# Research as a Service

# Empire Energy Group Limited

**Company update**

## "Discovery" – it's a gas, gas, gas (liquids) at Carpentaria-1

**Empire Energy Group Limited (ASX:EEG) is a junior oil and gas producer and explorer with onshore Northern Territory (NT) and US oil and 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, from 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. EEG has lodged a gas Discovery Notice with the NT government from its Carpentaria-1 well, after yielding an instant peak flow rate to surface of >1.6 mmscf/day and stabilised flow rates of 0.37mmscf/day over 72-hours from the vertical fracture stimulation of 4-stacked Velkerri shale targets, with $CO_2$ levels <1%. This is a positive early sign for the business development case for Carpentaria-1.**

## Business model

Empire Energy Group (EEG) is a junior oil and 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 and upgrades are delivered in parallel; supported by generous Federal government "Basin Strategic Plan" funding.

## Hydrocarbon Discovery validates Beetaloo south-east address

EEG has lodged a gas Discovery Notice with the Northern Territory government, following strong hydrocarbon flows to surface (0.37mmscf/day over 72hrs) from the vertical fracture stimulation of the stacked Velkerri A, A+B, B and C, gas-rich target shales of its Carpentaria-1 well on EP187, comparable to other Beetaloo Sub-basin well results and at shallower depths. Better still, $CO_2$ levels are below 1%. The results add further weight to EEG's strategy of generating positive future cashflows from horizontal wells on its south-eastern Beetaloo property. The next steps are to complete a 90-day extended test, evaluate the proportionate contribution from each frack zone and determine the relative gas/liquids composition, in preparation for its upcoming horizontal programme. Overhanging this positive development has been the move in the Federal Senate to initiate an inquiry into the economic, social and environmental consequences, including groundwater and aquifer systems, of future Beetaloo developments. This inquiry will be chaired by the Greens. We note that the Federal Government has no jurisdiction over the regulation of the Beetaloo sub-basin; that is the province of the Northern Territory Government which has given bi-partisan support to the development of the Beetaloo.

## 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) | 4.3 |
| 12/20a | 6.5 | 1.2 | (7.7) | (0.61) | (2.73) | 2.4 |
| 12/21e | 6.4 | 1.6 | (5.1) | (0.11) | (0.83) | 1.8 |
| 12/22e | 6.6 | 1.7 | (4.8) | (0.08) | (0.77) | 1.8 |

Source: Company data, RaaS estimates for FY21e and FY22e

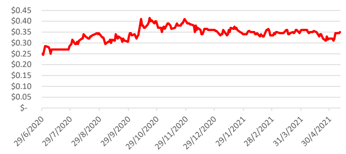
**Energy exploration & production**

**29th June 2021**

### Share details

| | |
|---|---|
| ASX Code | EEG |
| Share price | $0.325 |
| Market Capitalisation | $201.5M |
| Shares on issue | 620M |
| Net cash | ~$35M |
| Gross cash | ~$44M |

### 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) and 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

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***The analyst holds shares**

## Exhibit 1: Financial Summary

| EMPIRE ENERGY GROUP LTD | | EEG | | |
|---|---|---|---|---|
| YEAR END | | Dec | | |
| NAV | A$mn | 611 | | |
| SHARE PRICE | A$cps | 0.33 | priced as of close trading | 28-Jun |
| MARKET CAP | A$mn | 202 | | |
| ORDINARY SHARES | M | 620 | | |
| OPTIONS | M | 57 | | |

nm = not meaningful
na = not applicable

| 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 | | | | | | assumed post transaction |
|---|---|---|---|---|---|---|
| | 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 |
| | **$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) | UScps | | | (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 | 4.3x | 2.4x | 1.8x | 1.8x |
| 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

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- our services
- how we transact with you
- how we are paid, and
- complaint processes

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  - Securities
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  - Securities

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

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