

Hazer Group Ltd (ASX:HZR)

30 May 2018

Concerns over agreement with MinRes

Over the past year, HZR's share price has fallen 60% from an October 2017 high of A\$0.68. We attribute this to the lack of disclosed progress on the binding Co-operation Agreement with Mineral Resources (MinRes) (ASX:MIN). Initial plans were for a 1tpa ultra-high purity graphite pilot plant to be commissioned by the September 2018 quarter with commercial production (funded by MIN) targeted for end-2019. Unfortunately, no progress details were included in the March 2018 quarterly cashflow report (released 30 April 2018), or in the group's most recent announcement (10 May 2018) which described the positive performance characteristics of HZR's graphite versus commercial graphite in a series of Li-ion battery tests.

Areas which concern us over MIN's "commitment" to the Co-operation Agreement with HZR include:

- MIN's unsuccessful bid for oil and gas producer AWE Resources. Natural gas is the main input cost in the Hazer Process (HZR's proprietary process for converting, at moderate temperature and pressure, natural gas into hydrogen and graphite using iron ore as a process catalyst). Buying gas at market prices (vs captured supplies) will increase input costs.
- MIN's March 2018 binding Heads of Agreement with graphite developer Hexagon Resources (ASX:HXG). Under the agreement (49% HXG, 51% MIN) MIN will fund the development of the McIntosh Graphite Project in Western Australia via MIN's proven build own operate model; commercial production of graphite concentrate is targeted for mid-2021. Importantly, HXG has developed a proprietary medium temperature thermal purification technique and produced graphite at the high-value concentrate grade of +99.999 wt%C ("five nines"). MIN is undoubtedly a believer in the future of the Li-ion battery and clean energy in general. While it is not unreasonable to believe that MIN is "hedging its bets" between syn-graphite as represented by the Hazer Process and conventional mined and processed graphite (via HXG), we suggest that MIN's investment in HXG may lead to project slippage at HZR.
- The resignations in April 2018 of company founder and Managing Director Geoff Pocock for personal reasons, and of Non-Executive Director Terry Walsh due to other Board commitments.

Risk-adjusted SOTP target price: A\$0.48 (A\$1.00 previously)

Nearly six months after the announcement of a binding agreement with MIN, we view the lack of disclosure on the timing of construction (let alone commissioning) of a MIN-funded pilot plant as a major red flag. Consequently, we have significantly increased the risk weighting attached to our estimated NPV valuations of (i) the technology sharing agreements with MIN and, (ii) potential contracts with Primetals Tech. Our risk-weighted valuation has fallen by 53% to A\$42m from A\$89m with our target price falling to A\$0.48ps from A\$1.00ps. In our original financial forecasts, we assumed some A\$16m in new equity between FY18E-FY21E from options with exercise prices ranging between 25c-70c. At current share price levels, we suggest that the likelihood of these options being exercised has fallen. As a result, and at current cash burn levels, we calculate that HZR will now need to source external funding (we assume debt) by FY20E. At current share price levels we believe HZR offers upside potential, but note that the group's financial and business risk has increased. **We maintain a Speculative Buy (Higher Risk) recommendation**

Share Price: A\$0.27

Target Price: A\$0.48

Recommendation
Speculative Buy

Risk Assessment
Higher

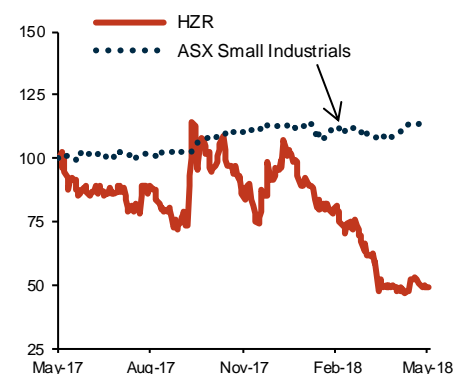
Chemicals

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Hazer Group Ltd

ASX Code	HZR
52 week range (A\$cps)	A\$0.26-A\$0.68
Market Cap (ASm)	24
Fully diluted no. of shares (m)	134
Av Daily Turnover (shares)	227k
ASX All Ordinaries	6.086
FY18E BV per share (A\$c)	A\$7.9c
FY18E EPS (A\$c)	-A\$5.4c
FY18E Net (Debt)/Cash (A\$m)	6.0

Relative price performance



Source: Iress

Financial Statements

HazerGroup Limited

Year ending June

Profit & Loss Statement (A\$m)	FY17A	FY18E	FY19E	FY20E	FY21E
Revenue	0.3	0.0	0.0	0.0	0.0
Gas feedstocks costs	0.0	0.0	0.0	0.0	0.0
Iron ore catalyst/conversion costs	0.0	0.0	0.0	0.0	0.0
Corporate/Other costs	(4.2)	(5.0)	(5.3)	(5.5)	(5.8)
EBITDA	(3.9)	(5.0)	(5.3)	(5.5)	(5.8)
Depreciation & Amortisation	0.0	0.0	0.0	0.0	0.0
Operating profit	(3.9)	(5.0)	(5.3)	(5.5)	(5.8)
Royalty income	0.0	0.0	0.0	1.3	7.7
EBIT	(3.9)	(5.0)	(5.3)	(4.3)	1.9
Interest income	0.1	0.2	0.2	0.0	0.1
Interest expense	(0.0)	0.0	0.0	(0.5)	(0.9)
Tax expense	0.0	0.0	0.0	0.0	0.0
Reported NPAT	(3.9)	(4.8)	(5.1)	(4.7)	1.1
Normalised NPAT	(3.9)	(4.8)	(5.1)	(4.7)	1.1
EBITDA Margin (%)	na	na	na	na	na
Operating profit margin (%)	na	na	na	na	na
EPS Reported (A\$c)	(2.9)	(5.4)	(5.8)	(5.3)	1.2
EPS Normalised (A\$c)	(2.9)	(5.4)	(5.8)	(5.3)	1.2
EPS growth (%)	na	na	na	na	na
DPS - Declared (A\$c)	0.0	0.0	0.0	0.0	0.0
YE no. shares (m)	77	88	88	88	88
YE no. of fully-diluted shares (m)	134	88	88	88	88

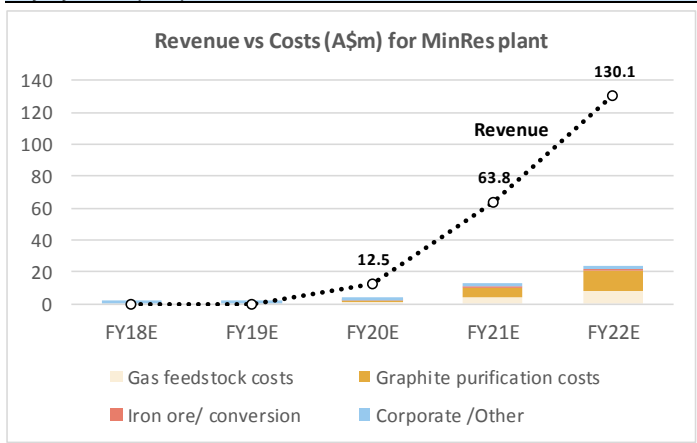
Cash Flow Statement (A\$m)	FY17A	FY18E	FY19E	FY20E	FY21E
EBITDA	(3.9)	(5.0)	(5.3)	(5.5)	(5.8)
Investment in working capital	0.1	0.0	0.0	0.0	0.0
Tax expense	0.0	0.0	0.0	0.0	0.0
Operating Cash Flow	(3.8)	(5.0)	(5.3)	(5.5)	(5.8)
Capex	(1.1)	(0.3)	(0.3)	(0.3)	(0.3)
Other investments	0.0	0.0	0.0	0.0	0.0
Investing Cash Flow	(1.1)	(0.3)	(0.3)	(0.3)	(0.3)
Net interest received / (paid)	0.1	0.2	0.2	(0.4)	(0.8)
Debt draw down n / (repayment)	0.0	0.0	0.0	7.5	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Equity raised / (repaid)	8.3	2.9	0.0	0.0	0.0
Financing Cash Flow	8.4	3.1	0.2	7.1	(0.8)
Royalty income	0.0	0.0	0.0	1.3	7.7
Inc/(Dec) in Cash	3.5	(2.1)	(5.4)	2.5	0.8

Balance Sheet (A\$m)	FY17A	FY18E	FY19E	FY20E	FY21E
Cash & Equivalents	8.1	6.0	0.6	3.2	3.9
Receivables	0.0	0.0	0.0	0.0	0.0
Inventories	0.0	0.0	0.0	0.0	0.0
Other Current Assets	0.1	0.1	0.1	0.1	0.1
PPE	1.1	1.3	1.6	1.9	2.2
Deferred tax asset	0.0	0.0	0.0	0.0	0.0
Other Non Current Assets	0.0	0.0	0.0	0.0	0.0
Total Assets	9.3	7.4	2.3	5.1	6.2
Payables and other current Liabilities	0.4	0.4	0.4	0.4	0.4
Short Term Debt	0.0	0.0	0.0	0.0	0.0
Long Term Debt	0.0	0.0	0.0	7.5	7.5
Other Non Current Liabilities	0.0	0.0	0.0	0.0	0.0
Total Liabilities	0.4	0.4	0.4	7.9	7.9
Total Equity	8.9	7.0	1.9	(2.8)	(1.7)
Net Cash/(Debt)	8.1	6.0	0.6	(4.3)	(3.6)

Substantial Shareholders	%	Date
Mineral Resources Limited	13.5	
OOFY Prosser Pty Ltd	4.8	Aug-17
Point at Infinity Pty Ltd	4.6	

Source: Company, IRESS, State One Stockbroking forecasts

Royalty income assumptions	FY17A	FY18E	FY19E	FY20E	FY21E
Graphite production (94%) (tonnes)	na	-	-	1,250	6,250
Graphite sales (99.9%) (tonnes)	na	-	-	1,000	5,000
Graphite price (US\$/t)	na	10,000	10,000	10,000	10,200
Graphite revenue (US\$m)	na	-	-	10.0	51.0
Hydrogen sales (tonnes)	na	-	-	-	-
Hydrogen price (US\$/t)	na	2,500	2,500	2,500	2,550
Hydrogen revenue (US\$m)	na	-	-	-	-
Revenue (total) (A\$m)	na	-	-	10.0	51.0
AUD:USD exchange rate	na	0.8	0.8	0.8	0.8
Revenue (total) (A\$m)	na	-	-	12.5	63.8
Natural gas price (A\$/GJ)	na	8	8	8	8
Gas feedstock required (tonnes)	na	-	-	1,812	9,058
Gas input costs (A\$m)	na	-	-	(0.8)	(3.9)
Other costs (A\$m)	na	(2.0)	(2.0)	(3.4)	(8.8)
Total costs (A\$m)	na	(2.0)	(2.0)	(4.1)	(12.7)
EBITDA (A\$m)	na	(2.0)	(2.0)	8.4	51.1
Royalty rate to HZR (%)	na	15%	15%	15%	15%
Royalty to HZR (A\$m)	na	-	-	1.3	7.7



Leverage	FY17A	FY18E	FY19E	FY20E	FY21E
Net Debt/Equity	cash	cash	cash	cash	cash
Gearing (ND/ND+E)	cash	cash	cash	-84%	-57%
Interest Cover (x)	na	na	na	-9.8	2.3

Valuation Ratios (x)	FY17A	FY18E	FY19E	FY20E	FY21E
Normalised P/E	na	na	na	na	22.1
Price/OP Cash Flow	-6	-5	-4.4	-4.2	-4.0
Book value per share (A\$c)	6.6	7.9	2.2	-3.2	-2.0
EV/EBITDA	-4	-4	-4	-5.1	-4.8
ROE (%)	-44%	-68%	-268%	168%	-61%

Risk-Weighted Target Price	(A\$m)	(A\$ps)
NPV of technology sharing agreement (TSA) with MnRes	57	0.64
Risk weighting attached to MnRes TSA	25%	
Risk-weighted MnRes TSA NPV	14	0.16
NPV of 500ktpa methanol plant contract with Primetals Tech	89	1.01
.....potential number of steel plant contracts (x)	10x	
Royalty value attached to Primetals Tech contracts (unrisked)	888	10.09
Risk weighting attached to Primetals Tech contracts	3%	
Risk-weighted valuation attached to contracts with Primetals Tech	22	0.25
Net cash / (debt)	6	0.07
Risk weighted valuation	42	0.48
Current share price		0.27
% upside / (downside)		82%

Note: Per share target price based on 88m quoted shares in issue

Recommendation and risks

Risks to our earnings profile and target price include, but are not limited to:

- **Timing – MinRes:** A significant portion of our group valuation is based on the estimated NPV of royalties associated with technology licencing arrangements with Mineral Resources (ASX: MIN). MinRes is a significant shareholder in HZR (at 13.5%), and in December 2017 signed a binding Co-operation Agreement with HZR. However, the precise nature of the licencing arrangements – including royalty rates to HZR - have not been disclosed.
- **Timing – Primetals Technologies:** A significant portion of our group valuation is based on the estimated NPV of royalties associated with technology licencing arrangements with Primetals Technologies. At this juncture, the arrangement is (only) in the form of a non-binding Memorandum of Understanding. The timeframe associated with progressing this beyond the MOU stage is not known. The precise nature of licencing arrangements – including royalty rates to HZR - will have to be firmed up to a legally-binding HoA.
- **Operational/Technical:** The Hazer Process – converting natural gas to hydrogen and graphite using an iron ore catalyst - has been successfully demonstrated in laboratory-scale apparatus and at a pre-pilot plant level. Under the MoA with MinRes, initial commissioning of a 1tpa ultra-high purity graphite pilot plant is scheduled for end-2018. Success here will largely determine the timeline associated with scaling up production to 10,000tpa.
- **Natural gas costs:** The only input cost of significance in the Hazer Process is the cost of natural gas feedstock. We calculate that in the proposed modified process for MinRes (which will produce graphite only, not hydrogen and graphite), some 18,000t (960,000GJ) of natural gas is required to produce 10,000t of ultra-high purity graphite. At our base-case natural gas price of A\$8/GJ (real), we calculate natural gas input costs will come to ~A\$8m. Natural gas prices significantly higher (or lower) than forecast will reduce/increase margins.
- **Graphite price:** Our NPV₁₀ for the MinRes royalty stream to HZR is particularly sensitive to realised prices for ultra-high purity graphite (99.9% C). Our base-case price assumption is US\$10,000/t (real); this compares to current synthetic graphite prices of ~US\$12,000-20,000/t and US\$7,000-10,000/t for spherical coated natural graphite prices. In a 50% lower graphite price environment (i.e., US\$5,000/t), our un-risked NPV for the MinRes royalty stream falls by 60% to A\$22m from A\$57m and our SOTP valuation for HZR falls by 19% to A\$0.81ps from A\$1.00ps.
- **Currency:** A stronger/weaker AUD:USD exchange rate relative to our base-case of US\$0.80 will reduce earnings/increase earnings respectively.
- **Other:** Increased competition from new and existing methane cracking technologies, regulatory risks, dependence upon key personnel, financial risk – the ability to fund the group’s activities before first material royalties are received in FY21E.

Recommendation:

Speculative Buy
 (Higher risk)

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