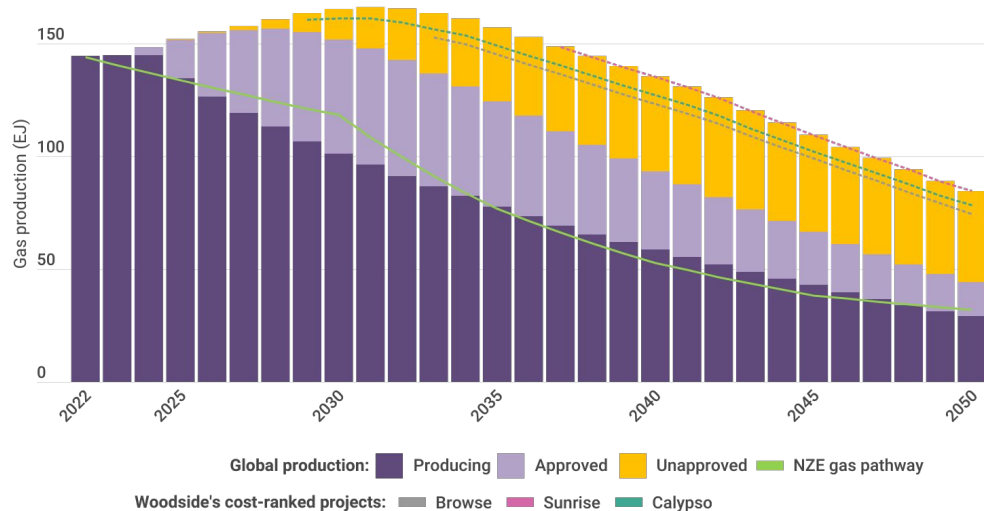
Woodside's pre-FID greenfields gas projects are not Paris-aligned or low-cost

Browse:

- is more expensive than 70% of the world's unapproved gas projects
- is over 50% more expensive than sanctioned Qatari and unconventional Permian projects
- makes up half of Woodside's pre-FID portfolio when measured by capex, production and emissions
- has not been developed, despite being discovered in the 1970s, the completion of multiple FEED studies, and suffering one negative FID.
- is not Paris-aligned.

Sunrise and Calypso:

- are even more expensive than Browse
- are being progressed by Woodside despite Rystad classifying the projects as 'uncommercial'.

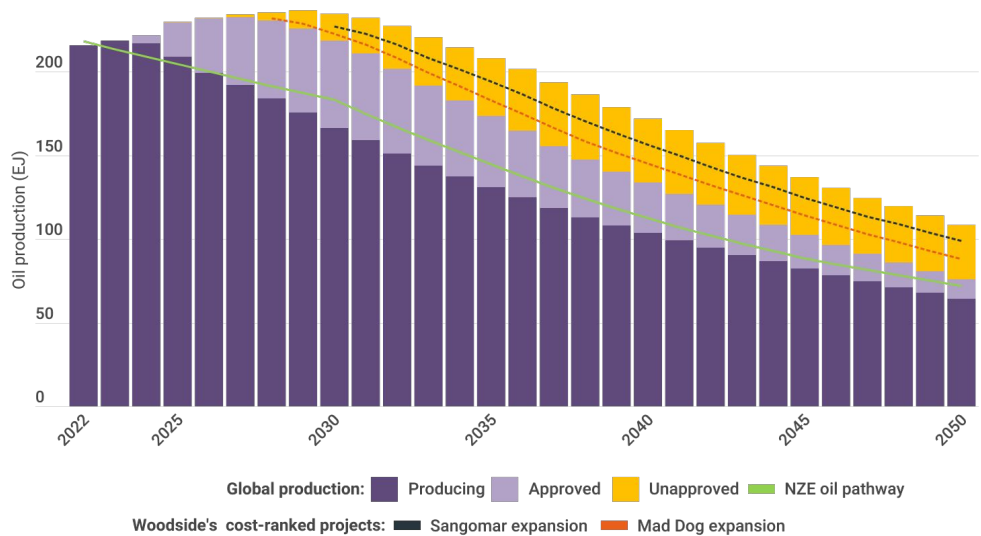


Project	Start-up year	Final year of production	Total production (100% MMboe)	Production weighted cost percentile
Browse, Australia	2032	2100	2296	71
Sunrise, Timor-Leste	2036	2079	723	99
Calypso, Trinidad and Tobago	2028	2050	619	76

Woodside's pre-FID oil projects are neither Paris-aligned nor low-cost

The Sangomar expansion and Mad Dog backfill projects:

- are not aligned with the IEA's NZE pathway
- sit outside the top quartile of unapproved projects globally on a cost basis, although the Mad Dog backfill is close
- have production profiles that extend beyond 2050, creating risk of locking in fossil fuel dependence.



Project	Start-up year	Final year of production	Total production (100% MMbbl)	Production weighted cost percentile
Sangomar expansion, Senegal	2029	2067	352	59
Mad Dog expansion, United States	2027	2055	65	26

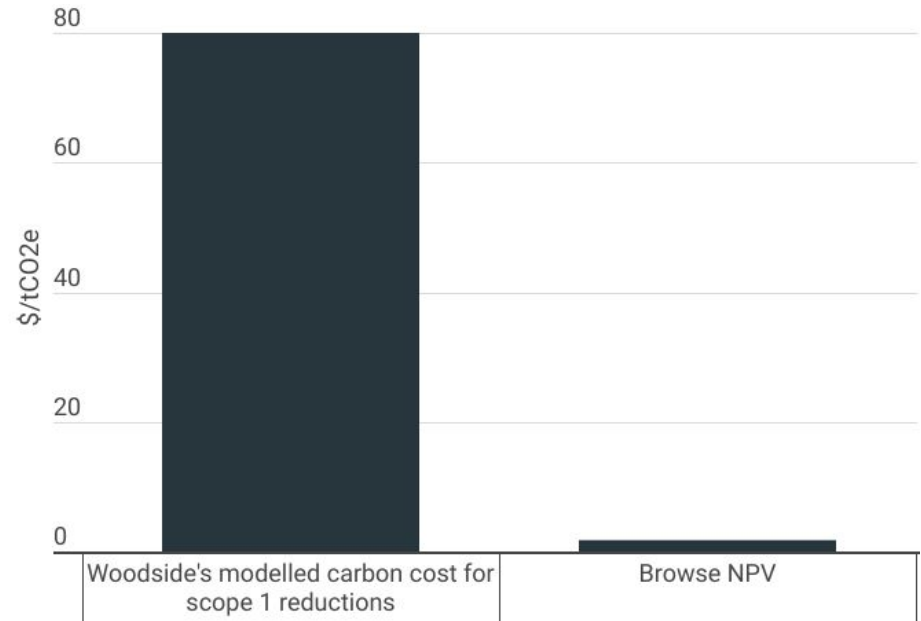
The cheapest way for Woodside to reduce emissions is to shelve projects like Browse

92% of Woodside's emissions are scope 3, so Woodside's climate alignment can only be properly assessed based on its scope 3 reductions.

It does not make sense for climate-focussed investors to support projects like Browse that generate $\$3/\text{tCO}_2\text{e}$ (including scope 3), when Woodside is:

- implementing scope 1 emissions reductions that cost up to $\$80/\text{tCO}_2\text{e}$
- studying scope 1 emissions reductions that cost up to $\$500/\text{tCO}_2\text{e}$.

The cheapest way to reduce emissions is shelving projects like Browse



Capital return vs fossil fuel growth strategy

Our analysis suggests share buybacks would generate 22% more value than executing Woodside's pre-FID project portfolio.

Share buybacks would deliver more value than executing Woodside's pre-FID portfolio at this point in time

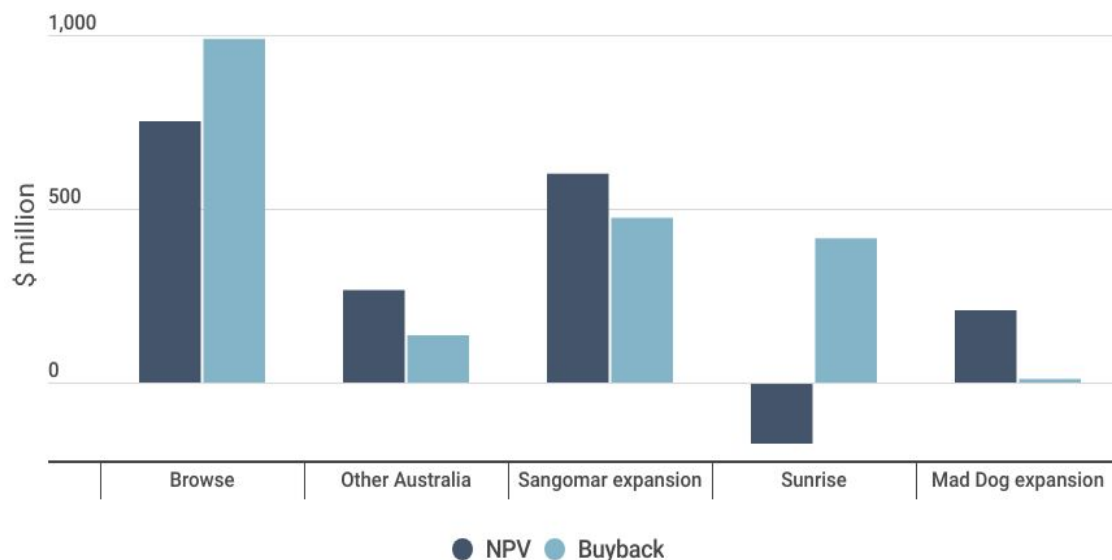
Redirecting capital from Woodside's pre-FID projects to share buybacks would generate \$2.02 billion.

This is 22% more than the \$1.66 billion NPV that would be created by executing its pre-FID portfolio.

With \$1.8 billion of franking credits on the balance sheet, returning capital as dividends would also be attractive.

When considering just Browse and Sunrise, buybacks would deliver 140% more than the projects' NPV.¹

Share buybacks generate an estimated 22% more value than executing Woodside's pre-FID projects¹



1. Calypso has been excluded since it has a materially negative NPV based on Rystad's default assumptions. Several minor projects have been screened out.

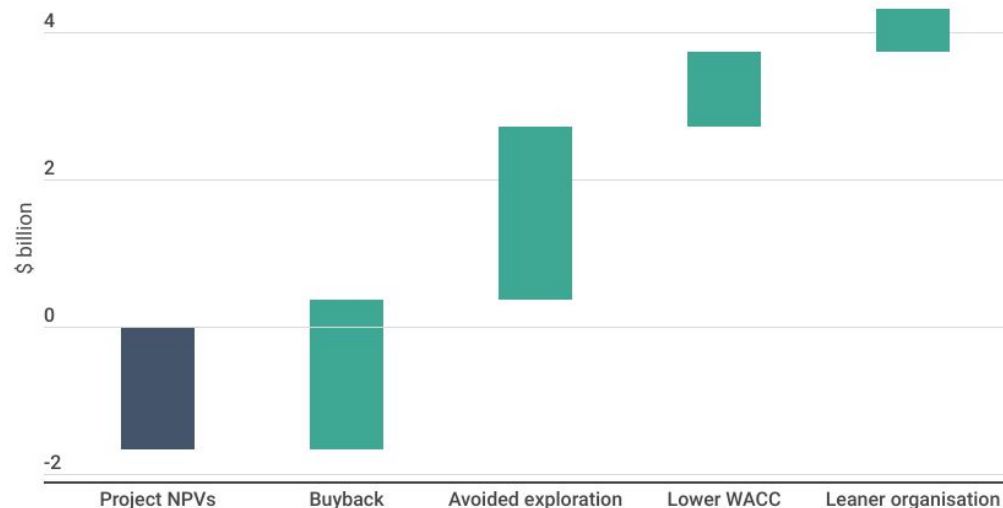
Compared to sanctioning its pre-FID portfolio, pivoting away from new oil and gas development could create >\$4 billion more value

Ceasing fossil fuel expansion has several sources of value, including:

- The redirection of capital from oil and gas projects to buybacks (\$0.3 billion, slide 30)
- avoided unsuccessful exploration costs¹ (\$2.4 billion)
- a lower WACC² (\$1 billion) – ceasing new projects would reduce free cash flow volatility and eliminate categories of risk
- a simpler, leaner organisation³ (\$0.6 billion).

Ceasing exploration and implementing a leaner organisation would increase the dividend yield by 0.9% p.a.⁴

Ceasing fossil fuel development could create >\$4 billion more value than delivering Woodside's current pre-FID portfolio



1. Average cost for exploration that has not resulted in a discovery in the last decade, capitalised using a P/E of 10 and 30% tax rate. Includes legacy BHP costs.

2. NPV upside on operating and post-FID projects of increasing gearing by 5%. This is a conservative assumption; the benefit would double at 10%.

3. Assumes 10% of staff redundancies, average salary \$200k pa, 1 year redundancy payout, capitalised at a P/E of 10, with 30% tax rate.

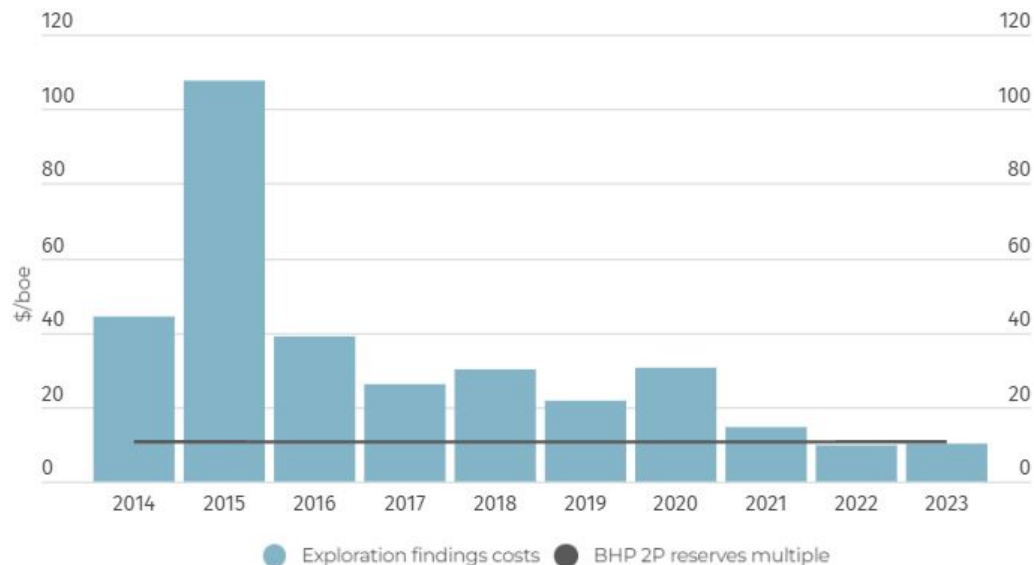
4. Based on avoided costs of all exploration, lower staff costs as per 2, and Woodside's market cap as of 31 Dec 2023.

Woodside's finding costs have exceeded 2P reserves multiple values

Exploration does not appear to be a competitive advantage for Woodside, because:

- exploration has generally led to Woodside paying more to find oil and gas resources than it costs to buy developed reserves
- it has not made a material discovery since Pluto in 2005.

Woodside's exploration finding costs have exceeded the value of acquiring developed reserves through the BHP merger^{1,2}



1. Woodside 2023 Annual Report, p216.

2. 2P reserves multiple, KPMG, Independent Expert Report and Financial Services Guide, p162.

'New energy' and other opportunities

The oil and gas sector is not currently playing a material role in the energy transition.

If Woodside is looking to use excess free cash flow it has a number of Paris-aligned alternatives to organic oil and gas growth - including diversification into 'new energy' or other sectors.

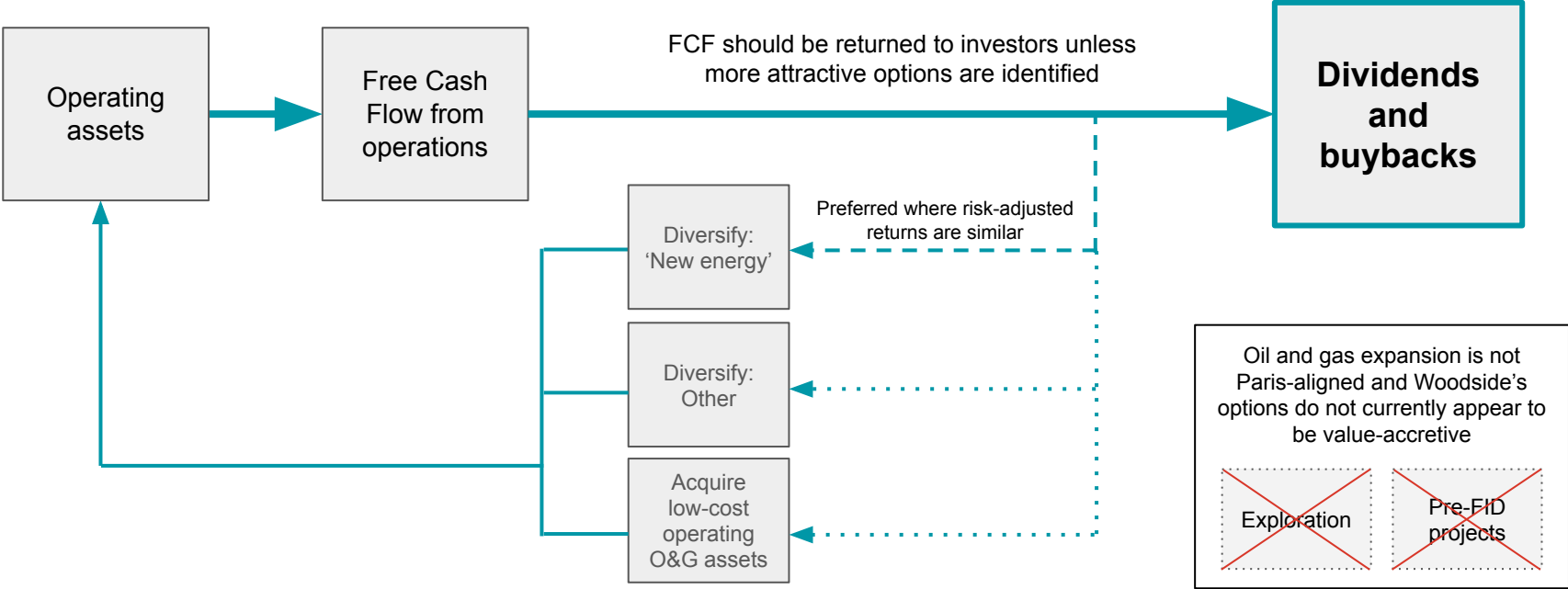
ACCR's view on Woodside's 'new energy' strategy

Woodside's climate alignment should not be assessed against its 'new energy' portfolio, because its 'new energy' portfolio is not designed to reduce Woodside's emissions.

Woodside should:

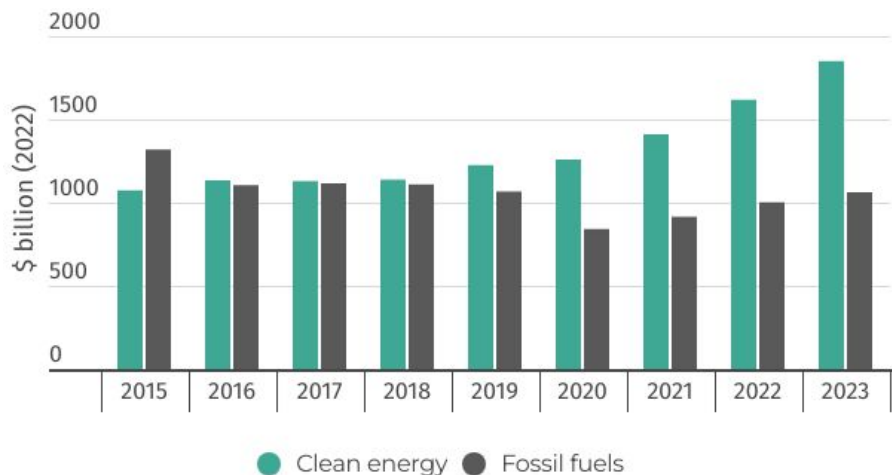
- continue to assess 'new energy' projects, noting its investment framework incentivises 'new energy' via lower hurdles
- acknowledge that while finding attractive 'new energy' projects is proving difficult for the oil and gas sector:
 - this does not justify sanctioning new hydrocarbon projects
 - other options exist, including share buybacks, inorganic growth, and diversification (e.g. Origin's purchase of Octopus Energy)
- ensure its board and management have the ability and willingness to execute - or reject - a broader range of strategic options.

Alternative capital allocation framework through an energy transition

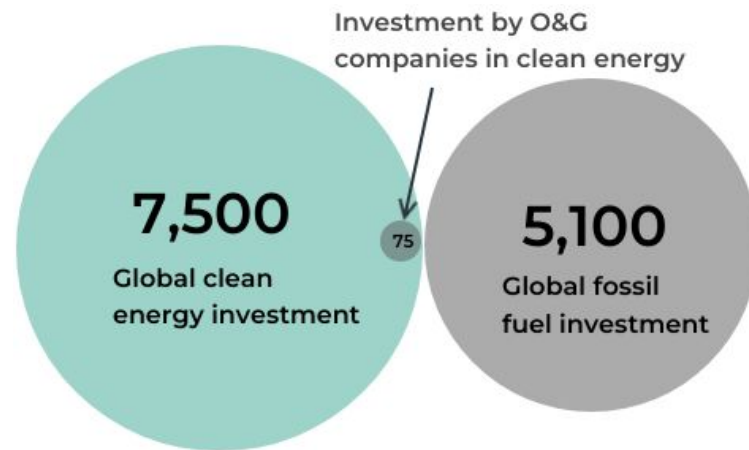


The oil and gas sector is not yet materially contributing to the energy transition

Clean energy investment has outstripped fossil fuel funding since 2016¹



The oil and gas sector provided 1% of global clean energy funding from 2019 to 2023 (\$ billion, to scale)²



By comparison, Woodside invested ~2% of its capex in 'new energy' between 2020 and 2023.

1. IEA, World Energy Investment 2023, p8, with actual 2023 data from the 2024 report.

2. IEA, World Energy Investment 2024, p4 & p98.

ACCR's view is that capital return is the best option for investors - but Woodside has several Paris-aligned alternatives to organic oil and gas growth



Diversify: 'New energy'

Commentary: Oil and gas companies are not yet playing a material role in the energy transition.

ACCR's view: Woodside should continue to explore 'new energy' projects, and invest in projects that provide long-term shareholder value.



Inorganic growth

Commentary: Transferring assets between balance sheets does not increase or decrease real-world emissions (where it doesn't enable additional development), but may be value-accretive.

ACCR's view: Woodside could consider purchasing low-cost operating assets, where value-accretive and Paris-aligned.



Diversify: Other

Commentary: Diversification has worked for some companies, especially industrial companies, but this is a complex and challenging option.

ACCR's view: Although there are currently no obvious opportunities, a sufficiently skilled board should be assessing and executing attractive options, and rejecting unattractive options.

Methodology

Methodology, data sources and key assumptions

Oil and gas asset data is from Rystad Energy, extracted in early May 2024, except for Driftwood data which was extracted in July 2024. Rystad Energy provided the asset-level data and the model used to calculate the sensitivities. It also provided updated data for Woodside's exploration costs in June 2024. Rystad Energy is not responsible for any conclusions drawn from the data, and ACCR retains responsibility for any subsequent analysis, including assumptions used or errors made.

NPVs use a project-specific discount rate, based on the methodology and assumptions used by KPMG in its Independent Expert Report into the BHP Petroleum merger, with the risk-free rate updated as of 1 May, 2024. Oil and gas prices are based on futures prices. Calculations use a 2024 base year and include all free cash flow from 2024.

The value of a share buyback assumes capex from projects is reallocated to share buybacks rather than project development. Capex data is sourced from Rystad and is nominal. Shares are assumed to trade at a 10% discount to underlying value, which compares to 10.7% for the average price estimate from analysts who are recommending a buy (or equivalent) on Woodside as of 1 May, 2024. Analyst views are from Bloomberg (used with permission of Bloomberg LP).

Unless otherwise stated, currencies are in USD, and asset metrics (costs, NPV, emissions, etc) are expressed as Woodside share.

ACCR's NZE alignment methodology for unapproved projects

Objective

To test whether future oil and gas projects are aligned with Paris-aligned scenarios¹ through a global industry lens.

At a high level, our methodology involves:

1. assuming all operating and under-development projects operate until end-of-life, based on Rystad production forecasts
2. ranking all unapproved projects based on Rystad's break-even prices
3. assessing each unapproved project to see if it is 'required' to meet demand levels under the IEA's NZE scenario, after accounting for operating and under-construction facilities.

The benefits of this method include that it:

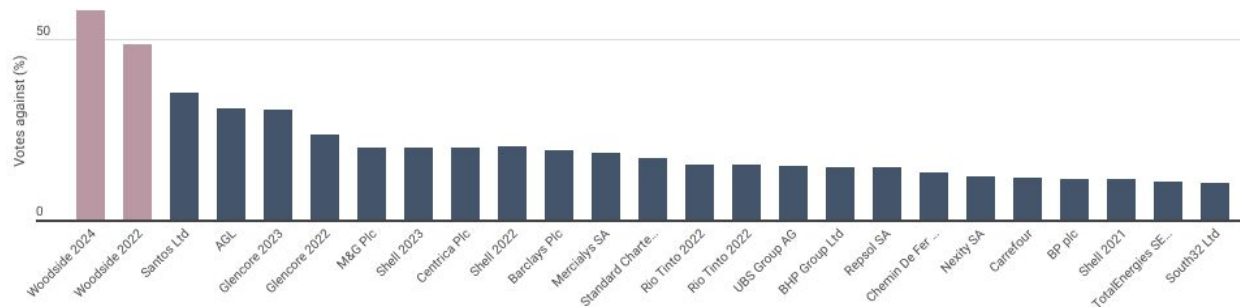
- removes the opportunity for companies to use a range of self-selected voluntary decarbonisation targets to claim Paris-alignment
- provides investors with valuable insight into financial assumptions, and therefore investment decisions, which are not Paris-aligned.

1. ACCR currently views the IEA's NZE pathway as the best tool for Paris alignment assessments. It is based on IPCC temperature outcomes (1.5°C in 2100 with 50% certainty) and encompasses energy security, recent technology and geopolitical events, and equity, with comprehensive sectoral and geographic data. Global progress is lagging behind the NZE goals, leading to increasingly challenging assumptions like ending global deforestation by 2030 and large-scale carbon removal by 2050, highlighting the urgency for actions to align with this pathway.

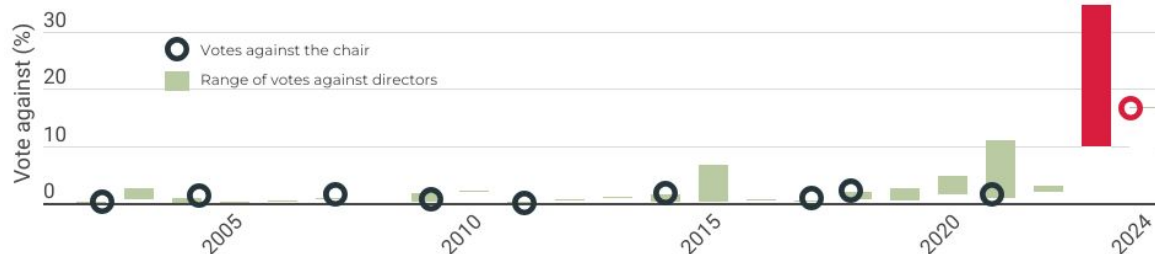
Appendix

Woodside is a stand-out

Woodside received the world's worst 'Say on Climate' vote in 2022 and broke its record in 2024¹



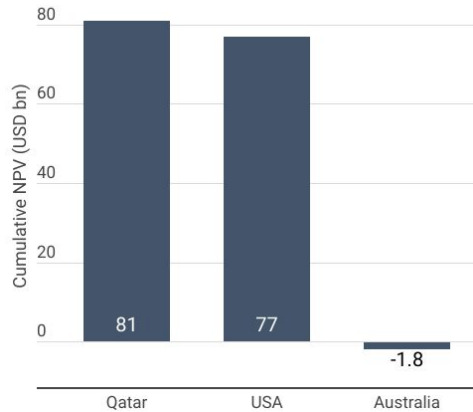
Investors are now escalating against Woodside directors, including the current Chair, Richard Goyder²



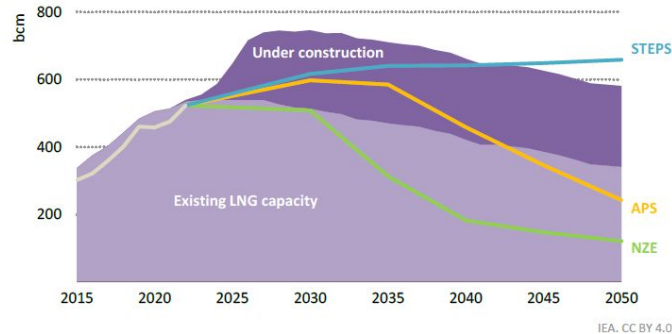
1. [MSCI](#), 2023, with additional votes added by ACCR where known.
2. ASX.

Australia's LNG sector eroded value through the 'golden age of gas'. How will it do better in an oversupplied market?

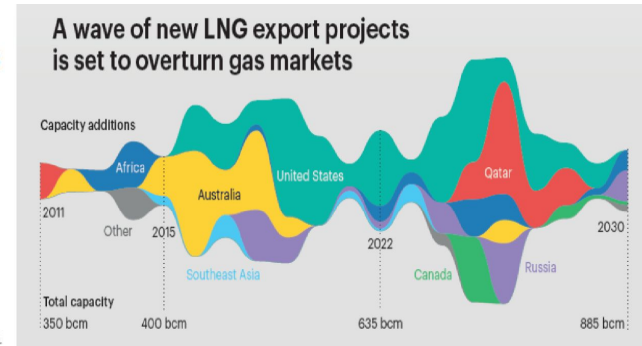
Australia's LNG sector has eroded value¹



LNG supply is expected to exceed demand until at least 2040²



Most new LNG supply is from Qatar and the USA, the two countries generating value³



1. ACCR, Australia's LNG Growth Wave, p13
 2. IEA, The Oil and Gas Industry in Net Zero Transitions, 2023, p45
 3. IEA, 2023 World Energy Outlook, p24

We have heard a range of concerns, but remain comfortable that companies should be seriously considering a capital returns strategy

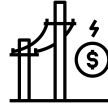


Financial

Typical challenge: Why should Woodside voluntarily sacrifice the high returns from oil and gas?

ACCR's view: We disagree that Woodside has generated high returns.

It has underperformed the market for 15 years, its pre-FID portfolio is underwhelming, and the market is entering structural decline.



Energy security

Typical challenge: Don't we need new gas supplies to balance the energy market through the transition?

ACCR's view: It's a false dichotomy to present decarbonisation as a choice between energy security and emissions.

The IEA's NZE scenario meets climate and energy security goals (and energy poverty and air quality).



The company

Typical challenge: How can we curtail a company's growth or force it to wind down?

ACCR's view: Institutional investors have a fiduciary duty to their members. If a capital returns strategy delivers higher value at a point in time, it should be prioritised over the scale of a portfolio company.

Even with no further investment, Woodside's O&G assets will continue operating beyond 2050.

'Emotional exit barriers' from company leadership may hinder a capital returns strategy



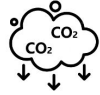
While rational investors will seriously consider a capital returns strategy, emotional exit barriers may hinder company leadership implementing strategies that reduce the company's scale or existence.

Managers' emotional attachments and commitments to a business – coupled with pride in their accomplishments and fears about their own futures – create emotional exit barriers. In a single-business company, quitting the business costs managers their jobs and creates personal problems for them such as a blow to their pride, the stigma of having “given up,” severance of an identification that may have been long-standing, and a signal of failure that reduces job mobility...

In some cases, even though unsatisfactory performance is chronic, managerial exit barriers can be so strong that divestments are not made until top management changes.

Harrigan and Porter, [End-Game Strategies for Declining Industries](#), Harvard Business Review, 1983
Cited by IEEFA CEO Amandine Denis-Ryan

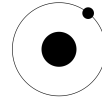
ACCR's current view on Woodside's 'new energy' priorities



Carbon Capture and Storage

Commentary: Whilst CCS plays a role in most 1.5°C scenarios, it is not technically or economically feasible for CCS to manage the emissions from continued fossil fuel use at current levels. Most scenarios show that it plays a minor role decarbonising today's energy system relative to emissions reduction.

ACCR's view: CCS should not be used to justify new fossil fuel developments, or increase production.



Hydrogen

Commentary: Hydrogen is difficult to produce, store and transport. Making hydrogen from fossil fuels may result in higher emissions intensity than direct fossil fuel use, even if coupled with CCS. Hydrogen produced from electricity is thermodynamically inefficient and too expensive for many purposes.

ACCR's view: Hydrogen produced from fossil fuels is not an effective climate mitigation tool. Renewable hydrogen should be prioritised for industrial decarbonisation applications, particularly those that currently rely on fossil hydrogen.

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