

## Empire Energy Limited

### NT GSA signed – cashflow is on its way

Empire Energy Limited have announced the signing of a 10-year binding Gas Sales Agreement (GSA) directly with the Northern Territory Government to supply 25TJ/day from the company's Carpentaria Pilot Project in the Beetaloo Basin. Gas is to be supplied directly into the NT Power and Water Corporation (PWC) operated McArthur River Pipeline - which runs through the middle of the Carpentaria Project and is only 5km south of Empire's Carpentaria 2H/3H wells.

#### 75PJ over 10 years

We assume that the initial 25TJ/day has been negotiated at A\$10.50/GJ and estimate that total revenue of ~A\$790million could accrue over the life of the 10-year supply agreement.

There have now been three major GSA's signed by the NT Government with NT Onshore gas projects. Empire's 100% ownership of the Carpentaria Project means that this GSA represents the largest net exposure to NT gas contracts of a single company, ie., 25TJ/day net.

Gas will be delivered into PWC's McArthur River Pipeline on an ex-field take-or-pay basis at "market competitive prices" with full indexation to CPI. We have assumed a price of \$10.50/GJ and note that delivery made on an ex-field basis means there is no transport cost incurred by Empire Energy.

#### FY2025 revenue – reaching circa \$96M pa by FY2027

The binding GSA gives a clear line of site to first revenue from the Carpentaria Project in 2H CY2025 when Empire will begin to supply between 8-10TJ/day into the McArthur River Pipeline (MRP) for delivery east into Glencore's McArthur River zinc mine. We estimate at A\$10.50/GJ, Glencore demand alone will generate ~A\$36million pa and approximately A\$21million pa in operating earnings.

Following further work by the PWC to upgrade the MRP we would envisage that a further 15.5TJ/day will be dispatched from the Carpentaria Project to the north-west and assume gas deliveries into these markets will occur by mid CY2026 - generating revenues of approximately \$57million pa with operating earnings in the order of \$34million pa.

#### Valuation

In isolation, we estimate the pre-tax NPV10 of the Pilot Project in conjunction with this NT Government 10-year GSA to be worth almost \$300M. In excess of Empire Energy's current Market Capitalisation and Enterprise Value.

We have not adjusted our target price of \$1.05/share from our note on 4th June 2024.

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## EQUITY RESEARCH

Update

Date	30 July 2024
Stock rating	<b>BUY</b>
Price target	<b>\$1.05</b>
Ticker	EEG-AU
Closing price	\$0.30
Implied return (%)	250
Market cap (m)	305
Enterprise value (m)	254
Shares outstanding (m)	1,017
52 wk avg daily vol (m)	0.51
12-month price range	\$0.12 - \$0.31
Factset Sector	Energy Minerals

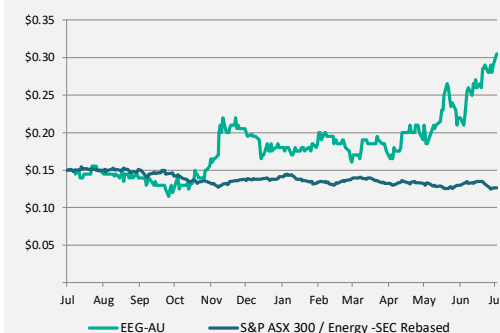
Y/E Dec (A\$m)	FY24e	FY25e	FY26e	FY27e
Gas Production (PJ)	0	3	5	9
Revenue	2	36	57	96
Growth (% YoY)		1820%	158%	167%
EBITDA		21	34	57
Margin (%)		59%	59%	59%
NPAT		10.2	20.7	43.6
EPS adj. (cps)		NA	NA	NA
Valuation		FY25e	FY26e	FY27e
P/E (x)		NA	NA	NA
EV/Revenue (x)		7.0	4.4	2.7
EV/EBITDA (x)		11.8	7.5	4.5

#### Contingent & Prospective Resources

2C Contingent Resources	1.65 TCF	1,927 PJ
2U Prospective Resources	46.6 TCF	49,125 PJ

Top Shareholders	%
Paul Fudge/Pangaea Resources	13.8
Sheffield Holdings (USA)	9.0
Elphinstone Group	8.0
Liberty Oilfield Services	4.7

#### Share price



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## Empire Energy – the NT GSA cements the Carpentaria Project

Empire Energy have announced a binding 10-year Gas Sales Agreement with the Northern Territory Government which will see Empire supplying 25TJ/day of gas from their 100% owned Carpentaria Project into the Power & Water Corporation owned McArthur River Pipeline (MRP) – approximately 75 Petajoules in total.

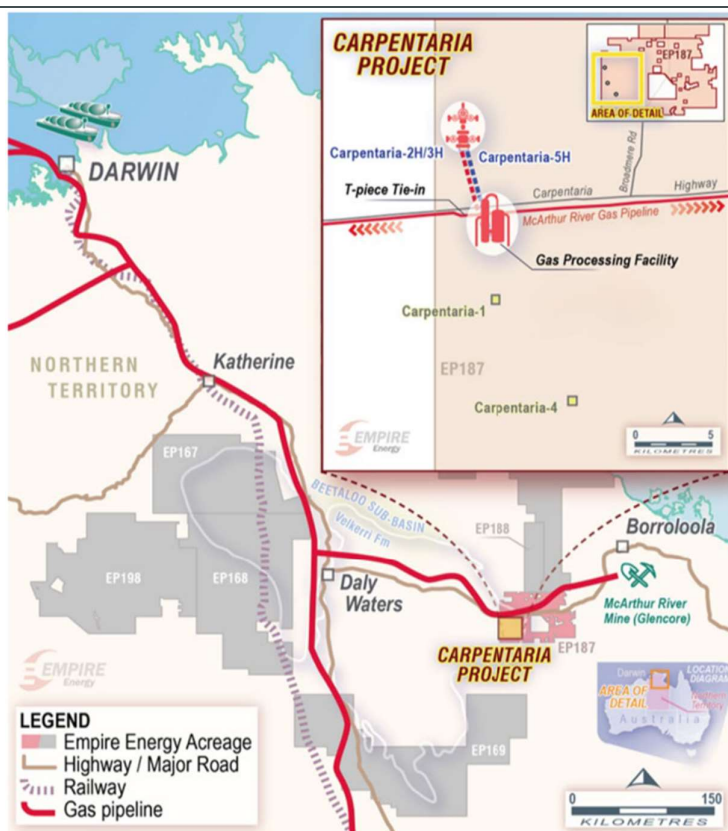
The GSA represents a significant milestone for Empire Energy and highlights the methodical and measured manner in the way the company has derisked Beetaloo Basin development in a highly capital efficient manner.

We assume that the initial 25TJ/day has been negotiated at A\$10.50GJ which implies total revenue of ~A\$790million over the life of the 10-year supply agreement.

The gas is to be delivered on an ex-field, take-or-pay basis i.e., no transport costs will be incurred by Empire which implies a significant boost to our modelling of Carpentaria Project economics. We estimate that 25TJ/day will generate up to \$96million pa in revenue and ~\$57million pa in operating earnings.

Gas will be delivered into the T-Intersection that has recently been installed by the PWC on the MRP – immediately adjacent (~5km away) to the planned Carpentaria Gas Processing facility, which is currently being readied for transport from Roma, Qld. It is planned to be installed on site in readiness for first gas in the 2nd half of CY2025. Importantly, the gas is to be delivered on an ex-field, take-or-pay basis i.e., no transport costs will be incurred by Empire which significantly boosts our modelling of Carpentaria Project economics.

Figure 1. McArthur River Pipeline – located adjacent to the Carpentaria Project



Source: Company announcement 26/7/2024

## Glencore the first recipient of Beetaloo Basin gas

The Glencore owned McArthur River Zinc mine lies at the eastern most point of the pipeline and will take 8.5-10TJ/day. Given the parlous state of gas supply into the NT's electricity generation infrastructure, we estimate that Glencore will take first gas from the Carpentaria Project as soon as Empire is ready to supply into the MRP

in mid to late CY2025. At A\$10.50/GJ, we estimate Glencore demand alone will generate ~A\$36million pa and approximately A\$21million pa in operating earnings.

## To the north - NT demand to take at least 15 GJ/day

Blue Ocean estimates that a further ~15GJ will be transported north to Katherine and Darwin primarily for NT domestic energy requirements (electricity generation). Upgrades to the existing pipeline facilities will need to be undertaken in order for this to occur and could take up to a further 12months from gas delivery to Glencore (i.e. mid CY2026) before Darwin receives first gas from the Beetaloo. At A\$10.50/GJ, gas sales into the NT domestic generation system could generate \$57million pa in revenue and \$34million pa in operating earnings.

## Carpentaria Project NPV increases

Our NPV<sub>10</sub> for the Carpentaria Project improves with the announcement of this contract to approximately \$300million over the 10-year period. One of the main drivers of the uplift is that gas is delivered ex-field, so no transport costs are incurred by Empire.

It should be noted that Blue Ocean's assumptions on average well cost (\$25M per well over entire length of project) and Initial Production rates (~3.25mmscfs/day per 1000m) for wells remain conservative.

## Work Program overview

The binding GSA is conditional on Final Investment Decision being reached by the Empire Energy Board and we understand that this process is well advanced.

Funding was recently secured for the drilling and completion of Carpentaria 5H (Australia's first 3000m horizontal lateral.) and the progression of the Carpentaria Pilot Project's surface facilities – including the Carpentaria Gas Plant. This gives a clear line of sight to Empire delivering first sales gas by mid-2025.

Carpentaria 5-H (C-5H) will be drilled in 2H 2024. The well will be completed using leading US technology and will be the longest horizontal shale well section drilled in Australia. With 60 frac stages and 5½ inch casing, C-5H will also be Empire's first well of commercial dimensions.

The Carpentaria Gas Plant (formerly the Rosalind Park Gas Plant) was acquired from AGL for the very low price of \$2.5 million. The plant has capacity of 42TJ/day, well in excess of the 25TJ/day required for the Pilot Project and the GSA. We estimate that purchasing a new gas plant of this size would cost in the order of \$80-100 million so the saving on capex has been substantial. The acquisition also circumvents any project delays that may have been caused by the lack of availability of critical long lead time items such as compressors. The plant is currently undergoing refurbishment in Roma and will be transported to site for reassembly.

The excess capacity of the plant also gives optionality to Empire to supply more gas with minimal capital expenditure.

## Capital considerations

We consider Empire to be in a very comfortable position regarding the Carpentaria Project's capital requirements. Following the April capital raising Empire is fully funded for the drilling of Carpentaria 5H with approximately \$50million in cash.

We understand that debt facilities of approximately \$30million are available relating to Empire's R&D Tax rebate and the signing of the GSA with the NT Government could comfortably accommodate an additional \$30million facility should it be required. We do not believe that the facility would be necessary.

## Valuation – Blended valuation of \$1.05/share

We have maintained our blended valuation of \$1.05/share as published on 4/6/2024. However, it is worth noting that with further derisking of the Carpentaria Pilot Project, this valuation is likely to move higher. We continue to use acreage valuations of US shale peers to establish a benchmark for Empire Energy's Australian assets.

Figure 2 shows a comparison of acreage values in the United States. There is a broad range of values across this group with the median value being US\$14,214/acre. In this comparison it should be noted that:

- Empire Energy holds approximately 3 million net effective acres across the Beetaloo Basin however we have included three acreage comparisons for the purposes of conservatism.
- We have not included an allowance for the fact that the Carpentaria project is a “stacked play” ie. There are a number of shale reservoirs stacked on top of each other.

Figure 2. Acreage Comparisons with US Shale peers

US Shale Gas Peers					
	Acre million	Enterprise Value US\$ billion	Value US\$/acre	Value A\$/acre	Basins
Comstock	0.18	5.7	32,140	49,043	Utica
Range Resources	0.50	9.3	18,461	28,169	Appalachian
Chesapeake	0.84	11.3	13,365	20,394	~50% Marcellus
Gulf Port	0.23	3.5	15,064	22,986	Haynesville
Antero	0.78	13.9	17,779	27,129	Marcellus/Utica
EQT Corporation	1.79	20.2	11,286	17,221	Marcellus/Utica
Southwestern Energy	1.02	11.3	11,034	16,836	Appalachian & Haynesville
CNX	1.00	6.3	6,257	9,548	Pennsylvania & Ohio
<b>USA - Median Peer Value per acre</b>			<b>14,214</b>	<b>21,690</b>	
<i>Three scenarios...</i>					
Empire - Beetaloo Basin: net acreage	3.00	0.1	33	51	Beetaloo Basin, Australia
Empire - Beetaloo Basin: Best 1m acres	1.00	0.1	100	153	
Empire - Carpentaria East acres only	0.46	0.1	209	319	

Source: Blue Ocean Equities.

Figure 3 shows our valuation scenarios for Empire Energy based on the Carpentaria Project acreage and a USA Peer group median value per acre of US\$14,214/acre.

Figure 3. Carpentaria East – valuation based on US median Peer group acreage valuation of US\$14,214/acre

Carpentaria East valuation using Median US Peer Acreage Valuations*				
	% of US Peer Median Value	Implied acreage value A\$/acre	Implied Enterprise Value A\$ billion	Implied value A\$ per share
	2%	434	0.20	<b>\$0.30</b>
	5%	1,084	0.50	<b>\$0.75</b>
	10%	2,169	1.00	<b>\$1.50</b>
	25%	5,422	2.49	<b>\$3.74</b>

\* Note: The implied acreage valuation is based only on the 0.46 million acres within the Carpentaria project. It excludes all other acreage owned by EEG.

Source: Blue Ocean Equities.

Currently, Empire's Carpentaria Project is being valued by the market at between 1% to 2% of the US Peer median – we think the percentage should be at least 5% to 10% given that infrastructure like pipeline connections and the gas processing plant have been secured and gas production will occur in less than two years.

This would suggest a price range of between \$0.75 to \$1.50 per share (mid-point \$1.13/share). Substantially higher than Empire Energy's recent trading range.

## Blended valuation of Carpentaria and West Beetaloo

Our NAV valuation for Empire Energy is shown in Figure 4 and includes a risked value of the Carpentaria Pilot Project (EP187) and the West Beetaloo assets.

We derive a valuation of \$1.00/share through this methodology although would point out that with further derisking of the Carpentaria Project, this valuation is likely to rise.

Figure 4. Valuation Overview

Empire Energy Ltd - Valuation Summary	Method	2C Resource (BCF)	Value per mcf (\$)	Unrisked Valuation (A\$mill)	Unrisked Valuation (A\$/share)	Commercial CoS*	Risked Valuation (A\$ mill)	Risked Valuation (\$A/share)
Exploration, Development & Operating Assets								
Carpentaria (EP187) : 25Tj/day Pilot Plant	Pre tax NPV <sub>10</sub>			335	0.33	80%	268	0.26
Carpentaria (EP187) : 2C Resource (ex Pilot Plant)	2C Resource	1350	1.00	1,350	1.33	35%	473	0.46
West Beetaloo (EP167 & 168)	2U/2C Resource <sup>1</sup>	9083	0.40	3,633	3.57	5%	182	0.18
Other								
Net Cash/(Debt)				56	0.06		56	0.06
Property, Plant & Equipment				25	0.02		25	0.02
Other Exploration Assets				20	0.02		20	0.02
Capitalised Corporate Costs				(8)	(0.01)		(8)	(0.01)
Total NAV				\$5,411	\$5.32		\$1,015	\$1.00
Shares Outstanding		1,017,147,401						
* = Chance of Success								

Notes:

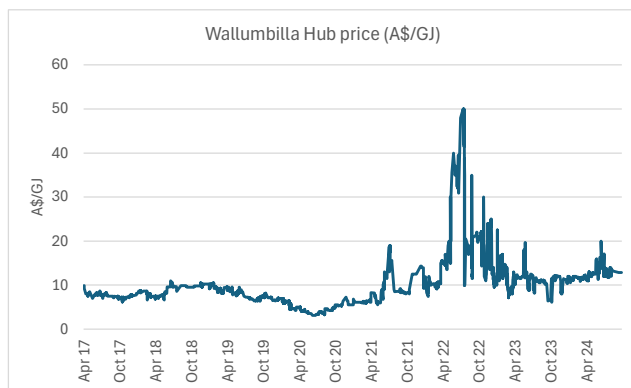
1. EP167 & EP168 valued using risked 2U resources converted to 2P reserves multiplied by an estimated NPV per mcf of A\$0.20

Source: Blue Ocean Equities

## Natural Gas Markets – Australian market update

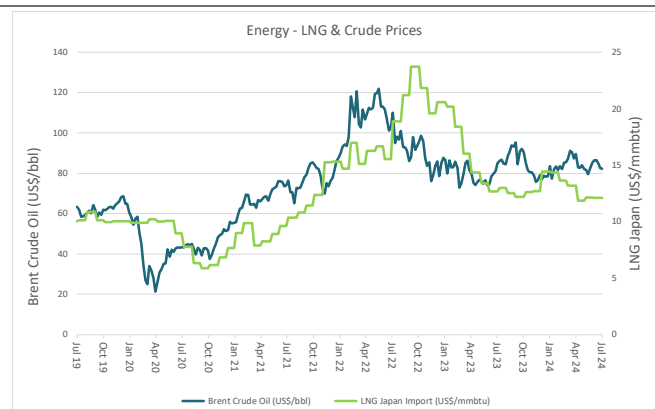
Historic Gas Prices (Figure 5 & 6)

Figure 5. Domestic Gas prices (Wallumbilla Hub)



Source: AEMO, Blue Ocean Equities.

Figure 6. Prices: Brent Crude & Japan LNG Import



Source: Factset, Blue Ocean Equities.

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