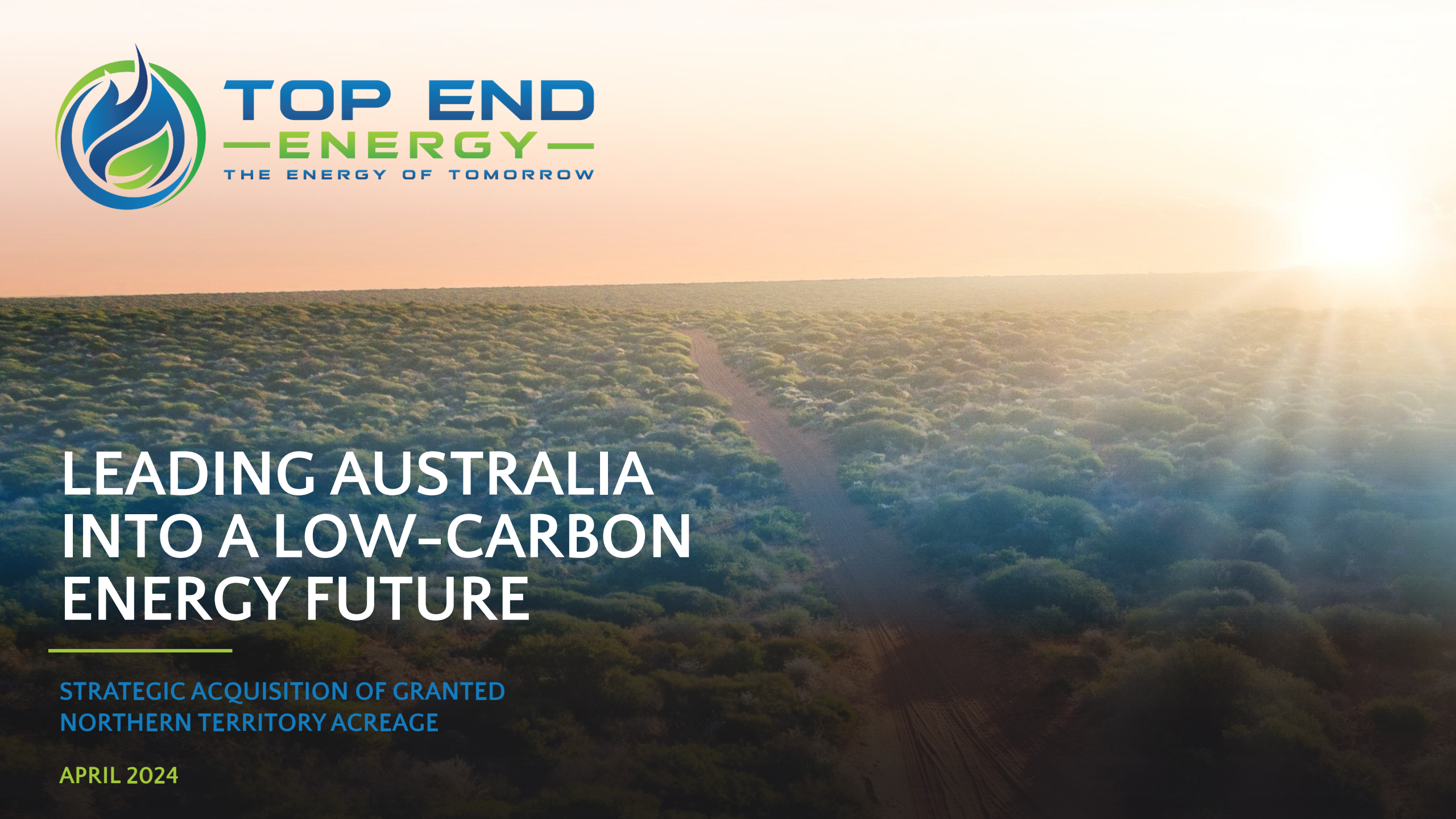


# LEADING AUSTRALIA INTO A LOW-CARBON ENERGY FUTURE

## STRATEGIC ACQUISITION OF GRANTED NORTHERN TERRITORY ACREAGE

APRIL 2024

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# INVESTMENT HIGHLIGHTS

NEAR TERM ACTIVITIES SET TO MATURE HIGH UPSIDE EXPLORATION POTENTIAL IN KEY ONSHORE BASINS

## 1.

### MULTIPLE INDEPENDENT ONSHORE BASIN EXPLORATION AREAS

STRATEGICALLY POSITIONED IN PROVEN YET UNDEREXPLORED REGIONS WITH OVER 170,000KM$^2$ HIGH-IMPACT EXPLORATION ACREAGE

## 2.

### MULTIPLE TARGET END PRODUCTS FOR TODAY AND THE FUTURE

FOCUSED ON UNLOCKING NATURAL GAS AS A NEAR-TERM TRANSITION FUEL WITH A COMPLIMENTARY FOCUS ON EXPLORING FOR HELIUM AND NATURAL HYDROGEN

## 3.

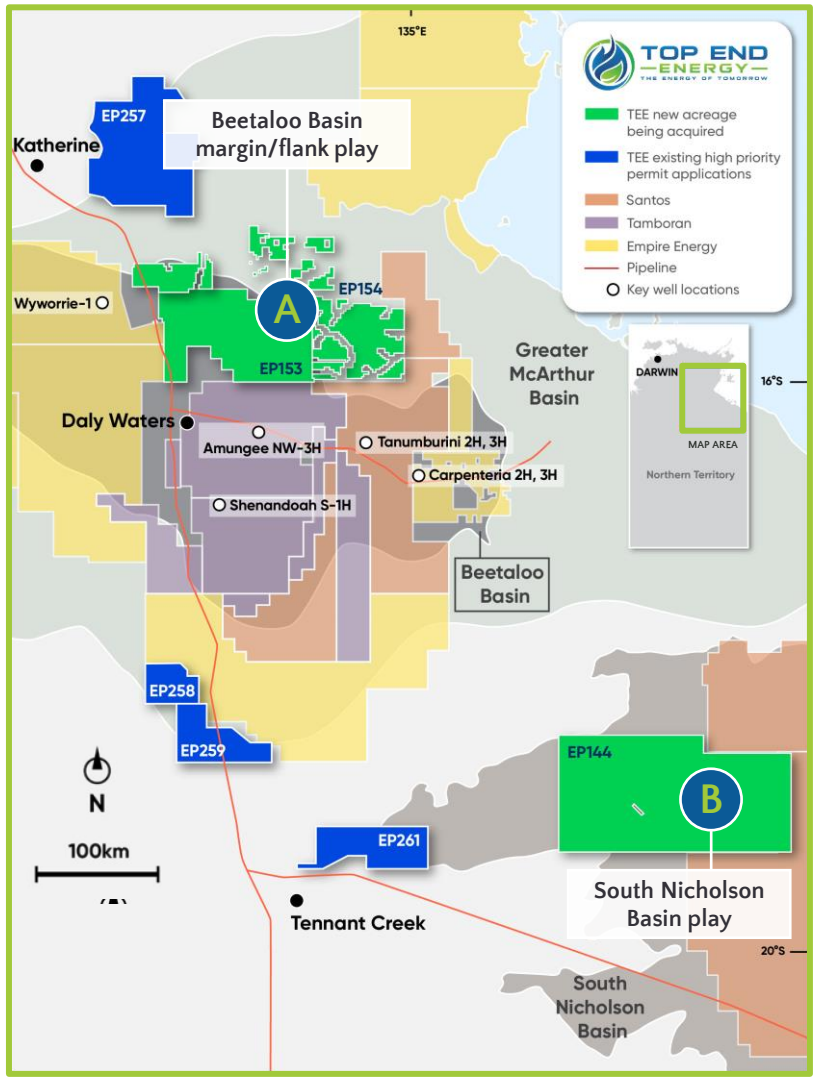
### COMPELLING MACRO ENVIRONMENT FOR GROWTH AND CAPITAL INVESTMENT

WITH PORTFOLIO VALUE TO BE UNLOCKED BY A HIGH-QUALITY LEADERSHIP TEAM UTILISING MODERN DATA ANALYSIS AND EXPLORATION TECHNIQUES

# AGREEMENT TO ACQUIRE GRANTED NORTHERN TERRITORY PERMITS[1]

## TWO PROVEN BASINS WITH MULTIPLE PLAY POTENTIAL

- **Consistent with strategic and technical focus** on basin margin play opportunities targeting natural Hydrogen and Helium with complimentary hydrocarbon potential
- **Granted permits with key native title agreements in place** and progressed land access and regulatory approvals
- **No upfront consideration** and limited near-term expenditure commitments[2]
- **Four-fold increase in TEE granted licence tenure** with flexibility to accelerate high-value activities (new permits cover a combined area of 27,885km$^2$)




**CLEAR TECHNICAL ALIGNMENT AND OPERATIONAL SYNERGIES WITH EXISTING PORTFOLIO**

1. Binding agreement executed with subsidiaries of Hancock Prospecting Pty Ltd ("Hancock") – completion subject to satisfaction of conditions precedent, including NT government approval.
2. TEE is engaging with the NT regulator regarding variations to the current work program requirements to accommodate the Company's plans.

# A BEETALOO BASIN MARGIN/FLANK PLAY

## MULTIPLE PLAY POTENTIAL ON NORTHERN FLANK OF BEETALOO SUB-BASIN

### 1 Natural Gas Potential

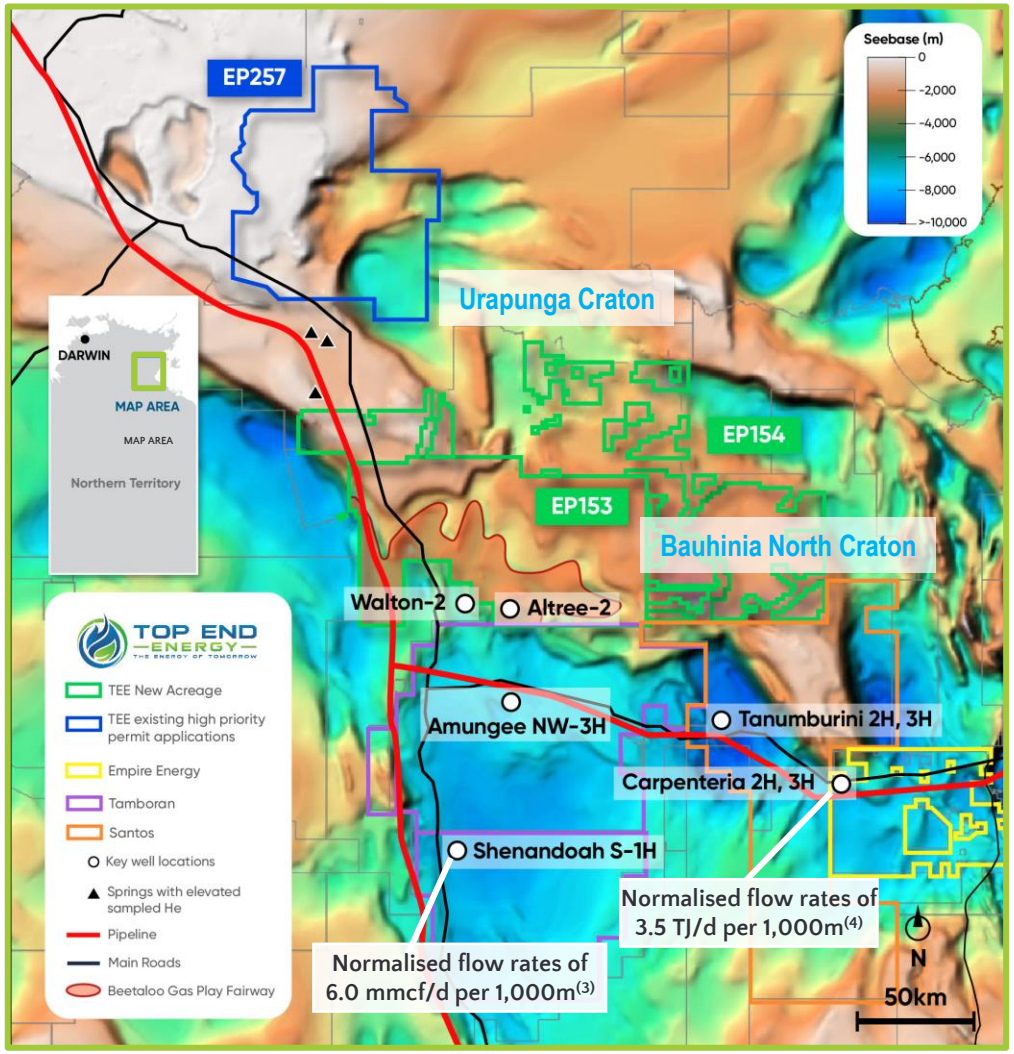
- Underexplored extension of Beetaloo unconventional gas play to north of the sub-basin: ~2,800km² of identified play fairway
- Velkerri and Kyalla Shales present in historical Altree-2 and Walton-2 wells – wells drilled on structural highs targeting conventional reservoirs. TEE target is deeper shale potential off structure (possibly analogous to Carpentaria wells)
- Located near existing Amadeus Gas Pipeline which provides access to Darwin and the East Coast gas market

### 2 Natural Hydrogen and Helium Prospectivity

- Urapanga and Bauhinia North Cratons extend over majority of EP 154 and 153
  - Basement terrain conducive to the generation of Hydrogen and Helium
  - Hot springs adjacent to EPs with elevated sampled Helium[1]

**2024 work program activities focused on maturing the potential of both the unconventional natural gas play and Hydrogen / Helium prospectivity[2]**

- Airborne Gravity Gradiometry to better resolve sub-surface structures
- Low impact sampling programs to identify localised H / He sources
- 2D and/or passive seismic campaigns to identify drilling prospects




1. Lamontagne, S., Suckow, A., Gerber, C., Deslandes, A.,Wilske, C.,and Tickell, S.(2021) *Groundwater sources for the Mataranka Springs (Northern Territory, Australia)*. Nature Scientific Reports | (2021) 11:24288 | https://doi.org/10.1038/s41598-021-03701-1
2. The Company will only be able to undertake on ground activities once the transaction with Hancock has completed (expected to occur in Q2 2024)
3. Tamboran Resources announcement: *SS-1H achieves IP60 flow rate of 3.03 MMcf/d (normalized to 6.0 MMcf/d)*; 26 March 2024
4. Empire Energy corporate presentation: *Australian Domestic Gas Outlook Conference 2024*; 26 March 2024

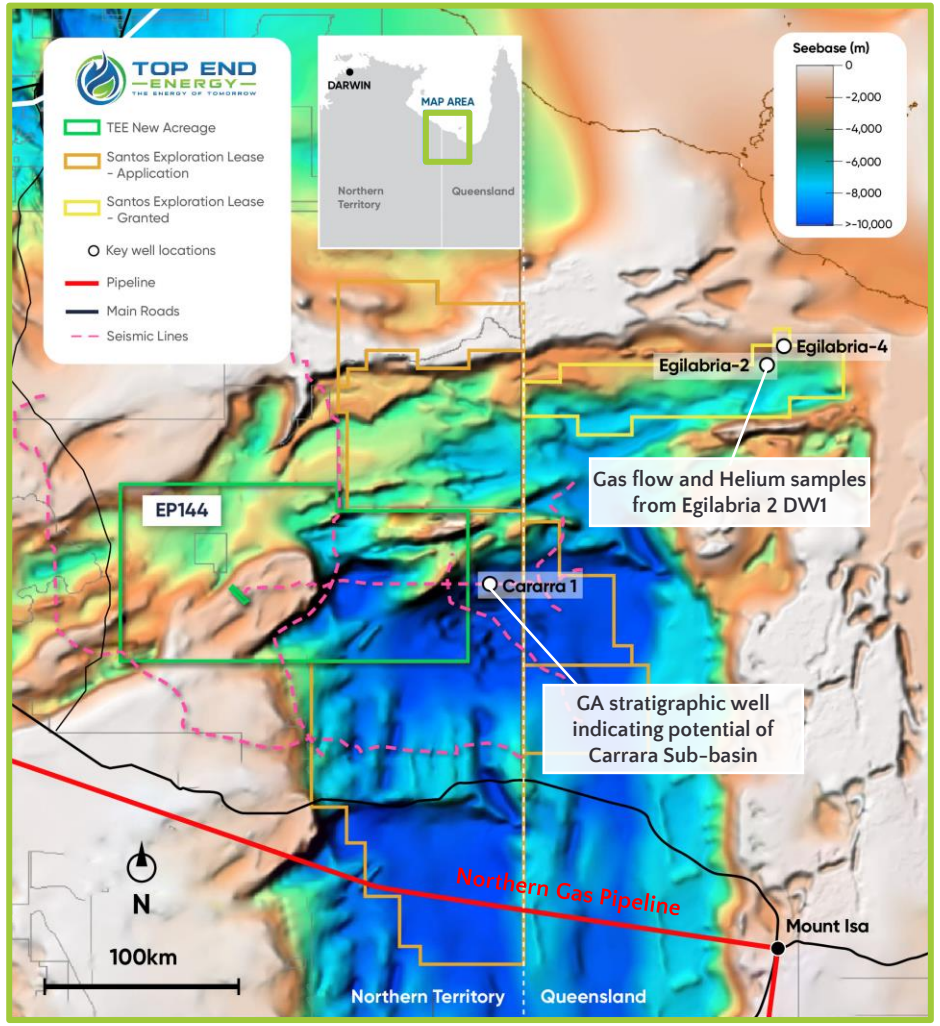
# B FRONTIER SOUTH NICHOLSON BASIN PLAY

## SIGNIFICANT GAS PROSPECTIVITY IN PROXIMITY TO PIPELINE INFRASTRUCTURE

1. **Underexplored permit in proven hydrocarbon basin** with potential ties to the Proterozoic shale plays of the Lawn Hill Platform and the Beetaloo Sub-basin Velkerri
   - Santos is the only other player with granted acreage in the South Nicholson Basin
2. **Proven gas flow** in nearby Lawn Shale formation (Egilabria 2 well test[1]) and geochemical analysis from recent Carrara 1 stratigraphic drill hole indicates promising hydrocarbon potential of newly identified Carrara Sub-basin[2]
3. **Helium potential indicated** in Egilabria well test samples (~0.9%)[1] and possum belly gas samples collected from Carrara 1 indicate traces of both Helium and Hydrogen[3]
4. **Strategically positioned** in proximity to the Northern Gas Pipeline, providing access to Mount Isa and the East Coast gas market
   - Significant mining activity in the area (South32, Endeavour Resources, Teck Resources), presenting additional data sources and potential offtake counterparties
   - Focal region for the Queensland Critical Minerals Strategy
5. **Land access agreements already in place** with pastoral lease holders

**2024 work program planning underway**

→ Analysis of existing regional drilling, seismic and geophysical data to inform and refine near-term work program focus




1. Gas Analysis Additional Report – Egilabria 2 DW1 for Armour Energy; Weatherford Laboratories (Australia) Pty Ltd; January 2013
2. A. Bailey, E. Grosjean, L. Wang, C. Boreham, G. Butcher, C. Carson, A Jarrett, L. Carr, C. Southby, T. Palu and P. Henson; 2022. *Resource potential of the Carrara Sub-basin from the deep stratigraphic well NDI Carrara 1.* CSIRO
3. Boreham, C. J., Wang, L., Sohn, J., Jinadasa, N, Hong, Z., Chen, J., Grosjean, E. and Jarrett, A; 2022. *Exploring for the Future – NDI Carrara 1 gas geochemistry: molecular composition, carbon and hydrogen isotopes of hydrocarbon gases and the sources of molecular hydrogen and helium.* Record 2022/14. Geoscience Australia, Canberra.

# ACTIVE NATURAL GAS, HYDROGEN AND HELIUM EXPLORATION AND DEVELOPMENT FOCUS

## UNLOCKING CRITICAL PRODUCTS TO DRIVE THE ENERGY TRANSITION

NATURAL GAS

HELIUM GAS

NATURAL HYDROGEN


### 1. MCARTHUR BASIN

One of Australia's most active gas exploration regions containing the Beetaloo sub-basin

### 2. SOUTH NICHOLSON BASIN

Underexplored natural hydrogen, helium and conventional hydrocarbon potential

### 3. AMADEUS BASIN

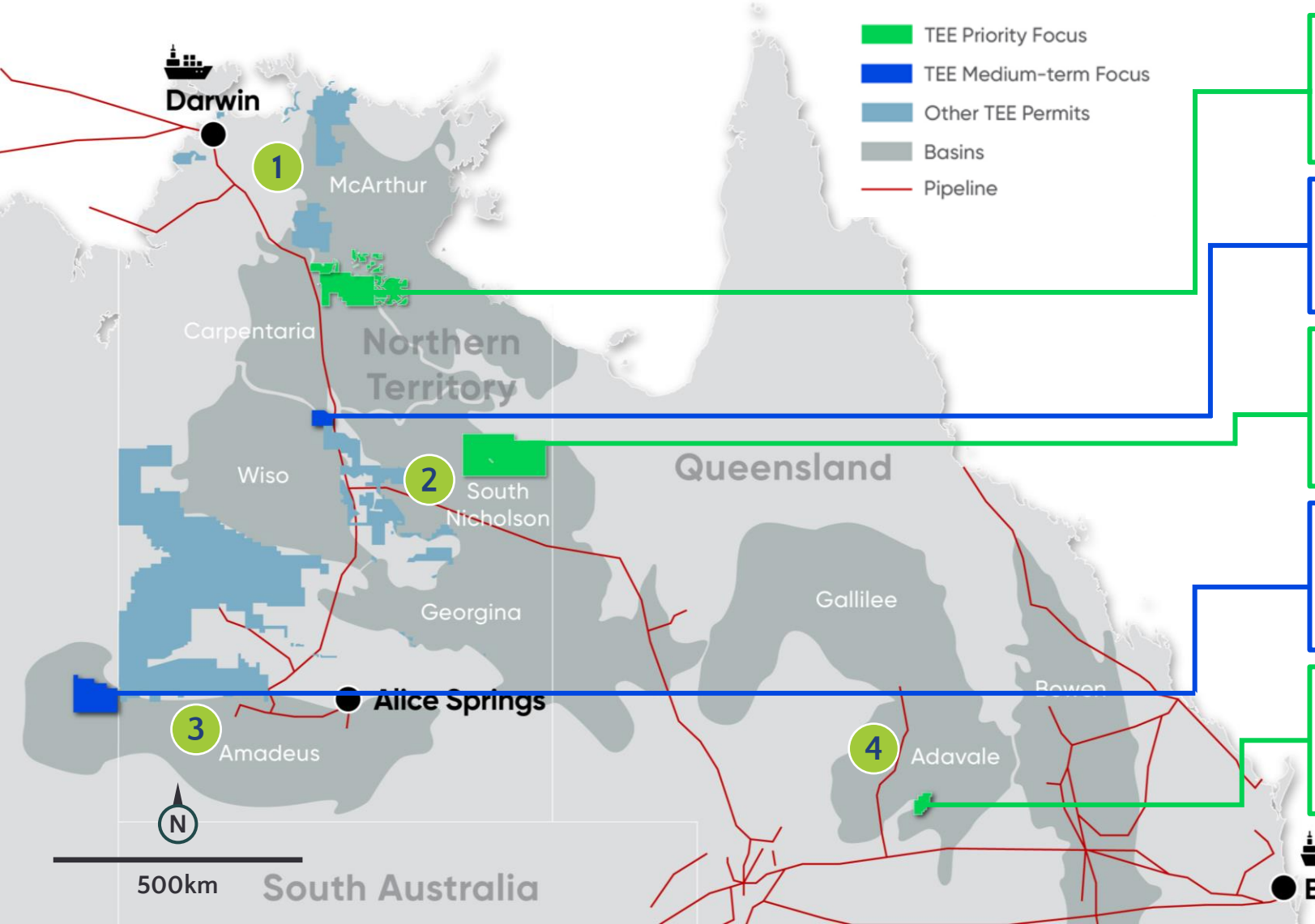
Existing hydrocarbon system with untested and historically overlooked margin extension opportunity

### 4. ADAVALE BASIN

Proven producing region with material conventional gas prospect identified

# PORTFOLIO SNAPSHOT

## CONCENTRATING CAPITAL TO MAXIMISE VALUE CREATION POTENTIAL




**1 McArthur Priority Focus EP 154 / EP 155 (NT)**

- AGG acquisition planned post transaction completion (currently engaging contractor)
- Soil gas sampling and 2D seismic to follow

**1 McArthur Medium-term Focus EP 258 (NT)**

- Advancement pending formal Ministerial grant
- All requirements complete ahead of grant

**2 South Nicholson Priority Focus EP 144 (NT)**

- Assessing existing data and determining work program to best mature identified material natural gas, Helium and natural Hydrogen prospectivity

**3 Amadeus Medium-term Focus EP 501 (WA)**

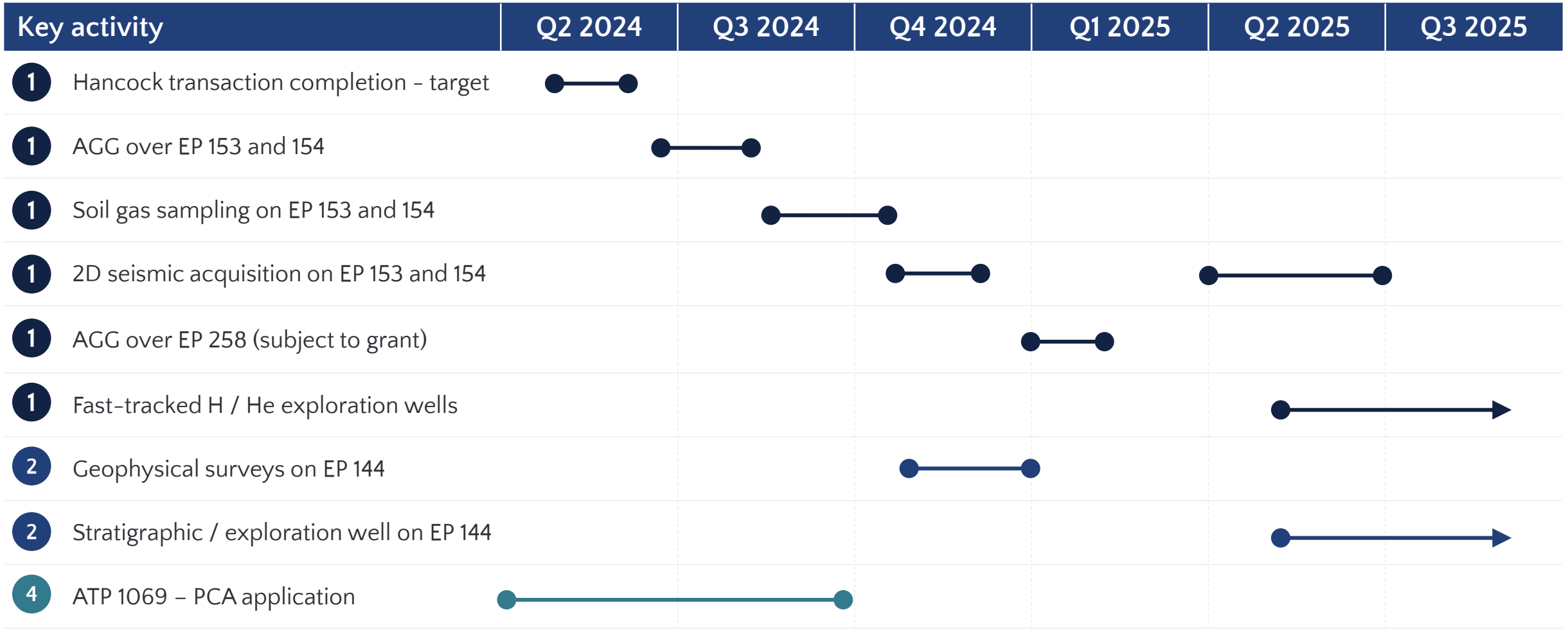
- Work activities on hold pending negotiation of Heritage Protection Agreements with Traditional Owner groups

**4 Adavale Priority Focus ATP 1069 (Queensland)**

- Engagement with government re tenure upgrade
- Submission of PCA to be considered ahead of any further work

# NEAR-TERM WORKFLOW TO FOCUS ON NT

## INDICATIVE WORKSTREAMS FOCUSED ON MATURING DRILLING TARGETS




**Priority basin zones:** 1 McArthur/Beetaloo 2 South Nicholson 3 Amadeus 4 Adavale

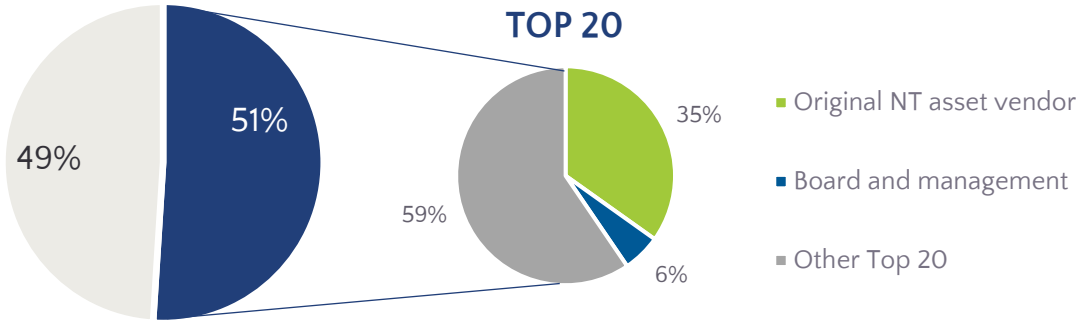
# WELL FUNDED FOR TARGET GENERATION ACTIVITIES

## WITH ATTRACTIVE UPSIDE POTENTIAL TO CURRENT VALUATION

### Capital structure

| | |
|---|---|
| Share price[1] | A$0.12/share |
| Shares on issue[1] | 87.03M |
| Market capitalisation (undiluted)[1] | A$10.4M |
| Cash[2] | A$3.6M |
| **Implied enterprise value[1,2]** | **A$6.8M** |
| Options on issue[1] | 27.3M |
| Performance rights[1] | 3.0M |
| Total shares (fully diluted) | 117.3M |

### Register detail[1]




### Key technical service providers

INGAUGE Well Engineering & Project Management

Discover GEOSCIENCE

Xcalibur MULTIPHYSICS

TERREX SEISMIC

1. As at 8 April 2024
2. Representing 31 December 2023 cash balance plus net cash raised 27 February 2024

# DYNAMIC CORPORATE STRATEGY

## DELIVERING REAL VALUE ACCRETION AND PORTFOLIO GROWTH

### INNOVATE

**EXISTING, HIGH POTENTIAL ASSET BASE**

Apply leading-edge technology to identify and capture high-value potential across multiple product streams

### EXPLORE

**INDEPENDENT HIGH-IMPACT DRILLING EVENTS**

Identify and commercialise critical resources to enable the clean energy transition

### GROW

**STRATEGIC, OPPORTUNISTIC M&A**

Take advantage of strategic opportunities to broaden, scale and/or rationalise portfolio through the cycle

# HIGHLY DRIVEN LEADERSHIP TEAM

## DEEP EXPLORATION, DEVELOPMENT AND MARKET EXPERTISE

### EMMANUEL CORREIA

**CHAIR**

- Over 25 years' public company and corporate finance experience in Australia
- Non-executive director of BPM Minerals Limited and Helix Resources Limited
- Previously Director of ASX listed entities including Argent Minerals Ltd, Canyon Resources Ltd and Orminex Ltd

### OLIVER OXENBRIDGE

**MANAGING DIRECTOR**

- Over 12 years' experience in international oil and gas and energy across investment banking, private equity, and corporate development
- Experience in numerous large and mid-cap M&A transactions, with global experience spanning deal sourcing, structuring, execution and asset management at Woodside Energy, Waha Capital, Ophir Energy and Evercore Partners
- BA from University of Pennsylvania, USA and GAICD

### DR MIKE FISCHER

**NON-EXECUTIVE DIRECTOR**

- Nearly 40 years' experience in the global oil and gas industry
- Non-executive director of OKEA ASA and Transitus Energy
- Senior positions at Bangchak Corp, Nido Petroleum, Ophir Energy, OMV, Woodside Energy and BP
- PhD from the University of Wales and a B.Sc. (Hons) in Geological Sciences from the University of Leeds and a fellow of the Geological Society of London

### RICHARD LAMPE

**NON-EXECUTIVE DIRECTOR**

- Over 15 years of experience across financial services, agribusiness and natural resources
- Including eight years with Goldman Sachs JBWere in financial services, five years in professional services including with EY, three years as a commercial analyst with a subsidiary of Marubeni Australia as well as active involvement in his family mixed farming business

### MARSHALL HOOD

**EXPLORATION MANAGER**

- 18 years of technical, operational and commercial experience in the energy sector including Upstream Oil and Gas and Hydrogen
- Previously COO for Bangchak Corporation (Resources) and Nido Petroleum Limited
- Successful upstream oil and gas exploration track record; more than 15TCF of gas discovered across multiple operated assets

Enquiries | info@topendenergy.com.au

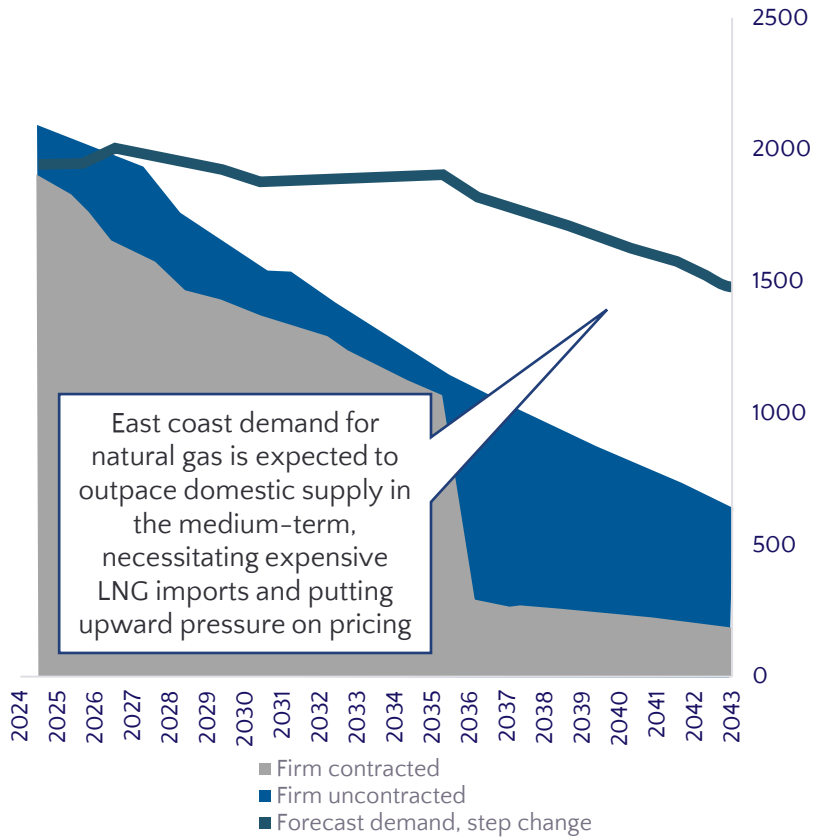
# NATURAL GAS IS CRITICAL FOR A CLEAN ENERGY TRANSITION

## LONG-TERM GLOBAL LIQUID NATURAL GAS (LNG) MARKET DEFECIT FORECAST

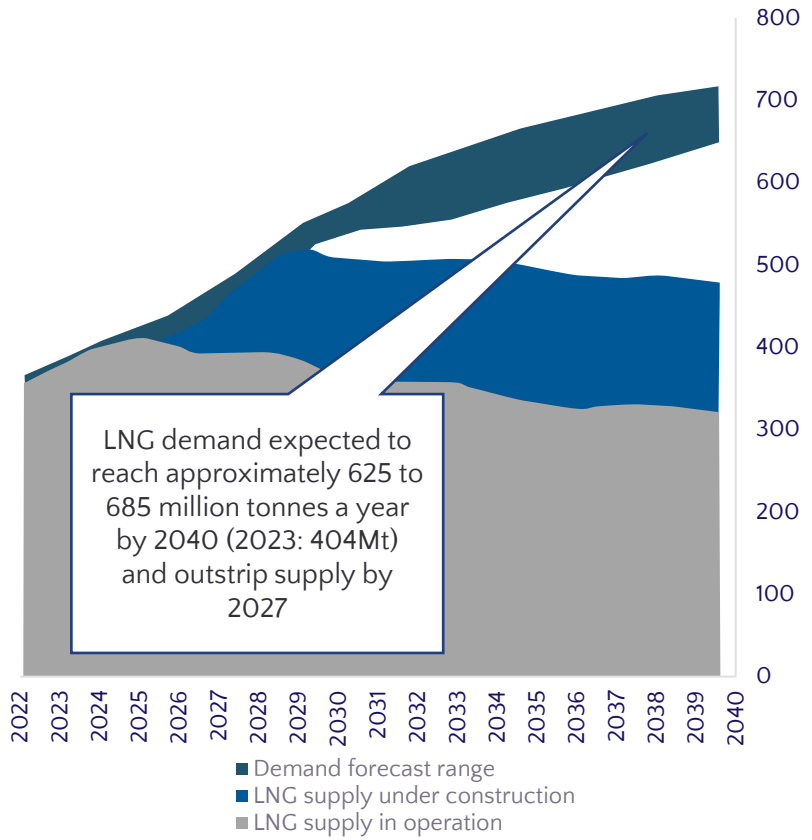
**NATURAL GAS**

**While the global LNG market is increasingly calling on Australia to help ease international supply pressures, the domestic market is structurally short of gas**

### AUSTRALIAN EAST COAST OUTLOOK (PJ/annum)[1]




### GLOBAL LNG SUPPLY VS DEMAND FORECAST (MTPA)[2]




1. Adapted from AEMO: Gas Statement of Opportunities – For Eastern and South-eastern Australia (March 2024)
2. Shell LNG Outlook 2023 and 2024. Adapted from Shell's interpretation of Wood Mackenzie, Polen &Partners, IEA, S&P Global Commodity Insights and FGE 2022 & 2023 data.

# HIGH VALUE HELIUM GAS

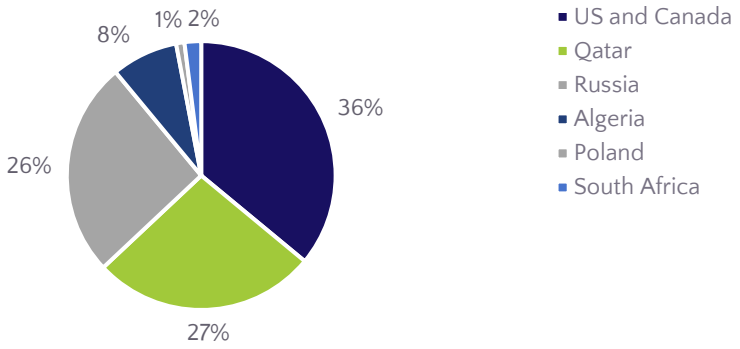
## ESSENTIAL FOR CURRENT AND FUTURE TECHNOLOGIES

He

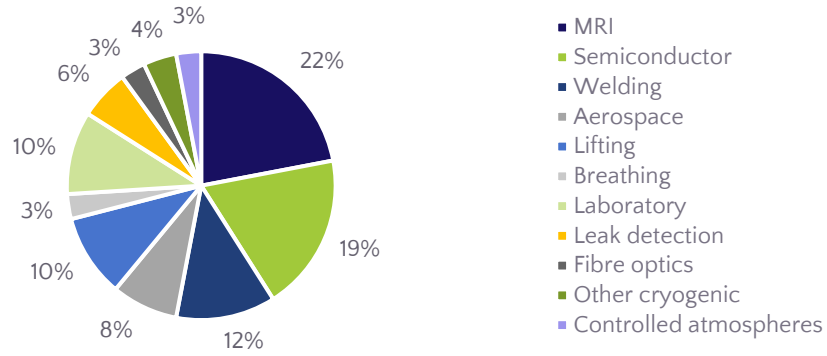
HELIUM GAS

A vital resource across the technology, science, medicine, and manufacturing industries **with no substitutes** when used for low temperature cryogenic applications

### FORECAST SUPPLY BY COUNTRY 2025 (%)




### DEMAND BY APPLICATION (%)




Estimated **US$5 billion market** enabling US$ trillions in economic activity

Supply concentrated to **roughly 20 natural gas sources**

Historically selling for **>50 times the price of LNG**

Source: Kornbluth Helium Market Report, https://www.gasworld.com/story/exclusive-lessons-to-learn-from-qatari-helium-situation-says-kornbluth/2084056.article/?red=1

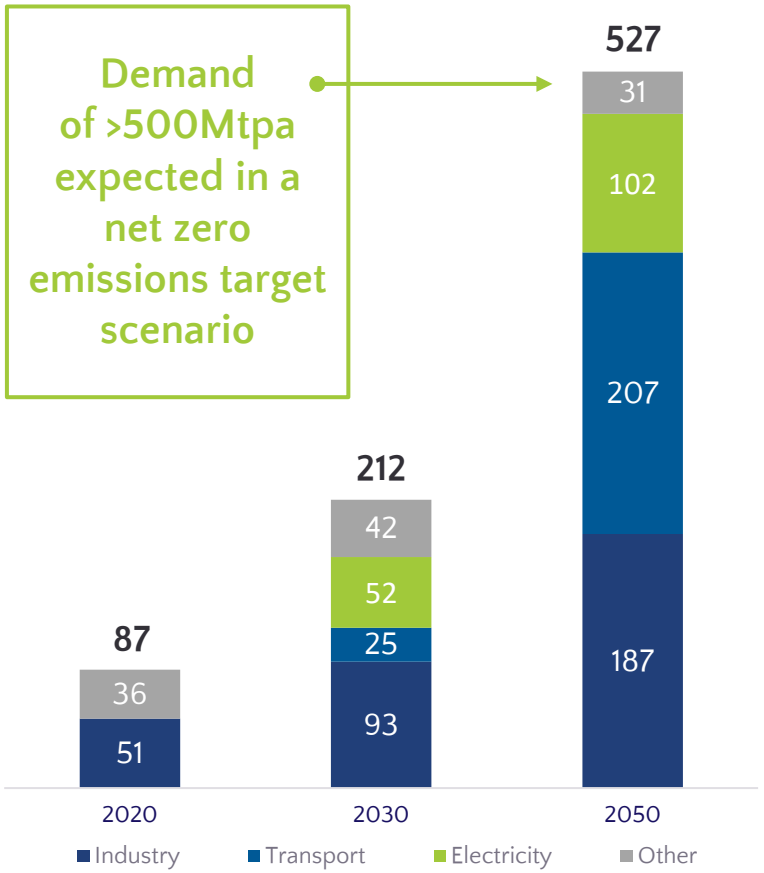
# NATURAL HYDROGEN FOR A CLEAN ENERGY FUTURE

## MAJOR EMERGING FUEL SOURCE TO SUPPORT THE ENERGY TRANSITION

**NATURAL HYDROGEN**

- Contains zero carbon, is non-toxic and non-poisonous
- Storable in large quantities for long periods
- No atmospheric or water pollution when released

**GLOBAL HYDROGEN DEMAND BY SECTOR (Mt)[1]**




Investments in Hydrogen could reach **US$280 billion by 2030**

with the potential to create **2.5 million jobs** and reduce carbon emissions by up to **6 gigatons per year**[2]

1. IEA (2022), World Energy Outlook 2022, IEA, Paris https://www.iea.org/reports/world-energy-outlook-2022
2. Hydrogen Council. (2017). Hydrogen Scaling Up: A Sustainable Pathway for the Global Energy Transition