EDISON

G3 Exploration

Company update

Accelerated monetisation of production assets

Oil & gas

Potential equity released to G3 Exploration (G3E) stakeholders through the company's planned Hong Kong listing of the producing assets remains a key catalyst and valuation benchmark. Management believes that net proceeds from the IPO will enable the company to redeem the Nordic and GIC bonds using the new capital raised within the Hong Kong listed vehicle to fund CBM drilling activity on the producing GSS and GCZ blocks. At this stage, G3E's valuation is heavily dependent on the success of the planned Hong Kong IPO, their ability to reduce corporate debt and to fund drilling activity. We previously undertook a detailed analysis of valuation scenarios based on G3E accessing debt markets to monetise its key producing assets, GSS and GCZ. Ahead of further information on the planned listing, which should provide visibility on funding to support operational activity, we refer investors to our last published detailed valuation note. Our forecasts are under review.

Year end	Revenue* ($m)	EBITDA ($m)	PBT** ($m)	Debt ($m)	Net cash/(debt) ($m)	Capex ($m)
12/15	37.7	20.1	(0.1)	(135.2)	(108.3)	(47.8)
12/16	29.1	10.5	(12.3)	(144.1)	(127.9)	(14.4)
12/17***	0.0	(4.1)	(24.6)	(149.0)	(146.7)	(6.3)

Note: *Including subsidy income. **PBT is normalised ***2017 accounts reflect move to accounting producing assets as discontinued – please see company reported accounts for details

Hong Kong-listed YieldCo

It is management's intention to list its subsidiary GDG (YieldCo) on the Hong Kong stock exchange which will encompass the company's interests in the producing assets, GSS and GCZ. The Hong Kong listed entity would then distribute free cash flow to G3E shareholders (expected to hold c 25% of GDG) as well as to new shareholders. We view the success of the IPO as key to determining a value for G3E assets.

Focus on GGZ and exploration assets

G3E will retain full ownership of the exploration blocks including GSN, GGZ, GFC, GPX, GQY(A) and GQY(B) and will meet work obligations under recent licence extensions. NSAI valued G3E's assets at 2P $879m as of year-end 2017 but we note that this does not take in to consideration funding requirements.

Valuation: New listing to provide greater visibility

G3E remains difficult to value without visibility on the availability of funding for the drill-out of the company's CBM reserve and resource base. Our last published valuation range included a low case of 20p/share based on minimal drilling activity, limiting resource recovery to within current licence terms (to 2035). Our last published mid-case valuation of 245p/share and our high-case require a material capital injection, potentially achieved through the Hong Kong listing, as well as an active drilling programme across the producing assets GSS and GCZ.

18 October 2018

Price	**43p**
Market cap	**£68m**
	US$1.3/£
Net debt (US$m) at 30 June 2018	159
Shares in issue	156.1m
Free float	44.1%
Code	G3E
Primary exchange	LSE
Secondary exchange	N/A

Share price performance

%	1m	3m	12m
Abs	38.4	26.4	(15.2)
Rel (local)	44.1	36.9	(9.8)
52-week high/low		64.2p	29.6p

Business description

G3 Exploration (previously Green Dragon Gas) is one of the largest independent companies involved in the production and sale of coal bed methane (CBM) gas in China.

Next event

Listing on Hong Kong stock exchange	Q119

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Edison profile page

G3 Exploration is a research client of Edison Investment Research Limited

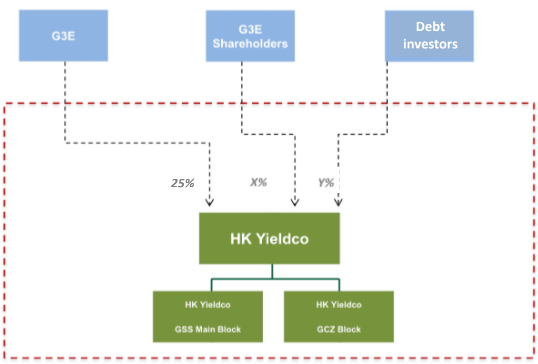
New company structure and H218 outlook

In our view, the most important catalyst for G3 Exploration in 2018 is the company's restructuring and Hong Kong listing. Management has put forward an indicative timetable as outlined below.

H218: Monetisation of GSS and GCZ

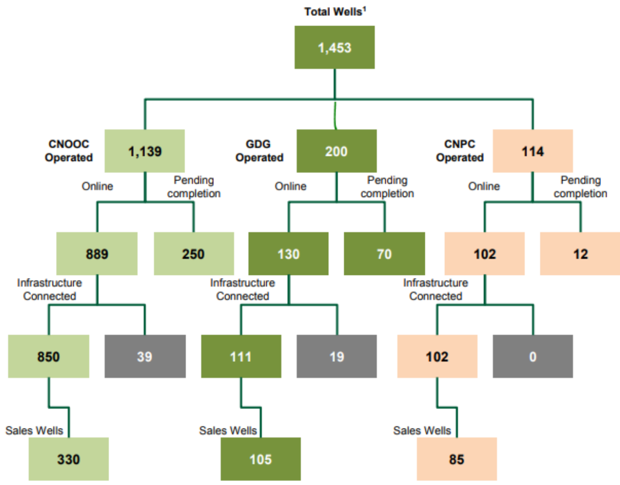
Management intends to list the company's main producing assets (GSS and GCZ) on the Hong Kong stock exchange, creating a new company, YieldCo. It is intended that new YieldCo shareholders would introduce fresh capital into the company to fund growth while free cash flow would be distributed to all YieldCo shareholders. Management expects this liquidity event to enable the redemption of G3 Exploration's Nordic and GIC bonds ($138m in total). This in turn would enable G3E Exploration to use the remaining capital to appraise the six blocks in line with work commitments under existing licence agreements (outlined later in this note).

Exhibit 1: Intended structure post planned Hong Kong listing*



Source: G3 Exploration* Management expect G3E to own c.25% of GDG post-listing

Exhibit 2: Well count across GSS and GCZ



Source: G3 Exploration

H218: Focus on exploration asset work commitments

Management expects first gas from the GGZ block and plans to file an overall development plan (ODP) for GGZ block in 2019. Activity will also include exploration at GFC and GPX before non-prospective acreage is relinquished. Key work commitments are as outlined below:

GFC Block – Greka BV (G3E) is operator with a 49% participating interest.

- **Phase I:** extended to 9 May 2018. Greka GFC BV was to fund 60% of a work programme consisting of five vertical wells and two pairs of horizontal wells at an estimated gross cost of $7.07m.
- **Phase II:** extends to 14 April 2019. One vertical well and one pair of horizontal wells will be drilled and a reserve report will be filed for certification from nine wells. Total expenditure is estimated at $1.84m.

GQY Block Area A – operated by CUCBM with Greka GQY BV participating in a 10% interest.

- **Phase I:** extended to 8 September 2018 and involves a 2D seismic survey, 14 vertical wells and/or directional wells and production from five wells. Total gross expenditure was estimated at $8.09m.
- **Phase II:** extended to 14 April 2019 and involves the drilling of three vertical wells and/or directional wells, fracturing three wells and production from 19 wells. Total gross expenditure is estimated at $2.54m.

GQY Block Area B – Greka GQY BV is operator with a 60% participating interest, CUCBM has 40%.

Phase I: extended to 8 September 2018 and involves the drilling of five vertical wells, four pairs of horizontal wells and production from 10 wells. Total gross cost is estimated at $9.12m.

Phase two: extends to 14 April 2019 and involves the drilling of three wells, one pair of horizontal wells and the filing of a reserve report for certification from 15 wells. Total gross expenditure is estimated at $2.54m.

GPX Block – Greka GPX BV is operator with a 60% interest.

- **Phase I:** the minimum work commitment extended until 9 May 2018 and includes the drilling of two vertical wells, one pair of horizontal wells and production from one well. Total gross expenditure is estimated at $3.29m.
- **Phase two:** extends to 14 April 2019 and involves the drilling of a pair of horizontal wells and the filing of a reserve report for certification from production of four wells. Total gross expenditure is estimated at $0.89m.

Given the above, we estimate a total net G3 Exploration planned capital budget of $35.4m.

For G3 Exploration to redeem outstanding debt and fund this work programme and G&A in 2018 we estimate that $173m will need to be returned to G3 Exploration from the Hong Kong listing of YieldCo. Management expect the company to place c.$200m of new debt against the GDG asset base, and release $175m to G3E to satisfy this $173m spend.

Recent market events

GCZ ODP approval

On October 3rd 2018, NDRC approved the ODP for the GCZ block in which G3E currently has a 47% participating interest. The ODP area has 294bcf of gas in place with estimates of recoverable gas of 176bcf. 114 wells have been drilled on the acreage of which 85 wells are selling gas. The ODP includes the drilling of an additional 147 production wells, with gross production capacity of 6.35bcf/year and development costs are estimated a c.US$55m over the next two years from 4Q18. As of December 2017, NSAI estimated a future NPV10 of US$72m in 1P and US$154m in 2P.

Chinese CBM asset transactions

In May 2018, Sino Gas & Energy Holdings agreed to a A$530m cash takeover offer from US private equity firm Lone Star. Sino Gas net 1P reserves at 31 December 2017 were 384bcf and 2P reserves 578bcf and 2C resources of 899bcf. This equates to an EV/2P value of US$0.73/bcf and EV/(2P+2C) of US$0.28/bcf.

In April 2018, Liming holding limited made an offer to acquire part of the shares of AAG Energy at a market value of c US$752m (EV c US$833m). Based on AAG Energy's net December 2017 2P reserves this equates to US1.35/bcf EV/2P (we do not have 2C resource figures for AAG).

Valuation

It is currently difficult to estimate the capital available in the YieldCo (new equity and debt) to fund drilling activity and for distribution, but visibility should increase once management have listed GDG in 2019. This remains the case as per our last published detailed valuation in 2017. We will look to update our valuation after G3 Exploration has published an IPO prospectus and timetable. We note that the NSAI valuation (31 December 2017) of GSS 2P gas reserves stands at $1.385bn and GCZ $155m. We do not believe that this incorporates the impact of capital constraints and the relative high cost of equity capital in the current market for small-cap E&P.

In the absence of further information on which to value G3 Exploration, we refer investors to our last published valuation range as per below. In our last published note, we produced three valuation scenarios. Case 1 based on the company having capital constraints and minimal capex spend, a mid-case assuming RBL debt capacity for GSS and GCZ and a blue-sky high case, assuming no capital constraints and early monetisation of the company's resource base.

1. **Minimal capex case:** no additional wells drilled, capital expenditure on upstream compression and well connections. Valued at 20p/share, likely if only limited capital is available through the Hong Kong IPO.
2. **Mid-case:** drilling activity aligned to RBL capacity and short-term funds. Valued at 227p/share but reliant on significant funds available for debt re-financing and production drilling.
3. **Accelerated drilling:** drilling out of resource base funded by equity or asset farm-downs. Valued at over 591p/share, viewed as a blue-sky scenario where capital is unconstrained, well performance is towards the high-end of expectations and 3P CBM reserves are accessed.

A full breakdown of our NAVs and underlying assumption is provided in the last detailed valuation note referred to above.

Financials, risks and sensitivities

Future financial forecasts are highly dependent on G3 Exploration's equity stake in the intended Hong Kong YieldCo and funding available for exploration and appraisal activity across both companies.

We see significant uncertainty in our short-term forecasts, which are to a large extent driven by the pace and success of well optimisation and drilling activity. Our previously published base case forecasts are predicated on G3 Exploration achieving GSS/GCZ ODP (project code approved in 2017), gaining access to an RBL borrowing base, or alternative sources of capital. We do not believe it is prudent to provide new financial forecasts until the structure of the company's Hong Kong listing is clear.

G3 Exploration's gas price is largely driven by domestic policy; however, we expect that in the medium term, domestic regulated pricing will trend towards LNG import price parity. A reduction in the National Development Reform Commission's (NDRC) wholesale price of natural gas in November 2015 of c $3.1/mcf was prompted by a fall in oil and LPG prices and was intended to increase the price competitiveness of natural gas relative to other fuel sources. This was offset by China increasing the cash subsidy for CBM producers from $0.87/mcf to $1.31/mcf. Despite subsidy support, we expect G3 Exploration's realised gas prices to move towards LNG price parity over time. Our latest model now assumes that current realisations ($7.5/mcf as a blended average of CNG and PNG prices) will remain in 2018, beyond which it will track towards Chinese LNG import price parity. The IEA expects 2021 Chinese gas demand of 320bcm; import dependency rising from c 30% today to over 40% by the end of the decade. The supply gap will be filled by increasing LNG and piped imports as well as higher-cost sources of domestic supply such as shale.

Based on Brent crude of $72.6/bbl by 2020, IHS estimates an LNG delivered cost (including transport) of just under 10$/mcf. Our modelled gas price assumptions rise from $7.5/mcf, including subsidies, in 2016 to $10.5/mcf by 2020. We note that additional CBM subsidies are possible over this time frame, but are these not included in our base case price assumptions.

Exhibit 3: Historical financials

US$m	2013a	2014a	2015a	2016a	2017a*
December	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS					
Revenue	62.2	33.8	37.7	29.1	0.0
Cost of Sales	(40.3)	(19.1)	(15.5)	(16.4)	0.0
Gross Profit	21.9	14.7	22.2	12.8	0.0
EBITDA (continued ops)	4.5	11.4	20.1	10.5	(4.1)
Operating Profit (before amort. and except.)	(9.3)	5.9	15.0	4.6	(4.1)
Intangible Amortisation	0.0	0.0	0.0	0.0	0.0
Exceptionals	(13.3)	(30.1)	0.0	0.0	0.0
Discontinued ops	0.0	0.0	0.0	0.0	(7.5)
Operating Profit inc discontinued	(22.6)	(24.2)	15.0	4.6	(11.7)
Net Interest	(12.2)	(12.0)	(15.1)	(16.9)	(13.0)
Profit Before Tax (norm)	(21.5)	(6.2)	(0.1)	(12.3)	(24.6)
Profit Before Tax (FRS 3)	(34.8)	(36.3)	(0.1)	(12.3)	(24.6)
Tax	0.5	0.5	0.2	0.2	0.0
Profit After Tax (norm)	(21.0)	(5.7)	0.1	(12.1)	(24.6)
Profit After Tax (FRS 3)	18.8	(37.5)	(41.9)	(53.0)	(24.6)
Average Number of Shares Outstanding (m)	139.3	156.1	156.1	156.1	156.1
EPS - normalised (c)	(0.0)	(0.0)	0.0	(0.0)	(0.2)
EPS - normalised and fully diluted (c)	(15.1)	(3.7)	0.1	(7.7)	(0.2)
EPS - (IFRS) (c)	0.0	(0.0)	(0.0)	(0.0)	(0.2)
Dividend per share (p)	0.0	0.0	0.0	0.0	0.0
BALANCE SHEET					
Fixed Assets	936.8	1,321.2	1,321.2	1,311.2	618.5
Intangible Assets	3.8	3.1	3.0	2.2	0.0
Tangible Assets	930.8	1,315.5	1,315.9	1,306.7	617.9
Investments	2.2	2.5	2.4	2.3	0.6
Current Assets	46.3	103.2	51.5	32.3	390.6
Stocks	0.1	0.1	0.1	0.1	0.0
Debtors	11.5	23.1	22.5	22.9	8.2
Cash	34.6	80.0	26.9	7.3	1.3
Other / asset held for sale	0.0	0.0	2.0	2.0	381.1
Current Liabilities	(126.0)	(22.2)	(15.4)	(150.0)	(209.8)
Creditors	(95.6)	(22.2)	(15.4)	(13.9)	(60.7)
Short term borrowings	(30.4)	0.0	0.0	(136.1)	(149.1)
Long Term Liabilities	(210.3)	(662.8)	(659.8)	(554.5)	(127.6)
Bonds	0.0	(85.1)	(86.8)	0.0	0.0
Derivatives	0.0	0.0	0.0	(7.9)	0.0
Convertible debt (LT)	(33.4)	(47.2)	(48.4)	0.0	0.0
Deferred Tax Liabilities	(163.9)	(163.5)	(154.4)	(144.8)	(124.1)
Other long term liabilities	(13.0)	(367.0)	(370.2)	(401.7)	(3.5)
Net Assets	646.8	739.3	697.4	639.0	671.8
CASH FLOW					
Operating Cash Flow	22.5	0.7	12.4	8.5	17.5
Interest paid	(5.4)	(5.4)	(12.3)	(12.3)	(4.4)
Capex	(70.6)	(53.5)	(47.8)	(14.4)	(6.3)
Acquisitions/disposals	60.0	(0.1)	0.2	0.0	0.0
Equity financing and convertible debt	0.0	42.4	0.0	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0
Other	0.0	(40.0)	0.1	0.0	(11.2)
Net Cash Flow	6.6	(55.9)	(47.3)	(18.2)	(4.3)
Opening net debt/(cash)	39.8	29.1	52.3	108.3	127.9
Fx	4.4	(0.7)	(5.8)	(1.3)	0.2
Other	(0.3)	33.4	(2.9)	0.0	0.0
Closing net debt/(cash)	29.1	52.3	108.3	127.9	146.7

Source: G3 Exploration accounts *During 2017, the downstream business of G3E was classified as held for sale. The assets and liabilities relating to the carve-out of the producing blocks (GSS & GCZ) of Greka Energy (International) B.V., a 100% wholly-owned subsidiary of the company, have been presented as held for sale following the G3E board decision to spin off the assets of GSS & GCZ blocks. As the carve out of the GDG assets is coming to its final stage, GDG was classified as a held for sale asset. Investors should review G3E's annual accounts for further details.

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