

2nd December 2021

Empire Energy Group Limited

Bubbles pop ahead of drilling key lateral section

Empire Energy Group Limited (ASX:EEG) is a junior oil and gas producer/explorer, with onshore Northern Territory (NT) and US oil/gas assets. EEG holds the largest tenement position (28.9mn acres) in the highly-prospective Greater McArthur Basin, which includes the Beetaloo Sub-basin, Australia's largest undeveloped gas resource. The NT energy basins are fast developing as crucial strategic sources of liquids-rich gas to meet east coast Australia's future energy security needs and supply Gladstone and Darwin's expanding LNG export terminals, complemented with strong policy/funding support from territory and federal governments. EEG has started drilling its first H-section well at Carpentaria-2H, pursuing the Velkerri B shale, which showed the best gas contribution at Carpentaria-1 of the four targeted Velkerri formation pay zones. Positive read-through data from regional operators, including Origin/Falcon and Santos/Tamboran, add enhanced grist to the emerging Beetaloo Sub-basin commercialisation model. EEG is well funded for its next drilling phase, with \$19mn pending in federal government grants and gross cash of ~A\$30mn in hand. On this basis, EEG's business case is likely to materially progress over the next 12 months.

Business model

Empire Energy Group, as a junior oil and gas producer/exploration company, is focused on maturing its portfolio of onshore, long-life oil and gas fields. The company holds substantial exploration acreage (28.9mn acres) in the world-class McArthur-Beetaloo basins in the Northern Territory and is actively progressing evaluation activity to support reserve bookings and underpin early gas development opportunities. Success could see first cash flow within 24-36 months (*RaaS estimate*), assisted by LPG liquid "credits". Look-through results from horizontal drilling at adjacent tenements will help define the development model. EEG's early downstream infrastructure and sales deals aim to speed-up its access to energy markets, which appear increasingly supply-constrained.

Going sideways can be a good thing: lateral section begins

EEG has started drilling the horizontal section of Carpentaria-2H on its EP187 tenement in the Beetaloo Sub-basin. Drilling is targeting the middle Velkerri B shale, the strongest gas flow contributor of the four prospective Velkerri Formation target zones during the recent Carpentaria-1 tests. Encouragingly, results from the just-concluded C-2 vertical well reported thick liquids-rich gas shows across the four zones with live gas bleeds from sidewall cores. These results are consistent with the C-1 well, 11km away, and suggest the potential for strong production rates. Regional activities are progressing. Origin/Falcon have reported optimistic Velkerri-76 results, with an 80:20 gas-liquids ratio and relatively rich total organic carbon levels of 4.3% from the Velkerri B shale zone. Santos/Tamboran have completed two horizontal wells to the north-west of EEG's EP187 property, with flow test results expected by year-end. EEG represents a leveraged exposure to the Beetaloo, with a large acreage footprint; capital cost benefit (cheaper wells), strong gas-liquids upside potential and a first-mover advantage in place to leverage downstream commercial considerations. The next half-year could deliver a number of potentially significant re-rating events with fresh seismic data and completion of the C-2H program and flow testing. Netherland Sewell will be engaged to update the resource estimate incorporating the new data sets. The success case could underpin a material increase in 2C contingent resources to assist with field development planning. The company is well financed, with some \$30mn in cash as at October-end.

Our mid-point valuation is \$1.04/share (\$622mn)

Our valuation range for EEG is \$400-\$738mn (\$0.64-\$1.19/share), with \$622mn or \$1.04/share at the mid-point. Further look-through results from regional works are to come by end-2021, while EEG's next phase of drilling and seismics have the potential to materially increase 2P+2C volumes and better define recovery economics to crystallise our asset valuation range.

Share Details

ASX code	EEG
Share price (1-Dec)	\$0.335
Market capitalisation	\$201M
Shares on issue	600.1M
Net cash (at 27-Oct)	~A\$22M
Gross cash (at 27-Oct)	~A\$30M

Share Price Performance (12-months)



Upside Case

- EP187 programmes accelerate and underpin a substantial Beetaloo business case
- Look-through success provides independent validation of the commercial model
- EEG drilling success generates high-value, long-term strategic partnerships and funding options

Downside Case

- Gas rates are sub-commercial, negatively impacting regional permit values
- Additional equity financing becomes highly dilutive to per-share growth opportunities
- Gas success in NT/Qld puts downward pressure on domestic gas prices, raising the commercialisation threshold

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
Paul Fudge	Non-Executive Director
Jacqui Clarke	Alternate Director

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FINANCIAL SERVICES GUIDE

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of

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AFSL 456663

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