

A gas sales deal is a BIG tick heading towards first gas

Energy

5 August 2024

Empire Energy Group Limited (ASX:EEG) is a gas development company, with onshore Northern Territory (NT) gas exploration and development assets. EEG has the largest tenement position in the highly prospective Greater McArthur Basin, which includes the Beetaloo Sub-basin. We think the company has been akin to a duck paddling on a pond, seemingly making little visible progress on the Carpentaria Pilot Project but working hard out of sight, to deliver important milestones in support of the target to first gas around mid-2025. The company has announced recently ([ASX release 26 July](#)) that it has signed a binding GSA (gas sales agreement) with the Northern Territory Government, for 75PJ over ten years – this effectively fully covers the offtake of the pilot project through commissioning and ramping to target production. Importantly, this GSA can be considered bankable as it is with a reputable counter-party, on a fixed price, fully CPI-indexed basis over a material term, in effect providing the platform for debt financing if and as required. With the drilling of the Carpentaria-5H well set to commence in early 4Q, confidence in the timing to first gas production appears to be increasing – subject to receiving the remaining regulatory approvals (environment and indigenous agreements). The end game now appears to loom large. We maintain our investment view of EEG as the low-cost, most strongly-leveraged exposure in the play, beginning to crystallise its early-mover advantage.

Business model

Empire Energy Group Limited (EEG), is an gas exploration and development company, funded for in-grounds works after the raising of ~\$47mn via an equity issue and the sale of a 4.5% over-riding royalty interest. With the signing of a binding GSA with the Northern Territory Government and drilling of the development well, Carpentaria-5H set from end-Sep, the path to first gas is clear. The remaining regulatory approvals and indigenous land-owner agreements could be delivered before end-2024. Although a formal Final Investment Decision (FID) has not been taken, we believe Empire should be considered as being in a pre-development phase with a material and growing first-mover advantage. The signing of a binding GSA effectively provides the anchor point on which financing can be completed. The path to growth begins with the first PJ and first gas should unlock the organic opportunities within the Territory and access to eastern coast markets as we see it. The company appears well funded through the development drilling and beneficially holds its licences at 100%, so can control project timing and provide financing options through partnering.

Binding GSA – an important milestone

The need for more gas in the NT has been evident for some time with the significant decline in Blacktip gas production and the government seeking shortfall volumes in the market. The GSA with EEG makes obvious and mutually beneficial commercial sense, particularly given the operational advantages and short timeline to delivery. We see EEG as the most advanced of the Beetaloo plays having recently secured equity financing, targeting development drilling from early 4Q, holding significant 2C volumes (which we should consider as including bankable, 2P_(equivalent) volumes) and a processing plant ready to go with nameplate upside potential to contract rates. First gas means cashflow and for EEG we think it should be the beginning of high margin, incremental growth opportunities.

The market is embracing the Beetaloo

In a market still somewhat eschewing the small cap gas space, EEG is outperforming. A recent share price intraday high of 33cps (26-July) versus a recent capital raising at 16cps suggests to us investor confidence is lifting and the price to value gap is closing. Our NAV estimate is \$0.81-1.24/share **with a mid-point (base case) of \$0.93/share** (on a fully diluted basis). We see further re-rating events associated with drilling and the remaining approvals by end-2024 leading into first gas production and expect the share price to better reflect the lower risk and higher value nature of gas reserves.

Share Details

ASX code	EEG
Share price (2-Aug)	\$0.275
Market capitalisation	\$280M
Shares on issue (fully diluted)	1,017M
Cash (est)	\$51.6M
Free float	~49.5%

Share Performance (12 months)



Upside Case

- Above expectation results from the anticipated development well drilling commencing from late September.
- Completing pilot project financing post the signing of the GSA via debt and/or a farm-in partner.
- Securing remaining regulatory approvals - this absolutely defines the production case.

Downside Case

- Capex inflation impacts project returns potentially slowing progress to first gas.
- Delays to securing the remaining regulatory approvals could push back the timing of first gas.
- Under expectation results from upcoming development drilling.

Board of Directors

Alex Underwood	Managing Director / CEO
Peter Cleary	Chair
Dr John Warburton	Non-Executive Director
Louis Rozman	Non-Executive Director
Karen Green	Non-Executive Director

Company Contacts

Alex Underwood	+61 2 9251 1846
info@empiregp.net	

RaaS Contacts

Andrew Williams*	+61 417 880 680
	andrew.williams@raasgroup.com
Finola Burke*	+61 414 354 712
	finola.burke@raasgroup.com

*Analyst holds shares

A Binding Gas Sales Agreement Sets The Clock On First Production

On 26-July, Empire Energy announced^[1] it had signed a binding GSA with the Northern Territory Government on the following terms -

- Subject to all requisite regulatory approvals;
- 75PJ over 10 years;
- ...up to 25TJd;
- ...priced on an ex-field 'take or pay' basis with the pricing point being the connection into the McArthur River pipeline, quite literally a few hundred metres from the processing plant;
- The pricing is commercial in confidence, but if we assume commercial benchmarks start at say \$12/gj at the Darwin gate and strip out the transport tariff, then a price "around" say \$11.00/gj is not an unreasonable assumption as a starting point (our view only);
- Gas price is CPI adjusted (full indexation);
- Contract to commence with first gas in 2025 (but indicatively EEG is targeting a mid-2025 start-up);
- The NT Government also holds an option (right) to take 10% of any gas from 100 TJd +

The GSA is a bankable outcome

If we have been looking for one key outcome in the short term, it's firm offtake agreements, which provide a 'bankable' asset as a foundation for any debt negotiations.

We see this GSA as bankable because -

- Minimal counter-party risk;
- Fixed price, CPI-linked sales, so no commodity risk;
- Take or pay basis;
- 10-year term.

The contract effectively covers the pilot phase after allowing for ramp-up and commissioning.

As indicated in our previous report ^[A], drilling of the first full-scale development well (Carpentaria-5H with a 3,000m lateral and 60 frack stages) should commence from early 4Q and we'd expect after completion, stimulation and soaking, that testing will likely be from end 2024/early 2025 with IP30 results around end-Jan.

Assuming a success-case, the pilot will consist of the C-2H, -3H and -5H wells with plant and additional kit expected on site by the beginning of the dry season (end-March) for first gas by mid-2025.

We note that all the long lead time items for the well have been ordered, all approvals for drilling, stimulation and field activities have been received and the C-5H well will be setting 5½" casing (*previous wells used 4½"*) meaning greater gas production capacity per unit length.

There are remaining regulatory approvals -

- The Environment Management Plan is proceeding through the system. With a NT election called, the legislature is likely to move into caretaker mode from 2-August.
- Indigenous agreements are in the late stage of negotiation with a series of key on-country meetings set to commence and could be concluded by mid-October.

It is worth reiterating from our previous update -

"...(t)he accelerated decline of the Blacktip Gas Field has necessitated gas purchases from LNG facilities to meet local demand at market pricing." As outlined in the company's Quarterly operation report^[2] *"...(c)urrent production is ~12 TJd in contrast to reported up to 860 PJ of Blacktip gas to PWC over a 25-year period from 2009, representing a maximum daily rate of 104 TJd."*

In that regard we believe the risk of regulatory delays is low and ultimately the key future risk is operational, with respect to the completion and results from the C-5H.

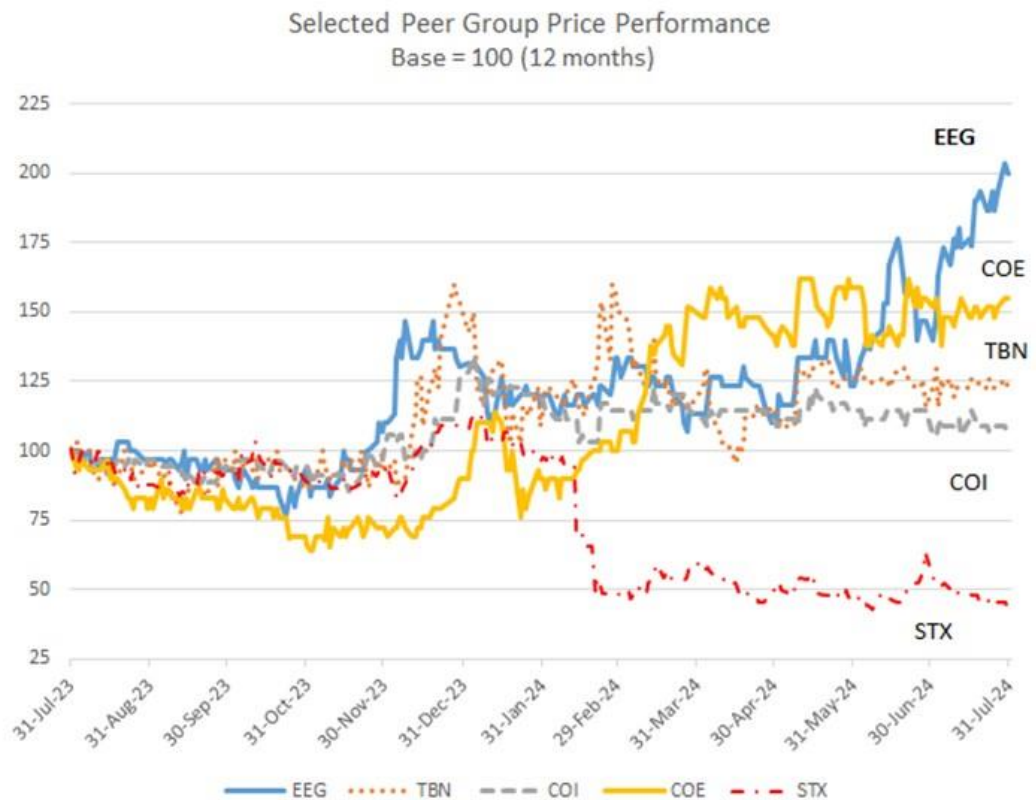
Investment sentiment appears to be turning

Anecdotally we are seeing increasing interest in the small-cap gas space, particularly post the release of the Federal Government's Future Gas Strategy Paper^[3] which in some ways has put the onus back onto upstream operators to actively pursue their new gas production opportunities. We think that the market has been reticent to invest in the thematic due to the glacial pace of progress and somewhat open-ended capital requirements – there's always another capital raise around the corner.

With Empire having recently raised some \$46.8m^[4] through an equity issue at 16cps (\$39m) and the sale of a 4.5% royalty interest (\$7.7m) over the proposed 25 TJd Carpentaria Pilot Gas Project, on a clear line of sight to first production, we think the share price outperformance clearly represents increasing confidence in the commercial outcome.

Where EEG holds a material advantage over other Beetaloo operators is, the proximity to pipeline, the acquisition of the Rosalind Park Gas Plant with nameplate capacity (42 TJd) above the pilot phase, the mechanically simple nature of the project and low probability of further equity financing required before first gas...and that appears to be reflected in the share price performance over the last 12 months.

Exhibit 1: Comparative performance – EEG outperforms on tangible progress to first gas



Source: Yahoo finance; data as per closing prices (31 July 2024)

Quarterly highlights for period ending 30 June...cashed up and ready to go

The focus of activity in the quarter was directed to putting in place the planning and execution of the administrative requirements towards first gas – regulatory submissions, finalising and commencing the preparation for drilling C-5H, securing first tranche capital and binding gas sales – tick all those boxes.

We expect more of the same through the current quarter before the commencing of drilling from early 4Q. We note, however, there are still critical outcomes to deliver, particularly with respect to Indigenous agreements and approvals, with a number of on-country meeting scheduled.

Ultimately, we are expecting to see a Final Investment Decision perhaps by late 2024 (RaaS view).

Exhibit 2: Quarterly progress has been on the corporate side but watch out for the next six months

Operations				
Carpentaria-Pilot Project	<p>Preparation for the drilling and testing of Carpentaria-5H continued apace. The well is planned to complete a 3,000m lateral with 60 frack stages targeting the Velkerri B Shale. The well will be drilled from the same pad as the -2H and -3H wells ‘...focusing on productivity enahncements’.</p> <p>Long lead items (casing and a wellhead) have been ordered and the contracting of drilling services (rig and stimulation equipment) are in train</p> <p>Note that all regulatory approvals related to the proposed drilling operations have been secured.</p>			
Corporate				
Post the quarter end – GSA with the NT Government secured to underpin the pilot project..	<p>Gas sales agreement secured.</p> <p>Pipeline access agreements secured with the NT Government completing the installation of a connection into the McArthur River Pipeline to accommodate gas from the proposed pilot project.</p> <p>All remaining requisite regulatory approvals submitted and progressing. The timing of receipt of approvals is likely to remain the most uncertain element in the process, however, given the offtake commitment by the NT Government, the required timing and the need for secure long-term for gas, we consider the absolute risk to be low.</p> <p>With the securing of the GSA the remaining financing should progress from here, particularly with debt providers. We would also add that with offtake secured, the metrics of the project would be increasingly attractive to prospective partners.</p>			
Financing position is as good as it has ever been and certainly well in excess of the drilling commitments.	<p>Over the period the company completed –</p> <ul style="list-style-type: none">■ A \$46.8m capital raising in two parts<ul style="list-style-type: none">○ A two-tranche placement raising \$39.0m○ Sale of 2 x 2.25% over-riding royalty (ORR) interests garnering US\$5m■ Sale of Empire Energy E&P LLC (US assets) for up to US\$9.1m whilst retaining a 3.75% carried interest in shales interest below the currently producing zones. The Macquarie Bank loan was US\$4.6m was repaid in full. <p>EEG holds a cash balance of \$51.6m (as at 30-Jun) after receiving the proceeds of capital raising, via equity issues, royalty and asset sales in the period.</p>			
Period Ending	30-09-2023	31-12-2023	31-03-2024	30-06-2024
Cash (A\$m)	15.0	17.3	12.0	51.6
Debt (A\$m)	(15.1)	(8.8)	(8.8)	(6.2)
Net cash (A\$m)	n.a.	8.5	3.1	n.a.

Source: Company data; RaaS commentary

A three-phase plan to production at scale

Being on the cusp of production, we believe it is worthwhile briefly revisiting the company’s strategy and pathway to scale.

1. A 25 Tjd start up pilot project to provide early cashflow and broad proof of commerciality, targeting first gas by mid-2025;
2. ...a second phase expansion up to ~200 Tjd servicing east coast markets; and
3. LNG supply (feed stock or equity product).

To build and deliver a steady-state 200Tjd production outcome, will need a well-defined type curve which requires a significant production history – actuals can vary from the theoretical, particularly in the early stages of production and growth.

Importantly, given the consistent geology as determined both locally in EEG’s EP187 tenement and regionally by other operators, we are reasonably confident to suggest that what works in one area will very likely work

in adjacent prospects – in essence, the development model should be replicable and ultimately be capital rather than geologically constrained.

Success at Carpentaria can open up the prospectivity of the remainder of the tenement in our view.

Outperformance of wells could support an acceleration of activity, but we think, likely not timely with respect to the limitations of the existing plant and pipeline capacity. However, a slow(er) production build would still be **absolutely material to the growth opportunity available to EEG**.

Our Risk-Adjusted Valuation Is Unchanged

We maintain our value range for EEG to \$0.81-1.24 **with a mid-point (base case) of \$0.93/share** post the recent financing and revision of risk weightings against the proposed Carpentaria Pilot Project. We highlight that the closing share price of \$0.275/share (2-Aug) represents a 66% discount to the low end of our NAV range and in isolation can be considered a risk weighting of ~63% to our assigned value of the 2C resources.

Exhibit 3: Our NAV range continues to represents a material premium to the market price

	Risk range (A\$m)			
	Low	Mid	High	
Northern Territory				
EP-187				
Contingent Resources	\$743	\$795	\$996	EP-187 contains 2C volumes certified to 1,739PJ of which 1,364PJ are attributed to the Carpentaria area. 2U volumes are largely associated with ex EP 187 and ex-Pangaea tenements and represent longer-dated gas potential. The geological confidence level is relatively high on the look-through, but realisation will require extensive drilling campaigns.
Prospective Resources	\$43	\$107	\$229	
	\$786	\$902	\$1,225	
Net cash/(debt)		\$52		Estimated at settlement
Corporate		(\$11)		
TOTAL	\$827	\$942	\$1,265	
Shares issued (m) -fully diluted	1,017	\$0.81	\$0.93	\$1.24

Source: RaaS analysis; Risked ranges based on discretionary RaaS risk adjustments

References, Data Sources And Glossary

Note Reference	Document Ref	RaaS Reports	Date Published	Title
	[A]	EEG Empire Energy Group RaaS Update Report	22/05/2024	<i>Benefiting from the Future Gas Strategy</i>
Data referenced in this Report				
[1]		Empire Energy ASX release	26/07/2024	Empire signs Gas Sales Agreement with the NT Government
[2]		Empire Energy ASX release	30/07/2024	Q2 2024 Quarterly Report
[3]		Future Gas Strategy May 2024	09/05/2024	www.industry.gov.au/FutureGasStrategy
[4]		Empire Energy ASX release	17/04/2024	Empire completes \$46.8m capital raise

All financial data in Australian currency unless otherwise specifically stated

FEED	Front End Engineering and Design	kb (d)	thousand barrels (per day)
FID	Final Investment Decision	Mb	million barrels
GSA	Gas Sales Agreement	Bb	billion barrels
PEL	Petroleum Exploration Licence	mcf (d)	thousand cubic feet (per day)
PEP	Petroleum Exploration Permit	mmcf (d)	million cubic feet (per day)
EP	Exploration Permit	Bcf	million cubic feet
LNG	Liquefied Natural Gas	Tcf	trillion cubic feet
		gj	gigajoules (mcf equivalent)
		TJ	terajoules (mmcf equivalent)
		PJ	petajoules (Bcf equivalent)
		boe	barrel of oil equivalent
		mmBtu	million British thermal units (TJ equivalent)

Conversion factors – note conversion factors may vary from company to company and project to project

Gas	cubic feet to joules	=	1.06	1 Bcf	=	1.06 PJ
	joules to boe	=	0.163	1 PJ	=	0.163 Mboe
	mmBtu to joules	=	0.952	1 mmBtu	=	0.952 TJ
Oil				1 b	=	1 boe
Condensate				1 b	=	0.935 boe

Reserves and resources classification

1,2,3 P	Proven, probable and possible reserves certified as being likely to be in production within five years. 1P = 90% confidence limit; 2P = 50% confidence limit; 3P = 10% confidence limit
1,2,3 C	Contingent resources. As above but nominally higher risk in terms of commerciality; 1= Low, 2 = Best, 3 = High
1,2,3 U	Potential Resources. Largely undefined by drilling and testing. Classification; 1 = Low, 2 = Best, 3 = High
ACCC	Australian Competition and Consumer Commission
AEMO	Australian Energy Market Operator
ADGSM	Australian Domestic Gas Security mechanism
CCS	Carbon capture and storage
CH ₄	Methane (natural gas)
CO ₂	Carbon dioxide
CO ₂ -e	Carbon dioxide equivalent
NOPSEMA	National Offshore Petroleum Safety and Environmental Management Authority

FINANCIAL SERVICES GUIDE

RaaS Research Group Pty Ltd

ABN 99 614 783 363

Corporate Authorised Representative, number 1248415, of

BR SECURITIES AUSTRALIA PTY LTD; ABN 92 168 734 530; AFSL 456663

Effective Date: 26th March 2024

About Us

BR Securities Australia Pty Ltd (BR) is the holder of Australian Financial Services License ("AFSL") number 456663. RaaS Research Group Pty Ltd (RaaS) is an Authorised Representative (number 1248415) of BR.

This Financial Service Guide (FSG) is designed to assist you in deciding whether to use RaaS's services and includes such things as who we are, our services, how we transact with you, how we are paid, and complaint processes

Contact Details, BR and RaaS

BR Head Office: Level 1, 160 Edward Street, Brisbane, QLD, 4000 www.brsecuritiesaustralia.com.au

RaaS: c/- Rhodes Docherty & Co Pty Ltd, Suite 1, Level 1, 828 Pacific Highway, Gordon, NSW, 2072.

P: +61 414 354712

E: finola.burke@raasgroup.com

RaaS is the entity providing the authorised AFSL services to you as a retail or wholesale client.

What Financial Services are we authorised to provide? RaaS is authorised to

- provide general advice to retail and wholesale clients in relation to
 - Securities

The distribution of this FSG by RaaS is authorized by BR.

Our general advice service

Please note that any advice given by RaaS is general advice, as the information or advice given will not take into account your particular objectives, financial situation or needs. You should, before acting on the advice, consider the appropriateness of the advice, having regard to your objectives, financial situation and needs. If our advice relates to the acquisition, or possible acquisition, of a particular financial product you should read any relevant Prospectus, Product Disclosure Statement or like instrument. As we only provide general advice we will not be providing a Statement of Advice. We will provide you with recommendations on securities.

How are we paid?

RaaS earns fees for producing research reports about companies we like, and/or producing a financial model as well. When the fee is derived from a company, this is clearly highlighted on the front page of the report and in the disclaimers and disclosures section of the report. Sometimes we write reports using our own initiative.

Associations and Relationships

BR, RaaS, its directors and related parties have no associations or relationships with any product issuers other than when advising retail clients to invest in managed funds when the managers of these funds may also be clients of BR. RaaS's representatives may from time to time deal in or otherwise have a financial interest in financial products recommended to you but any material ownership will be disclosed to you when relevant advice is provided.

Complaints

If you have a complaint about our service, you should contact your representative and tell them about your complaint. The representative will follow BR's internal dispute resolution policy, which includes sending you a copy of the policy when required to. If you aren't satisfied with an outcome, you may contact AFCA, see below.

BR is a member of the Australian Financial Complaints Authority (AFCA). AFCA provide fair and independent financial services complaint resolution that is free to consumers.

Website: www.afca.org.au; Email: info@afca.org.au; Telephone: 1800931678 (free call)

In writing to: Australian Financial Complaints Authority, GPO Box 3, Melbourne, VIC, 3001.

Professional Indemnity Insurance

BR has in place Professional Indemnity Insurance which satisfies the requirements for compensation under s912B of the Corporations Act and that covers our authorized representatives.

DISCLAIMERS and DISCLOSURES

This report has been commissioned by Empire Energy Group Ltd prepared and issued by RaaS Research Group Pty Ltd. RaaS Research Group has been paid a fee to prepare this report. RaaS Research Group's principals, employees and associates may hold shares in companies that are covered and, if so, this will be clearly stated on the front page of each report. This research is issued in Australia by RaaS Research Group and any access to it should be read in conjunction with the Financial Services Guide on the preceding two pages. All information used in the publication of this report has been compiled from publicly available sources that are believed to be reliable. Opinions contained in this report represent those of the principals of RaaS Research Group at the time of publication. RaaS Research Group provides this financial advice as an honest and reasonable opinion held at a point in time about an investment's risk profile and merit and the information is provided by the RaaS Research Group in good faith. The views of the adviser(s) do not necessarily reflect the views of the AFS Licensee. RaaS Research Group has no obligation to update the opinion unless RaaS Research Group is currently contracted to provide such an updated opinion. RaaS Research Group does not warrant the accuracy of any information it sources from others. All statements as to future matters are not guaranteed to be accurate and any statements as to past performance do not represent future performance.

Assessment of risk can be subjective. Portfolios of equity investments need to be well diversified and the risk appropriate for the investor. Equity investments in listed or unlisted companies yet to achieve a profit or with an equity value less than \$50 million should collectively be a small component of a balanced portfolio, with smaller individual investment sizes than otherwise. The science of climate change is common knowledge and its impacts may damage the global economy. Mitigating climate change may also disrupt the global economy. Investors need to make their own assessments and we disclaim any liability for the impact of either climate change or mitigating strategies on any investment we recommend. Investors are responsible for their own investment decisions, unless a contract stipulates otherwise. RaaS Research Group does not stand behind the capital value or performance of any investment. Subject to any terms implied by law and which cannot be excluded, RaaS Research Group shall not be liable for any errors, omissions, defects or misrepresentations in the information (including by reasons of negligence, negligent misstatement or otherwise) or for any loss or damage (whether direct or indirect) suffered by persons who use or rely on the information. If any law prohibits the exclusion of such liability, RaaS Research Group limits its liability to the re-supply of the Information, provided that such limitation is permitted by law and is fair and reasonable. Copyright 2024 RaaS Research Group Pty Ltd (A.B.N. 99 614 783 363). All rights reserved.