

SDX Energy

Sobhi sole risk delivered a commercial discovery

SDX Energy recently reported its FY19 results reflecting a 14% increase in production driven by the start of production at South Disouq in Egypt, and its accelerated ramp-up ahead of expectations. The drilling campaign in Morocco resulted in seven discoveries and a tenth well is to be tested. The company ended the year with a cash balance of \$11.1m and is fully funded for all 2020 activities from existing cash flows. In this note we update our valuation to reflect, among other things, FY19 results and the uncertainty caused by COVID-19. Our mid-case RENAV valuation has decreased to 40.7p/share from 53.9p/share (-24%) as we adjust our short- and long-term oil price assumptions, revise our forecasts to reflect the 2P reserve base update and remove Salah and Young prospects from our valuation.

Year end	Revenue (\$m)	PBT* (\$m)	Operating cash flow (\$m)	Net cash (\$m)	Capex (\$m)	Production (kboed)
12/18	53.7	7.1	36.2	17.3	(44.8)	3.6
12/19	53.2	(12.3)	25.1	11.1	(31.3)	4.1
12/20e	40.7	2.6	24.8	9.1	(27.7)	6.8
12/21e	42.0	8.2	29.6	32.1	(7.3)	6.0

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

FY19 marked by significant operational progress

In 2019, SDX brought South Disouq online on time and on budget under the leadership of Mark Reid, who was appointed the company CEO during the year. Production increased by 14% versus FY18, driven by South Disouq's accelerated ramp-up to plateau in Q419. Even though SDX ended 2019 with a cash balance of \$11.1m and fully funded for 2020, management sees significant challenges in the industry in the near term. Management estimates that at a Brent planning price of \$35/bbl, over 90% of 2020 and 2021 cash flows (76% and 82% respectively at Edison updated pricing) will come from the gas businesses, partially insulating SDX from lower oil prices.

Commercial discovery in Egypt

The SD-12X well in the Sobhi prospect in Egypt, drilled on a sole-risk basis, confirmed SDX expectations and resulted in a commercial discovery. Management's best estimate is that the well encountered c 24bcf of recoverable dry gas resource. Management expects to connect the well to the South Disouq Central Processing Facility (CPF) in 2021 and extend the production plateau of 50mmscfed through to 2023/24 with a low-cost tie in.

Valuation: RENAV at 40.7p/share

Our RENAV decreases by 24% to 40.7p/share, driven by updated reserve base, production and capital expenditure for FY20 as well as drilling results, with the latter resulting in the removal of the Salah prospect as it proved to be non-commercial and the Young prospect, as there are no plans to drill it in 2020. We also updated our short- and long-term price assumptions to reflect the current macroeconomic environment; however, with c 75% of its production being natural gas priced at fixed contracts, SDX has strong defensive qualities and downside protection against the recent drop in oil prices.

Sobhi update and FY19 results

Oil & gas

4 May 2020

Price	20.0p
Market cap	£41m
	US\$1.28/£
Net cash (\$m) at 31 December 2019	11.1
Shares in issue	204.7m
Free float	84%
Code	SDX
Primary exchange	AIM
Secondary exchange	N/A

Share price performance



Business description

SDX Energy is a North African E&P listed in London. SDX produces oil and gas in Egypt and gas in Morocco.

Next events	
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South Disouq online in time to face current headwinds

2019 was a year of significant operational progress for SDX, with an increase in production of 14% driven by the start of production at South Disouq, on time and within budget, and its accelerated ramp-up to full production ahead of expectations. In Morocco, the drilling campaign, which commenced in November 2019 and completed in March 2020, resulted in seven discoveries out of a total of 10 wells drilled. The tenth and final well, LMS-2, encountered gas but still requires testing to establish a commercial discovery. Testing is expected to take place once COVID-19 restrictions on the movement of equipment and crews are lifted. Operational performance in 2019 resulted in a year-end cash balance of \$11.1m, no debt on the balance sheet, an undrawn \$7.5m credit facility, and a cash flow-generative portfolio. As a result, the company is fully funded for all 2020 activities.

Management sees significant near-term challenges in the industry as result of the deterioration in both oil prices and equity valuations and the uncertainty caused by COVID-19. Notwithstanding, SDX's business has strong downside protection fixed the recent decline in the oil price due to its portfolio of fixed-price gas assets in Egypt and Morocco. Management estimates that at a Brent planning price of \$35/bbl, over 90% of 2020 and 2021 cash flows (76% and 82% respectively at Edison updated pricing) will come from the gas businesses, partially insulating SDX from lower oil prices. The uncertainty caused by the COVID-19 pandemic and associated partial shutdown of industries is causing temporary disruption to SDX's customer base in Morocco, where three customers, representing 50% of total Morocco revenues and including SDX's largest customer, gradually reduced their natural gas consumption to zero in the last two weeks of March. The remaining five customers have maintained consumption rates in line with historic norms. We take the temporary reduction in demand into consideration in our updated valuation. There is no disruption to date to operations in Egypt, but the pandemic is a serious and dynamic situation that management continues to monitor.

Gaffney, Cline & Associates carried out an independent technical and economic audit to assess SDX's 2019 reserves at 31 December 2019. The revised 2P reserves were based on a better understanding of the structure and distribution of the reservoirs at the South Disouq and Ibn Yunus fields in Egypt, the discoveries made in Morocco and reclassification of reserves to contingent resources at West Gharib, which SDX expects to convert back to 2P on approval of the development plan for the wells required to produce them.

		Egy	Morocco			
Asset	South Disouq	souq West Gharib NW Gemsa S F		S Ramadan*	Gharb Basin	Total
Working interest	55%	50%	50%	12.75%	75%	
At 31 December 2018	6.22	4.56	1.65	0.00	0.66	13.09
Discoveries	0.00	0.00	0.00	0.00	0.19	0.19
Re-classification	0.00	(2.20)	0.00	0.19	0.00	(2.01)
Revisions	2.07	0.60	(0.20)	0.00	0.19	2.66
Production	(0.25)	(0.76)	(0.66)	0.00	(0.29)	(1.96)
At 31 December 2019	8.04	2.20	0.79	0.00	0.75	11.97

Exhibit 1: SDX Energy 2P reserves at 31 December 2019 (mmboe)

Source: SDX Energy. Note: *Given SDX's low equity share in the concession, and its immateriality compared to the remainder of the company's portfolio, the asset is considered non-core.

Sobhi will add gas to South Disouq production system

SDX recently announced a commercial discovery at the SD-12X well in the Sobhi prospect in Egypt, which justifies the company's confidence in drilling the well on a sole risk basis after partner IPR's decision not to participate in the well. The well was drilled to 7,245ft and encountered 108ft net of high-quality gas-bearing sands, with an average porosity of 20%, near the base of the Kafr El Sheikh (KES) formation. The top of the KES sand was encountered at a measured depth of 6,506ft.



The drill stem test (DST) achieved a maximum rate of 25mmscfd for one hour on a 54/64" choke, followed by a three-hour stable flow of 15mmscfd on a 28/64" choke. Management anticipates that the well will produce at a stabilised rate of 10–12mmscfd, in line with the Ibn Yunus-1X well. The Sobhi well is expected to produce mostly dry gas. The well will be subject to a longer rig-less test in the coming weeks, which will provide more data to help determine recoverable volume in the discovery. Management's best estimate is that the well has encountered c 24bcf of recoverable resource, which is significantly in excess of the minimum commercial volume of c 8bcfe. The timing of the test will be dependent on the timing of the mobilisation of equipment, which may be affected by ongoing COVID-19 restrictions in the region.

Management expects the Sobhi well will be tied in during 2021 via a 5.8km connection line to the Ibn Yunus-1X location where an existing flow line connects to the South Disouq CPF. On a gross basis, the tie-in cost is estimated at \$3.5m. The discovery will potentially only require one further development well to be drilled, although this will not be necessary for another two to three years. The Sobhi discovery has the potential to extend the current South Disouq fixed gas price contract plateau production of 50mmscfed through to 2023/24.

2020 guidance

The company is guiding that oil and gas production will be 6,750–7,000boepd in 2020, an increase of 66–72% on the 2019 rate of 4,062boepd driven by production from South Disouq. Having delivered first gas from the field in November 2019, performance has exceeded management expectations and production was ramped up to 50mmscfed three months ahead of schedule. Continuing strong performance is reflected in the guidance, adjusted for CPF uptime. The late-life NW Gemsa field is also expected to continue its decline due to increased water cut and falling reservoir pressure. SDX may exit the concession this year if sufficient cost savings are not achieved by the operator. At the FY19 results, the company announced that most of its 2020 capex has already been completed.

	Production	Production (boed)		
	Actual FY19	Guidance FY20	Guidance FY20	
South Disouq	629	4,300–4,460	7.2	
Meseda	795	610–630	2.0	
NW Gemsa	1,836	1,000–1,050	2.0	
Могоссо	802	840–860	13.5	
Total	4,062	6,750-7,000	24.7	

Exhibit 2: SDX Energy updated production and capex guidance

Source: SDX Energy

Valuation

We value SDX using an asset-by-asset NAV derived from detailed DCF modelling. The core value includes production, development and contingent resources that could be developed, while exploration is valued only if wells are planned and funded in the next 12 months. We apply a 12.5% discount rate given the geographical distribution of the assets and the size of the company. We have updated our short-term commodities prices based on EIA latest estimates and long-term price assumptions. Our short-term Brent assumptions move from \$64.8/bbl to \$33.0/bbl in FY20 and from \$67.5/bbl to \$45.6/bbl in FY21, based on EIA forecasts published in April 2020. We also reviewed our previous long-term oil price of \$70/bbl Brent from 2022 inflated at 2.5% onwards to reflect the current oil price volatility. We present three scenarios with Brent in 2020 at \$40/bbl in our low case scenario, \$50/bbl in our mid-case scenario and \$60/bbl in our high case scenario, escalated at 2.5% per year resulting in 2022 prices of \$42.0/bbl, \$52.5/bbl and \$63.0/bbl respectively. We will be revisiting these assumptions to reflect further market changes as they occur. We continue to



assume Moroccan gas prices of \$10.85/mcf in 2020 inflated at 2.5%. In addition to the commodity prices, key changes to our updated valuation and estimates include the updated reserve numbers and capex and production guidance as above.

Exhibit 3:	Edison u	pdated	forecasts
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	Actual	New	1		Old		Difference			
	2019	2020e	2021e	2019e	2020e	2021e	2019e	2020e	2021e	
Production (kboed)	4.1	6.8	6.0	4.0	6.9	5.9	0%	-2%	1%	
Revenue (\$m)	53.2	40.7	42.0	48.1	53.3	45.3	11%	-24%	-7%	
EBITDA (\$m)	14.5	23.1	27.8	27.5	31.6	27.7	-47%	-27%	0%	
Brent	64.36	33.04	45.62	64.36	64.83	67.53	0%	-49%	-32%	
SD gas price	2.85	2.85	2.85	2.85	2.85	2.85	0%	0%	0%	
Sebou gas price	10.59	10.85	11.12	10.59	10.85	11.12	0%	0%	0%	

Source: Edison Investment Research

In Egypt, our updated valuation excludes the Salah prospect as it proved to be non-commercial and the Young prospect as the company is not planning to drill it in the near future. At the same time, the updated valuation includes the recent Sobhi discovery, added to the Core NAV since it is a simple tie-back to the CPF. In Morocco, we include the reserves reported at 31 December as per the FY19 annual report as well as the SAH-3 and OYF-2 wells, which were already completed as commercial discoveries during Q120. SAH-3 is close to infrastructure and OYF-2 is commercial as a standalone development to be tied back to existing infrastructure. For 2020 we assume the three customers in Morocco that are closed remain so for three months and therefore a gas production level of 5.95mmscfd for the year instead of the initial guidance of 6.7-6.9mmscfd. Risked exploration includes the BMK-1 discovery and the potential 10bcf located in close proximity to the BMK-1 well, and the LMS-2 discovery. The LMS-2 well indicates 10.6m of net gas reservoir with 30.9% porosity in the well, however, testing is required to determine its commercial potential once COVID-19 restrictions are eased and allow SDX to bring a testing crew into the country. All in all, our mid case RENAV moves from 53.9p/share to 40.7p/share (-24%), with our core value standing at 33.8p/share. We note that our valuation has a significant core value component at 83% of our RENAV. This is materially different from the current share price of 20p/share.

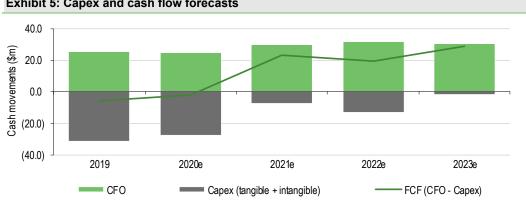
				Recov	erable res	erves			Low (\$40/bbl)	Mid (\$50/bbl)	High (\$60/bbl)
Asset	Country	try Diluted WI		Gross	Net WI	Net	NPV	Net risked value	Net risked va per share		
		%	%	mmboe	mmboe	mmboe	\$/boe	\$m	p/share	p/share	p/share
Net cash at 31 December 2019								11.1	4.2	4.2	4.2
SG&A - NPV _{12.5} of three years								(13.7)	(5.2)	(5.2)	(5.2
E&A expense for SD prospects								(8.8)	(3.3)	(3.3)	(3.3)
NPV of net receivable recovery								9.7	3.7	3.7	3.7
Sebou pipeline residual value (30% cost)								9.8	3.7	3.7	3.7
Production											
Meseda base + workovers + Rabul	Egypt	50%	90%	9.0	4.5	1.7	3.5	14.0	3.9	5.3	6.8
Gemsa – to be abandoned in 2020	Egypt	50%	100%	0.7	0.4	0.4	-2.4	(0.9)	0.0	0.0	0.0
South Disouq + Sobhi	Egypt	70%	100%	18.7	12.1	12.1	3.1	38.0	14.3	14.4	14.6
Sebou 2P + volumes to be booked	Morocco	75%	100%	1.4	1.0	1.0	28.3	28.8	11.0	11.0	11.0
Core NAV				29.8	18.0	15.2		88.0	32.2	33.8	35.4
Exploration (discoveries)											
BMK + LMS-2	Morocco	75%	63%	2.0	1.5	1.5	19.4	18.0	6.8	6.8	6.8
Total NAV				31.8	19.4	16.6		105.9	39.1	40.7	42.2

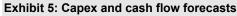
Exhibit 4: SDX Energy detailed valuation



Financials

We forecast year-end 2020 net cash of \$9.1m in addition to SDX's European Bank for Reconstruction and Development (EBRD) loan facility of \$7.5m which remains undrawn. Management intends to extend the tenor and re-establish the full availability of \$10m credit facility. Based on the capex projections that underpin our production forecasts and SDX's committed exploration programme, the company is fully funded for 2020 and we forecast positive free cash flow from 2020 with a 2020 FCF close to break-even. Since over 75% of cash flows in the coming years will come from the fixed price gas businesses, we currently do not foresee the need for further equity capital at this stage, unless incremental growth capex, over and above our forecasts, is dedicated to new projects or acquisitions.





Source: SDX Energy, Edison Investment Research



Exhibit 6: Financial summary Accounts: IFRS, year-end: 31 December, US\$000s 2017 2018 2019 2020e 2021e **INCOME STATEMENT** 53,233 42,045 Total revenues 39,166 53,679 40,699 Cost of sales (direct expense) (10,254) (13.900)(12,143) (8.454)(11, 934)41.745 Gross profit 28.912 39.333 28.556 33.591 SG&A (expenses) (8,793) (7,270) (6,072) (6,224) (6,379) 1,025 Other income/(expense) 1,820 1,161 984 764 Exceptionals and adjustments (10.458) (19.932) (178) (178) (725)21,214 25.042 14,490 23,138 EBITDA 27,797 Depreciation and amortisation (17,824) (17,268) (26,295) (20,512) (19,570) 3,390 (11,805) Reported EBIT 7,774 2,627 8,228 (511) (129) 0 Finance income/(expense) (542)0 Other income/(expense) 29,558 (174) 0 0 0 Exceptionals and adjustments 0 0 0 0 0 Reported PBT 32,819 7,058 (12,316) 2,627 8,228 (7,021) Income tax expense (includes exceptionals) (4,541) (5.776)(355) (915) Fx gains (losses) 0 75 (94)0 0 7,313 Reported net income 28,278 112 (18, 186)2,272 Shares at end of period - basic 205 205 204 205 205 **BALANCE SHEET** 48,680 70,846 57,502 Property, plant and equipment 54,445 67,895 Goodwill 0 0 0 0 0 15,231 39,128 20,407 24,609 25,725 Intangible assets Other non-current assets 2,724 3,394 3,916 3,916 3,916 72,400 91,202 92.218 99,371 87,143 Total non-current assets Cash and equivalents 25,844 17,345 11,054 9,140 32,144 5,157 5,236 7,972 6,964 4,849 Inventories Trade and other receivables 37,656 24,324 21,774 17,419 13,935 Other current assets 0 0 0 0 0 Total current assets 68,657 46,905 40,800 33,524 50,928 Non-current loans and borrowings 0 0 0 0 0 4,506 4,572 6,698 6,698 Other non-current liabilities 6,698 4 506 6 6 9 8 Total non-current liabilities 4.572 6.698 6.698 Trade and other payables 19,459 14,418 25,724 23,152 20,836 0 0 0 0 0 Current loans and borrowings Other current liabilities 2,473 3,078 2,565 2,565 2,565 21,932 17 496 25,717 23 401 Total current liabilities 28,289 Equity attributable to company 114,619 116,039 98,031 100,481 107,971 Non-controlling interest 0 0 0 0 0 CASH FLOW STATEMENT 7,058 32,819 (12,316) 2,627 8,228 Profit before tax Net finance expenses Λ 0 Λ Λ 0 17,824 17,268 26,295 20,512 19,570 Depreciation and amortisation 538 1,194 178 178 178 Share based payments (34,613) 12,718 Other adjustments 3.224 (984) (764) Movements in working capital 5,412 8,584 (504) 2,790 3,284 Interest paid/received 0 0 0 0 0 (364) (1,091) (1,306)(355) (915) Income taxes paid Cash from operations (CFO) 21.616 36.237 25.065 24.767 29.581 Capex (24, 917)(44,810) (31,315) (27,665) (7, 341)Acquisitions & disposals net (24,948) 0 0 0 0 Other investing activities 760 525 639 984 764 (49,105) (30,676) (26,681) Cash used in investing activities (CFIA) (44, 285)(6, 577)Net proceeds from issue of shares 48,510 114 Λ 0 0 Movements in debt (197) (1,062) 0 0 (43) 0 Other financing activities 0 0 0 0 48,467 (1.062)0 0 Cash from financing activities (CFF) (83) 23,003 Increase/(decrease) in cash and equivalents 20,978 (8,131) (6,673) (1,914) Currency translation differences and other 141 (368) 382 0 17,345 11,054 Cash and equivalents at end of period 25,844 9,140 32,144 32,144 Net (debt)/cash start of period 25 844 17 345 11 054 9 1 4 0

Source: SDX Energy, Edison Investment Research



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