

The meteoric rise in the prices of commodities, including steel, seems to be cooling off. The Tata-owned Corus, Arcelor Mittal and some Chinese mills have rung the alarm bells by scaling back production amid flagging global demand and weak prices. But despite ominous signs, the World Steel Association expects overall demand to increase 6.7 per cent in 2008 and moderate marginally to 6.3 per cent next year. So where does this leave companies such as HEG, which export graphite electrodes to steel makers? While the near-term outlook is definitely daunting, the nature of HEG's business will ensure that its long-term growth story is intact.

Consider this: Graphite electrodes are used by mills to produce steel from scrap by the electric arc furnace (EAF) technology vis-a-vis the conventional iron ore-based process that uses the basic oxygen furnace (BOF) route. And given that iron ore prices continue to be high and reserves in short supply, EAF steel output has been rising globally. From 296 million tonne in 2001, EAF steel output increased to 365 million tonne in 2006 and is expected to touch 410 million tonne by 2010. Further, HEG and Graphite India are the only domestic producers along with a clutch of foreign players that operate in the graphite industry.

Interestingly, while global capacities have been stagnant over the past decade, HEG and Graphite have embarked on a capacity expansion spree. HEG is ramping up from 60,000 mt to 80,000 mt by 2009, while Graphite will achieve the same by 2010. Post-expansion, HEG will account for 9.5 per cent of the global graphite production and will be the world's largest single-location facility for manufacturing electrodes. But what sets apart the LNJ Bhilwara group flagship from its domestic and global peers is its higher EBITA margins and return on equity. (See table: *In fine fettle*).

Cost, energy savings

What makes the case favourable for EAF technology is the significant cost and energy savings for steel manufacturers. The BOF process uses around 30 per cent recovered steel to make new steel. It combines molten iron from blast furnaces with an injection of very pure oxygen. Automotive fenders, refrigerator encasements, drums and cans are made with this type of steel. BOF steel is ideal as it can be easily flattened into sheets. The EAF process uses virtually 100 per cent recovered steel from scrap to make new steel. Scrap steel is melted and refined by passing an electric current



Still sparking

Capacity ramp-up and focus on ultra power electrodes should see HEG cash in on rising EAF steel output

Deepak Chitroda

IN FINE FETTLE

HEG scores over its peers in terms of ROE and is relatively cheaper

| Name | Country | Revenue Rs cr | Sales growth YoY (%) | Net profit (Rs Cr) | EBITDA margin % | PE (x) | PB (x) | D/E (x) | EV/EBITDA (x) | ROE (%) |
|-----------------|---------|---------------|----------------------|--------------------|-----------------|--------|--------|---------|---------------|---------|
| HEG Ltd | India | 945.97 | 15.66 | 146.36 | 30.16 | 5.50 | 1.65 | 1.31 | 6.50 | 32.40 |
| Graphite India | India | 1331.54 | 18.80 | 142.34 | 20.86 | 4.83 | 0.97 | 0.96 | 5.18 | 20.35 |
| Nippon Carbon | Japan | 1383.78 | 14.90 | 172.27 | 27.89 | 6.14 | 1.53 | 0.57 | 6.53 | 15.30 |
| Showa Denko K K | Japan | 38475.30 | 11.89 | 1079.05 | 11.83 | 7.81 | 1.08 | 1.43 | 6.12 | 12.90 |
| Tokai Carbon Co | Japan | 4652.27 | 18.50 | 449.80 | 23.28 | 9.87 | 1.53 | 0.16 | 8.56 | 11.00 |
| Graftech Intl | USA | 4566.73 | 17.46 | 670.70 | 28.85 | 6.68 | 3.30 | 3.79 | 8.89 | NA |
| SGL Carbon AG | Germany | 8692.28 | 15.30 | 1075.96 | 22.07 | 9.32 | 2.21 | 0.57 | 9.62 | 24.28 |
| Average | | 8578.27 | 16.07 | 533.78 | 23.56 | 7.16 | 1.75 | 1.25 | 7.34 | 19.37 |

Source: Bloomberg

Data as on Oct 6, 2008

from electrodes through the material. Structural beams, steel plates, and reinforcement bars are made from this type of steel as it is strong.

While the conventional BOF process is good for volume production, it entails huge capital cost and substantial investment in infrastructure, EAF requires scrap steel, is cost efficient and saves on inputs such as iron ore, coke and fluxes. According to the US-based Steel Manufacturers Association, each year, EAF steel production saves enough energy to power 18 million households, or the city of Los Angeles, for eight years!

To buttress the point, Ravi Jhunjhunwala, chairman and managing director, HEG, says, "China is producing about 15 per cent EAF steel, while in the US it accounts for more than 50 per cent of

the total production. Considering that quality iron ore is depleting globally and coking coal needed for reduction of iron ore in blast furnace is becoming scarce, the EAF process will be beneficial from a long-term perspective."

Also unlike other costly inputs, electrodes account for less than 4 per cent of steel production costs. While Indian steel firms still opt for the conventional steel production method given the higher iron ore reserves in the country, the demand for graphite electrodes is primarily overseas, especially from the US, South America, Europe, Japan, and China. No wonder then that HEG exports more than 80 per cent of its graphite production.

According to Tarun Surana, analyst with SPA Securities, given that each tonne of steel requires about 2.5 kg of

graphite electrodes, the demand for electrodes by 2010 will be around 1.03 million tonne. While SGL Carbon of Germany and Graftech International of US command more than 50 per cent of the global market for graphite electrodes, players like HEG are proving their mettle by being cost-effective.

Expansion comes cheap

There are two common varieties of graphite electrodes in the industry: high power (HP) and ultra high power (UHP). UHP electrodes, which require less energy and are much in demand, contribute close to 75 per cent of HEG's total production. To capitalise on the increasing prices of graphite electrodes, HEG expanded its capacity from 34,000 tonne to 60,000 tonne by de-bottlenecking in the last two years. According to Surana of SPA Securities, the company's proposed expansion through brownfield expansion and de-bottlenecking comes at a significantly cheaper capital cost of Rs 190 crore, which is 40 per cent lower than its earlier expansion cost.

What this also ensures is that the company is able to maintain its average realisation, which has grown over 18 per cent in the last three years at around \$4,285 per tonne levels, feel analysts. Though prices of needle coke, a crude-based raw material for graphite electrodes, have more than doubled from \$600 a tonne to \$1300 a tonne over the last three years, graphite manufacturers have been able to pass on the cost



Ravi Jhunjhunwala, chairman and managing director, HEG

increases. HEG has, however, managed to keep its average cost at \$1,100 as it uses a blend of imported needle coke (for UHP electrode) and domestic needle coke for other grades of electrodes. "We have already finished booking orders for electrodes at considerably higher prices for CY08. Besides, we have partially mitigated the impact on margins through operational efficiencies, higher volumes and different sourcing strategies," points out Jhunjhunwala. Further, with oil easing to \$90 levels, the management expects cost of crude-based inputs to decline as well. Further, the company is expanding its captive power unit from 33 mw to 72 mw at Rs 190 crore to supplement its capacity expansion. Since power accounts for almost one-third of HEG's input costs, the expansion will ensure access to reliable and economic power throughout the year. Kamran of Pinc believes the company will be able to sell excess power in FY10 after its new capacity is commissioned by FY10.

Volume sensitive

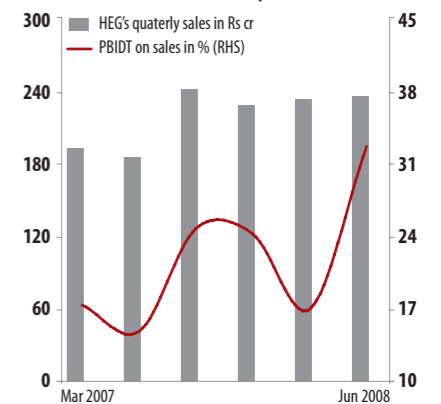
Over the last five years, HEG's revenues and earnings have seen 12 per cent and 31 per CAGR. In the first quarter of the current fiscal, while revenues from the graphite division were up 27 per cent, profitability too grew a robust 32.53 per cent. During the fiscal, the company sold off its loss-making steel business, which will see further margin improvement going ahead and help the company focus on its core business.

On concerns of shrinking steel demand in the wake of weaker prices, Jhunjhunwala says, "The electrode business is not sensitive to steel prices, but to production volumes through the EAF route. So we expect EAF steel output to keep growing in excess of 4 per cent in the coming years."

HEG is also holding close to 36 per cent stake in group company, Bhilwara Energy Ltd (BEL), which is currently

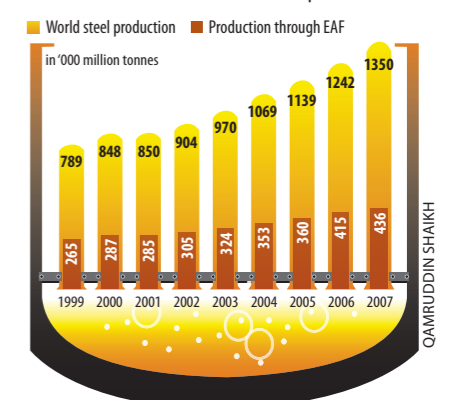
IMPROVED MARGINS

Profitability has grown even as sales have remained steady



STRONG GROWTH

The use of graphite electrodes has grown with the increase in EAF steel output



executing 2800 mw projects in Himachal Pradesh and Arunachal Pradesh. The power firm recently raised Rs 110 crore by placing 7 per cent stake with a clutch of foreign investors, valuing the company at around Rs 1,500 crore.

According to the analysts, HEG's investment of Rs 540 crore in BEL will be an added advantage to its core business. "Conservatively, we value the stake at Rs 80 per share," says Surana of SPA.

The stock, however, has been a huge underperformer since the start of the year. It has lost 66 per cent and is now trading at a price-earning ratio of 6.8x its estimated FY09 earnings.

Analysts feel at current valuations the uncertainty related to FY10 prospects is adequately factored in. Also, the management has announced a market buyback at a maximum of Rs 350 a share -- a 55 per cent premium to its current price of Rs 158. Besides the potential of unlocking its investment in BEL, investors with a long term perspective can look at HEG as a proxy to the EAF steel boom in the years to come. □