



**Woodside Energy Group Ltd**

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# Announcement

Wednesday, 8 November 2023

## INVESTOR BRIEFING DAY 2023

Woodside CEO Meg O'Neill today outlined the company's strategy to continue to thrive through the energy transition by supplying affordable, reliable and lower carbon energy to a world that needs it.

"Woodside has a high quality global portfolio with low cost and high margin operating assets. We have three world-class projects in execution in Australia, Senegal and Mexico. The combination of the strong base business and these new investments will generate strong future cash flows and returns for our shareholders across the price cycle.

"The world's demand for Woodside's products is expected to be resilient in the coming decades as populations and economies grow, with our target markets in Asia driving primary energy demand.

"Growth in demand for LNG in particular is expected to continue as buyers seek to secure supplies to support renewables in the power mix as they decarbonise. Woodside's LNG-weighted portfolio is well suited to capitalise on that demand.

"Woodside's strategy is value focused and underpinned by our disciplined approach to capital management. We have both organic and inorganic growth opportunities that we are looking to progress and in new energy, we're aiming to develop projects that we can scale up in line with customer demand.

"Our balance sheet remains strongly positioned to deliver both growth and returns. We maintained our dividend payout ratio at 80% in the first half of this year and have now returned a total of \$6.3 billion to shareholders since our merger with BHP Petroleum.

"Woodside is executing three major projects: Sangomar in Senegal, Scarborough in Australia and Trion in Mexico. Sangomar is targeting first oil in mid-2024 and will produce a crude that is well suited to European refineries.

"The recent sell down of a 10% non-operating interest in Scarborough to LNG Japan demonstrated the value of the project to our customers.<sup>1</sup> Once operational, Scarborough would be among the lowest carbon intensity sources of LNG when delivered into north Asia.

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<sup>1</sup> Subject to completion of the transaction, expected in Q1 2024.

“Execution of Scarborough is progressing, with construction of the floating production unit 50% complete and fabrication of the subsea flowlines and trunkline complete. Fabrication of the Pluto Train 2 modules in Indonesia and site works in Karratha are progressing well. We continue to engage with the offshore regulator and other stakeholders to progress secondary environmental approvals in support of our targeted first LNG cargo in 2026.

“At Trion, we recently received approval of the field development plan from the Mexican regulator. The project is targeted to begin production in 2028 and will be a lower carbon intensity source of oil than the global deepwater average. Trion will have a cost of supply of less than \$50/barrel and a payback period of less than four years.

“Over the course of 2023, Woodside has refined a pathway to our Scope 1 and 2 net zero aspiration by 2050, including cumulative design and operate out emissions reductions totalling approximately 28 million tonnes. We are progressing large scale abatement technologies, aiming to reduce the cost of future decarbonisation opportunities.

“In new energy, we are targeting hydrogen, ammonia and emerging fuels production leveraging Woodside’s core capabilities. In addition to our proposed H2OK liquid hydrogen project in Oklahoma, we are maturing potential locations for large-scale lower carbon ammonia production facilities.

“We are building a portfolio of offshore carbon capture and storage (CCS) opportunities with the view to decarbonising our base business and offering this as a service to customers. These opportunities have the potential to store more than 3 million tonnes per annum of carbon dioxide by 2030,” she said.

To access the live webcast of the Investor Briefing Day, please follow the link at <https://webcast.openbriefing.com/wds-id-2023/>. The webcast will commence at 09.30 AEDT / 06.30 AWST (16.30 CST on Tuesday, 7 November 2023).

A copy of Woodside’s Investor Briefing Day 2023 slide pack is attached.

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*This announcement was approved and authorised for release by Woodside’s Disclosure Committee.*

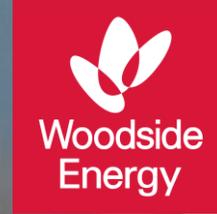
## Forward looking statements

This presentation contains forward-looking statements with respect to Woodside's business and operations, market conditions, results of operations and financial condition, including, for example, but not limited to, statements regarding development, completion and execution of Woodside's projects, expectations regarding future capital expenditures, future results of projects, operating activities, new energy products, expectations and plans for renewables production capacity and investments in, and development of, renewables projects, expectations and guidance with respect to production, investment expenditure and gas hub exposure, and expectations regarding the achievement of Woodside's net equity Scope 1 and 2 greenhouse gas emissions targets. All forward-looking statements contained in this presentation reflect Woodside's views held as at the date of this presentation. All statements, other than statements of historical or present facts, are forward-looking statements and generally may be identified by the use of forward-looking words such as 'guidance', 'foresee', 'likely', 'potential', 'anticipate', 'believe', 'aim', 'estimate', 'expect', 'intend', 'may', 'target', 'plan', 'forecast', 'project', 'schedule', 'will', 'should', 'seek' and other similar words or expressions.

Forward-looking statements are not guarantees of future performance and are subject to inherent known and unknown risks, uncertainties, assumptions and other factors, many of which are beyond the control of Woodside, its related bodies corporate and their respective Beneficiaries.

Details of the key risks relating to Woodside and its business can be found in the "Risk" section of Woodside's most recent Annual Report released to the Australian Securities Exchange and in Woodside's filings with the U.S. Securities and Exchange Commission and available on the Woodside website at <https://www.woodside.com/investors/reports-investor-briefings>. Further details of the key risks can also be found in the prospectus issued by Woodside in connection with its admission to trading on the London Stock Exchange, available on the Company's website at <https://www.woodside.com/investors>. You should review and have regard to these risks when considering the information contained in this presentation.

Investors are strongly cautioned not to place undue reliance on any forward-looking statements. Actual results or performance may vary materially from those expressed in, or implied by, any forward-looking statements.



# INVESTOR BRIEFING DAY 2023

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8 November 2023

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# WELCOME

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Matthew Turnbull

Vice President Investor Relations



# Disclaimer, important notes and assumptions

## Information

- This presentation has been prepared by Woodside Energy Group Ltd (“Woodside”).
- All information included in this presentation, including any forward-looking statements, reflects Woodside’s views held as at the date of this presentation and, except as required by applicable law, neither Woodside, its related bodies corporate, nor any of their respective officers, directors, employees, advisers or representatives (“Beneficiaries”) intends to, or undertakes to, or assumes any obligation to, provide any additional information or update or revise any information or forward-looking statements in this presentation after the date of this presentation, either to make them conform to actual results or as a result of new information, future events, changes in Woodside’s expectations or otherwise.
- This presentation may contain industry, market and competitive position data that is based on industry publications and studies conducted by third parties as well as Woodside’s internal estimates and research. While Woodside believes that each of these publications and third-party studies is reliable and has been prepared by a reputable source, Woodside has not independently verified the market and industry data obtained from these third-party sources and cannot guarantee the accuracy or completeness of such data. Accordingly, undue reliance should not be placed on any of the industry, market and competitive position data contained in this presentation.
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capacity and investments in, and development of, renewables projects, expectations and guidance with respect to production, investment expenditure and gas hub exposure, and expectations regarding the achievement of Woodside’s net equity Scope 1 and 2 greenhouse gas emissions targets. All statements, other than statements of historical or present facts, are forward-looking statements and generally may be identified by the use of forward-looking words such as ‘guidance’, ‘foresee’, ‘likely’, ‘potential’, ‘anticipate’, ‘believe’, ‘aim’, ‘estimate’, ‘expect’, ‘intend’, ‘may’, ‘target’, ‘plan’, ‘strategy’, ‘forecast’, ‘outlook’, ‘project’, ‘schedule’, ‘will’, ‘should’, ‘seek’ and other similar words or expressions. Similarly, statements that describe the objectives, plans, goals or expectations of Woodside are forward-looking statements.

- Forward-looking statements in this presentation are not guidance, forecasts, guarantees or predictions of future events or performance, but are in the nature of future expectations that are based on management’s current expectations and assumptions. Those statements and any assumptions on which they are based are subject to change without notice and are subject to inherent known and unknown risks, uncertainties, assumptions and other factors, many of which are beyond the control of Woodside, its related bodies corporate and their respective Beneficiaries. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, but are not limited to, fluctuations in commodity prices, actual demand, currency fluctuations, geotechnical factors, drilling and production results, gas commercialisation, development progress, operating results, engineering estimates, reserve and resource estimates, loss of market, industry competition, environmental risks, climate related risks, physical risks, legislative, fiscal and regulatory developments, changes in accounting standards, economic and financial markets conditions in various countries and regions, political risks, project delay or advancement, regulatory approvals, the impact of armed conflict and political instability (such as the ongoing conflict in Ukraine) on economic activity and oil and gas supply and demand, cost estimates, and the effect of future regulatory or legislative actions on Woodside or the industries in which it operates, including potential changes to tax laws, and the impact of general economic conditions, inflationary conditions, prevailing exchange rates and interest rates and conditions in financial markets.
- A more detailed summary of the key risks relating to Woodside and its business can be found in the “Risk” section of Woodside’s most recent Annual Report released to the Australian Securities Exchange and the London Stock Exchange and in Woodside’s most recent Annual Report on Form 20-F filed with the United States Securities and Exchange Commission and available on the Woodside website at <https://www.woodside.com/investors/reports-investor-briefings>. You should review and have regard to these risks when considering the information contained in this presentation.
- Investors are strongly cautioned not to place undue reliance on any forward-looking statements. Actual results or performance may vary materially from those expressed in, or implied by, any forward-looking statements.

## Notes to petroleum resource estimates

- Unless otherwise stated, all petroleum resource estimates are quoted as at the effective date (i.e. 31 December 2022) of the Reserves and Resources Statement included in Woodside’s most recent Annual Report released to the Australian Securities Exchange and the London Stock Exchange and in Woodside’s most recent Annual Report on Form 20-F filed with the United States Securities and Exchange Commission and available on the Woodside website at <https://www.woodside.com/investors/reports-investor-briefings>, net Woodside share at standard oilfield conditions of 14.696 psi (101.325 kPa) and 60 degrees Fahrenheit (15.56 degrees Celsius).
- Woodside estimates and reports its Proved plus Probable (2P) Reserves and Best Estimate (2C) Contingent Resources in accordance with SPE-PRMS guidelines.
- Woodside is not aware of any new information or data that materially affects the information included in the Reserves and Resources Statement. All the material assumptions and technical parameters underpinning the estimates in the Reserves and Resources Statement continue to apply and have not materially changed.

# Disclaimer, important notes and assumptions (continued)

## Notes to petroleum resource estimates (continued)

- Woodside reports its petroleum resource estimates inclusive of all fuel consumed in operations.
- For offshore oil projects, the reference point is defined as the outlet of the floating production storage and offloading facility (FPSO) or platform, while for the onshore gas projects the reference point is defined as the outlet of the downstream (onshore) gas processing facility.
- Woodside uses both deterministic and probabilistic methods for the estimation of Reserves and Contingent Resources at the field and project levels. Unless otherwise stated, all petroleum estimates reported at the company or region level are aggregated by arithmetic summation by category.
- 'MMboe' means millions (10<sup>6</sup>) of barrels of oil equivalent. Natural gas volumes are converted to oil equivalent volumes via a constant conversion factor, which for Woodside is 5.7 Bcf of dry gas per 1 MMboe. Volumes of natural gas liquids, oil and condensate are converted from MMbbl to MMboe on a 1:1 ratio.

## Disclosure of reserve information and cautionary note to US investors

- Woodside is an Australian company listed on the Australian Securities Exchange, the New York Stock Exchange and the London Stock Exchange. As noted above, Woodside estimates and reports its Proved plus Probable (2P) Reserves and Best Estimate (2C) Contingent Resources in accordance with SPE-PRMS guidelines. Woodside reports all of its petroleum resource estimates using definitions consistent with the 2018 Society of Petroleum Engineers (SPE)/World Petroleum Council (WPC)/American Association of Petroleum Geologists (AAPG)/Society of Petroleum Evaluation Engineers (SPEE) Petroleum Resources Management System (PRMS).
- The SEC permits oil and gas companies, in their filings with the SEC, to disclose only Proved, Probable and Possible Reserves, and only when such Reserves have been determined in accordance with the SEC guidelines. In this presentation, Woodside includes estimates of quantities of oil and gas using certain terms, such as "Proved plus Probable (2P) Reserves", "Best Estimate (2C) Contingent Resources", "Reserves and Contingent Resources", "Proved plus Probable", "Developed and Undeveloped", "Probable Developed", "Probable Undeveloped", "Contingent Resources" or other descriptions of volumes of reserves, which terms include quantities of oil and gas that may not meet the SEC's definitions of proved, probable and possible reserves, and which the SEC's guidelines strictly prohibit Woodside from including in filings with the SEC. These types of estimates do not represent, and are not intended to represent, any category of reserves based on SEC definitions, and may differ from and may not be comparable to the same or similarly-named measures used by other companies. These estimates are by their nature more speculative than estimates of proved reserves, and accordingly are subject to substantially greater risk of being recovered by Woodside. In addition, actual locations drilled and quantities that may be ultimately recovered from Woodside's properties may differ substantially. US investors are urged to consider closely the disclosures in Woodside's most recent Annual Report on Form 20-F filed with the SEC and available on the Woodside website at <https://www.woodside.com/investors/reports-investor-briefings> and its other filings with the SEC, which are available from Woodside at <https://www.woodside.com>. These reports can also be obtained from the SEC at [www.sec.gov](http://www.sec.gov).

## Assumptions

- Unless otherwise indicated, the targets set out in this presentation have been estimated on the basis of a variety of economic assumptions including: (1) US\$70/bbl Brent long-term oil price (2022 real terms) with a long term inflation rate of 2.0%; (2) currently sanctioned projects being delivered in accordance with their current project schedules; and (3) applicable growth opportunities being sanctioned and delivered in accordance with the target schedules provided in this presentation. These growth opportunities are subject to relevant joint venture participant approvals, economic and technical evaluations, commercial arrangements with third parties and regulatory approvals being obtained in the timeframe contemplated or at all. Woodside expresses no view as to whether its joint venture participants will agree with

and support Woodside's current position in relation to these opportunities, or such commercial arrangements and regulatory approvals will be obtained. Additional assumptions relevant to particular targets or other statements in this presentation may be set out in the relevant slides. Any such additional assumptions are in addition to the assumptions and qualifications applicable to the presentation as a whole.

## Climate strategy and emissions data

- All greenhouse gas emissions data in this presentation are estimates, due to the inherent uncertainty and limitations in measuring or quantifying greenhouse gas emissions, and our methodologies for measuring or quantifying greenhouse gas emissions may evolve as best practices continue to develop and data quality and quantity continue to improve.
- Woodside "greenhouse gas" or "emissions" information reported are net equity Scope 1 greenhouse emissions, Scope 2 greenhouse emissions, and/or Scope 3 greenhouse emissions, as the context requires.
- For more information on Woodside's climate strategy, including references to "lower carbon" as part of that strategy, and emissions data refer to Woodside's Climate Report 2022 available on the Woodside website at <https://www.woodside.com/sustainability/climate-change>.

## Non-IFRS Financial Measures

- Throughout this presentation, a range of financial and non-financial measures are used to assess Woodside's performance, including a number of financial measures that are not defined in, and have not been prepared in accordance with, International Financial Reporting Standards (IFRS) and are not recognised measures of financial performance or liquidity under IFRS (Non-IFRS Financial Measures). These measures include EBITDA, Gearing, Underlying NPAT, Free cash flow, Cash margin, Capital expenditure, Exploration expenditure. These Non-IFRS Financial Measures are defined in the glossary section of this presentation. A quantitative reconciliation of these measures to the most directly comparable financial measure calculated and presented in accordance with IFRS can be found in Woodside's Half-Year Report for the period ended 30 June 2023.
- Woodside's management uses these measures to monitor Woodside's financial performance alongside IFRS measures to improve the comparability of information between reporting periods and business units and Woodside believes that the Non-IFRS Financial Measures it presents provide a useful means through which to examine the underlying performance of its business.
- Undue reliance should not be placed on the Non-IFRS Financial Measures contained in this presentation and these Non-IFRS Financial Measures should be considered in addition to, and not as a substitute for, or as superior to, measures of financial performance, financial position or cash flows reported in accordance with IFRS. Non-IFRS Financial Measures are not uniformly defined by all companies, including those in Woodside's industry. Accordingly, they may not be comparable with similarly titled measures and disclosures by other companies.

## Other important information

- All references to dollars, cents or \$ in this presentation are to US currency, unless otherwise stated.
- References to "Woodside" may be references to Woodside Energy Group Ltd and/or its applicable subsidiaries (as the context requires).
- This presentation does not include any express or implied prices at which Woodside will buy or sell financial products.
- A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time.

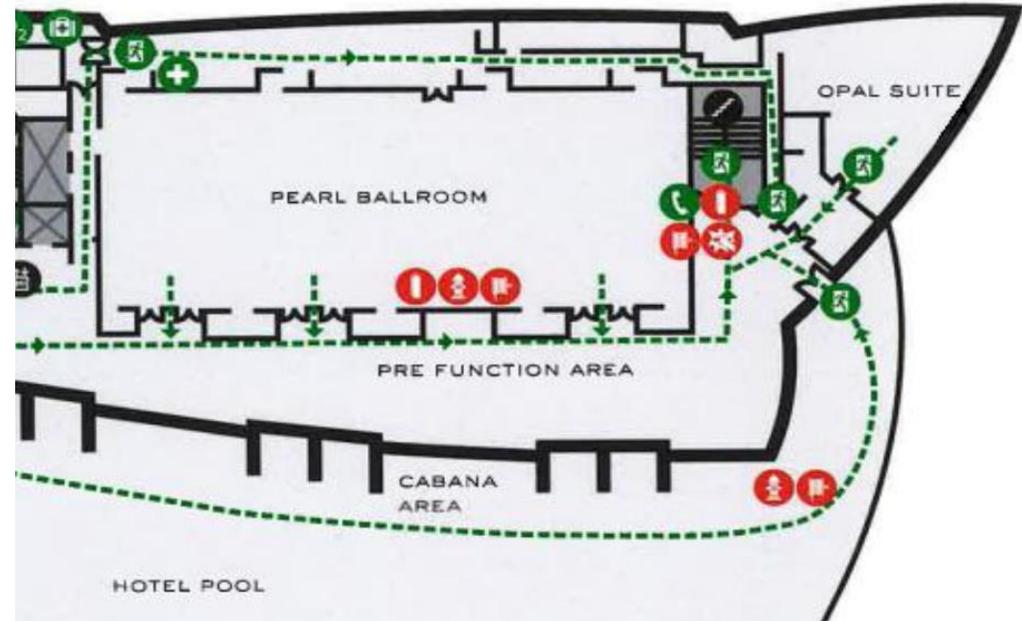
# Evacuation route

Follow directions of emergency wardens

Do not use lifts

Leave by the nearest fire exit stairs

Evacuate to an assembly point, north of Crown Sydney at the Barangaroo Reserve, or south of Crown Sydney at the Barangaroo Wharf Promenade



## KEY

- |  |                    |  |                       |  |                                  |
|--|--------------------|--|-----------------------|--|----------------------------------|
|  | FIRE EXTINGUISHERS |  | BREAK GLASS ALARM     |  | FIRST AID                        |
|  | FIRE HOSE REELS    |  | SUPPRESSION SYSTEM    |  | AUTOMATED EXTERNAL DEFIBRILLATOR |
|  | FIRE BLANKETS      |  | EVACUATION ROUTES     |  | EMERGENCY OXYGEN                 |
|  | FIRE HYDRANTS      |  | WARDEN INTERCOM PHONE |  | ACCESS PACKS                     |

# Introduction and welcome

## Overview

**Meg O'Neill**, CEO and Managing Director

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## Finance

**Graham Tiver**, CFO and Executive Vice President

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## Marketing and trading

**Mark Abbotsford**, Executive Vice President Marketing and Trading

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## Projects

**Matthew Ridolfi**, Executive Vice President Projects

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## International operations

**Shiva McMahon**, Executive Vice President International Operations

---

## Australian operations

**Liz Westcott**, Executive Vice President Australian Operations

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## Technical services

**Daniel Kalms**, Executive Vice President Technical Services

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## New energy

**Shaun Gregory**, Executive Vice President New Energy

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## Summary and Q&A

**Meg O'Neill**, CEO and Managing Director



# OVERVIEW

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Meg O'Neill

Chief Executive Officer and Managing Director



# Thrive through the energy transition

1

**PROVIDE ENERGY FOR  
FUTURE DEMAND**

2

**CREATE AND RETURN  
VALUE**

3

**CONDUCT OUR BUSINESS  
SUSTAINABLY**



## Energy demand



### Population

Expected to increase by ~2 billion by 2050<sup>1</sup>



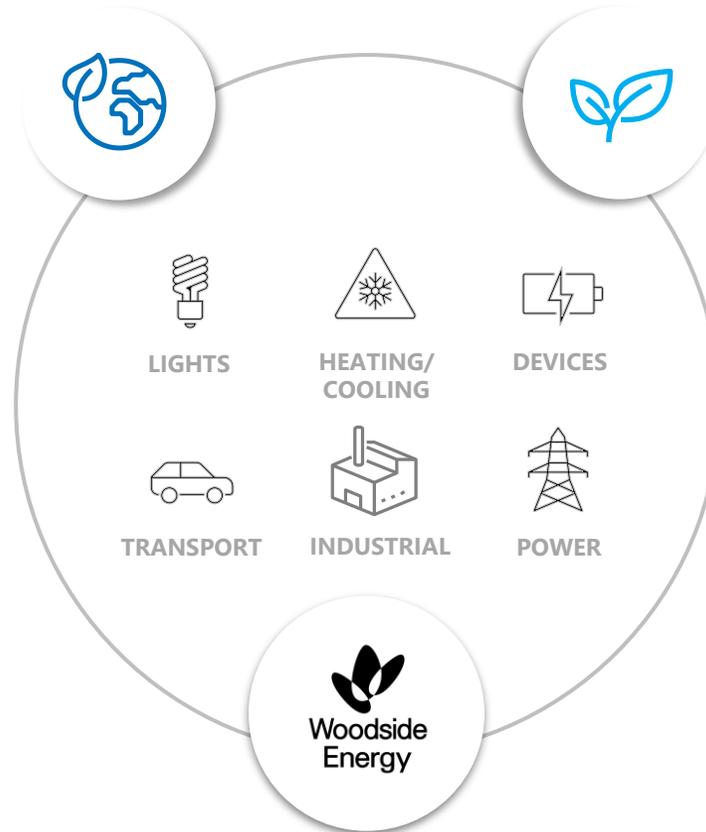
### GDP

Expected to almost double by 2050<sup>2</sup>



### Energy use per capita

Significant differential between developed and developing countries<sup>3</sup>



## Energy supply



### Affordable

Required for equitable and stable energy transition



### Reliable

Essential for economic growth



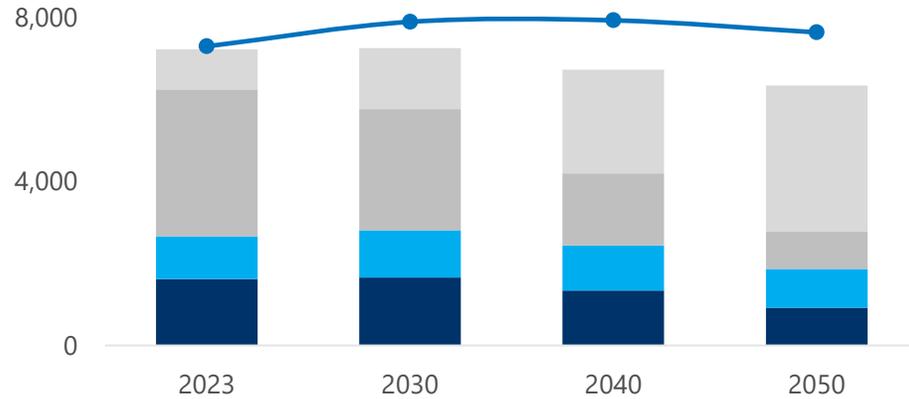
### Lower carbon

Lower emissions needed to meet climate goals

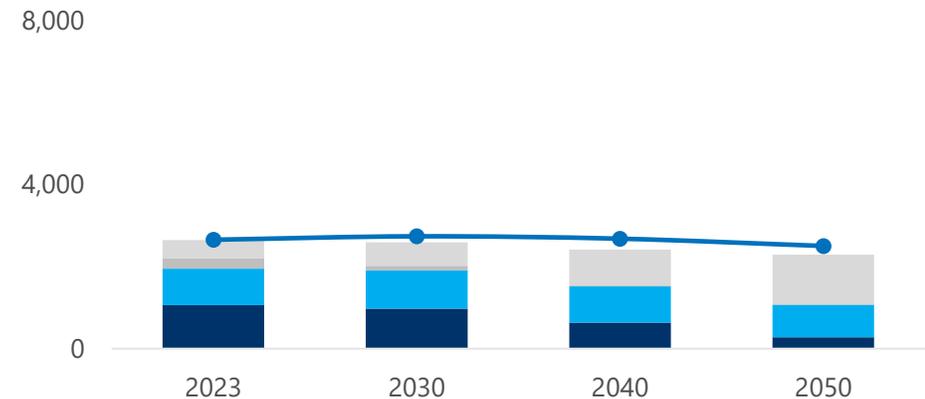
1. Source: The United Nations, UNFPA State of the World Population 2023.  
2. Wood Mackenzie Energy Transition Outlook, September 2023.  
3. Source: UN Department of Economic and Social Affairs – Division for Sustainable Development.

# Oil and gas demand resilient for decades

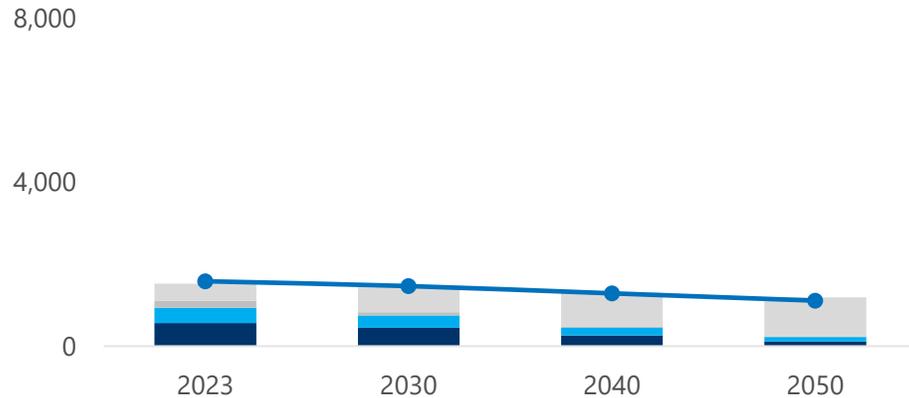
Asia Pacific - primary energy demand (mtoe)<sup>1</sup>



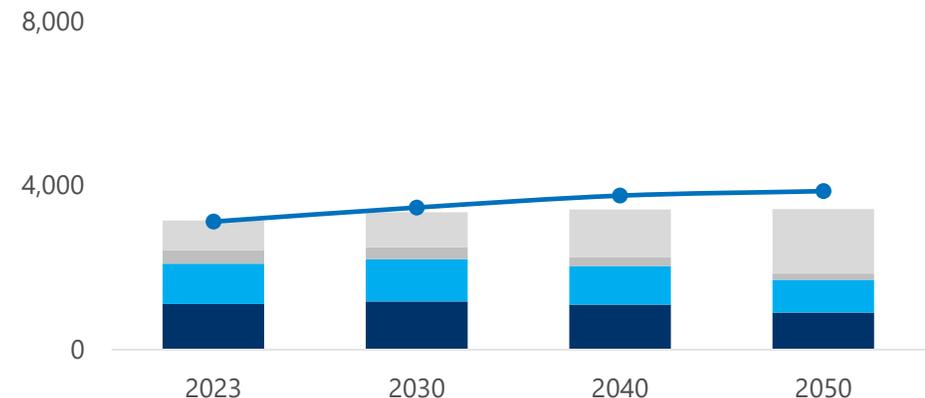
North America - primary energy demand (mtoe)<sup>1</sup>



Europe - primary energy demand (mtoe)<sup>1</sup>



Rest of world - primary energy demand (mtoe)<sup>1</sup>

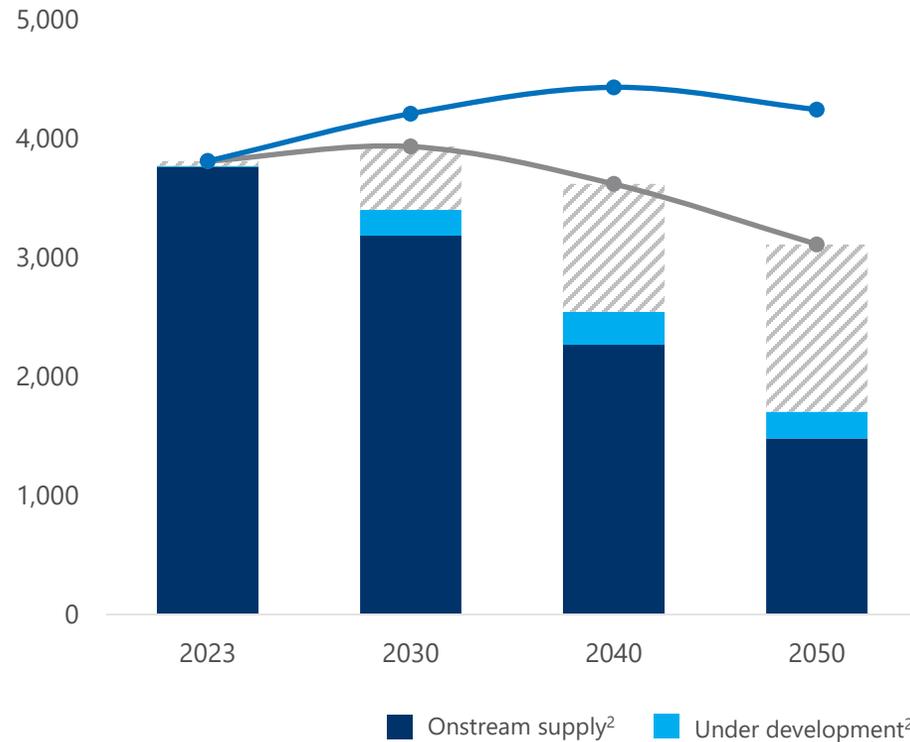


Demand (<2.0°C)<sup>1,2</sup> | Oil | Gas | Coal | Other | Demand (<2.5°C)<sup>1,3</sup> ●

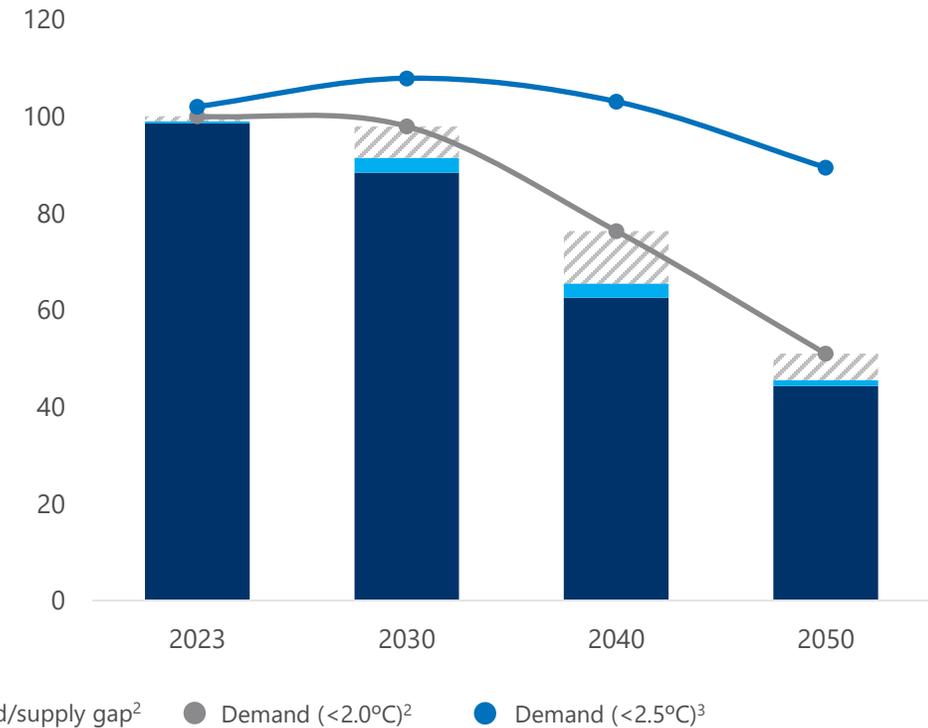
1. Source: Wood Mackenzie Transition Outlook, September 2023. This slide presents a demand outlook based on two of many possible scenarios. For further detail, refer to Woodside's Climate Report 2022.  
 2. Wood Mackenzie pledges scenario, assumes global temperatures rise to around 2.0°C compared to pre-industrial levels. Other includes bio energy, hydro, nuclear and renewables.  
 3. Wood Mackenzie base case scenario, assumes global temperatures rise less than 2.5°C compared to pre-industrial levels.

# Investment needed to meet future gas and oil demand

Global gas demand and supply (Mtpa)<sup>1</sup>



Global oil demand and supply (MMbbl/d)<sup>1</sup>



## Population and GDP growth underpinning demand

1. Source: Wood Mackenzie 2023 Energy Transition Outlook, September 2023. This slide presents a demand outlook based on two of many possible scenarios. For further detail refer to Woodside's Climate Report 2022.  
 2. Wood Mackenzie pledges scenario, assumes global temperatures rise to around 2.0°C compared to pre-industrial levels.  
 3. Wood Mackenzie base case scenario, assumes global temperatures rise less than 2.5°C compared to pre-industrial levels.

# Positioning for success in growing hydrogen and CCS markets

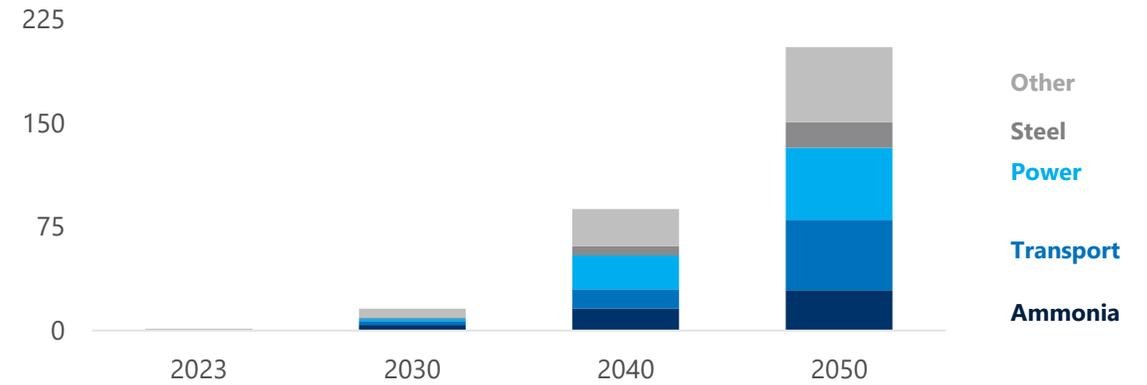
Policy maturing in key markets

US Inflation Reduction Act is a global catalyst

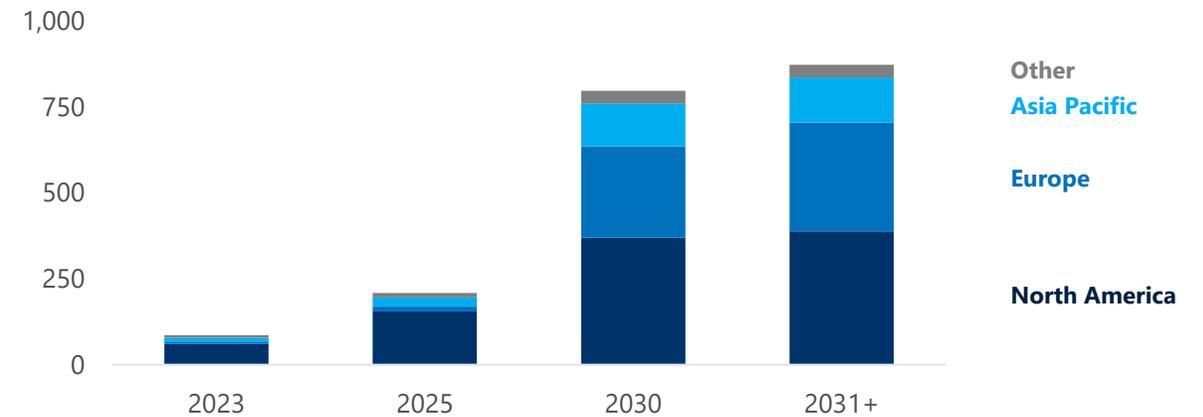
Collaboration is critical to advance new energy markets

CCS growth needed to meet global decarbonisation targets<sup>3</sup>

Low carbon hydrogen demand outlook (Mtpa)<sup>1</sup>



CCS capacity outlook (Mtpa)<sup>2,3</sup>



1. Source: Wood Mackenzie Energy Transition Tool & Lens Hydrogen, August 2023. Wood Mackenzie defines low carbon hydrogen in its Q3 2023 Global Hydrogen Market Tracker, please refer to the glossary section of this presentation for Wood Mackenzie's definition of low carbon hydrogen. In addition, currently there is ~100 Mtpa of existing global hydrogen demand, fossil fuel based. Other includes buildings, losses, methanol, other industry and refining. Transport includes aviation, marine, other transport and road transport.  
 2. Source: Wood Mackenzie Energy Transition Tool, July 2023. Other includes Russia, Africa, Latin America, Caribbean and the Middle East.  
 3. Source: Wood Mackenzie Energy Transition Outlook, September 2023. Demand assumes global temperatures rise to around 2°C compared to pre-industrial levels.



## SAFE

Refocusing on safety fundamentals



## LOW COST

Portfolio cash flow breakeven oil price of ~\$32/bbl<sup>2</sup>



## HIGH MARGIN

~80% cash margin maintained for last 5 years<sup>3</sup>



## RELIABLE

Outstanding LNG facility reliability<sup>1</sup>



## VALUE FOCUSED

Developing infill and nearfield opportunities



## LOWER CARBON

Emissions reduction and product diversification

## OPTIMISE VALUE AND SHAREHOLDER RETURNS

1. Operated LNG facilities YTD reliability as at 30 September 2023 was ~98%.
2. 2024 free cash flow breakeven excluding capital and divestment proceeds from major projects (Scarborough, Sangomar, Trion and Mad Dog Phase 2), trading, exploration and the benefit of hedging. Abandonment expenditure is based on an average from 2024-2028.
3. Non-IFRS financial measure (refer to the glossary section of this presentation). Refer to page 27 of announcement titled 'Half-year 2023 results briefing presentation' released 22 August 2023.

# Executing major projects to deliver future value

Energy demand

Value

Sustainable business

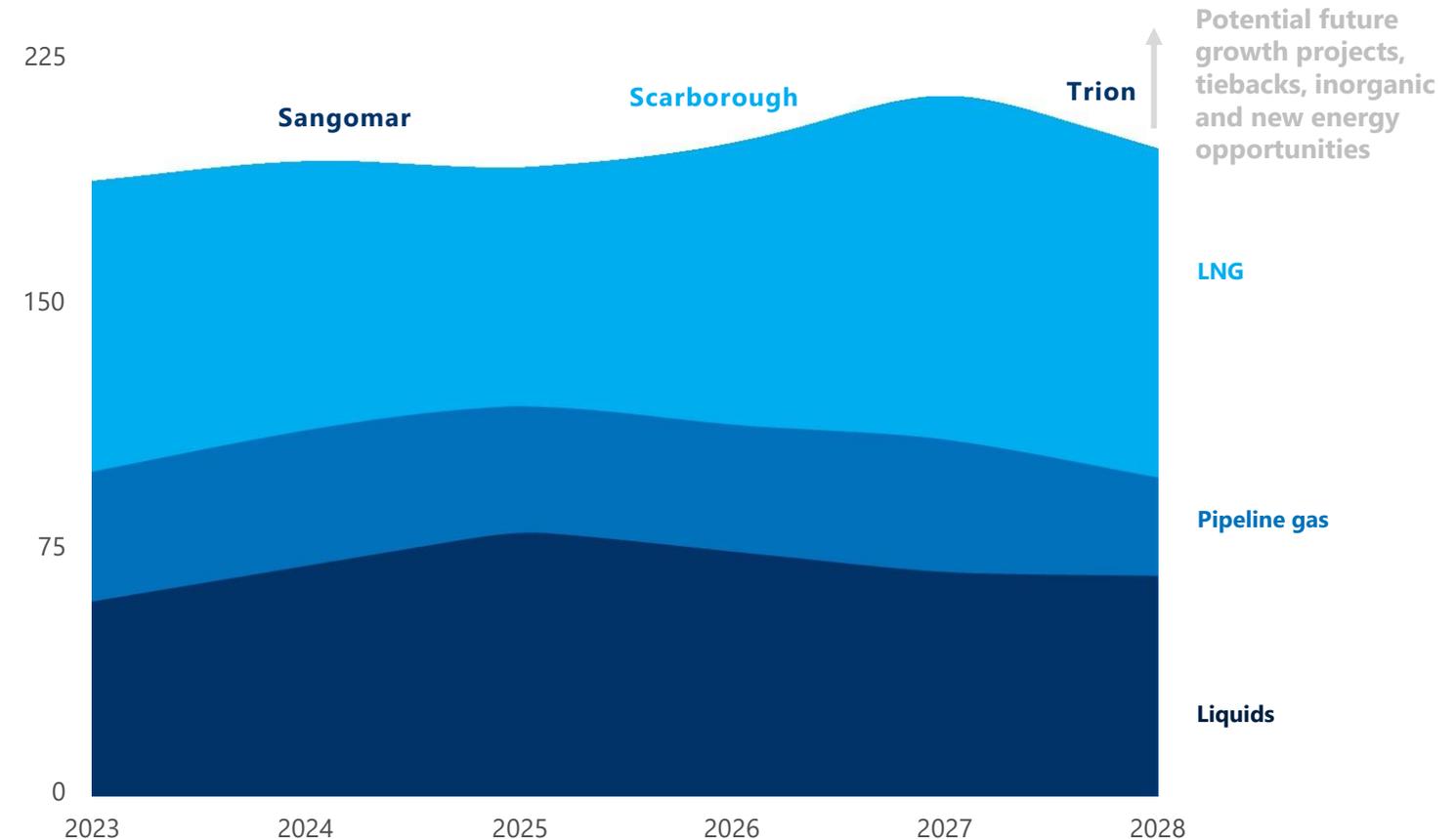
## GAS

- Scarborough providing lower carbon, cost competitive LNG to Asia from 2026

## OIL

- Sangomar delivering production and cash flow from 2024; oil attractive for European refineries
- Trion delivering long-life production from 2028

Production profile with sanctioned projects (MMboe)<sup>1</sup>



Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

1. Indicative only, Woodside share. The production profile is based on the assumptions that current sanctioned projects are delivered within their target schedules. Accordingly, the production profile is provided for illustrative purposes only and should not be relied on as guidance.

# Portfolio of quality investment opportunities

Energy demand

Value

Sustainable business

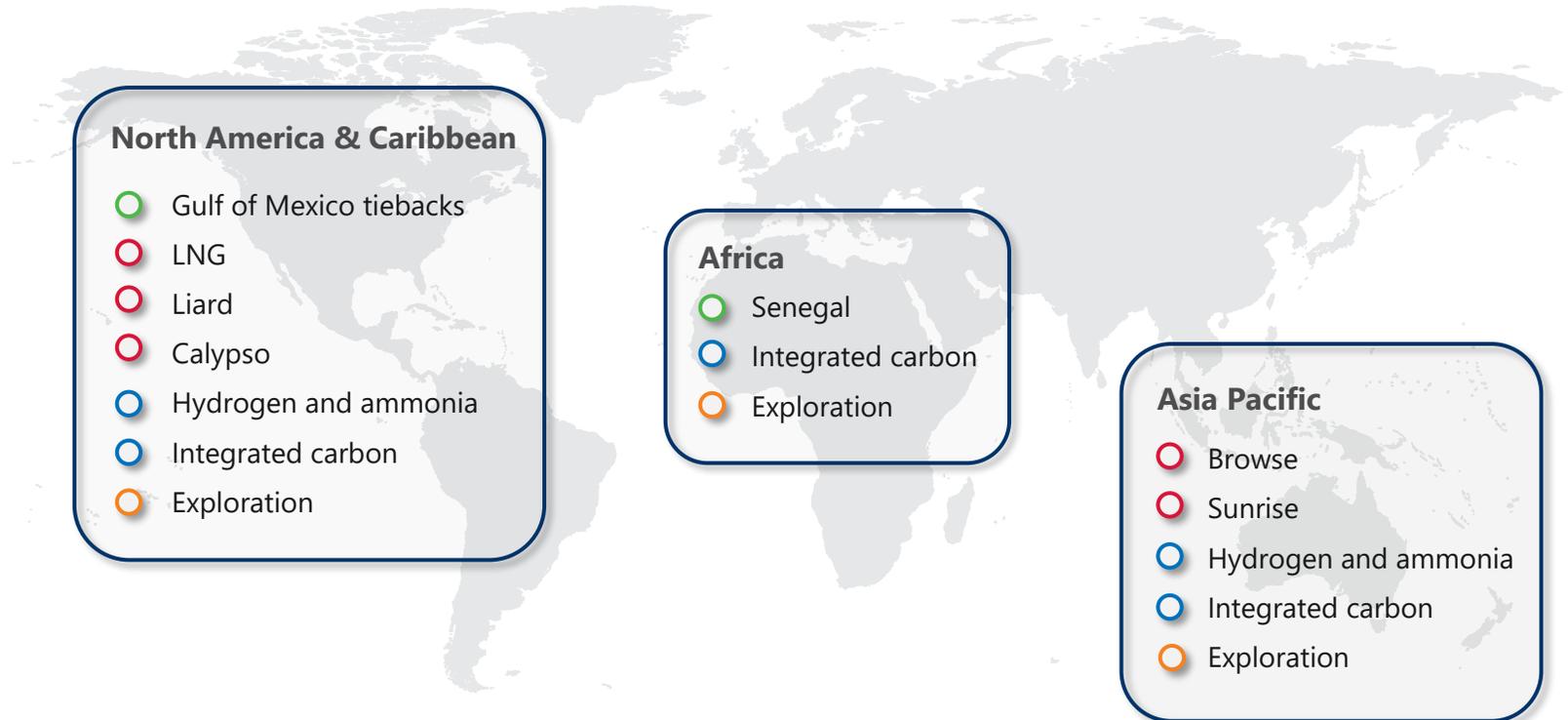
- Oil
- Gas
- New energy
- Exploration

Inorganic and organic opportunities

Scaling opportunities with market demand

Capital allocation discipline

Climate factors considered in final investment decisions



# Disciplined capital allocation

Energy demand

Value

Sustainable business

	OIL	GAS	NEW ENERGY						
<b>FOCUS</b>	 <b>OIL</b> <b>OFFSHORE</b> Generate high returns to fund diversified growth, focusing on high quality resources	 <b>GAS</b>  <b>LNG</b> <b>PIPELINE</b> <b>LNG</b> Leveraging infrastructure to monetise undeveloped gas, including optionality for hydrogen	 <b>NEW ENERGY</b> <b>DIVERSIFIED</b> New energy products and lower carbon services to reduce customers' emissions: hydrogen, ammonia, CCUS <sup>1</sup>						
<b>CHARACTERISTICS</b>	High cash generation Shorter payback period Quick to market	<table border="0"> <tr> <td>Stable long-term cash flow profile</td> <td>Long-term cash flow</td> </tr> <tr> <td>Resilient to commodity pricing</td> <td>Strong forecast demand</td> </tr> <tr> <td></td> <td>Upside potential</td> </tr> </table>	Stable long-term cash flow profile	Long-term cash flow	Resilient to commodity pricing	Strong forecast demand		Upside potential	Developing market Lower capital requirement Lower risk profile
Stable long-term cash flow profile	Long-term cash flow								
Resilient to commodity pricing	Strong forecast demand								
	Upside potential								
<b>OPPORTUNITY TARGETS</b>	IRR > 15% Payback within 5 years <sup>2</sup>	IRR > 12% Payback within 7 years <sup>2</sup>	IRR > 10% Payback within 10 years <sup>2</sup>						
<b>EMISSIONS REDUCTIONS</b>	<b>30% net emissions reduction by 2030, net zero aspiration by 2050 or sooner<sup>3</sup></b>								

1. CCUS refers to carbon capture utilisation and storage.

2. Payback refers to RFSU + X years.

3. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.

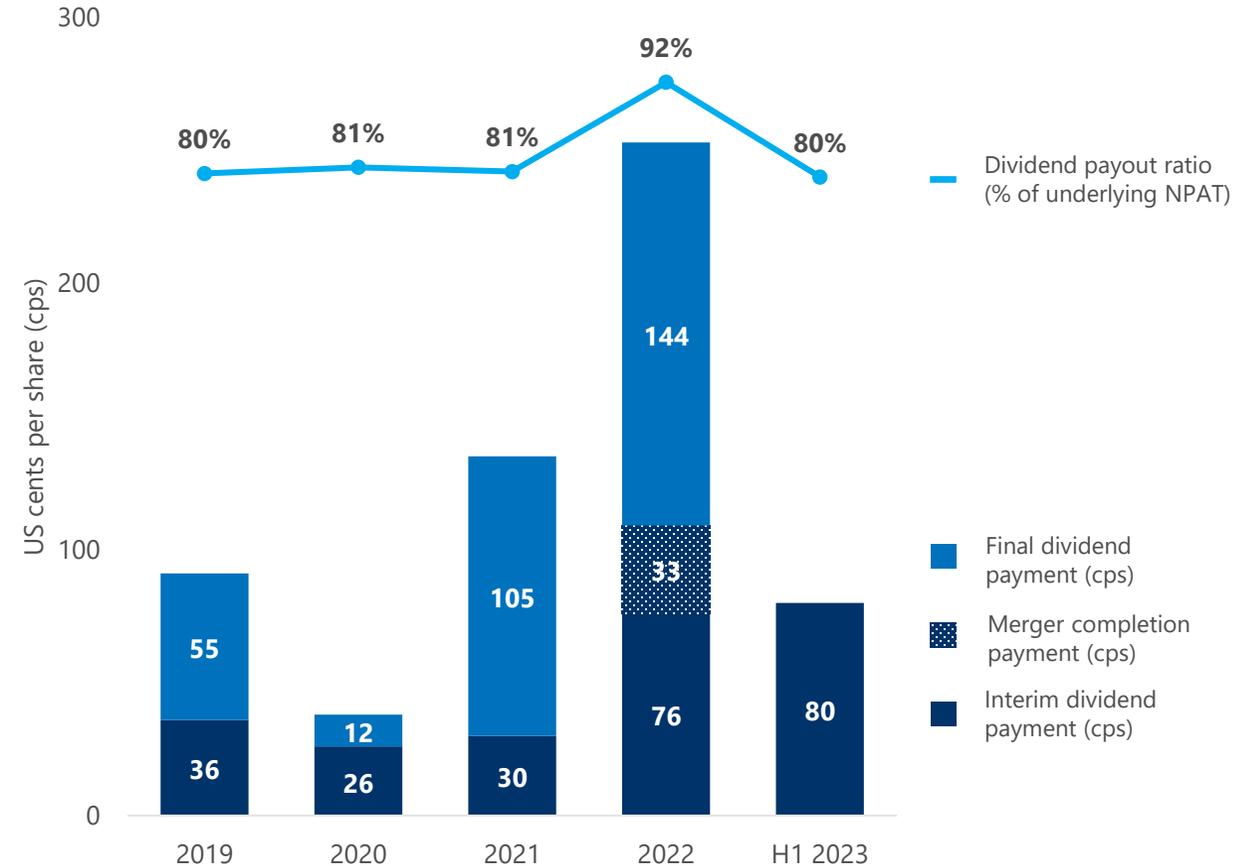
# Ongoing commitment to shareholder returns

Balance sheet positioned to deliver growth and returns

\$6.3 billion returned since merger completion

Maintaining strong payout ratio<sup>1</sup>

### Dividends paid



1. Woodside's dividend policy aims to pay a minimum of 50% of NPAT excluding non-recurring items (underlying NPAT). Woodside targets a payout ratio between 50% and 80%.

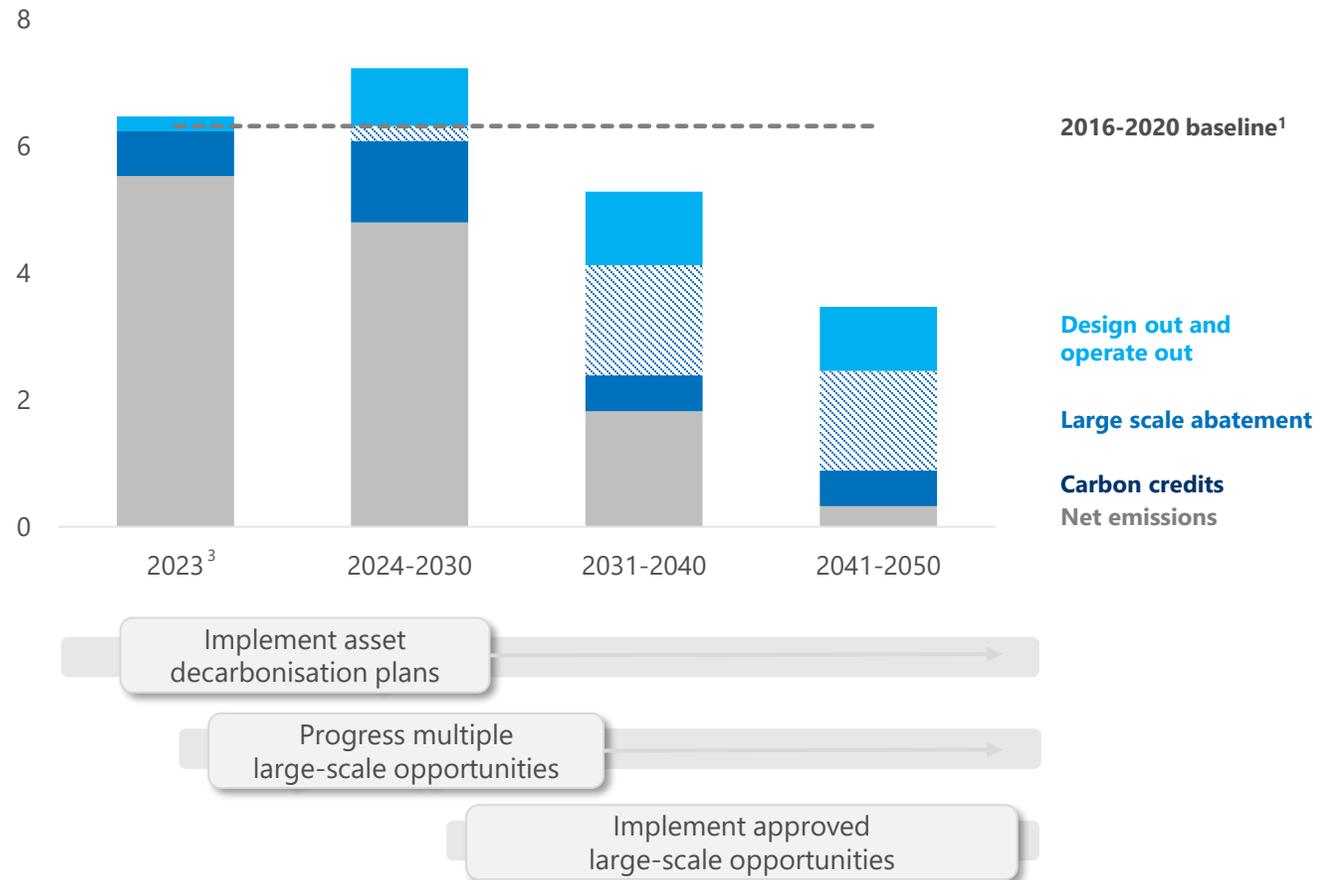
# Pathway to net zero aspiration by 2050<sup>1</sup>

Progressing ~28 million tonnes cumulative design out and operate out Scope 1 and 2 emissions reductions

Assessing technologies to reduce cost for large scale abatement at LNG facilities (>US\$80/t CO<sub>2</sub>-e)

New projects to fit within Woodside's net emissions reduction targets<sup>1</sup>

Indicative Scope 1 and 2 emissions profile (annual average, Mtpa CO<sub>2</sub>-e)<sup>2</sup>



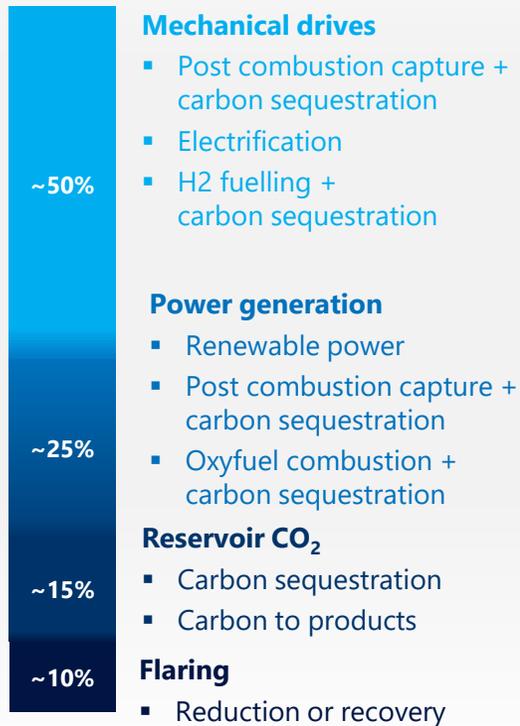
1. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.

2. Indicative only, not guidance. Potential impact of opportunities identified in asset decarbonisation plans assuming all opportunities identified progress to execution, which is not certain and remains subject to further maturity of cost and engineering definition. Greenhouse gas quantities are estimated using engineering judgement by Woodside engineers. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

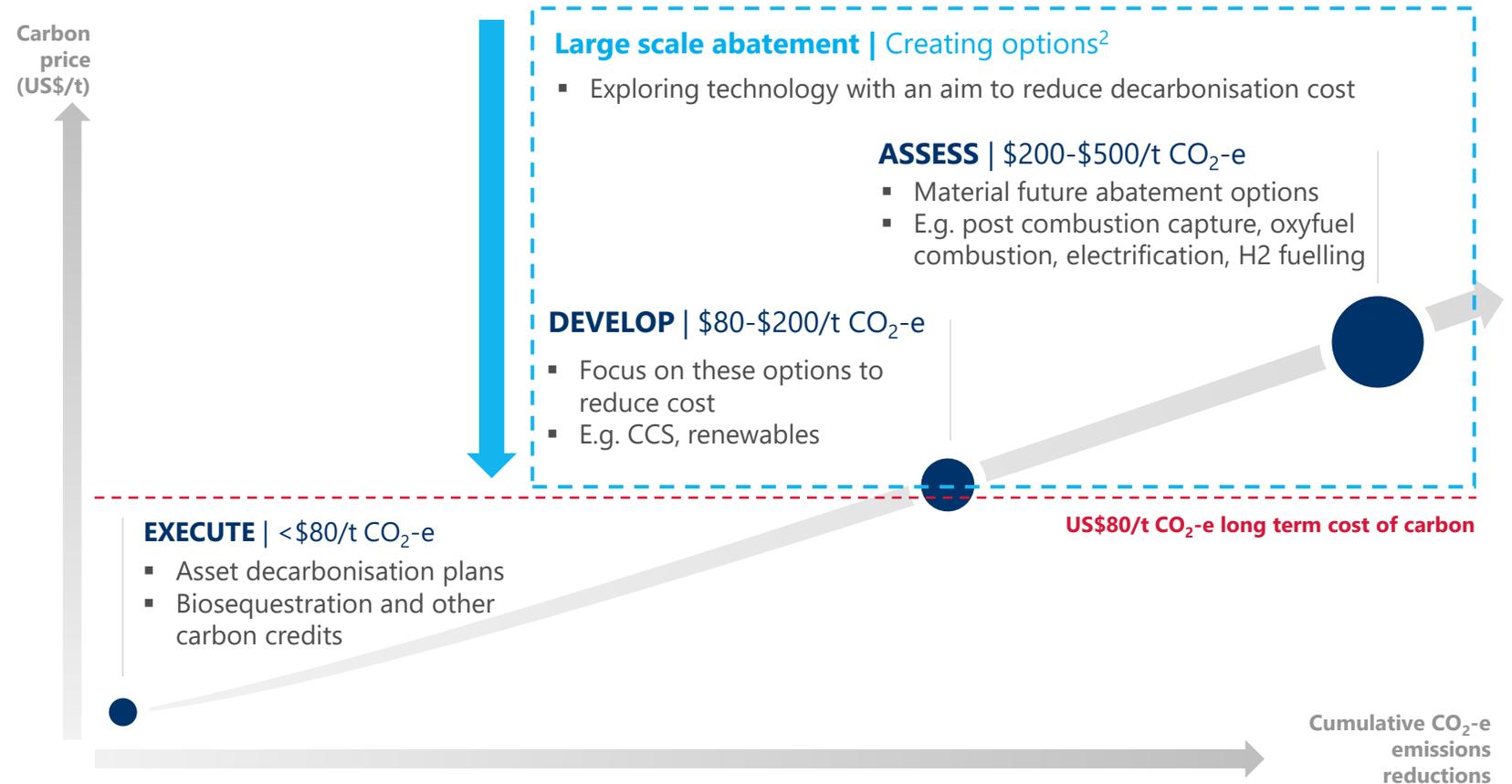
3. Estimated year-end outlook 2023.

# Prioritising largest emission sources using lowest cost of abatement

## Abatement options for typical LNG emissions sources<sup>1</sup>



## Marginal Scope 1 and 2 abatement cost curve



1. Indicative only.

2. Options under consideration remain subject to economic and technical evaluations, entry into relevant and required commercial agreements and obtaining relevant regulatory approvals.

# The investment case – a global energy supplier



## HIGH QUALITY PORTFOLIO



## DISCIPLINED CAPITAL MANAGEMENT



## POSITIONED FOR THE ENERGY TRANSITION

Advantaged locations and markets

Conventional asset base  
weighted to LNG

Major growth projects in execution

Pipeline of opportunities

Resilient cash flow

Committed to shareholder returns

Clear capital allocation and  
capital management frameworks

Strong balance sheet

On track to deliver net emissions  
reduction targets<sup>1</sup>

Progressing oil, gas and  
new energy opportunities

Customer-led and scalable

**Safe | Reliable | Low cost | Lower carbon | High cash generation**

Further information as to Woodside's climate strategy, including references to "lower carbon" as part of that strategy, is set out in Woodside's Climate Report 2022 available on the Woodside website at <https://www.woodside.com/sustainability/climate-change>.

1. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.



# FINANCE

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Graham Tiver

Chief Financial Officer and Executive Vice President



# Disciplined capital management

1

## EXECUTING MAJOR CAPITAL INVESTMENT

2

## RESILIENT THROUGH THE PRICE CYCLE

3

## SUPPORTING DIVIDENDS AND GROWTH



Investment grade credit rating

Maintain dividend based on NPAT excluding non-recurring items, targeting 50-80% payout ratio

Targeting 10-20% gearing through the cycle

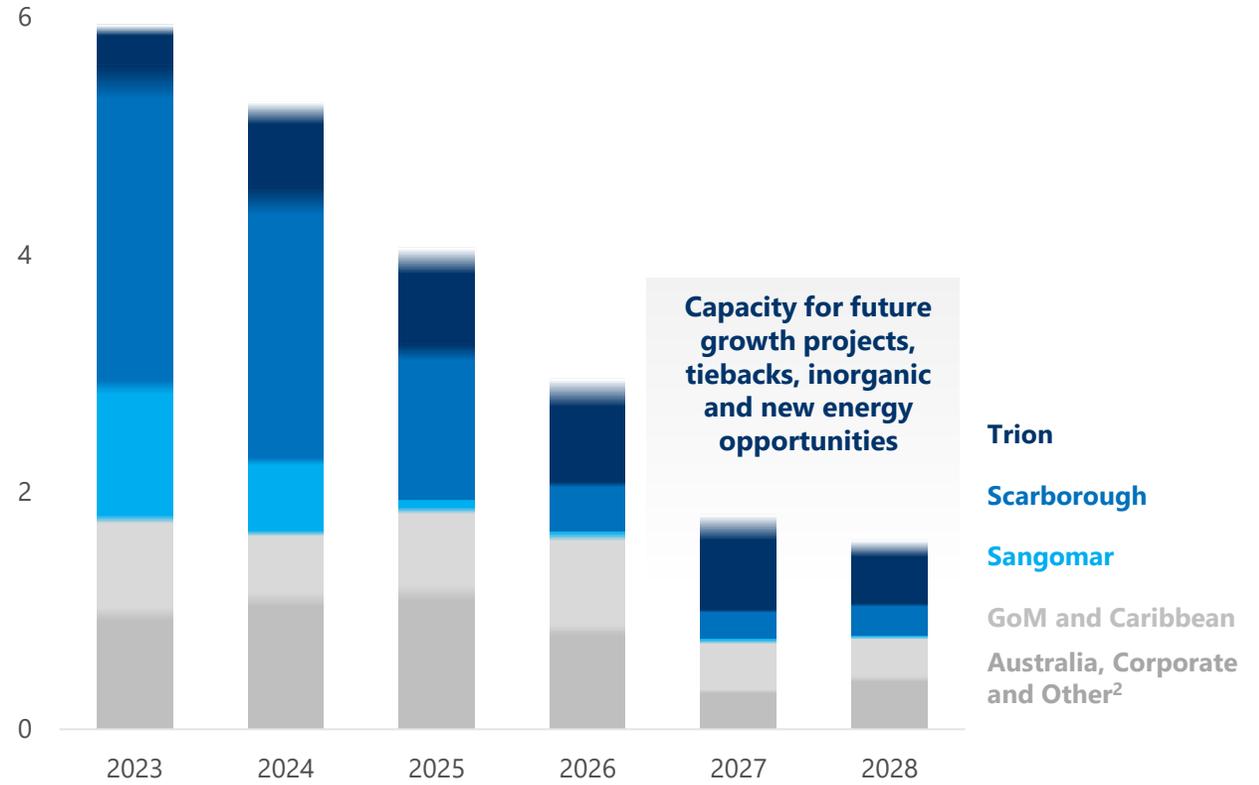
# Executing major capital projects delivering future cash flows

2023 capital expenditure of \$5.7-\$6.0 billion

Maximising production from existing facilities

Capacity for organic, inorganic and exploration opportunities

Forecast capital expenditure (\$ billion)<sup>1</sup>



1. Indicative only, not guidance. Woodside share at current equity levels. Includes unsanctioned capital expenditure related to brownfields projects. Please refer to the “Disclaimer and important notices” section (including under the heading “Forward looking statements”) for important cautionary information relating to forward looking statements.

2. Australia, Corporate & Other includes capital expenditure for Australian operations; Corporate; Carbon solutions; and pre-FID expenditure for Browse, H2OK and Calypso.

# Strong liquidity supporting major capital investment and shareholder returns

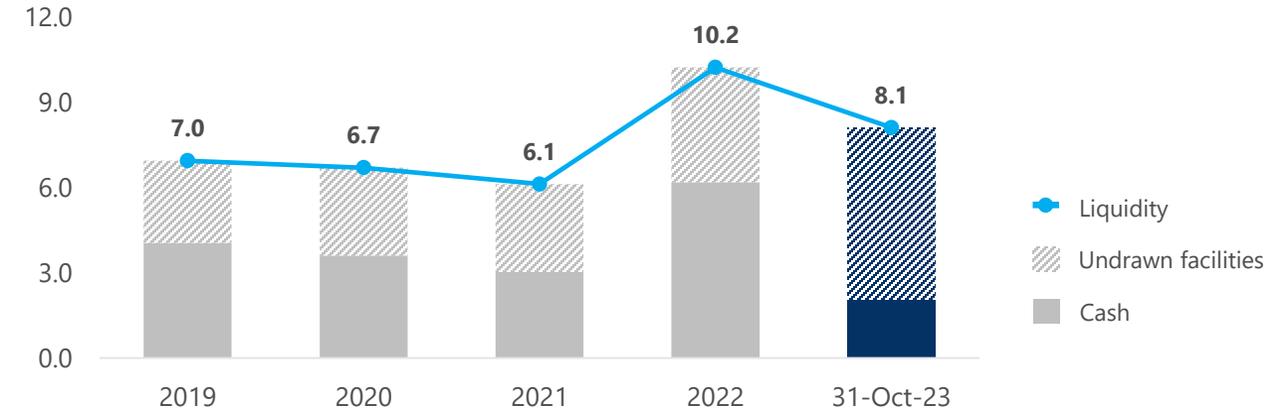
Liquidity in line with planned capital expenditure

Credit ratings of BBB+ and Baa1<sup>1</sup>

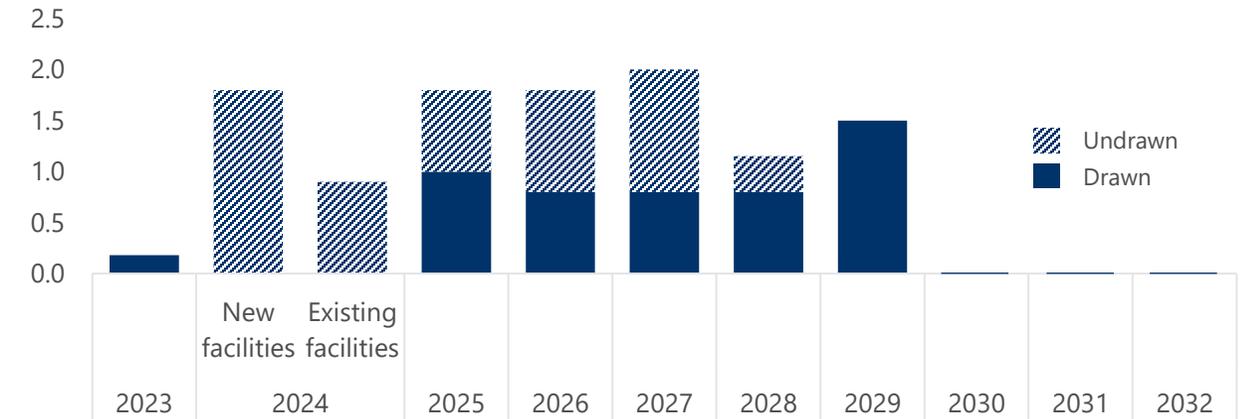
Additional facilities executed in October, recognising near-term market volatility

Active debt portfolio management balancing cost and tenor

Continuing strong liquidity (\$ billion)



Debt maturity profile (\$ billion)<sup>2</sup>



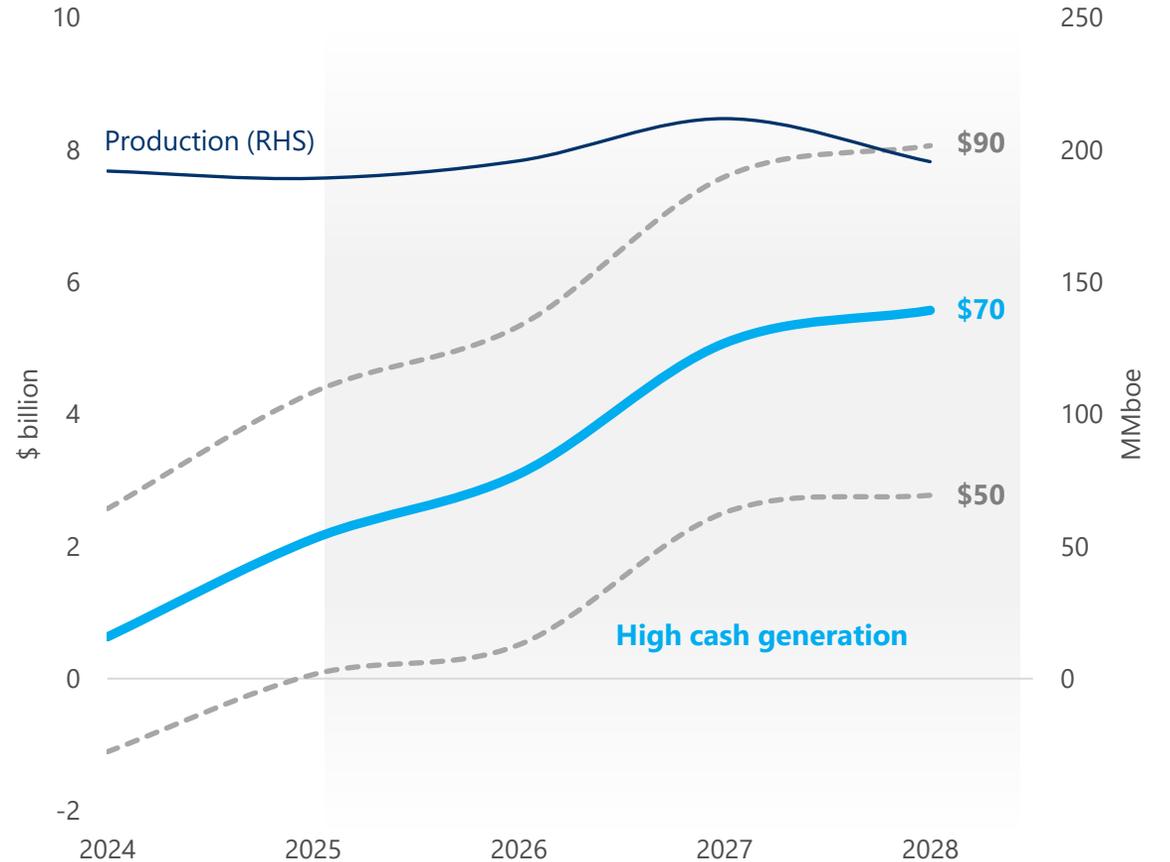
1. Corporate debt credit ratings. BBB+ by S&P Global, Baa1 by Moody's.  
 2. As at 31 October 2023.

# Highly cash-generative business

Resilient cash flow profile from global asset portfolio

Estimated \$58 million movement in free cash flow per \$1 movement in Brent oil price in a 12-month period

Forecast production (RHS) and free cash flow (LHS)<sup>1,2</sup>

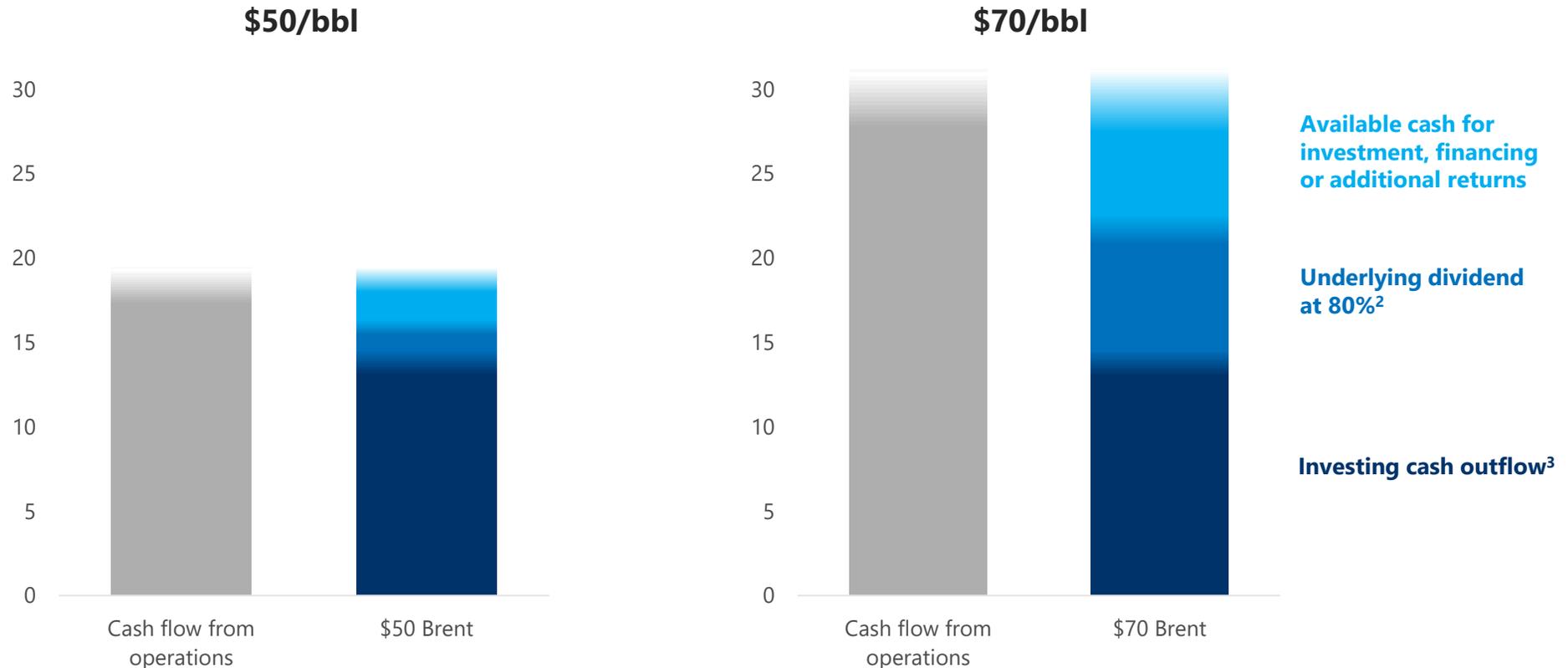


1. Includes sanctioned projects at current equity levels. Assumes foreign exchange rate of AUD to USD 0.67 for 2024 and 2025 before reverting to 0.75 from 2026. Assumes currently sanctioned projects being delivered in accordance with their current project schedules. Accordingly, the profiles are provided for illustrative purposes only and should not be relied on as guidance. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements. US\$50/bbl, US\$70/bbl and US\$90/bbl Brent oil price (2022 real terms) with a long-term inflation rate of 2.0%.

2. Non-IFRS measure. Free cash flow is cash flow from operating activities less cash flow from investing activities. Committed capital only.

# Strong capacity for returns and investment

## Cash generation and uses (2024 – 2028)<sup>1</sup>



1. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements. US\$50/bbl and US\$70/bbl Brent oil price (2022 real terms) with a long-term inflation rate of 2.0%.
2. Woodside's dividend policy aims to pay a minimum of 50% of NPAT excluding non-recurring items (underlying NPAT). Woodside targets a payout ratio between 50% and 80%.
3. Includes all cash flows used in investing activities inclusive of committed capital, and subject to completion of the transaction (expected in Q1 2024) proceeds from 10% sell-down of Scarborough interest to LNG Japan. Refer to Woodside announcement "Woodside to sell 10% Scarborough interest to LNG Japan" dated 8 August 2023.

# Significant contributor to the Australian economy

Among Australia's leading tax payers

Australia's largest payer of PRRT<sup>1</sup>

A recognised industry leader in tax transparency<sup>2</sup>



## TAX PAID

More than A\$18 billion paid in Australian tax and royalties since 2011<sup>3</sup>



## PRRT

More than A\$1 billion of petroleum resource rent tax paid in the past 12 months<sup>4</sup>



## RECORD H1 TAX PAID

Record A\$3.7 billion paid in Australian tax and royalties in H1 2023



## EFFECTIVE TAX RATE

All-in effective tax rate of 42%<sup>5</sup>

1. Based on the Australian Taxation Office's 2020-2021 report of entity tax information which can be located via [www.data.gov.au](http://www.data.gov.au).

2. This is based on Woodside's current approach to reporting and is assessed by several global ESG rating indices. Refer to <https://www.woodside.com/sustainability/working-openly/we-pay-our-taxes>

3. Includes data relevant to the assets acquired through the merger with BHP's petroleum business from 1 June 2022.

4. To 30 June 2023.

5. Global all-in effective tax rate for H1 2023. Total tax expense, royalties, excise, levies and other taxes, divided by profit before such taxes, royalties, excise, levies and other taxes. Excludes the recognition of the Trion DTA and derecognition of the Pluto PRRT DTA. With these included, the global all-in effective tax rate would be 46%.



# MARKETING AND TRADING

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Mark Abbotsford

Executive Vice President Marketing and Trading



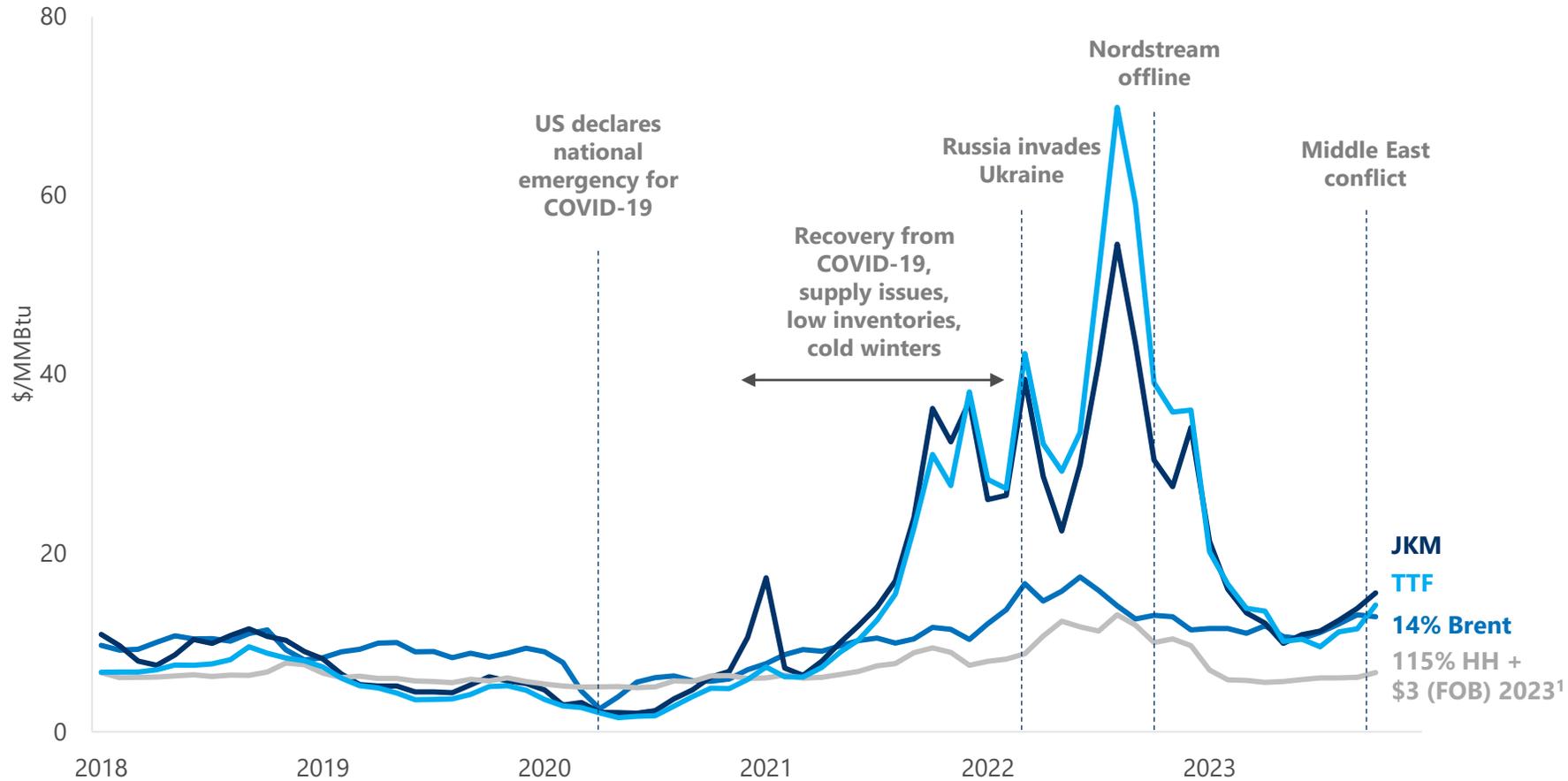
# Cost competitive portfolio positioned to navigate volatility

Global LNG prices, 2018 to year-to-date 2023 (nominal)

Market volatility remains elevated

Attractive short and long term prices

LNG supply sources proximate to key Asia-Pacific markets



Source: Refinitiv Eikon.  
1. HH = Henry Hub. FOB = free on board.

# Value-led marketing and trading strategy



## SCALE AND FLEXIBILITY

Evaluating opportunities to build global scale including cost-competitive LNG offtake

Maximising portfolio value through contractual flexibility, optimisation and trading activity



## ADAPTABLE, RESILIENT AND RESPONSIVE

Contract positions balance upside exposure and revenue certainty

Layering timing of sales through market cycles

Leveraging shipping position to create value



## MEETING CUSTOMERS' EVOLVING REQUIREMENTS

Reliable and experienced energy supplier

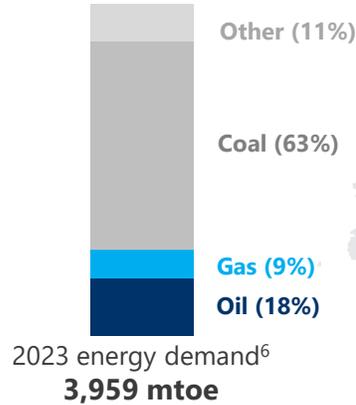
Building on core long-term partnerships

Diversifying customer base and expanding new energy offerings

# LNG supports customer and country decarbonisation goals

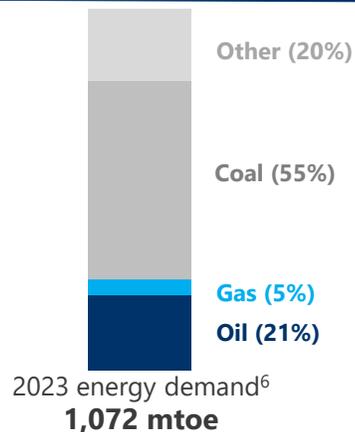
## China

China has signed up to 25 LNG contracts since the start of 2022 delivering over 31 Mtpa between 2023 and 2053<sup>1</sup>



## India

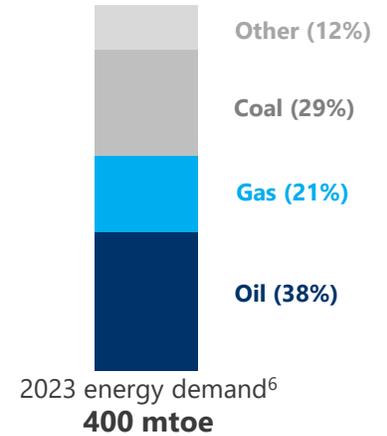
"To cross the gap between the high-carbon and the low-carbon systems, some bridges are needed... For India, given the limitations on the supply of domestic natural gas, LNG is probably among the best bets to bridge that gap."<sup>2</sup>



## Japan

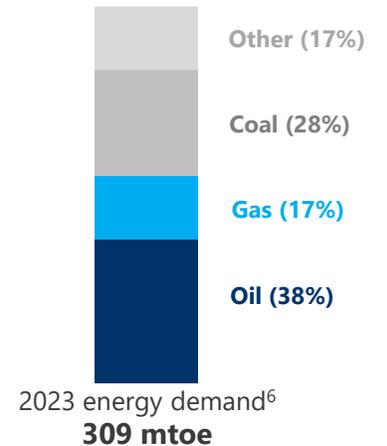
Scarborough sell-down reiterates the ongoing need for gas in supporting Japan's energy security<sup>3</sup>

"We must accelerate energy transition and within that transition, LNG plays an extremely important role."<sup>4</sup>



## South Korea

The nation's power grid is heavily dependent on fossil fuels. Industry leaders have struggled to switch to cleaner alternatives, partly because of a lack of land available for wind and solar<sup>5</sup>



1. "Global Gas and LNG Market Analysis: Contracts", Rystad, accessed 31 October 2023.  
 2. Panish De (Partner), "LNG has a key role in India's energy systems", KPMG India Blog, January 3, 2023, <https://kpmg.com/in/en/blogs/home/posts/2023/01/lng-has-a-key-role-in-india-energy-systems.html>.  
 3. Refer to Woodside announcement 'Woodside to sell 10% Scarborough interest to LNG Japan' dated 8 August 2023. Subject to completion of the transaction, expected in Q1 2024.  
 4. Quote from Yasutoshi Nishimura, Minister of Economy, Trade and Industry of Japan; "Japan to establish LNG reserves this year; IEA may play bigger role", Reuters, dated July 18, 2023, <https://www.reuters.com/markets/commodities/japan-establish-lng-reserves-this-year-iea-may-play-bigger-role-2023-07-18/>.  
 5. Bloomberg, last modified 21 March 2023, <https://www.bloomberg.com/news/articles/2023-03-21/south-korea-s-new-climate-plan-gives-industry-easier-path-to-cut-emissions>.  
 6. Source: Wood Mackenzie Energy Transition Outlook, September 2023. Assumes global temperature rise to around 2.0°C compared to pre-industrial levels. Asia Pacific includes China and India. Other includes bio energy, hydro, nuclear and renewables.

# Increasing price index diversification and gas hub exposure

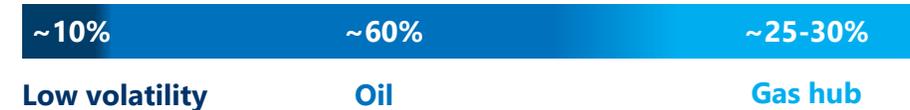
## NEAR-TERM (2024-2025)

- Leverage flexibility in base portfolio to maximise value
- Retain uncommitted production to de-risk operations and access spot market
- Low volatility sales supports revenue stability
- Layer new long-term contracts for 2027+ to capture current pricing environment

### Produced total portfolio<sup>1</sup>



### Produced LNG portfolio<sup>1</sup>



## LONGER-TERM (2027+)

- Increased portfolio flexibility with new production, third-party offtake and expiring legacy contracts
- Diversified LNG portfolio; tenor, buyers, pricing, price reviews and flexibility

### Produced total portfolio<sup>1</sup>



### Produced LNG portfolio<sup>1</sup>



1. Indicative only, not guidance. Refers to Woodside's exposure to different pricing indices for produced hydrocarbons. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

# Delivering gas supply to the Australian energy market

## WESTERN AUSTRALIA

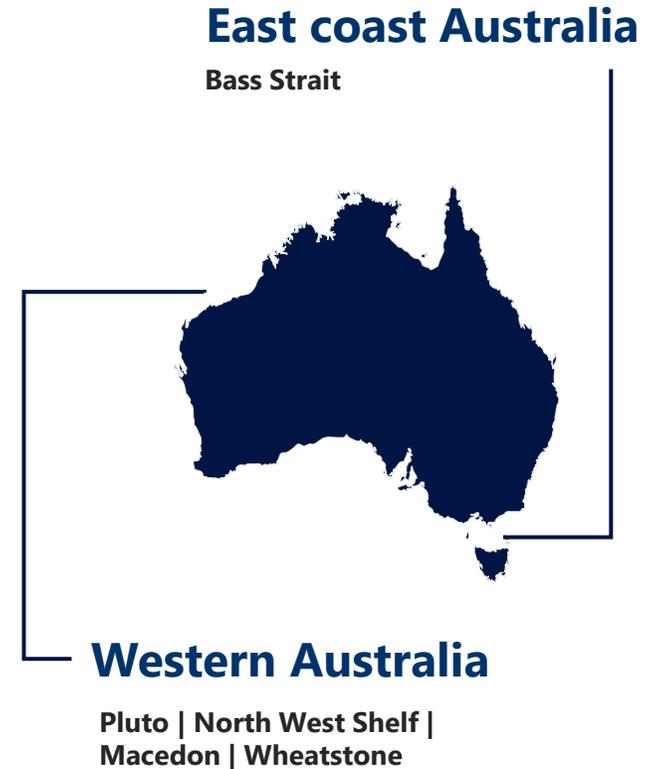
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- Meeting Woodside's domestic gas commitments
- Increasing demand for gas expected from 2024<sup>1</sup>
- Woodside's market share ~22%<sup>2</sup>

## EAST COAST AUSTRALIA

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- 100% delivered to domestic market
- Balanced market with continued demand from residential and power sectors<sup>1,3</sup>
- Opportunities for further supply include LNG imports and gas storage
- Woodside's market share ~17%<sup>2,4</sup>



1. Australian Energy Market Operator, 2022 Western Australian Gas Statement of Opportunities (GSOO).  
2. Based on AEMO estimate of 2024. Please refer to the "Disclaimer and important notices section" (including under the heading "Forward looking statements") for cautionary information relating to forward looking statements.  
3. Australian Competition and Consumer Commission, Gas Inquiry 2017-2030, interim update on east coast gas supply-demand outlook for quarter 1 of 2024.  
4. East coast Australia includes New South Wales, Victoria, South Australia, Queensland, Australian Capital Territory and Tasmania.

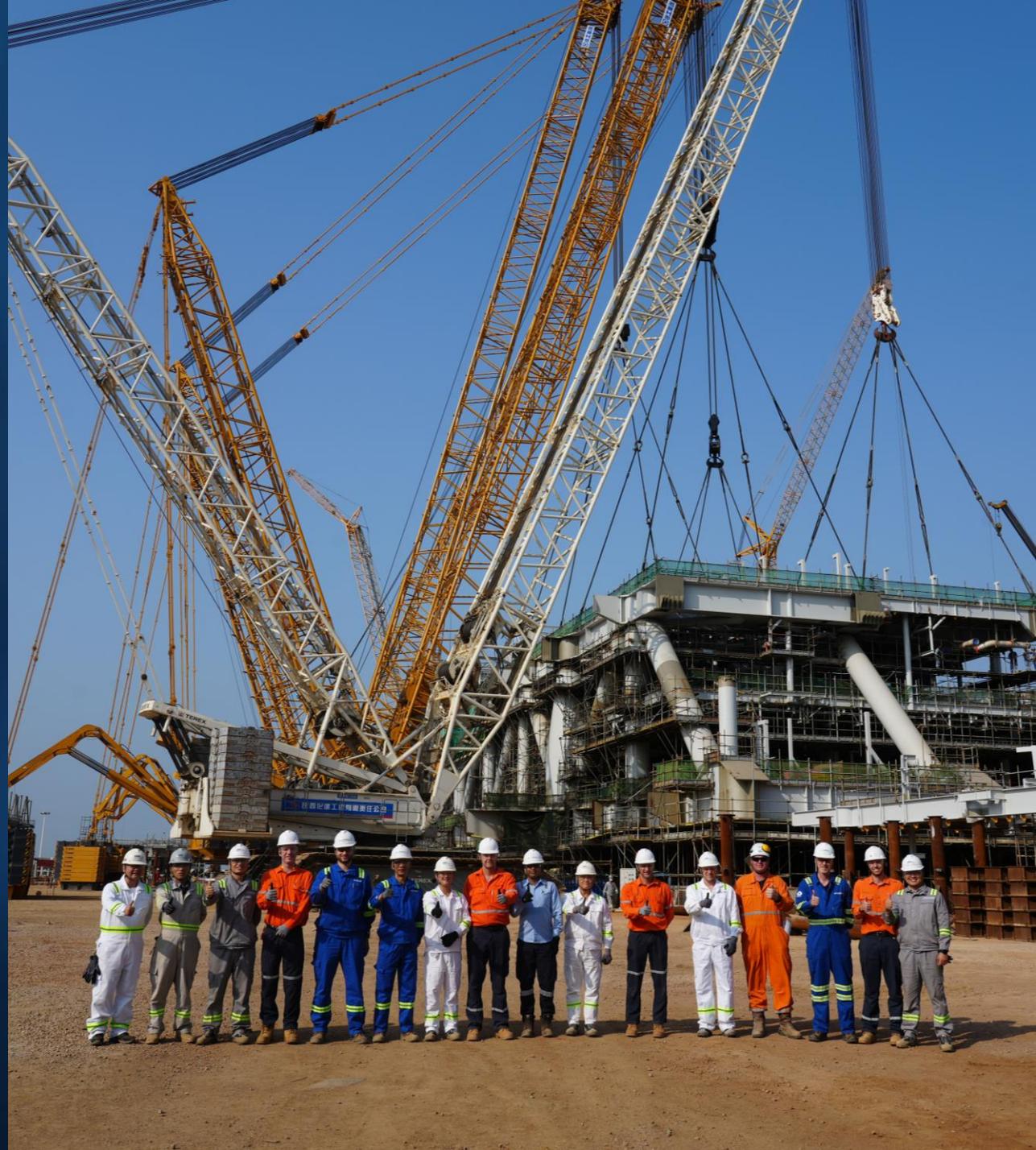


# PROJECTS

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Matthew Ridolfi

Executive Vice President Projects



# Investing in world class developments to deliver enduring value



## SAFE

No high consequence injuries in 2023

Design in safety

Share learnings and insights



## LOW COST

Utilising design and technology

Industry collaboration to improve execution efficiency



## MAXIMISE VALUE

High quality portfolio

Disciplined capital allocation



## LOWER CARBON

Design out Scope 1 and 2 emissions

Focusing on lower carbon projects

# Three world-class projects in execution

## SANGOMAR<sup>1</sup>



**Oil grade well suited for European refineries**

**~\$11/boe breakeven operating cash flow in 2025**

## SCARBOROUGH<sup>2</sup>



**Among the lowest carbon intensity projects for LNG landed in north Asia**

**\$5.80/MMbtu cost of supply delivered to north Asia**

## TRION<sup>3</sup>



**Expected carbon intensity of 11.8 kg CO<sub>2</sub>-e/boe**

**<\$50 cost of supply and <4 year payback**

### ADVANTAGES

### PRODUCTION CAPACITY

### COST

### TARGET START-UP

100,000 bbl/day

~\$4.9B – 5.2B (100% project)

**Mid-2024 (first oil)**

Up to 8 Mtpa LNG + 225 TJ/day domestic gas

~\$12B (100% project)

**2026 (first LNG cargo)**

100,000 bbl/day

~\$7.2B (100% project)

**2028 (first oil)**

Please refer to the “Disclaimer and important notices” section (including under the heading “Forward-looking statements”) for important cautionary information relating to forward looking statements.

1. Refer to announcement titled ‘Sangomar project update’ released 18 July 2023.
2. Refer to announcement titled ‘Scarborough FID teleconference and investor presentation’ released 22 November 2021.
3. Refer to announcement titled ‘Woodside approves investment in Trion development’ released 20 June 2023.

# Sangomar delivering production and cash flow from 2024

## DRILLING

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- 14 out of 23 Phase 1 development wells completed<sup>1</sup>
- All remaining well drilling operations commenced

## SUBSEA

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- Progressing subsea installation
- Overall subsea scope 96% complete<sup>1</sup>

## FPSO

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- Topsides integration and pre-commissioning activities underway in Singapore

## OPERATIONS

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- Preparation for handover to operations ongoing



1. As at 30 September 2023.

# Scarborough – new LNG supply to meet North Asian demand

## PLUTO TRAIN 2

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- Site construction works started
- Module fabrication in Batam, Indonesia at peak activity

## TRUNKLINE AND SURF

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- Installation of nearshore trunkline commenced
- Subsea trees delivered and in warehouse
- Fabrication of subsea flowlines and trunkline complete

## FPU

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- FPU progress 50%, hull and topsides fabrication progressing<sup>1</sup>



1. As at 30 September 2023.

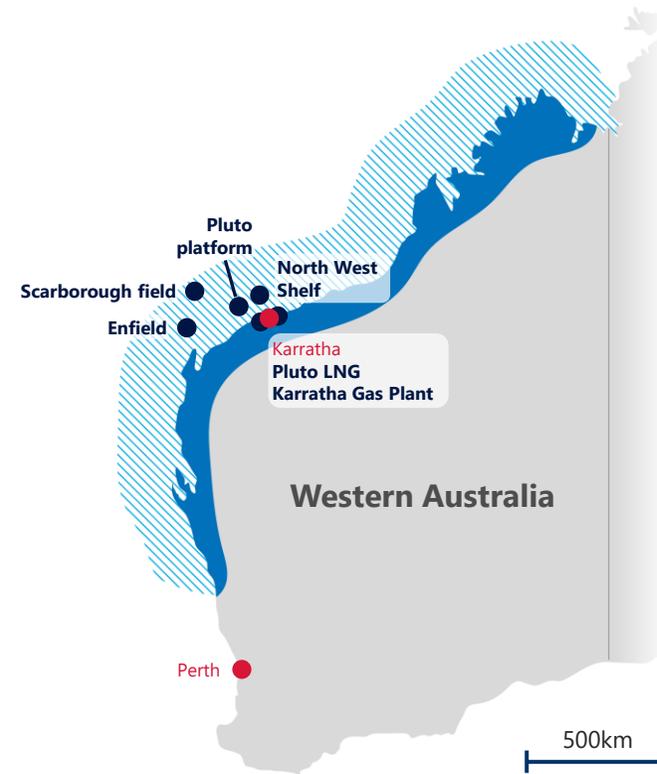
# Environmental approvals uncertainty impacting all offshore activity

Extensive consultation has occurred and remains ongoing

Environmental approvals process imposing significant burden and complexity on project proponents, communities and other stakeholders

We are continuing to work with the Regulator (NOPSEMA) to progress approvals

Indicative environmental plan (EP) consultation area



Consultation area is based on the environment that may be affected and may be different for each EP

- Indicative consultation area (onshore and offshore)
- Woodside facilities/interest

# Trion – lower carbon intensity oil project with <4 year payback

## REGULATORY

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- Field development plan approved
- Positive relationship with PEMEX and regulator

## CONTRACTING

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- Key contracts awarded
- Manufacturing and yard slots secured for facility fabrication

## EXECUTION

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- Detailed engineering in progress
- Commenced procurement activities



# Fulfilling decommissioning commitments

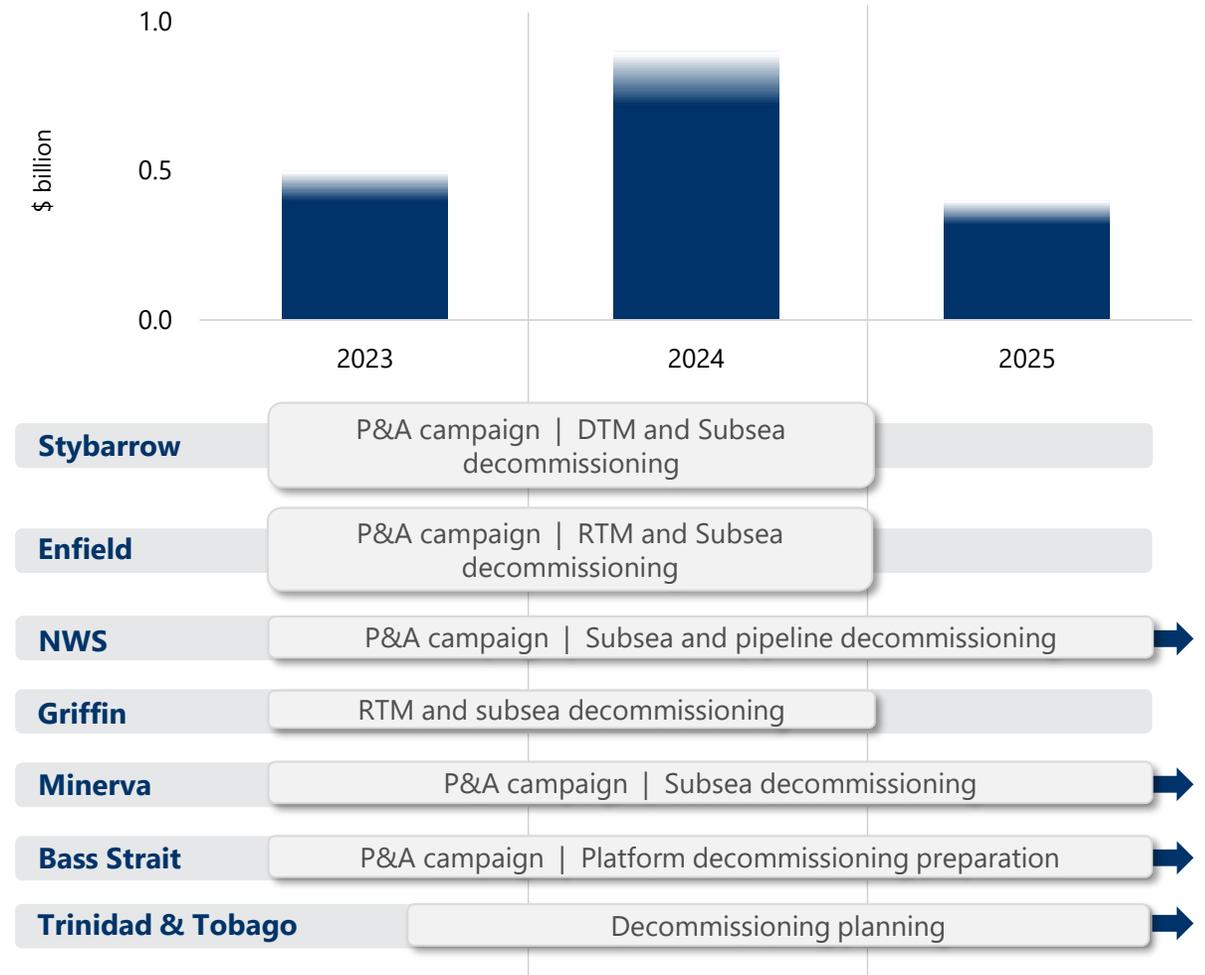
Managing cost through competitive tendering and optimised scheduling of activities

Continuing engagement with regulators on required environmental approvals

Completed safe removal of Nganhurra riser turret mooring (RTM)

Successful plug and abandonment of 100<sup>th</sup> well at Bass Strait

Indicative decommissioning spend and near-term decommissioning activities<sup>1,2</sup>



1. Indicative only, not guidance. Subject to a range of assumptions that may not occur as forecast. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements. Timeline reflects pre-engineering and execute activities.  
 2. Plug and abandonment (P&A), disconnectable turret mooring (DTM), riser turret mooring (RTM).



# INTERNATIONAL OPERATIONS

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Shiva McMahon

Executive Vice President International Operations



# Efficient and sustainable International operations



## SAFE

No high consequence injuries in 2023

Learn from organisational health and safety events



## LOW COST

Unit production cost <\$10/boe<sup>1</sup>

Managing costs in inflationary environment



## MAXIMISE VALUE

~98% reliability at Shenzi<sup>2</sup>

Developing infill and nearfield opportunities

Preparing for Sangomar



## LOWER CARBON

Lower carbon intensity basin (GoM)

Implementing asset decarbonisation initiatives (Shenzi)

1. International Operations segment, for first half 2023.  
2. YTD as at 30 September 2023.

# Optimising for low cost, reliable operations

## MANAGING COST

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- Zero base cost management and owners' mindset driving healthy challenge
- Collaboration with suppliers and third parties
- Shared resources across regional hubs

## TARGETING RELIABILITY

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- Disciplined and proactive defect elimination
- Enhanced asset surveillance through digital integration
- Reduce recovery times through critical sparring and capability



# High quality Gulf of Mexico oil assets

Large, long-life assets

Mad Dog Phase 2 delivered and ramping up

Near-field expansion opportunities with Mad Dog and Atlantis

Subsurface understanding improved by advances in seismic technology

Focused and disciplined exploration program

## Gulf of Mexico (GoM) reserves and resources<sup>1</sup>



Please refer to the “Disclaimer and important notices” section (including under the heading “Notes to petroleum resource estimates”) for important cautionary information relating to resource estimates.

1. 2P and 2C net reserves and resources as at 31 December 2022 from the Woodside Annual Report 2022. GoM Production, Reserves and Resources from Mad Dog, Shenzi and Atlantis only. Wildling volumes excluded given lease expiry in 2023. Includes fuel volumes of: Produced 5 MMboe and 2P 16 MMboe.

# Maximising value from Trinidad and Tobago assets

## ANGOSTURA AND RUBY

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- Focused on personal and process safety
- Optimisation of maintenance program
- Maximising recovery of remaining reserves

## CALYPSO

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- Advantaged region with existing infrastructure and industry
- Resource comprises several gas discoveries<sup>1</sup>
- Pre-FEED commenced to mature definition of concept



Trinidad & Tobago central processing platform

1. Discoveries in Block 23(a) and Block TTDA 14.

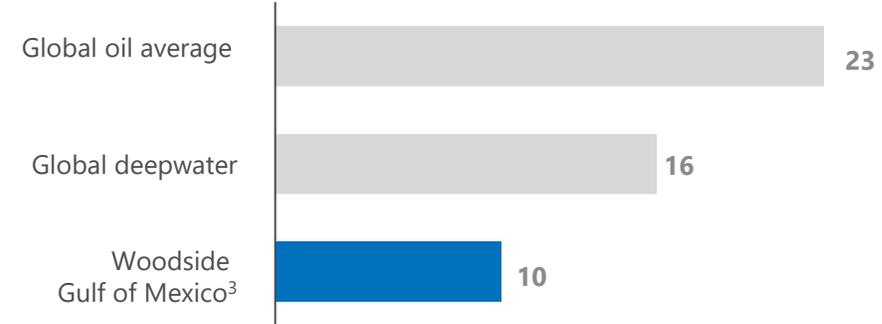
# Focused implementation of Scope 1 and 2 emissions reduction opportunities

Gulf of Mexico contributes ~6% of Scope 1 & 2<sup>1</sup>

Emissions sources well understood

Prioritising lowest cost decarbonisation opportunities

## 2023 oil emissions intensity<sup>2</sup> kgCO<sub>2</sub>-e/boe



## Example asset decarbonisation plan initiative



### SHENZI FLARE

✓ DELIVERED

Changed to a low emission flare tip to enable a reduction in low and high pressure flare purge rates

**Delivered emissions reduction:**  
1.7 ktpa CO<sub>2</sub>-e<sup>4</sup>

1. Woodside's estimated 2023 equity Scope 1 and 2 greenhouse gas emissions.
2. Wood Mackenzie Emissions Benchmarking Tool.
3. Assets in operation. Woodside estimated emissions intensity for 2023.
4. The Scope 1 and 2 emissions reductions are estimated using engineering judgment by appropriately skilled and experienced Woodside engineers.

# Disciplined delivery of production opportunities

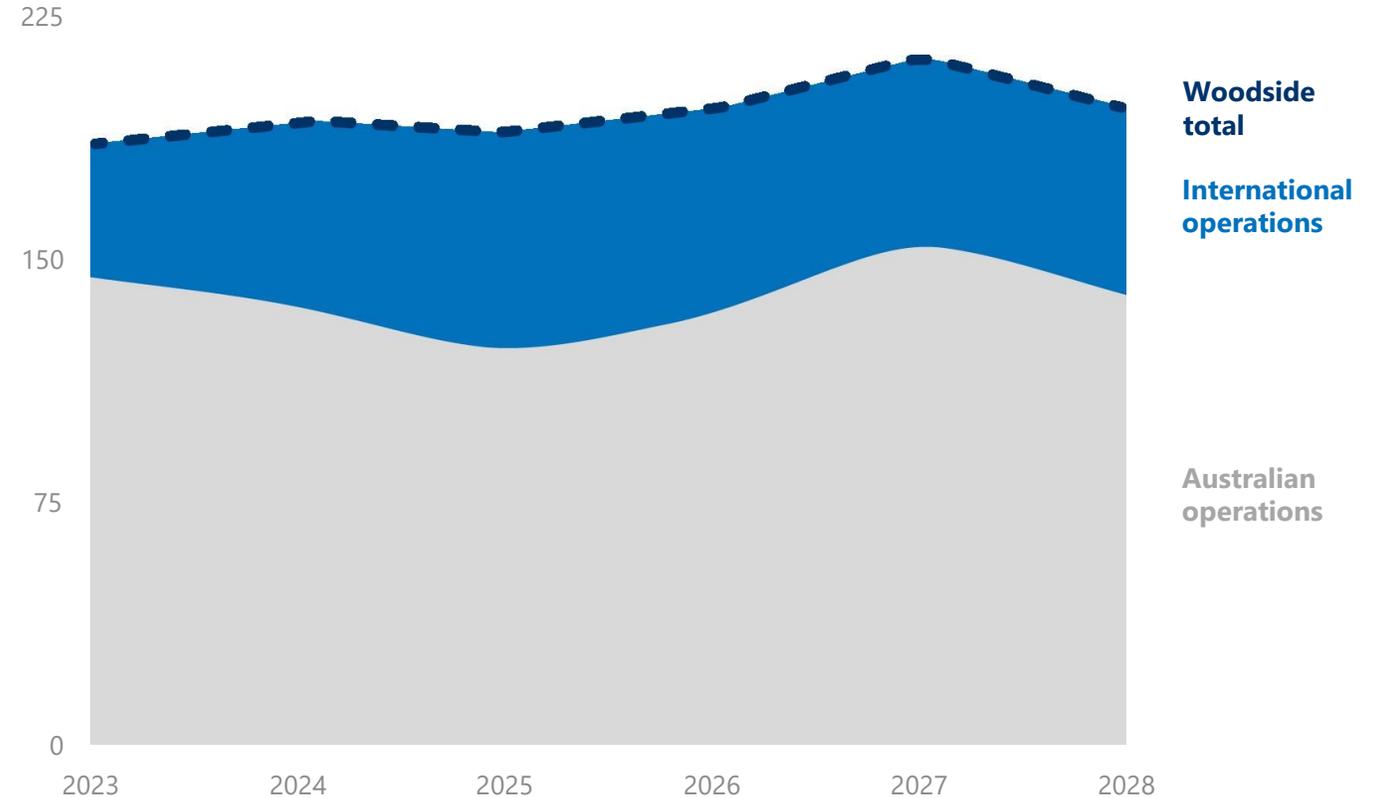
## OPERATIONAL PERFORMANCE

- Maintain high facility reliability
- Continue decarbonisation plans

## MAXIMISING VALUE

- Continued optimisation of existing assets
- Prepare for start up of Sangomar
- Progress future developments and exploration

Production (MMboe)<sup>1</sup>



1. Indicative only, not guidance. Refer to slide 2 of this presentation for further information on assumptions. Accordingly, the profile provided is for illustrative purposes only and should not be relied on as guidance. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.



# AUSTRALIAN OPERATIONS

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Liz Westcott

Executive Vice President Australian Operations



# Unsatisfactory 2023 safety performance

## 2023 REFLECTION

Tragic death of a colleague at the North Rankin Complex

## STEPPING IN

Learning from recent incidents

Focusing on safety fundamentals

Emphasising psychological safety

Increasing leadership time in the field

## STEPPING BACK

External assessment of our operational safety systems

Collaborating with industry on best practice

# Efficient and sustainable Australian operations



## SAFE

Refocusing on safety fundamentals

External assessment of our operational safety system



## LOW COST

Unit production cost  
~\$8.6/boe<sup>1</sup>

Managing costs in an inflationary environment



## MAXIMISE VALUE

~98% LNG reliability<sup>2</sup>

Developing infill and nearfield opportunities

Preparing to integrate Scarborough



## LOWER CARBON

Implementing asset decarbonisation initiatives (Pluto and KGP)

Continued focus on methane reduction

1. Australian Operations segment, for first half 2023.  
2. Operated LNG facilities YTD as at 30 September 2023.

# Driving cost efficiencies

## LEVERAGING TECHNOLOGY

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- Cost effective corrosion management
- Satellite, aerial and drones for emissions monitoring
- Autonomous inspections of hazardous areas

## OPERATING MODEL

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- Implemented a simpler, asset-based operating model
- Integrating and harmonising assets, systems and processes to achieve efficiencies

## LATE LIFE FACILITY MANAGEMENT

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- First NWS LNG train offline in 2024
- Bass Strait Gippsland asset streamlining project
- Maintenance strategies aligned to progressive facility retirement



# Maximising value through reliable and efficient asset management

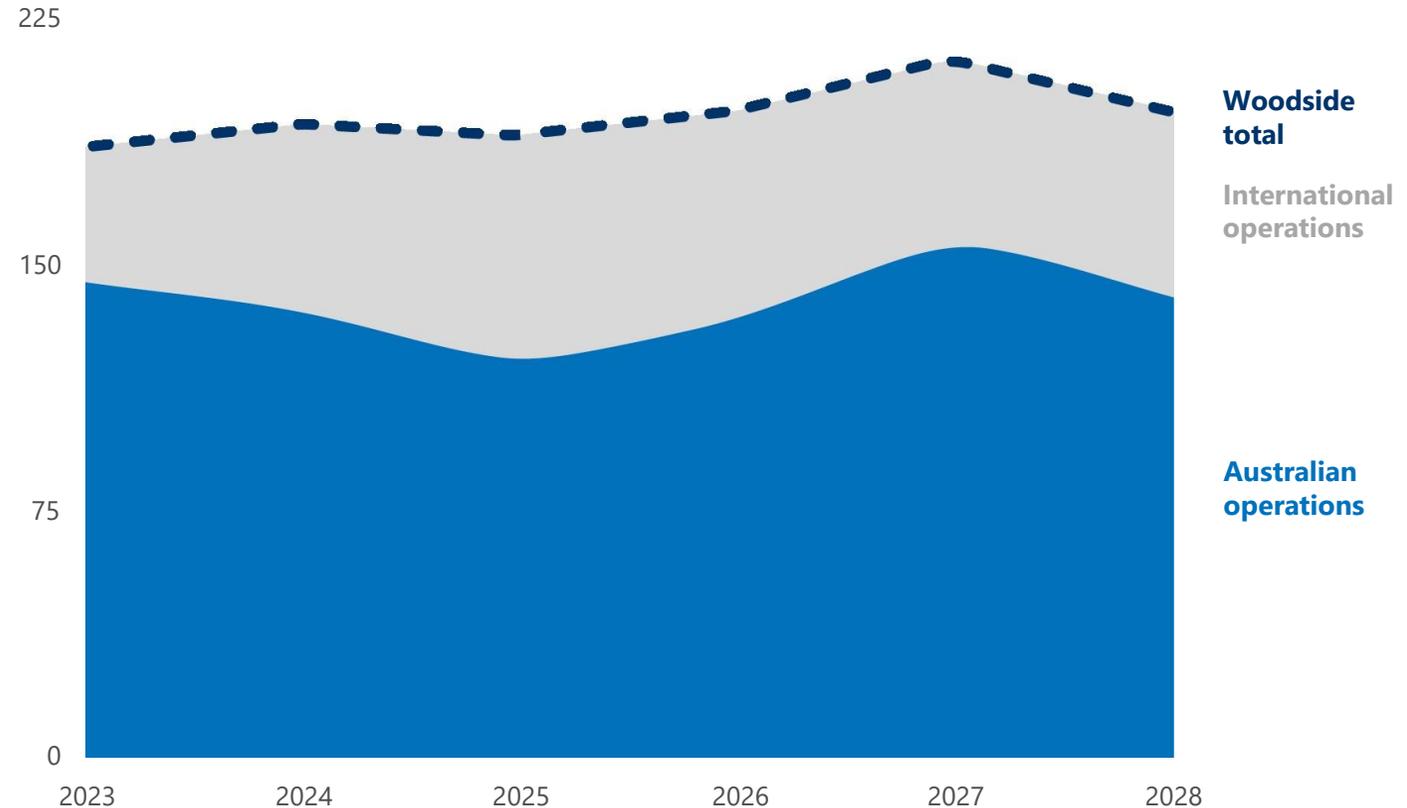
## OPERATIONAL PERFORMANCE

- Maintain high facility reliability
- Improve maintenance efficiency to reduce turnaround duration
- Track record of increasing production capacity at Pluto

## MAXIMISING VALUE

- Continue incremental production through Pluto-KGP Interconnector<sup>1</sup>
- Develop infill and nearfield opportunities

Production (MMboe)<sup>2</sup>



1. Subject to government approval.

2. Indicative only, not guidance. Refer to slide 2 of this presentation for further information on assumptions. Accordingly, the profile provided is for illustrative purposes only and should not be relied on as guidance. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

# Pluto remote operations centre

Pluto facility now fully operated from Perth

100% remotely operated LNG plant

Enables future integration of Scarborough



## DELIVERING VALUE

Consolidated and integrated operational view

Remote collection and interpretation of data

Enhanced decision making and collaboration

Improved safety risk management

# Implementing asset decarbonisation plans



## EFFICIENT POWER GENERATION

✓ DELIVERED

Optimising power generation at KGP and Pluto LNG

**Delivered emissions reduction:**  
Up to 34ktpa CO<sub>2</sub>-e<sup>1</sup>



## KGP REFRIGERANT COMPRESSOR

✓ DELIVERED

Upgrading refrigerant compressors with a seal vent recovery system to reduce atmospheric emissions.

**Delivered emissions reduction:**  
2.7ktpa CO<sub>2</sub>-e<sup>1</sup>



## PLUTO SOLAR IMPORT

TARGETING  
FID 2023

Utilising solar energy to reduce fuel gas consumption for electrical power generation

**Expected emissions reduction:**  
Up to 125ktpa CO<sub>2</sub>-e<sup>1</sup>



## KGP BOIL OFF GAS COMPRESSOR

TARGETING  
FID 2024

Upgrading wet gas seals on BOG compressors to eliminate fugitive methane emissions

**Expected emissions reduction:**  
19ktpa CO<sub>2</sub>-e<sup>1</sup>

1. The Scope 1 and 2 emissions reductions are estimated using engineering judgment by appropriately skilled and experienced Woodside engineers.

# Decarbonising Pluto and Scarborough Scope 1 and 2 emissions

## Pluto Train 1 (delivered)

### Efficiency

- High efficiency air filters installed on gas turbines
- Optimised power generation operating strategy
- Increased operating pressure of Pluto Train 1
- Improved air cooler fin fan blades (**in execute**)

### Methane

- Compressor seal gas vents routed to flare system
- Multi-modal site surveys and remediation

### Flaring

- Focus on high reliability operations

## Pluto/Scarborough offshore (in execute)

### Efficiency

- Waste heat recovery on gas turbine
- Flow coated trunkline to reduce roughness
- Battery energy storage system
- Nitrogen flare purge
- Pluto water handling reduced minimum turndown rates (**delivered**)

## Utilities (delivered)

### Flaring

- Operation of dual boil off gas compressors to reduce flaring associated with ship loading
- Flare tip replacement and combustion system upgrades to maximise efficiency (**in execute**)

## Pluto Train 2 (in execute)

### Efficiency

- Selected aero-derivative turbine driven Optimised Cascade® process
- Selected turbine compressor drivers with inlet air chilling and low NOx technology
- Electric drive selected for smaller compressors in Train 2
- Integrated Train 2 power supply with existing Train 1 system

### Methane

- Thermal oxidizer installed to remove methane from waste streams

— Approved  
— Existing



# TECHNOLOGY DEPLOYMENT

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Daniel Kalms

Executive Vice President Technical Services



# Deploying technology across our portfolio



## SAFE

Autonomous inspections, crewless deployment reduces high-risk exposure



## LOW COST

Integrity management enabling older facilities to operate at lower cost for longer



## MAXIMISE VALUE

Digital strategies driving increased production, optimised maintenance, and energy efficiency



## LOWER CARBON

Protects base business and supports customer requirements

# Driving safer outcomes through drones and robotics

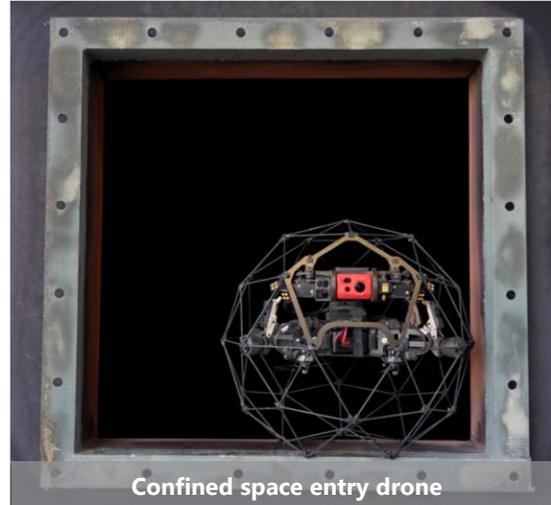
## DRONES

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- Mitigate work over the side risk to personnel
- Reduce time in field by up to 40%



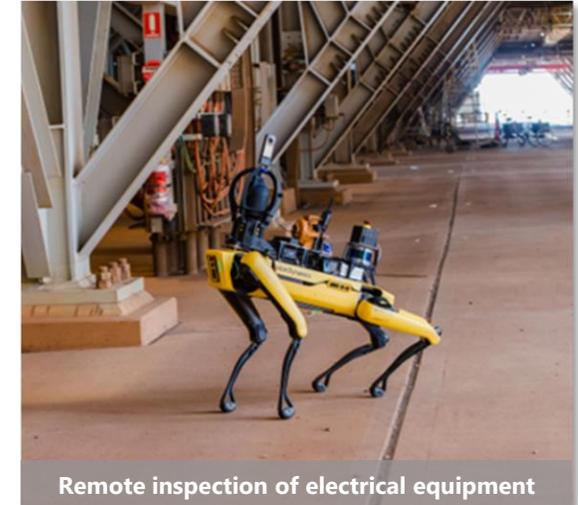
- Mitigate confined space entry risk
- Reduce duration of vessel inspection by up to 2 days



## ROBOTICS

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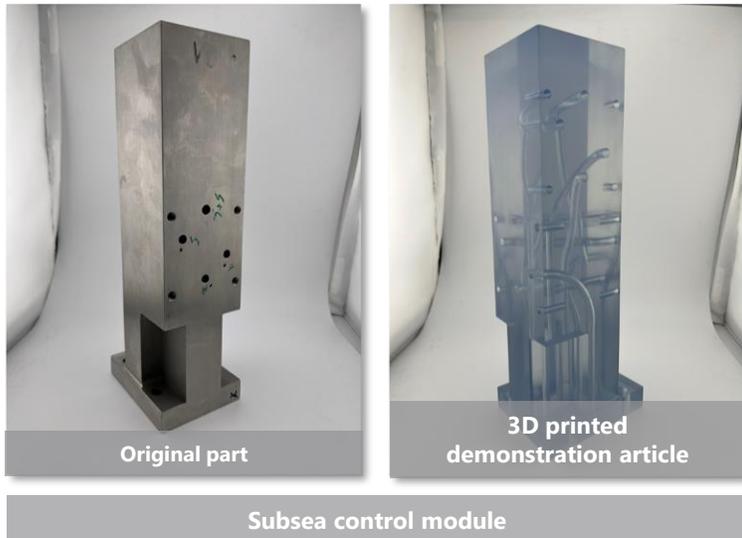
- Mitigate hazardous area inspections
- Reduce time for inspection by ~90%



# Driving lower cost through applied technology

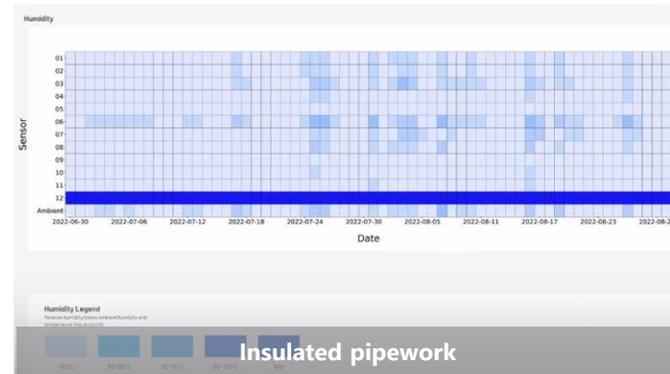
## 3D PRINTING

- \$12 million saving on obsolete subsea part (versus purchase of new model)
- Replaced broken fan blade in three weeks (versus 16 weeks of production impact)



## ONLINE MONITORING

- Online humidity under insulation (versus stripping insulation and inspecting)



## IoT SENSORS

- ~\$600 wireless IoT sensors (versus ~\$12,000 equivalent commercial wireless sensor)



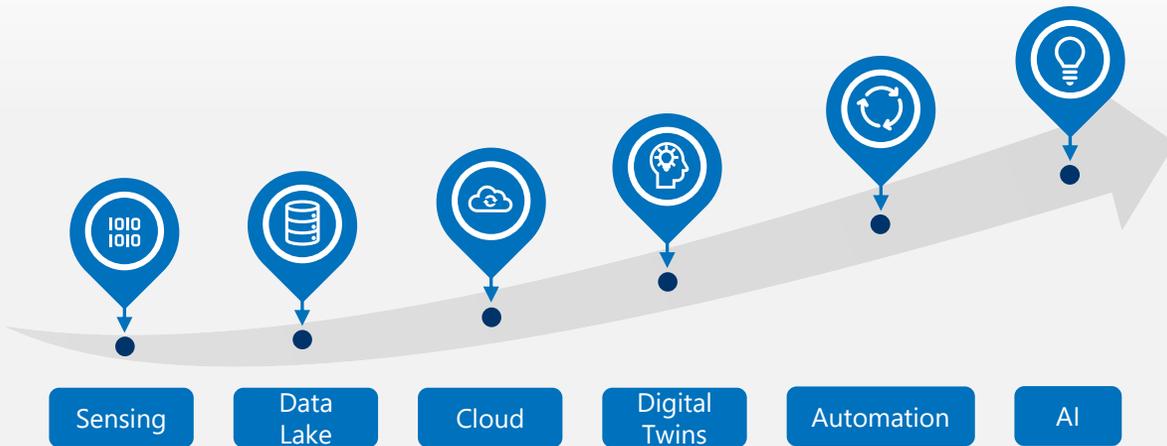
Fin fan vibration measurement

# Driving value through digitalisation

## DELIVERED OPTIMISATION

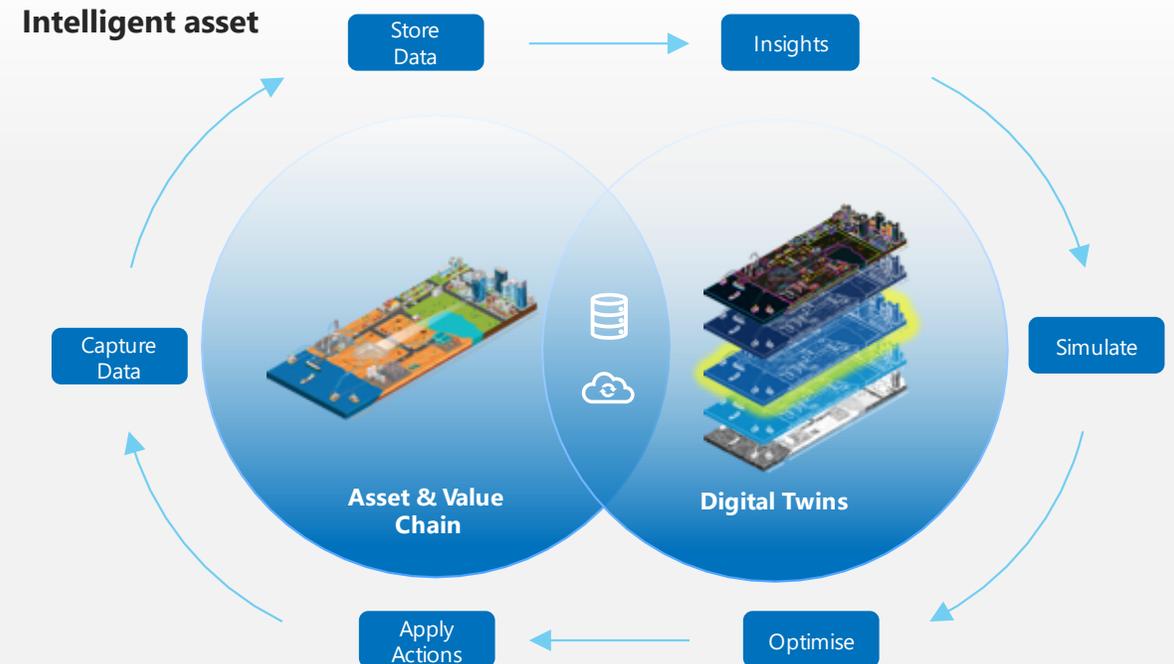
- Lifted nameplate capacity at Pluto LNG through a range of asset and digital optimisations
- Improved asset energy efficiency
- Optimised maintenance planning

### Our digital foundations



## FUTURE FOCUS

- Machine learning and AI
- End to end optimisation to maximise value



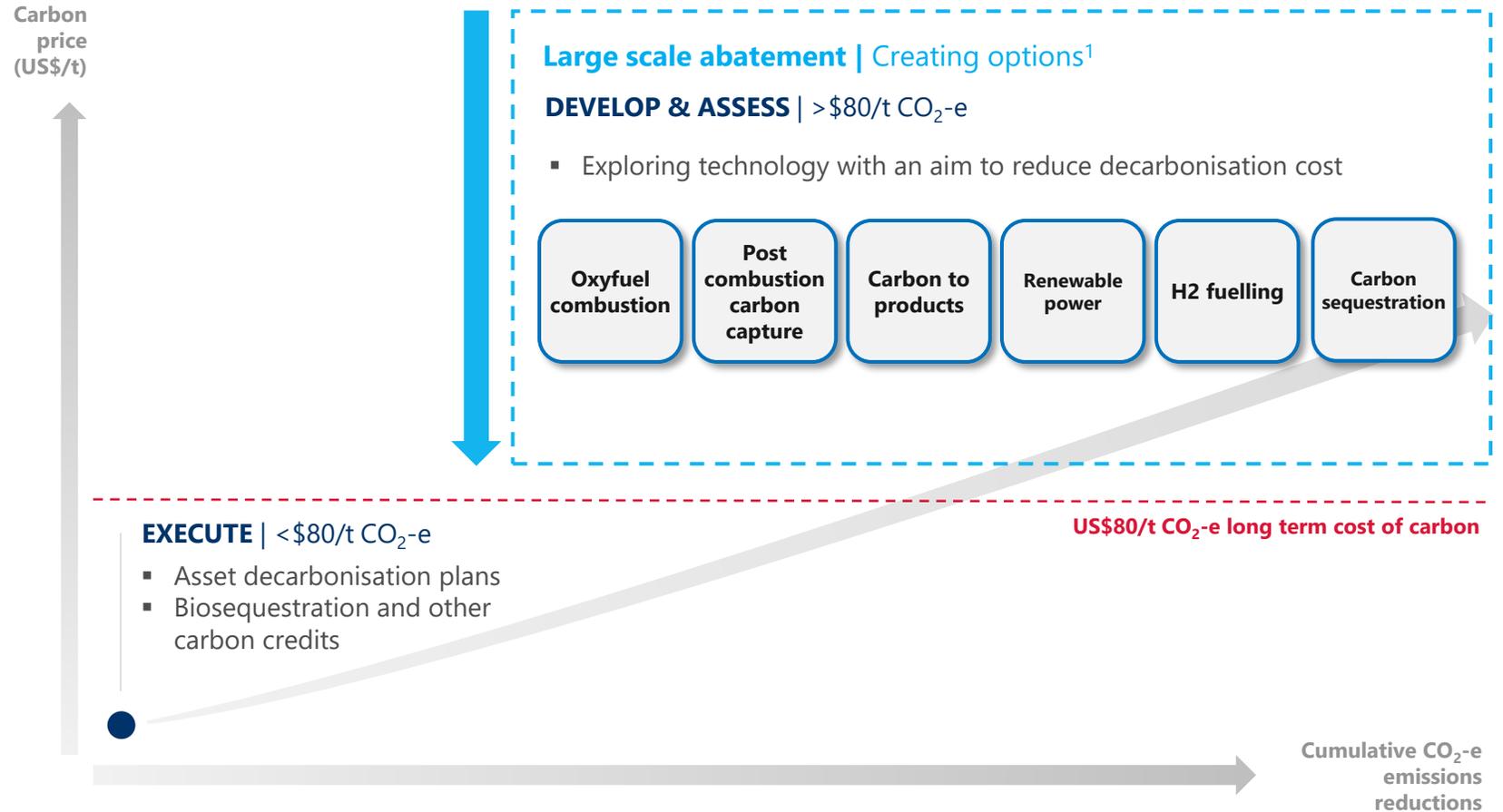
# Assessing technologies to reduce Scope 1 and 2 carbon emissions

Exploring a range of technology options to support step change abatement

Partnering with start-ups, equipment manufacturers and research institutions

Technology competes with alternatives such as biosequestration

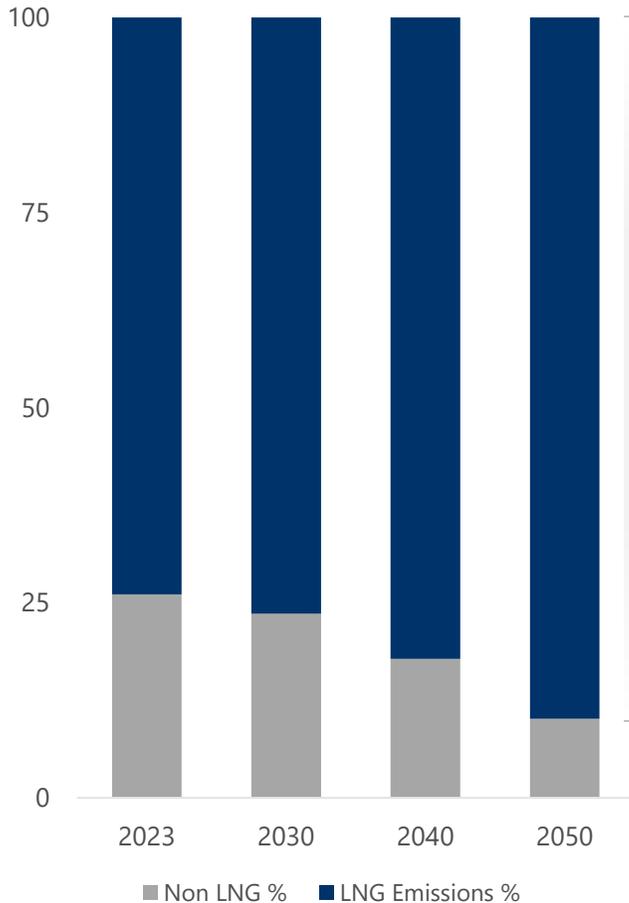
## Marginal Scope 1 and 2 abatement cost curve



1. Options under consideration remain subject to economic and technical evaluations, entry into relevant and required commercial agreements and obtaining relevant regulatory approvals.

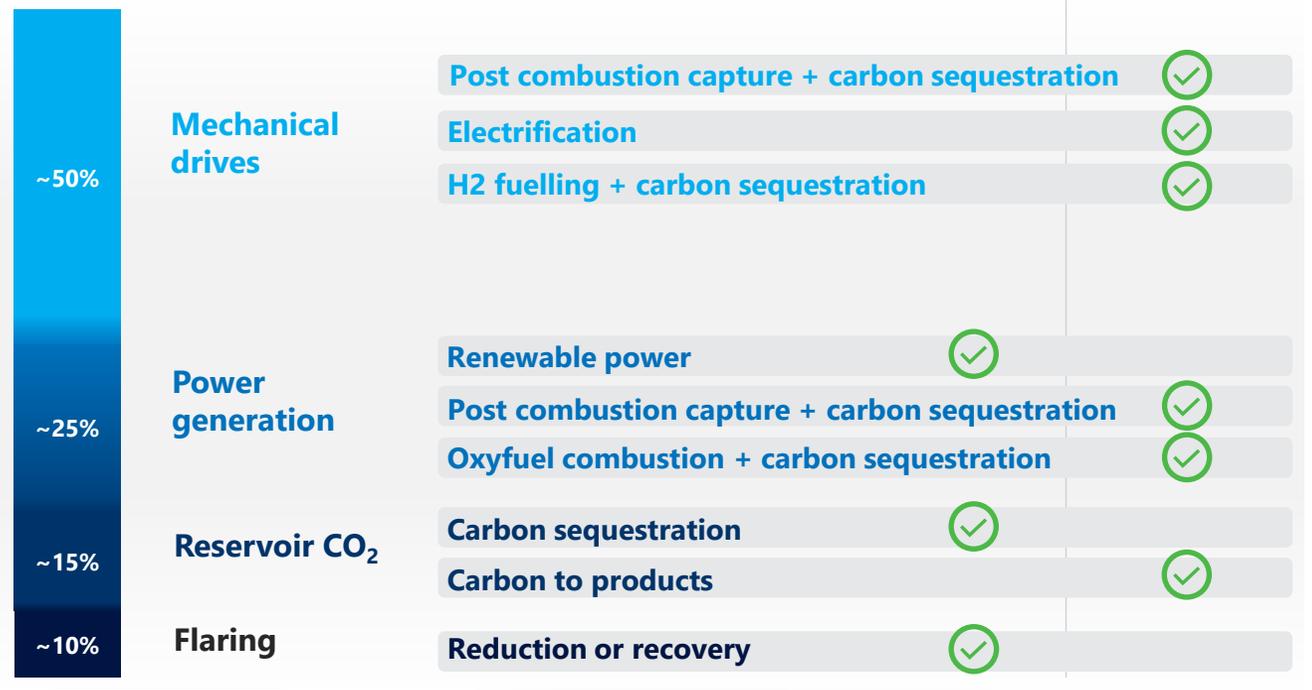
# Vision for Pluto net zero

Woodside Scope 1 and 2 emissions (LNG/non LNG)<sup>1</sup>



~90% of emissions in 2050 are from LNG<sup>1</sup>

Abatement options for typical LNG emissions sources<sup>2</sup>



Vision for Pluto net zero is a range of future potential decarbonisation abatement options currently being considered to potentially reduce net operational emissions from the onshore Pluto LNG facility by 2050. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.

Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

1. Indicative only. Scope 1 and 2 estimates are based on equity share of current portfolio of operating and sanctioned projects.

2. Indicative only. Graphic outlines future decarbonisation options currently being considered for Pluto LNG. Opportunities may or may not eventuate. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.



# NEW ENERGY

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Shaun Gregory

Executive Vice President New Energy



# Value focused new energy and lower carbon services strategy



## CUSTOMER COLLABORATION

Working with customers to catalyze demand and develop the value chain for new sources of energy



## NEW ENERGY

Targeting hydrogen, ammonia and emerging fuels production leveraging Woodside's core capabilities



## INTEGRATED CARBON SOLUTIONS

Developing carbon credits, CCS and carbon utilisation solutions to reduce emissions for Woodside and our customers



Scalable to match the pace of the energy transition

Targeting \$5 billion investment in new energy products and lower carbon services by 2030<sup>1</sup>

Underpinned by the capital allocation framework

1. Individual investment decisions are subject to Woodside's investment targets. Not guidance. Potentially includes both organic and inorganic investment.

# Strategically located to serve growing markets

## APAC

- Collaborations in hydrogen and carbon value chain between Japan, Korea, Singapore and Australia<sup>1</sup>
- Building opportunities to deliver from multiple sites

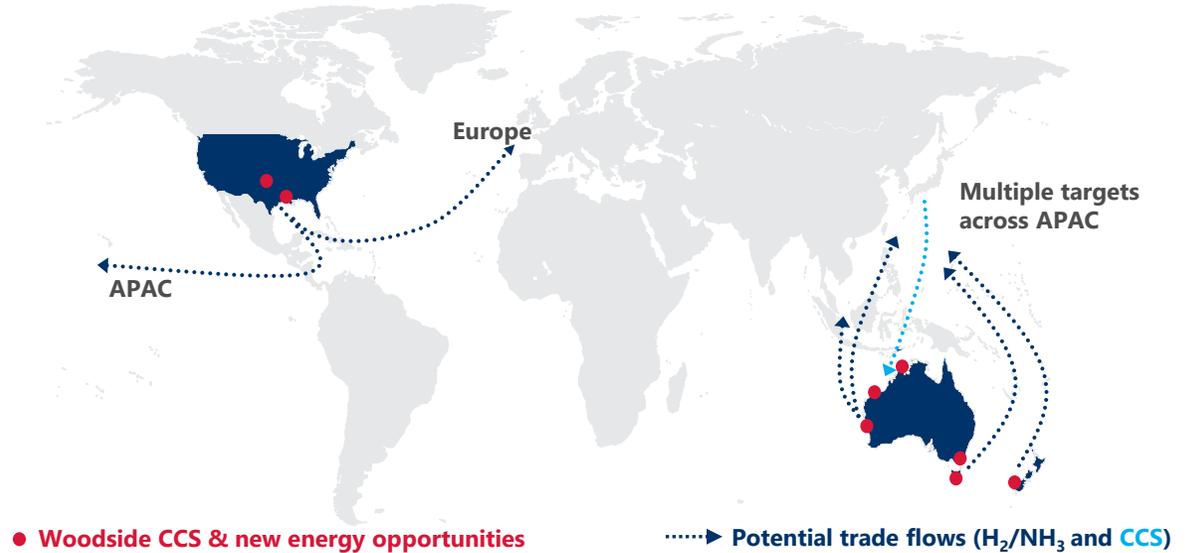
## EUROPE

- Robust demand-side policy support
- Exploring potential to deliver from advantaged US Gulf Coast

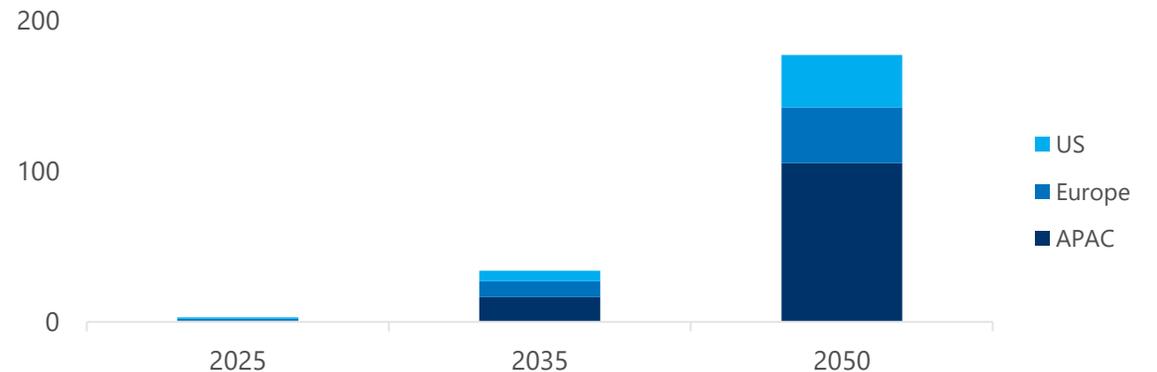
## US

- Industry-leading supply-side incentives
- Progressing H2OK and Gulf Coast opportunities

### Woodside new energy portfolio and potential trade flows<sup>2</sup>



### Low carbon hydrogen demand growth (Mtpa)<sup>3</sup>



1. Refer to Media Release dated Wednesday 26 April 2023 titled "Woodside and Keppel Data Centres sign heads of agreement for liquid hydrogen supply" and Media Release dated 7 September 2023 titled "Woodside and KEPCO collaborate on carbon capture and storage".

2. Portfolio and potential trade flows subject to market conditions, regulatory approvals, government approvals and commercial agreements. Please refer to the "Disclaimer and important notices" section (including under the heading "Forward looking statements") for important cautionary information relating to forward looking statements.

3. Source: Wood Mackenzie Lens Hydrogen, October 2023.

# Hydrogen and ammonia solutions

## NEW ENERGY STRATEGY

Develop new energy solutions to assist our customers with their decarbonisation pathways<sup>1</sup>

	<b>HEAVY DUTY TRANSPORT</b>	<b>POWER</b>	<b>SHIPPING AND AVIATION</b>	<b>INDUSTRIALS AND CHEMICALS</b>
<b>FOCUS</b>	Decarbonise mobility sector (diesel substitution)	Decarbonise coal-fired power and provide grid firming	Decarbonise maritime and aviation fuels	Provide lower carbon industrial feed stock
<b>BENEFITS</b>	Operational benefits versus battery electric trucks	Diversifies supply and provides lower carbon power	Enables lower carbon aviation & shipping corridors	Decarbonises hard-to-abate sectors

1. For further detail on how Woodside's products can assist in the decarbonisation of these sectors refer to page 21, Woodside's Climate Report 2022.

# Aligning H2OK with market demand

## LAND, POWER & WATER

- ✓ Purchased 94 acres of land in Ardmore, Oklahoma
- ✓ Power and water supply terms finalised

## ENGINEERING DESIGN

- ✓ Technical work progressing with ongoing design optimisation
- ✓ Estimated capital expenditure range of US\$0.8-\$1.0B

## REGULATORY

- ✓ Working together with local governments and stakeholders
- Awaiting guidance on US Inflation Reduction Act incentives

## OFFTAKE

- ✓ Targeting primary end use of heavy-duty trucks and equipment
- Progressing customer offtake agreements

## IMPACT

-  Expected to produce up to 60 tpd of liquid hydrogen
-  Potential to displace 85 million litres of diesel offsetting 230 kt of CO<sub>2</sub>-e per year<sup>1</sup>



# Portfolio of new energy opportunities



## Heliogen

- Initial 5 MW concentrated solar energy system to prove concept
- Potential deployment to support our operations



## US Gulf Coast

- Assessing potential locations for large-scale, lower carbon ammonia production facilities
- Multiple export markets for power, marine and industrial sectors



## H2OK

- Targeting up to 60 tpd of liquid hydrogen
- Leverages existing transport network
- Centrally located for US truck market



Houston

## Hydrogen Refueller @H2Perth

- Self-contained hydrogen production, storage and refuelling station



## H2Perth

- Proposal for a world-scale hydrogen and ammonia production facility
- Land secured in industrial precinct
- Access to Asian and Australian markets



Perth



## Southern Green Hydrogen

- Proposal for renewable ammonia production facility
- Targeting up to 500,000 tonnes of ammonia per year



## H2TAS

- Proposal for renewable hydrogen production for export as ammonia to Asian markets

# Developing the integrated carbon solutions business



## ENABLE BASE BUSINESS

Today

Leverage experience and capability developed since 2018

Managing price, regulation risk and emissions reduction targets for Woodside<sup>1,2</sup>

Progressing carbon solutions to decarbonise our existing portfolio



## SUPPORT GROWTH

Tomorrow

CCS and carbon utilisation

Cost efficiencies through scale

Carbon solutions offerings to our JV participants and customers



## UNLOCK VALUE

Future

Exploring options to scale and grow carbon solutions as a service

Potential future import of CO<sub>2</sub> from customers

Expanding offerings to other third parties

1. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.
2. Regulation risk includes current compliance obligations under Australian Safeguard Mechanism (SGM), Western Australian Environmental Protection Authority Ministerial Statements, Mexican Emission Trading Scheme and potential future obligations under other emerging carbon pricing regulatory regimes. The Australian SGM set a maximum price of \$75 (AUD) per tonne of CO<sub>2</sub>-e in 2023-24 as a cost containment measure, increasing with the consumer price index (CPI) plus 2% each year.

# Integrated carbon solutions

## CARBON SOLUTIONS STRATEGY

Develop carbon solutions to enable our base business, support growth and deliver future value

	<b>CARBON CREDITS</b>	<b>CARBON CAPTURE AND STORAGE (CCS)</b>	<b>CARBON UTILISATION</b>
<b>FOCUS</b>	Originate carbon credits and purchase from select third parties	Secure high quality storage sites	Invest in technologies to produce useful products from CO <sub>2</sub>
<b>BENEFITS</b>	Available now	Large scale CO <sub>2</sub> storage	Future conversion of carbon at source of generation
<b>PROGRESS</b>	Portfolio of >20 million carbon credits <sup>1,2</sup>	Potential to store >3 Mtpa CO <sub>2</sub> by 2030 <sup>3</sup>	Collaborations with String Bio, Novonutrients, ReCarbon and LanzaTech <sup>4</sup>

1. Portfolio volume includes Australian Carbon Credit Units and voluntary carbon market credits held and expected to be delivered or generated up to ~2050 under or in relation to: (i) third party contracts entered into prior to 31 August 2023; or (ii) Woodside originated projects for which land has been purchased prior to 31 August 2023. Volumes reported on an unrisks basis. Unrisks volumes do not include an adjustment to such volumes to reflect any risk of non-delivery.
2. Portfolio volume excludes carbon credits (held and expected to be received) from Woodside Pluto Carbon Offset Project Stages 1-4 held by Woodside Burrup Pty Ltd. Portfolio volume excludes retired units. Woodside does not make any claims in relation to the mitigation impact of carbon credit within the portfolio unless, and until, a credit is retired or surrendered (taken out of circulation and can no longer be sold).
3. References net CO<sub>2</sub> storage potential. Forecast volumes are on an aggregate equity basis across planned CCS projects. Such projects are subject to economic and technical evaluation, entry into relevant commercial agreements and obtaining relevant regulatory approvals. Further information contained on slide 73.
4. Please refer to the Woodside website for further information on these collaborations.

# Diverse portfolio of >20 million carbon credits<sup>1,2</sup>

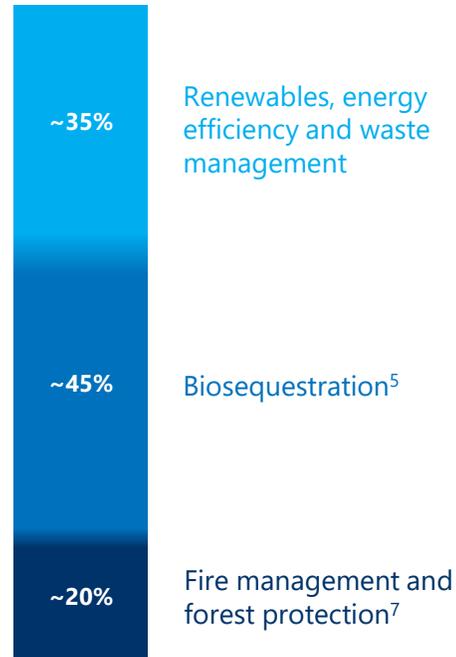
Geographically diverse portfolio

Average cost of supply <\$20/t<sup>3</sup>

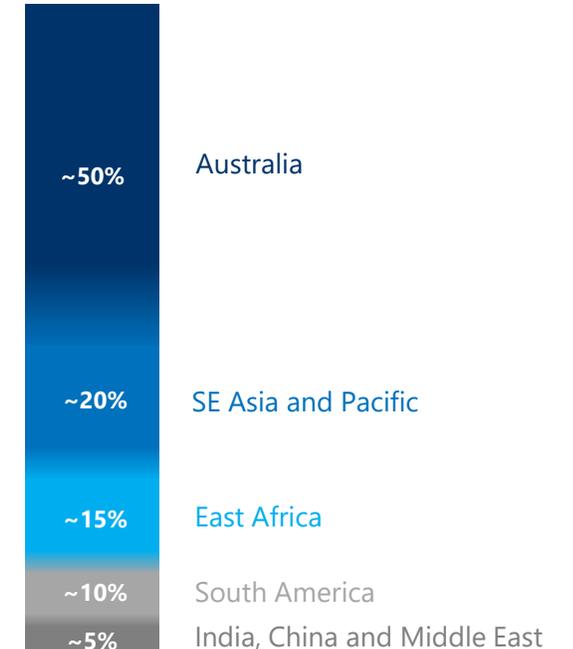
Invested >\$150 million with focus on project development<sup>4</sup>

Targeting ~50% of carbon credits from biosequestration<sup>5</sup>

Woodside's portfolio by method<sup>6</sup>



Woodside's portfolio by geography<sup>6</sup>



1. Portfolio volume includes Australian Carbon Credit Units and voluntary carbon market credits held, and expected to be delivered or generated up to ~2050 under or in relation to: (i) third party contracts entered into prior to 31 August 2023; or (ii) Woodside originated projects for which land has been purchased prior to 31 August 2023. Volumes reported on an unrisks basis. Unrisks volumes do not include an adjustment to such volumes to reflect any risk of non-delivery.
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3. Cost of supply is calculated pre-tax and is based on portfolio volumes and a calculation of 2023 present value unit costs.
4. Invested amount is pre-tax expenditure incurred prior to 31 August 2023 on market purchased carbon credits and Woodside developed carbon origination projects.
5. Biosequestration includes human induced regeneration (HIR), afforestation, reforestation and revegetation (ARR) and environmental planting methods.
6. The carbon portfolio is dynamic. Volumes, methods and geography are subject to change.
7. Fire management and forest protection includes savannah burning and reducing emissions from deforestation and forest degradation (REDD+) methods.

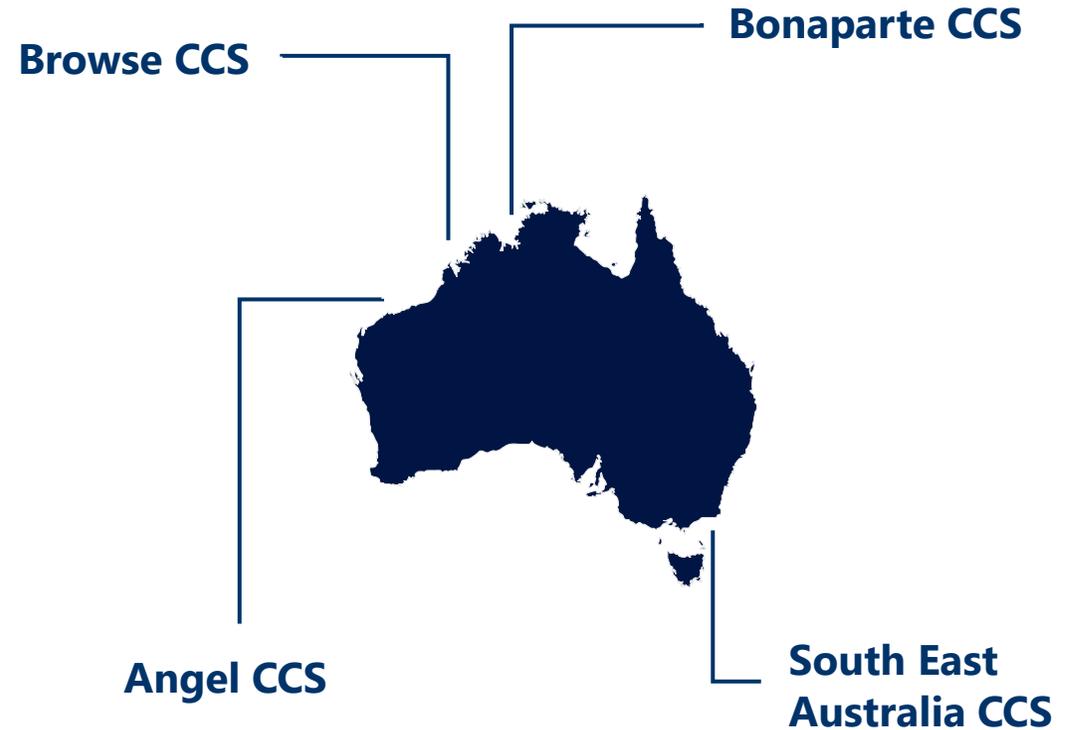
# Assessing CCS opportunities

Positioning to decarbonise operations

Potential to store >3 Mtpa CO<sub>2</sub> by 2030<sup>1</sup>

Future growth projects with potential to store customer emissions

Leveraging subsurface knowledge, advantaged asset base and full value chain experience



Graphic outlines future CCS opportunities currently being considered and evaluated. Opportunities may or may not eventuate. Opportunities are subject to economic and technical evaluations, entry into relevant commercial agreements, and obtaining relevant regulatory approvals.

1. References net CO<sub>2</sub> storage potential. Forecast volumes are on an aggregate equity basis across Angel, Bonaparte and South East Australia CCS.



**CLOSE**

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Meg O'Neill

Chief Executive Officer and Managing Director



# Thrive through the energy transition

1

**PROVIDE ENERGY FOR  
FUTURE DEMAND**

2

**CREATE AND RETURN  
VALUE**

3

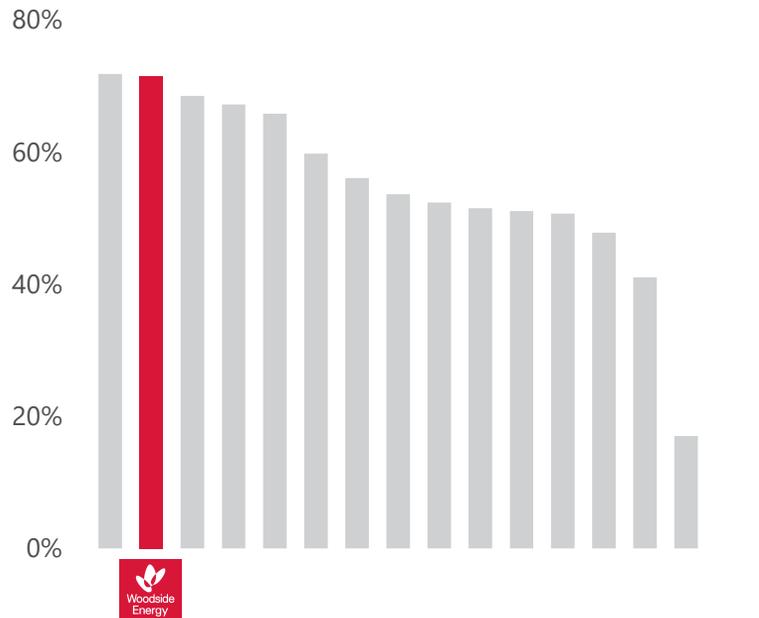
**CONDUCT OUR BUSINESS  
SUSTAINABLY**



# Distinctive investment differentiation

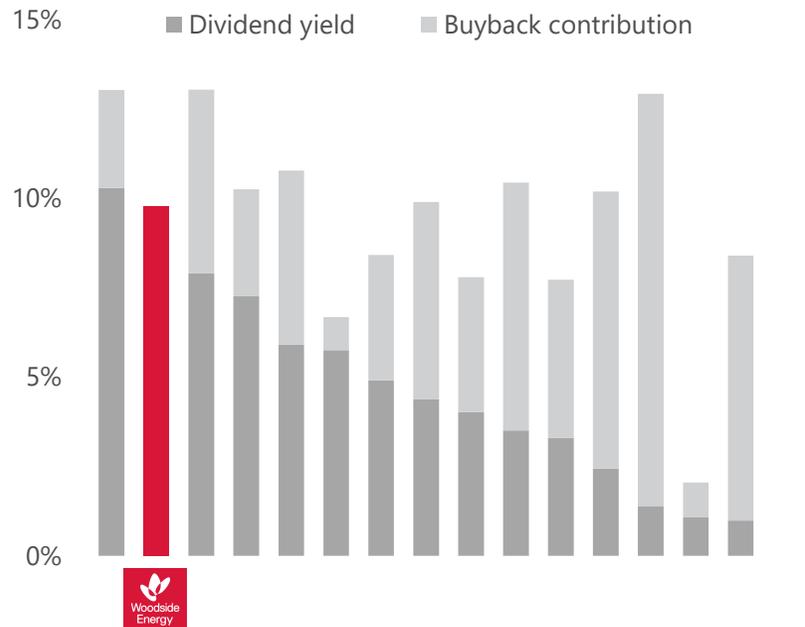
## 1 STRONG MARGIN

EBITDA margin (%)<sup>1</sup>



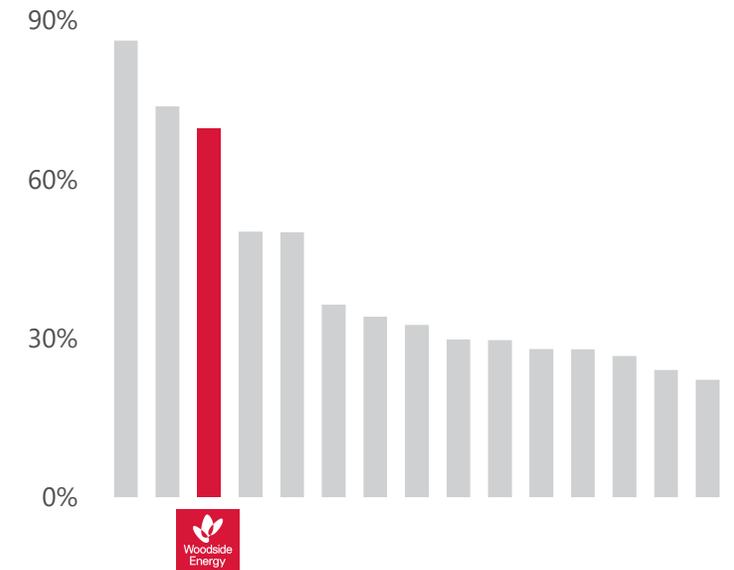
## 2 HIGH DIVIDEND YIELD

Last 12 months yield<sup>2</sup>



## 3 GAS WEIGHTED

% gas in portfolio<sup>3</sup>



Dataset: Woodside versus industry peers (peer set includes APA Corporation, Canadian Natural Resources Limited, ConocoPhillips, Coterra Energy Inc., Devon Energy Corporation, Eni S.p.A., EOG Resources Inc., Equinor ASA, Hess Corporation, Inpex Corporation, Marathon Oil Corporation, Pioneer Natural Resources Company, Occidental Petroleum Corporation, Santos Limited). There may be differences in the manner that third parties calculate or report certain information, including non-IFRS financial measures, to Woodside.

Source: FactSet (accessed 25 September 2023).

1. Non-IFRS financial measure. EBITDA margin is calculated as earnings before interest, taxes, depreciation and amortisation divided by operating revenue. Source: FactSet.
2. Yield is the quantum of returns to shareholders relative to share price. Source: FactSet.
3. % gas is natural gas production divided by the total of oil, condensate, NGL, and natural gas production. Source: FactSet.

# The investment case – a global energy supplier



## HIGH QUALITY PORTFOLIO



## DISCIPLINED CAPITAL MANAGEMENT



## POSITIONED FOR THE ENERGY TRANSITION

Advantaged locations and markets

Conventional asset base  
weighted to LNG

Major growth projects in execution

Pipeline of opportunities

Resilient cash flow

Committed to shareholder returns

Clear capital allocation and  
capital management frameworks

Strong balance sheet

On track to deliver net emissions  
reduction targets<sup>1</sup>

Progressing oil, gas and  
new energy opportunities

Customer-led and scalable

**Safe | Reliable | Low cost | Lower carbon | High cash generation**

Further information as to Woodside's climate strategy, including references to "lower carbon" as part of that strategy, is set out in Woodside's Climate Report 2022 available on the Woodside website at <https://www.woodside.com/sustainability/climate-change>.

1. Woodside's net emissions reduction targets are for net equity Scope 1 and 2 greenhouse gas emissions, with a targeted reduction of 15% by 2025, 30% by 2030, with an aspiration of net zero by 2050. The net emissions reduction targets are relative to a starting base representative of the gross annual average equity Scope 1 and 2 greenhouse gas emissions over 2016-2020 and may be adjusted (up or down) for potential equity changes in producing or sanctioned assets with a final investment decision prior to 2021. Please refer to Woodside's Climate Report 2022 (glossary starting on page 59 and the section on decarbonisation strategy starting on page 28) for further information on the definition and calculation of Scope 1 and 2 net equity greenhouse gas emissions.



**BREAK**

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# QUESTION & ANSWER

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# APPENDIX

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# Glossary

\$, \$m, \$B	US dollar unless otherwise stated, millions of dollars, billions of dollars
2P	Proved plus Probable reserves
2C	Best Estimate of Contingent resources
A\$, AUD	Australian dollar
Aspiration	Woodside uses this term to describe an aspiration to seek the achievement of an outcome but where achievement of the outcome is subject to material uncertainties and contingencies such that Woodside considers there is not yet a suitable defined plan or pathway to achieve that outcome
ASX	Australian Securities Exchange
Bcf	Billion cubic feet
BHP Petroleum	BHP Petroleum International Pty Ltd ACN 006 923 897 and, unless context otherwise requires, its subsidiaries. References to "BHP Petroleum International Pty Ltd" are to BHP Petroleum International Pty Ltd excluding its subsidiaries
boe, kboe, MMboe, Bboe	Barrel of oil equivalent, thousand barrels of oil equivalent, million barrels of oil equivalent, billion barrels of oil equivalent
Capital expenditure	Includes capital additions on oil and gas properties and evaluation capitalised
Cash margin	Revenue from sale of produced hydrocarbons less production costs, royalties, excise and levies, insurance, inventory movement, shipping and direct sales costs and other hydrocarbon costs; divided by revenue from the sale of produced hydrocarbons (sales volume). Excludes exploration and evaluation, general administrative and other costs, depreciation and amortisation, PRRT and income tax
CCS	Carbon capture and storage
CCU	Carbon capture and utilisation
CCUS	Carbon capture, utilisation and storage
CO <sub>2</sub>	Carbon dioxide
CO <sub>2</sub> -e	CO <sub>2</sub> equivalent. The universal unit of measurement to indicate the global warming potential of each of the seven greenhouse gases, expressed in terms of the global warming potential of one unit of carbon dioxide for 100 years. It is used to evaluate releasing (or avoiding releasing) any greenhouse gas against a common basis <sup>1</sup>
Conventional	Conventional resources exist in porous and permeable rock with pressure equilibrium. The hydrocarbons are trapped in discrete accumulations related local geological structure feature and/or stratigraphic condition

cps	Cents per share
Decarbonise	To avoid, reduce or offset greenhouse gas emissions. It can apply to both the production and the use of products and services
Decarbonisation	Woodside uses this term to describe activities or pathways that have the effect of moving towards a state that is lower carbon, as defined in this glossary
Equity greenhouse gas emissions	Woodside sets its Scope 1 and 2 greenhouse gas emissions reduction targets on an equity basis. This ensures that the scope of its emissions reduction targets is aligned with its economic interest in its investments. Equity emissions reflect the greenhouse gas emissions from operations according to Woodside's share of equity in the operation. Its equity share of an operation reflects its economic interest in the operation, which is the extent of rights it has to the risks and rewards flowing from the operation <sup>2</sup>
FID	Final investment decision
FPSO	Floating production storage and offloading
FPU	Floating production unit
Free cash flow	Cash flow from operating activities less cash flow from investing activities
GDP	Gross domestic product
Gearing	Net debt divided by net debt and equity attributable to the equity holders of the parent
GHG or greenhouse gas	The seven greenhouse gases listed in the Kyoto Protocol are: carbon dioxide (CO <sub>2</sub> ); methane (CH <sub>4</sub> ); nitrous oxide (N <sub>2</sub> O); hydrofluorocarbons (HFCs); nitrogen trifluoride (NF <sub>3</sub> ); perfluorocarbons (PFCs); and sulphur hexafluoride (SF <sub>6</sub> )
H <sub>2</sub>	Hydrogen
High consequence injury	Any event resulting in an injury with greater than 180 days recovery time, fatality, or permanent disabilities
IRR	Internal rate of return
JV	Joint venture
KGP	Karratha Gas Plant
LNG	Liquefied natural gas

1. See IFRS Foundation 2021: Climate Related Disclosures Prototype. Appendix A.

2. World Resources Institute and World Business Council for Sustainable Development 2004. "GHG Protocol: a corporate accounting and reporting standard".

# Glossary

Low carbon hydrogen	Wood Mackenzie defines low carbon hydrogen in its Q3 2023 Global Hydrogen Market Tracker. There are three categories within the low carbon definition.
	Green – from renewable electricity via electrolysis. Renewable electricity can include solar PV, solar thermal, wind, geothermal, hydropower, wave power or any other renewable electricity generating resource. For the purposes of the Q3 2023 Global Hydrogen Market Tracker, so called “pink” or “yellow” hydrogen, which is electrolysis powered by nuclear, is wrapped in with “green” hydrogen.
	Blue – from fossil-based hydrogen production either via steam-methane reforming (SMR), autothermal reforming (ATR) or coal gasification paired with carbon capture and storage (CCS). For the purposes of the Q3 2023 Global Hydrogen Market Tracker, “blue” hydrogen describes SMR, ATR and coal gasification paired with CCS.
	Other low carbon – pre-commercialised or pilot production methods. These include hydrogen production sources such as: biomass gasification, methane pyrolysis (“turquoise”) hydrogen, municipal solid waste and algae. For the purposes of the Q3 2023 Global Hydrogen Market Tracker, Wood Mackenzie has aggregate all of these pre-commercialised methods under the category of “other”. More research is required to understand the costs and fundamentals of these emerging and potentially disruptive production methods.
Lower carbon	Woodside uses this term to describe the characteristic of having lower levels of associated potential GHG emissions when compared to historical and/or current conventions or analogues, for example relating to an otherwise similar resource, process, production facility, product or service, or activity
Lower carbon services	Woodside uses this term to describe technologies, such as CCUS or offsets, that may be capable of reducing the net greenhouse gas emissions of our customers
MMbbl	Million barrels
MMBtu	Million British thermal units
Mtoe	Million tonnes of oil equivalent
MW	Megawatt

Net greenhouse gas emissions	Woodside has set its Scope 1 and 2 greenhouse gas emissions reduction targets on a net basis, allowing for both direct emissions reductions from its operations and emissions reductions achieved from the use of offsets. Net greenhouse gas emissions are equal to an entity's gross greenhouse gas emissions reduced by the number of retired offsets
Net equity greenhouse gas emissions	Woodside's equity share of net greenhouse gas emissions
Net zero	Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. Where multiple greenhouse gases are involved, the quantification of net zero emissions depends on the climate metric chosen to compare emissions of different gases (such as global warming potential, global temperature change potential, and others, as well as the chosen time horizon) <sup>1</sup>
New energy	Woodside uses this term to describe energy technologies, such as hydrogen or ammonia, that are emerging in scale but which are expected to grow during the energy transition due to having lower greenhouse gas emissions at the point of use than conventional fossil fuels
NGLs	Natural gas liquids
NH <sub>3</sub>	Ammonia
NPAT	Net profit after tax
NWS	North West Shelf
Offsets	Carbon offsets. Avoided GHG emission, GHG emission reduction or GHG removal and sequestration made available to another organisation in the form of a carbon credit to counterbalance unabated/residual GHG emissions <ul style="list-style-type: none"> <li>Avoidance offsets: offsets which result in the avoidance of GHG emissions that would otherwise occur without the protective actions implemented to generate the offset, for example, the avoidance of deforestation</li> <li>Reduction offsets: offsets that result in a reduction of GHG emissions from an activity that is additional, for example, CO<sub>2</sub> capture and geological storage</li> <li>Removal offsets: offsets based on the withdrawal of GHG emissions from the atmosphere, for example through the use of GHG sinks or GHG removal technologies. Removal offsets are important in achieving net-zero emissions as they help remove and store residual emissions<sup>2</sup></li> </ul>

- IPCC, 2018: Annex I: Glossary [Matthews, J.B.R. (ed.)]. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press. Page 555.
- IPIECA 2022. “Net zero emissions: glossary of terms”. <https://www.ipieca.org/resources/awareness-briefing/net-zero-emissions-glossary-of-terms/>, page 5.

# Glossary

Operated and non-operated	Oil and gas joint venture participants will typically appoint one company as the operator, which will hold the contractual authority to manage joint venture activities on behalf of the joint venture participants. Where Woodside is the operator of a joint venture in which it holds an equity share, this presentation refers to that joint venture as being operated. Where another company is the operator of a joint venture in which Woodside holds an equity share, this presentation refers to that joint venture as being non-operated
PRRT	Petroleum resource rent tax
RFSU	Ready for start-up
Scope 1 emissions	Direct GHG emissions. These occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment. <sup>1</sup> Woodside estimates greenhouse gas emissions, energy values and global warming potentials in accordance with the National Greenhouse and Energy Reporting (NGER) methodology as applicable in FY20-21
Scope 2 emissions	Electricity indirect GHG emissions. Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organisational boundary of the company. Scope 2 emissions physically occur at the facility where electricity is generated. <sup>1</sup> Woodside estimates greenhouse gas emissions, energy values and global warming potentials in accordance with the National Greenhouse and Energy Reporting (NGER) methodology as applicable in FY20-21
Scope 3 emissions	Other indirect GHG emissions. Scope 3 is an optional reporting category that allows for the treatment of all other indirect emissions. Scope 3 emissions are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. Some examples of scope 3 activities are extraction and production of purchased materials; transportation of purchased fuels; and use of sold products and services <sup>1</sup>
SEC	United States Securities and Exchange Commission
Shareholder or Woodside Shareholder	A holder of Woodside Shares from time to time
SURF	Subsea, umbilicals, risers and flowlines

Sustainability, sustainable, sustainably	References to sustainability (including sustainable and sustainably) are used in the context of Woodside's aim to ensure its business is sustainable from a long-term perspective, considering a range of factors including economic (including being able to sustain our business in the long term by being low cost and profitable), environmental (including considering our environmental impact and striving for a lower carbon portfolio), social (including supporting our license to operate), and regulatory (including ongoing compliance with relevant legal obligations). Use of the terms 'sustainability', 'sustainable' and 'sustainably' is not intended to imply that Woodside will have no adverse impact on the economy, environment, or society, or that Woodside will achieve any particular economic, environmental, or social outcomes
tpa, ktpa, mtpa	Tonnes per annum, kilotonnes per annum, million tonnes per annum
Tpd	Tonnes per day
T&T	Trinidad and Tobago
Tcf	Trillion cubic feet
TRIR	Total recordable injury rate
Underlying NPAT	Net profit after tax excluding any exceptional items
Unit production cost or UPC	Production cost divided by production volume
USD	United States dollar
Woodside	Woodside Energy Group Ltd ACN 004 898 962
Woodside Shares or Shares	Fully paid ordinary shares in the capital of Woodside
YTD	Year to date

1. World Resources Institute and World Business Council for Sustainable Development 2004. "GHG Protocol: a corporate accounting and reporting standard".

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