

Carpentaria-1 successfully flows gas to surface

Empire Energy Group Limited (ASX:EEG) is a junior oil and gas producer and explorer with onshore Northern Territory (NT) and US oil & gas assets. EEG holds the largest acreage position (28.9m acres) in the highly prospective Greater McArthur Basin, which includes the Beetaloo Sub-basin. After a material uplift in its 2C/2U gas/liquids resource base, with the 100% buyout of the Pangaea-EMG JV Beetaloo tenements for ~\$57m (@30cps), 2C Contingent Resources now lie @ 199Bcf gas / 3.5mmbbls liquids. The NT region is fast developing as a gas-liquids rich strategic bolster for east coast Australia's future energy needs plus Darwin's expanding LNG export terminals, amid strong policy support from both Territory and Federal governments. The company has reported that its Carpentaria-1 well in EP187 has successfully flowed gas to surface during the clean-up operations post the completion of the fracture stimulation campaign. EEG commenced vertical fracture stimulation of four stacked shale targets within the Velkerri Formation earlier this month. Initial flow-back of fluids pumped into the C Shale yielded gas at surface in the first hours of flow-back with gas contribution steadily increasing through the initial flow-back period. This is a positive early sign for the business development case for Carpentaria-1.

Business model

Empire Energy Group (EEG) is a junior oil & gas producer/exploration company, focused on maturing its portfolio of onshore, long-life oil and gas fields. The company is the 2nd largest conventional gas producer in the US NY State and holds substantial exploration acreage (28.9m acres) in Australia's Northern Territory, McArthur-Beetaloo basins, considered world-class. EEG will be looking to generate commercial gas flow rates to underpin reserves bookings and support an early development opportunity. Success could see first cash flow within 24-36 months (RaaS estimate), assisted by liquids "credits", assuming existing pipeline infrastructure links & upgrades are delivered in parallel; supported by generous Federal government "Basin Strategic Plan" funding.

A gas flare so early is a positive sign

EEG commenced its vertical fracture stimulation programme in early June across four "stacked" shale zones in the Velkerri Formation. Initial flow-back of fluids pumped into the C Shale resulted in gas to surface evidenced by a gas flare. The company noted that the gas rate has steadily increased through the initial flow-back period. EEG will now complete the well with a production string in preparation for further analysis and extended flow rate testing. These results will provide direct input into defining the commercial model noting Carpentaria-1 is a vertical well with limited frac zones. Importantly, delivering a gas flare so early in the initial fluid recovery phase is a positive sign for the potential success of the programme.

Valuation is \$0.98/share or \$608m

Our valuation range for EEG is \$385m to \$728m or \$0.62-\$1.17/share with \$608m or \$0.98/share being the mid-point. With several event drivers emerging over the next 6-12 months, there is the potential for further uplifts to the valuation.

Historical earnings and RaaS Advisory estimates

Year end	Revenue (A\$m)	Gross Profit (A\$m)	NPAT reported (A\$m)	OCFPS (AUD cps)	EPS Adj (AUD cps)	Price/Book (x)
12/19a	7.8	1.7	(17.3)	0.69	(9.31)	4.6
12/20a	6.5	1.2	(7.7)	(0.61)	(2.73)	2.5
12/21e	6.4	1.6	(5.1)	(0.11)	(0.83)	1.9
12/22e	6.6	1.7	(4.8)	(0.08)	(0.77)	1.9

Source: Company data, RaaS estimates for FY21e & FY22e

Energy exploration & production

21st June 2021

Share details

ASX Code	EEG
Share price	\$0.345
Market Capitalisation	\$213.9M
Shares on issue	620M
Net cash at 12 May	~\$18.6M
Gross cash at 12 May	~\$27.6M

Share performance (12 months)



Upside Case

- EEG's Carpentaria-1 Velkerri shale production/ seismic program creates strong commercial gas/liquids business development case
- Further McArthur-Beetaloo work programs generate significant commercial outcomes
- EEG drilling success generates high-value LT strategic partnership(s) & funding options

Downside Case

- Beetaloo flow rates prove uncommercial, negatively impacting regional permit values
- Equity issue financing becomes highly dilutive to future share capital growth
- Fracking success in NT/Qld pushes onshore energy prices to sub-economic levels.

Board of Directors

Alex Underwood	Managing Director/CEO
Paul Espie AO	Non-Executive Chairman
Dr John Warburton	Non-Executive Director
Peter Cleary	Non-Executive Director
Louis Rozman	Non-Executive Director

Company contacts

Alex Underwood (MD/CEO)	+61 2 9251 1846 info@empiregp.net
-------------------------	--------------------------------------

RaaS Advisory contacts

Melinda Moore*	+44 7500 227593 melinda.moore@raasgroup.com
Finola Burke*	+61 414 354 712 finola.burke@raasgroup.com

*The analyst holds shares

Exhibit 1: Financial Summary

EMPIRE ENERGY GROUP LTD					EEG				
YEAR END		Dec							
NAV	A\$mn	611							
SHARE PRICE	A\$cps	0.35		priced as of close trading	18-Jun				
MARKET CAP	A\$mn	214							
ORDINARY SHARES	M	620							
OPTIONS	M	57							
PROFIT & LOSS					A\$000s	2019	2020	2021E	2022E
Revenue		7,763	6,464	6,375	6,561				
Cost of sales		(6,026)	(5,266)	(4,725)	(4,885)				
Gross Profit		1,737	1,198	1,650	1,676				
Other revenue									
Other income		224	1,039	262	262				
Exploration written off									
Finance costs		(916)	(755)	(747)	(730)				
Impairment		(1,677)	0	0	(2,465)				
Other expenses		(18,806)	(8,682)	(6,749)	(6,460)				
EBIT		(13,783)	(7,013)	(3,868)	(1,121)				
Profit before tax		(17,069)	(7,485)	(5,100)	(4,784)				
Taxes		(194)	(200)	0	0				
NPAT Reported		(17,263)	(7,684)	(5,100)	(4,784)				
Underlying Adjustments		(5,971)	0	0	0				
NPAT Underlying		(23,234)	(7,684)	(5,100)	(4,784)				
CASHFLOW					A\$000s	2019	2020	2021E	2022E
Operational Cash Flow		1,822	(1,970)	569	618				
Net Interest		(2,712)	(755)	(571)	(556)				
Taxes Paid		(194)	(200)	(50)	(100)				
Other									
Net Operating Cashflow		(1,084)	(2,924)	(51)	(38)				
Exploration		0	(856)	0	0				
PP&E		0	(12)	0	(133)				
Petroleum Assets		(2,658)	(12,841)	(6,061)	0				
Net Asset Sales/other		27,698	0	0	0				
Net Investing Cashflow		25,040	(12,841)	(18,388)	(10,000)				
Dividends Paid									
Net Debt Drawdown		(26,943)	(1,845)	(1,170)	(1,222)				
Equity Issues/(Buyback)		11,562	17,640	35,240	153				
Other									
Net Financing Cashflow		(15,381)	15,795	33,320	(1,069)				
Net Change in Cash		8,575	29	14,881	(11,107)				
BALANCE SHEET					A\$000s	2019	2020	2021E	2022E
Cash & Equivalents		14,106	14,146	29,027	17,920				
O&G Properties		37,505	46,442	125,485	135,748				
PPE + ROU Assets		711	1,716	1,198	1,181				
Total Assets		56,594	66,563	156,588	155,484				
Debt		9,251	7,824	7,826	7,104				
Total Liabilities		37,089	36,327	45,113	45,461				
Total Net Assets/Equity		19,505	30,236	111,475	110,023				
Net Cash/(Debt)		4,855	6,322	21,201	10,816				
NET PRODUCTION						2019	2020	2021E	2022E
Crude Oil	kb	89	2	2	2				
Nat Gas	mmcf	1,778	1,630	1,679	1,729				
TOTAL	kboe	385	273	282	290				
Product Revenue	A\$mn	7.8	6.5	6.4	6.6				
Cash Costs	A\$mn	(6.0)	(5.3)	(4.7)	(4.9)				
Ave Price Realised	A\$/boe	20.16	23.64	22.64	22.64				
Cash Costs	A\$/boe	(15.65)	(19.26)	(16.78)	(16.86)				
Cash Margin		4.51	4.38	5.86	5.78				

COMMODITY ASSUMPTIONS					2019	2020	2021E	2022E
Realised oil price	US\$/b	59.76	39.48	59.48	56.84			
Realised gas price	US\$/mcf	2.44	1.96	2.71	2.63			
Exchange Rate	A\$:US\$	0.6958	0.6989	0.7644	0.7623			

RESOURCES and RESERVES						
	Contingent Resources			Prospective Resources		
	1C	2C	3C	1U	2U	3U
Northern Territory						
Gas (Bcf)	58.1	198.5	501.9	11,979	42,124	138,006
Liquids (Mb)	1.0	3.5	14.2	169	792	3,608
TOTAL (Mboe)	10.6	36.6	97.8	2,165	7,813	26,609
US Onshore						
	1P	2P	3P			
Gas (Bcf)	24	34	38			
	0	Mb	24	62		
	0	Mb	24	47		
TOTAL (Mboe)			86	109		
	2P		3P			
US						
Gas		Bcf	34.4	38.2		

EQUITY VALUATION						
	Low	Mid	High	Low	Mid	High
NT						
Contingent	\$149	\$186	\$214	\$0.24	\$0.30	\$0.34
Prospective	\$218	\$398	\$485	\$0.35	\$0.64	\$0.78
US Onshore						
Appalachian	\$5	\$10	\$15	\$0.01	\$0.02	\$0.02
TOTAL	\$371	\$594	\$714	\$0.60	\$0.96	\$1.15
Net Cash (Debt)	\$22	\$22	\$22			
Corporate Costs	-\$5	-\$5	-\$5			
TOTAL	\$388	\$611	\$731	\$0.63	\$0.98	\$1.18
Shares on Issue	620 mn					

RATIO ANALYSIS						
		2019	2020	2021E	2022E	
Shares Outstanding	M	263	324	618	619	
EPS (pre sig items)	US\$cps			(0.83)	(0.77)	
EPS	Acps	(9.31)	(2.73)	(0.83)	(0.77)	
PER	x			na	na	
OCFPS	Acps	0.69	(0.61)	(0.11)	(0.08)	
CFR	x			na	na	
BVPS	Acps	7.5	13.4	18.0	17.8	
Price/Book	x	4.6x	2.6x	1.9x	1.9x	
ROE	%			na	na	
ROA	%			na	na	
Gross Profit/share	Acps	6.6	3.7	2.7	2.7	
EBITDAX	A\$M	2.7	2.9	2.5	2.6	
EBITDAX Ratio	%	34.2%	44.6%	40.0%	39.3%	

Source: RaaS Advisory



FINANCIAL SERVICES GUIDE

RaaS Advisory 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: 6th May 2021

About Us

BR Securities Australia Pty Ltd (BR) is the holder of Australian Financial Services License ("AFSL") number 456663. RaaS Advisory 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: Suite 5GB, Level 5, 33 Queen Street, Brisbane, QLD, 4000

RaaS. 20 Halls Road Arcadia, NSW 2159

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
- deal on behalf of 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

Our dealing service

RaaS can arrange for you to invest in securities issued under a prospectus by firstly sending you the offer document and then assisting you fill out the application form if needed.

How are we paid?

RaaS earns fees for producing research reports. Sometimes these fees are from companies for producing research reports and/or a financial model. 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.

We may also receive a fee for our dealing service, from the company issuing the securities.

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 Advisory Pty Ltd. RaaS Advisory has been paid a fee to prepare this report. RaaS Advisory'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 Advisory 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 Advisory at the time of publication. RaaS Advisory 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 Advisory in good faith. The views of the adviser(s) do not necessarily reflect the views of the AFS Licensee. RaaS Advisory has no obligation to update the opinion unless RaaS Advisory is currently contracted to provide such an updated opinion. RaaS Advisory 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. Investors are responsible for their own investment decisions, unless a contract stipulates otherwise. RaaS Advisory 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 Advisory 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 Advisory limits its liability to the re-supply of the Information, provided that such limitation is permitted by law and is fair and reasonable. Copyright 2021 RaaS Advisory Pty Ltd (A.B.N. 99 614 783 363). All rights reserved.