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# The Great Leap Forward

Report



HEG Limited

Annual Report 2005-2006

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HEG Limited



**L. N. Jhunjhunwala**  
*Chairman - Emeritus*

## Innovating to forge ahead

The LNJ Bhilwara Group has always endeavoured to be at the forefront of all things new and dynamic, much like the first man who stepped on the moon. The many forays and ventures into diverse businesses, have been undertaken with enthusiasm, and driven by a passion to achieve excellence in every step. In this view, all the Group's companies have realised the importance in creating benchmarks, leading from the front with a responsibility to serve society at large.

And now it is breaking the shackles, empowering its highly-skilled workforce, and literally unleashing their latent powers... enabling the people that make up the companies of the Group, to raise the bar and look beyond boundaries, and to challenge limits at every step, in every situation.

**L. N. Jhunjhunwala**  
*Chairman - Emeritus*  
LNJ Bhilwara Group



# Contents

<b>LNJ Bhilwara Group Milestones</b>	<b>2</b>
<b>An introduction to HEG</b>	<b>3</b>
<b>From the Chairman's Desk</b>	<b>4-5</b>
<b>Message from the Executive Director &amp; CEO</b>	<b>6-7</b>
<b>Corporate Information</b>	<b>8</b>
<b>Management Discussion &amp; Analysis</b>	<b>9-21</b>
<b>Directors' Report</b>	<b>22-24</b>
<b>Annexures to Directors' Report</b>	<b>25-28</b>
<b>Report on Corporate Governance</b>	<b>29-34</b>
<b>Auditors' Report</b>	<b>35-37</b>
<b>Balance Sheet</b>	<b>38</b>
<b>Profit &amp; Loss Account</b>	<b>39</b>
<b>Schedules</b>	<b>40-57</b>
<b>Cash Flow Statement</b>	<b>58-59</b>
<b>Balance Sheet Abstract</b>	<b>60</b>



# LNJ Bhilwara Group Milestones

## **Graphite / Steel / Power : HEG Limited**

- Has the largest single site Graphite Electrodes manufacturing plant in South & South-East Asia and the Middle East; which is also the world's second-largest single site plant.
- Internationally recognised Bureau Vertitas (BVQI) ISO14001-1996.
- Quality leadership enables exports to top 50 steel producers of the world.
- Production capacity in Mandideep scaled up to 52,000 MT p.a. from 30,000 MT.
- State-of-the-art R&D centre set up in Mandideep.
- New 25 MW Captive Power Plant commissioned in Mandideep.
- Set up a 1,00,000 MT production capacity Steel Billets project in Durg, Chhattishgarh.

## **Textiles : Rajasthan Spinning & Weaving Mills Limited**

- One of the largest producers and exporters of Polyester / Viscose Blended Yarn in India.
- Acquired Jaipur Polyspin Ltd., to manufacture Synthetic dyed Blended Yarn.
- Acquired an open-end plant with 1680 rotors from Phillipines.
- Introduced ready-to-wear Apparels, manufactured at a newly set up unit in Bangalore.

- Setting up a 46 MW Captive Thermal Power Plant in Mordí.
- Setting up a Rs. 190 crore Denim manufacturing facility in Mordí.
- Announced plans to increase spindle capacity by 15%.

## **Knitted Garments : Maral Overseas Ltd.**

- Recently, installed a 1,000 MT p.a. Yarn Dyeing facility to facilitate expansion of spinning, knitting and processing capacity.
- A 10 MW Captive Thermal Power Plant to be completed by end of FY 2007.

## **Suitings : BSL Limited**

- Setting up a 6 MW Captive Thermal Power Plant; expanding spinning facility by 8,000 spindles.

## **Power Generation : Malana Power Comapny Ltd. / AD Hydro Power Ltd.**

- Malana Hydro Electric Project commissioned in record construction time of 30 months.
- Work of 200 MW Allain-Duhangan Hydro Electric Project picked up momentum in Manali, H.P.; to be commissioned by second quarter of 2008.
- Bagged 75 MW prestigious hydro project in Punjab, through competitive bidding.
- Microsoft Dynamics Navision business suite ERP solution implemented for power companies connecting HO (Noida) with sites in Malana & AD Hydro on single platform.
- Design partner RSW, Canada, and Equity partner SN Power, Norway, also connected on the same platform.

## **Power Consultancy : Indo Canadian Consultancy Services Ltd.**

- Offers Engineering Consultancy Services to several prestigious Hydro & Thermal Power projects across India, besides handling ongoing Group projects.

## **GROUP FINANCIAL HIGHLIGHTS**

(Rs. in Crore)

PARTICULARS	2003-04	2004-05	2005-06
Turnover	1815	2049	2387
Export Sales	792	893	1016
PBIDT	259	274	374
PBDT	201	208	286
PBT	81	96	156
PAT	72	79	115
Gross Fixed Assets	1953	2494	2922
Net Worth	768	969	1382



# An introduction to HEG

**HEG**, a premier company of the LNJ Bhilwara Group, is Asia's leading Graphite Electrodes manufacturer and India's largest graphite electrodes exporter. Established in 1977 in technical and financial collaboration with Societe Des Electrodes Et Refractaires Savoie (SERS), a subsidiary of Pechiney of France, HEG has the largest integrated graphite plant in South Asia & Middle East, located in Mandideep near Bhopal (Madhya Pradesh), with a capacity of around 52,000 MT (recently expanded from 30,000 MT) per annum. HEG's Graphite Division has facilities for production of Graphite Electrodes and Graphite Specialities.

The Company also operates a Sponge Iron plant, a Steel Billets plant, and a 12.8 MW Waste Heat Recovery System power plant at Borai near Durg (Chhattisgarh); a hydroelectric power generation facility at Tawa near Hoshangabad (Madhya Pradesh) with a rated capacity of 13.5 MW; and a thermal power plant with a rated capacity of 25 MW at Mandideep.

**Graphite Electrodes** find their biggest industrial use in Electric Arc Furnaces (EAF) used in steel plants to melt steel scrap and produce steel. The demand for graphite electrodes is therefore driven by steel production volumes through the EAF route, which is fast growing. The manufacture of graphite electrodes is a technology-intensive process that involves heat-treating non-graphitic carbon to temperatures up to 3000°C, with quality of output being a key success factor. HEG is one of the few players that cater to the graphite electrodes market worldwide, supplying its products to leading steel makers globally.

HEG...

- ☆ *Is a leading **exporter** : 75% of graphite electrode production exported*
- ☆ *Is one of the **lowest cost** producers of graphite electrodes in the world, undertakes continuous initiatives to further enhance operating efficiencies*
- ☆ *Enjoys definitive cost and **quality-led** competitive advantages over peers*
- ☆ *Serves the **steel** sector with products and services critical to the steel-making process well-positioned to benefit from bias towards **EAF** route*
- ☆ *Has a diversified **customer** portfolio comprising some of the **largest steel makers** in the world, including POSCO, Mittal Steel, and Nucor Corp*
- ☆ *Is the **largest** and one of the most **integrated** and **modern** single-site manufacturing facilities in the whole of South-East Asia and Middle East*
- ☆ *Has access to economical and reliable **captive power** resources that are critical to long-term sustainability*
- ☆ *Has combined strengths of technical **competence** and investments in **R&D** that act as strong business sustainers and also form a formidable entry barrier*
- ☆ *Has created additional **capacities** at minimal capital cost to meet rising demand*

## HEG FINANCIAL HIGHLIGHTS

PARTICULARS	2004-05	2005-06	(Rs. in Crore)
			Percentage Increase
Turnover	518.58	<b>636.33</b>	22.7%
Export Sales	259.77	<b>290.52</b>	11.8%
PBIDT	84.30	<b>121.44</b>	44.1%
Net Worth	295.38	<b>320.53</b>	8.5%
Gross Fixed Assets	762.33	<b>884.87</b>	16.1%
Dividend-Payment Ratio	33.51%	<b>35.42%</b>	5.7%





HEG Limited



## From the Chairman's Desk



**Ravi Jhunhunwala**  
Chairman & Managing Director

"Given the clear long-term trend towards an increasing share of EAF steel in global steel production, we expect the demand for high quality graphite electrodes to remain strong in the coming years."

Dear Shareholders,

The Indian economy continued to chart its impressive growth trajectory during FY2006, with GDP expected to register an over 8% growth. Given the trends over the past three years, when the economy actually outpaced growth estimates, we should expect the FY2006 estimate also to be revised upwards to around 8.3-8.4% by the time the final numbers are published. This year's growth, preceded by 7.5% and 8.5% growth in FY2005 and FY2004 respectively, demonstrates that the Indian economy continues to enjoy strong fundamentals.

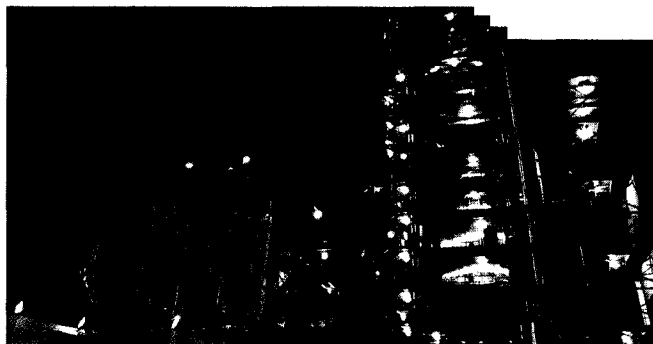
On the back of three consecutive years of consistently good economic performance, India's real GDP growth between FY2004 and FY2006 has averaged over 8%, which should be a matter of pride for all of us. If we, as a nation, can focus on improving our infrastructure, as signs suggest we are beginning to, then I see no reason why we cannot increase the average decadal growth rate to over 8.5% between FY2004 and FY2013. When that occurs, India will have truly come of age. Today, more than ever before, it is possible.

Concurrently with this sustained positive domestic environment, we have also observed a definitive upturn in the Graphite Electrodes industry worldwide. The Electric Arc Furnace (EAF) route of steel-making (which is the segment for graphite electrodes market) continues to gain ground, growing at a healthy pace of about 3-4% per annum. The EAF route, where graphite electrodes find their application, is expected to account for approximately 38% of the total steel produced in the world by 2010. No major new capacities are visible in the near future, and consequently there are clear signals of hardening of Graphite Electrodes' prices around the world in the near future. Given the clear long-term trend towards an increasing share of EAF steel in global steel production, we





## Annual Report 2005-2006 ■ From the Chairman's Desk



expect the demand for high quality graphite electrodes to remain strong in the coming years.

In line with the world trend, graphite electrodes' demand in India has also been rising, which is evident from increasing sales volumes in the domestic market.

I am pleased to note that your Company, anticipating the emergence of such opportunities in the world market, undertook a well-timed expansion. This capacity expansion plan, initiated during the preceding year, was completed and successfully commissioned during the year under review. Resultantly, our expanded graphite electrode capacity now stands at about 52,000 tonnes per year. Following this, HEG is now the largest single-site graphite electrode maker in Asia. This extended graphite capacity, where we have brought in some of the most sophisticated equipment and technologies, is at the same site as the previous plant, with no additional workforce being added. Therefore, the advantages from economies of scale are very high and should lead to sustained healthy operating margins. We have been able to stabilise our new graphite capacity during FY2006, and it should contribute optimally to overall operations going forward.

In view of the stiff competition in the international market and increased buyer demands to be highly quality-driven and cost-effective, at HEG we took the initiative to set up a high class R&D facility centre and increase the captive power capacity by 25MW. The R&D centre will help maintain our leadership in a highly technology-intensive sector, and contribute towards high-end research in the area of Carbon Graphite and speciality products. The captive power plant will also enable cost competitiveness.

At the same time, in order to take advantage of in-house sponge iron production and access to economical captive power produced at its sponge iron unit at Durg through waste heat recovery system (WHRS), HEG has also forward-integrated into steel making.

Our operating performance for FY2006 reflects our robust business fundamentals and ability to implement our growth strategies and achieve success in an intensely competitive

market. FY2007 is likely to witness a more pronounced growth in revenues and earnings, driven by our newly expanded graphite capacity and continued firmness in graphite prices in the export markets.

Looking ahead, the Company's performance outlook is strong, as it will reflect the full impact of its expanded and modern graphite capacities, continued contribution from power operations, and a possible turnaround of the sponge iron and steel business. HEG has a robust order book at significantly higher prices, while demand and price prospects for graphite electrodes in the global markets continue to remain encouraging. This, in turn, should enable the Company to more than offset the impact of rising raw material prices induced by very high crude oil prices, and deliver improved earnings and margins.

Before concluding, I wish to take this opportunity to express my gratitude on behalf of the Board of Directors to everyone who has supported the Company's growth initiatives during FY2006, including our customers, employees and vendors, as well as bankers, investors, shareholders and creditors. We will continue to take advantage of the best opportunities for pursuing the Company's growth objectives and optimising shareholder value.

**Ravi Jhunjhunwala**

*Chairman & Managing Director*





HEG Limited



## Message from the Executive Director & CEO



**Ramesh C. Surana**  
Executive Director & CEO

"Volumes from our expanded graphite capacity are increasing progressively and FY2007 should reflect near optimal performance. Our decision... is expected to translate into superior returns on investment."

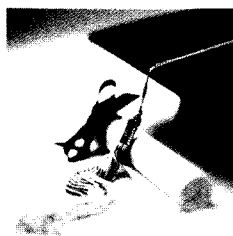
Dear Shareholders,

The financial year 2005-2006 has been a period of multiple achievements and significant operational progress for HEG. During the year, we became the largest single-site graphite electrode manufacturer in Asia, added 25 MW of new capacity to our existing captive power operations, and forward-integrated our sponge iron business by establishing a 1,00,000 tonne steel billets plant. In addition to that, we also successfully raised additional capital from high quality foreign investors to fund our future growth plans, and commissioned a new state-of-the-art R&D centre to ensure that we retain our technology-led competitive edge.

The most significant development during FY2006, of course, has been the completion of our graphite and power expansion projects. We commissioned our expanded graphite capacity of 52,000 tonnes per annum in the middle of FY2006, and after its integration into our existing processes, production from this new capacity has stabilised. I am glad to inform you that the quality of output from our expanded capacity is better than before. Volumes from our expanded graphite capacity are increasing progressively and FY2007 should reflect near optimal performance. Our decision to implement this expansion initiative at a time when graphite prices were beginning to normalise with an upward bias, and at the same site as the existing graphite capacity, is expected to result in tangible benefits by way of better revenues and lower cost, translating into higher returns on investment.

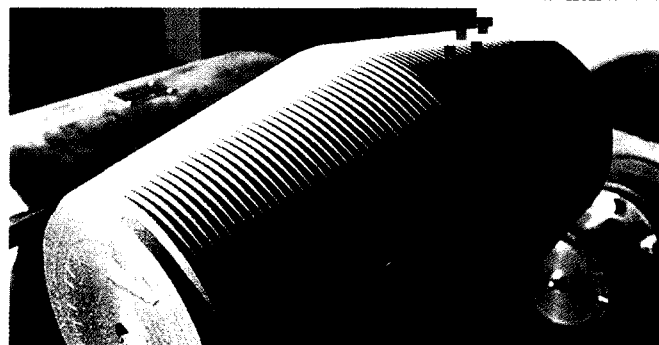
During FY 2006, graphite electrode prices increased by almost 20% and all new contracts that we are entering into for future

Excellence at every step





## Annual Report 2005-2006 ■ Message from the Executive Director &amp; CEO



sales are also at significantly higher prices. I believe, as revenue inflows from new contracts accrue, a noticeable increase in realisations is likely to occur.

On the raw material side, over the past couple of years we have witnessed an increase in the prices of needle coke, a key ingredient, the availability of which is limited at this time. Needle coke is a by-product of oil refineries and its prices are therefore influenced by crude oil prices that have touched unusually high levels. It is, however, heartening to note that graphite electrode prices are increasing at a faster pace and that needle coke comprises only a part of the total manufacturing cost.

In terms of availability, while needle coke supply is tight, a condition that was exacerbated during the year after one manufacturer ceased its operations, I am glad to share with you that we have tied-up sufficient supplies to meet our post-expansion requirement for FY2007.

Coming to our steel operations, our new 1,00,000 tonne steel plant, which was commercialised in the third quarter of FY2006, is operating at optimal capacity. This steel plant forward-integrates our captive WHRS power and sponge iron operations at our Durg facility. This operation, which diversifies our overall business, was affected by adverse market conditions in the domestic market during FY2006, although our forward-integration from sponge iron into steel billets mitigated the impact that we would otherwise have observed. In this business, knowing that prices will continue to be market-driven, we are focused on improving our productivity and efficiencies to improve margins. However, given that we have sponge iron and power as captive production, our ability to compete in the fiercely competitive steel market, has erroneously increased.

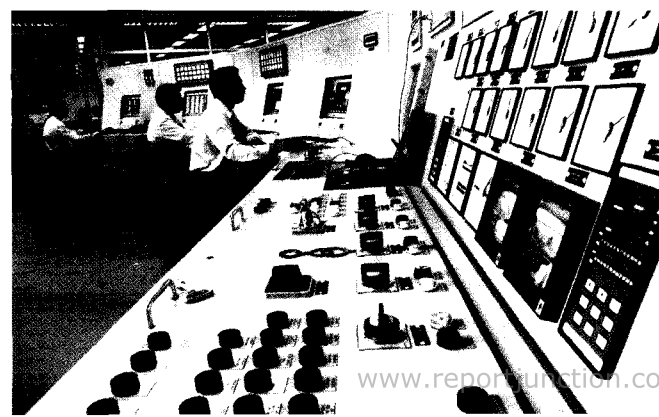
Coming to HEG's financial results, I believe that the Company's strong operating performance during the year, at a time when multiple growth initiatives were almost simultaneously being implemented, is quite commendable. The Company's operating margins for FY2006 expanded to over 21% from about 17% in the preceding year, with net sales improving 15% to Rs. 525 crore and operating profits increasing 44% to Rs. 121 crore, compared to the previous

year. The buoyant sector trend and the Company's added capacities should together enable an even better performance in FY2007.

In accordance with our intent to enable shareholders' participation in the Company's progressive performance, after considering fund requirements for future growth initiatives, the Board of Directors has recommended a dividend of 30% for the year. This will amount to a total payout of about Rs. 14 crore (including dividend tax) and represents a 35% dividend payout ratio.

I would like to thank all those who partner with HEG – our employees, vendors, suppliers, and lenders – for their support, without which we would not be looking towards the future with such confidence and optimism. I also thank our customers for choosing HEG. Finally, I thank you, our shareholders, for your continuing encouragement.

**Ramesh C. Surana**  
Executive Director & CEO





HEG Limited



# Corporate Information

## Board of Directors

<b>L. N. Jhunjunwala</b>	<i>Chairman - Emeritus</i>
<b>Ravi Jhunjunwala</b>	<i>Chairman &amp; Managing Director</i>
<b>Shekhar Agarwal</b>	<i>Vice Chairman</i>
<b>V. K. Mehta</b>	<i>Director</i>
<b>D. N. Davar</b>	<i>Director</i>
<b>K. N. Memani</b>	<i>Director</i>
<b>Kamal Gupta</b>	<i>Director</i>
<b>P. Murari</b>	<i>Director</i>
<b>R. C. Surana</b>	<i>Executive Director &amp; CEO</i>
<b>N. Mohan Raj</b>	<i>Nominee - LIC</i>
<b>N. Mehta</b>	<i>Alternate to V. K. Mehta</i>

**Chief Financial Officer:** Anup Kapoor  
**Company Secretary:** Raj Gopal Purwar

## Bankers:

1. State Bank of India
2. ICICI Bank Ltd.
3. State Bank of Travancore
4. The Federal Bank
5. Punjab National Bank
6. IDBI Bank Ltd.
7. UCO Bank
8. IndusInd Bank
9. Landesbank Baden Wurttemberg, Germany
10. DEG Germany
11. GE Capital Services
12. State Bank of Indore
13. Central Bank of India

**Registrar:** M/s. MCS Ltd.,  
 Sri Venkatesh Bhawan, W- 40, Okhla Industrial  
 Area, Phase-II, New Delhi - 110020

**List of stock exchanges** where the Company's securities are listed:

- The Stock Exchange, Mumbai
- The National Stock Exchange
- M.P. Stock Exchange
- Kolkata Stock Exchange Association Ltd.

## Corporate Office

Bhilwara Towers, A-12, Sector - 1,  
 Noida - 201301, India  
 Phone: + 91 (0120) 254 1810  
 Fax: + 91 (0120) 253 1648

## Registered Office

Mandideep (near Bhopal), Distt. Raisen -  
 462046, Madhya Pradesh, India  
 Phone: + 91 (07480) 233524 to 233527  
 Fax: + 91(07480) 233522

## Mandideep Works

**Graphite Electrodes & Thermal Power Plant**  
 Mandideep (near Bhopal), Distt. Raisen -  
 462046, Madhya Pradesh, India

Phone: + 91 (07480) 233524 to 233527  
 Fax: + 91(07480) 233522

## Tawa Works

### Hydroelectric Power

Village Ranipur, Tawa Nagar, Distt.  
 Hoshangabad - 461001, Madhya Pradesh, India

Phone: + 91 (07572) 272810, 272859  
 Fax: + 91 (07572) 272849

## Durg Works

### Steel Billets & Waste Heat Recovery System

Industrial Growth Centre, Borai, Dist. Durg,  
 Chhattisgarh - 491009, India

Phone: + 91 (0788) 264 7214-16  
 Fax: + 91 (0788) 264 7201