

The background is a dark blue gradient with abstract, glowing blue energy-like patterns and large, semi-transparent blue shapes. The text is overlaid on this background.

# ENERGY Blue.

**AGM PRESENTATION**

14 November 2023

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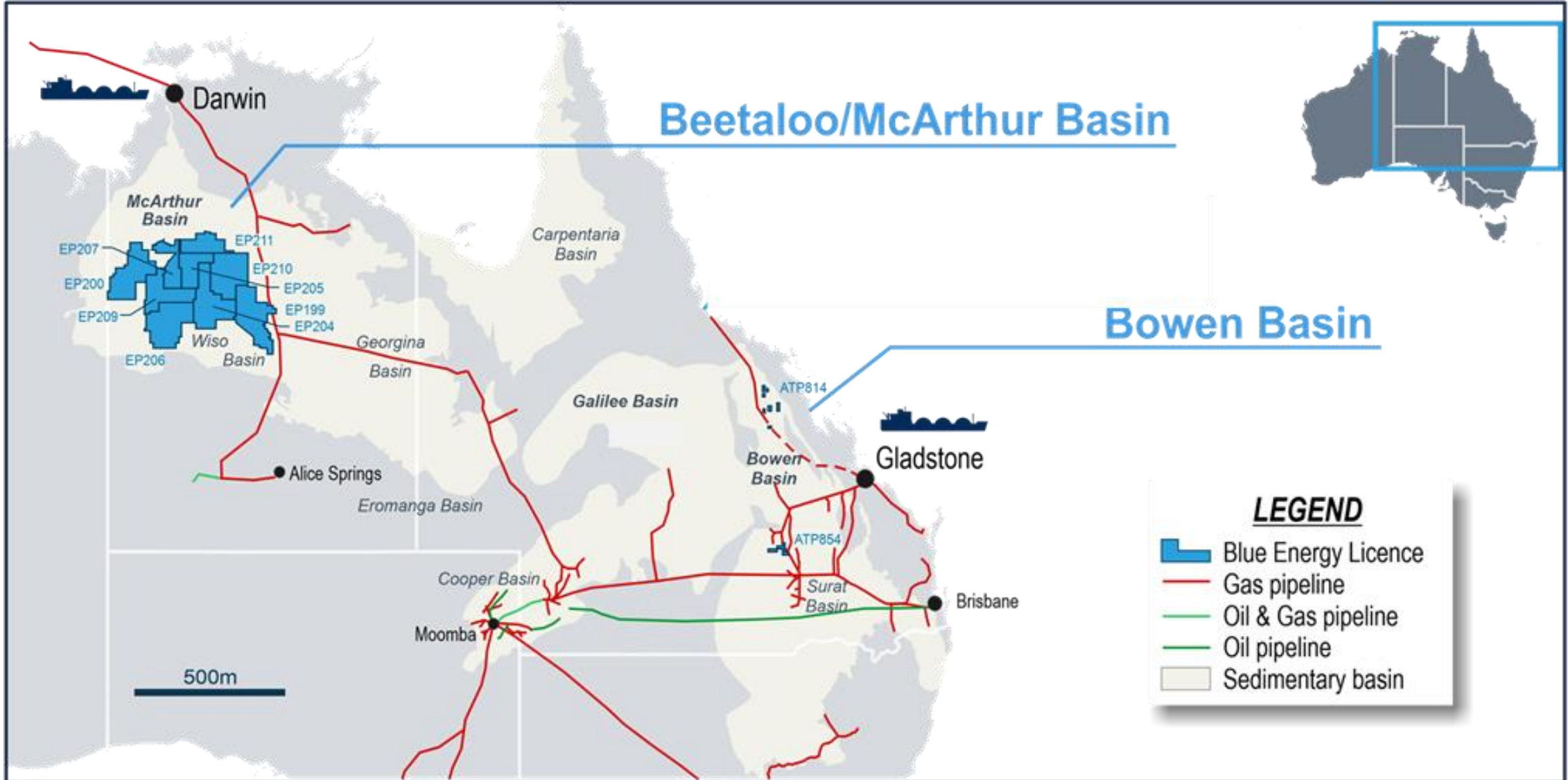
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### **Competent Person Statement & Listing Rule 5.42 Disclosure**

The estimates of Reserves and Contingent Resources noted throughout this Presentation have been provided by Mr John Hattner of Netherland, Sewell and Associates Inc (NSAI) and were originally reported in the Company's market announcements of 25 January 2012, 26 February 2013, 19 March 2013, 8 December 2015, 28 February 2019, 22 January 2022, 14 July 2022, 31 July 2023 and 11 October 2023. NSAI independently regularly reviews the Company's Reserves and Contingent Resources. Mr Hattner is a full-time employee of NSAI, has over 30 years of industry experience and 20 years of experience in reserve estimation, is a licensed geologist and a member of the Society of Petroleum Engineers (SPE), and has consented to the use of the information presented herein. The estimates in the reports by Mr Hattner have been prepared in accordance with the definitions and guidelines set forth in the 2018 Petroleum and Resource Management System (PRMS) approved by the SPE, utilising a deterministic methodology. Blue Energy confirms that it is not aware of any new information or data that materially affects the information included in any of the announcements relating to ATP 813, 814 or 854 referred to in this report and that all of the material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.

++ Listing Rule 5.28.2: The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

# BLUE ENERGY ACREAGE POSITION



# FOCUS AREAS FOR BLUE

## 1. North Bowen Basin

- Sapphire PL and connection into the Moranbah Gas Project for gas sales
- Lancewood Central, Hillalong and Monslatt block appraisal
- Southern gas pipeline
- Defend Land Court appeal by EDO on the granted Environmental Authority

## 2. Surat Basin Block - ATP 854

- Secure the PCA's
- Drill pilot test well at Cobalt and establish maiden 2P reserves
- Commercialise into proximal infrastructure

## 3. Northern Territory Acreage

- Process Geoscience Australia Data (newly acquired)
- Assess prospectivity
- Acquire Blue 2D program and possibly drill strat well

# Blue's Monetisation Strategy

## North Bowen Basin Asset (ATP 814)

### North Queensland gas market

- Queensland Pacific Metals and Blue
    - ✓ MoU for 112 PJ of gas over 15 years
- Change in ownership of the Moranbah Gas Project to QPME has been key
- Townsville gas offtake underpins initial Sapphire field development utilising existing infrastructure

### Southern gas market

- Origin Energy and Blue
    - ✓ Heads of Agreements for 300 PJ of gas over 10 years at Wallumbilla
  - Energy Australia and Blue
    - ✓ Heads of Agreement for 100 PJ of gas over 10 years at Wallumbilla
- Requires major gas pipeline to connect with Wallumbilla

## Surat Basin Asset (ATP 854)

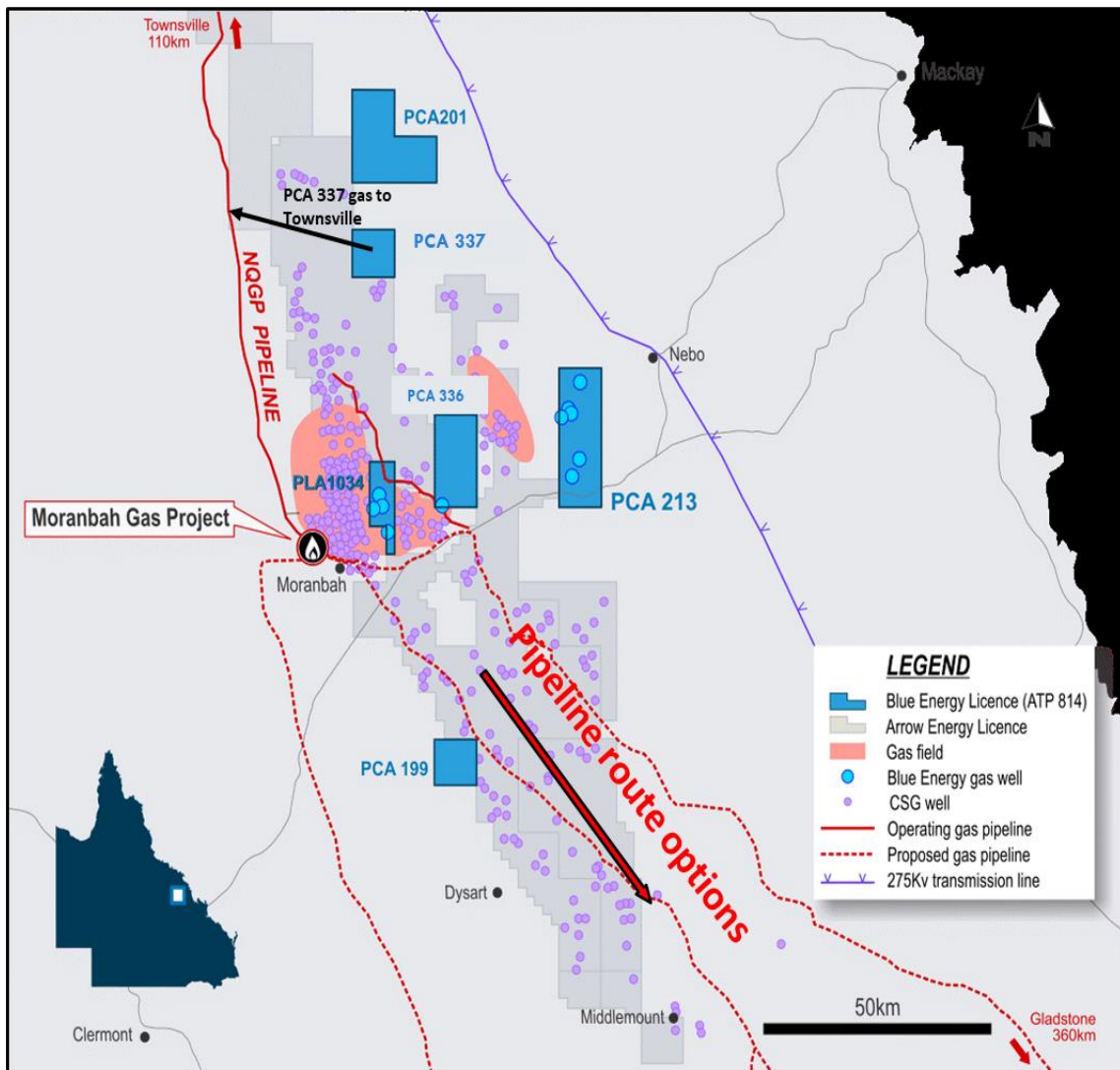
### Wallumbilla Gas Hub

- Drill Pilot test well and establish maiden 2P reserves
- Market gas into Wallumbilla hub

# FOCUS AREAS FOR BLUE

**North Bowen Basin**

# NORTH BOWEN GAS RESOURCE— LONG TERM, RELIABLE SUPPLY



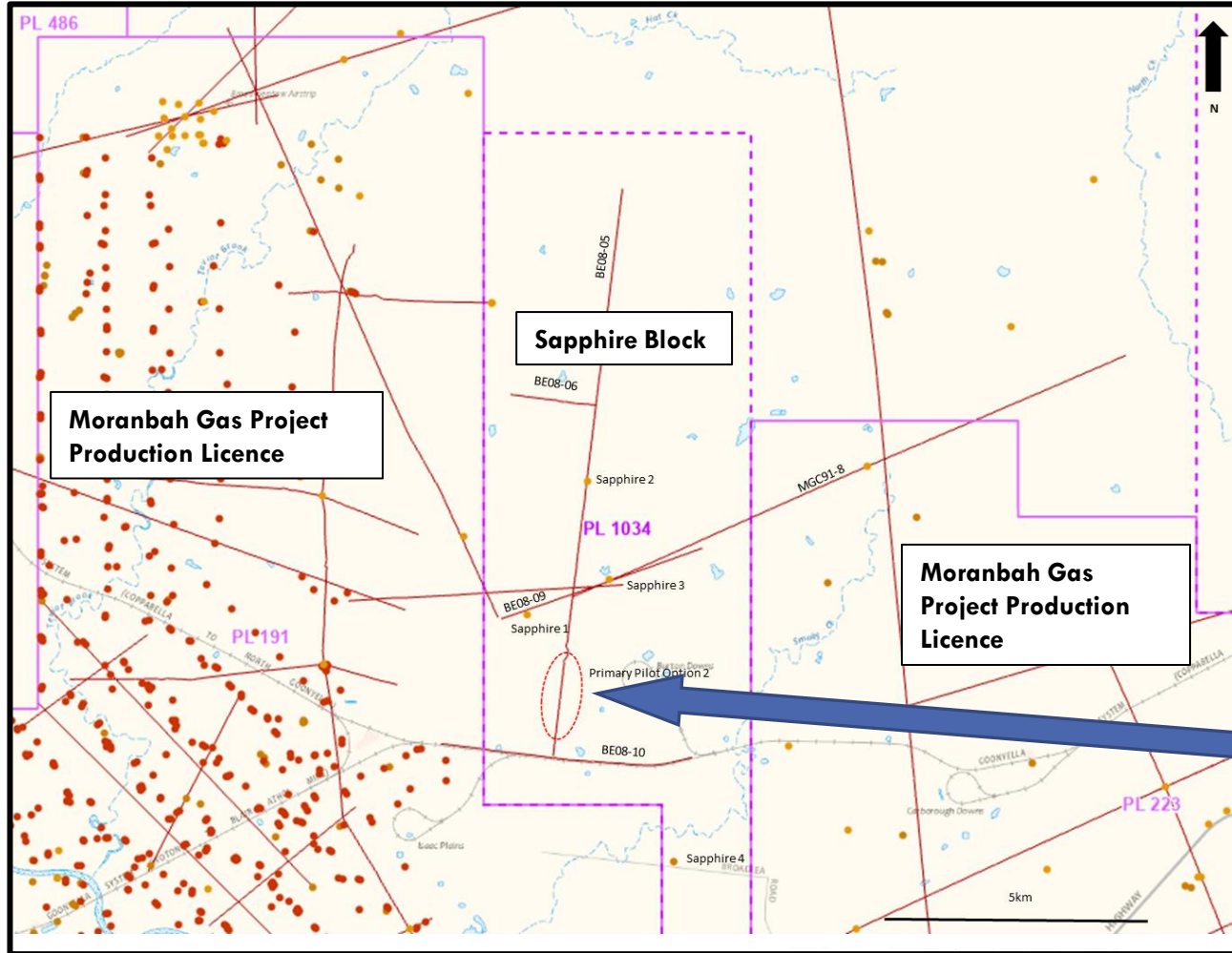
- North Bowen Basin
  - Has **scale** - 15,000 PJ recoverable gas resource
  - Has been **de-risked** – gas production since 2006
  - Has **low environmental impact** –
  - Has **no Great Artesian Basin** aquifers present
- Blue has ~3,000 PJ of the gas resource – NSAI
  - 8 years of east coast domestic gas demand
- QPM is new owner of the MGP - Blue has MoU's with QPM – provides access to market
- Fed/State Govt studies for pipeline connection to east coast market – positive

## North Bowen Resource base<sup>+</sup>

Permit	Block	Certifier	1P (PJ)	1C (PJ)	2P (PJ)	2C (PJ)	3P (PJ)	3C (PJ)
ATP814P	Sapphire	NSAI	-	171.2	90.7	251.7	287.0	256.0
ATP814P	Central	NSAI	-	39		111		469
ATP814P	Monslatt	NSAI	-	-	-	619	-	2,054
ATP814P	Lancewood	NSAI	-	203	-	232		573
ATP814P	Hillalong	NSAI	-	-	-	182	-	237
ATP814P	South	NSAI	-	15	-	27	6	30
<b>Total (PJ)</b>			-	<b>428</b>	<b>91</b>	<b>1,423</b>	<b>293</b>	<b>3,619</b>

<sup>+</sup> see Listing Rule 5 Disclosure Page 2

# BLUE'S SAPPHIRE PILOT DRILLING



Sapphire 5 and 6 pilots targeted the Permian Coal measures:

- Rangal Coal Measures
- Fort Cooper Coal Measures
- Moranbah Coal Measures

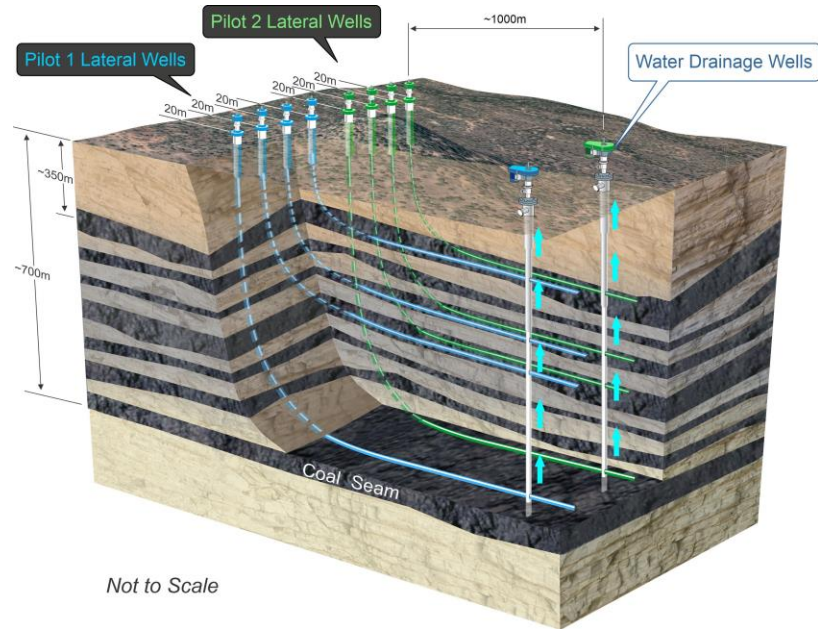
Pilot wells located on seismic line BE08-05 close to the intersection with BE08-09 & BE08-10

Adjacent to Arrow's/QPM Moranbah Gas Project, one of Queensland's earliest CSG fields and numerous coal mines (Stanmore and Fitzroy Operated)

Sapphire Pilots located 2 km from existing MGP producing wells



# PILOT WELL DESIGN & LOCATION - RECAP



The Pilot configuration is a modified chevron intercept design

- Approx 75m separation between the two vertical wells.
- Two sets of lateral wells intercepting two vertical wells.
- Gas will be produced out of the laterals, with water out of the verticals.
- Locations are optimised to straddle the seismic line and allow 1000m of lateral per seam.
- The depth to top coal is ~ 150m at these locations with multiple seams down to 650 metres being targeted.
- Phased drilling sequence – verticals drilled first for geological controlled; then pilot series; with 1000+m sections to intercept with vertical wells.

# SAPPHIRE RESERVE UPGRADE FROM DRILLING

Permit	1P (PJ)		2P (PJ)		3P (PJ)		1C (PJ)		2C (PJ)		3C (PJ)	
	new	*old	new	*old	new	*old	new	*old	new	*old	new	*old
ATP 814P, Sapphire Block, Qld	-	-	90.7	66.5	287.0	253.2	171.2	154.3	251.7	213.9	256.0	214.4
% change	-	-	+36.4%	-	+13.0%	-	+11.0%	-	+17.7%	-	+19.4%	-

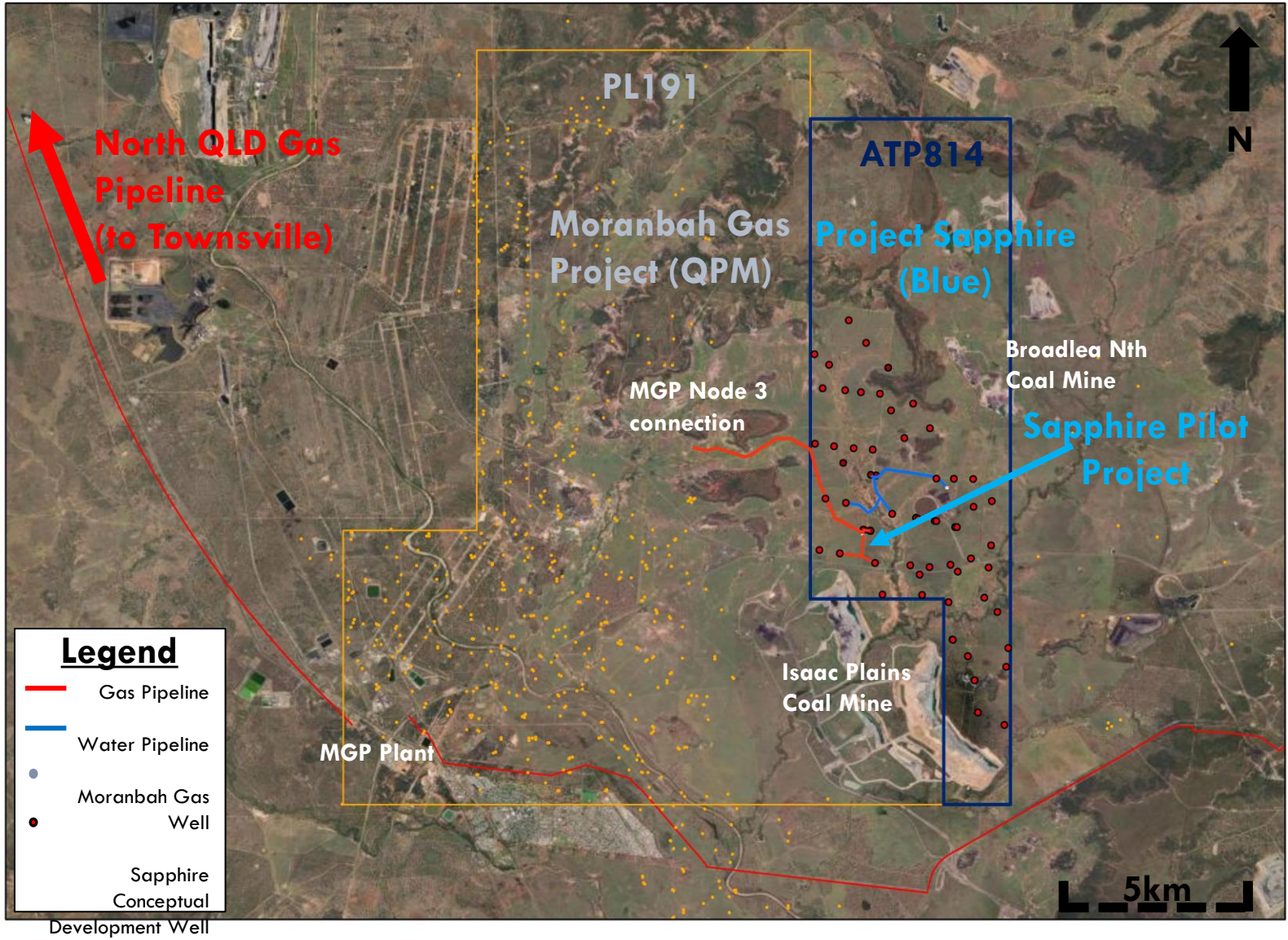
- 2P Reserves increased to 91 PJ (+36%) ++
- 3P Reserves increased to 287 PJ (+13%) ++
- 3C Contingent Resources increased to 256 PJ (+19%) ++
- Total Sapphire Recoverable Gas Resource Base (3P +3C) = 543 PJ ++

Volume required for QPM 15 year/7.5 PJ pa supply MoU = 112 PJ

- There is now full 3P reserve coverage for the QPM MoU Volume

++ See ASX Announcement 11 October 2023

# SAPPHIRE – INITIAL DEVELOPMENT PLAN



- The Moranbah Gas Project (MGP) is under new ownership - QPME
- QPME Parent needs gas for new build Ni Refinery in Townsville
- **MoU's with QPM for gas supply**
  1. MoU for 7.5 PJ/annum for 15 years = 112 PJ total supply  
Daily quantity circa 20 TJ/day
  2. Gas from pilot well production
- Design works and budget costing for connection to MGP Node 3 are complete (up to the boundary with PL 191)

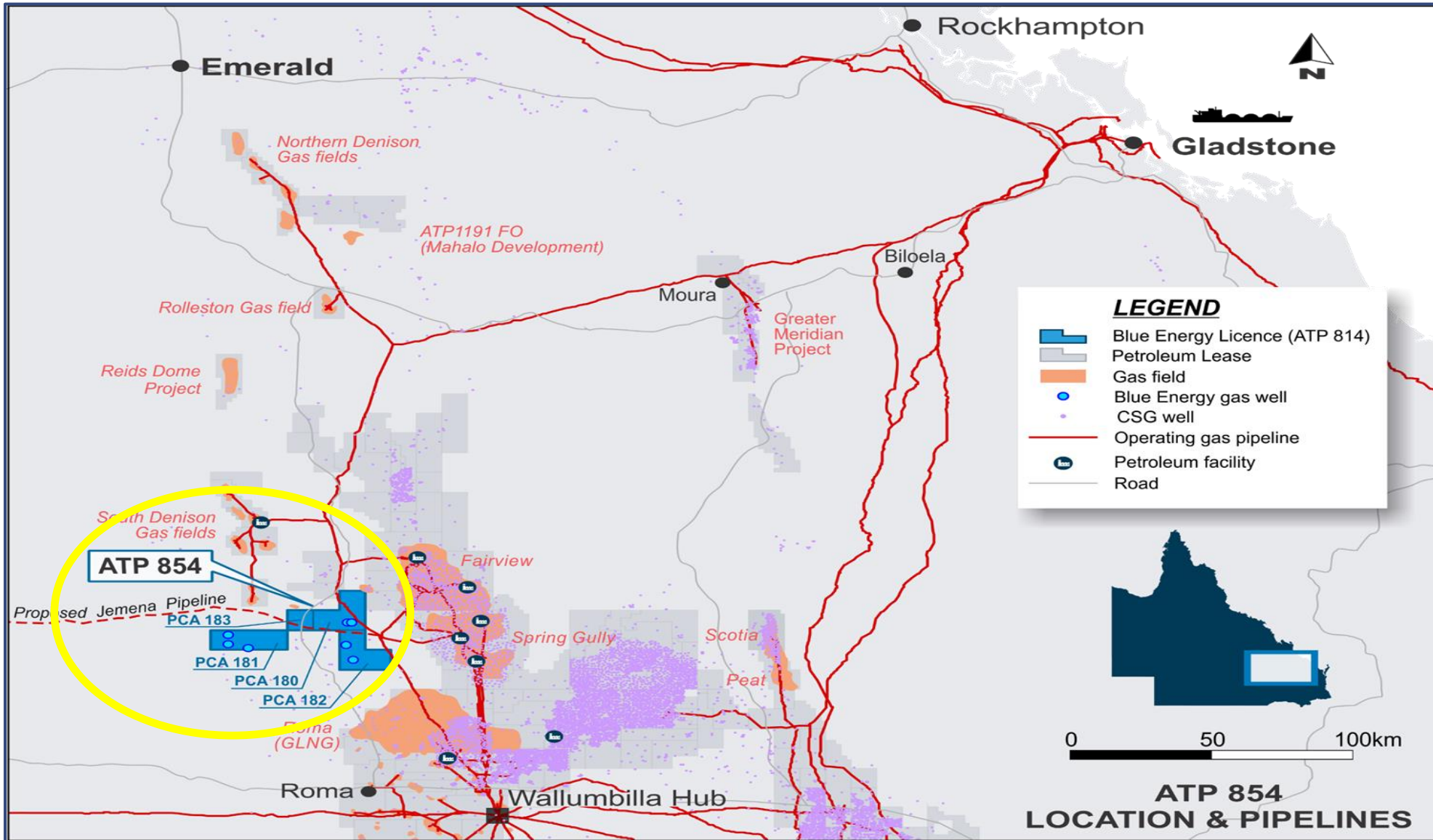
# SAPPHIRE – NEXT STEPS

- Blue and QPME have established optimum pipeline route for connection to MGP Node 3
- Sapphire to Node 3 connection gives efficient, low cost and long term access to the MGP and immediate path to local North Queensland market
- Existing Gas Supply MoU for QPM Ni plant in Townsville – 7.5 PJ/annum (20 TJ/day) for 15 years
- Reserve additions from Sapphire Pilot drilling provide contract volume 3P reserve coverage
- Establish deliverability and connect to MGP
- PL Application with Government
- Continue to promote North Bowen Basin pipeline connection
- Defend Environmental Authority granted by Department of Environment and Science (subject to Land Court challenge by EDO)
- 2 x R&D Rebate claims
  - Initial claim (2022 tax year) - rebate received
  - Larger second claim (2023 tax year covering drilling) - lodged

# FOCUS AREAS FOR BLUE

**Surat Basin**  
**Cobalt Project ATP 854**

# BLUE'S OTHER GAS OPTION – ATP 854 - SURAT BASIN



# ATP 854 - 100% BLUE – INFRASTRUCTURE NEARBY

## Substantial Gas Resource

- Independent NSAI assessment (Jan 2022)
- ATP854 is a material gas resource – 398 PJ Contingent Resource – Uncontracted +

## Favourable location

- Two gas pipelines passing through the permit  
Connectivity to both Gladstone and Wallumbilla
- Same Permian coal seam gas target as GLNG’s Fairview gas field  
Additional Jurassic Walloon CSG play

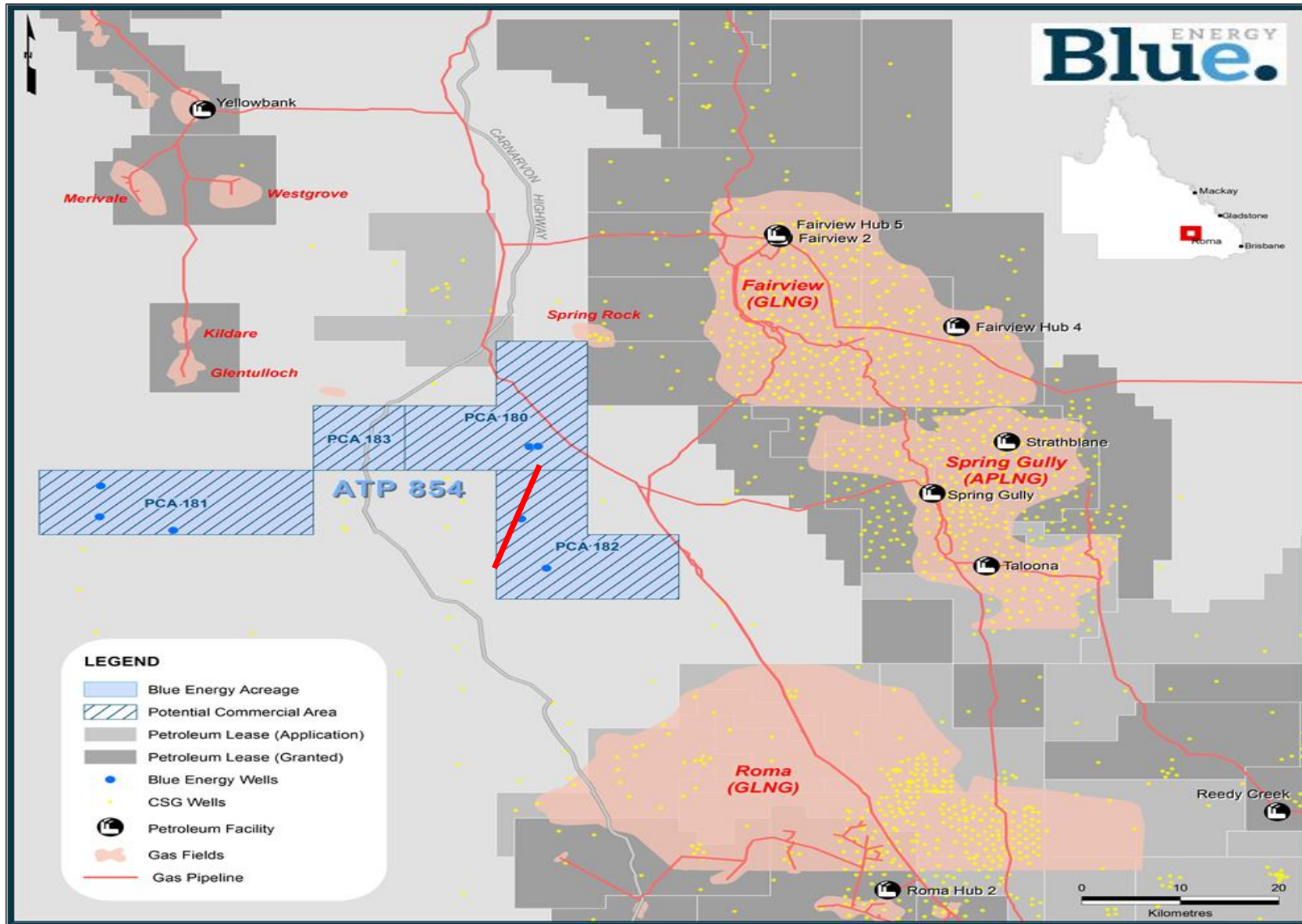
## Proposed work program

- Pilot drilling program to establish reserves and commercial flow rates
- Vertical well and up to two in seam lateral wells

Permit	Block	Certifier	1P (PJ)	1C (PJ)	2P (PJ)	2C (PJ)	3P (PJ)	3C (PJ)
ATP854P		NSAI	-	90	-	194	-	398

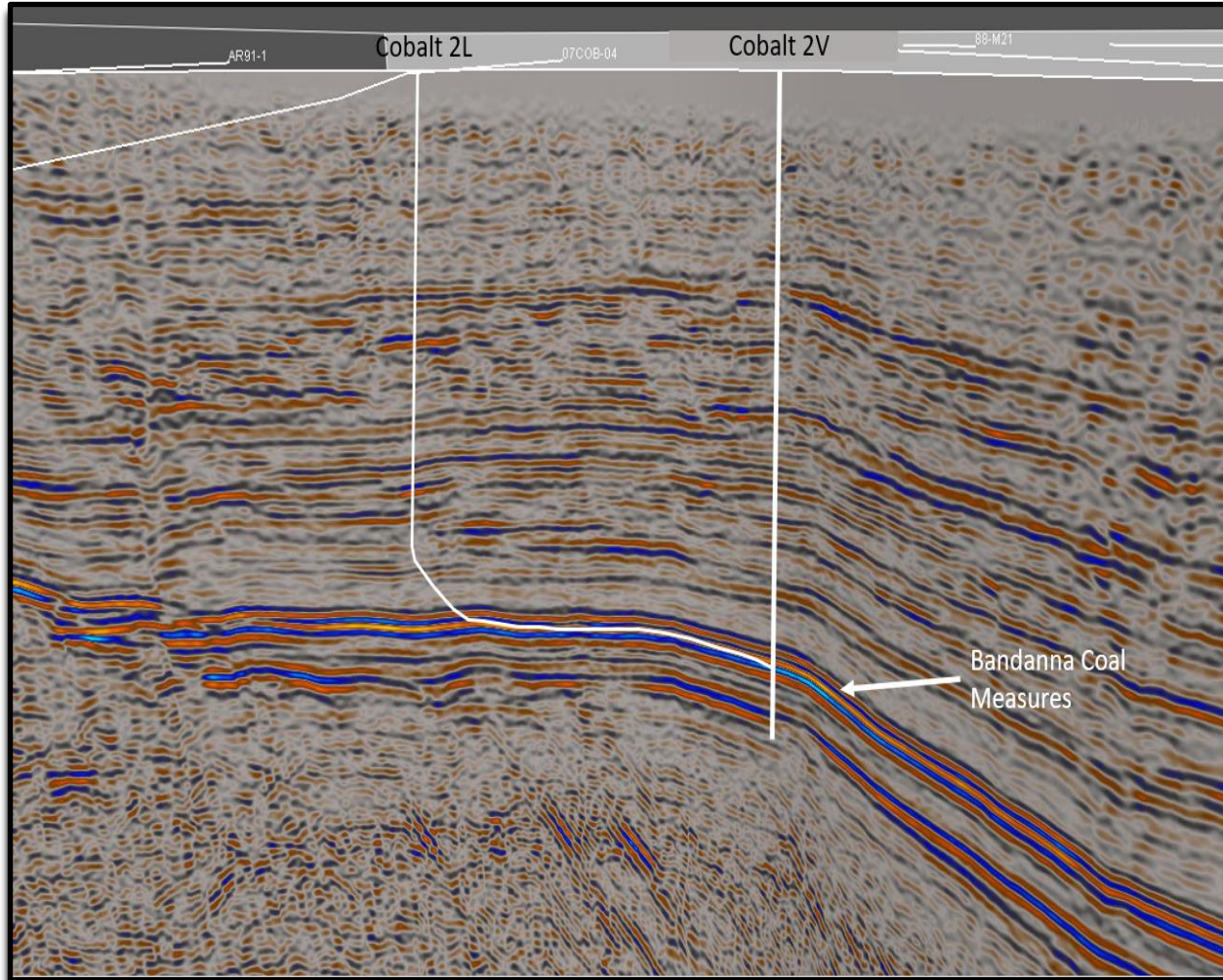
+ See Listing Rule 5 Disclosure Page 2

# ATP 854 100% BLUE ENERGY – IN THE HEART OF CSG GAS FIELDS AND INFRASTRUCTURE





# THE ATP 854 PERMIAN CSG PLAY

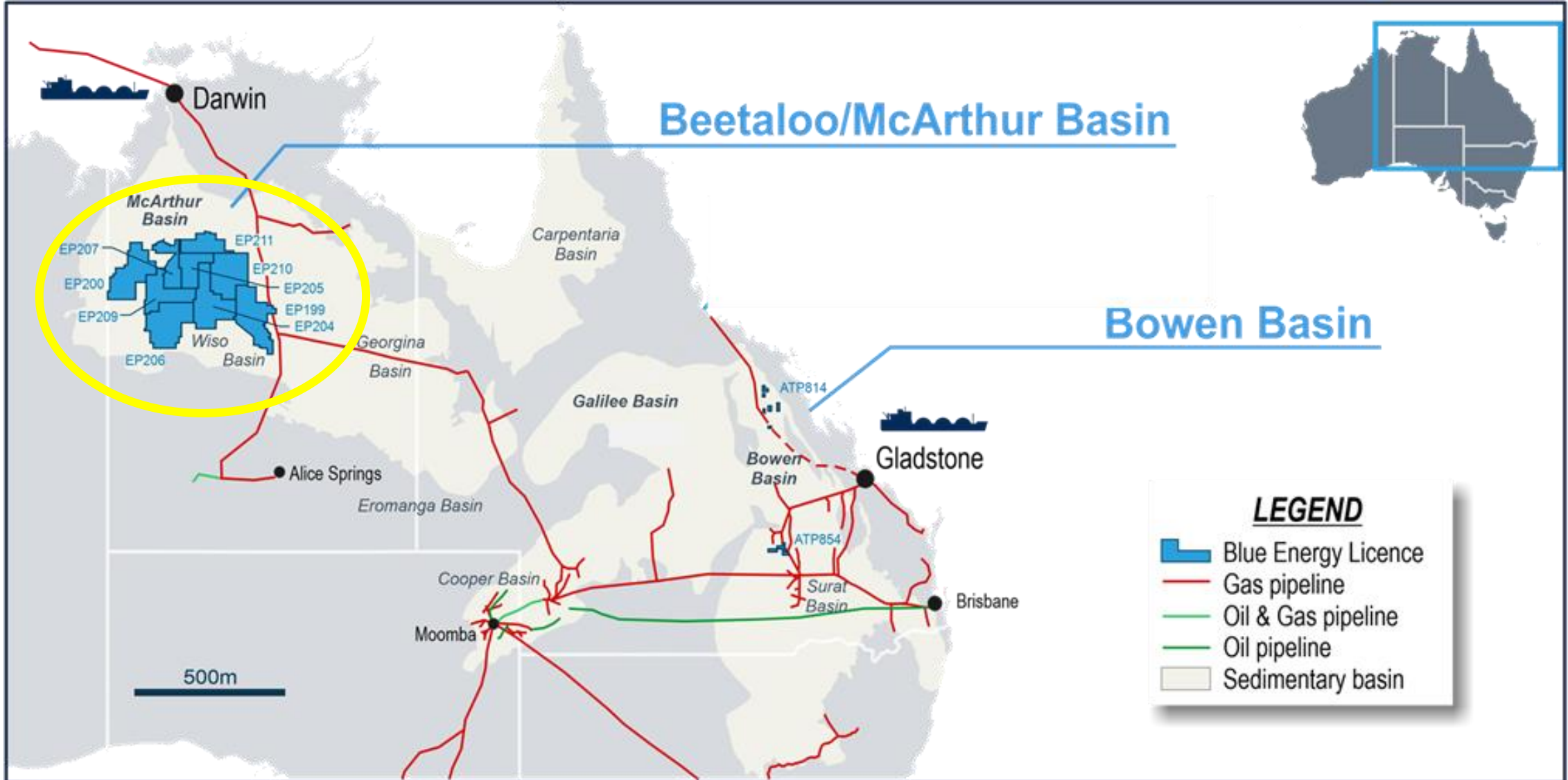


**Potential Cobalt production Pilot test wells**

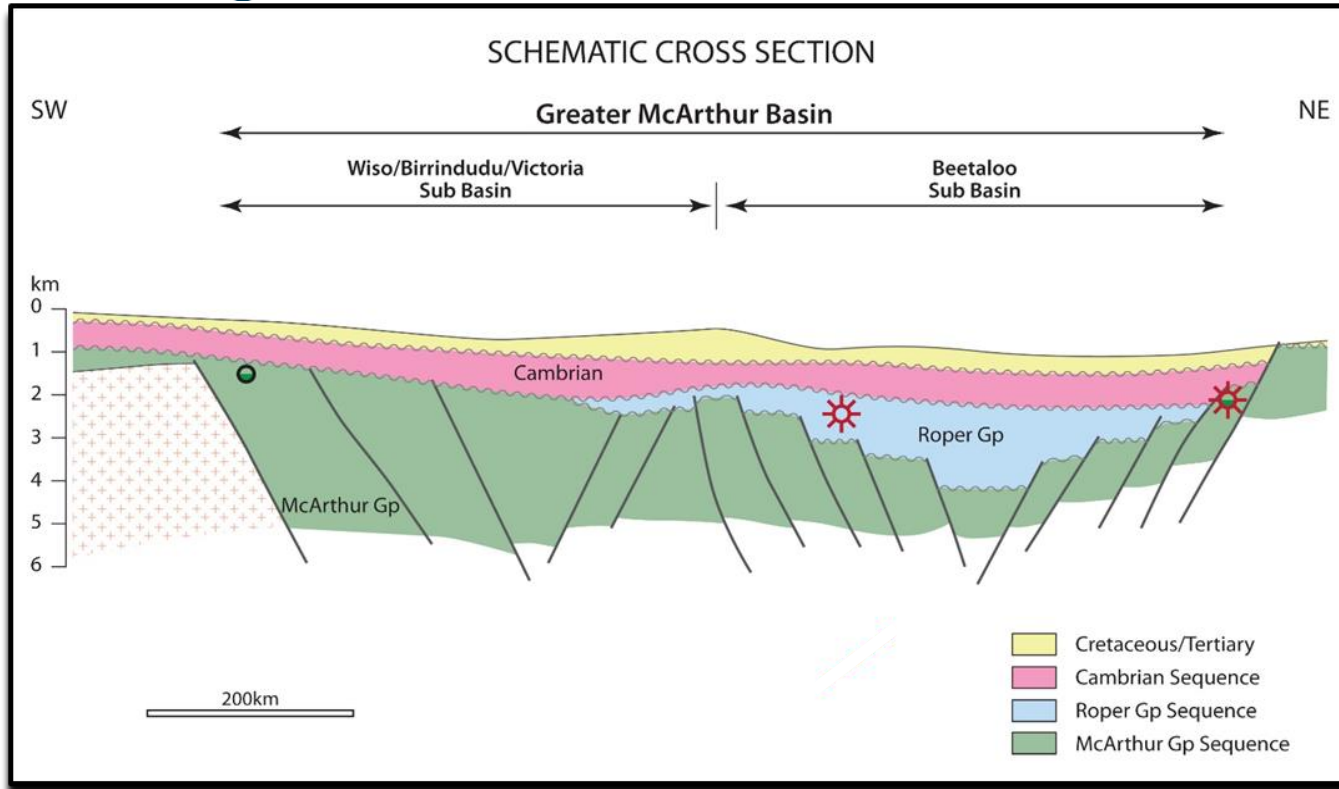
# FOCUS AREAS FOR BLUE

**Northern Territory**

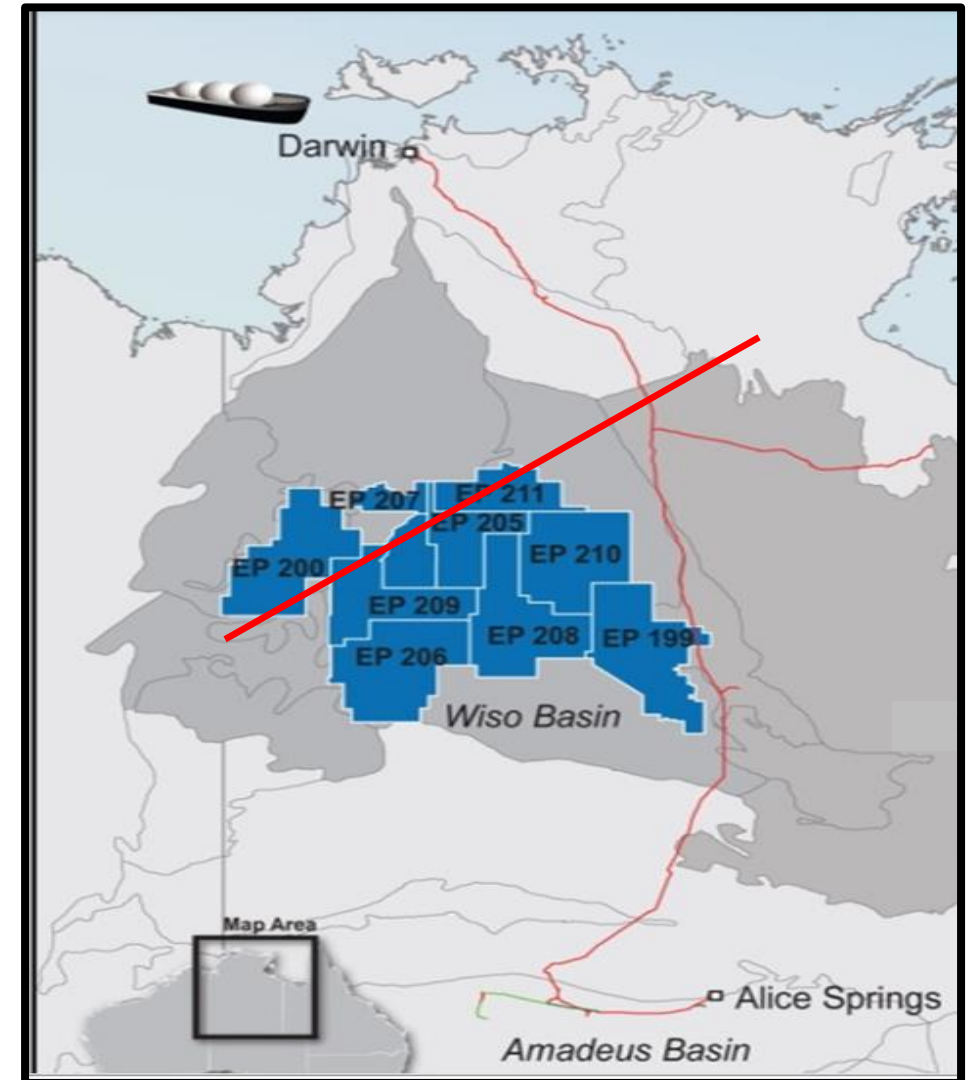
# NORTHERN TERRITORY



# NORTHERN TERRITORY



**Proterozoic plays: Roper and McArthur Groups**  
**Conventional and shale plays**



# SYNERGY BETWEEN GEOSCIENCE AUSTRALIA LINES AND BLUE PROPOSED PROGRAM

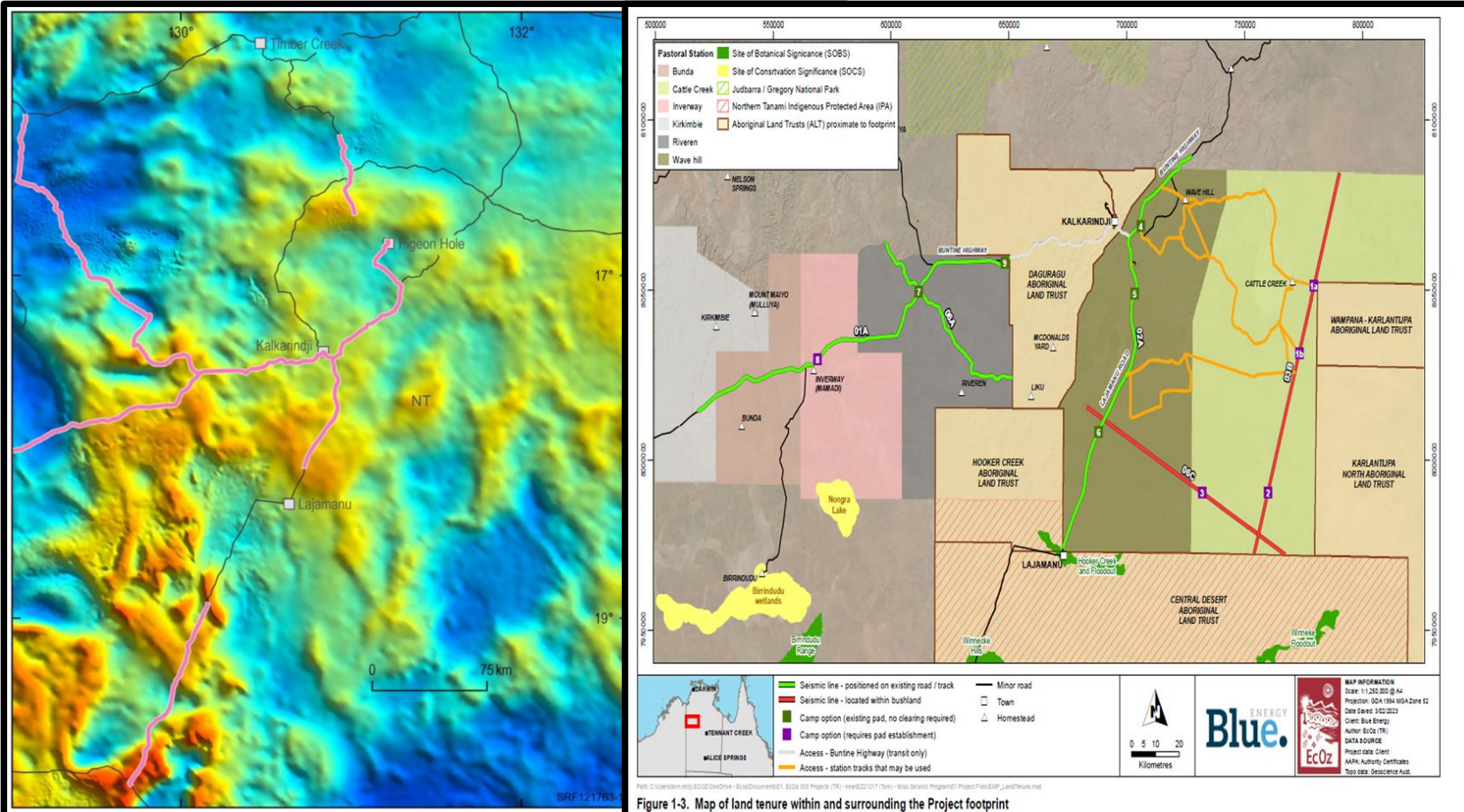


Figure 1-3. Map of land tenure within and surrounding the Project footprint

Geoscience Australia Lines

Proposed Blue Energy Program

- GA raw 2D data available December
- Blue will selectively process
- Assess prospectivity
- Plan 2D and strat well for mid 2024

# NORTHERN TERRITORY

## Forward Plan

Geoscience Australia (GA) acquired regional 2D seismic data in August/September 2023 across Blue's tenements

Blue will acquire the overlapping GA data and process it to assess prospectivity

Blue has lodged Environmental Management Plan for the 2D seismic acquisition

Dependent on results of the GA seismic interpretation, there may be sufficient prospectivity to warrant a stratigraphic well next year in EP 200/207

# RECAP - FOCUS AREAS FOR BLUE

## 1. North Bowen Basin

- Sapphire PL and connection into the Moranbah Gas Project for gas sales
- Lancewood Central, Hillalong and Monslatt block appraisal
- Southern gas pipeline
- Defend Land Court appeal by EDO on the granted Environmental Authority

## 2. Surat Basin Block - ATP 854

- Secure the PCA's
- Drill pilot test well at Cobalt
- Commercialise into proximal infrastructure

## 3. Northern Territory Acreage

- Process Geoscience Australia Data (newly acquired)
- Assess prospectivity
- Acquire Blue 2D program and possible strat well

# CORPORATE RESERVES AND RESOURCES

Permit	Block	Date	Method	Certifier	1P (PJ)	1C (PJ)	2P (PJ)	2C (PJ)	3P (PJ)	3C (PJ)
ATP854P		25/01/2022	SPE/PRMS Det	NSAI	-	90	-	194	-	398
ATP814P	Sapphire	9/10/2023	SPE/PRMS Det	NSAI	-	171.2	90.7	251.7	287.0	256.0
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ATP814P	Hillalong	27/02/2020	SPE/PRMS Det	NSAI	-	-	-	182	-	237
ATP814P	South	29/07/2013	SPE/PRMS Det	NSAI	-	15	-	27	6	30
<b>Total (PJ)</b>					<b>-</b>	<b>518</b>	<b>91</b>	<b>1,617</b>	<b>293</b>	<b>4,017</b>





ENERGY  
**Blue.**

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## **BACKGROUND SLIDES THE ROLE OF GAS**

# GAS ISN'T JUST ABOUT ELECTRICITY

## WHY GAS IS CRITICAL?

### Natural Gas



#### Power

Base Load electricity

Peaking generation—  
quick start

Back up for solar and  
wind

Blue Hydrogen (lowest  
cost Hydrogen gen)

#### Domestic

Heating

Cooking

#### Industry

Fertiliser

Methanol

Glass/Bricks

Cement

Process Heat

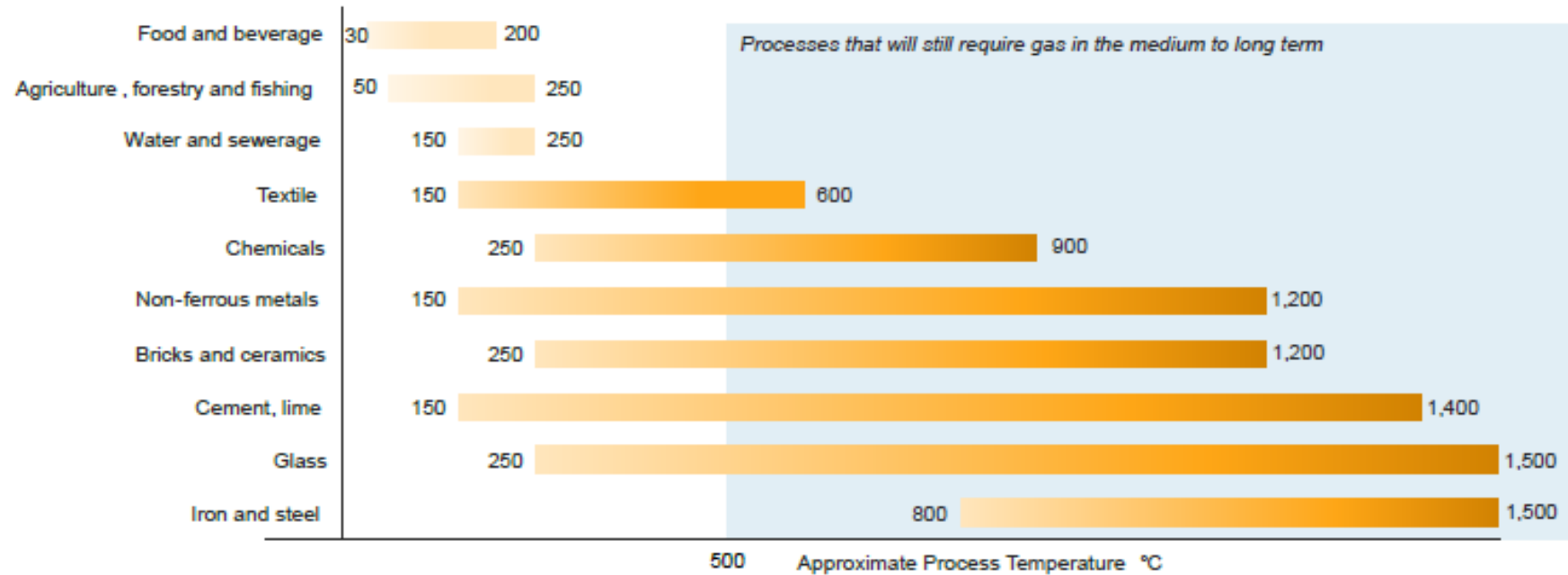
Plastics

Pharmaceuticals

Economic  
Hydrogen

# GAS HAS NO SUBSTITUTE FOR MANY INDUSTRIES

Figure 87: Process temperature by industrial sector



Source: Australian Renewable Energy Agency; Rystad Energy

# AUSTRALIA'S NET ZERO TARGET

## THE PENNY DROPS – GAS IS VITAL – AS TIMELINES MEET REALITY

**A heavier hand to hit green target: Treasurer Dr Jim Chalmers**  
**Speaking at** The Australian-Melbourne Institute Economic and Social Outlook conference 2/11/23

**Dr Jim Chalmers** has warned Australia cannot meet its net-zero emissions targets without more robust interventions from government, paving the way for a new hands-on industry policy with bigger subsidies for companies helping fuel the green energy revolution.

“Without more decisive action, across all levels of government, working with investors, industry and communities, the energy transition could fall short of what the country needs.”

EXCLUSIVE

### A heavier hand to hit green target: Chalmers

By TOM DUSEVIC, PATRICK  
COMMINS

08:15 NOVEMBER 2, 2023



Treasurer Jim Chalmers. Picture: NCA NewsWire / Martin Ollman

# BUT IT LOOKS LIKE THE REST OF THE WORLD ISN'T BUYING INTO IT

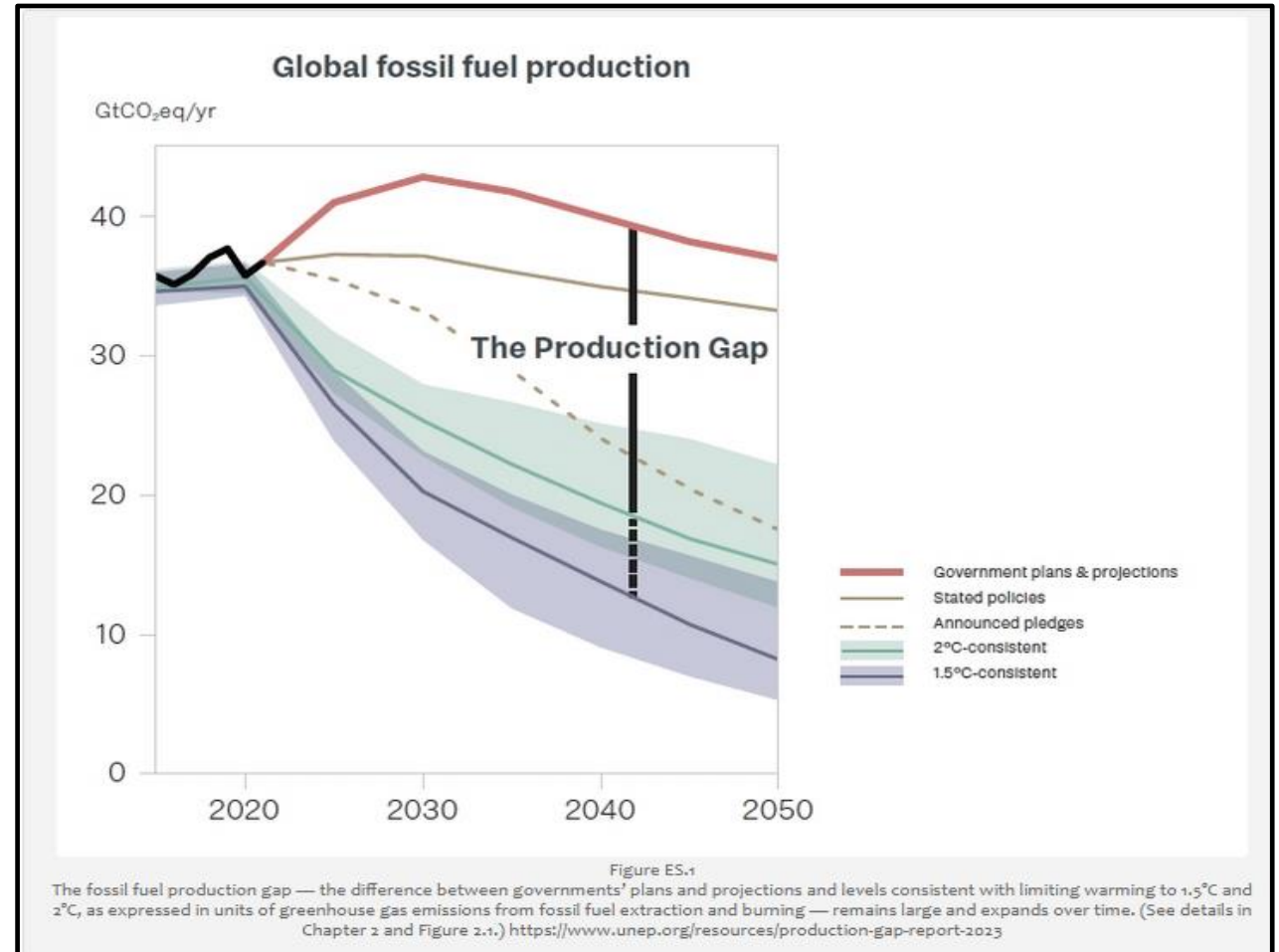


## Production Gap Report 2023

### Key Findings

“Governments, in aggregate, still plan to produce more than double the amount of fossil fuels in 2030 than would be consistent with limiting warming to 1.5°C. The persistence of the global production gap puts a well-managed and equitable energy transition at risk.”

“Taken together, government plans and projections would lead to an increase in global coal production until 2030, and in global oil and gas production until at least 2050. This conflicts with government commitments under the Paris Agreement, and clashes with expectations that global demand for coal, oil, and gas will peak within this decade even without new policies.”



SEI, Climate Analytics, E3G, IISD, and UNEP. (2023). The Production Gap: Phasing down or phasing up? Top fossil fuel producers plan even more extraction despite climate promises. Stockholm Environment Institute, Climate Analytics, E3G, International Institute for Sustainable Development and United Nations Environment Programme. <https://doi.org/10.51414/sei2023.050>

# SEVERAL GOVERNMENTS UNDERSTAND THAT THEIR COMPLEX SOCIETIES NEED FOSSIL FUELS



## Production Gap Report 2023

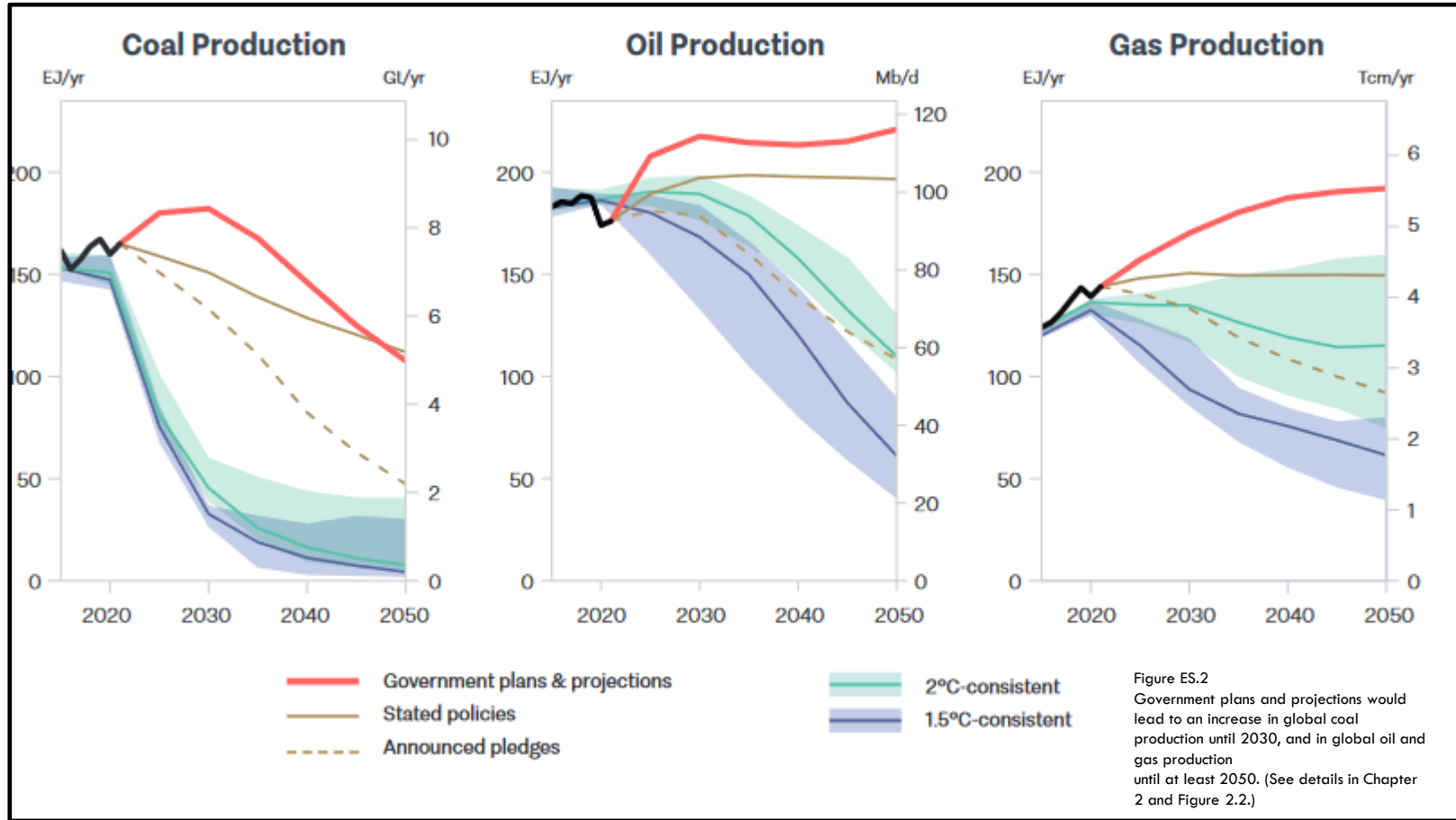


Figure ES.2  
 Government plans and projections would lead to an increase in global coal production until 2030, and in global oil and gas production until at least 2050. (See details in Chapter 2 and Figure 2.2.)

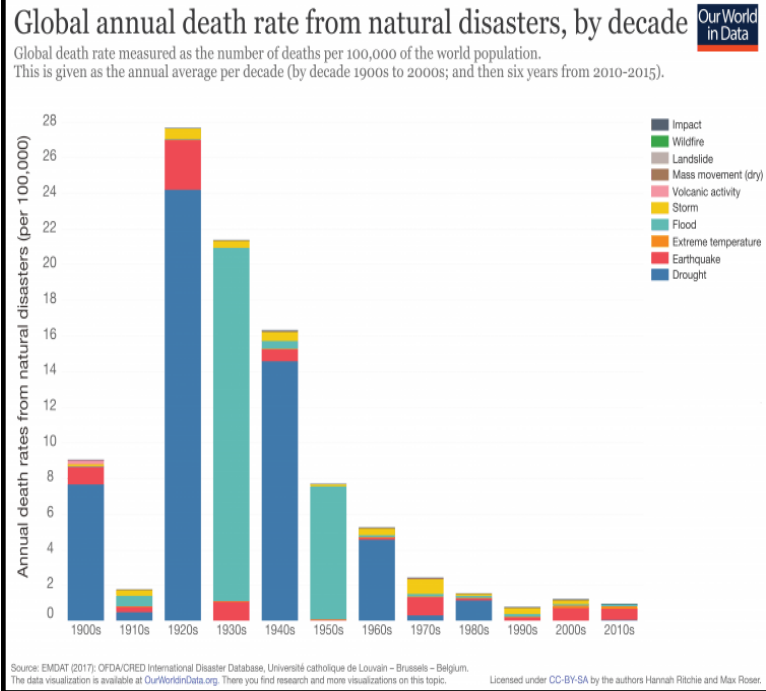


**THE DEVELOPED WORLD IS EMBARKING ON A “NET ZERO”  
PATH BECAUSE OF THE “CLIMATE CRISIS”**

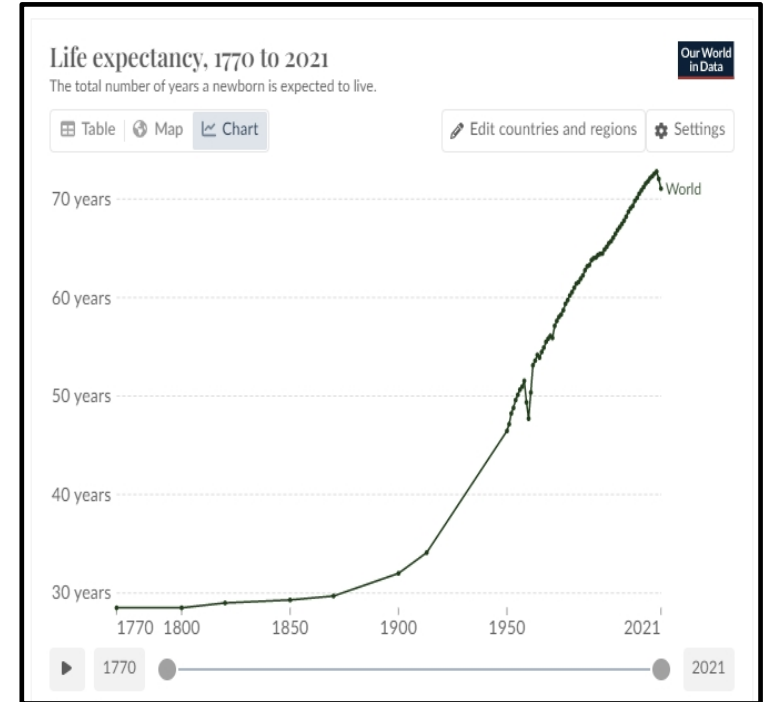
**BUT... HAS THE PROBLEM BEEN FRAMED CORRECTLY?**



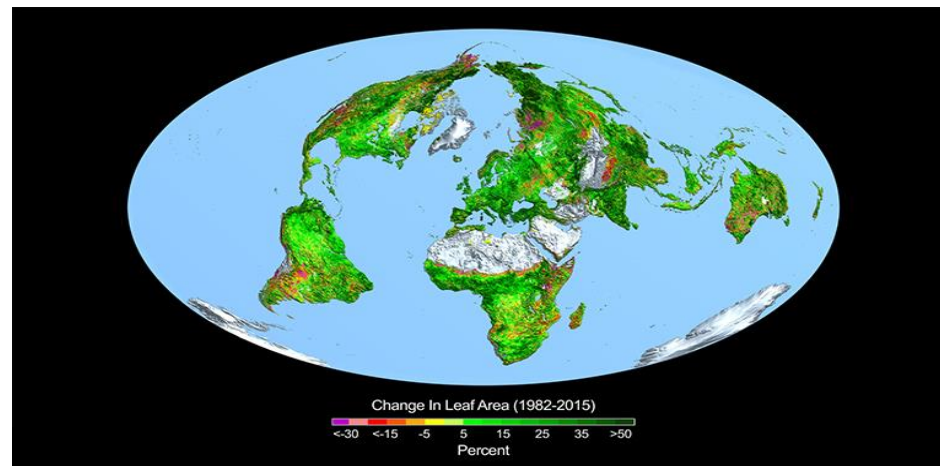
# ... WHAT ARE THE METRICS OF THIS "CLIMATE CRISIS"?



**NASA says the planet has "greened" significantly in the last 20 years – due to CO2 Result – increased crop yields  
...But that's Good!**



**Global annual death rate from natural disasters has dropped by 90% since 1920  
...But that's Good!**

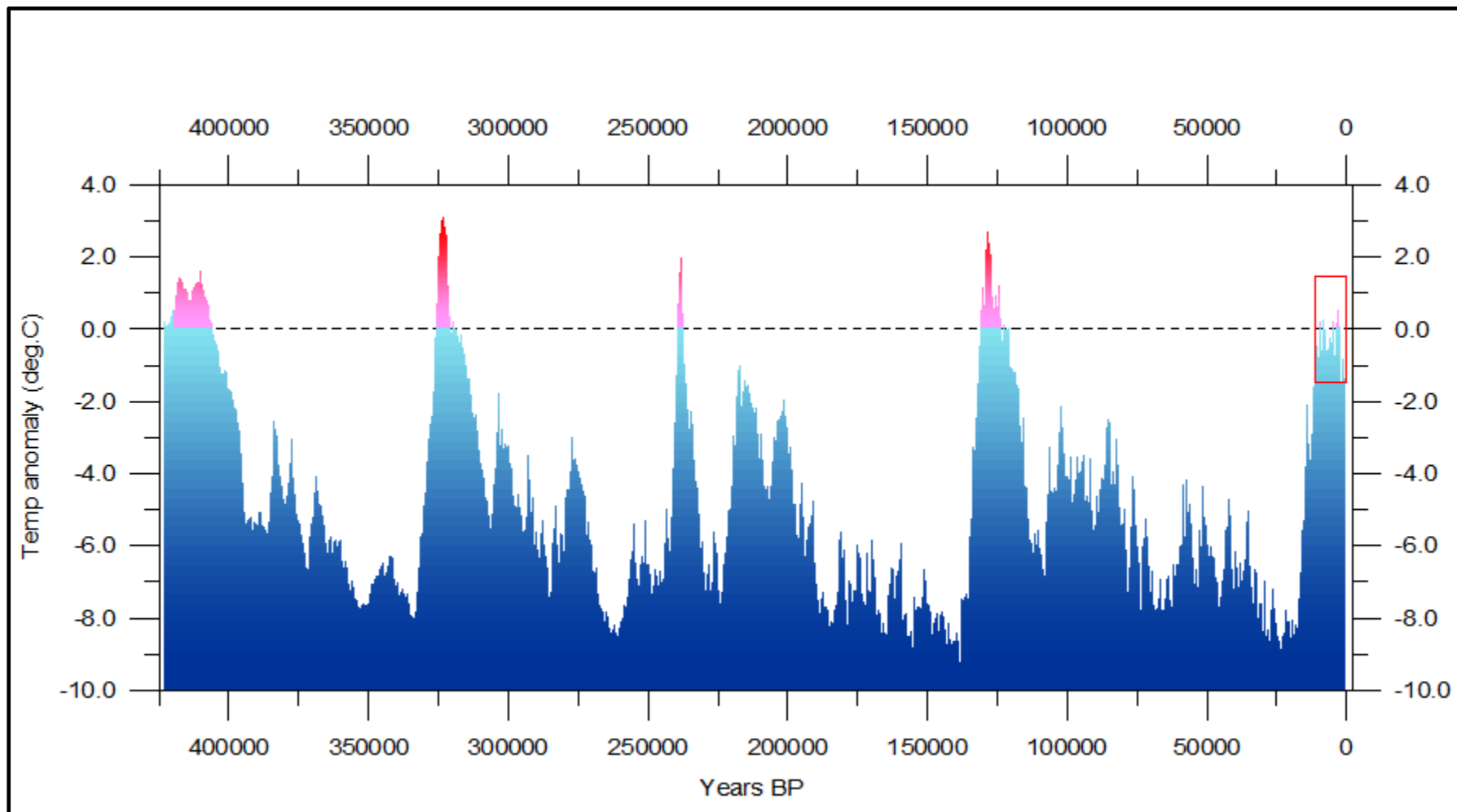


**Life expectancy has more than doubled since the Industrial Revolution in 1850  
...And that's Good too!**

# IS THE PLANET IN FACT IN UNCHARTED CLIMATE TERRITORY?

## NO - WE HAVE ACTUALLY BEEN HERE BEFORE

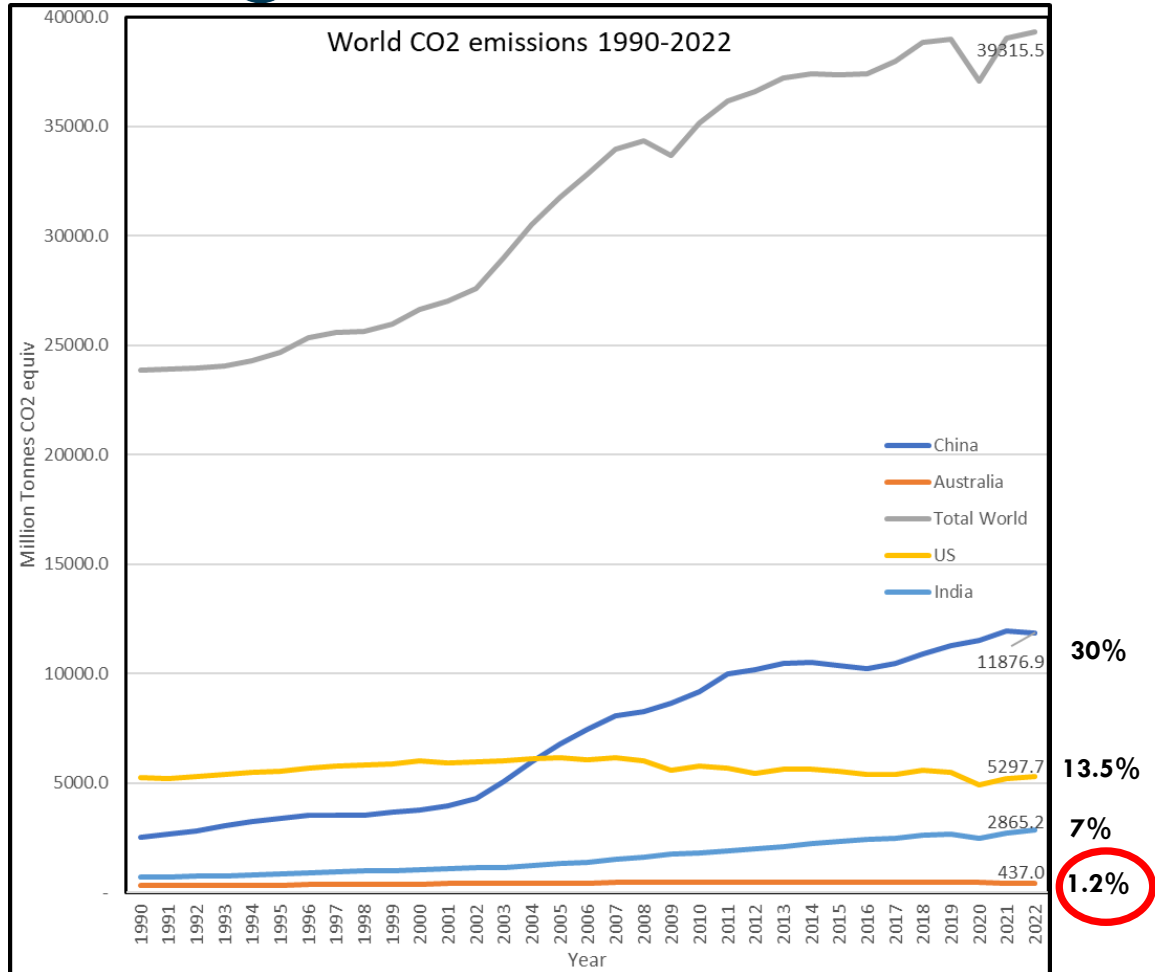
*Reconstructed global temperature over the past 420,000 years based on the Vostok ice core from the Antarctica*



Petit, J.R., et al., 2001. *Vostok Ice Core Data for 420,000 Years*. IGBP PAGES/World Data Center for Paleoclimatology Data Contribution Series #2001-076. NOAA/NGDC Paleoclimatology Program, Boulder CO, USA.

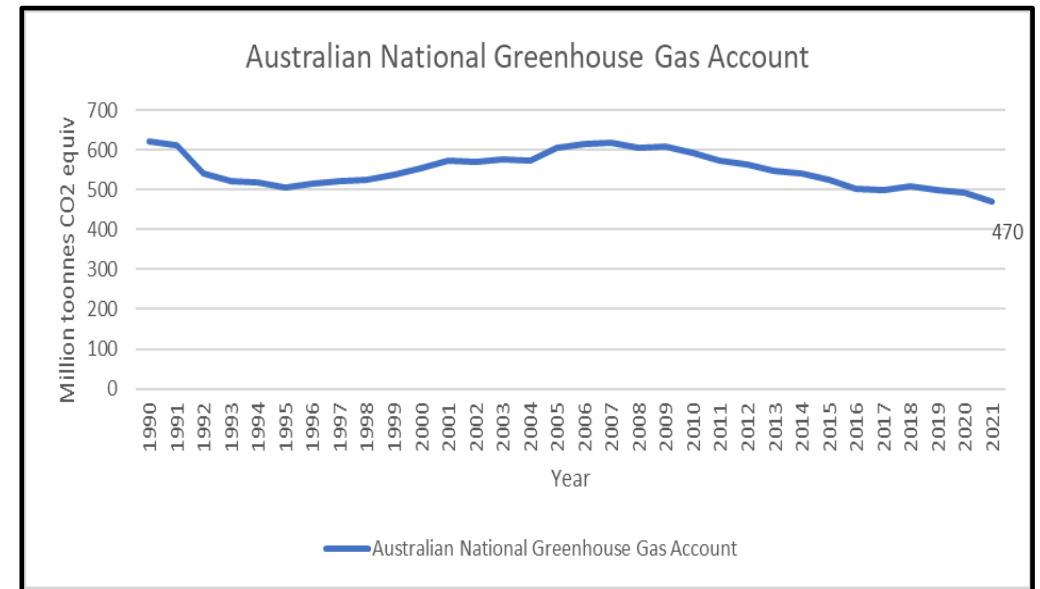
# BUT LET'S SAY CO2 IS THE DEMON

## AUSTRALIA CONTRIBUTES 1.2% OF GLOBAL ANNUAL CO<sub>2</sub>EQ EMISSIONS



Source: Energy Institute Statistical Review of World Energy 2023

Australia's GHG emissions today are less than they were in 1994

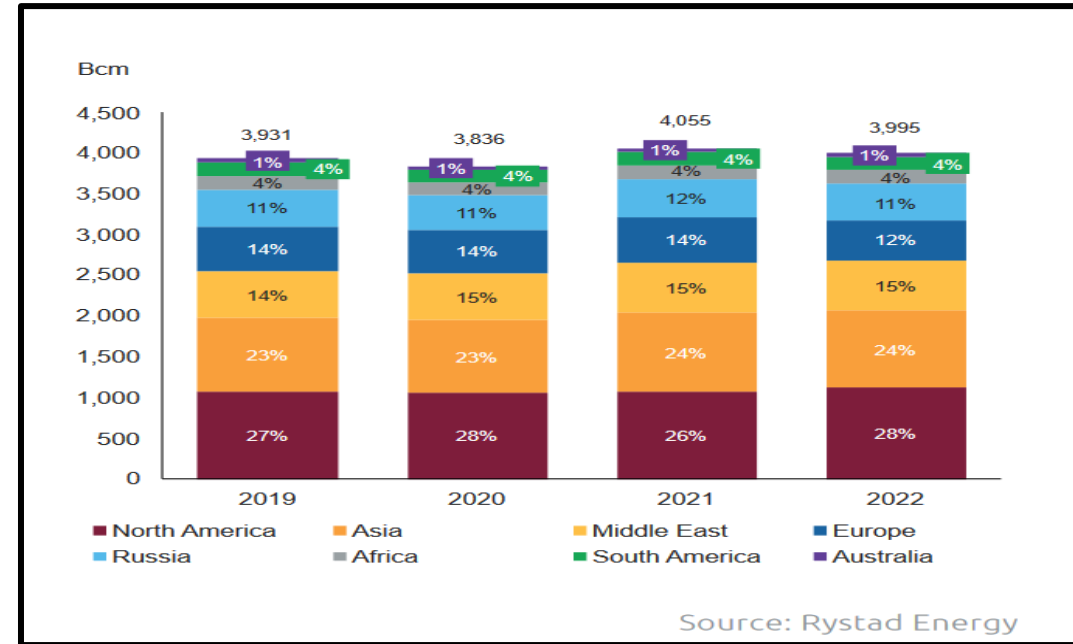


Source: Australia's Green House Gas Accounts

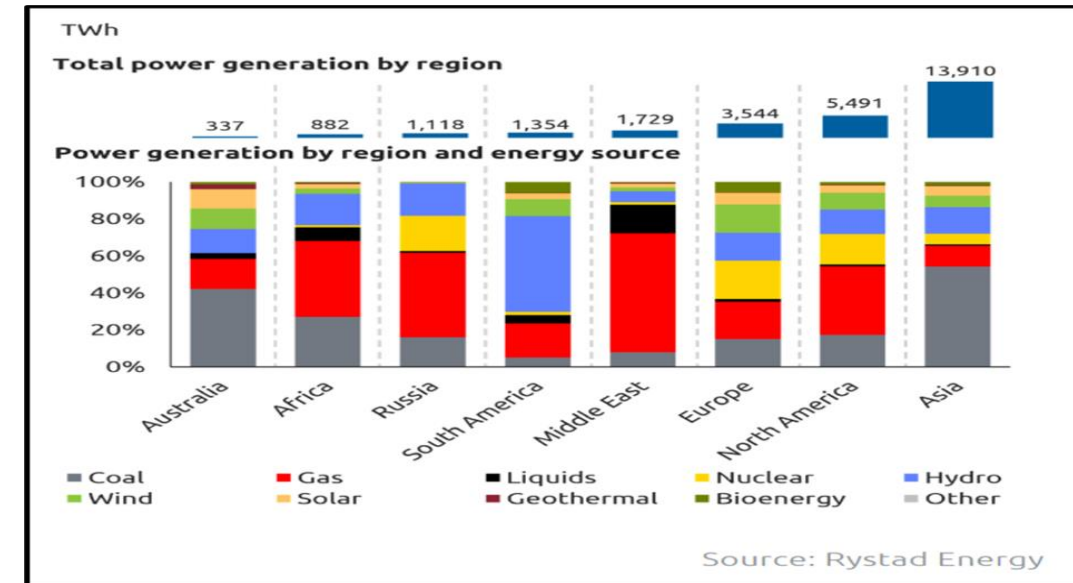
Who is driving global emissions?

## GLOBAL GAS DEMAND SPLIT BY REGION – INTERNATIONAL GAS UNION

- Australia accounts for 1% of global gas demand

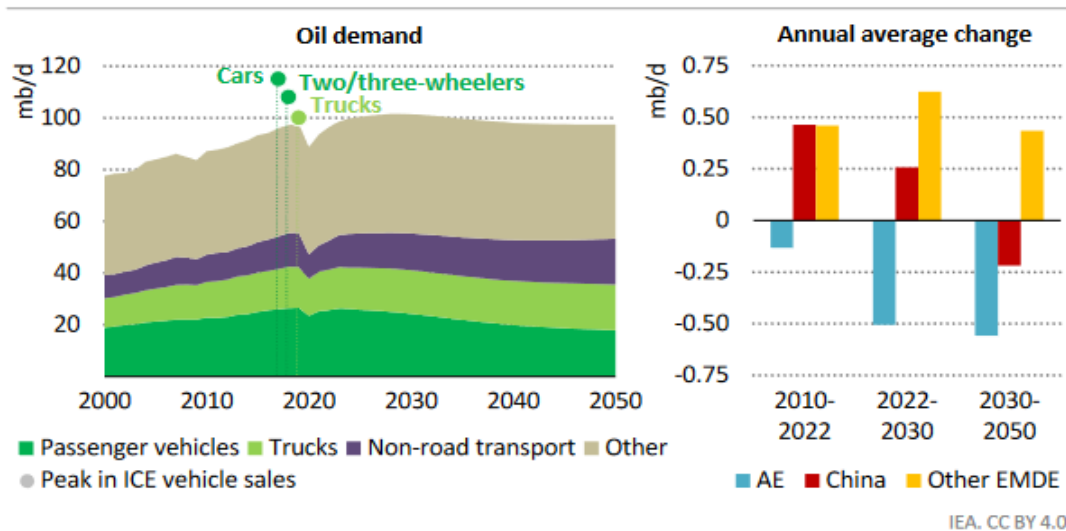


- Australia generates 1.9% of global electricity
- More gas is generally used in generation where there is less coal in the energy mix
- Asia has the highest use of coal for electricity
- Our annual emissions reductions will be outstripped by China's weekly increase in coal generation



# .... THE IEA SEES THE IMMINENT DEMISE OF OIL AND GAS AS GREATLY EXAGGERATED

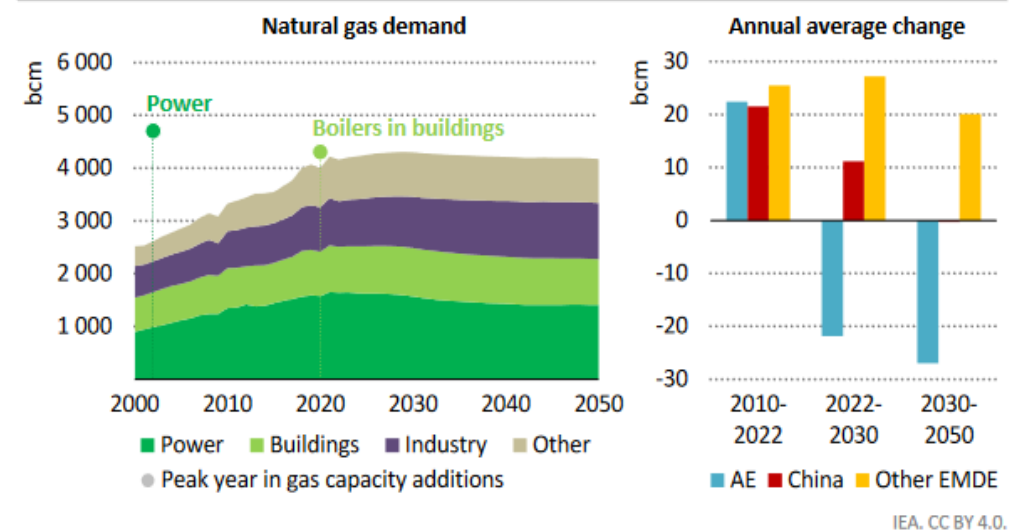
**Figure 1.3** ▶ Global oil demand by sector and annual average change by region in the STEPS, 2000-2050



*Sales of gasoline and diesel passenger vehicles and trucks have already peaked, leading to a peak in oil demand before 2030*

Note: mb/d = million barrels per day; AE = advanced economies; EMDE = emerging market and developing economies.

**Figure 1.4** ▶ Global natural gas demand by sector and annual average change by region in the STEPS, 2000-2050



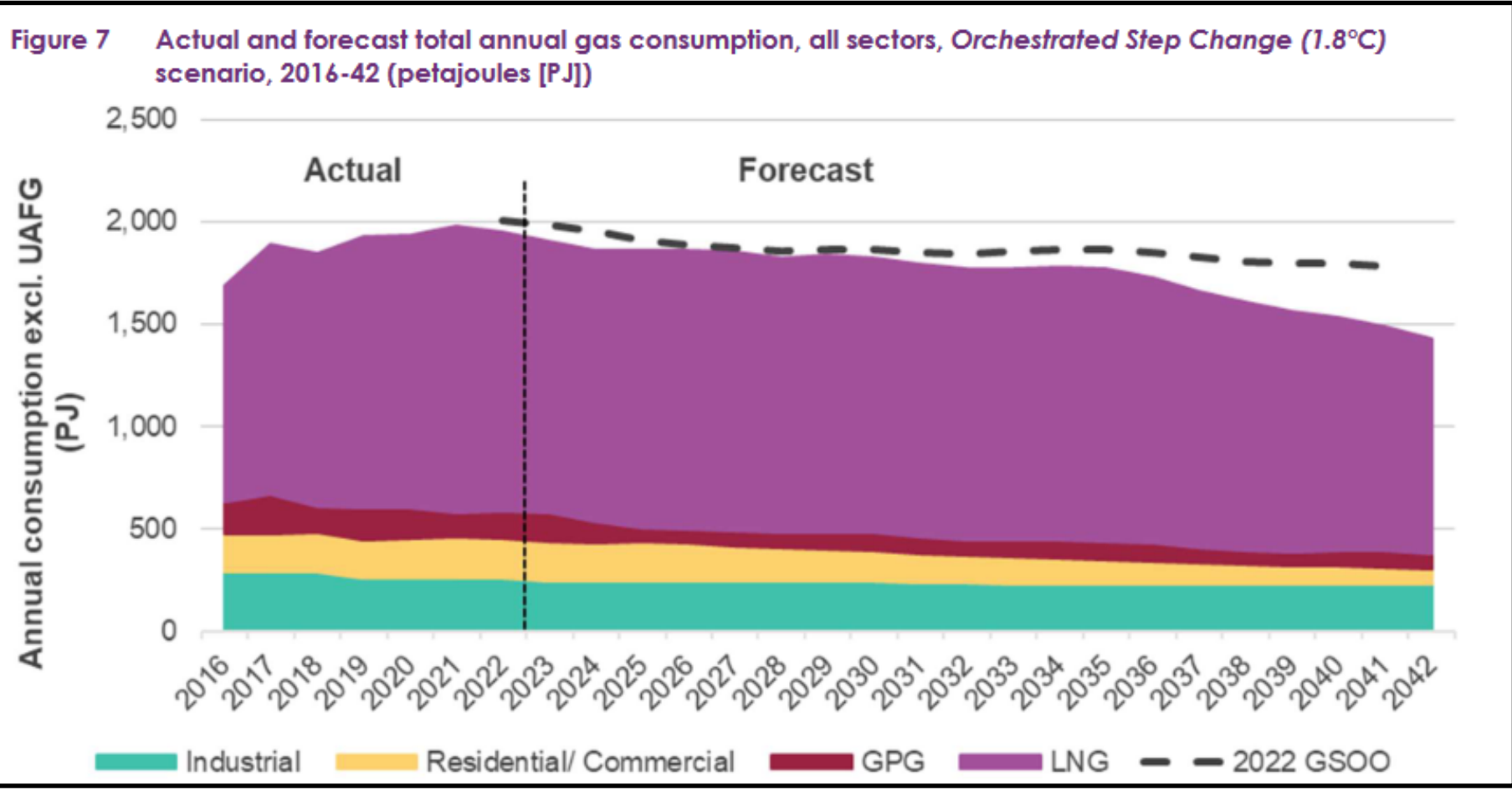
*Additions of new gas power plants and gas boilers in buildings are slowing; gas demand peaks before 2030 in the STEPS, though gas use in industry continues to increase*

Note: bcm = billion cubic metres; AE = advanced economies; EMDE = emerging market and developing economies.

**IEA** forecast global oil demand will remain at 100 million barrels per day out to 2030 then slowly decline to .....97 million barrels per day by 2050!

**IEA** forecast global gas demand to remain steady at around 145,000 PJ pa (4,000 BCM) out to 2050

# BUT AEMO SEES LESS GAS FIRED POWER GENERATION AFTER 2025



Source: AEMO GSOO March 2023

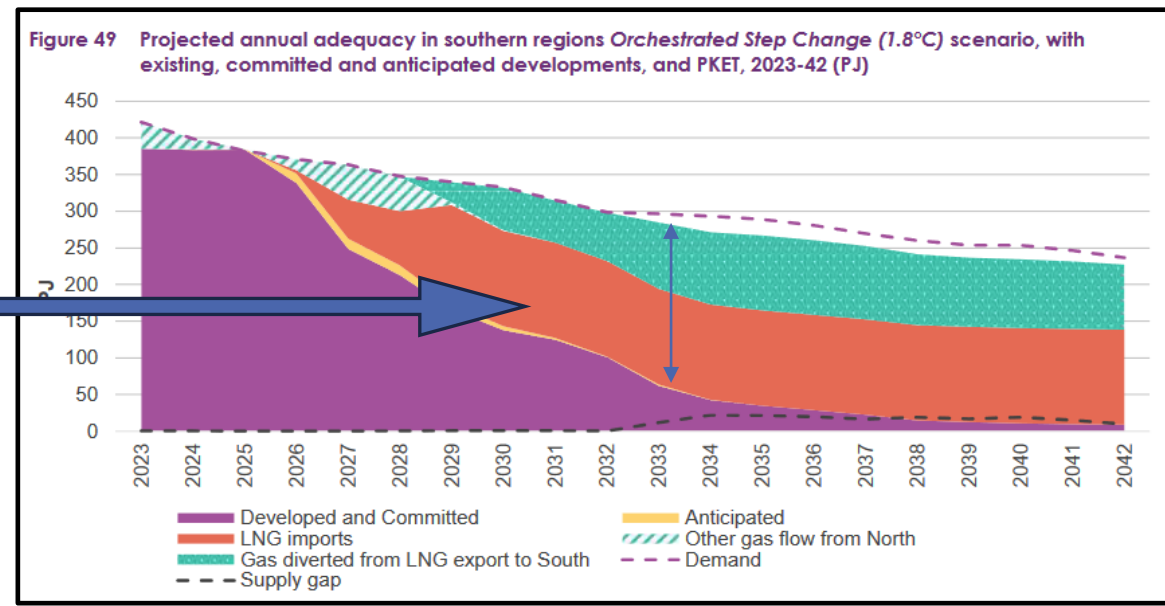
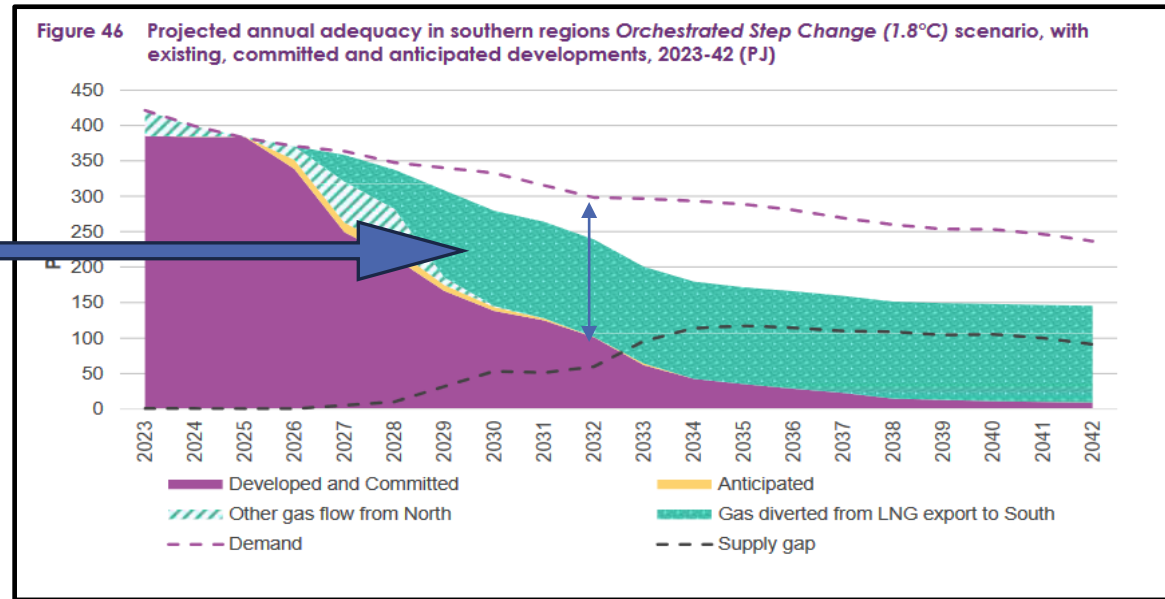
# AND THE SOUTHERN GAS MARKET MUST RELY ON DIVERTED LNG EXPORTS AND/OR LNG IMPORTATION

Diverted LNG volumes from Queensland



OR

Imported LNG volumes from somewhere via Port Kembla facility (PKET)



# GOVERNMENT SEES THE PATH TO NET ZERO AS ELECTRIFICATION – THROUGH A GRID WITH 82% RENEWABLE ENERGY GENERATION

## BUT RENEWABLES NEED FIRING (FORMERLY KNOWN AS BACKUP GENERATION)

- First electrons from Snowy 2.0 not until 2029
- Coal plants coming out of service 2025-2027
- Build out of wind and solar is stalling
- Transmission line expansion facing opposition
- No new gas fired generation is on the books
- Hydrogen is at concept stage
- An 82% renewable energy target will need **a lot of gas firming**
- **There is a timing problem between coal gen coming out and there being enough intermittent connected renewables to cover demand**

Houston – we may have a problem!

