Update

Edison investment research

27 September 2010

Oracle Coalfields

Year End	Revenue (£m)	PBT* (£m)	EPS* (p)	DPS (p)	P/E (x)	Yield (%)
12/07	0.0	(0.2)	(0.3)	0.0	N/A	N/A
12/08	0.0	(0.2)	(0.2)	0.0	N/A	N/A
12/09	0.0	(0.2)	(0.2)	0.0	N/A	N/A
12/10e	0.0	(0.1)	(0.1)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding goodwill amortisation and exceptional items

Investment summary: Goal in sight

Oracle Coalfields has entered into deals with the Karachi Electric Supply Company (KESC) and Lucky Cement which have the potential to unlock the value of its coal assets in Pakistan, where the government is promoting the use of domestic coal for power generation. The company recently raised just over £1.1m and plans to use at least two thirds of the proceeds to fund the BFS (by 2011) and ESIA at its Block VI lignite coal project. Part of the BFS is to assess the option of increasing production from 2.5Mpta to 3.5Mtpa by replacing a two-year truck and shovel operation with bucket wheel units. Of total annual production, 2.5Mpta would be directed to a power plant while the remaining 1Mpta would be sold to the local cement industry. The recent floods in Pakistan have not directly affected the project area, though the wider impacts of flood damage on the economy cannot yet be quantified.

KESC and Lucky Cement deals

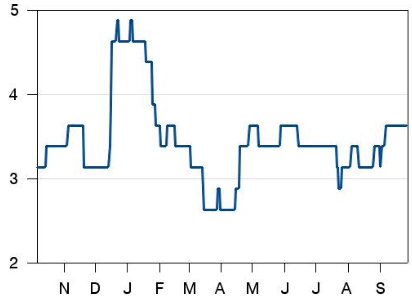
According to the MoU signed between Oracle Coalfields and the KESC in December last year, both parties will be working together with a view to signing a Joint Development Agreement to establish a mine-mouth power plant to be supplied from Block VI. In addition, Oracle Coalfields' deal with Lucky Cement will provide the basis of a Coal Supply Agreement that will allow it to achieve early sales and cash flow while the pit is opened up and the power plant developed.

Valuation: Resource-based valuation of 0.43p/tonne

Oracle Coalfields is trading at an enterprise value equivalent to 0.43p per resource tonne. At this valuation there is little allowance for the potential upside inherent in the eventual exploitation of the deposit. The company is aiming to develop a c 3Mtpa operation for capital expenditure of approximately US$300m, which, over a 20-year mine life, equates to US$5/t of mined coal. Once developed, investors will have access to a profit margin that we previously estimated between US$15/t and US$30/t with potential added upside in the event that Pakistan's local coal buyers are prepared to pay a premium for locally produced coal (estimated at up to 20%, or US$12/t of coal) to avoid the costs otherwise associated with importing it from overseas.

Price	3.6p
Market Cap	£6m

Share price graph



Share details

Code	ORCP
Listing	PLUS
Sector	Metals and Mining
Shares in issue	165.7m

Price

	High	Low
52 week	4.9p	2.6p

Balance Sheet as at 31 December 2009

Debt/Equity (%)	N/A
NAV per share (p)	0.4
Net cash (£m)	0.0

Business

Oracle Coalfields is a PLUS-quoted coal exploration and development company. Block VI, its main project, has total measured resources of 1.4bn tonnes of lignite coal and is located in southern Pakistan's Thar coalfield.

Valuation

	2008	2009	2010e
P/E relative	N/A	N/A	N/A
P/CF	N/A	N/A	N/A
EV/Sales	N/A	N/A	N/A
ROE	N/A	N/A	N/A

Revenues by geography

UK	Europe	US	Other
N/A	N/A	N/A	N/A

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Oracle Coalfields is a research client of Edison Investment Research Limited

Block VI: Oracle Coalfields' flagship project

Exploration licence convertible into 30-year mining licence

On 3 November 2007, Oracle Coalfields' 80%-owned local subsidiary, Sindh Carbon Energy Limited (SCEL), signed an MoU with Pakistan's Sindh Coal Authority (SCA) and the Sindh province's Mines and Minerals Development Department (MMD) to establish an integrated coal mine and mine-mouth power plant. On 14 November 2007, the MMD granted SCEL a three-year exploration licence over Block VI of the Thar coalfield in the Tharparkar District of southern Pakistan's Sindh province. The MoU provides for the exploration licence to be converted into a mining lease. Under the *Sindh Mining Concession Rules 2002*, the mining lease would be valid for 30 years and extendable for a further 10 years. Oracle Coalfields will submit a formal application for the mining lease as part of the BFS.

Deposit amenable to open pit mining

The Main Seam is Block VI's most economically significant and forms the basis of the company's resource/reserve estimates and mine plan (Exhibit 1). At a depth of approximately 150m, the seam has a cumulative lignite coal thickness of 20m to 28m and is hosted within the sandstones and mudstones of the Bara Formation, which in turn overlies a basement of more competent igneous rocks. Overlying the Bara Formation is up to 100m of loosely consolidated sedimentary deposits derived from alluvium of the Indus River. The coal deposits of the Bara Formation are laterally extensive, flat lying and undeformed. The coal deposits are therefore suitable for open pit mining with stripping ratios of between 5:1 and 7:1.

1.4bn tonne resource with 371m tonnes of reserves

In the 30 years since its discovery, the 9,100km^2 Thar coalfield has been explored by a number of organisations, including the Geological Surveys of Pakistan (GSP) and the United States, Germany's RWE, the China Northeast Coalfield Geological Survey Bureau (CNGB) (on behalf of the China Shenhua Group) and the SCA. Based on information collected from 35 boreholes, the CNGB calculated a total lignite coal resource for Block VI of 1.65bn tonnes. In 2008, Oracle Coalfields drilled a further seven boreholes to depths of between 200m and 240m confirming the results of earlier exploration. Exhibit 1 summarises the resources and reserves of the Block VI project.

Exhibit 1: Total lignite coal resources/reserves for Block VI (JORC)

Note: bcm = bank cubic metres, includes geological losses. 80% attributable to Oracle Coalfields. Reserves are a subset of resources.

	Overburden	Lignite coal measured resources	Lignite coal proven reserves	Stripping ratio
	Mm^3	Mt	Mt	bcm/tonne
Phase I open pit area	885	-	128	6.91
Phase II open pit area	1,685	-	243	6.94
Total mine area	3,673	653	-	5.62
Block VI total area	10,200	1,423	-	7.17

Source: Oracle Coalfields

Planning ahead: First coal production expected in 2012

The southern part of Block VI (Phase I) is the most suitable for the initial phase of open pit mining as it has less overburden and thicker lignite coal. Assuming overburden removal starts in the second half of 2011, we expect initial lignite coal production in 2012, with full production in late 2013 or early 2014. While most of the lignite coal would be used to supply the planned mine-mouth power plant (to be developed in partnership with KESC), the remaining output is expected to supply the local cement industry where the company has secured a MoU with cement-major Lucky Cement. Preliminary capital expenditure estimates for the development of the mine range from £150m to £200m (US$300m), although we expect this to be refined as part of the BFS. At mining rates of 2.5Mtpa, the mine could support a mine life well in excess of 100 years.

Production may be increased from 2.5Mtpa to 3.5Mtpa

As part of the BFS, the company is assessing the option of increasing production levels from 2.5Mtpa to 3.5Mtpa by replacing an initial two-year truck and shovel operation (1Mtpa) with up to three bucket wheel units (2.5Mpta). Of the 3.5Mpta total production, 2.5Mpta would be directed to the power plant, while the remaining 1Mpta would be sold to the local cement industry. The major benefit of this approach is that bucket wheel operating costs are up to 50% lower than a truck and shovel operation. The capex numbers for this option are under review, although Oracle Coalfields expects these to be the same order of magnitude as previous estimates.

Development of power plant in partnership with KESC

On 16 December 2009, Oracle Coafields announced details of a MoU with the Karachi Electric Supply Company (KESC). According to the agreement, both parties have agreed to collaborate with the aim of developing an initial 300MW mine-mouth power plant to be supplied with lignite coal from Oracle Coalfields' Block VI. KESC intends to expand this capacity to as much as 1,100MW which it is thought can be supported by Block VI, albeit at significantly higher production rates than those being considered in the BFS. As a result of this deal KESC aims to fulfil its obligations of increasing affordable electricity supply in Karachi, while Oracle Coalfields will partner with a large, well-established and respected company. Listed in Pakistan with a market capitalisation of some US$486m, KESC is majority owned by the Dubai-based Abraaj Capital, the largest private equity firm in the Middle East. KESC itself was established in 1913 and is the only remaining vertically integrated power utility in Pakistan. It has exclusive franchising rights to serve Karachi and surrounding areas with a licensed network area spanning c 6,000km^2. KESC employs over 18,000 people to serve its 2.2 million customers. As part of its mandate, KESC has been tasked with fast-tracking the development of a number of new power plants to supply the growing electricity deficit in Karachi.

Oracle Coalfields expects first lignite coal production in 2012 and full production in late 2013 or early 2014. We would expect development of the power plant to commence during 2011 for intended completion by 2013.

Deal with Lucky cement provides for early off-take

Oracle Coalfields' primary objective has always been the supply of coal for local power generation. However, the company has also secured a potential off-take deal with Lucky Cement. As part of the MoU announced on 11 January 2010, both parties have agreed to share information (on matters such as coal quality, mine planning and transport logistics) with a view to establishing a Coal Supply Agreement, whereby Oracle Coalfields will supply Lucky Cement's kilns with coal as it develops the Block VI project into a mine. Lucky Cement is Pakistan's largest producer and exporter of cement, with two plants and a combined capacity of c 9m tonnes a year. Established in 1996 and listed in Pakistan, Lucky Cement has a market capitalisation of c US$270m and is part of the well-known Yunus Brothers Group. The latter is a diversified conglomerate established in 1962 and currently one of Pakistan's largest exporters.

Next steps: Prioritising the BFS and ESIA

Following the recent fund-raising, Oracle Coalfields is in a position to complete the BFS and ESIA that commenced in mid-2009. A drilling programme of 29 boreholes is planned to support hydrogeological and geotechnical assessments as well as mine design and economic modelling. These combined studies will form the basis of a definitive feasibility study (DFS). Once this is converted into a bankable feasibility study, the combined BFS and ESIA will be used to develop the mine in accordance with the Equator Principles and Pakistan's environmental guidelines. The company has prepared an indicative schedule for the DFS and expects the drilling as well as the hydrogeological and geotechnical assessments to be completed by end-November 2010, the mine design and economic modelling work will run concurrently. This timeline depends on the start date and execution of the components of the DFS. Oracle Coalfields has commissioned a group of internationally recognised independent consulting companies to carry out this work. SRK Consulting UK Ltd will manage the feasibility study and will consult with Aquaterra UK Ltd and Dargo Associates Ltd on the hydrogeological assessment and the site operations respectively. KESC will be carrying out a power plant study in parallel with the DFS which is due for completion by end-December 2010.

While the pre-feasibility study has demonstrated the technical and economic viability of the project, the BFS will examine each aspect of the mine and power plant in more detail. The BFS is due to be completed in early 2011 once Oracle has secured price agreements with KESC and Lucky Cement. Assuming a positive outcome to the BFS, this study will be submitted to potential lenders to raise the capital expenditure required for the project.

De-risking the project

By prioritising the BFS and ESIA, the company aims to reduce the technical risk of the project. The project risk profile is further improved by the federal and provincial government's commitment to invest in development in the region. The Coal and Energy Development Department, formerly the Mines and Minerals Development Department, of the Government of Sindh province is supporting several large construction projects. Numerous water desalination plants are planned in the area as is the construction of an airport, roads and canals. Water and waste management is considered to be of prime importance and specific projects are planned to service the Thar coalfield area directly. A study for the development of additional blocks in the coalfield is also being funded by the provincial government.

Further evidence for government support is the Thar Coal Energy Board (TCEB) which was set up to 'fast-track' procedures for the implementation of projects in Thar. These projects have the potential to attract foreign and local investors to participate in the development of power plants and related coal mining activities in the area. The investment into Thar could improve the foreign exchange position of the region through reducing the cost of importing coal, and at the same time complements the government of Pakistan's objective to become self-sufficient in energy supply.

Valuation

Oracle Coalfields is trading at an enterprise value equivalent to 0.43p per resource tonne. At this valuation, however, there is little allowance for the potential upside inherent in the eventual exploitation of the deposit. The first report on its mining suggested that Oracle Coalfields could develop a c 3Mtpa operation for capital expenditure of approximately US$300m. Over a 20-year mine life, this equates to US$5/t of mined coal (although the resource suggests that a mine life in excess of 100 years is possible). This could increase with the transition to a bucket wheel system and elevated levels of throughput, although any increase is likely to be incremental, rather than a totally different order of magnitude. For this investment of US$5/t, investors would then have access to a profit margin that we previously estimated at between US$15/t and US$30/t. There is potential added upside in the event that Pakistan's local coal buyers are prepared to pay a premium price for locally produced coal (estimated by Oracle Coalfields to be up to 20%, or US$12/t of coal) to avoid the costs otherwise associated with importing it from overseas.

Sensitivities

As an exploration and development company, Oracle Coalfields faces a number of potential risks that it is focused on mitigating. These include:

- At a political level, the project is located in a developing country that continues to experience its fair share of issues. However, it is worth noting that the project is situated in the relatively stable south-eastern part of the country.
- Although the floods in the country do no directly affect the project area, they may affect access to and from the field.
- The magnitude of the floods in Pakistan mean that at this stage the impact on industry and on government finances cannot be quantified accurately. However, it is worth noting that coal production is only expected to start in 2012, with full production in late 2013.
- Water management will need to be addressed as part of the BFS to deal with water supply (for mining, power generation and domestic consumption) and groundwater dewatering.

- The successful completion of the BFS and ESIA depends on the coordination of at least four independent consulting companies. The findings of these studies will also impact on the economics of the project.
- KESC will be required to consult with NEPRA (National Electric Power Regulatory Authority) on an appropriate electricity tariff, which will be based on their cost of producing electricity. This cost will be a function of the price they pay for locally produced coal.
- In addition, the macroeconomic environment may also impact on the ability of Oracle Coalfields (and its partners) to raise the capital expenditure required for the development of the mine and power plant.

Financials

As an exploration and development company, Oracle Coalfields is not yet cash generative, with no revenue generated in FY09 and none expected in FY10. In FY09, the company completed two private placements totalling £250k, thereby providing sufficient working capital requirements for the remainder of 2009 and into the first half of 2010. During this period, Oracle Coalfields progressed with the ESIA and BFS at its flagship Block VI project.

Exhibit 2: Summary of fund-raisings undertaken by Oracle Coalfields since listing on PLUS (Aug 07)

Note: * Weighted; 165,711,000 shares outstanding as of 20 August 2010.

Date	Number of shares	Price per share	Funds raised
17 September 2007	3,546,334	3.00	£106,390
12 June 2008	5,500,000	8.25	£453,750
23 March 2009	5,000,000	3.00	£150,000
05 May 2009	3,313,334	3.00	£99,400
28 June 2010	34,722,999	3.00	£1,041,690
20 August 2010	2,795,000	3.00	£83,850
Total/average*	54,877,667	3.53	£1,935,080

Source: Oracle Coalfields, Edison Investment Research

Other than relatively low corporate overheads of in FY09, the remainder of the company's planned FY09 expenditure was used to fund the ongoing BFS and ESIA at Block VI. In June, July and August 2010 the company raised £1,125,540; these funds will provide working capital for the BFS and ESIA at Block VI and will be used to fund ongoing corporate overheads. We record a loss per share of 0.2p for FY09 and expect a loss per share of 0.1p for FY10 (Exhibit 3).

Exhibit 3: Financials

£'000s	2007	2008	2009	2010e
Year end 31 December	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS				
Revenue	0	0	0	0
Cost of Sales	0	0	0	0
Gross Profit	0	0	0	0
EBITDA	(238)	(229)	(236)	(95)
Operating Profit (before GW and except.)	(238)	(229)	(236)	(95)
Intangible Amortisation	0	0	0	0
Exceptionals	0	(236)	0	0
Other	0	0	0	0
Operating Profit	(238)	(465)	(236)	(95)
Net Interest	12	13	1	2
Profit Before Tax (norm)	(226)	(216)	(235)	(93)
Profit Before Tax (FRS 3)	(226)	(452)	(235)	(93)
Tax	0	0	0	0
Profit After Tax (norm)	(226)	(216)	(235)	(93)
Profit After Tax (FRS 3)	(226)	(452)	(235)	(93)
Average Number of Shares Outstanding (m)	69.4	111.6	120.5	142.8
EPS - normalised (p)	(0.3)	(0.2)	(0.2)	(0.1)
EPS - FRS 3 (p)	(0.3)	(0.4)	(0.2)	(0.1)
Dividend per share (p)	0.0	0.0	0.0	0.0
Gross Margin (%)	N/A	N/A	N/A	N/A
EBITDA Margin (%)	N/A	N/A	N/A	N/A
Operating Margin (before GW and except.) (%)	N/A	N/A	N/A	N/A
BALANCE SHEET				
Fixed Assets	191	482	558	1,358
Intangible Assets	120	410	492	1,292
Tangible Assets	5	5	3	2
Investments	66	68	63	63
Current Assets	362	169	18	192
Stocks	0	0	0	0
Debtors	4	26	12	5
Cash	358	143	6	187
Current Liabilities	(10)	(121)	(49)	(10)
Creditors	(10)	(121)	(49)	(10)
Short term borrowings	0	0	0	0
Long Term Liabilities	0	0	0	0
Long term borrowings	0	0	0	0
Other long term liabilities	0	0	0	0
Net Assets	543	530	528	1,540
CASH FLOW				
Operating Cash Flow	(231)	(372)	(294)	(126)
Net Interest	11	11	0	2
Tax	0	0	0	0
Exploration/development	(126)	(283)	(92)	(800)
Acquisitions/disposals	0	0	0	0
Financing	702	431	249	1,105
Dividends	0	0	0	0
Net Cash Flow	356	(213)	(137)	181
Opening net debt/(cash)	0	(358)	(143)	(6)
HP finance leases initiated	0	0	0	0
Other	2	(1)	(0)	0
Closing net debt/(cash)	(358)	(143)	(6)	(187)

Source: Company accounts, Edison Investment Research

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