



Empire Energy Limited (EEG)

15 March 2021

Contingent Resources point the way

Our View

Progress sometimes comes in small steps and EEG has taken another small step forward with the declaration of an initial Contingent Resource booking associated with the Carpentaria-1 well in the Beetaloo Basin. i

The numbers are small at a 2C level but serve as a pointer to the hydrocarbon potential of the Velkerri Formation section as the resource estimates are associated only as they relate to the Carpentaria-1 well.

Testing of the well is expected to commence in 2Q21 and success could underpin an expansion and acceleration of the next phase of appraisal drilling; and most certainly support upside to resource bookings.

Empire Energy represents one of few pure, independent and highly leveraged exposures to the transformational potential of the Beetaloo/McArthur basins. As more data comes to hand, we expect the economic confidence level to grow and highlight that EEG is sitting on an extensive (and transformational) gas resource.

Key Points

The time is nigh for testing to commence. Following the release of the resource estimates for Carpentaria-1, the focus of the company moves towards proving the commercial opportunity through testing. Preparations are well advanced with a four-stage, frack and flow testing campaign expected to commence in 2Q21, which, together with additional seismic acquisition will underpin next phase drilling.

It's worth reminding that EEG does not operate in a vacuum. Santos (STO.ASX) in its 2021 outlook presentation indicated it will be drilling and testing two horizontal wells around its Tanumbirini gas well commencing 2Q21. This will provide a direct look-through and extrapolation into the EEG operations, particularly as it plans its next phase drilling activity.

An initial 2C booking points the way. The numbers are small but the significance is not, with EEG reporting an initial Contingent Resource booking around the Carpentaria-1 well. We note the bookings do not include any gas-liquids associated with the 2C gas volumes yet but do include initial Prospective resource estimates...there is a commercial significant volume of condensate waiting to be produced. The direct and indirect testing data to be acquired over the remainder of 2021 will likely add/convert significant volumes to the initial estimates, better define the liquids expectations and could deliver sufficient certainty to underpin early commercialisation options.

Our Target Price and valuation are unchanged but subject to significant unwinding of risk and uplift in confidence levels as testing data comes to hand through the direct and indirect activity to be conducted through 2021. We currently value the company in a range of \$89-451mn (\$0.27-1.39/share).

We retain our recommendation at **BUY** with a **Target Price of \$0.58/share**, equivalent to our middle-point valuation to reflect the current technical, market and operating outcomes.

Recommendation: BUY

Summary (AUD)

Market Capitalisation	\$112
Share price	\$0.345
52 week low (23-Mar-20)	\$0.13
52 week high (12-Oct-20)	\$0.47

Share price graph (AUD)



Source: Yahoo Finance

Key Financials (US\$000s)

US\$	2019	2020E	2021E
Production (kboe)	385	273	282
Revenue	5,397	4,513	4,778
EBITDAX	724	1,861	2,066
EBIT	(10,034)	(6,593)	(3,941)
Underlying NPAT	(16,075)	(7,100)	(3,941)
EPS (Acps)	(9.3)	(3.1)	(1.6)
Growth (%)		na	na
PER (x)		nm	nm
EV/EBITDAX (x)		(16.2)	0.6
CFPS (Acps)	(4.1)	(0.8)	(0.2)
PCF (x)		nm	nm
ROE (%)		na	na
ROA (%)		na	na

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Empire Energy Limited - Summary of Forecasts					Share Price				EEG	\$0.345		
ORDINARY SHARES	M	324	Fully Diluted	M	342	BALANCE SHEET SUMMARY (US\$000s)						
OPTIONS	M	18				Year end June	2018	2019	2020E	2021E		
MARKET CAP	A\$m	112				Cash	4,157	9,882	12,796	10,523		
PROFIT & LOSS SUMMARY (US\$000s)						Property Plant & Equip	31,241	26,633	31,991	34,816		
Year end December		2018	2019	2020E	2021E	Exploration	0	141	127	114		
<i>Commodity Price Assumptions</i>						TOTAL ASSETS	64,071	39,650	45,550	46,116		
Realised oil price	US\$/b	59.86	59.76	39.48	48.30	Borrowings	24,369	6,481	6,358	5,808		
Realised gas price		3.24	0.00	1.96	2.67	TOTAL LIABILITIES	42,701	25,985	24,009	27,522		
Exchange Rate		0.7452	0.6958	0.6989	0.7705	TOTAL EQUITY	21,370	13,665	21,540	18,593		
Total Revenue						Gearing dn/(dn+e)		na	na	na		
Cost of sales		(4,723)	(4,189)	(3,502)	(3,612)	CASH FLOW SUMMARY (US\$000s)						
Gross Profit		1,870	1,208	1,011	1,166	Year end June	2018	2019	2020E	2021E		
EBITDAX proxy		1,870	724	1,861	2,066	Operational Cash Flow	2,828	1,267	343	435		
Other revenue		0	0	0	0	Net Interest	(2,974)	(1,885)	(483)	(457)		
Other income		2,192	155	150	200	Taxes Paid	0	0	0	0		
Write downs/impairments		0	(1,167)	(1,879)	0	Other	(115)	(135)	(30)	(30)		
Finance costs		(801)	(637)	(483)	(457)	Net Operating Cashflow	(261)	(754)	(170)	(52)		
Other expenses		(8,399)	(11,397)	(5,875)	(4,850)	Exploration	0	0	(8,725)	(2,500)		
EBIT proxy		(4,339)	(10,034)	(6,593)	(3,941)	PP&E	(49)	0	0	0		
Profit before tax		(5,138)	(11,838)	(7,076)	(3,941)	Petroleum Assets	(168)	(1,848)	0	0		
Taxes		(115)	(135)	(25)	0	Net Asset Sales/other	359	20,008	103	(198)		
NPAT Reported		(5,254)	(11,973)	(7,100)	(3,941)	Net Investing Cashflow	(120)	17,407	(8,792)	(2,750)		
Underlying Adjustments		(10,714)	(4,102)	0	0	Dividends Paid						
NPAT Underlying		(15,968)	(16,075)	(7,100)	(3,941)	Net Debt Drawdown	(7,878)	(18,497)	(1,238)	(550)		
<i>Margins on Sales Revenue</i>						Equity Issues/(Buyback)	11,677	8,037	13,071	1,078		
EBITDAX		28.4%	13.4%	41.2%	43.2%	Other						
EBIT		91.9%	nm	nm	nm	Net Financing Cashflow	3,785	(10,693)	11,834	528		
NPAT Und		nm	nm	nm	nm	Net Change in Cash	3,404	5,961	2,873	(2,273)		
<i>Change on pcp</i>						PRODUCTION						
Total Revenue						Year end June	2018	2019	2020E	2021E		
EBITDA						Crude Oil	kb	127	89	2	2	
EBIT						Nat Gas	mmcf	1834	1778	1630	1679	
NPAT Adj.						TOTAL	kboe	432	385	273	282	
PER SHARE DATA						RESERVES & RESOURCES						
Year end June		2018	2019	2020E	2021E	as of 18/05/2020						
Shares Outstanding	M	2,313	263	324	328	Northern Territory	1U	2U	3U	1U	2U	3U
EPS Und	A cps	(1.4)	(9.3)	(3.1)	(1.6)	Gas (Bcf)					Liquids (Mb)	
Growth (pcp)		na	na	na	nm	Velkerri Fm	1,283	2,339	4,751	1	7	33
Dividend	cps					Barney Creek Fm	1,633	11,053	45,380	2	44	448
Franking	%					Wollogorang Fm				0	0	0
OCF per Share	A cps	(0.2)	(4.1)	(0.8)	(0.2)	TOTAL	2,916	13,392	50,131	4	53	488
NTA per share	A cps		7.5	9.5	7.4	US	1P	2P	3P			
KEY RATIOS						Gas	24	34	38			
Year end June		2018	2019	2020E	2021E						as of	22/02/2021
D _N /(D _N + E)	%	49%				Carpentaria	1C	2C	3C	1U	2U	3U
ROE	%	na	na	na	na		41	86	1,198	1,988	3,863	
ROA	%	na	na	na	na	Carpentaria East			522	1,458	3,228	
(Trailing) Debt/Cash	x	0.0x	0.0x	0.0x	0.0x	TOTAL Gas (Bcf)	41	86	1,720	3,446	7,091	
VALUATION MULTIPLES						TOTAL Condensate (Mb)			4	27	99	
Year end June		2018	2019	2020E	2021E	EQUITY VALUATION						
PER	x		na	na	na	Risked Range						
Dividend Yield	%					NT	Low	Mid	High	Low	Mid	High
FCF Yield	%		-11.9%	-2.2%	-0.6%	Gas	\$52	\$104	\$271	\$0.16	\$0.32	\$0.84
EV/EBITDA	x		0.0x	-16.2x	0.6x	Liquids	\$17	\$57	\$149	\$0.05	\$0.18	\$0.46
						US Onshore						
						Appalachian	\$17	\$22	\$28	\$0.05	\$0.07	\$0.09
							\$85	\$183	\$448	\$0.26	\$0.57	\$1.38
						Net cash/(debt)	\$8	\$8	\$8			
						Corporate costs	(\$5)	(\$5)	(\$5)			
						TOTAL	\$89	\$186	\$451	\$0.27	\$0.58	\$1.39

Source: Company data; Analyst estimates, priced at 34.5cps

Resources and testing...and a sneaky peek at Santos activity

The success at Carpentaria-1 continues to build the commercial case and importantly has underpinned the declaration of the first Contingent Resources for EEG pertaining to its Beetaloo Basin operations. Although the gas numbers are not striking in an absolute sense, we see the bookings as significant in a qualitative sense as a pointer to thing to come.

Figure 1: Resource booking related to Carpentaria-1 – note the liquids potential of ~8b/mmcf (at 2U level).

Area	Contingent Resource (100%) Net Sales Gas (BCF)			Unrisked Gross (100%) Prospective Sales Gas Resources (BCF)			Unrisked Gross (100%) Prospective Condensate Resources (MMBBL)		
	Estimate			Estimate			Estimate		
	Low (1C)	Best (2C)	High (3C)	Low (1U)	Best (2U)	High (3U)	Low (1U)	Best (2U)	High (3U)
Carpentaria*	-	41	86	1,198	1,988	3,863	3	17	58
Carpentaria East*	-	-	-	792	1,458	3,228	1	10	41
Total*	-	41	86	1,990	3,446	7,091	4	27	99
Inferred CGR (b/mmcf)							2	8	14

Source: Company data; analyst estimates estimates

The Prospective Resources associated with the Carpentaria play imply a liquids range of 2-14b/mmcf. Any gas liquids (condensates) are welcome as providing the potential for excess returns to a development, although these volumes are only really significant at higher ratios. At the higher range of CGR = 8-14, the nominal volumes for exploitation are significant and would provide strong additional commercial returns.

We have commented in previous notes that gas liquids can be an **economic game-changer**.

As flagged previously, EEG will benefit from a direct look-through across the Santos (STO.AX) drilling and testing programmes over the remainder of 2021.

STO has previously reported the Tanumbirini-1 testing results as excellent, delivering an IP rate >10mmcf/d with an average rate 1.1mmcf/d over 19 days from a vertical intersection.

A rig has been contracted to commence drilling of two horizontal wells in 2Q21. The important aspect is that the wells will be horizontal, which may be the design key to unlocking definitively commercial flow rates.

We retain our Target Price at \$0.58/share

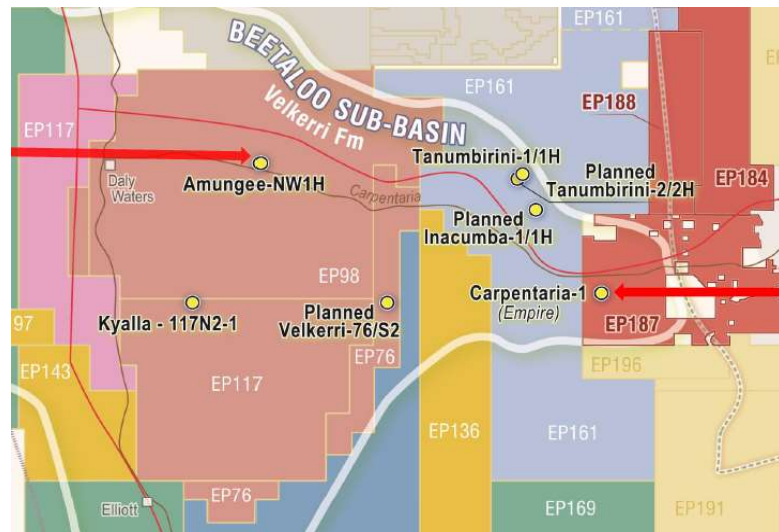
We highlight the capacity for positive revisions upon the successful outcomes that could be provided by the Carpentaria-1 testing and evaluation campaign, particularly any confirmation of liquids rates on a flowing gas basis,

We set our Target Price against the mid-point (risk-weighted) of our valuation range which we feel better reflects the next point in the re-rating process.

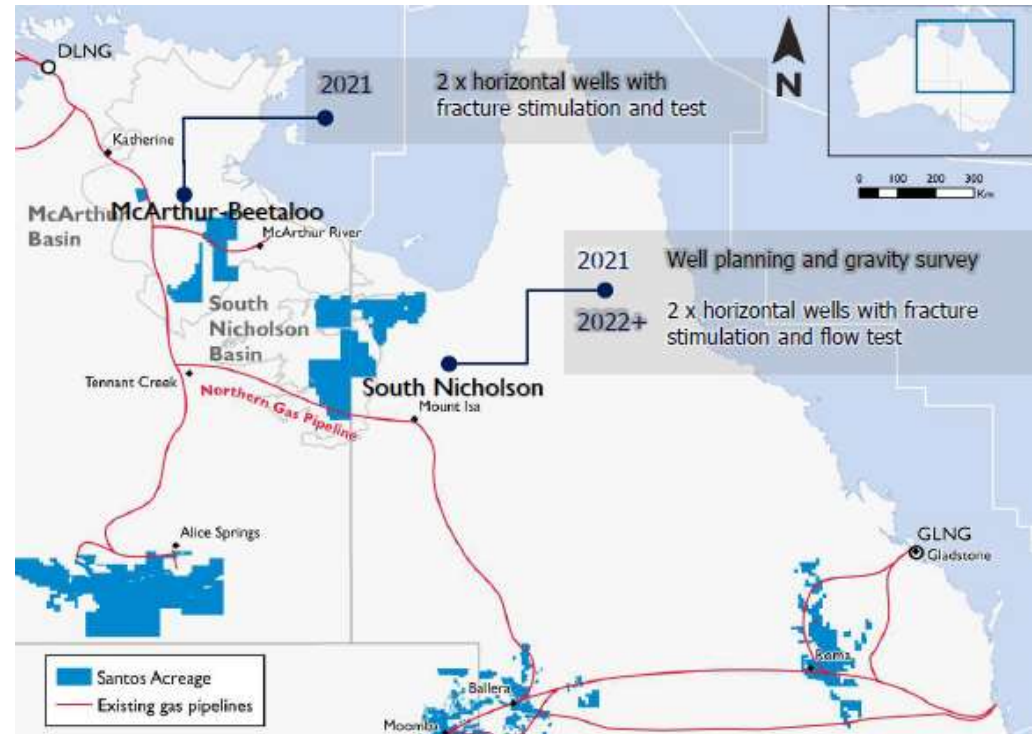
Figure 2: Carpentaria-1 will benefit on a ‘look through’ from STO at Tanumbirini - after all, it’s right next door.

The Carpentaria results, given the liquids rich nature of the intersection, should at this stage be considered on a specific, well constrained basis, however, positive results could be interpolated as supporting the liquids prospectivity on a larger scale, particularly enhancing the economic opportunity.

The data to date is suggesting there is a gas project here to be won.



Source: Company data



Source: Company data

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