



ASX:EEG

Empire Energy – Beetaloo Basin – On the Path to Pilot Production and Beyond



NAPE Conference Houston Presentation

The Empire Energy Value Proposition



Global Scale Gas Resource

- 42 TCF 2U Prospective Resource*
- ~1.6 TCF 2C Contingent Resource* based on limited well control (significant upside with further drilling)
- Sub 1% CO2 in reservoir
- >1 million acres in two contiguous acreage positions
- Connected to existing pipeline infrastructure with additional pipelines by APA Group to Australian East Coast and Darwin planned
- World class shale characteristics

* As independently assessed by Netherland, Sewell & Associates, Inc

Key assumptions:

1. Phase 1
 - Gas price: A\$12/GJ
 - Production: 25 TJ /d
2. Phase 2
 - Gas price: A\$12 / GJ (indexed at CPI)
 - 1,353 PJ (1.2 TCF) produced over 40-year economic life
 - Type curves as provided by Subsurface Dynamics Inc
 - Drilling / fracture stimulation (per well): A\$32m
 - Cost learning curve: 5% per drilling campaign and 5% per stimulation campaign
 - Opex includes midstream infrastructure tariffs, NT Government and other royalties, carbon offsetting costs
3. Phase 3
 - As per Phase 2 with the exception of cost learning curve: 7.5% per drilling campaign and 10% per stimulation campaign representing expected economics of scale benefits
 - 6,700 PJ (5.7 TCF) of gas produced over 42-year economic life
4. Landed LNG Cost to Japan
 - Total upstream cost (including gas processing tariffs): ~US\$4.00 MMBtu
 - Pipeline tariff, LNG processing tolling and shipping: ~US\$2.50 MMBtu

Commercialisation Strategy

Phase 1

- Up to 25 TJ/d (24 mmcf/d)
- Targeting first revenue in 2025, ramping up to ~A\$110m per annum at plateau¹
- Mature resource definition and type curves for larger scale development

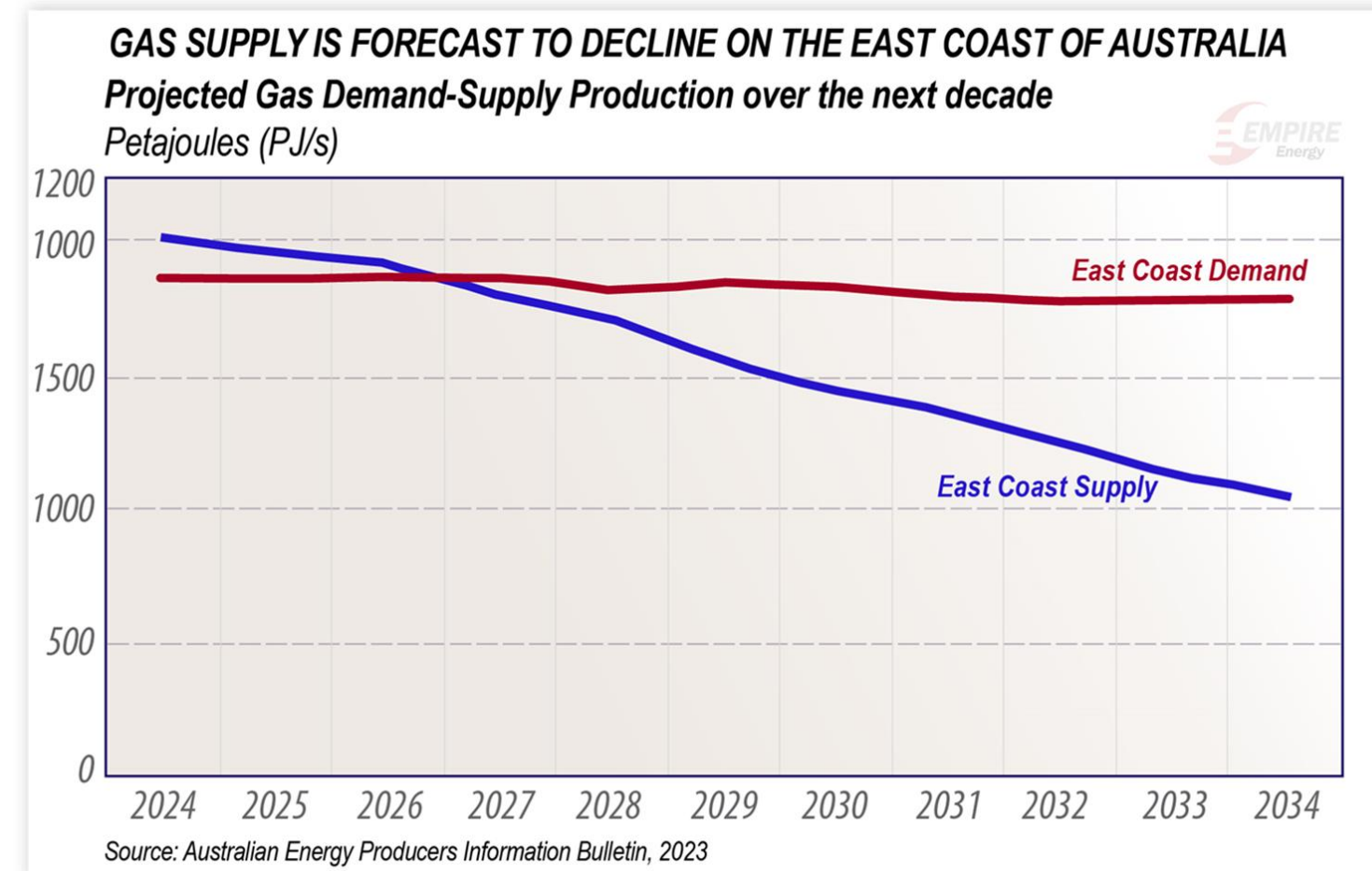
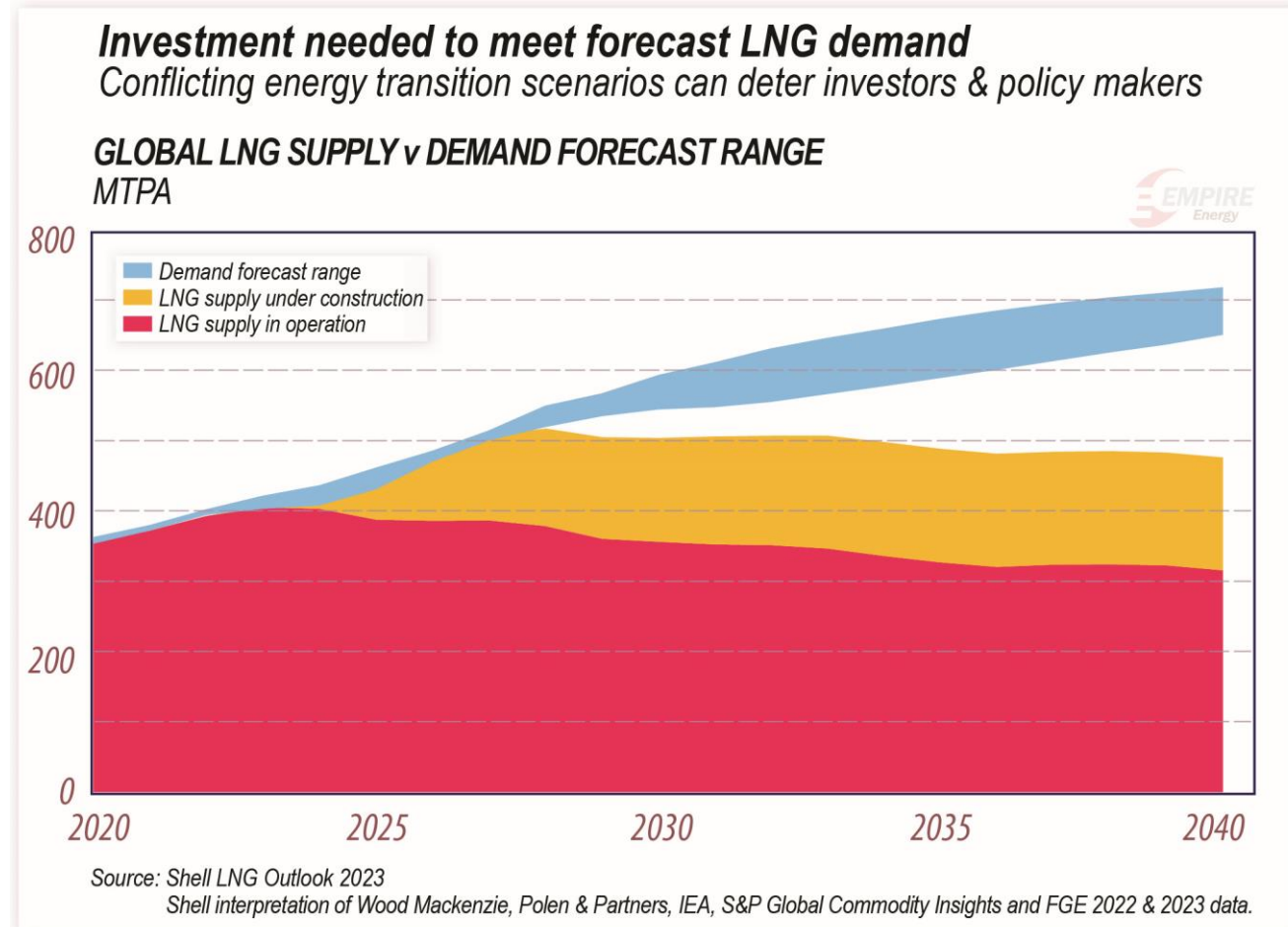
Phase 2

- ~200TJ/d (~190 mmcf/d) to supply Australian east coast
- P50 IRR: ~37%, P50 NPV(10): A\$2.5bn²

Phase 3

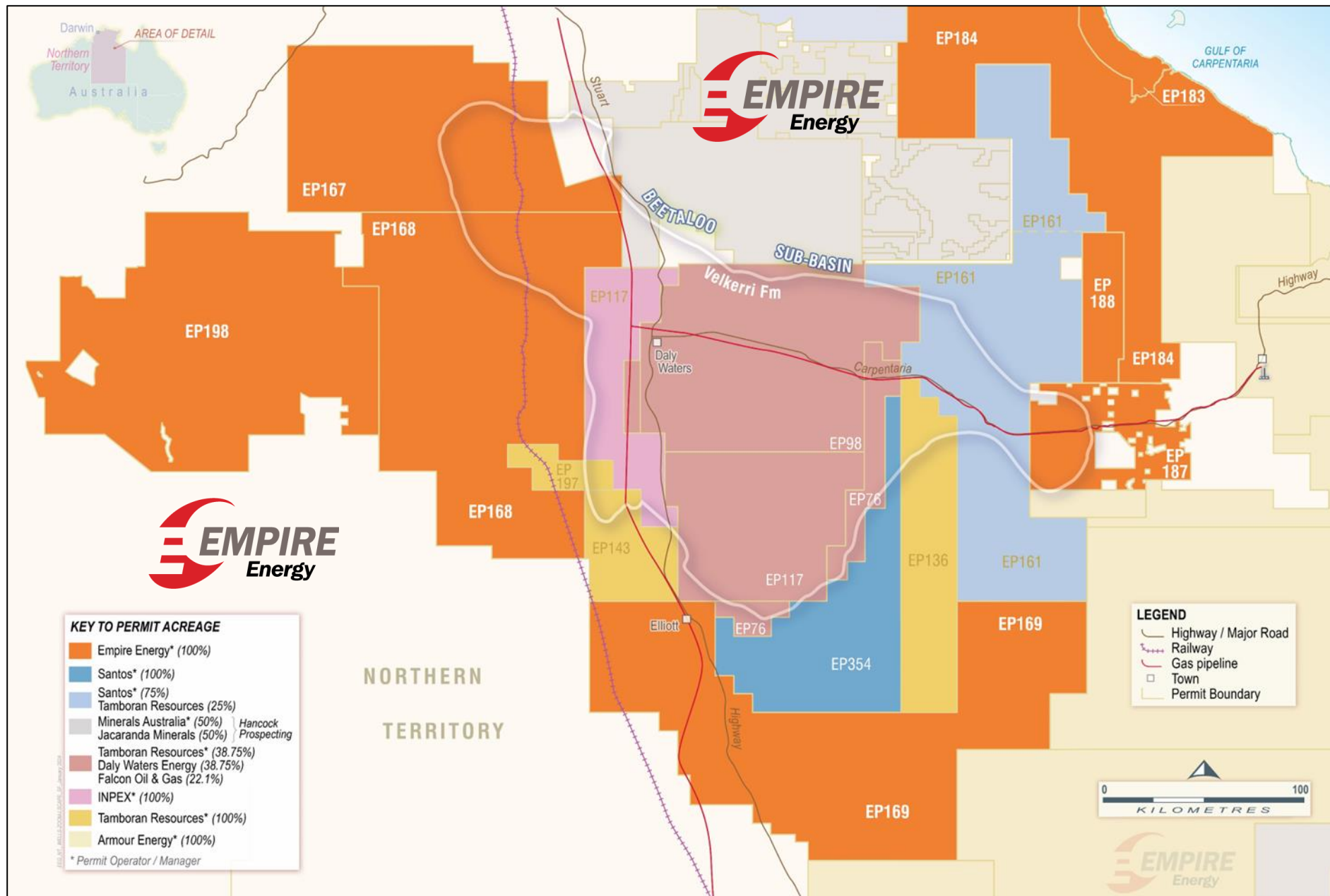
- ~1 BCF per day to supply LNG export markets
- P50 IRR: ~52%, P50 NPV(10): A\$14.2bn³
- Empire estimates a landed cost of LNG into Tokyo Bay of US\$6.50 / MMBtu⁴

Australia, Asia and the World Need New Gas Supply



- Royal Dutch Shell estimates global LNG demand will reach **700 million tonnes by 2040 (2022: 396mt)**, as demand for natural gas continues to grow strongly in Asia and gains further traction in powering hard-to-electrify sectors, tackling air quality concerns and meeting emissions targets
- In the near-term, the global LNG market is expected to remain tight and exposed to supply and demand shocks, with limited new supply coming online. Shell notes that **more investment in liquefaction projects is required to avoid a supply-demand gap that is expected to emerge by the late 2020s**
- While natural gas accounts for about a **quarter of global electricity generation**, **half the total natural gas produced today is consumed in sectors other than power generation**
- **Australian east coast domestic gas market is finely balanced. New supply sources such as the Beetaloo are required to meet projected supply shortfalls**

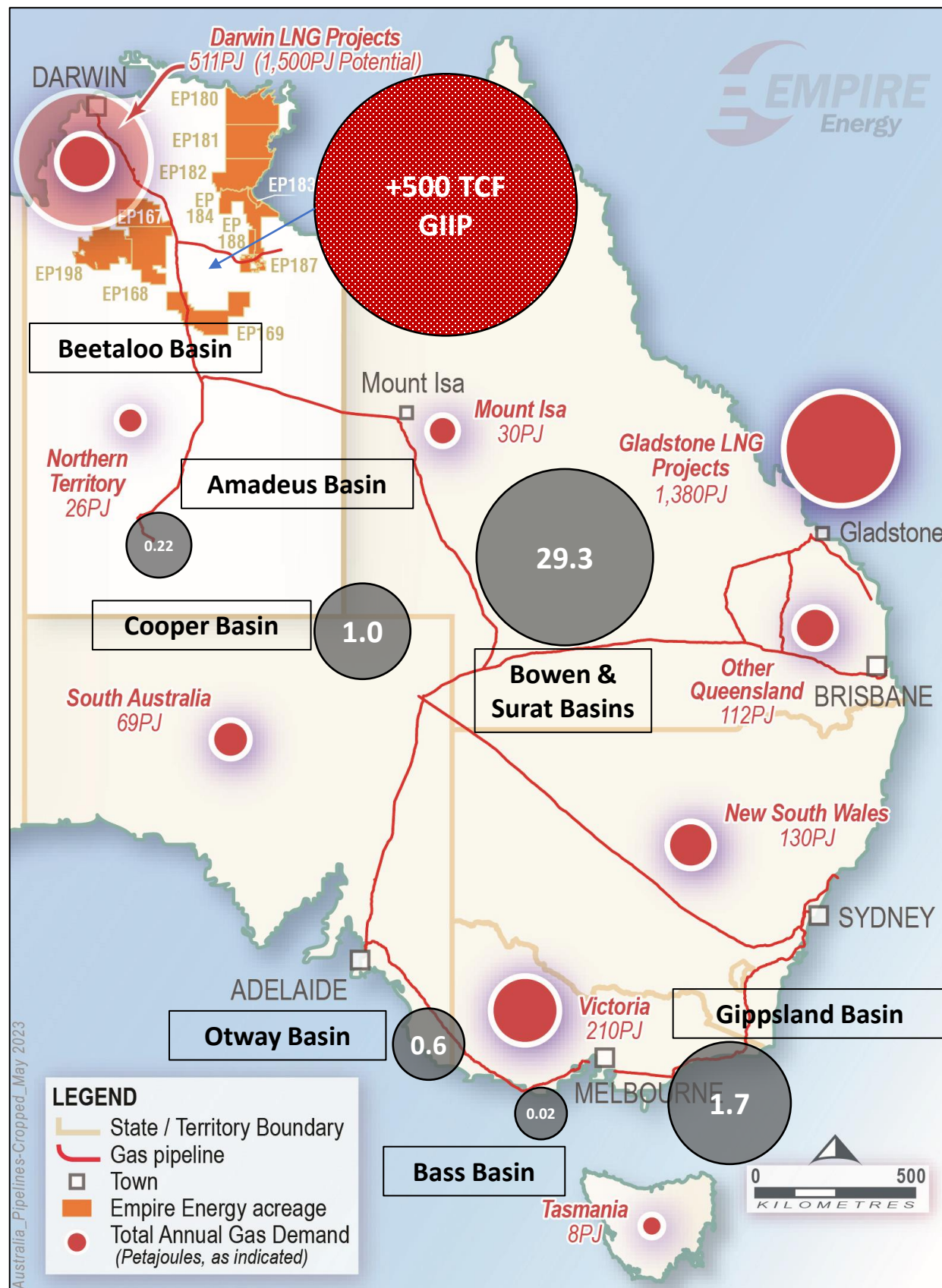
Empire's 28.9 million acre footprint



- All acreage is 100% owned and operated by Empire with no private royalties. Net Revenue Interest of ~87%¹
- Empire is the largest net acreage holder in the Beetaloo
- Access to existing infrastructure: Stuart Highway, Darwin to Adelaide rail corridor and the Amadeus Gas Pipeline (connecting to the East via the Northern Gas Pipeline)
- Empire's four wells in EP187 have delineated a large discovered gas resource including two horizontal wells, fracture stimulated, and flow tested have demonstrated production deliverability
- Empire has spent ~A\$90m in EP187, supported by ~A\$44m in Australian Government funding

1. The difference between working interest and net revenue interest (NRI) represents the Northern Territory Government and Traditional Owner royalties

Empire has an Enormous Resource



- Total basin-wide Prospective Resources in the Velkerri B shale alone is **>100 TCF** (one of five productive shale units) based on Government estimates of **500 TCF** gas-in-place (assuming recovery factors of between 10% and 20%)
- **Large enough to supply both LNG and east coast markets.**
- **Empire (100%) NT 2C Contingent Resource of 1,906 PJ (1.63 TCF) gas and 3.5 MMBBLs liquids¹**
- **Empire (100%) EP187 2C Contingent Resource of 1,739 PJ (1.5 TCF) at an average EUR per well location of 7.9 PJ**
- **Empire (100%) P(50) Prospective Resource of 44,541 PJ (41.67 TCF) gas and 764 MMBBLs liquids.^{1,2}**

Source: Netherland, Sewell & Associates Inc

1. Western Beetaloo 1.06 PJ per BCF applied

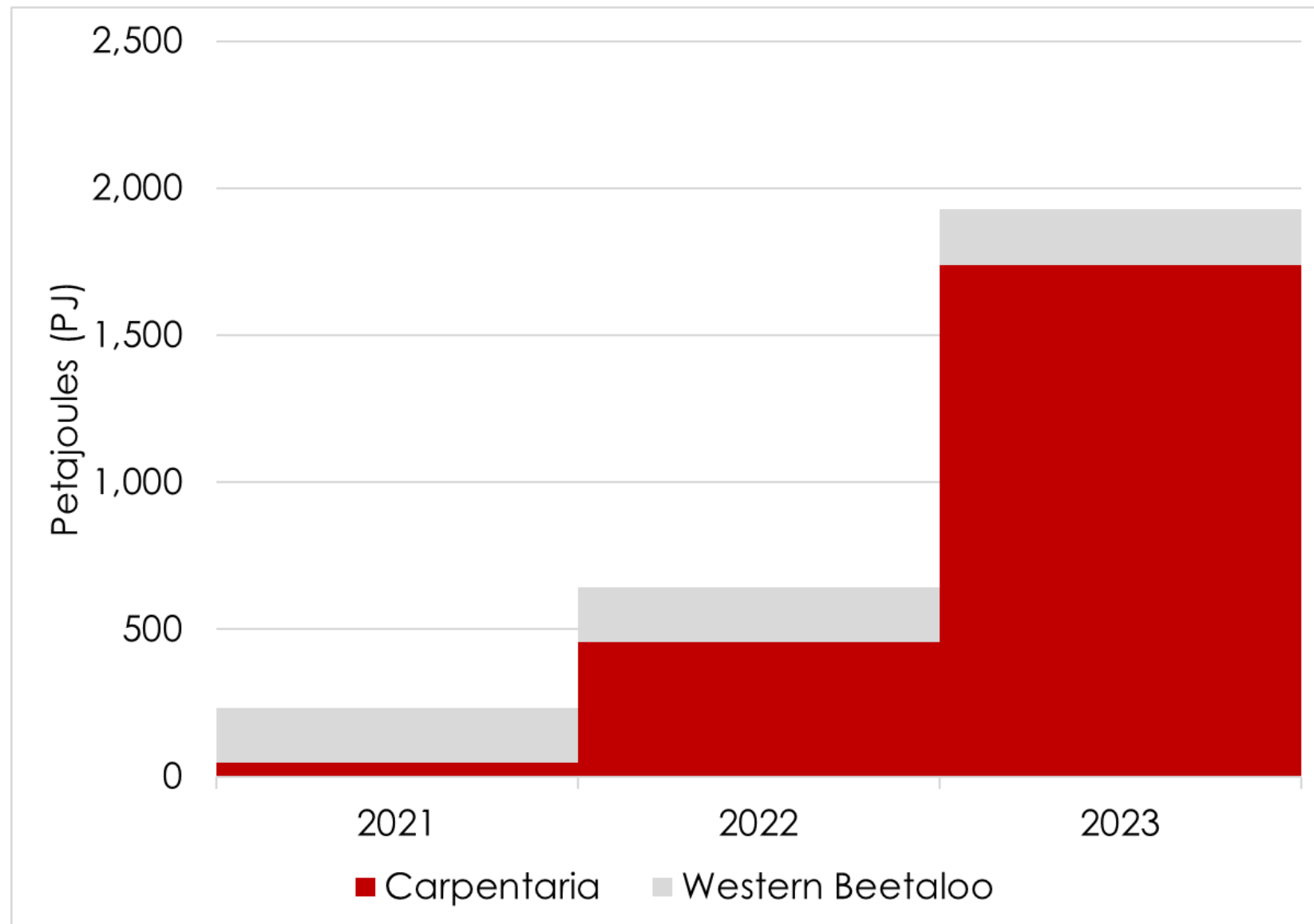
2. Barney Creek – McArthur Basin targets, 1.06 PJ per BCF applied



Empire has Grown its Certified 2C to LNG Scale



Empire's on ground activities have grown discovered resources to an LNG Scale



	EP187 Contingent Resources (100%) as at May 2023 Net Sales Gas		
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)
Total	304 PJ (260 BCF)	1,739 (1,483 BCF)	3,507 (2,991 BCF)
Average EUR Per Development Well	6.2 PJ (5.3 BCF)	7.9 PJ (6.7 BCF)	9.3 PJ (7.9 BCF)

Key Drivers of 2C Uplift	2021	2022	2023
	<ul style="list-style-type: none"> Carpentaria-1 drill Pangaea acquisition 	<ul style="list-style-type: none"> Carpentaria-1 EPT Carpentaria-2H drill Charlotte 2D seismic survey 	<ul style="list-style-type: none"> Carpentaria-2H EPT Carpentaria-3H drill and EPT Carpentaria-4V drill

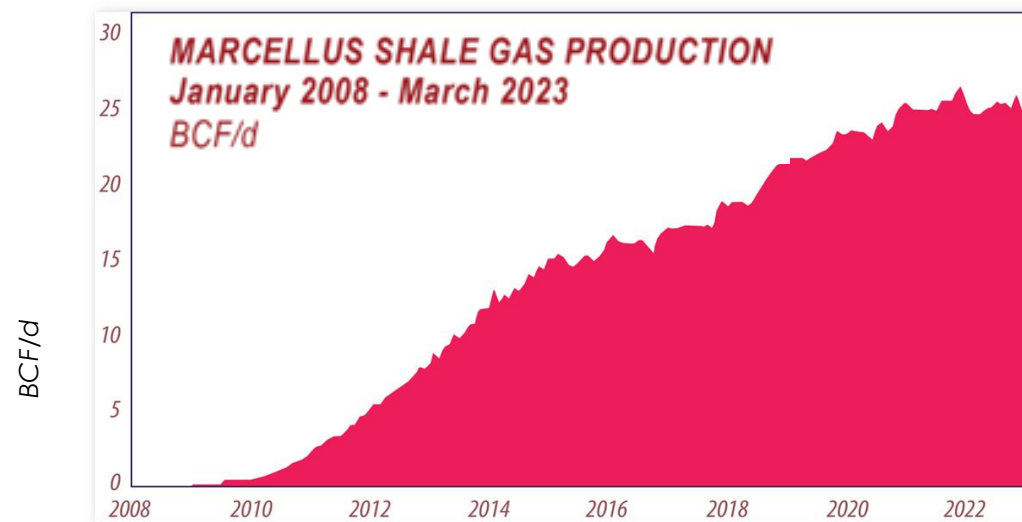
- **Further 2C Contingent Resources in the Western Beetaloo with large “running room” on 2C resource is constrained by well control**
- **Additional delineation with further drilling will almost certainly increase 2C Contingent Resources given Petroleum Resources Management System constraints in resource booking**
- **Success in the pilot program may facilitate maiden 2P reserve booking**

Note: Refer to EEG announcement dated 29 May 2023 for Netherland, Sewell & Associates, Inc. Contingent and Prospective Resources

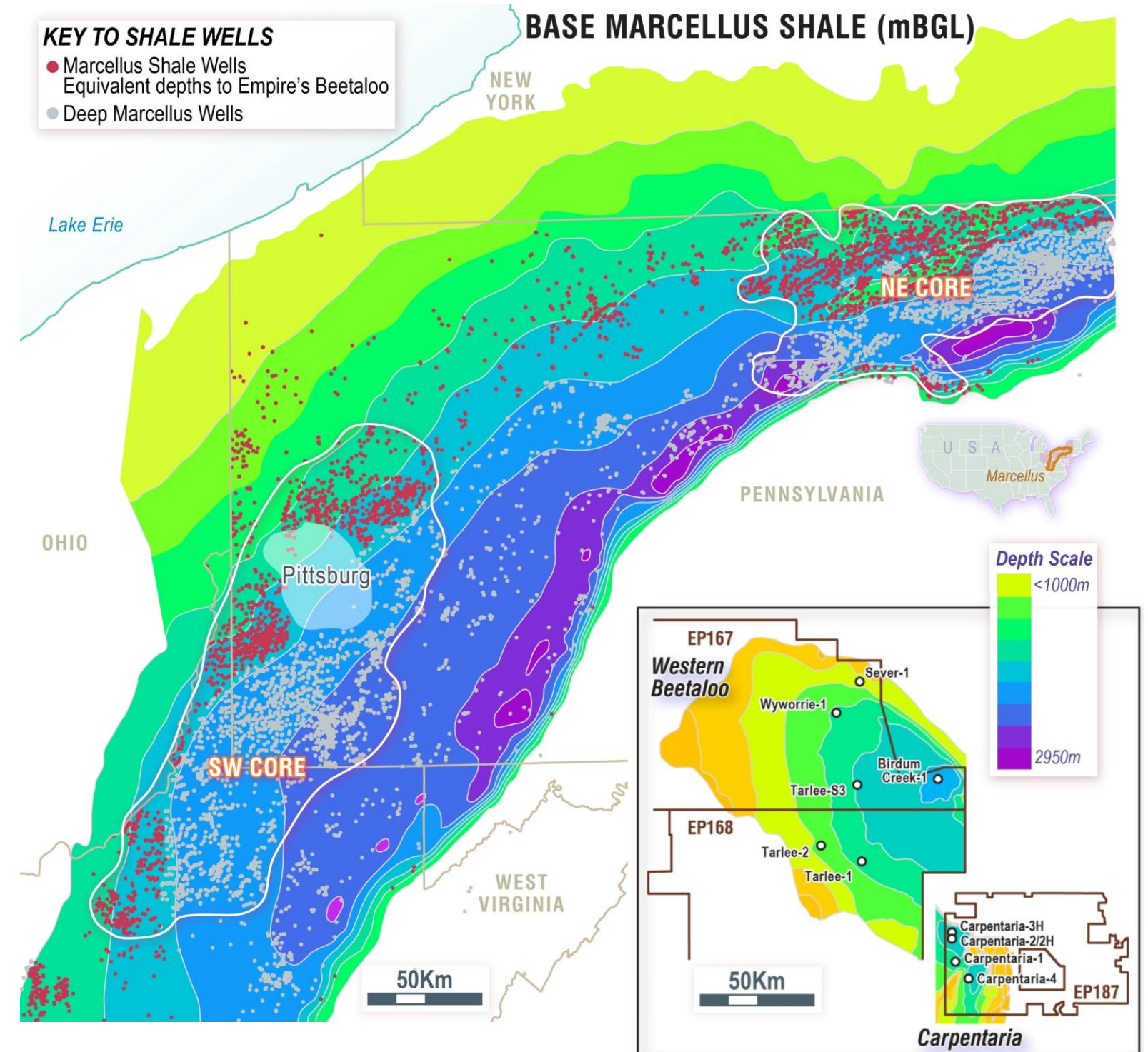
Empire's Beetaloo Footprint Comparable to Marcellus



- Empire's Beetaloo footprint is comparable in size to significant portions of the core areas of the Marcellus Shale play in the Appalachian Basin
- More than 9,000 wells are producing from similar depths to Empire's Beetaloo play (~34 percent of all Marcellus wells)¹ across both core areas
- The majority of the more than 27,000 producing Marcellus Shale wells are less than 2,250 metres below ground level
- **Marcellus shale producing acreage has typically transacted at US\$5,000 to US\$25,000 per acre². Empire is valued at ~US\$80 per acre based on the Carpentaria Project and Western Beetaloo Project alone.**



“Marcellus shale gas production has grown by 25 BCF/d over ten years”



Source: U.S. Energy Information Administration - EIA - Independent Statistics and Analysis

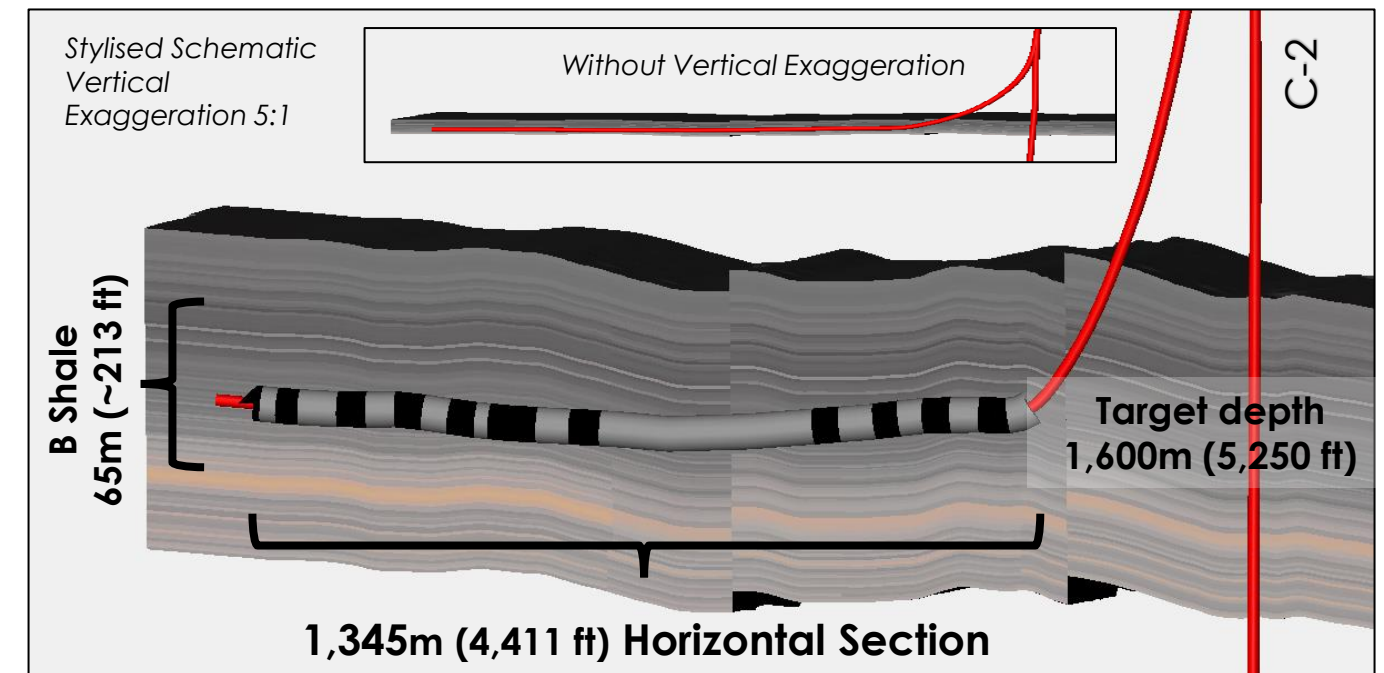
1. EIA and relevant State databases

2. <https://mercercapital.com/energyvaluationinsights/ma-in-marcellus-utica-basins-2>

Empire's First Horizontal Well Flow Test A Success

Carpentaria-2H is the fourth horizontal well in the basin, was drilled 100% within zone, and successfully flowed gas to surface from all 21 frac stages with basin leading low rates

- **Carpentaria-2H ("C-2H") produced a total of 323 TJ (281 mmscf) over 127 days**
 - This equates to a normalised rate of 8.25 TJ (7.2 mmscf) per day for an equivalent 3,000m horizontal development well for the entire test period
- Gas composition remained consistent with high calorific value and **extremely low CO₂ (less than 1%)**
- C-2H was brought back online after an initial 51 days of testing to test the benefit of soaking with excellent results
 - **The post-soak 2023 IP30 is confirmed at 10.5 TJ (9.2 mmscf) per day for an equivalent 3,000 metre horizontal development well**
- Completed without the need for production tubing, well free-flowed through 4 ½" casing. Empire is likely to move to 5 ½" in future scenarios
- **These rates exceed the benchmark other Beetaloo players have put forth as commercial, at a capital cost of ~2/3 of Empire's peers**



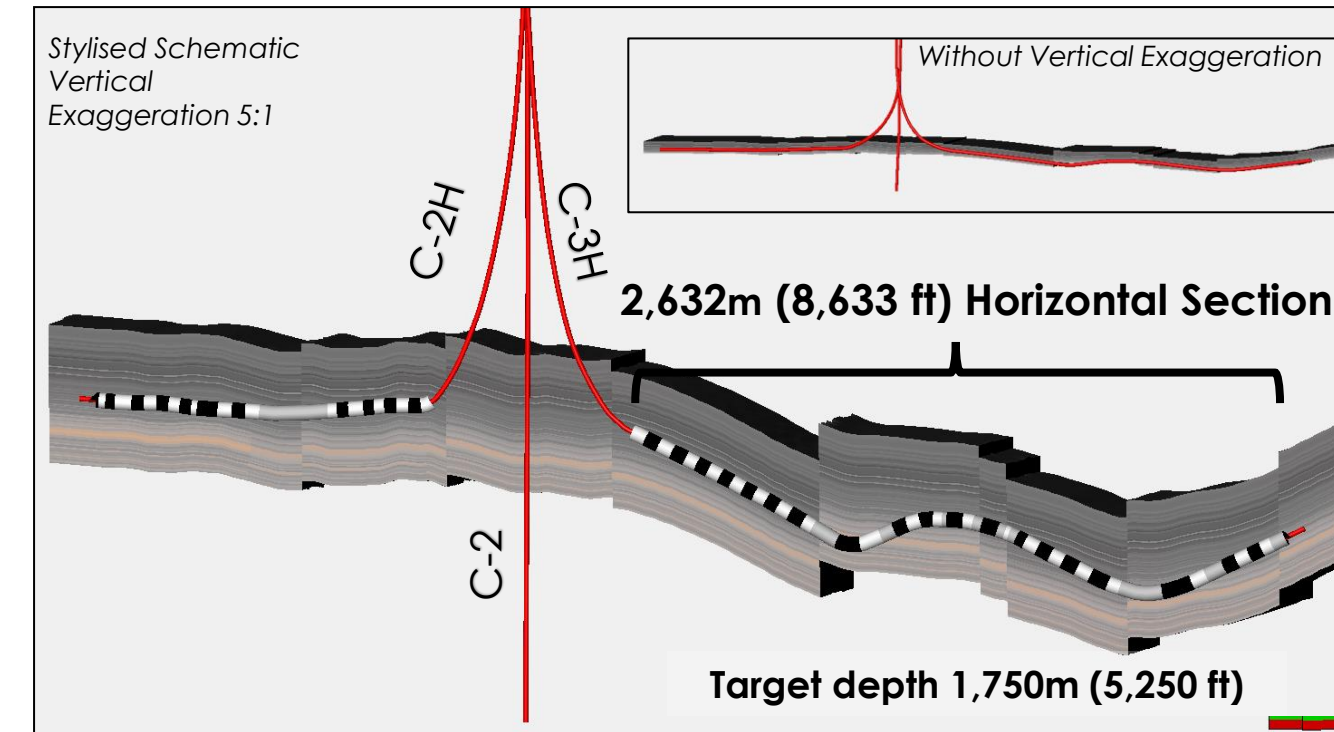
Carpentaria-2H flare

Empire's Record Breaking Carpentaria-3H Horizontal Well



Carpentaria-3H is the longest horizontal shale well, and the largest frac job ever executed in Australia, on time and ~A\$6m under budget

- Empire's second horizontal well
- Total horizontal lateral length of 2,632m (8,633 ft), with 2,374 m (7,786 ft) successfully placed within the target Velkerri B shale (90% in zone), with strong gas shows throughout the target zone
 - Confirmed long horizontals can be drilled in the Beetaloo using Australia's existing rig fleet and generating material cost efficiency gains
- Carpentaria-3H successfully stimulated, significantly below budget, executing all planned 40 stages across 1,989m (6,526 ft)
- A total of 12.8 million lbs of proppant placed, averaged 319,000 lbs per stage (~2,000 lbs/ft). Comparable to US Shale frac intensity
- Carpentaria-3H was brought back online on 3 August 2023 and has demonstrated the material benefits to productivity of soaking, through significantly increased gas flow rates
- Following reopening, Carpentaria-3H flowed gas at an average rate of 3.3 mmscf / day (3.8 TJ / day) over the first 30 days ("IP30")
- The Carpentaria-3H "post-soak" average daily production rates have increased 30% over the IP27 "pre-soak" test conducted in Q1 2023
- Empire is investigating optimisation of the per stage performance compared to C-2H. Evidence of plug failures have likely contributed to materially lower productivity which can be resolved in future wells. Well bore undulation and faulting, may have also contributed to underperformance



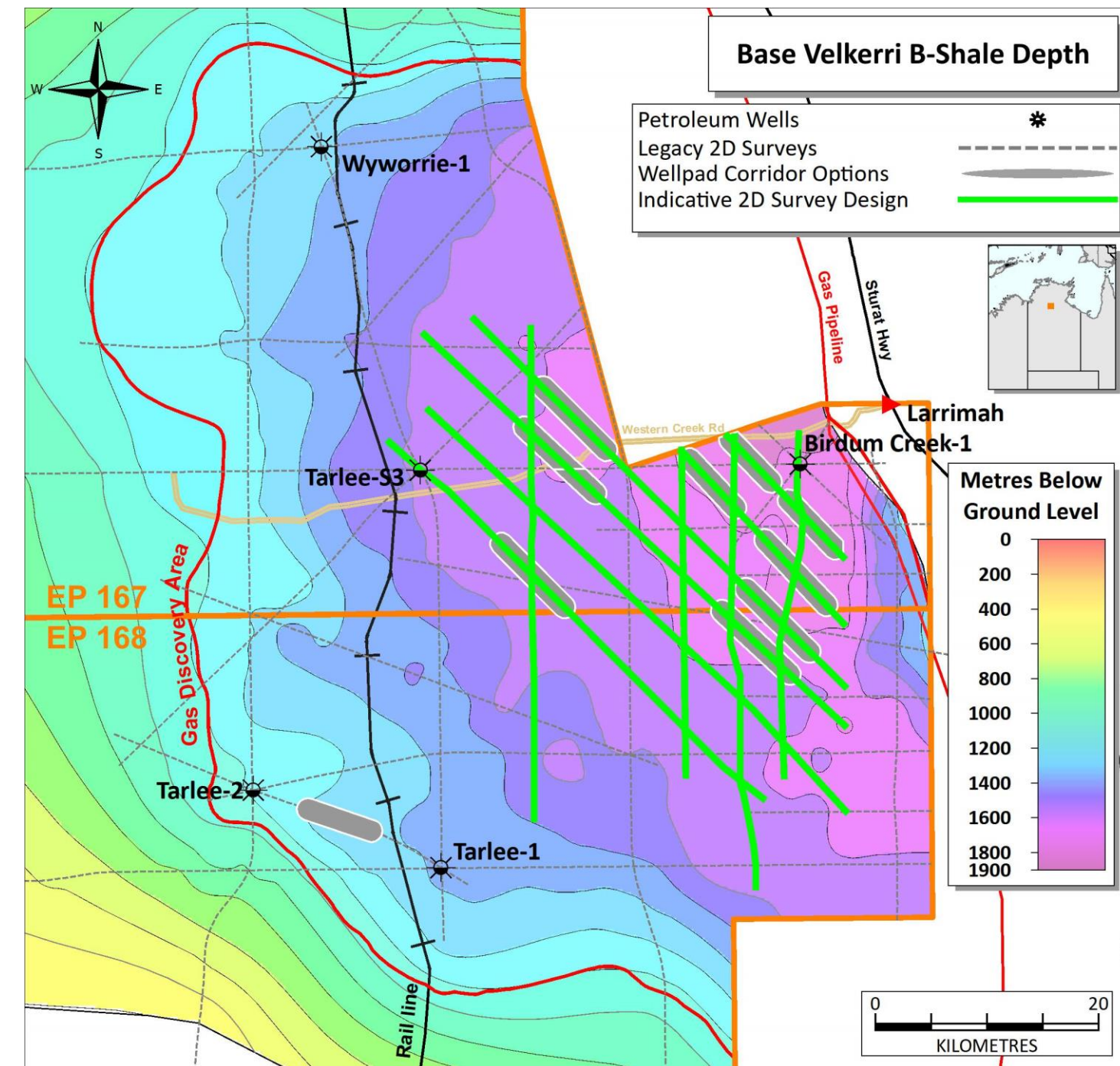
SLB 185 Rig drilling Carpentaria-3H in EP187

Western Beetaloo Project Overview

Comprehensive well and seismic datasets in the Western Beetaloo Project have defined a large extensive resource

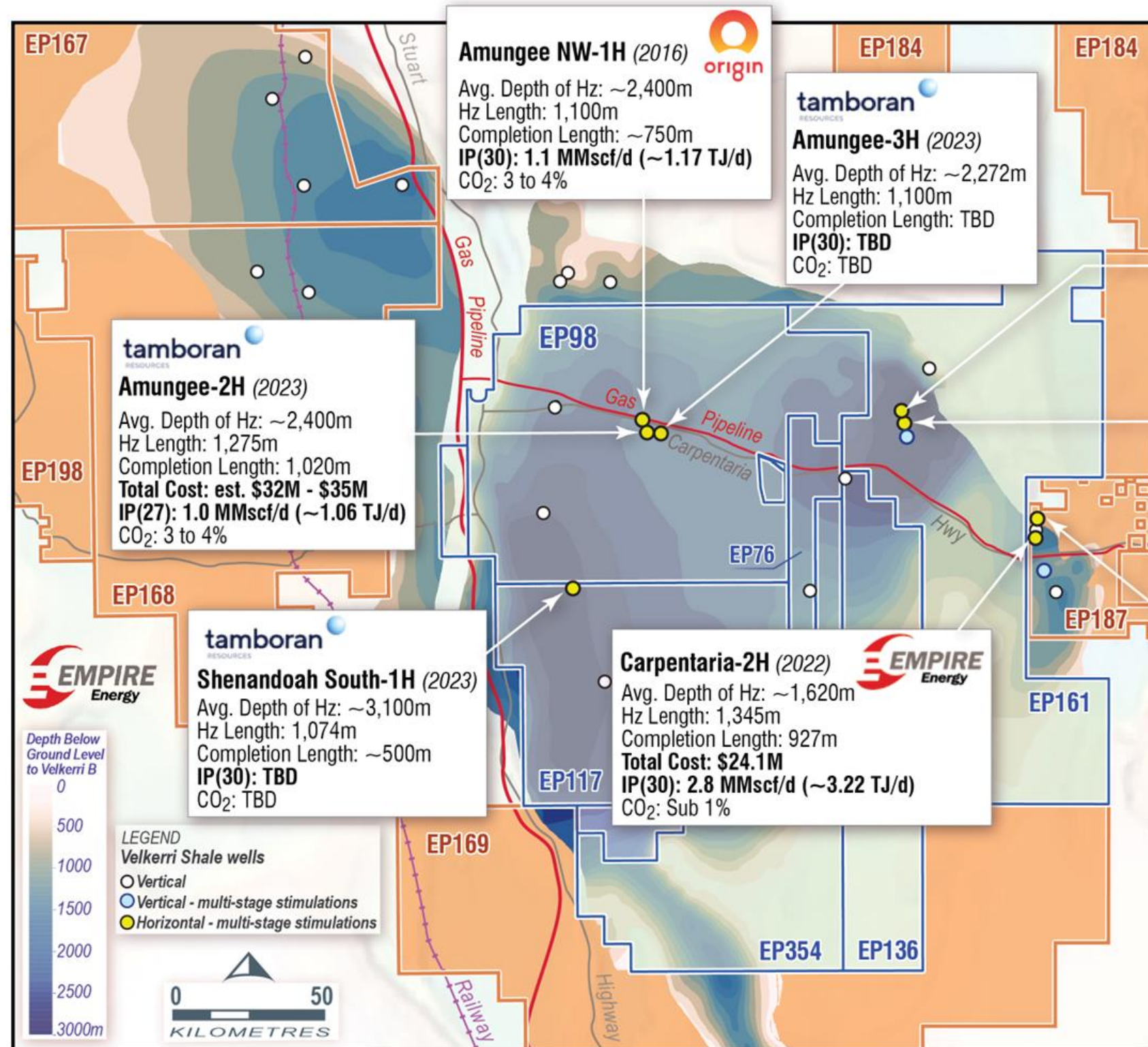
- **Very Large area and resource - 100+ TCF GIP** within Notice of Discovery (B Shale only) - **over 1 million acres of dry to high calorific gas with low CO₂**, close to rail, road and pipeline infrastructure
- **Same rocks as Carpentaria Project – horizontal drill ready**
- **Strategically located near gas pipeline, highway and rail line**
- **Environmental approvals submitted** to the Regulator for:
 - The acquisition of up to **~380 km in-fill 2D seismic** orientated for future horizontal wells
 - Clearance for **drilling, stimulation and flow testing of up to six horizontal wells** on six well pad locations
- **Land access agreements executed with pastoralists**
- The approvals have the potential to accommodate numerous production wells in a future commercial development scenario
- Current **2C** Contingent Resource of **167 PJ¹ (158 BCF)** (+3.5 MMBBLs)
- Current **3C** Contingent Resource of **441 PJ¹ (416 BCF)** (+14.1 MMBBLs)
- Current P(50) Prospective Resource of **~28 TCF and 764 MMBBLs**

1. 1.06 PJ per BCF applied by Empire



EP 167 and EP 168 100% EEG

Basin-wide Appraisal Drilling is Demonstrating the Commercial Case



- Empire drilling and fracture stimulation costs ~2/3 of deeper wells (on a like for like basis)
- Empire generating strong flow rates on a per dollar of capex basis, building the economic case for the basin flanks
- Empire's gas has a higher energy content than dry gas (with positive implications for revenue)
- 100% interest in all properties and no private royalties maximises farm out flexibility and economics
- Empire's extremely low in-situ CO₂ reduces offset costs
- Flow rates achieved are from short lateral tests

Rosalind Park Gas Plant Acquisition

- **Empire has acquired AGL Limited's (AGL) Rosalind Park Gas Plant (RPGP) which significantly accelerates the path to Pilot Project gas production**
 - RPGP has a design capacity of 42 TJ/d (40 mmcf/d)
- RPGP is a fit for purpose facility that meets all Carpentaria pilot specifications and has passed stringent technical due diligence requirements
- RPGP supported the Camden Gas Project and was decommissioned prematurely in August 2023 following a corporate decision to move away from gas operations in greater Sydney metropolitan area:
 - The RPGP was in Menangle NSW (near Sydney), where natural gas was collected via low pressure underground gathering lines, compressed, dried and made ready for use by households and businesses, and transmitted into the Sydney natural gas network
 - RPGP is ~20 years old, peak production was ~15 TJ/d
- Empire has transported the RPGP to storage facilities in Roma in proximity of Enerflex Engineering operations where the equipment will be refurbished in readiness for transportation and reassembly at the Carpentaria Pilot Project in 2024
- Empire continues to work with APA under its Initial Agreement which may result in the funding of the engineering and construction of midstream infrastructure assets, if further approvals are obtained and long form agreements are entered into

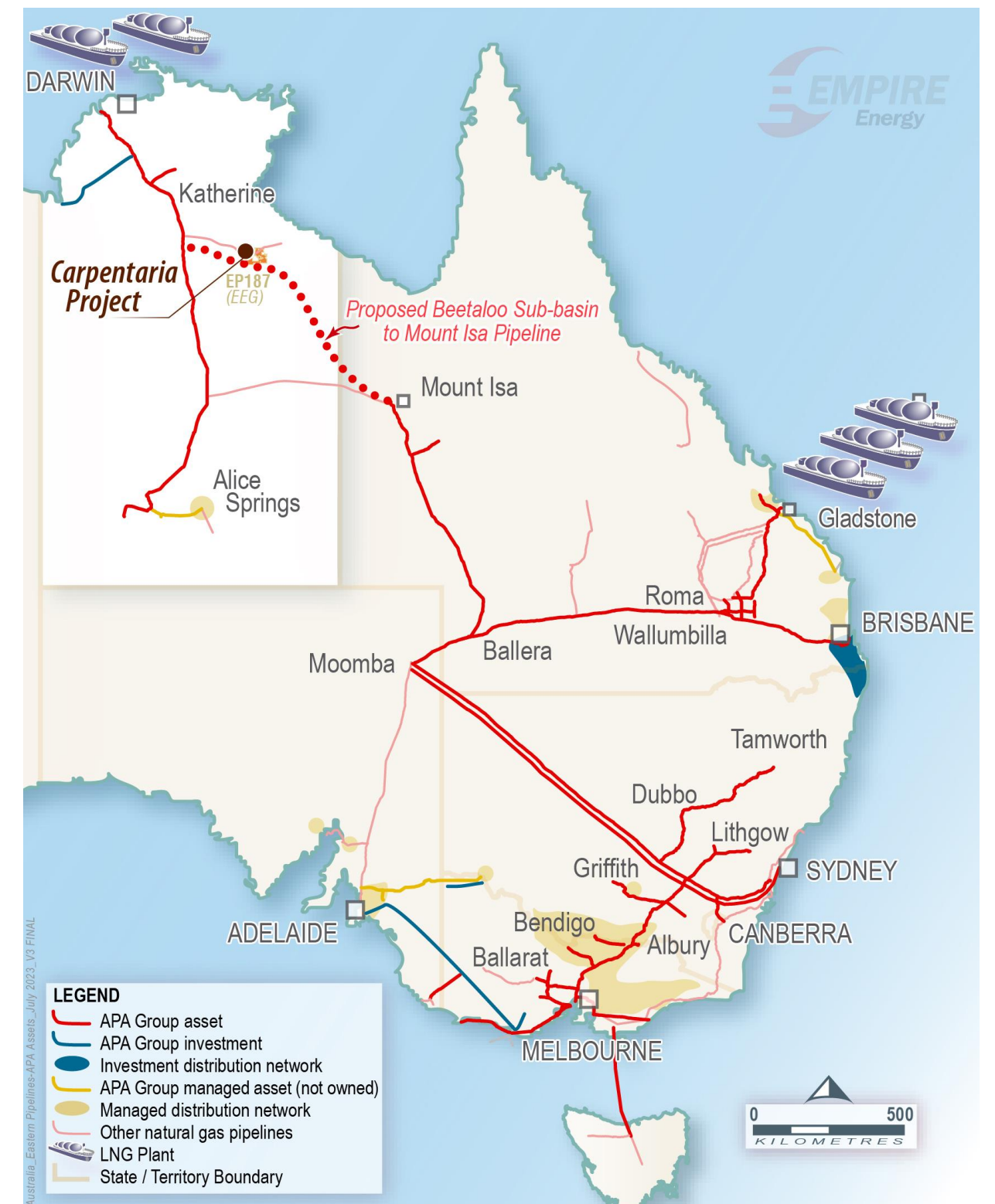


RPGP at Menangle NSW

Empire estimates that the acquisition of the RPGP may result in >\$30 million in cost savings and reduce the lead time by ~12 months compared to new build alternatives

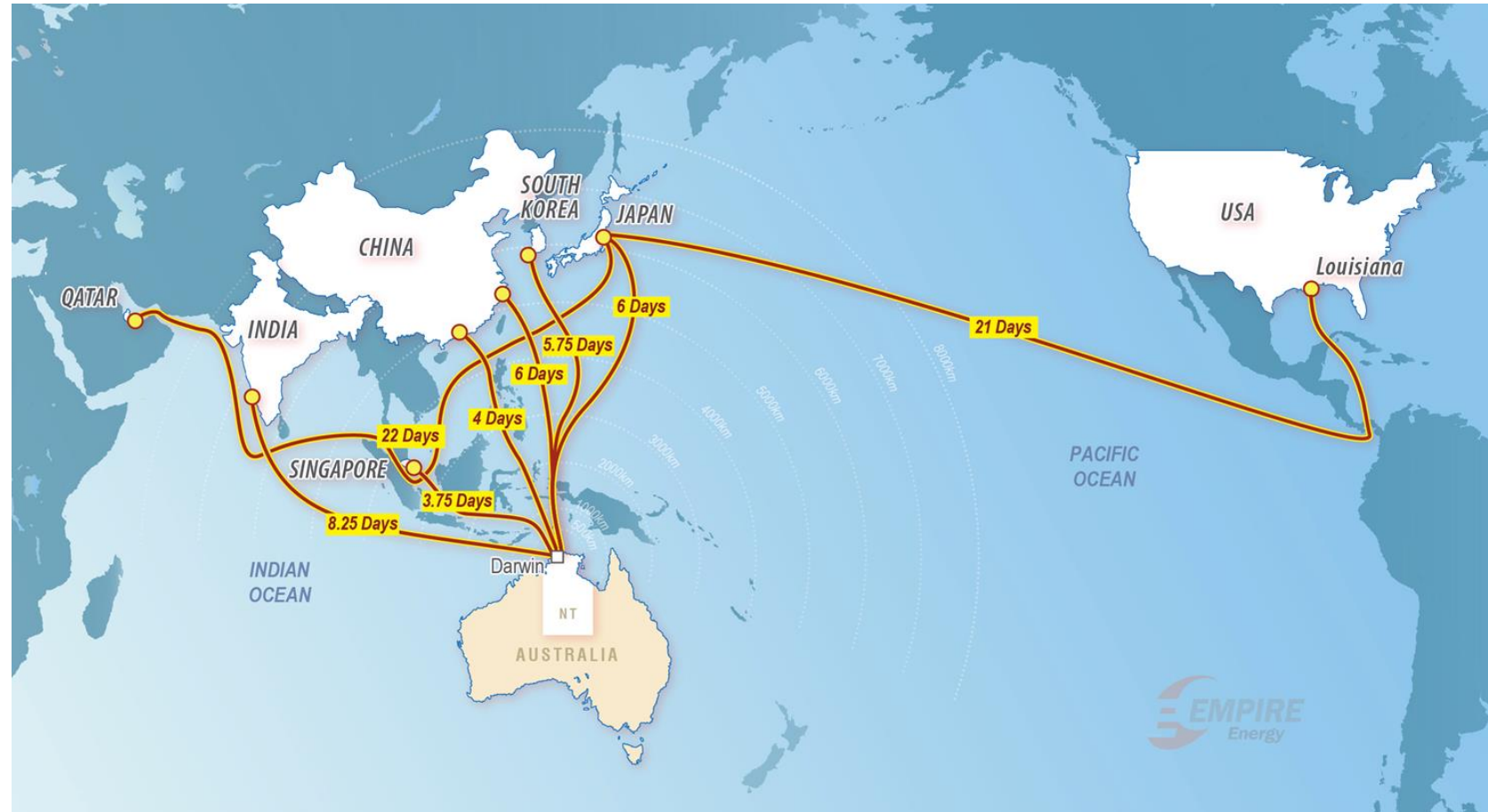
Connections to Market for Large Gas Volumes

- **APA Group (ASX: APA)** and Empire have executed an agreement for the establishment of midstream gas infrastructure furthering the memorandum of understanding announced by Empire on 27 October 2021
- **APA will spend up to A\$5 million** under a proposed early works agreement on Engineering and Design Concepts for midstream gas facilities associated with Empire's Carpentaria Pilot Project, which would materially reduce the capital requirements for Empire to commence commercial production
- APA and Empire are also working on open-access pipeline concepts to transport **large volumes of gas from the Beetaloo to Australian east coast markets (in excess of 500 TJ/d / 476 mmcf/d)**. The leading concept considers the potential construction of a new pipeline connecting the Beetaloo to APA's existing Carpentaria Gas Pipeline between Mount Isa and Ballera (Queensland)
- Negotiations with NT Government owned utility **Power and Water Corporation** under the existing MOU are advancing to facilitate access to the McArthur River Pipeline
- **Empire is currently in active gas sales negotiations with multiple parties for supply of gas in both the pilot phase and full development phase**



The Beetaloo Strategically Located Near Asian Markets

LNG Tanker Sailing Days to Tokyo Bay¹



- Darwin currently has installed LNG export capacity at Ichthys and Darwin LNG of 12.6mtpa with environmental approvals in place to increase to 27.8mtpa
- **Kevin Gallagher, Santos Managing Director:**
 - “We have approval for two more trains at DLNG and we are open to third party gas opportunities,”²
- Darwin currently supplies >10% of all LNG to Japan³
- **Globally competitive LNG offering for growing Asian LNG markets with the lowest transportation cost of all major supply hubs**
- Empire’s estimated landed cost of LNG into Tokyo Bay
 - **Estimated landed cost: US\$6.50 / MMBtu**
 - Total Upstream Cost (including APA tariff): US\$3.50 – US\$4.00 / MMBtu
 - Pipeline tariff, LNG processing tolling, shipping: US\$2.50 / MMBtu
- **Current Japan/Korea Marker (Platts) LNG price**
 - US\$9.77 MMBtu (as at 25 January 2024)

Source:

1. BloombergNEF, Tamboran Resources

2. Santos release “Santos and Eni sign MOU to Collaborate in Northern Australia and Timor-Leste” dated 3 May 2021

3. <https://territorygas.nt.gov.au/gas-strategy/our-gas-led-growth-story/expand-darwins-world-scale-lng-hub>

Northern Territory Gas Market Overview

The local NT gas market is in crisis due to the decline of existing supply sources



Demand Overview

- Uses 25 to 30 PJ (or 70 to 80 TJ/d) of gas p.a.
- Sources of demand include:
 - NT Government (via Power and Water Corporation (PWC) and Territory Generation (TGen)) for power generation
 - EDL (independent electricity producer)
 - Mining: McArthur River Mine (Glencore), Tanami Gold Mine (Newmont)

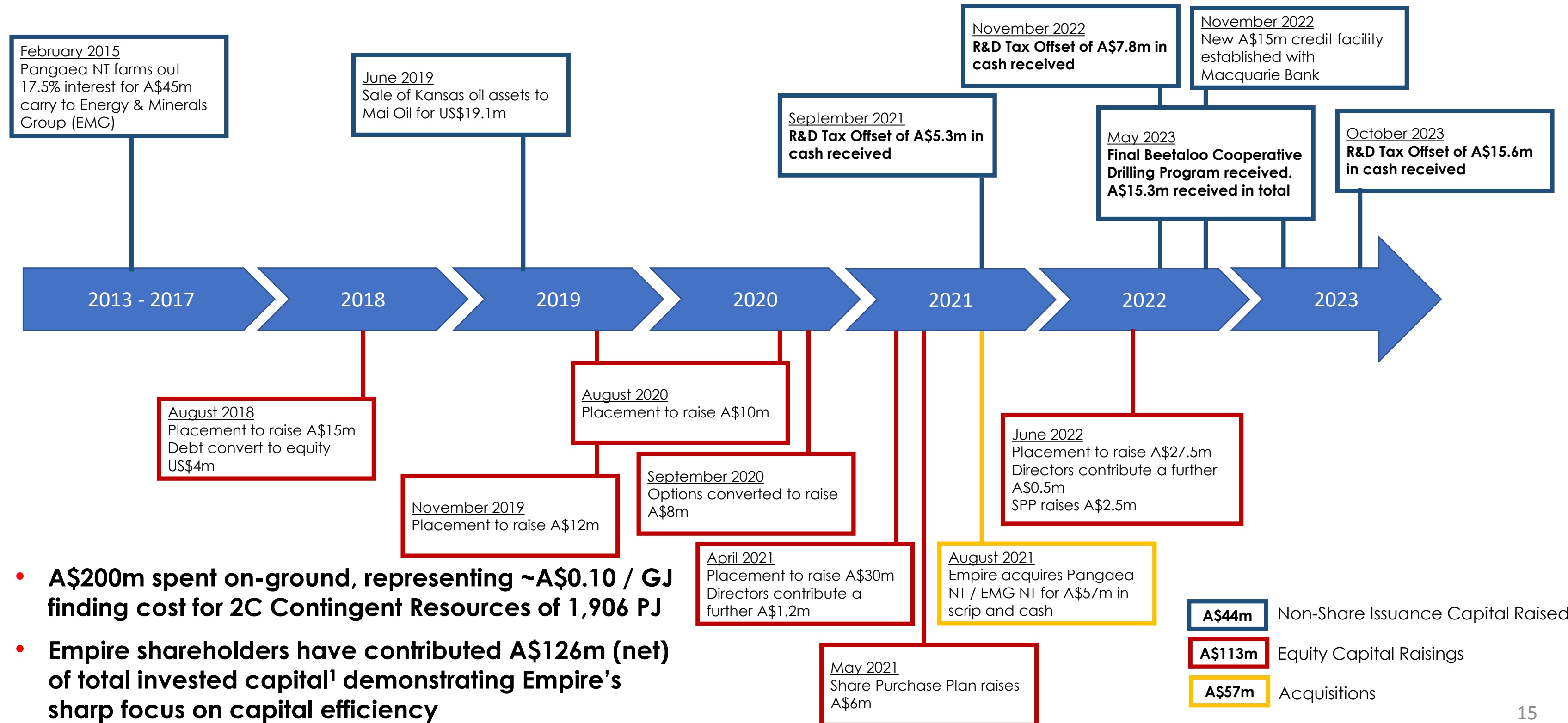
Supply Overview

- There are three existing sources of supply for the local NT market:
 - **Blacktip Gas Field (ENI owned and operated)**
 - PWC entered a 25 year take or pay with ENI commencing in 2009 for all of Blacktip volumes (up to 860 PJ). In accordance, with the GSA PWC is entitled to purchase 37 PJ p.a., at a maximum daily rate of **104 TJ/d [Current supply ~20TJ/d, AEMO]**
 - PWC on-sells to TGen, EDL and Newmont
 - **Amadeus Basin (Central Petroleum operated)**
 - Supplies PWC, McArthur River Mine **[Current supply ~40 TJ/d, AEMO]**
 - **Darwin LNG (Santos operated) / Ichthys LNG (INPEX operated)**
 - **Current source of NT emergency gas**
 - Bayu-Undan field is nearing full depletion

Empire – Beetaloo Focused Since 2018



Australian Government has supported Empire's on-ground activities with ~A\$44m



- **A\$200m spent on-ground, representing ~A\$0.10 / GJ finding cost for 2C Contingent Resources of 1,906 PJ**
- **Empire shareholders have contributed A\$126m (net) of total invested capital¹ demonstrating Empire's sharp focus on capital efficiency**

1. Calculated as equity raised plus Pangaea / EMG acquisition less Australian Government contributions

Pathway to Carpentaria Pilot Project Production and Revenue



EXPLORATION & APPRAISAL

2021	<ul style="list-style-type: none"> ✓ 2C Contingent Resource: 575 BCFe ✓ 2U Prospective Resources: ~48 TCFe
2022	<ul style="list-style-type: none"> ✓ Gas Sales & Transportation: APA Group and Power and Water Corporation MoUs Executed ✓ Established A\$15 million credit facility with Macquarie Bank to move to project financing

KEY ACTIVITIES TO CARPENTARIA PILOT PROJECT FID





2023 and H1 2024	<ul style="list-style-type: none"> ✓ Major 2C Contingent Resource upgrade announced for EP187 to 1,739 PJ (1.5 TCF high calorific gas) ✓ Carpentaria-2H flow rates: normalised IP30 of 10.5 TJ (9.2 mmscf) per day for an equivalent 3,000m horizontal development well Carpentaria-3H flow rates: IP30 of 3.8 TJ (3.3 mmscf) per day ✓ Carpentaria-4V: intersected the same stacked Velkerri Formation shales as the Carpentaria Project wells thereby opening the Carpentaria East Area ✓ Front End Engineering & Design ("FEED"): including engineering, economic modelling etc. Gas plant secured <ul style="list-style-type: none"> ▪ Pilot development (up to 25 TJ/d) – over A\$110m revenue per annum @ A\$12/GJ ✓ Subsurface design planning <ol style="list-style-type: none"> 1. Execute gas sales and transportation agreements – discussions ongoing with multiple parties 2. Arrange financing for pilot (Macquarie Bank credit facility already in place) 3. Obtain government approvals: NT Petroleum Production Licence over Carpentaria 4. Negotiate Northern Land Council ("NLC") Production Agreement with Traditional Owners
---------------------------------	---

POST FID

2024	<ol style="list-style-type: none"> 1. Pilot project construction
2025	<ol style="list-style-type: none"> 1. First gas sales 2. Planning to move to full development (200 TJ/d+ to East Coast then >1 PJ / day LNG export via Darwin)

Pathway to Full-Field Development of the Carpentaria Project



Year	2024	2025	2026	2028+
				
KEY ACTIVITIES	<ul style="list-style-type: none"> • Construct Carpentaria Pilot Project midstream facilities and gas gathering network • Drill, fracture stimulate and connect 3x wells (3,000m lateral, ~60 stages) 	<ul style="list-style-type: none"> • First gas deliveries from the Carpentaria Pilot Project (~15TJ/d) • Planning and engineering work for full-field development 	<ul style="list-style-type: none"> • Drill, fracture stimulate and connect a further 3x wells (3,000m lateral, ~60 stages) to grow production to ~25TJ/d • APA to commence work on pipeline and gas processing infrastructure for full-field development 	<ul style="list-style-type: none"> • 'Factory' drilling • Grow production beyond 200TJ/d (~190mmcf/d) to supply east coast and LNG markets

Carpentaria Pilot Project

Carpentaria Gas Project



<https://empireenergygroup.net/>

ASX:EEG

Alex Underwood
Managing Director
info@empiregp.net
+612 9251 1846

Appendix 1: Corporate Snapshot



Capital Structure

Shares on issue ¹	773.1M
Share price	A\$0.18
Market cap	A\$139.2m
Net (debt ²) / cash	~A\$8.6m
Enterprise value	~A\$130.6m
Cash at bank³	~A\$17.3m

ASX Share Price



Top Shareholders

Pangaea Resources	18.1%
Elphinstone Group	8.3%
Global Energy and Resources	4.2%
Sheffield Holdings (USA)	4.1%
Energy and Minerals Group (USA)	3.4%
Macquarie Bank	3.4%

- **Top 20 shareholders own 61.5%**
- **Top 50 shareholders own 70.3%**

1. Empire has 78.9m unlisted options on issue with an average exercise price of ~A\$0.39 per share. In addition, there are 18.6m Share Rights on issue to members of the management team and Board. Most of the Share Rights have performance hurdles tied to total shareholder return.
 2. Empire has a US\$7.5 million debt facility (drawn to US\$4.7 million) with Macquarie Bank maturing in September 2024 which is secured against the Company's USA gas production assets. Under new management, total US debt has been reduced by over 80% since 2018. Empire also has in place a A\$2.25 million revolving credit facility (drawn to A\$1.8 million) and A\$5 million performance bonding facility (undrawn) with Macquarie Bank
 3. As at 31 December 2023

Appendix 2: Empire's Board of Directors



Peter Cleary

Chairman

- Distinguished 29-year career representing Santos, the North West Shelf Venturers and BP in Asia. His executive career was in LNG, pipeline gas and chemicals operations
- Member of the Executive Committee of the Australia Japan Business Co-operation Committee and the Australia Korea Business Council

Alex Underwood

Managing Director

- Associate Director Energy Markets Division of Macquarie Bank Limited (Sydney and Singapore) for 10 years
- Director Natural Resources Division of Commonwealth Bank of Australia (Singapore)
- Financial Analyst BHP Billiton Petroleum (Perth)
- Experience investing debt and equity in the upstream oil and gas sector and identification of value creation opportunities for upstream oil and gas development / production assets
- Deep understanding as an institutional investor of the key drivers of shale gas value generation

Karen Green

Non-Executive Director

- Over 30 years' experience in Chartered Accountancy, predominantly in business advisory services and has lived and worked in Darwin since 1991
- Managing Partner for the Northern Territory and leader for Advisory Services for Deloitte in the Northern Territory
- 5th female ever to enter the Deloitte Australian Partnership
- Currently on the Northern Territory Investment Advisory Group and on the Northern Territory National Security Advisory Panel.
- Non-Executive Director of Airport Development Group Pty Ltd (the long-term lease holder of Darwin International Airport, Alice Springs Airport and Tennant Creek Airport)

Louis Rozman

Non-Executive Director

- Former Managing Director of CH4 Gas which merged with Arrow Energy and later acquired by PetroChina and Shell
- Founding principal of Pacific Road Capital, a resources investing manager of private equity funds
- Former Chief Operating Officer of AurionGold Limited
- Chairman of the VALMIN Code Committee for the AusIMM and Australian Institute of Geoscientists

Prof. John Warburton

Non-Executive Director

- Highly regarded petroleum geoscientist experienced in big fields
- 30 years technical & leadership experience in leading E&P companies including BP, LASMO-Eni and Oil Search
- Previously Chief of Geoscience & Exploration Excellence for Oil Search

Appendix 3: A Globally Significant Resource Position



Shale Unit	Contingent Resources (Liquids)			Contingent Resources (Gas)			Prospective Resources (Liquids)			Prospective Resources (Gas)		
	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1C)	Best Estimate (2C)	High Estimate (3C)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)	Low Estimate (1U)	Best Estimate (2U)	High Estimate (3U)
	mmbbls	mmbbls	mmbbls	PJ	PJ	PJ	mmbbls	mmbbls	mmbbls	PJ	PJ	PJ
	0.9	3.5	14.1	365.2	1,906.1	3,946.1	164	764	3,509	12,380	44,540	145,523

Empire 2C Contingent Resource of **1,906 PJ (1,625 BCF gas)** and **3.5 MMBBLs liquids**

Empire P(50) Prospective Resource of **44,541 PJ (42 TCF gas)** and **764 MMBBLs liquids**

Note: Refer to EEG announcement dated 29 May 2023 for Netherland, Sewell & Associates, Inc. Contingent and Prospective Resources Estimate of BCF to PJ undertaken by Empire of 1.06

Appendix 4: Beetaloo Horizontal Well Activity



#	Well Name	Year	Operator	Average Depth of Horizontal (Below Ground)	Horizontal Length	Total Measured Depth (m)	Drilling Cost (A\$'M)	Fracture Stimulation Stages	Stimulated Length	Fracture Stimulation and Extend Production Testing Cost (A\$'M)	Total Cost (A\$'M)	IP (EPT 1)	IP30 (EPT 2)	CO2
1	Amungee-1H	2015/16	Origin Energy (now TBN)	~2,400m	1,100m	3,808m		11	~750m			IP(57) 1.1mmscf/d	N/A	3 to 4%
2	Tanumbirini-2H	2021/22	Santos	~3,450m	1,000m	4,598m		11	660m		Est. \$37 to \$40	IP(14) 2.0mmscf/d	2.1mmscf/d	3 to 4%
3	Tanumbirini-3H	2021/22	Santos	~3,475m	1,000m	4,857m		10	600m		Est. \$37 to \$40	IP(10) 1.7mmscf/d	3.1mmscf/d	3 to 4%
	Carpentaria-2H	2021/22	Empire	~1,620m	1,345m	3,150m	\$11.1	21	927m	\$13.0	\$24.1	IP(30) 2.4mmscf/d	2.8mmscf/d	Sub 1%
	Carpentaria-3H	2022/23	Empire	~1,700m	2,632m	4,460m	\$10.0	40	1,989m	\$17.3	\$27.3	IP(27) 2.6mmscf/d	3.3mmscf/d	Sub 1%
4	Amungee-2H	2022/23	Tamboran	~2,400m	1,275m	3,883m	\$14.1	25	1,020m	~\$18	Est. \$32 to \$35	IP(50) 0.97mmscf/d	N/A	3 to 4%
5	Shenandoah South-1H	2023	Tamboran	~3,000m	1,074m	4,300m			500m					
6	Amungee-3H	2023	Tamboran	2,272m	1,100m	3,837m	\$12.6							

Sources:

- Falcon Oil & Gas (TSXV: FO, AIM: FOG) release entitled:
 - “Amungee NW-1H – Normalised gas flow rate equivalent to 5 mmscf/d per 1,000m horizontal” dated 3 September 2021
- Tamboran Resources (ASX: TBN) announcements entitled:
 - “Operational update: Approximately 17 per cent upward revision to Tanumbirini-2H and 3H flow test results” dated 21 March 2022
 - “Tanumbirini-2H and 3H 30-day normalised flow rates exceed estimated Beetaloo commerciality threshold” dated 5 September 2022
 - Total Cost calculated as EP161: Tanumbirini 2H & 3H wells total funds used to date (\$18.5m) per Tamboran’s Q1 2023 Quarterly Report multiplied by 4 (TBN holds a 25% interest in these wells)
- Tamboran Resources announcements entitled:
 - “Operational update: Approximately 17 per cent upward revision to Tanumbirini-2H and 3H flow test results” dated 21 March 2022
 - “Tanumbirini-2H and 3H 30-day normalised flow rates exceed estimated Beetaloo commerciality threshold” dated 5 September 2022
 - Total Cost calculated as EP161: Tanumbirini 2H & 3H wells total funds used to date (\$18.5m) per Tamboran’s Q1 2023 Quarterly Report multiplied by 4 (TBN holds a 25% interest in these wells)
- Releases entitled:
 - Falcon Oil & Gas, “Amungee NW-2H Well Update” dated 22 June 2023
 - Falcon Oil & Gas, “Operational Update on Amungee NW-2H Drilling” dated 23 December 2022
 - Tamboran Resources, “EP98 Operational Update: Successful completion of 25-stage stimulation program at Amungee-2H” dated 22 March 2023
- Falcon Oil & Gas release entitled “Successful Drilling of Shenandoah South 1H Horizontal Well” dated 18 September 2023
- Tamboran Resources release entitled “EP98/117 Operational Update: A3H drilled in record time in less than 18 days” dated 16 October 2023

This presentation has been prepared by Empire Energy Group Limited (“Empire” or the “Company”). The information in this presentation is information of a general nature and is subject to change without notice. The information in this presentation does not purport to be complete, nor does it contain all of the information which would be required in a prospectus prepared in accordance with the requirements of the Corporations Act 2001 (Cth). It contains information in a summary form only and should be read in conjunction with Empire’s other periodic disclosure announcements to the ASX available at www.asx.com.au.

An investment in Empire shares is subject to known and unknown risks, many of which are beyond the ability of Empire to control or predict. These risks may include, for example, movements in oil and gas prices, a failure to acquire some or all of the targeted acreage, risks associated with the development and operation of the acreage, exchange rate fluctuations, an inability to obtain funding on acceptable terms or at all, loss of key personnel, an inability to obtain appropriate licences, permits and or/or other approvals, inaccuracies in resource estimates, share market risks and changes in general economic conditions. Such risks may affect actual and future results of Empire and its shares.

This presentation contains statements, opinions, projections, forecasts, and other material (“forward looking statements”). These statements can be identified by the use of words like ‘anticipate’, ‘believe’, ‘intend’, ‘estimate’, ‘expect’, ‘may’, ‘plan’, ‘project’, ‘forecast’, ‘will’, ‘should’, ‘could’, ‘seek’ and other similar expressions. Forward looking statements may be based on assumptions which may or may not prove to be correct. None of Empire, its respective officers, employees, agents, advisers or any other person named in this presentation makes any representation as to the accuracy or likelihood of fulfilment of the forward looking statements or any of the assumptions upon which they are based and disclaim any obligation or undertaking to revise any forward looking statement, whether as a result of new information, future event or otherwise.

Maps and diagrams contained in this presentation are provided to assist with the identification and description of Empire’s lease holdings and Empire’s intended targets and potential exploration areas within those leases. The maps and diagrams may not be drawn to scale and Empire’s intended targets and exploration areas may change in the future.

All financial information is in Australian dollars unless stated otherwise.

The information contained in this presentation does not take into account the investment objectives, financial situation or particular needs of any recipient and is not financial product advice. Before making an investment decision, recipients of this presentation should consider their own needs and situation and, if necessary, seek independent professional advice.

To the maximum extent permitted by law, Empire and its respective officers, employees, agents and advisers give no warranty, representation or guarantee as to the accuracy, completeness or reliability of the information contained in this presentation. Further, none of Empire nor its respective officers, employees, agents or advisers accept, to the extent permitted by law, responsibility for any loss, claim, damages, costs or expenses arising out of, or in connection with, the information contained in this presentation. Any recipient of this presentation should independently satisfy themselves as to the accuracy of all information contained herein.