

BOARD OF DIRECTORS

(As on 01.08.2002)

K.G. Ramachandran

Chairman and Managing Director

K.K. Jaswal

(Upto 02.07.2002)

Director

V.K. Malhotra

(From 30.07.2002)

Director

S.V. Bhawe

Director

A.C. Wadhawan

Director

Dr. Anand Patkar

Director

G.P. Gupta

Director

Sharad Upasani

(From 26.12.2001)

Director

Ishan Shankar

Director (HR)

M.K. Mittal

(Upto 31.10.2001)

Director (ER&D)

H.W. Bhatnagar

Director (IS&P)

R.C. Aggarwal

Director (Power)

C. Srinivasan

Director (Finance)

Virendra Kumar

(From 01.11.2001)

Director (ER&D)

N.K. Sinha

Company Secretary

MANAGEMENT COMMITTEE

(As on 01.08.2002)

K.G. Ramachandran - Chairman & Managing Director

Ishan Shankar - Human Resources
Human Resource Development Institute
Health, Safety, Environment
Corporate Productivity
Corporate Information Technology
International Operations Business
Corporate Communication

H.W. Bhatnagar - Industrial Systems & Products Business
Industrial Systems Group
Ceramics Business Unit
Oil Sector R&M Business Group

R.C. Aggarwal - Power Business
Power Sector Regions - North, East, South & West
Project Engineering Management

C. Srinivasan - Finance
Internal Audit & Taxation
Financial Services
Project Finance

Virendra Kumar - Engg. Research & Development
Corporate Research & Development
Component Fabrication Plant

S.S. Rao - Power Sector - Human Resources
Power Sector - Management Services

Dr. T. Adhikari - Industry Sector Business
Transmission Business
Regional Operations Division

S.N. Roy - Heavy Electrical Plant
Transformer Plant

A.K. Puri - Power Sector - Marketing
Integrated Spares Business

A.N. Jagadeeswaran - Heavy Power Equipment Plant

Baboo Ram - Power Sector - Quality, Technical Services &
Project Management

S.K. Jain - Heavy Electrical Equipment Plant
Central Foundry Forge Plant
Pollution Control Research Institute
Heavy Equipment Repair Plant

A.K. Chakraborty - Corporate Finance

A.K. Mathur - High Pressure Boiler Plant
Seamless Steel Tube Plant
Boiler Auxiliaries Plant
Industrial Valves Plant
Piping Centre
Welding Research Institute

Ramji Rai - Electronics Division
Electronics Systems Division

P.T. Deo - Secretary, Management Committee

C O N T E N T S

Proxy Form / Attendance Slip	
ECS Form	
Nomination Form	
Notice of AGM	9
BHEL at a Glance	12
Five Year Summary	14
Directors' Report	15
- Management Discussion and Analysis	
- Auditors' Report & CAG Comments	
- Conservation of Energy etc.	
- Corporate Governance	
- Resume of Directors proposed for appointment/re-appointment as per Listing Agreement	
Audited Accounts	56
- Significant Accounting Policies	
- Balance Sheet	
- Profit & Loss Account	
- Schedules	
Cash Flow Statement	95



Bharat Heavy Electricals Limited

Regd. Office: BHEL House, Siri Fort, New Delhi-110 049

NOTICE

Notice is hereby given that the 38th Annual General Meeting of the Members of BHARAT HEAVY ELECTRICALS LIMITED will be held on 'Monday' the 30th September, 2002 at 10.00 A.M. at FICCI Auditorium, Barakhamba Road (Tansen Marg), New Delhi-110001, to transact the following business: -

ORDINARY BUSINESS

1. To receive, consider and adopt the audited Balance Sheet of the Company as at 31st March, 2002 and the Profit & Loss Account for the financial year ended on that date together with the Reports of the Directors and Auditors thereon.
2. To declare dividend.
3. To appoint a Director in place of Shri H W Bhatnagar, who retires by rotation and being eligible, offers himself for re-appointment.
4. To appoint a Director in place of Shri R C Aggarwal, who retires by rotation and being eligible, offers himself for re-appointment.
5. To appoint a Director in place of Shri C Srinivasan, who retires by rotation and being eligible, offers himself for re-appointment.
6. To fix the remuneration of the Auditors.

SPECIAL BUSINESS

7. To consider and, if thought fit, to pass with or without modification, the following resolution as an **Ordinary Resolution**:
"RESOLVED THAT Shri Virendra Kumar, who was appointed as a Director pursuant to Article 67 of the Articles of Association of the Company read with Section 260 of the Companies Act, 1956 and who holds Office upto the date of this Annual General Meeting and in respect of whom, the Company has received a notice in writing, from the Director himself pursuant to the provisions of Section 257 of the Companies Act, 1956, be and is hereby appointed as a Director of the Company."
8. To consider and, if thought fit, to pass with or without modification, the following resolution as an **Ordinary Resolution**:
"RESOLVED THAT Shri Sharad Upasani, who was appointed as a Director pursuant to Article 67 of the Articles of Association of the Company read with

Section 260 of the Companies Act, 1956 and who holds Office upto the date of this Annual General Meeting and in respect of whom, the Company has received a notice in writing, from the Director himself pursuant to the provisions of Section 257 of the Companies Act, 1956, be and is hereby appointed as a Director of the Company."

9. To consider and, if thought fit, to pass with or without modification, the following resolution as an **Ordinary Resolution**:

"RESOLVED THAT Shri V. K. Malhotra, who was appointed as a Director pursuant to Article 67 of the Articles of Association of the Company read with Section 260 of the Companies Act, 1956 and who holds Office upto the date of this Annual General Meeting and in respect of whom, the Company has received a notice in writing, from the Department of Heavy Industry, Government of India on behalf of the President of India as a shareholder, proposing his candidature for the office of a Director, pursuant to the provisions of Section 257 of the Companies Act, 1956, be and is hereby appointed as a Director of the Company."

By Order of the Board of Directors

Sd/
(N K SINHA)
COMPANY SECRETARY

New Delhi
Dated: 2nd September, 2002

Registered Office:
"BHEL House", Siri Fort, New Delhi-110 049.

Notes: -

1. A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE INSTEAD OF HIMSELF AND THE PROXY NEED NOT BE A MEMBER OF THE COMPANY. PROXY FORM DULY COMPLETED SHOULD BE DEPOSITED AT THE REGISTERED OFFICE OF THE COMPANY NOT LESS THAN FORTY-EIGHT HOURS (48 HRS) BEFORE THE



- SCHEDULED TIME OF THE ANNUAL GENERAL MEETING. BLANK PROXY FORM IS ENCLOSED.
2. Relevant Explanatory Statement pursuant to Section 173(2) of the Companies Act, 1956, in respect of Special Business as set out above is annexed hereto.
 3. Brief resume of each of the Directors proposed for appointment and re-appointment is given as Annexure-5 to the Directors' Report.
 4. The Register of Members and Share Transfer Books of the Company shall remain closed from 10th September, 2002 to 30th September, 2002 (both days inclusive) for the purpose of payment of dividend, if any, approved by the Members.
 5. Members are advised to submit their Electronic Clearing Service (ECS) mandates in the form (given elsewhere in the Annual Report) duly filled in and signed, to enable the Company to make remittance by means of ECS.
 6. The dividend on the Equity Shares as recommended by the Board of Directors for the year ended 31st March, 2002 when sanctioned at the Annual General Meeting of the Company will be payable within 30 days from the date of declaration of dividend by the members i.e. on or before 29th October, 2002, to those shareholders whose name appears on the Company's Register of Members or as the beneficial owner of shares in the records of the Depository as on Tuesday, the 10th September, 2002. Pursuant to the amendments introduced by the Finance Act, 2002, tax will be deducted at source at the applicable rates on such dividend where dividend exceeds Rs. 2,500/-. Shareholders whose annual income is not likely to exceed the taxable limit are requested to submit Form-15G duly filled in, signed and verified in the manner prescribed in the said form, to the Company's Share Department/RTA Karvy Consultants Ltd. latest by 25th September, 2002, to enable the Company to pay such dividend without deduction of tax at source.
 7. Pursuant to Section 205A read with section 205C of the Companies Act, 1956, the dividend amounts which remains unpaid/unclaimed for a period of 7 years, are required to be transferred to the Investor's Education & Protection Fund of the Central Government. After that there remains no claim of the members whatsoever on the said amount. Accordingly, the dividend for the Financial Year 1994-95 which remains unclaimed is due to be transferred to the said account after 27th September, 2002 and for the further years commencing from 1995-96 onwards on their respective due dates.
- The members who have not encashed their dividends for the financial year ended 31.03.1995 or any subsequent financial year(s) may approach the company for obtaining payments thereof before expiry of the stipulated 7 years period.
8. In terms of Section-139A (5) & (5A) of the Income Tax Act, 1961, the company will be able to issue tax deduction certificate, wherever applicable, only if Permanent Account Number (PAN) together with the designation and particulars of the ward/circle or range of the assessing officer is furnished. Hence, kindly do furnish the said particulars for issue of TDS Certificates.
 9. Members may avail facility of nomination in terms of Section 109A of the Companies Act, 1956 by nominating in the Form-2B (given elsewhere in the Annual Report) a person to whom their shares in the Company shall vest in the event of their death.
 10. Pursuant to Section 619(2), the Auditors of a Government Company shall be appointed or re-appointed by the Comptroller and Auditor General of India and in terms of Clause (aa) of sub-section (8) of Section 224, their remuneration has to be fixed by the Company in the Annual General Meeting. The appointment of Statutory Auditors of the Company for the year 2002-2003 is awaited from C&AG of India. The General Meeting may, authorise the Board to fix up an appropriate remuneration of Auditors for the year 2002-2003 after taking into consideration the increase in volume of work and prevailing inflation.
 11. A corporate member shall be deemed to be personally present only if it is represented in accordance with Section-187 of the Companies Act, 1956 i.e. only if the corporate member sends certified true copy of the board resolution/ power of attorney authorising the representative to attend and vote at the Annual General Meeting.
 12. Members are requested to notify immediately any change of address:
 - a) to their Depository Participants (DPs) in respect of their electronic share accounts, and
 - b) to the Company at its Registered Office in respect of their physical shares, if any, quoting their folio number, Banker's name and account number to ensure prompt and safe receipt of dividend warrants.
 13. Members attending the meeting are requested to complete the enclosed Attendance Slip and deliver the same at the entrance of the meeting venue. However, entry to the Auditorium will be strictly on the basis of

the entry slip available at the counters at the venue and to be exchanged with attendance slip.

14. Members desirous of getting any information about the accounts and operations of the Company are requested to address their queries to the Company at least a week prior to the date of the meeting, so that the information required can be made readily available at the meeting.
15. Members are requested:-
 - i) to bring their copies of Annual Report, Notice and Attendance Slip at the time of the meeting.
 - ii) to quote their Folio Nos. in all correspondence.
 - iii) to note that no briefcase or bag will be allowed to be taken inside the auditorium for security reasons.
 - iv) to note that no gifts will be distributed in the AGM.

By Order of the Board of Directors

Sd/
(N K Sinha)
COMPANY SECRETARY

ANNEXURE TO THE NOTICE

EXPLANATORY STATEMENT PURSUANT TO SECTION 173(2) OF THE COMPANIES ACT, 1956

The following explanatory statement sets out the material facts relating to the business mentioned in items No. 7 to 9 of the accompanying Notice dated 2nd September, 2002

ITEM NO. 7

Shri Virendra Kumar aged 58 years is a Mechanical Engineer. As per the direction of the Govt. of India, Shri Virendra Kumar was appointed as Director (ER&D) of the Company w.e.f. 01.11.2001 to hold the Office till 31.01.2004 i.e. the date of his superannuation. Having been so appointed, Shri Virendra Kumar holds office till the ensuing Annual General Meeting by virtue of Section 260 of the Companies Act, 1956 read with Article 67(iv) of the Articles of Association of the Company, and is eligible for re-appointment.

In terms of Section 257 of the Companies Act 1956, the Company has received a Notice in writing along with a deposit of Rs.500/- from the Director himself proposing his candidature for the Office of Director of the Company.

None of the Directors of the Company except Shri Virendra Kumar is in any way concerned or interested in the resolution.

The Board of Directors commends the resolution for approval of the shareholders.

ITEM NO. 8

Shri Sharad Upasani aged 63 years is an M.com and L.L.B from University of Bombay and MBA from USA. As per the direction of the Govt. of India, Shri Upasani was appointed as Director of the Company w.e.f 26.12.2001 to hold the Office for a period of three years i.e. upto 25.12.2004. Having been so appointed, Shri Upasani holds office till the ensuing Annual General Meeting by virtue of Section 260 of the Companies Act, 1956 read with Article 67(iv) of the Articles of Association of the Company, and is eligible for re-appointment.

In terms of Section 257 of the Companies Act, 1956, the Company has received a Notice in writing along with a deposit of Rs.500/- from the Director himself, proposing his candidature for the Office of Director of the Company.

None of the Directors of the Company except Shri Upasani is in any way concerned or interested in the resolution.

The Board of Directors commends the resolution for approval of the shareholders.

ITEM NO. 9

Shri V K Malhotra aged 56 years is the Additional Secretary & Financial Advisor to the Government of India, Ministry of Commerce & Industry, Department of Industrial Policy and Promotion. As per the direction of the Government of India, Shri Malhotra was appointed as a Director of the Company with effect from 30.07.2002 vice Shri K K Jaswal. Having been so appointed, Shri Malhotra holds office till the ensuing Annual General Meeting by virtue of Section 260 of the Companies Act, 1956 read with Article 67(iv) of the Articles of Association of the Company, and is eligible for re-appointment.

In terms of Section 257 of the Companies Act 1956, the Company has received a Notice in writing along with a deposit of Rs.500/- from the Department of Heavy Industry, Government of India on behalf of the President of India as a shareholder, proposing his candidature for the Office of Director of the Company.

None of the Directors of the Company except Shri Malhotra is in any way concerned or interested in the resolution.

The Board of Directors commends the resolution for approval of the shareholders.

By Order of the Board of Directors

Sd/
(N K Sinha)
COMPANY SECRETARY

New Delhi.

Dated: 2nd September, 2002

Registered Office:

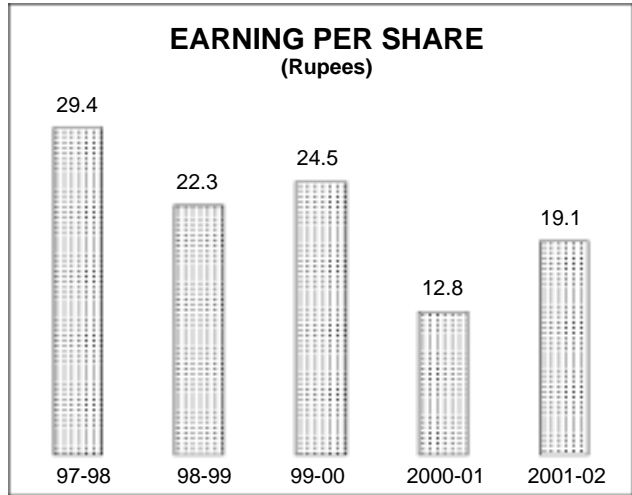
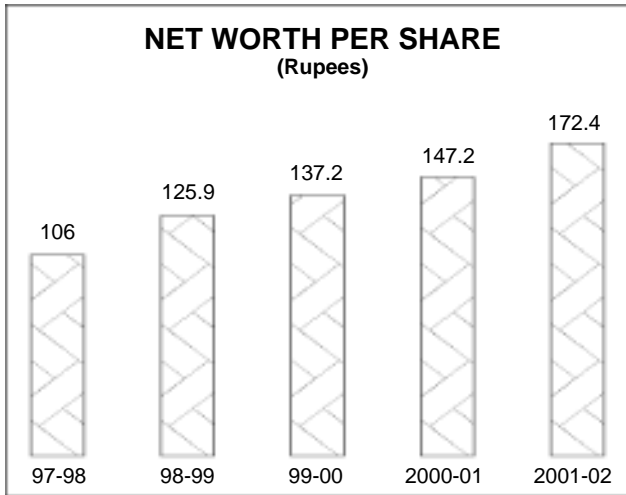
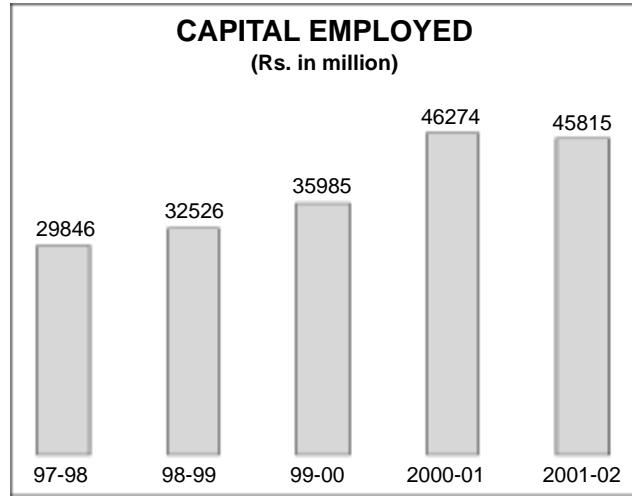
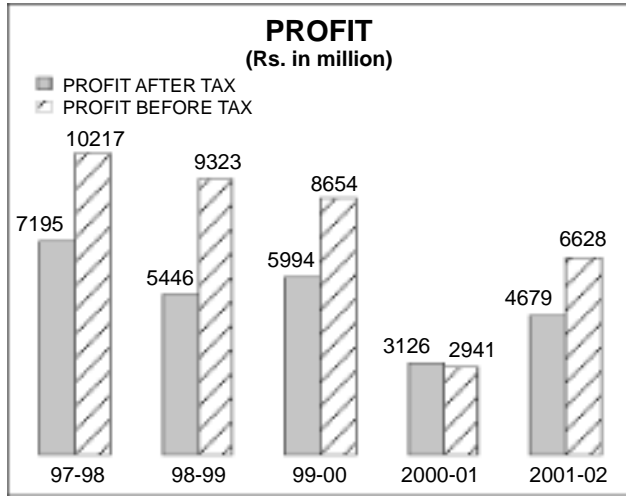
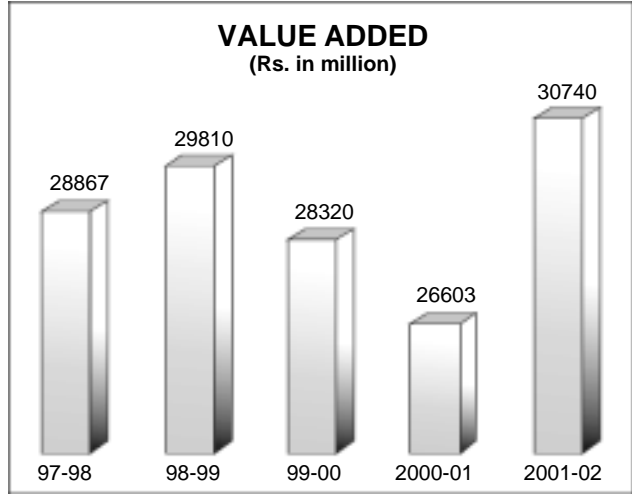
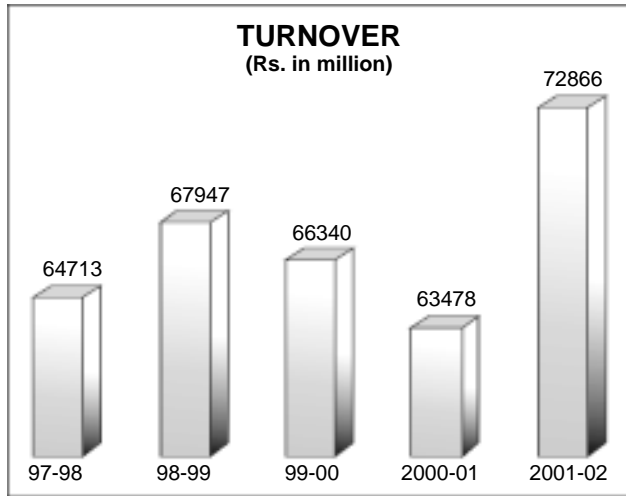
“BHEL House”, Siri Fort, New Delhi-110 049.



BHEL AT A GLANCE

(Rs. in million)

	<u>2000 - 01</u>	<u>2001 - 02</u>	<u>CHANGE (%)</u>
Turnover	63478	72866	14.79
Value Added	26603	30740	15.55
Employee (Nos.) as on 1.1.2001/2002	52225	47729	-8.61
Profit Before Tax	2941	6628	125.37
Profit After Tax	3126	4679	49.69
Dividend	734	979	33.38
Dividend Tax	75	0	-100.00
Retained Earnings	2317	3700	59.69
Net Assets	87903	92974	5.77
Net Worth	36018	42203	17.17
Total Borrowings	10256	6658	-35.08
Debt : Equity	0.28	0.16	-44.60
Per Share (in Rupees) :			
- Net worth	147.16	172.43	17.17
- Earnings	12.77	19.12	49.69
- Dividend	3.00	4.00	33.38





FIVE YEAR SUMMARY

(Rs. in million)

	2001-02	2000-01	1999-2000	1998-99	1997-98
I EARNINGS					
Sale of products & services to customers	72866	63478	66340	67947	64713
Other Income	5046	5350	4959	5824	3785
Changes in stock	-373	2507	-237	823	-133
Total Earnings	77539	71335	71062	74594	68365
Materials	33068	30496	28120	30495	28382
Personnel Payments	14446	21702 *	11330	12416	9525
Other mfg., admn. & selling expenses	20735	14180**	21206	20595	18403
Outgoings before interest & depr.	68249	66378	60656	63506	56310
Profit before depreciation, interest & tax	9290	4957	10406	11088	12055
Depreciation	1692	1578	1535	1432	1242
Gross Profit	7598	3379	8871	9656	10813
Interest	970	438	217	333	596
Profit before tax	6628	2941	8654	9323	10217
Provision for tax	1949	-185	2660	3877	3022
Profit after tax	4679	3126	5994	5446	7195
Dividend (incl.dividend tax)	979	809	855	679	673
Retained Profit	3700	2317	5139	4767	6522
* includes arrears of wage revision of Rs.7078 million from 1.1.97 to 31.3.2000					
** after withdrawal of provision in respect of wage arrears Rs.5140 million					
II WHAT THE COMPANY OWNED					
Gross Block	31820	30040	28109	26573	24236
Less accumulated depreciation & lease adj.	20054	18614	17230	15948	14651
Net Block	11766	11426	10879	10625	9585
Capital WIP	567	612	724	733	635
Investments	103	103	103	151	241
Current Assets, Loans & Advances	80538	75762	70190	65385	60282
Total net assets	92974	87903	81896	76894	70743
III WHAT THE COMPANY OWED					
Borrowings (including credits for assets taken on lease)	6658	10256	2407	1701	3896
Current liabilities & provisions	47159	41630	45911	44368	40897
Total liabilities	53817	51886	48318	46069	44793
IV NET WORTH OF THE COMPANY					
Share Capital	2448	2448	2448	2448	2448
Reserves & Surplus	42248 @	35856	33539	28400	23633
Less : Deferred Revenue Expenditure	2493	2286	2409	23	131
Net Worth	42203	36018	33578	30825	25950
V VALUE ADDED	30740	26603	28320	29810	28867
VI CAPITAL EMPLOYED	45815	46274	35985	32526	29846
VII RATIOS					
PBDIT to net assets (%) #	10.3%	5.8%	13.1%	15.0%	17.1%
Gross profit to capital employed (%) #	16.5%	8.2%	25.9%	30.9%	37.5%
Earnings per share (Rs.)	19.12	12.77	24.49	22.25	29.39
Net worth per share (Rs.)	172.43	147.16	137.17	125.92	106.00
Current Ratio	1.71	1.82	1.53	1.47	1.47
Total Debt / Equity	0.16	0.28	0.07	0.05	0.15

@ includes Rs. 3046 million towards deferred tax assets as on 31.03.2002

On the basis of average net assets and capital employed

DIRECTORS' REPORT

Your directors have pleasure in presenting their 38th Annual Report together with audited accounts of the Company for the year ended March 31, 2002.

PERFORMANCE HIGHLIGHTS

Your company has completed another successful year in 2001-2002 defying the downward trend being witnessed in the industry and has registered a net profit of Rs. 4679 million. Net worth of the company has gone up from Rs. 36018 million in 2000-2001 to Rs. 42203 million in 2001-2002 registering an increase of 17.17%. NAV per share has increased by 17.17% from Rs. 147.16 in 2000-2001 to Rs. 172.43 in 2001-2002.

Major highlights of performance during 2001-2002 are summarised below:

	(Rs. in million)		
	<u>2001-2002</u>	<u>2000-2001</u>	<u>Increased by</u>
Turnover	72866	63478	14.79%
Profit before tax	6628	2941	125.37%
Net profit	4679	3126	49.69%
Orders booked	98553	55572	77.34%
EPS (Rs.)	19.12	12.77	49.69%
NAV per share (Rs.)	172.43	147.16	17.17%

Order inflow during 2001-2002 stood at Rs. 98553 million. The year ended with an outstanding order book of around Rs. 1,25,000 million available for execution in 2002-2003 and beyond.

The details of appropriation of profit for the year are as follows:

	(Rs. in million)	
	<u>2001-2002</u>	<u>2000-2001</u>
Profit before tax	6628	2941
Less : Tax Provision		
- For the year	2455	-
- For earlier years	-152	-185
- Deferred tax	<u>-354</u>	-
	1949	- 185
Profit after tax	4679	3126
Add : Transfer from Reserves		
- Foreign Project Reserve	49	151
	<u>4728</u>	<u>3277</u>
Appropriations:		
- Foreign Project Reserve	10	15

- Bond Redemption Reserve	1000	-
- Dividend – Proposed	979	734
- Corporate Dividend Tax	-	75
- Transfer to General Reserve	2549	2453
- Carried to Balance Sheet	190	-
	<u>4728</u>	<u>3277</u>

Dividend @ 40% on the paid up capital of Rs. 2447.60 million has been recommended for 2001-2002, as compared to 30% paid in 2000-2001.

OPERATIONS OF THE YEAR VIS-À-VIS MOU TARGETS

Performance of BHEL for the year 2000-2001 has been rated as 'Good' in terms of Memorandum of Understanding signed with the Government of India. The rating for 2001-2002 is under evaluation.

MANAGEMENT DISCUSSION AND ANALYSIS

A report on Management Discussion and Analysis is placed at Annexure-1.

OFFICIAL LANGUAGE IMPLEMENTATION

Official Language Implementation Committees have been constituted in all the regional offices/units of BHEL. All the committees meet regularly and appropriate steps are taken to promote the use of Hindi. Manuals of the company are available in bilingual form. Annual Report, MOU, Promotion Orders, Calendars and Diaries are also published bilingually.

During the year, 4 Hindi Officers, 6 Asstt. Hindi Officers, 8 Hindi Translators, One Hindi Stenographer and 2 Clerks were appointed through redeployment of internal sources. A Rajbhasha orientation programme for Hindi Officers, Asstt. Hindi Officers and translators was organised from 28th January, 2002 to 13th February, 2002 in BHEL, HRDI Noida to improve their efficiency in the area of Hindi implementation.

Like every year, BHEL Hindi Co-ordinators' Meet was held this year too. In the Meet, a special presentation was made to promote Hindi on computer and for maximum use of Information Technology in promotion of Hindi. Work oriented competitions were conducted to encourage the implementation of official language. Under these competitions, the work done by the officers/employees in Hindi was evaluated at the end of every quarter and winners were awarded. A number of Hindi workshops were conducted to encourage employees to work in Hindi.

Shri Shambhu Ratan Awasthi, AGM, BHEL Indira Sagar Hydro Project, Narmda Nagar Site was awarded **Dr. Meghnad Saha Puraskar** for the year 1998-99 for his book '**Hydrogenerator ke vyavaharik paksha**'. The award was given to Sh. Awasthi by Sh. Bachchi Singh Rawat,



Honourable Union Minister of State for Science & Technology at a function organised in New Delhi on 1st May, 2002.

ANNEXURES TO DIRECTORS' REPORT

AUDITORS' REPORT

The replies to the points referred to in the Auditors' Report and the Annexure thereto as also the Comments and "Review of Accounts by the Comptroller and Auditor General of India" are given at Annexure 2.

OTHERS

Information in accordance with the provisions of Section 217(1)(e) of the Companies Act, 1956 read with Companies (Disclosure of Particulars in the Report of the Board of Directors) Rules, 1998 regarding conservation of energy, technology absorption and foreign exchange earnings and outgo is given at Annexure 3.

Information in accordance with the provisions of Clause 49 of the Listing Agreement prescribed by SEBI on Corporate Governance is given at Annexure 4.

Information under section 217(2A) of the Companies Act, 1956 read with Company (Particulars of employees) Rules, 1976 may be taken as nil for 2001-2002.

VIGILANCE

The vigilance organisation of BHEL is headed by a Chief Vigilance Officer (CVO) of the rank of Joint Secretary to the Government of India. Each Unit / Region of BHEL has an independent vigilance set up headed by a senior vigilance executive functionally reporting to the CVO.

The thrust during 2001-2002 was on Preventive Vigilance. Regular training programmes, seminars and debates on Preventive Vigilance and discourses on moral and spiritual values were organised in all BHEL Units / Regions. A number of system studies were also carried out with a view to improve the existing systems and procedures. Several interactive sessions were also held with the line executives representing different functional areas, in order to create vigilance awareness and enhance their knowledge about Company's rules, procedures and policies. BHEL Vigilance also brought out the maiden issue of its annual journal "DISHA" containing number of articles on Vigilance, checklists and other related areas.

It was felt that several of the Vigilance objectives could be achieved through implementation of Transparency Measures in various areas of Company operations. Therefore, BHEL Vigilance assumed the role of a catalyst for enhancement of transparency in Company operations especially in areas having interfaces with customers and suppliers. During the year, several units of the Company developed software

packages which facilitated exchange of information with the customers and suppliers.

During the period under report, BHEL Vigilance also took up various cases for investigation. Wherever lapses / irregularities directly attributable to Company officials were brought out by investigation, suitable disciplinary proceedings were recommended resulting in imposition of penalties. Due importance was also given to surprise / routine inspections which resulted in detection of several lapses which were taken up for investigation.

Extensive use of Information Technology was made by BHEL Vigilance during the year 2001-2002. Most of the Units / Regions created Vigilance Home Pages for information sharing, display of rules, policies and circulars etc., for the benefit of employees. A web-based Vigilance Management Information System was also developed during the year for on-line storage and processing of information relating to all vigilance cases.

SECURITY

The company has a well-defined security mechanism. The physical security of most of the major plants of the company is being managed by the CISF. In some of the smaller plants, the company has its own security, while in other plants, Corporate Office and Regional Offices, the security is managed by security personnel taken on deputation from the Central Police Organisations. At the project sites, private security is engaged as per requirement.

Security audit of major plants is being done by the Intelligence Bureau periodically and the additional requirements, wherever pointed out by them, are immediately complied with by the concerned units. Since security audits by IB are carried out at substantial time gaps, internal security reviews of Hyderabad, Hardwar, Bhopal, Trichy, Corp. R&D-Hyderabad and Electronics Division-Bangalore plants were also undertaken. In these reviews, additional security threats which had emerged since the last review and also the required response to such new threats, were discussed in detail and several decisions were taken for strengthening the prevalent security system.

The management, security staff and the employees of the company are fully sensitised to the security needs of the company.

BOARD OF DIRECTORS

The following changes took place in the constitution of the Board of Directors of the Company since last report.

Appointment

Shri Virendra Kumar was appointed as Director (ER&D) w.e.f. 1st November, 2001.

Shri Sharad Upasani was appointed as a part-time non-official Director w.e.f. 26th December, 2001.

Shri V.K.Malhotra, Additional Secretary & Financial Adviser to the Govt. of India, Ministry of Commerce and Industry, Deptt. of Industrial Policy and Promotion has been appointed as a part time Official Director of the Company w.e.f. 30th July, 2002 to fill the casual vacancy caused due to the resignation of Shri K.K.Jaswal.

In accordance with Article 67(iv) of the Articles of Association of the Company S/Shri Virendra Kumar, Sharad Upasani and V.K.Malhotra shall hold office as Directors upto the date of the ensuing Annual General Meeting of the Company and are eligible for re-appointment.

Cessation

Shri M.K.Mittal laid down the office of Director (ER&D) on attaining the age of superannuation on 31st October, 2001.

Shri K.K.Jaswal, Director resigned w.e.f. 2nd July, 2002 on relinquishment of charge of the post of Additional Secretary & Financial Adviser to the Govt. of India, Ministry of Commerce and Industry, Deptt. of Industrial Policy and Promotion.

The Board placed on record its deep appreciation of the valuable services and contribution made by Shri M.K.Mittal and Shri K.K.Jaswal respectively.

In accordance with Article 67(i) of the Articles of Association of the Company, S/Shri H.W.Bhatnagar, R.C.Aggarwal and C.Srinivasan retire by rotation at the ensuing Annual General Meeting and, being eligible, offer themselves for reappointment.

In compliance of Clause 49 VI(A) of the Listing Agreement, a brief resume of the Directors proposed for appointment and re-appointment, their expertise in specific functional areas, names of Companies in which they are Directors is given at Annexure-5 forming part of the Directors' Report.

DIRECTORS' RESPONSIBILITY STATEMENT

Pursuant to Section 217(2AA) of the Companies Act, 1956, it is hereby confirmed:

- (i) that in the preparation of the annual accounts for the financial year ended March 31, 2002, the applicable Accounting Standards have been followed along with proper explanation relating to material departures;
- (ii) that the directors have selected such accounting policies and applied them consistently and made judgements and estimates that were reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year 2001-2002 and of the profit or loss of the company for that period;

- (iii) that the directors have taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- (iv) that the directors have prepared the annual accounts for the financial year ended March 31, 2002 on a 'going concern' basis.

AUDITORS

Pursuant to Section 619(2), as amended by the Companies (Amendment) Act of 2000, the Auditor of a Government company, as defined in section 617 of the Companies Act, 1956, shall be appointed or reappointed by the Comptroller and Auditor General of India. In terms of clause (aa) inserted in sub-section (8) of section 224 by the Amendment Act 2000, the remuneration of the auditor of the Government Company has to be fixed by the company in the Annual General Meeting. The General Meeting may, instead of fixing the remuneration of Auditors, authorise the Board of Directors in this behalf.

ACKNOWLEDGEMENTS

The Board places on record its deep-felt appreciation towards the Company's valued customers in India and abroad for the support and confidence reposed by them in the organisation and looks forward to the continuance of this mutually supportive relationship in future.

The Board also gratefully acknowledges the support and guidance received from various ministries of the Government of India, particularly the Department of Heavy Industry, in the Company's operations and developmental plans. The Directors express their grateful thanks also to the Comptroller and Auditor General of India, Chairman and Members of Audit Board, Statutory auditor and branch auditors. The Company also wishes to place on record its appreciation of the continued co-operation received from all the technical collaborators and suppliers and support provided by the Financial Institutions and bankers. The Board wishes to record its deep gratitude to all members of the BHEL family whose enthusiasm, dedication and co-operation has made the achievement of a satisfying performance possible.

For and on behalf of the Board of Directors of
BHARAT HEAVY ELECTRICALS LTD.

Sd/-
K.G RAMACHANDRAN
CHAIRMAN & MANAGING DIRECTOR

Place : New Delhi
Dated : 26th August, 2002



MANAGEMENT DISCUSSION AND ANALYSIS

ANNEXURE-1 TO THE DIRECTORS' REPORT

FINANCIAL OPERATIONS

Turnover in 2001-2002 touched an all time high of Rs. 72866 million against Rs. 63478 million in 2000-2001, an increase of 14.79% despite a continuous slowdown in the capital goods industry. Export turnover, including deemed exports, was placed at Rs. 25110 million in 2001-2002 as compared to Rs. 16732 million in 2000-2001, an increase of 50.07%. On the Order Book front, Power Sector booked orders worth Rs. 70903 million in 2001-2002 as against Rs. 27372 million in 2000-2001, an increase of 159.03%. Export Orders worth Rs. 8000 million were booked during 2001-2002 as compared to Rs. 7150 million in 2000-2001, an increase of 11.89%. Industry Sector procured orders worth Rs. 19650 million during the year as compared to Rs. 20630 million in 2000-2001, a decrease of 4.75% due to continued slowdown in the capital goods sector and lack of investment in the target segments of industry.

Value addition for the year 2001-2002 stood at Rs. 30740 million as against Rs. 26603 million for the year 2000-2001, registering an increase of 15.55%.

Profit before tax for the year stood at Rs. 6628 million and is higher by 125.37% compared to profit before tax of Rs. 2941 million in 2000-2001. Gross margin as a percentage of value of production (net of excise duty) increased to 13.77% as against 8.06% in 2000-2001. Profit before tax as a percentage of value of production increased from 4.78% in 2000-2001 to 9.82% in 2001-2002.

Profit after tax at Rs. 4679 million, has registered a 49.69% increase over the previous year's Profit after tax of Rs. 3126 million.

Net working capital (other than cash and bank balances) decreased by Rs. 2189 million during the year. The factors contributing to the decrease are:

- Advances from customers increased by Rs. 2750 million reflecting the increase in order booking
- Creditors increased by Rs. 2355 million
- Other current liabilities and Provisions increased by Rs. 424 million
- Decrease in inventory by Rs. 405 million
- Decrease in other current assets and loans and advances by Rs. 354 million
- However, there has been an increase in sundry debtors by Rs. 4099 million due to growth in turnover

In terms of number of days, Inventory declined from 117 days in 2000-2001 to 100 days in 2001-2002. Sundry debtors in number of days of turnover declined from 240 days in 2000-2001 to 230 days in 2001-2002.

Total borrowings declined from Rs. 10256 million in 2000-2001 to Rs. 6658 million in 2001-2002, a decrease of

Rs. 3598 million resulting in improvement in Debt-equity ratio from 0.28 in 2000-2001 to 0.16 in 2001-2002. Equity remained at Rs. 2448 million. Net worth increased by Rs. 6185 million to Rs. 42203 million. Cash and bank balances at the year-end stood at Rs. 4766 million as against Rs. 3330 million at the end of last year.

POWER SECTOR

◆ During the year Power Sector secured the highest ever orders worth Rs. 70903 million for supply and installation of 3038 MW Generating Equipment, Plant Performance Improvement Business, Services and Spares. Significant orders received including those against International Competitive Bidding are:

● Thermal (2405 MW)

- Rihand (2x500 MW): Order received for Main Plant package from National Thermal Power Corporation (NTPC) on International Competitive Bidding basis.
- Ramagundam (1x500 MW): Order received for Main Plant package from NTPC on International Competitive Bidding basis.
- Tau Devi Lal TPS, Panipat 7 & 8 (2x250 MW): Order received from Haryana Power Generation Corporation Ltd. (HPGCL) for execution of Project on turnkey basis including civil works.
- Mejia IV (1x210 MW): Order received from Damodar Valley Corporation (DVC) for execution of Project on turnkey basis including civil works.
- Kota Unit VI (1x195 MW): Order received from Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RVUNL) for Boiler and TG packages.

● Gas & CCPP (283 MW)

- Dhuvaran CCP (107 MW) from Gujarat State Electricity Corporation Ltd. (GSECL) on International Competitive Bidding basis.
- Kuttalam CCP (101 MW) from Tamilnadu Electricity Board (TNEB) against International Competitive Bidding.
- Ramgarh Extn. (75 MW) from RVUNL for conversion of existing 1 x Fr 6 open cycle Gas turbine to 206 configuration CCPP.

● Nuclear

- For the first time, BHEL successfully bid for secondary piping for 2 x 500 Tarapur Atomic Power Plant 3 & 4.

- **Hydro (350 MW)**
 - Bansagar PH IV HEP (2x10 MW) from Madhya Pradesh Electricity Board (MPEB) for generating package.
 - Madhikheda HEP (2x20 MW) from MPEB.
 - Almati Dam (1x15 MW + 5x55 MW) from Karnataka Power Corporation Ltd. (KPCL) against International Competitive Bidding.
- **Power Plant Performance Improvement Business (PPIB)**
 - Order Worth Rs. 350 million was received from HPGCL for revival of Panipat II (110 MW).
 - Order worth Rs. 18.4 million was received from DVC for Residual Life Assessment / Performance Evaluation Test Studies for Boiler, TG & BOPs at Chandrapura Units 4, 5 & 6 (120 MW each).
- ◆ During the year, BHEL added 20 utility sets totalling 2019 MW to the country's installed electric power generating capacity. With this, BHEL built sets now account for 67170 MW which is nearly 65% of Country's total installed capacity. Thermal sets commissioned during the year were Simhadri – (1x500 MW) in Andhra Pradesh, Suratgarh – 3 & 4 (2x250 MW) in Rajasthan, Jojobera – 2 (120 MW) in Jharkhand. In addition, a gas based set of 104.6 MW was commissioned at Pragati in Delhi. 12 hydro sets of 776 MW, 3 diesel sets of 18 MW were also added to the national electric power generating capacity.

In addition to above, 6 industrial sets of 147 MW were commissioned in the country.

3 hydro sets of 15 MW each at Kurichu in Bhutan were also commissioned during the year.

BHEL created a new benchmark in the turnkey execution of large greenfield projects with the synchronisation of the first unit of 500 MW at Simhadri in just 39 months.

India's first medium range hydro IPP of LNJ Bhilwara group at Malana (2x43 MW) in Himachal Pradesh was commissioned by BHEL in a record time of just 27 months – a testimony to BHEL's capability in the execution of greenfield hydro project.
- ◆ The overall performance of BHEL thermal sets was once again better than the national average. BHEL supplied units operated at an all time high performance during the year :
 - BHEL thermal sets achieved **highest ever Plant Load Factor (PLF) of 71.3%** which is 1.4% higher than national average.
 - The combined PLF of BHEL 500 / 250 / 200 / 210 MW thermal sets which form the backbone of country's electric power generating capacity registered the **highest ever PLF of 76.8%**. Operating Availability (O.A.) of these sets was 85.9%.
 - 200 / 210 MW and 250 MW BHEL Thermal sets recorded the **highest ever PLF of 75.3% and 86.7% respectively** during the year.
 - 132 BHEL supplied thermal sets achieved PLF of over 70%. Of these, 23 sets registered PLF of over 90% and 69 sets achieved PLF between 80 - 90%.
 - 31 out of 36 thermal power stations, which were awarded "Meritorious Productivity Rewards", instituted by Ministry of Power, for excellent performance for the year 1999 – 2000, are equipped with BHEL sets, establishing once again the reliability and quality of BHEL equipment. Significantly, all the 8 power stations which won gold medals are equipped with BHEL built sets.
 - 101 BHEL thermal sets clocked uninterrupted operation of more than 90 days, out of which 16 sets operated continuously for more than 200 days during the year.
 - Unit availability of BHEL hydro sets during the year recorded an impressive 98.29%.
- ◆ BHEL continued its endeavour to render efficient customer service aimed at facilitating uninterrupted power supply and keeping power plants in good running condition. During the year, Power Sector overhauled 119 thermal utility and industrial sets including 13 non-BHEL sets covering various products like boilers, TGs and auxiliaries.
- ◆ Non-BHEL hydro unit originally supplied by Westinghouse, USA at Kotla Unit 2 in Punjab was uprated nearly 16% from 24.2 MW to 28 MW.
- ◆ Kothagudam Unit 5 was successfully refurbished during the year and its capacity uprated from 105 MW to 120 MW.
- ◆ BHEL's Power Sector – Northern Region has become the first construction group in India to obtain OHSAS 18001 Certification for adhering to International Standards in Occupational Health and Safety.
- ◆ Prestigious "Rajiv Gandhi National Quality Award", instituted by the Bureau of Indian Standards (BIS) in the 'Large Service Enterprises' category, was conferred on BHEL's Power Sector – Northern Region for the year 2000-2001.
- ◆ Kathalguri CCPP (290 MW) of NEEPCO in Assam, set up by BHEL - Mitsubishi consortium, has been adjudged as "Centre of Excellence" by the Ministry of Power.



INDUSTRY SECTOR

Orders for Rs. 19650 million have been booked during the year 2001-02 as against Rs. 20630 million achieved last year. Overall success rate of over 60% has been achieved during the year.

- **Major Orders Booked:** Prestigious orders for 2x20 MW Gas turbine based captive cogeneration plant and H₂ recycle gas compressor from Chennai Petroleum Corporation Limited have been secured. Secured order for STG based captive power plant from Jindal Steel and Power Limited.

An Order for 22.92 MW diesel generator based captive power plant on turnkey basis from Government of Mizoram has been secured.

An order for 23 MW Steam turbines based captive power plant on EPC basis from Aditya Cement has been secured.

Secured orders for 7 Cogeneration sets from Sugar and Cement Plants. Order from Sakti Sugar Limited, Coimbatore is the order for largest TG set in Sugar Cogeneration Segment.

ONGC continued to repose trust in BHEL with major orders for Wellheads and X-mas trees for their operations at Mumbai and Dehradun.

Orders for 56 sets of Traction Transformers and Rectifiers secured from DLW.

BHEL has secured the first commercial order for Fixed Series Capacitor for 400 kV transmission line against international competition. This Fixed Series Capacitor will be installed on 400 kV Panki-Muradnagar line at Muradnagar.

Order for 400/220 kV Thiruvananthapuram Sub-station and extension of 400 kV Madurai Sub-station from Powergrid.

Largest single order from Tala Hydro Project including order for 19 Power Transformers totaling to 1330 MVA, one 63 MVAR Shunt Reactor and 14 Dry Type Transformers.

Secured prestigious orders for 48 vertical motors of 1025 kW to 4500 kW for Concrete Volute & Metallic Pumps for world's largest pumping scheme – Sardar Sarovar Project.

Secured orders for 31 motors of 320 kW to 6000 kW from Nuclear Power Corporation.

Introduced new overseas customers M/s Ansaldo, Italy by securing orders for 6 Motors of 2100 kW and 1500 rpm.

- **New Business Areas:** Executing India's first thyristor controlled series capacitor project, the first stage of which is in an advanced stage of

completion at Powergrid's 400 kV Sub-station at Ballabgarh. The stage 2 of the project is scheduled to be commissioned in October 2002.

Orders received from Indian Railways for special track machines including 1 utility vehicle, 4 Rail cum road vehicles and 8 tower cars.

Trial orders secured from Indian Railways for Traction Transformer and Solid Core Insulators for Railway Electric Traction.

- **Other Business Promotion Efforts:** Promotional efforts have been initiated to undertake Urban Transportation Projects like Electric Trolley Bus, Light Rail Transport etc. in major cities. Initial dialogue has been initiated with the concerned authorities in Chandigarh, Delhi, Mumbai, Bangalore and Pune.

Special emphasis is being placed on identifying new business opportunities in related areas of business like Ports, Pipelines, Special Economic Zones, Simulators for Industrial Application, Water and Effluent Management Systems etc.

A separate group for undertaking Renovation and Modernisation jobs for offshore oil platforms and rigs created at Mumbai.

INTERNATIONAL BUSINESS

- ◆ Continuing the thrust in Overseas Business, BHEL achieved highest ever export order booking of Rs. 8000 million during the year 2001-02, including forays into the Chinese, Central Asian and African regions with orders for:
 - ▲ 123 MW ISO Gas Turbine Generator and Auxiliaries for Shenzhen Nanshan Power Station in China
 - ▲ 40 MW ISO Gas Turbine Generator and Auxiliaries from Tengizchevroil, Kazakhstan (a joint venture of Global oil giants Exxon-Mobil, Chevron-Texaco along with National Oil Company of Kazakhstan), and
 - ▲ Motors for Steel Plant in Algeria
- ◆ Sustained efforts to widen the export basket resulted in maiden orders for Simulators from the UK and RLA studies for Electrostatic Precipitators from Thailand.
- ◆ BHEL secured a major order during the year for two more Gas Turbine Generators (123 MW ISO each) and Auxiliaries from SITEA International, Switzerland for Rumaila Open Cycle Power Plant in Iraq.
- ◆ A major breakthrough was achieved in the Overseas IPP market in Australia by securing order from AES for supply of 123 MW ISO Gas Turbine Generating Unit and Auxiliaries.

- ◆ During the year BHEL bagged the largest single order for Solar Photovoltaic Modules from Ikarus, Germany
- ◆ Other notable export orders received during the year included:
 - ▲ 57 MW Steam Turbine Generator and Auxiliaries for a Combined Cycle Power Project in Sri Lanka, being set up by AES.
 - ▲ Ancillary Equipment for Mingechar Hydro Electric Project in Azerbaijan.
 - ▲ Transformers from Greece, Valves and Oil Field Equipment from USA, Syria, Malaysia and Thailand; Spares and services from Oman, Malta, USA, Libya, Poland, Syria, Malaysia and Indonesia; Ceramic products from Nigeria, UAE, Taiwan and UK.
- ◆ Major overseas orders executed during the year include:
 - ▲ 100MW Gas Turbine based Power plant commissioned on Turnkey basis at Baghabari in Bangladesh
 - ▲ Supplies for 123 MW ISO rated Gas Turbine Generator set for Kelanitissa Combined Cycle Power Plant of AES in Sri Lanka
 - ▲ Supplies for 123 MW ISO rated Gas Turbine Generator set for Shenzhen Nanshan power station in China
 - ▲ Supplies for Unit 1 & 2 (2 x 157 MW ISO) Gas Turbine Power Plant at Baiji, Iraq under UN's Oil for Food Programme.

CAPITAL INVESTMENT

During the year 2001-02, a capital investment of Rs. 1555 million was made on plan capital programs. The thrust of investment during the year was on holistic product modernisation focussing on replacing ageing facilities to meet the increasing intensity of competition by way of improving delivery cycle, quality of products/services, cost reduction etc. An investment of Rs. 1190 million out of the above was towards modernisation of facilities for various products.

Major schemes completed during the year 2001-02 are modernisation of Traction machines, Switchgear, Bushings and Capacitors at Bhopal; modernisation of Fossil Boilers at Trichy; modernisation of Control Equipment and Space Grade Solar Panels at Electronics Division, Bangalore and modernisation of Boiler Auxiliaries Plant at Ranipet. These schemes would enable BHEL to attain competitive edge by reducing cycle time, increasing productivity and improving quality with marginal benefits for capacity increase in some product areas. With these schemes, BHEL has installed about 300 CNC machines which is the largest number among engineering industry in the country. Some of the major technologies and facilities introduced include:

- 1) Application of Robots for selected handling and welding operations to enhance productivity and reduce rework.
- 2) State-of-the-Art Panel Processing Machine for welding of water wall panels of boilers to suit the Low Wall thickness panels.
- 3) Manufacturing capabilities for three phase AC traction motors to meet emerging requirements of Railways.
- 4) Modernisation of manufacturing of Valves and Switchgears with state-of-the-art machining and testing equipment to meet short delivery cycle.
- 5) Modernisation of facilities for fabrication of items and assemblies with emphasis on cycle time reduction and higher quality of production.

Further, six major schemes approved by the Board of Directors are under implementation. These schemes are Modernisation of Steam Turbine manufacturing facilities, Modernisation of Generator manufacturing facilities and New Blade Shop at Haridwar; Establishment of 2nd 9E GT-Test Bed at Hyderabad and Creation of facilities for New Automation C&I (Max 1000 + Plus) technology at Electronics Division, Bangalore and Advanced Instruments (S&T scheme) for Coal Analysis & Oxide Scale Measurement at Trichy. In addition, office accommodation scheme at Power Sector–Eastern Region, Kolkata is also under implementation.

Completion of these ongoing modernisation schemes will enable the company to offer higher rating Steam Turbine and Generator sets of 660 MW, Steam Turbines of two cylinder design and with higher efficiencies, to debottleneck testing of Gas Turbines and to offer latest C&I equipment for power station and industrial applications.

Thrust for the future in capital investment and manufacturing technology upgradation include:

- 1) Planned capital investment of about Rs. 7000 million during the 10th five-year plan with emphasis on gas turbines, hydro and nuclear business, oil sector, Renovation and Modernisation (R&M) etc.
- 2) Introduction of cutting edge technologies like laser processing of materials and components, application of robots in the field of handling and welding in the R&M jobs.
- 3) Creating insitu machining capabilities for R&M of power plants.
- 4) Enhancing Asset Utilisation and productivity.

JOINT VENTURES

The two Joint Venture Companies promoted by BHEL viz., "BHEL-GE Gas Turbine Services Ltd." (BGGTS) with GE, USA for repair & servicing of GE designed Gas Turbines and "Powerplant Performance Improvement Ltd." (PPIL) with Siemens AG, Germany for plant performance improvement



of old fossil fuel power plants, have now completed four full financial years of operation.

BGGTS achieved a sales turnover of Rs. 1471 million (unaudited) during the year 2001-02 with a Profit After Tax of Rs. 147.5 million. Orders of Rs. 1428 million were booked by BGGTS during the year. The new Repair Facility at Hyderabad became fully operational during the year with the installation of Vacuum Furnace and Plasma spray facilities. Repair of various critical Gas Turbine components like power nozzles, combustion liners, transition pieces, shrouds etc. for valued customers in private and public sectors were carried out. The manpower and facilities of BGGTS have been qualified by GE for carrying out the repair of various gas turbine components. BGGTS paid a dividend of 95% for 2000-2001.

During the year PPIL recorded a sales turnover of Rs. 608 million (unaudited) with order booking of Rs. 183.5 million. As against a profit after tax of Rs. 27 million last year, PPIL recorded a profit after tax of Rs. 0.32 million during the year.

R&D AND TECHNOLOGICAL ACHIEVEMENTS IN 2001-2002

During the year, a turnover of Rs. 6131 million was achieved by commercialising products and systems developed through in-house Research and Development (R&D).

An amount of Rs. 796 million was spent on R&D programmes, focusing on new product and system development, product improvement in terms of reliability, quality, cost and import substitution. In addition, an amount of Rs. 75 million has been incurred for purchase of capital assets for R&D programmes.

Major achievements and new products introduced include:

- To improve power transfer capability of transmission lines, reduce system losses and improve system stability, BHEL has developed a three-phase, 50 MVA Controlled Shunt Reactor (CSR), the first of its kind in the world, for application in high voltage (400 kV) transmission lines. Use of a conventional fixed shunt reactor results in a continuous loss of energy, while a CSR comes into circuit only when required, thus avoiding losses. The system has been fully tested and commissioned and is now under long term field trials at PGCIL's 400 kV substation at Itarsi (M.P.). This development is expected to open a new line of business for BHEL for reactive power management in high voltage transmission systems in both domestic and export markets.
- India's largest capacity Atmospheric Fluidized Bed Combustion (AFBC) boilers (2x165 tonnes/hour), indigenously developed by BHEL, have been successfully commissioned at Jindal Steel & Power

Ltd., Raigarh. The development of these boilers, capable of firing various fuels like coal, washery rejects and char, will enable BHEL to supply large capacity AFBC boilers with multiple fuel options.

- A substantial improvement in heat rate has been achieved through a new 210 MW Steam Turbine module, developed indigenously by BHEL and supplied to Khaperkheda TPS, which will result in savings of about 14,000 tonnes of coal per annum.
- As a part of on-line power plant diagnostic systems, BHEL has developed an Acoustic Steam Leak Detection (ASLD) system for boilers. The system helps identify steam leakage at the incipient stage, enabling quick corrective action, thus improving plant availability. This is a major breakthrough as steam leakage is currently detected only after it has reached an advanced stage. A prototype of the system has been successfully demonstrated at 210 MW Raichur TPS, Unit I.
- For the first time in the country, a 1 MVA, IGBT based static synchronised compensator (STATCOM) for 3 MVA load has been developed for continuous improvement of power factor. The development was carried out with funding from TIFAC, Govt. of India. It is basically an improved version of Static VAR compensator scheme and is one of the Flexible AC Transmission (FACT) devices which can be used in both transmission as well as distribution networks for power quality improvement. It has been fully tested at Corp. R&D, Hyderabad, and will be shifted to M/S Midhani, Hyderabad, for field trials.
- BHEL has developed a High Velocity Oxy Fuel (HVOF) coating process to increase the life of hydro power plant components, water wall tubes of Circulating Fluidised Bed Combustion (CFBC) boilers and other industrial components prone to erosion.
- For the first time in the country, BHEL has developed a 420 kV gas insulated bus duct for transmission of bulk power in places where installation of overhead lines is uneconomical or impractical. The main application of these bus ducts is for transmitting power from underground hydro power stations to substations located at ground level.
- An improved brushless traction alternator has been developed for 1400 HP Diesel Electric Multiple Units (DEMs) of Indian Railways. The size and weight of the new alternator have been reduced by 18%.
- BHEL has developed, supplied and commissioned an improved Supervisory Control and Data Acquisition (SCADA) system for control and monitoring of the switchyard at 95 MW Perungulam Combined Cycle

Plant. The reliability of the system has been enhanced with the use of redundant servers and communication links. The operating system and database management system have also been upgraded. The operator can monitor and control the switchyard through a PC based operator workstation.

- BHEL has designed, manufactured and successfully commissioned a 4 kV, 7.5 MW Static Frequency Converter (SFC) for use in the lift irrigation project at Srisailem Left Bank Canal. The SFC is designed for sequentially starting four 18 MW, 11 kV synchronous motors which drive the pumps for lifting water from the Krishna River to a reservoir, from where a canal takes the water to drought affected areas of Nalgonda District in A.P.

HUMAN RESOURCE MANAGEMENT

1. INDUSTRIAL RELATIONS DURING 2001-2002

The Industrial Relations at various manufacturing Units and Service Divisions of the Company were harmonious and cordial throughout the year. The thrust on participative culture continued during the year. A unique meeting of the apex level bipartite forum (Joint Committee) was held in a Workshop format for two days in August 2001. The leaders of the Central Trade Unions and the Union representatives from various plants of BHEL participated very enthusiastically in this Workshop. Various issues of concern to the Company were discussed and fruitful suggestions/presentations were made.

Similar Workshop for the representatives of Supervisors and Executives was also held for two days in October, 2001. The theme of the Workshop was "Enhancing organisational effectiveness".

There were two meetings of the Joint Committee during the year. Similarly 65 meetings of the Plant Councils and 308 meetings of the Shop Councils were held during the year in various Units of the Company.

2. VOLUNTARY RETIREMENT SCHEME

A focused Voluntary Retirement Scheme was in operation in the Company during the year. In all, 3340 employees (483 Executives, 608 Supervisors and 2249 Workmen) opted for retirement under this Scheme.

3. HUMAN RESOURCE DEVELOPMENT

The overall manpower strength at the end of the year was 47516 showing a decrease of 8.28% over the previous year. This decline in manpower is mainly due to introduction of Voluntary Retirement Scheme for the third consecutive year and also restricting fresh induction to only critical areas.

BHEL nominates its employees for training programs

conducted in house by HRDI & HRDC's and by other external agencies. During the year 2001-2002, a total of 40172 participants nominated by BHEL attended various training programs. Besides, 3333 Trade Apprentices were provided training facilities under the Apprentices Act.

4. ACTIVITIES OF THE COMPANY FOR WELFARE AND ADVANCEMENT OF SCs & STs

The company has been scrupulously following the Presidential Directives and guidelines issued by the Government of India regarding reservations for Scheduled Castes and Scheduled Tribes (SCs & STs).

Socio-economic development activities for SC/ST community

BHEL has adopted 56 SC/ST dominated villages near its manufacturing Units for the welfare and socio-economic development of SCs & STs.

Following activities have been undertaken in these villages:

- ◆ Construction and maintenance of school buildings
- ◆ Providing scholarships to meritorious SC/ST students
- ◆ Providing adult/primary education
- ◆ Providing teaching aids to schools
- ◆ Providing uniforms to school children
- ◆ Construction of Community Halls
- ◆ Organising medical camps/providing medical aid and medicines
- ◆ Providing water distribution lines
- ◆ Construction of approach roads
- ◆ Sanitation, hygiene and easy drainage system

Representation of SC/ST employees

As on 1/1/2002, the representation of SC/ST employees in total manpower was 18.05% and 3.66% for SCs and STs respectively.

The Group-wise strength of SC/ST employees is given at Annexure-A.

Recruitment of SCs & STs during 2001

The Group-wise recruitment data is given at Annexure-B.

Promotion of SC & ST employees during 2001

The Group-wise promotion data is given at Annexure-C.

5. STATUS OF IMPLEMENTATION OF PERSONS WITH DISABILITY ACT 1995 W.R.T. SEC.33

The Group-wise recruitment data in respect of persons with disability during 2001 is given at Annexure-D.



ANNEXURE-A

STATEMENT SHOWING THE TOTAL NUMBER OF EMPLOYEES AND THE NUMBER OF SCHEDULED CASTES AND SCHEDULED TRIBES AMONGST THEM AS ON 1-1-2002

Group	Total No. of Employees	Scheduled Castes	Percentage to Total Employees	Scheduled Tribes	Percentage to Total Employees
A	11773	1398	11.87	417	3.54
B	9995	1037	10.38	268	2.68
C	22362	5040	22.54	968	4.33
D	3599	1139	31.65	96	2.67
Total	47729	8614	18.05	1749	3.66

ANNEXURE-B

STATEMENT SHOWING THE NUMBER OF RESERVED VACANCIES IN DIRECT RECRUITMENT FILLED BY MEMBERS OF SCHEDULED CASTES AND SCHEDULED TRIBES DURING THE YEAR 2001

Group of Post	No. of Vacancies filled	No. of Vacancies Reserved		No. of Vacancies Filled		No. of Vacancies exchanged		Shortages at induction grades		Excesses at induction grades	
		SC	ST	SC	ST	SC	ST	SC	ST	SC	ST
A	40	5	2	8	5	0	0	2	0	5	7
B	5	0	0	1	0	0	0	0	0	2	1
C	26	3	1	4	2	0	0	8	0	34	22
D	0	0	0	0	0	0	0	1	2	37	10
Total	71	8	3	13	7	0	0	11	2	78	40

ANNEXURE-C

STATEMENT SHOWING THE TOTAL NUMBER OF VACANCIES FILLED BY PROMOTIONS BY MEMBERS OF SCHEDULED CASTES AND SCHEDULED TRIBES IN BHEL DURING THE YEAR 2001

Group	Total No. promoted	Scheduled Castes	Percentage	Scheduled Tribes	Percentage
A	2401	283	11.79	66	2.75
B	2041	290	14.21	55	2.69
C	4112	909	22.11	152	3.70
D	425	124	29.18	4	0.94
Total	8979	1606	17.89	277	3.08

ANNEXURE-D

GROUPWISE RECRUITMENT STATUS OF PERSONS WITH DISABILITY (PWD) DURING THE YEAR 2001

Group	Recruitment in identified categories of posts	No. of PWD recruited	%age of PWD recruited
A	40	0	0.00
B	5	0	0.00
C	26	0	0.00
D	0	0	0.00
Total	71	0	0.00

INTERNAL CONTROL SYSTEM

The internal control procedures of the company are prescribed in various codes and manuals issued by the Management covering all important areas of activities viz. Budget, Purchase, Material, Stores, Works, Accounts, Personnel etc. These codes and manuals are updated from time to time. The company has a full-fledged Internal Audit Department at Corporate Office and eleven Internal Audit Cells located at manufacturing units and regional offices of the company which carry out audit as per annual audit programme approved by Director (F)/BLAC and monitored by Corporate Internal Audit. The prime objective of such audits is to check the adequacy and effectiveness of Internal Control System laid down in the prescribed codes and manuals of the company. Functioning of Internal Audit and adequacy of Internal Control System is reviewed by Unit Level Audit Committee.

OPPORTUNITIES AND THREATS

- Government of India has embarked upon an ambitious programme of doubling the generation capacity to ensure "Power on demand by 2012". This would necessitate huge mobilisation of resources to the tune of Rs.80,00,000 million including Transmission and Distribution (T&D) sector which has been identified as a high priority area. Due to inadequate investments in Transmission Sector so far, power evacuation from generating stations remains a major bottleneck. Accordingly, a perspective plan to build 30,000 MW inter-regional transmission network and formation of National grid are being drawn up.

Distribution is another area which is being reformed to improve the financial health of the State Electricity Boards (SEBs) through various initiatives like privatisation/ Corporatisation. In order to bring about improvements in the functioning of the SEBs, Government has taken a number of initiatives including securitisation of outstanding dues of SEBs. This development will improve the credit rating of SEBs enabling raising of funds for investments.

- Government has been developing strategies to improve the hydro-thermal mix and substantially step up the contribution of this clean and stably priced source of energy through higher budgetary allocation and speedier clearance process. BHEL, being a major equipment supplier, is likely to reap benefits from this initiative.
- Government is also taking steps to promote captive power capacity which is estimated to be about 20,000 MW. A comprehensive Captive power generation policy for purchase and wheeling of surplus power is being evolved, which is likely to boost investment in this area.

BHEL being a major player in this business segment stands to gain.

- Coal as a fuel will continue to dominate power generation in our country, more so for the reason of energy security. To reduce the cost of power, pit-head and coastal plants are planned to be set up to avoid high cost of transportation of coal and relieve the already stretched rail network. In addition to this, from the point of view of greater thermal efficiency and environmental considerations, Gas/ LNG based power plants will continue to be the preferred choice of power plant builders in the medium term.
- During the year gone by, industries, to which BHEL supplies the capital goods, experienced a slow rate of growth as well as stagnation in investment activity in the country. Also, the prospects of investment activity picking up during the current year seem difficult. Index of Industrial Production (IIP) is projected to grow by a higher rate of 3.5% in 2002-03 compared to 2.7% growth recorded in 2001-02, a positive signal for impending industrial recovery. Among the sectors, Cement and Transportation are poised for healthy growth in 2002-03.
- For optimal development of electrical energy in its totality, an integrated approach, including capacity addition through Non-conventional sources has been adopted by the Government. Accordingly, a target of 10700 MW through non-conventional sources has been fixed for the period up to 2012.
- Distributed Generation (DG) and Combined Heat and Power (CHP) are emerging growth opportunities in the near future. In addition to conventional DG technologies, Biomass, Photo-voltaics, Wind turbines, Micro turbines and Fuel Cells are progressing at rapid pace and promise to change the economic equation of this large and important market.
- In order to accelerate rural electrification, it has been proposed to treat rural electrification as a basic minimum service in the Prime Minister's Gramodaya Yojna. Rural electrification plan for electrification of 62000 villages by 2007 and 18000 remote villages (through renewables) by 2012 is being proposed.

OUTLOOK

While the Indian Economy is continuing to grow at slow pace, there are positive impulses like on-going Restructuring and Reforms in the Power Sector, enhanced focus on Distribution, increased outlay for Accelerated Power Development and Reforms Programme (APDRP), creating regulatory system, new Electricity Bill etc. Government's commitment to enhance private and public investments in the infrastructure is a positive aspect that will spur Industrial Growth and



enhance market prospects for industrial products in the coming years.

BHEL has put in place a number of initiatives, as follows, for furthering future growth prospects:

- Strengthening company's core businesses of Power Generation, Transmission & Distribution, Transportation and Industrial Systems & Products, through accelerated project completion and consequent benefits to customers, along with new initiatives in marketing, technology, facility up-gradation and modernisation, enhancing operational effectiveness etc.
- Business Development efforts in related and allied areas utilising the organisational strengths and forming customer focused specialised business groups e.g. formation of Oil Sector R&M Business Group to address business in Renovation and Modernisation of off-shore and on-shore oil platforms, downstream petroleum refining areas and Power Plant Operational Services Group to provide Operations and Maintenance (O&M) Services for Power Plants.
- After Market Services being the areas for future growth, spares and R&M services business have been integrated into one focused group. R&M for hydro sets is an area having major growth opportunity which BHEL is poised to tap.
- Exploring Business opportunities in areas like Energy Conservation, Water Management, Pollution Control and Waste Management, Ports, LNG terminals etc.

- Positioning for Information Technology Business leveraging the domain knowledge in Power Sector & Engineering field to provide IT enabled services for Power Sector and software services for Engineering Industry.
- Sustain and Enhance Exports for products and services through multi-pronged approaches like entering new territories, focus on product sales, entry into IPP segment, offering O&M and LTSA, EPC, becoming a service center for international Original Equipment Manufacturers (OEMs) and setting up of manufacturing assembly and repair centers in the regions of demand etc.

BHEL is also taking steps to re-position itself to meet the demands of the new market economy through suitable strategies keeping in view the ultimate objective of enhancing value for its stakeholders.

RISKS AND CONCERNS

- Since most of the projects in industry are being contemplated on BOO/BOOT basis, various issues viz. business model of the Project, revenue collection, operation and maintenance etc. would need to be suitably addressed to gain entry in the business.
- Railways have indicated 3% growth in Xth plan as against 6% growth during the IXth plan, which would result in scanty order flow for Electric locos and dip in demand for electrics for Locos.
- Collaborators are increasingly restricting export territories under license agreements in order to protect their market share in territories outside India particularly where BHEL has built up references and strengths.

AUDITORS' REPORT

To

The Members of
Bharat Heavy Electricals Limited
New Delhi.

We have audited the attached Balance Sheet of Bharat Heavy Electricals Limited, New Delhi, as at 31st March, 2002 and the annexed Profit and Loss Account for the year ended on that date. These financial statements are the responsibility of the Company's Management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion and report that :

- I The aforesaid Balance Sheet and Profit and Loss Account incorporate the accounts of the Corporate Office, Advance Research Project, Power Sector – Project Engineering Management & Commercial Management and Power Sector – Head Quarter at New Delhi, audited by us and the other Units, branches and offices/divisions, including foreign branches, not visited by us and audited by Branch Auditors appointed by the Comptroller and Auditor General of India.
- II The reports on the accounts of the foreign branches, Regional and other offices have been considered by the Branch Auditors of the units/divisions in which the accounts of these foreign branches and Regional and other offices have been incorporated. The reports of the Branch Auditors have been furnished to us and have been considered by us for the purpose of framing our opinion on the said Balance Sheet and Profit and Loss Account of the Company.
- III The "Balance Sheet", "Profit & Loss Account", Explanatory Notes, Significant Accounting Policies for the year ended 31st March, 2002 adopted by the Board of Directors on 14th June, 2002 and reported by us on 15th June, 2002 have been revised to give effect to the observations made by the Comptroller & Auditor General of India in the audit conducted by them u/s



619(4) of the Companies Act, 1956. Besides consolidated accounts, the revision has been carried out in the accounts of seven units and Corporate Office, the consolidated financial impact whereof is given in Note No. 24 of Schedule-19 forming part of the accounts.

IV As required by the Manufacturing and Other Companies (Auditors' Report) Order, 1988, issued by the Company Law Board in terms of Section 227 (4A) of the Companies Act, 1956, we enclose in the Annexure a statement on the matters specified in paragraphs 4 & 5 of the said Order.

V Further to our comments in the Annexure referred to in paragraph IV above, we report that :

(1) Excess depreciation of Rs. 186.74 lakhs has been provided, due to charging off "Fixed Assets" costing upto Rs. 10,000/- and those whose written down value is Rs. 10,000/- or less at the beginning of the year, on account of Accounting Policy No.9(iii). (Refer Note No. 4 of Schedule 19).

(2) The balances of Sundry Debtors, Creditors, Contractors, Advances, Deposits and stocks/materials lying with sub-contractors/fabricators are subject to confirmation and reconciliation. The consequential impact thereof, if any, on the accounts remains unascertained (Refer Note No.9 of Schedule 19).

(3) A Bank Account maintained under the Centralised Cash Management Scheme of the Company has very old unreconciled entries as at 31st March, 2002, the position of outstandings including such old entries as on 11.6.2002 stood as under :

(a) Credits of Rs. 43.95 lakhs and debits of Rs. 403.09 lakhs made by the Company which are not responded to by the bank.

(b) Debits of Rs. 201.18 lakhs and credits of Rs. 77.19 lakhs made by the Banks in the Company's account which are not entered in the books of the Company.

Consequential impact, if any, of the above on the accounts remains unascertained.

(4) Out of total investment of Rs. 500 lakhs in Konark Met Coke Ltd. (KMCL), Bhubaneshwar, the investee company has allotted 10 lakhs equity shares of nominal value of Rs. 10/- each and the balance Rs. 400 lakhs is still shown under

(1) This is in conformity with the Accounting Policy followed by the Company consistently for several years.

(2) Balances of Sundry Debtors, Creditors, Advances, Contractors, Deposits and stocks/materials with sub-contractors/ fabricators are reconciled with respective parties as an ongoing process.

(3) The Company is operating Centralised Cash Management System, under which daily debit and credit balances in the bank accounts operated by its units all over India are transferred to Central Accounts of Corporate Office maintained with a consortium of 14 banks. The problem of unreconciled/old items persists only in one of the banks namely, State Bank of India, CAG Branch where amounts from more than 40 branches of BHEL's manufacturing units/sites are transferred on daily basis. There is constant effort to expedite the reconciliation and settlement of unreconciled items which have reduced as on August 20, 2002 as under :

(a) Credits of Rs. 0.25 lakhs and debits of Rs. 97.42 lakhs made by the Company which are not responded to by the bank.

(b) Debits of Rs. 111.15 lakhs and credits of Rs. 69.07 lakhs made by the Bank in the Company's account which are not entered in the books of the Company.

(4) The Company is in correspondence with Deptt. of Heavy Industries, Govt. of India.

advance towards equity shares. Government approval for the same is still awaited as required by the Articles of Association of the company (Refer Note No. 13 of Schedule-19).

- (5) Attention is drawn to :
- (i) Note No.8 in Schedule 19 regarding disputed Income Tax demand relating to Assessment Year 1992-93 amounting to Rs.24974.61 lakhs.
 - (ii) Note No.11 in Schedule 19 regarding demand raised by ESI Authorities relating to contractors' employees amounting to Rs.538.64 lakhs.
 - (iii) Note No. 16 in Schedule 19 regarding modification of accounting policy relating to depreciation on electronic data processing equipment by increasing the rate of depreciation from 16.21% to 20% resulting in decrease of profit by Rs. 109.67 lakhs.
 - (iv) Note No. 18 in Schedule 19 regarding capitalisation of borrowing cost in line with Accounting Standard (AS-16).
 - (v) Note No. 21 in Schedule 19 regarding modification of accounting policy on leases in line with the Accounting Standard (AS-19) on leases resulting in increase of profit by Rs. 80.89 lakhs.
- (5) (i) The case is sub-judice.
- (5) (ii) The case is sub-judice.
- (5) (iii) Depreciation rate has been increased because of shorter economic life due to higher rate of obsolescence.
- (5) (iv) Capitalisation of borrowing cost is in line with Accounting Standard – 16.
- (5) (v) Modification of Accounting Policy is in line with Accounting Standard – 19.
- (6) We further report that, without considering the effect of 2 to 4 above and impact of earlier years on depreciation as mentioned in 1 above, the effect of which could not be determined, had the observation made by us in paragraph 1 above been considered, the Profit before tax for the year would have been Rs. 66469.95 lakhs (as against the reported figure of Rs. 66283.21 lakhs), Reserve & Surplus would have been Rs. 422671.28 lakhs (as against the reported figure of Rs. 422484.54 lakhs), and total Net Block of fixed assets would have been Rs. 117843.67 lakhs (as against the reported figure of Rs. 117656.93 lakhs).

Subject to the foregoing and consequential effect thereof:

- (a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.
- (b) In our opinion, proper books of account as required by Law have been kept by the



Company in so far as it appears from our examination of the books and the returns received from the Branch Auditors.

- (c) The Balance Sheet and Profit and Loss Account referred to in the report are in agreement with the books of account and returns.
- (d) In our opinion, the Balance Sheet and Profit and Loss Account complies with the Accounting Standards referred to in Section 211 (3C) of the Companies Act, 1956 .
- (e) In terms of General Circular No. 8/2002 date 22.03.2002 issued by Department of Companies Affairs, Government of India, nominee directors appointed by Central Government in Government Companies are exempted from applicability of the provisions of Section 274(1)(g) of the Companies Act, 1956. However, according to the information and explanations given to us, in relation to the affairs of the company, none of the Directors is disqualified as at 31st March, 2002 from being appointed as a Director in terms of clause (g) of sub-section (1) of section 274 of the Companies Act, 1956.
- (f) In our opinion and to the best of our information and according to the explanations given to us, the said accounts read together with the Accounting Policies and Explanatory Notes in Schedule-19, give the information required by the Companies Act, 1956, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:
 - (i) In the case of the Balance Sheet, of the state of affairs of the Company as at March 31, 2002; and
 - (ii) In the case of the Profit and Loss account, of the profit for the year ended on that date.

FOR SHIROMANY TYAGI & CO.
CHARTERED ACCOUNTANTS

Sd/-
(PRADEEP TYAGI)
PARTNER

Place: New Delhi
Dated: 16.08.2002

ANNEXURE TO THE AUDITORS' REPORT

(Referred to in Para IV of our report of even date)

MANAGEMENT'S REPLY

1. The Company has generally maintained proper records showing full particulars including quantitative details and situation of its fixed assets. Except in respect of assets given on lease, the management has generally carried out the physical verification of a portion of the fixed assets in accordance with their phased programme of physical verification, which is considered reasonable having regard to the size of the Company and nature of its Business and no material discrepancies were noticed on such verification to the extent verification was made during the year.
2. None of the fixed assets have been revalued during the year.
3. The stock of stores, spare parts, components and raw materials lying at the units, in case of manufacturing divisions, have been verified under perpetual inventory system.

Physical verification of stores and spares acquired for trading and lying in the stocks at the units has been conducted by the Management at reasonable intervals and no material discrepancies were noticed on such verification.

As regards the service divisions, the stores, spare parts etc., are purchased for immediate consumption and unused stocks have been physically verified at the year end.

The materials purchased for research and development projects are directly charged off to Profit & Loss Account.

The stock of finished goods is verified at the year end with reference to the inspection reports and production reports of Planning Department of the Divisions and WIP in respect of plants is verified at the year end.

Stores, spare parts, raw materials, finished goods etc., received from other units for despatch to customers are verified in the process of erection/assembly by the Site Engineers, but no confirmation is received from the customers. However, in regard to stocks lying with contractors/fabricators and other parties, confirmations were received in a few cases only.

Subject to the above, in our opinion the frequency of verification is reasonable.

4. The procedure of physical verification of stock, work-in-progress and spares followed by the management is generally reasonable and adequate in relation to the size of the Company and the nature of its business.
5. The discrepancies noticed on physical verification of stocks as compared to book records were not material

BHEL has supplied 53 AC/DC locomotives of Type WCAM-3 and 12 AC/DC locomotives of Type WCAG-1 to Indian Railways upto 31.03.2002 on lease. As per terms of Lease Agreement with the Indian Railways, a certificate confirming physical possession of these locomotives has been obtained from Indian Railways like in the past.

Refer reply to Para V(2) of main report.

and have been properly dealt with in the books of account of the Company.

6. In our opinion, valuation of above mentioned stock read with Accounting Policy No. 7 is fair and proper and is in accordance with the normally accepted accounting principles and is on the same basis as in the preceding year, except to the extent of capitalisation of borrowing cost.
7. As per information given and explanations provided, the Company has not taken any loans, secured or unsecured, either from firms or other parties listed in the register required to be maintained under section 301 of the Companies Act, 1956. In terms of sub-section (6) of section 370 of the Act, the provisions of section 370 are not applicable after the commencement of Companies (Amendment) Act, 1999.
8. As per information given and explanations provided, the Company has not granted any loans, secured or unsecured, to firms and other parties listed in the register required to be maintained under section 301 of the Companies Act, 1956. In terms of sub-section (6) of section 370 of the Act, the provisions of section 370 are not applicable after the commencement of Companies (Amendment) Act, 1999.
9. In respect of loans and advances in the nature of loans given by the Company to the parties and employees, the recovery of principal amount and interest, wherever applicable, has generally been made as stipulated.
10. In our opinion and according to information and explanations given to us, there are adequate internal control procedures commensurate with the size of the Company and the nature of its business for the purchase of stores, raw materials including components, plant and machinery, equipment and other assets and for sale of goods.
11. As per information given and explanations provided, the Company has not made any purchase of goods and materials and sale of goods, materials and services in pursuance of contract or agreement of Rs. 50,000/- or more, during the year in respect of each party listed in the register required to be maintained under Section 301 of the Companies Act, 1956.
12. As explained to us, the Company has a reasonable system for determination of unserviceable or damaged stores, raw materials and finished goods. Adequate provision has been made in the accounts for loss arising in respect of items so determined in accordance with the Company's policy.
13. The company has not accepted any deposits from the public during the year.

14. In our opinion, reasonable records have been maintained by the company for the sale and the disposal of significant realisable scrap. We are informed that company's operations do not generate any realisable by-products.

15. In our opinion, the Internal Audit System of the Company is largely commensurate with the size and nature of its business. However, in some of the units the scope for greater coverage, improvement in periodicity and strengthening of internal audit remains.

16. Prima facie, the Company has maintained cost accounts and records prescribed for the manufacture of electric motors, seamless steel tubes, Electric Generator, Power Transformers, Power driven pumps, Control Instrumentation and Automation Equipment, pursuant to the rules made by the Central Government under Section 209(1) (d) of the Companies Act, 1956. No detailed examination of the records was, however, made with a view to determine whether they are accurate or complete. To the best of our knowledge and according to the information given to us the Central Government has not prescribed the maintenance of the cost records under Section 209 (1) (d) of the Companies Act 1956 for other products of the Company.

17. According to the records of the Company, the provident fund and ESI dues (wherever applicable) have generally been deposited during the year with appropriate authorities except in one unit where the unit has obtained stay order and in another unit where the Company has deposited only a part of the demand raised by ESI authorities as the matter is pending with the Court.

18. According to the information and explanations given to us, there are no undisputed and outstanding amounts in respect of income tax, wealth tax, sales tax, customs duty, and excise duty which have remained outstanding as at 31st March, 2002 for a period exceeding six months from the date these became payable.

19. According to the information and explanations given and on examination of the books of account carried out in accordance with generally accepted auditing practices, no personal expenses have been charged off to the profit and loss account except those arising out of contractual obligations or in accordance with generally accepted business practice.

20. The Company is not a sick company under the provisions of Section 3 (1) (O) of Sick Industrial Companies (Special Provisions) Act, 1985.

21. In respect of service activities:

a) The Company has reasonable system of recording receipts, issues, consumption of materials and stores

The scope, coverage and periodicity of Internal Audit is defined in Internal Audit Manual of the company and is being strictly followed. Internal Audit department has been strengthened recently by inducting more executives.

Both the cases are sub-judice.



and allocating material consumed to the relative jobs commensurate with its size and nature of its business.

- b) The Company generally has a reasonable system of allocating man-hours utilised to the relative jobs commensurate with its size and the nature of its business.
- c) There is generally a reasonable system of authorisation at proper levels with adequate system of internal control commensurate with the size of the Company and the nature of its business on the issue of stores and allocation of stores and labour to the jobs.

FOR SHIROMANY TYAGI & CO.
CHARTERED ACCOUNTANTS

Sd/-
PRADEEP TYAGI
PARTNER

Place: New Delhi
Dated: 16.08.2002

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 619 (4) OF COMPANIES ACT, 1956 ON THE ACCOUNTS OF BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI FOR THE YEAR ENDED 31ST MARCH, 2002.

The accounts of the Company have been revised as a result of the observations made by the Comptroller and Auditor General of India, as indicated in item No. 24 of Notes forming part of Accounts (Schedule-19). The following further comment is made upon and supplement to the Auditors' Report under Section 619 (4) of the Companies Act, 1956 on the accounts of Bharat Heavy Electricals Limited, New Delhi for the year ended 31st March, 2002

Management's Reply

General

The Accounting Policy no. 11 (i) stipulates that claims for liquidated damages by/against the Company as recognized in accounts on acceptance. Pending acceptance, the Company has disclosed the amount of LD withheld by the customers as contingent liabilities. This policy leaves the issue of acceptance open-ended. On being pointed out by the audit, the Company has given an assurance to make the policy more objective and transparent.

Noted.

**Sd/-
(Revathi Bedi)
Principal Director of Commercial Audit &
Ex-officio Member, Audit Board-III,
New Delhi**

Place : New Delhi

Dated : 26th August, 2002



REVIEW OF ACCOUNTS OF BHARAT HEAVY ELECTRICALS LIMITED, NEW DELHI FOR THE YEAR ENDED 31ST MARCH 2002 BY THE COMPTROLLER AND AUDITOR GENERAL OF INDIA.

Note: The Review of Accounts has been prepared without taking into account comments under section 619 (4) of the Companies Act 1956 and qualification contained in the Statutory Auditor's Report.

1 FINANCIAL POSITION

The table below summarises the financial position of the Company under broad headings for the last three years.

		<u>1999-2000</u>	<u>2000-2001</u>	<u>2001-2002</u>
		(Rs. in crore)		
LIABILITIES				
(a)	Paid-up Capital			
	(i) Government (including share application money pending allotment)	165.76	165.76	165.76
	(ii) Others	79.00	79.00	79.00
(b)				
	(i) Free reserves and surplus	3351.15	3582.83	4222.08
	(ii) Share premium account	0.00	0.00	0.00
	(iii) Capital reserves	2.77	2.77	2.77
(c)	Borrowings			
	i) From Government of India	0.00	0.00	0.00
	ii) From Financial Institution	42.35	120.29	15.61
	iii) Foreign Currency loan	0.00	0.00	0.00
	iv) Cash Credit	196.00	590.34	0.28
	v) Others	0.01	312.64	626.28
	vi) Interest accrued and due	2.33	2.33	2.33
d)	i) Current liabilities & provision	4591.10	4162.96	4715.86
	ii) Provision for gratuity	0.00	0.00	0.00
	iii) Credits for assets taken on lease	0.00	0.00	21.29
e)	Deferred Tax Liability	0.00	0.00	0.00
	TOTAL	<u>8430.47</u>	<u>9018.92</u>	<u>9851.26</u>
ASSETS				
f)	Gross block	2810.81	3004.05	3182.00
g)	Less: Depreciation	1755.02	1902.81	2057.68
	Add : Lease Adjustment A/c	32.00	41.37	52.26
h)	Net block	1087.79	1142.61	1176.58
i)	Capital work-in-progress	72.44	61.18	56.67
j)	Investments	10.34	10.34	10.34
k)	Current assets, loans and advances	7018.96	7576.20	8053.77
l)	Deferred tax assets	-	-	304.62
m)	Miscellaneous expenditure not written off	240.94	228.59	249.28
n)	Accumulated loss	0.00	0.00	0.00
	TOTAL	<u>8430.47</u>	<u>9018.92</u>	<u>9851.26</u>
o)	Working Capital (k-d(i)-c(vi))	2425.53	3410.91	3335.58
p)	Capital employed (h+o)	3513.32	4553.52	4512.16

q) Net worth (a+b(i)+b(ii)-m-n)	3354.97	3599.00	4217.56
r) Net worth per rupee of capital	13.71	14.70	17.23

The recognition of Deferred Tax Assets amounting to Rs. 304.62 crore has also contributed to the increase in Networth for the year.

2 SOURCES AND UTILISATION OF FUNDS

Funds amounting to Rs.706.97 crore from internal and external sources were realised and utilised during the year as detailed below:

(Rs. in crore)

Sources of Funds

a) Funds from operations:			
Profit after tax		467.95	
Add : Depreciation		154.87	622.82
b) Decrease in CWIP			4.51
c) Assets taken on lease			21.29
d) Decrease in Working Capital (excluding proposed dividend & tax thereon)			58.35
	TOTAL		706.97

Utilisation of Funds

a) Increase in Fixed Assets			188.84
b) Dividend paid (incl. Dividend Tax)			80.92
c) Decrease in borrowed funds			381.10
d) Deferred Tax Assets			35.42
e) Increase in Miscellaneous Expenditure not written off			20.69
	TOTAL		706.97

3 WORKING RESULTS

The working results of the Company for the last three years ending 31st March are given below :

(Rs. in crore)

	<u>1999-2000</u>	<u>2000-2001</u>	<u>2001-2002</u>
i) Sales	6659.50	6377.36	7297.28
ii) Less : Excise Duty	612.00	633.65	691.54
iii) Net Sales	6047.50	5743.71	6605.74
iv) Other or Misc. Income	470.38	505.42	493.92
v) Profit before tax and prior period adjustments	863.56	294.53	657.35
vi) Prior period adjustments	1.87	0.44	5.48
vii) Profit before tax*	865.43	294.09	662.83
viii) Tax provisions	265.99	(-)18.52	194.89
ix) Profit after tax	599.44	312.61	467.95
x) Proposed Dividend	85.54	80.92	97.90

* Unit-wise working results are given in annexure.

4 RATIO ANALYSIS

Some important financial ratios on the financial health of the company at the end of last three years ending 31st March :

	<u>1999-2000</u>	<u>2000-2001</u>	<u>2001-2002</u>
A. Liquidity ratio:			
Current ratio(k/d(i)+c(vi))	1.53	1.82	1.71



B. Debt Equity Ratio			
Long term debt/Equity[c(i)to (v) excl. short term loans/q]	0.07	0.13	0.15
C. Profitability ratios:			(in Percentage)
a) Profit before tax to			
i) Capital employed	24.63	6.46	14.69
ii) Net Worth	25.80	8.17	15.72
iii) Sales	13.00	4.61	9.08
b) Profit after tax to Equity	244.91	127.72	191.19
c) Earnings per share (in Rupees)	24.49	12.77	19.12

5 INVENTORY LEVELS

The inventory levels at the close of the last three years ending 31st March are as under:

			(Rs. in crore)
	1999-2000	2000-2001	2001-2002
a) Raw materials	635.57	660.35	655.60
b) Store, spares and loose tools	106.51	98.83	90.26
c) Work-in-progress and semi-finished goods	846.20	1081.44	1074.13
d) Finished goods	194.30	208.98	185.62
e) Scrap	11.28	12.07	12.11
TOTAL	1793.86	2061.67	2017.72

The stock of finished goods represented 0.35,0.39 & 0.31 month's sales in 1999-2000,2000-01 & 2001-02 respectively.

6 SUNDRY DEBTORS

The sundry debtors and sales in the last three years ending 31st March are as follows:

As on 31st March	Sundry Debtors			Sales (including excise duty)	% age of Sundry debtors to sales
	Considered Good	Considered Doubtful	Total		
2000	4037.30	549.50	4586.80	6659.50	68.88
2001	4174.30	608.81	4783.11	6377.36	75.00
2002	4584.19	638.30	5222.49	7297.28	71.57

Agewise analysis of sundry debtors as on 31.03.2002 is as follows:

	(Rs. in crore)
i) Less than 6 months	2563.77
ii) 6 months to 1 year	668.76
iii) 1 year to 3 years	1160.73
iv) More than 3 years	829.23
TOTAL	5222.49

Sd/-

(REVATHI BEDI)

New Delhi
Date : 26th August, 2002

PRINCIPAL DIRECTOR OF COMMERCIAL AUDIT
AND EX-OFFICIO MEMBER,AUDIT BOARD-III, NEW DELHI

WORKING RESULTS OF BHEL UNITS

ANNEXURE

(Rs in crore)

	<u>1999-2000</u>	<u>2000-2001</u>	<u>2001-2002</u>
Heavy Electricals Equipment Plant, Hardwar	147.74	26.16	65.72
Heavy Power Equipment Plant, Hyderabad	206.56	54.55	104.46
High Pressure Boiler Plant, Trichy	195.49	150.52	148.40
Heavy Electricals Plant, Bhopal	50.96	-70.10	16.40
Central Foundry Forge Plant, Hardwar	-0.87	-30.84	-21.62
Transformer Plant, Jhansi	-14.59	-117.29	-20.90
Electronics Division, Bangalore	73.82	16.66	47.21
Industrial Valves Plant, Goindwal	2.36	2.23	1.18
Industrial Systems Group, Bangalore	1.66	-2.70	-10.99
Boiler Auxiliary Plant, Ranipet	20.73	13.31	28.23
Electro Porcelains Division, Bangalore	7.18	1.34	11.75
Insulator Plant, Jagdishpur	-9.30	-16.64	-9.00
Power Group (Four Regions and PEM)	271.85	182.68	224.60
International Operations Division, New Delhi	0.07	0.12	-0.01
Overseas Project Coordination, New Delhi	6.52	2.21	3.25
Centre of Technology Transfer, Hyderabad	0.58	1.22	1.77
Industry Sector, New Delhi	0.10	-0.38	0.15
Component Fabrication Plant, Rudrapur	-1.18	-2.02	-1.53
Regional Operations Division	1.41	-4.28	-0.12
Heavy Equipment Repair Plant, Varanasi	4.91	5.33	5.57
Advance Research Project, New Delhi	0.12	0.45	0.19
Transmission Projects Group, Bhopal	8.09	21.79	18.13
Corporate Adjustments	-108.78	59.77	49.99
TOTAL	865.43	294.09	662.83



ANNEXURE 3 TO THE DIRECTORS' REPORT

CONSERVATION OF ENERGY

Following the principle of Kaizen, continuous efforts are made in the company for conservation and optimum use of various forms of energy. The major steps taken for conservation of energy in the company are listed below:

1. Optimal distribution of loads resulting in reduction in peakload demand.
2. Power factor improvement measures.
3. Demand Side Management and installation of MD Controller.
4. Planned Running of Arc Furnaces.
5. Better operation/control of Induction Furnace.
6. Use of Producer Gas in place of LPG for pre-heating of Castings.
7. Energy Saving in Walking Beam Furnace by installation of Magnetizer.
8. Reduction in consumption of RFO/F.O. per metric ton of steam generation in T.P.S.
9. Use of Metal Halogen Lamps instead of fluorescent tubelights for lighting purposes.

As a result of energy saving measures the energy cost as a percentage of turnover for the year 2001-2002 was contained at 2.63% as compared to 3% for the previous year. This reduction was achieved inspite of overall increase in the price of Coal, Oil, Electricity etc.

TECHNOLOGY ABSORPTION AND RESEARCH & DEVELOPMENT

Research & Development

1. Specific areas in which R&D carried out by the Company } Given in the
2. Benefits derived as a result of the above R&D } Directors' Report
3. Future plan of action: } under "R&D and Technological Achievements in 2001-2002"

The following are the major thrust areas for R&D and technology:

- Advanced control and instrumentation platform for thermal power plant and industrial application
- Performance analysis, diagnostics and optimisation (PADO) systems for thermal power plant application
- 8 MW industrial steam turbines
- Integrated Gasification Combined Cycle (IGCC) power plants
- Hydro power plants with higher efficiency and longer life
- Non-conventional energy systems
- Efficient, reliable and cost effective transportation systems like three-phase AC drive system for diesel electric locos
- HVDC transmission systems
- Flexible AC Transmission systems and its devices such as phase shift transformer, static synchronized compensator (STATCOM), controlled shunt reactor etc.
- Gas insulated switchgear
- High efficiency boiler feed pumps
- More efficient conventional thermal power plants using supercritical parameters
- Atmospheric and Circulating Fluidized Bed Combustion (CFBC) boilers

- Vibration and noise reduction
- Residual life assessment studies
- Cycle time and cost reduction
- Specialised engineering software applications

4. Expenditure on R&D

a) Capital	Rs. 75 million
b) Recurring	Rs.796 million
c) Total	Rs.871 million
R&D expenditure as a percentage of total turnover	1.19%

TECHNOLOGY ABSORPTION AND ADOPTION

Details of technology imported during the last 5 years:

Technology	Year of import	Absorption status
Once-through boilers	1999	Technology absorption in progress.
Fabric filters	1999	Technology absorption in progress.
Advanced automation platform	2000	Technology absorption in progress.

Foreign Exchange earnings and outgoings

- a) Activities relating to export information given in Directors' Report under "International Business".
- b) Total foreign exchange used and earned:

		(Rupees in million)	
		<u>2001-2002</u>	<u>2000-2001</u>
i	Foreign exchange used	14029	13372
ii	Foreign exchange earned	21680	11666



ANNEXURE 4 TO THE DIRECTORS' REPORT

CORPORATE GOVERNANCE

01 Company's philosophy on code of Corporate Governance

The concept of Corporate Governance, which has received unprecedented attention worldwide, refers to a system of checks and balances to ensure timely and transparent financial as well as managerial disclosure to the shareholders. Good board practices, transparent disclosure and accountability beyond the regulatory stipulation lie at the heart of good Corporate Governance.

BHEL believes in and practices good Corporate Governance in all its operations and reiterates its commitment to achieve the highest standards of Governance.

02 Board of Directors

Pursuant to Section 617 of the Companies Act, 1956, BHEL is a 'Government Company'. Presently 67.72% of the total paid-up share capital of the Company is held by the President of India.

As on 31st March 2002, BHEL's Board structure comprised 12 (Twelve) Directors viz. CMD, five whole time executive directors (Functional Directors), two Govt. nominees representing the Ministry of Heavy Industries and Public Enterprises, Govt. of India and four non-executive Directors. The appointment of four more non-executive directors is under active consideration of Government of India.

- **Responsibilities :**

The board's mandate is to oversee the company's strategic direction, review and monitor corporate performance, ensure regulatory compliance and safeguard the interests of shareholders.

- **Role of Independent Directors:**

The independent directors play an important role in deliberations at the board meetings and bring to the company their expertise in the fields of engineering, finance, management, law and public policy.

The Board has established various committees such as the audit committee, shareholders grievance committee and share transfer committee. In terms of Clause 49 of the Listing Agreement, the audit committee and shareholders grievance committee are chaired by an independent director and the said committees function within the defined terms of reference. The minutes of the committee meetings are circulated and discussed in the Board meeting.

- **Board Meetings :**

The meetings of the board are normally held at the company's registered office in New Delhi and are scheduled well in advance. The Company Secretary in consultation with Chairman and Managing Director sends notice of each Board meeting in writing to each director. The board agenda are circulated to the directors in advance. The members of the board have access to all information of the company and are free to recommend inclusion of any matter in agenda for discussion. In case of need, the senior management is invited to attend the board meetings to provide additional inputs relating to the items being discussed and/or giving presentation to the board.

During the year under review, the Board met eleven times on the following dates: (i) April 02, 2001 (ii) April 27, 2001 (iii) May 21, 2001 (iv) June 15, 2001 (v) July 26, 2001 (vi) August 14, 2001 (vii) August 23, 2001 (viii) October 31, 2001 (ix) December 26, 2001 (x) January 28, 2002 and (xi) March 08, 2002. The maximum time gap between any two meetings was not more than three calendar months.

- **Details of composition and category of Directors, attendance of each Director at the Board Meetings and the last AGM, directorship and membership in other companies for each Director of the Company are given below (As on 31st March, 2002):**

Name S/Shri	PD/ NPD*	ED/NED/ ID*	Attendance Particulars		Number of other directorships and Committee Member/Chairmanship		
			Board Meetings (from 01/04/01 to 31/03/02)	Last AGM (held on 28/09/01)	Other Director- ships	Committee Member- ships	Committee Chairman- ships
K G Ramachandran (CMD)	NPD	ED	11	Present	Nil	Nil	Nil
K K Jaswal	PD	NED	11	Absent	8	1	Nil
S V Bhawe	PD	NED	10	Absent	4	Nil	Nil
Ishan Shankar	NPD	ED	11	Present	Nil	Nil	Nil
H W Bhatnagar	NPD	ED	11	Present	Nil	Nil	Nil
R C Aggarwal	NPD	ED	10	Present	Nil	Nil	Nil
C Srinivasan	NPD	ED	11	Present	Nil	Nil	Nil
M K Mittal (upto 31.10.2001)	NPD	ED	7	Present	1	Nil	Nil
Virendra Kumar (from 01.11.2001)	NPD	ED	3	n.a.	Nil	Nil	Nil
A C Wadhawan (from 15.06.2001)	NPD	NED/ID	6	Present	4	3	1
Anand Patkar (from 15.06.2001)	NPD	NED/ID	7	Present	3	1	Nil
G P Gupta (from 14.08.2001)	NPD	NED/ID	4	Present	1	Nil	Nil
Sharad Upasani (from 26.12.2001)	NPD	NED/ID	1	n.a.	3	1	1

* PD – Promoter Director; NPD – Non Promoter Director; ED – Executive Director ; NED – Non-Executive Director ; ID – Independent Director.

03 Audit Committee

The Audit Committee presently comprises solely non-executive independent directors. The members of the Audit Committee are Shri A C Wadhawan, Shri G P Gupta and Dr. Anand Patkar. Shri Wadhawan is Chairman of the Audit Committee. The audit committee is constituted in accordance with the provisions of the Listing Agreements and the Companies Act, 1956. All the members of the committee are qualified and experienced in the fields of finance, accounts and company law. The quorum of the audit committee is two members. The company secretary is the secretary to the committee.



- **Brief description of terms of reference:**

The terms of reference of the audit committee specified by the Board are in conformity with the requirements of Clause 49 of the Listing Agreement as well as Section 292A of the Companies Act, 1956. They are as follows:

1. Overseeing of the company's financial reporting process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
2. Fixation of audit fee of the external auditors and also approval for payment for any other services.
3. Periodically reviewing with the Management, external and internal auditors the adequacy of internal control systems, the scope of audit including the observations of the auditors and ensure compliance of internal control system.
4. Reviewing with management the half-yearly and the annual financial statements before submission to the Board, focusing primarily on:
 - ✦ Any Changes in accounting policies and practices.
 - ✦ Major accounting entries based on exercise of judgement by Management.
 - ✦ Qualifications in draft audit report.
 - ✦ Significant adjustments arising out of audit.
 - ✦ The going concern assumption.
 - ✦ Compliance with accounting standards.
 - ✦ Compliance with stock exchange regulations and legal requirements concerning financial statements.
 - ✦ Any related party transactions i.e. transactions of the company of material nature, with promoters or the management, their subsidiaries or relatives etc. that may have potential conflict with the interests of company at large.
5. Reviewing the adequacy of internal audit function, including the structure of the internal audit department, staffing and seniority of the official heading the department, reporting structure, coverage and frequency of internal audit.
6. Discussion with internal auditors any significant findings and follow up there on.
7. Reviewing the findings of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of a material nature and reporting the matter to the Board.
8. Discussion with external auditors, before the audit commences, on nature and scope of audit as well as to have post-audit discussion to ascertain any area of concern.
9. Reviewing the company's financial and risk management policies.
10. To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non-payment of declared dividends) and creditors.
11. The Audit Committee shall have authority to investigate into any matter in relation to the items specified in Section 292A of the Companies Act or referred to it by the Board and for this purposes shall have full access to information contained in the records of the Company and external professional advice, if necessary.
12. The Audit Committee shall comply with the requirements of the Companies Act and the Listing Agreement with Stock Exchanges in force and as amended from time to time.

- **Composition of Committee and attendance of members:**

The committee met six times during the year under review. The details of composition, names of members, their tenure and the Chairperson and attendance of members are as under:

		Name of Directors & position			
		Shri A.C. Wadhawan (Chairman w.e.f 14.08.2001)	Shri K.K.Jaswal (Member)	*Shri G.P.Gupta (Member)	Dr.Anand Patkar (Member)
Tenure	From	26.07.2001	01.08.2000	23.08.2001	26.07.2001
	To	Contd.	23.08.2001	Contd.	Contd.
Meetings/ Attendance	14.08.2001	Present	Present	n.a	Present
	23.08.2001	Present	Present	n.a	Present
	30.10.2001	Present	n.a	Present	Present
	27.12.2001	Present	n.a	Present	Present
	28.01.2002	Present	n.a	Present	Present
	08.03.2002	Present	n.a	Absent	Present

*Shri G P Gupta has been appointed as a Non-executive Director w.e.f. 14th August, 2001 and subsequently inducted as a member of Audit Committee w.e.f. 23rd August, 2001 in place of Shri K K Jaswal.

04 Remuneration Committee

BHEL being a Public Sector Undertaking, the appointment, tenure and remuneration of Directors are decided by the President of India. Hence, the Board does not decide the remuneration of directors. Independent Directors are paid only sitting fees for attending the Board Meetings as well as Committee Meetings. However, as required by Clause 49(III)(B), necessary disclosure with regard to remuneration of directors is as follows:-

- **Details of remuneration of functional directors of the Company:**

Sl. No.	Name of the Director	Salary	Benefits	Bonus/ Commission	Performance Linked Incentives	Total	Stock Options	Service Contract/ Notice Period/ Severance Fee
	S/Shri	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs)	(Rs.)	
1	K G Ramachandran	470552	183849	Nil	Nil	654401	Nil	Not liable to retire by Rotation
2	Ishan Shankar	445646	158746	Nil	Nil	604392	Nil	Retirement by Rotation
3	H W Bhatnagar	442022	259853	Nil	Nil	701875	Nil	Retirement by Rotation
4	R C Aggarwal	438507	193206	Nil	Nil	631713	Nil	Retirement by Rotation
5	C Srinivasan	405890	177208	Nil	Nil	583098	Nil	Retirement by Rotation
6	Virendra Kumar (from 01.11.2001)	511008	138121	Nil	Nil	649129	Nil	Retirement by Rotation
7	M K Mittal (upto 31.10.2001)	261616	90792	Nil	Nil	352408	Nil	Retirement by Rotation



- Details of payments made to Non- Executive Directors during the year 2001-02 are given below: -

(In Rupees)

Name of the Non-Executive Directors	Sitting Fees		Total
	Board Meeting	Committee Meeting	
Shri A.C Wadhawan	27, 000/-	37, 000/-	64, 000/-
Shri G.P.Gupta	20, 000/-	15, 000/-	35, 000/-
Dr. Anand Patkar	32, 000/-	27, 000/-	59, 000/-
Shri Sharad Upasani	5, 000/-	Nil	5, 000/-

05 Shareholders Committees

i. Share Transfer Committee

The Board constituted a Share Transfer Committee long ago, which comprises the Chairman & Managing Director, Director (Power) and Director (Finance) of the Company. The Share Transfer Committee considers and approves all share-related issues, transfer/transmission of shares, issue of duplicate share certificate etc. in physical mode besides taking note of beneficiary position under demat mode. During the year 2001-2002, the Transfer Committee met twenty five times and transacted business relating to share related issues. The work relating to Share Transfer etc. is looked after by M/s. Karvy Consultants Ltd., New Delhi. The minutes of the Share Transfer Committee meetings are periodically placed before the Board of Directors.

ii. Shareholders'/Investors' Grievance Committee

The Company constituted a Shareholders'/Investors Grievance Committee on 26th July 2001. The details of composition, name of members and the Chairperson, the no. of meetings held and attendance of members are as under: -

S. NO.	NAME OF DIRECTOR & POSITION	MEETINGS/ATTENDANCE	
	S/SHRI	30.10.2001	04.02.2002
1	A.C.Wadhawan (Chairman)	Present	Present
2	Ishan Shankar (Member)	Present	Present
3	C.Srinivasan (Member)	Present	Present

Prior to constitution of the Shareholders'/Investors' Grievance Committee, the shareholders' grievance were redressed by Company's RTA, Karvy Consultants Ltd. and reported to the Board and, thus, the matter was overseen by the full Board instead of a committee.

- **Name and Designation of Compliance Officer:**

Shri N.K. Sinha, Company Secretary is the Compliance Officer in terms of Clause 47 of the Listing Agreement.

- **Number of shareholders' complaints received so far:**

As reported by Karvy Consultants Ltd. (RTA) to SEBI; 1571 number of shareholders' complaints were received during the year all of which were redressed up to 31st March 2002.

- **Number not solved to the satisfaction of shareholders:**

Nil

- **Number of pending share transfers:**

As on 31st March 2002, no share transfer was pending. Share Transfers have been effected during the year well within the time prescribed by the Stock Exchanges and a certificate to this effect duly signed by a Practicing Company Secretary has been furnished to the Stock Exchanges.

06 General Meetings

- **Location and time, where last three AGMs were held:**

Particulars	FY 1998-99	FY 1999-00	FY 2000-01
Date & Time	30 th September 1999 10.00 a.m.	29 th September 2000 10.00 a.m.	28 th September 2001 10.00 a.m.
Venue	FICCI Auditorium, Barakhamba Road (Tansen Marg) New Delhi-110001	FICCI Auditorium, Barakhamba Road (Tansen Marg) New Delhi-110001	FICCI Auditorium, Barakhamba Road (Tansen Marg) New Delhi-110001

- **Whether special resolutions were put through postal ballot last year, details of voting pattern:**

No special resolutions were put through postal ballot last year.

- **Person who conducted the postal ballot exercise:**

Not Applicable.

- **Whether special resolutions are proposed to be conducted through postal ballot:**

No Special Resolutions are proposed through Postal Ballot.

07 Disclosures

- **Disclosures on materially significant related party transactions i.e. transactions of the Company of material nature, with its promoters, Directors or the management, their subsidiaries or relative that may have potential conflict with the interests of Company at large:**

The Company does not have any related party transactions, which may have potential conflict with its interest at large.

- **Details of non-compliance by the Company, penalties, strictures imposed on the Company by Stock Exchanges or SEBI or any Statutory Authority, on any matter related to capital markets, during the last three years.**

The Company has complied with all the requirements of the Listing Agreement with Stock Exchanges as well as Regulations and Guidelines prescribed by SEBI. There were no penalties or strictures imposed on the Company by any statutory authorities for non-compliance on any matter related to capital markets, during the last three years.

08 Means of Communication

- The means of communication between the Company and the shareholders are transparent and investor friendly.
- The achievements and important events taking place in the Company like receipt of major orders are announced through press and electronic media and posted on Company's website.
- **Half-yearly report to each household of shareholders:**

The Financial Results for the Half-year ended September 30, 2001 duly reviewed by a Chartered Accountant was published in Indian Express, New Delhi dt.01.11.2001 in English and Jansatta, New Delhi dt.02.11.2001 in Hindi.

- **Quarterly Results:**

The Unaudited Quarterly Results along with the Notes were published in the Newspapers as under:

Newspapers	Date of publication of results for the quarter ended				
	31.03.2001	30.06.2001	30.09.2001	31.12.2001	31.03.2002
Indian Express, New Delhi (English)	28.04.2001	27.07.2001	01.11.2001	29.01.2002	01.05.2002
Jansatta, New Delhi (Hindi)	28.04.2001	27.07.2001	02.11.2001	29.01.2002	01.05.2002

- **Website where displayed:**

In Company's website <http://www.bhel.com>.

- **Whether it also displays official news releases, the presentations made to Institutional Investors or to the Analysts:**



Yes. The Company's official news releases, other press coverage and corporate presentations made to Institutional Investors and Analysts are also available on the website.

● **Whether the Management Discussions and Analysis Report is a part of Annual Report or not:**

Yes, Management Discussion and Analysis Report is at Annexure-1 to the Directors' Report.

09 General Shareholder Information

- **AGM (Date, Time and Venue)** - 30th September, 2002 at 10.00 A.M.
FICCI Auditorium, Barakhamba Road
(Tansen Marg), New Delhi-110 001.

● **Financial Calendar for FY 2002-03 –**

Particulars	Date
Accounting Period	1 st April 2002 to 31 st March 2003
First Quarter Results	On or before July 31, 2002
Second Quarter Results	On or before October 31, 2002
Third Quarter Results	On or before January 31, 2003
Fourth Quarter Results	On or before April 30, 2003
AGM (Next Year)	September 2003 (Tentative)

- **Date of Book Closure** - 10th September, 2002 to 30th September, 2002
(Both days inclusive)
- **Dividend payment date** - On or before 29th October 2002.
- **Listing on Stock Exchanges** - BHEL shares are Listed on DSE, BSE,
ASE, CSE & Madras Stock Exchange.

Name & Address of Stock Exchange	Stock Code
1. The Delhi Stock Exch. Assocn. Ltd. DSE House, 3/1 Asaf Ali Road, New Delhi - 110002.	6334
2. The Stock Exchange, Mumbai 1st Floor, Phiroz Jeejeebhoy Towers, Dalal Street, Mumbai- 400001.	N.A.
3. The Stock Exchange, Ahmedabad Kamdhenu Complex, Opp. Sahajanand College, Panjara Pole, Ahmedabad - 380015.	08580/BHARATHEAVY
4. The Calcutta Stock Exchange Assoc. Ltd. 7, Lyons Range, Calcutta - 700001.	N.A.
5. The Madras Stock Exchange Limited Exchange Building, Post Box No. 183, 11, Second Line Beach, Chennai-600001	N.A.

- **International Securities Identification Number (ISIN)**

INE 257 A01018

- **Payment of Listing Fees**

- Listing Fee has been paid to all the above Stock Exchanges up to the year 2002-2003.

- **Market Price Data**

- Monthly high and low quotations of shares traded on the Stock Exchange, Mumbai.

<i>Months</i>	<i>Mumbai Stock Exchange</i>	
	High	Low
April, 2001	169.40	115.25
May, 2001	192.25	150.00
June, 2001	192.85	162.70
July, 2001	185.00	145.00
August, 2001	165.00	142.00
September, 2001	154.60	104.50
October, 2001	139.80	116.10
November, 2001	162.50	135.05
December, 2001	158.75	131.00
January, 2002	154.00	135.00
February, 2002	196.30	149.05
March, 2002	190.90	164.65

- **Performance in comparison to - broad based Index such as BSE Sensex.**

<i>Months</i>	<i>BSE Sensex</i>	
	High	Low
April, 2001	3605.11	3183.77
May, 2001	3742.07	3494.48
June, 2001	3568.93	3318.67
July, 2001	3453.99	3251.53
August, 2001	3337.91	3244.95
September, 2001	3231.60	2600.12
October, 2001	3061.91	2754.95
November, 2001	3094.14	3013.94
December, 2001	3442.89	3131.78
January, 2002	3437.78	3246.15
February, 2002	3712.74	3311.73
March, 2002	3690.27	3459.08

- **Registrar & Share Transfer Agent (RTA)**

- M/s Karvy Consultants Ltd.
105-108, Arunachal Building,
19, Barakhamba Road,
New Delhi - 110001,
Tel. : 3324401, 3324409, 3324417
Fax : 011-3730743

RTA's performance in servicing shareholders has been satisfactory.



All the investor grievances have been promptly attended to.

- **Share Transfer System** - Entire Share Transfer activities under physical segment is being carried out by Karvy Consultants Ltd. (RTA). The share transfer system consists of activities like receipt of shares along with transfer deed from transferees, its verification, preparation of Memorandum of Transfers, its approval by the Share Transfer Committee and despatch of transferred certificates to the respective transferees within the prescribed time as per the Listing Agreement.

- **Distribution of shareholding –**

- (i) **Shareholding Pattern**

BHEL has over 33777 shareholders. The shareholding pattern of the equity share capital of BHEL as on 31st March, 2002 was as follows:-

Sl. No.	Category	No. of Shares Held	%age of Shareholding
A.	PROMOTER'S HOLDING		
1	Promoters		
	-Indian Promoters		
	* (i) President of India	165755000	67.72
	(ii) Nominees of POI	200	0.00
	-Foreign Promoters	0	0.00
2	Persons acting in concert	0	0.00
	(i) Directors and Relatives	650	0.00
	Sub Total	165756850	67.72
B.	NON-PROMOTERS HOLDING		
3	Institutional Investors		
a.	Mutual Funds and UTI	21588707	8.82
	* (i) UTI	9078173 (3.71%)	
	* (ii) UTI - SUS 1999	3226125 (1.32%)	
	(iii) Others	9284409	
b.	Banks, Financial Institutions, Insurance Companies (Central/State Govt. Institutions/Non-Govt. Institutions)	10744267	4.39
	* (i) LIC	6177915 (2.52%)	
	(ii) Others	4566352	
c.	Foreign Institutional Investors (FIIs)	37767652	15.43
	* (i) The India Fund, Inc.	2462863 (1.01%)	
	* (ii) Salomon Smith Barney (M) Pvt. Ltd.	3370277 (1.38%)	
	(iii) Others	31934512	
	Sub Total	70100626	28.64
4	OTHERS		
a.	Private Corporate Bodies	2355048	0.96
b.	Indian Public	4427543	1.81
c.	NRIs/OCBs/Overseas Bank Corpn.	78351	0.03
d.	Any Other		
	(i) Employees	820820	0.34
	(ii) Trust	10050	0.00
	(iii) Shares in Transit (NSDL/CDSL)	1211712	0.50
	Sub Total	8903524	3.64
	GRAND TOTAL	244760000	100.00

NOTES : 1. * Name, Number of shares held and % age shareholding of entities/persons holding more than 1 (One) % of the shares of the company have been given under each head.

2.

Total Foreign Shareholding	No. of Shares	% Share-holding
Foreign Institutional Investors	37767652	15.43
Overseas Corporate Bodies & NRIs	78351	0.03
ADR & GDR Holding	0	0.00
Total	37846003	15.46

(ii) Top Five Shareholders

The 'Top Five Shareholders' of BHEL as on 31st March, 2002 were: -

Name	No. of Shares	% to Capital
President of India	165755000	67.72
Unit Trust of India	9075473	3.71
Life Insurance Corporation of India	6177615	2.52
Salomon Smith Barney (M) Pvt. Ltd.	3370277	1.38
Unit Trust of India - SUS 1999	3226125	1.32
Total	187604490	76.65

● **Dematerialisation of shares and liquidity**

- In accordance with the directions of the Securities & Exchange Board of India (SEBI) trading in BHEL shares by all categories of Investors in demat form has been made compulsory w.e.f. 5th April, 1999. BHEL has executed agreement with both the depositories of the country i.e. National Securities Depository Ltd. (NSDL) and Central Depository Securities (India) Ltd. (CDSL) for admission of its securities under demat mode. As on 31st March, 2002 31.88% of the total equity share capital of BHEL has been dematerialised by the shareholders and held in the name of the NSDL/CDSL. The names and addresses of the depositories are as under:-

1. National Securities Depository Limited
Trade World, 4th Floor,
Kamala Mills Compound
Senapathi Bapat Marg,
Lower Parel, Mumbai-400013
2. Central Depository Services (India) Ltd.
Phiroze Jeejeebhoy Towers,
28th Floor, Dalal Street,
Mumbai-400023.

● **Outstanding GDRs/ADRs/Warrants or any convertible instruments, conversion date and likely impact on equity:**

- Nil

● **Plant locations**

- Heavy Electricals Equipment Plant, Hardwar
Central Foundry Forge Plant, Hardwar
Heavy Power Equipment Plant, Hyderabad
High Pressure Boiler Plant, Trichy
Heavy Electricals Plant, Bhopal
Transformer Plant, Jhansi
Electronics Division, Bangalore
Industrial Systems Group, Bangalore



Boiler Auxiliary Plant, Ranipet
Industrial Valves Plant, Goindwal
Electro Porcelains Division, Bangalore
Insulator Plant, Jagdishpur
Component Fabrication Plant, Rudrapur
Heavy Equipment Repair Plant, Varanasi

● **Address for Investor
correspondence**

(For Transfer/Dematerialisation
of shares, payment of dividend
on shares, Revalidation of
Dividend Warrants and any
other query relating to the
shares of the Company.)

- BHARAT HEAVY ELECTRICALS LTD.
Regd. Office: BHEL House, Siri Fort,
New Delhi-110 049.

OR

KARVY CONSULTANTS LTD.
UNIT: BHEL
105-108, Arunachal Building,
19, Barakhamba Road,
New Delhi-110001

Note : Shareholders holding shares in electronic mode should address all correspondence to their respective depository participants.

**For and behalf of the Board of Directors of
BHARAT HEAVY ELECTRICALS LTD.**

Sd/-
K.G.RAMACHANDRAN
CHAIRMAN & MANAGING DIRECTOR

Place : New Delhi
Dated : 26th August, 2002

CERTIFICATE

The Members

Bharat Heavy Electricals Limited
BHEL House, Siri Fort,
New Delhi

We have examined the compliance of conditions of corporate governance by Bharat Heavy Electricals Limited, for the year ended on March 31, 2002 as stipulated in clause 49 of the Listing Agreement of the said company with stock exchanges.

The compliance of conditions of corporate governance is the responsibility of the management. Our examination was limited to procedures and implementation thereof, adopted by the company for ensuring the compliance of the conditions of the Corporate Governance.

In our opinion and to the best of our information and according to the explanations given to us, subject to the following :

Clause 49(1)(A) of the listing agreement requires that not less than fifty percent of the Board of Directors of the company should comprise of non-executive directors being independent. However, during the year, the company did not have an optimum combination of executive and non-executive directors being independent on its Board of Directors.

We certify that the Company has complied with the conditions of Corporate Governance as stipulated in the above mentioned Listing Agreement.

We state that no shareholder/investor grievance is pending for a period exceeding one month against the company as per the information furnished by the Registrar and Share Transfer Agent (RTA) of the company and reported to the shareholders/investors grievance committee.

For SHIROMANY TYAGI & CO.
CHARTERED ACCOUNTANTS

Place: New Delhi
Dated: 26th August, 2002

Sd/-
PRADEEP TYAGI
PARTNER



ANNEXURE - 5 TO THE DIRECTORS' REPORT

Brief Resume of Directors proposed for appointment and re-appointment as per Listing Agreement [Clause 49(VI) A]

WHOLE TIME FUNCTIONAL DIRECTORS

Shri Harsh Wardhan Bhatnagar aged 57 years is a Mechanical Engineer with exceptional managerial capabilities. He has an experience of more than three decades in various fields.

He joined BHEL Hardwar in 1967. After working in various capacities in the areas of Electrical Machines Production, Maintenance and Productivity etc. he rose to the position of Executive Director, BHEL Hardwar in 1997 and managed the operations of BHEL Hardwar Complex comprising Heavy Electrical Equipment Plant, Central Foundry Forge Plant, Heavy Equipment Repair Plant at Varanasi and Pollution Control Research Institute. He has been involved in productivity movement at BHEL Hardwar and also instrumental in the Development of proactive, planned and preventive approach towards equipment upkeep and maintenance. Shri Bhatnagar has been on the Board of BHEL as Director (IS&P) since October 2000.

Shri Bhatnagar is a member of Institution of Engineers and Indian Institution of Industrial Engineering.

Shri Ramesh Chand Aggarwal aged 58 years is an Electrical Engineer. He started his career at BHEL, Hardwar as Engineer Trainee in 1966. He is a specialist in Electrical Machines. He joined BHEL Bhopal in 1995 and took over as Incharge, Bhopal Plant w.e.f. 25/06/96. Shri Aggarwal has been on the Board of BHEL as Director (Power) since December 2000.

Shri Aggarwal has wide expertise and experience in manufacturing technologies of large electrical machines, generators, hydro turbines and generators and transformers. He is also Member of various professional bodies like, Fellow Member, The Institute of Engineers India; Member of the Study Committee of CIGRE International, Paris on Rotating Electrical Machines and Board of Governors of Indore Management Association.

Shri Chinnasamy Iyengar Srinivasan aged 57 years is a fellow member of the Institute of Cost & Works Accountants of India (FICWA). Prior to joining Board of BHEL as Director (Finance) w.e.f. March 2001, Shri Srinivasan was the Chief Financial Controller of Indian Petrochemicals Corporation Limited (IPCL). Earlier, Mr. Srinivasan held the position of Management/Chief Accountant of Zambia Steel & Building Supplies Limited, Lusaka for 5 years.

Shri Srinivasan has wide experience in the area of Corporate Finance and has successfully managed the debt portfolio of IPCL. During his tenure at IPCL, he was instrumental in mobilising large foreign currency loans from the World Bank and the Exim Banks of Japan & USA. IPCL also emerged as the first Indian PSE to successfully complete a GDR issue in the overseas market, under his stewardship. Shri Srinivasan was also a Director on the Board of GE Plastics (India) Ltd., a Joint-Venture Company of IPCL and GE, set up for manufacturing engineering plastics material.

Shri Virendra Kumar, aged 58 years, is a Mechanical Engineer from BITS, Pilani and an MBA from University of Delhi. He joined BHEL in 1966.

Shri Virendra Kumar has made significant contributions in a wide range of areas including marketing and sales, international marketing, Corporate Planning and Development, Proposal Engineering and Corporate Engineering, management of technology transfer, etc.

As Head of BHEL's operations in Malaysia, he was responsible for securing the order and successful execution of two fast track gas turbine based power stations of 2 x 30 MW each in record time.

During his tenure as Executive Director, BHEL, Ramachandrapuram, Hyderabad Plant, several landmarks were achieved, including the manufacture of large sized gas turbines (124 MW ISO), efficiency improvement of boiler feed pumps, unified designs of electric generators, etc. Under his guidance B2B software for e-commerce between BHEL and NTPC for bowl mills and pumps and application software for supplier evaluation, approval and review process were developed.

Shri Virendra Kumar is a member of various committees of national importance such as R & D Advisory Committee of Ministry of Non-Conventional Energy Sources; Governing Council, CEDTI, Department of Information Technology etc. He is Chairman of the Mechanical Engineering Division Council of Bureau of Indian Standards.

He has been on the Board of BHEL as Director (Engineering, R & D) since November 2001.

PART TIME OFFICIAL DIRECTOR

Shri V. K. Malhotra, IAS, aged 56 years is the Additional Secretary & Financial Adviser, Department of Industrial Policy & Promotion, Heavy Industry & Public Enterprises, Small Scale Industries and Agro & Rural Industries and Department of Disinvestment, Government of India.

Shri Malhotra is a Post Graduate in English Literature and Economics and also holds Bachelors Degree in Business Finance and Diploma in Environment Management.

He has 32 years of rich and varied experience as a member of the Indian Administrative Service. He was directly involved in the various aspects of industrial development and financial management from grass roots to the highest level policy formulation at the national and international levels.

Over the period he has, among other positions, served as Deputy Secretary in the Ministry of Economic Affairs, as Assistant to the Executive Director at the IMF, Washington, Chairman of the State Textile and Financial Corporation in Uttar Pradesh and CEO/NOIDA.

Shri V. K. Malhotra joined the Board of BHEL as Director w.e.f. 30th July 2002.

Presently Shri Malhotra is on the Board of Andrew Yule & Co. Ltd, HMT Ltd. and Maruti Udyog Ltd.

The association of Shri Malhotra with the Company is of advantage as it provides for a liaison role and channel of communication between the Government and the Company.

PART TIME NON-OFFICIAL DIRECTOR

Shri Sharad Upasani, aged 63 years is an M.com and L.L.B from University of Bombay and MBA from USA. He joined Indian Administrative Service in 1962.

Shri Sharad Upasani has varied experience in Administration as he had the opportunity to work both in State and Central Govt. and Public Sector Corporations. At the State level he has worked as Secretary Industry Department and also as Managing Director of Maharashtra Finance Corporation, Chairman of Maharashtra Textile Corporation, Vice-chairman of Maharashtra State Road Transport Corporation. At the Central level he has worked in Finance Ministry, Industry Ministry and Information and Broadcasting Ministry. He was also Chairman of Company Law Board and Chairman, Bureau of Cost and Prices, New Delhi. He had occupied the highest position in Maharashtra Administration as Chief Secretary of the State. From 1974 to 1978, Shri Upasani was on deputation to International Monetary Fund, Washington, USA. He is currently working as Advisor in Corporate Law and also as Chairman of Maharashtra Board for restructuring of State Enterprises.

Shri Sharad Upasani joined the Board of BHEL as Director 26th December, 2001.

Shri Sharad Upasani is Director and member of Board level committees in various companies viz. Director and Member of Audit Committee of Andrew Yule & Company Ltd., Director of United Western Bank Ltd., and is also member of Management Council of Shivaji University, Maharashtra.

Induction of Shri Upasani has been considered essential by the Government of India in order to make the Board more professional. Besides, his appointment is essential for the Company to comply with the provisions of Clause 49 of the Listing Agreement with the Stock Exchanges relating to the Composition of the Board.



SIGNIFICANT ACCOUNTING POLICIES

1. The financial statements have been prepared as of a going concern on historical cost convention and on accrual method of accounting in accordance with the generally accepted accounting principles and the provisions of the Companies Act, 1956 as adopted consistently by the Company.

2. Fixed Assets

Fixed assets (other than land acquired free from State Government) are carried at the cost of acquisition or construction or book value less accumulated depreciation.

Cost includes value of internal transfers for capital works, taken at actual / estimated factory cost or market price, whichever is lower. Effect of extraordinary events such as devaluation / revaluation in respect of long term liabilities / loans utilised for acquisition of fixed assets is added to / reduced from the cost.

Land acquired free of cost from the State Government is valued at Re.1/- except for that acquired after 16th July 1969, in which case the same is valued at the acquisition price of the State Government concerned, by corresponding credit to capital reserve.

3. Borrowing Costs

Borrowing costs that are attributable to the manufacture, acquisition or construction of qualifying assets, are included as part of the cost of such assets.

A qualifying asset is one that necessarily takes more than twelve months to get ready for intended use or sale.

Other borrowing costs are recognised as expense in the period in which they are incurred.

4. Investments

(i) Long-term investments are carried at cost. Decline, other than temporary, in the value of such investments, is recognised and provided for.

(ii) Current investments are carried at cost or quoted/fair value whichever is lower. Unquoted current investments are carried at cost.

(iii) The cost of investment includes acquisition charges such as brokerage, fees and duties.

Any reduction in the carrying amount and any reversals of such reductions are charged or credited to the Profit & Loss Account.

5. Revenue Recognition

(i) Sales are recorded based on significant risks and rewards of ownership being transferred in favour of the customer. Sales include goods despatched to customers by partial shipment which are billed or unbilled pending formal billing.

(ii) Recognition of sales revenue in respect of long production cycle items (Hydro and Thermal sets including gas-based power plants, boilers, boiler auxiliaries, compressors and industrial turbo sets) is made on technical estimates. When the aggregate value of shipments represents 30% or more of the realisable value, they are considered at 97.5% of the realisable value or in its absence, quoted price. Otherwise, they are considered at actual / estimated factory cost or 97.5% of the realisable value, whichever is lower. The balance 2.5% is recognised as revenue on completion of supplies under the contract.

(iii) Income from erection and project management services is recognised on work done and billed based on :

Percentage of completion; or

The intrinsic value, reckoned at 97.5% of contract value, the balance 2.5% is recognised as income when the contract is completed.

(iv) Income from engineering services rendered is recognised at realisable value based on the certified percentage of work completed and billed.

- (v) Income from supply / erection of non-BHEL equipment / systems and civil works is recognised based on despatches to customer / work done at project site.

6. Leases

FINANCE LEASE

A) i) Assets Given on Lease Prior to 1st April 2001

Assets manufactured and given on finance lease are capitalised at the normal sale price/fair value/contracted price and treated as sales.

Depreciation on the same is charged at the rate applicable to similar type of fixed assets as per Accounting Policy on 'Depreciation'. Against lease rentals, matching charge is made through Lease Equalisation Account.

Finance income is recognised over the lease period.

(ii) Assets Given on Lease on or after 1st April 2001

Assets manufactured and given on finance lease are recognised as sales at normal sale price / fair value / NPV.

Finance income is recognised over the lease period.

Initial direct costs are expensed at the commencement of lease.

B) Assets Taken on Lease on or after 1st April 2001

Assets taken on lease are capitalised at fair value / NPV / contracted price.

Depreciation on the same is charged at the rate applicable to similar type of fixed assets as per Accounting Policy on 'Depreciation'. If the lease assets are returnable to the lessor on expiry of lease period, the same is depreciated over its useful life or lease period, whichever is shorter.

Lease payments made are apportioned between finance charges and reduction of outstanding liability in relation to assets taken on lease.

OPERATING LEASE

Assets Given on Lease :

Assets manufactured and given on operating lease are capitalised. Lease income arising therefrom is recognised as income over the lease period.

Assets Taken on Lease:

Lease payments made for assets taken on operating lease are recognised as expense over the lease period.

7. Inventory Valuation

- (i) Inventory is valued at actual/estimated cost or net realisable value, whichever is lower.
- (ii) Finished goods in Plant and work in progress involving Hydro and Thermal sets including gas-based power plants, boilers, boiler auxiliaries, compressors and industrial turbo sets are valued at actual/estimated factory cost or at 97.5% of the realisable value, whichever is lower.
- (iii) In respect of valuation of finished goods in plant and work-in-progress, cost means factory cost; actual/estimated factory cost includes excise duty payable on manufactured goods.
- (iv) In respect of raw material, components, loose tools, stores and spares cost means weighted average cost.
- (v) Where current estimates of cost and selling price of an individually identified project forming part of a contract indicates loss, the anticipated loss in respect of such project on which the work had commenced, is recognised. In arriving at this loss, total income from the project including incentives on exports/deemed exports is taken into consideration.
- (vi) The components and other materials purchased / manufactured against production orders but declared surplus are charged off to revenue retaining residual value based on technical estimates.



8. Terminal Benefits

Provident Fund and Employees' Family Pension Scheme contributions are accounted for on accrual basis. Liability for gratuity, half pay leave, leave encashable at the time of retirement and post retirement medical benefits are accounted for in accordance with actuarial valuation. The actuarial liability is determined with reference to employees at the beginning of each calendar year.

9. Depreciation

- (i) Depreciation on fixed assets (other than those used abroad under contract) is charged on straight-line method as per the rates prescribed in Schedule XIV of the Companies Act, 1956, except where depreciation is charged at rates shown hereunder:-

	Single Shift	Double Shift	Triple Shift
General Plant & Machinery	8%	12%	16%
Automatic/Semi-Automatic Machines	10%	15%	20%
Erection Equipment, Capital Tools&Tackles	20%		
Township Buildings			
– Second Class	2.5%		
– Third Class	3.5%		
Railway Sidings	8%		
Locomotives & Wagons	8%		
Electrical Installations	8%		
Office & Other Equipments	8%		
Drainage, Sewerage & Water supply	3.34%		
Electronic Data Processing Equipment	20%		

In respect of additions to/deductions from the fixed assets, depreciation is charged on pro-rata monthly basis.

- (ii) Fixed assets used outside India pursuant to long term contracts are depreciated over the duration of the initial contract.
- (iii) Fixed assets costing Rs.10,000/- or less and those whose written down value as at the beginning of the year is Rs.10,000/- or less, are depreciated fully. In so far as township buildings are concerned, the cost per tenement is the basis for the limit of Rs.10,000/-.
- (iv) At erection/project sites: The cost of roads, bridges and culverts is fully amortized over the tenure of the contract, while sheds, railway sidings, electrical installations and other similar enabling works (other than purely temporary erections, wooden structures) are so depreciated after retaining 10% as residual value.
- (v) Purely Temporary Erection such as wooden structures are fully depreciated in the year of construction.
- (vi) Leasehold Land and Buildings are amortised over the period of lease. Buildings constructed on land taken on lease are depreciated over their useful life or the lease period, whichever is earlier.
- (vii) Where the carrying amount on any fixed assets has undergone a change in accordance with the policy for

Foreign Currency Transactions, the depreciation on the unamortised depreciable asset is spread over the residual useful life of the asset.

10. **Research and Development Expenditure**

Research and development expenditure is charged to profit and loss account in the year of incurrence. Fixed assets acquired for purposes of research and development are capitalised.

11. **Claims by/against the Company**

- (i) Claims for liquidated damages by/against the Company are recognised in accounts on acceptance.
- (ii) Claims for export subsidy, duty draw back, refund of customs duty and insurance are taken into account on accrual.
- (iii) Amounts due in respect of price escalation claims and/or variations in contract work are recognised as revenue only when there are conditions in the contracts for such claims or variations and/or evidence of the acceptability of the same from customers. However, escalation is restricted to intrinsic value.

12. **Accounting for Foreign Currency Transactions**

Exchange differences arising out of Foreign Currency Transactions are recognised as income or as expense in the period in which they arise.

Adjustment of exchange differences to the carrying amount of fixed assets are made as under:

- a. For any increase/decrease in the liabilities related to fixed assets acquired in foreign currency due to translation;
- b. On repayment of liabilities incurred for the purpose of acquiring fixed assets.

The effect of past extraordinary and permanent fluctuations in the exchange rate including on devaluation/revaluation other than those related to fixed assets, are treated as deferred revenue charge and adjusted over the residual period of such liabilities.

13. **Translation of Financial Statements of Foreign Branches**

- (i) Items of income and expenditure are translated at average rate except depreciation, which is converted at the rates adopted for the corresponding fixed assets.
- (ii) Current assets and current liabilities are translated at the closing rate, while fixed assets are translated at the rates in force when the transactions take place.
- (iii) All translation variances except in relation to fixed assets are taken to Profit & Loss Account.

14. **Provision for Warranties**

- (i) Provision for contractual obligations in respect of contracts under warranty at the year end is considered at 2.5% of the value of contract. In the case of contracts for supply of more than a single product, 2.5% of the value of each completed product is provided.
- (ii) Warranty claims/ expenses on rectification work are accounted for against natural heads in the year of actual incurrence.

15. **Government Grants**

Government Grants are accounted when there is reasonable certainty of their realisation.

Grants related to fixed depreciable assets are adjusted against the gross cost of the relevant assets while those related to non-depreciable assets are credited to capital reserve. Grants related to revenue, unless received as compensation for expenses/losses, are recognised as revenue over the period to which these are related on the principle of matching costs to revenue.

Grants in the form of non-monetary assets are accounted for at the acquisition cost, or at nominal value if received free.

16. **Deferred Revenue Expenditure**

Lump sum payments made under Voluntary Retirement Scheme are treated as Deferred Revenue Expenditure and amortised over the period during which the benefits are expected to be derived by the Company.



BALANCE SHEET

AS AT MARCH 31, 2002

	SCHEDULE	(Rs. in Lakhs)	
		AS AT 31.3.2002	AS AT 31.3.2001
SOURCES OF FUNDS			
Shareholders' Funds			
Capital	1	24476.00	24476.00
Reserves & surplus	2	<u>422484.54</u>	<u>358560.29</u>
Loan Funds			
Secured Loans	3	50027.97	50000.00
Unsecured Loans	4	<u>14421.85</u>	<u>52559.91</u>
Credits for assets taken on lease (due within one year Rs. 617.50 lakhs previous year Rs. Nil)		2128.60	
		<u>513538.96</u>	<u>485596.20</u>
APPLICATION OF FUNDS			
Fixed Assets			
Gross block		318199.63	300404.54
Less: Depreciation to-date		<u>205768.46</u>	<u>190280.69</u>
		112431.17	110123.85
Add : Lease adjustment account		<u>5225.76</u>	<u>4137.34</u>
Net block	5	117656.93	114261.19
Capital Work in progress	6	<u>5666.96</u>	<u>6118.04</u>
Investments	7	1034.35	1034.35
Current Assets, Loans and Advances			
Inventories	8	199422.87	203474.19
Sundry debtors		458419.23	417430.10
Cash and bank balances		47658.92	33303.58
Other current assets		0.50	48.49
Loans and advances	9	<u>99875.65</u>	<u>103363.52</u>
		<u>805377.17</u>	<u>757619.88</u>
Less:			
Current Liabilities and Provisions			
Liabilities	10	406887.74	355745.46
Provisions	11	<u>64698.24</u>	<u>60550.76</u>
		<u>471585.98</u>	<u>416296.22</u>
Net current assets		333791.19	341323.66
Deferred tax assets		30461.80	
Miscellaneous Expenditure (to the extent not written off or adjusted)			
- Deferred revenue expenditure	12	<u>24927.73</u>	<u>22858.96</u>
		<u>513538.96</u>	<u>485596.20</u>
Notes	19		

Schedules 1 to 23 and accounting policies attached form part of balance sheet and profit & loss account.

Sd/-
N.K. SINHA
Secretary

Sd/-
C. SRINIVASAN
Director (Finance)
As per our report of even date
For Shiromany Tyagi & Company
Chartered Accountants

Sd/-
K.G.RAMACHANDRAN
Chairman & Managing Director

Date : August 16, 2002
Place : New Delhi

Sd/-
PRADEEP TYAGI
Partner

PROFIT & LOSS ACCOUNT

For the year ended March 31, 2002

	Schedule	(Rs. in Lakhs) For the year ended 31.3.2002	(Rs. in Lakhs) For the year ended 31.3.2001
EARNINGS			
Turnover	13A	728662.54	634776.19
Other operational income	13B	35905.75	38574.27
Other income	13C	7181.33	6489.33
Jobs done for internal use		1065.44	2959.51
Interest income on investment (TDS Rs. 38.20 lakhs (prev. yr Rs. 11.51 lakhs))		187.17	77.29
Other interest income (TDS Rs. 613.00 lakhs (prev. yr Rs.Nil))	13D	5095.15	4490.72
Exchange variation		1022.75	910.64
Provisions written back		27606.78	78975.02
Accretion/(decretion) to Work-in-progress, finished goods and scrap	14	-3728.92	25071.37
		<u>802997.99</u>	<u>792324.34</u>
OUTGOINGS			
Consumption of raw materials & components		313298.12	285662.26
Consumption of stores & spares		17378.70	19298.85
Employees' remuneration & benefits	15	144461.72	217021.16
Excise duty		69154.45	63364.53
Service tax		166.20	303.79
Erection and engineering expenses- payment to subcontractors		41758.21	43671.59
Power and fuel		18569.30	19470.14
Other expenses of manufacture, administration, selling and distribution	16	53136.29	49917.55
Interest and other borrowing costs	17	9697.57	4376.41
Depreciation		16920.16	15777.97
Provisions	18	32722.64	28383.47
		<u>717263.36</u>	<u>747247.72</u>
Profit before prior period adjustments and extra ordinary items		85734.63	45076.62
Less- extra-ordinary items	12A	19999.61	15623.42
Profit before prior period adjustments		<u>65735.02</u>	<u>29453.20</u>
Prior period adjustments (Net)	12B	548.19	-44.57
Profit before tax:		<u>66283.21</u>	<u>29408.63</u>
Less: Provision for taxation			
- current tax		24551.23	
- for earlier years		-1520.87	-1851.88
- deferred tax		-3541.80	
		<u>19488.56</u>	<u>-1851.88</u>
Profit after tax		<u>46794.65</u>	<u>31260.51</u>
Less: appropriations:			
Foreign project reserve		102.01	145.61
Bonds redemption reserve		10000.00	
General reserve		25000.00	23023.13
Dividend			
- Proposed		9790.40	7342.80
- Corporate dividend tax thereon			748.97
		<u>44892.41</u>	<u>31260.51</u>
Balance carried to Balance Sheet		<u>1902.24</u>	<u>-</u>
Basic and Diluted Earning per share (in Rs.)		<u>19.12</u>	<u>12.77</u>

Notes

19

Schedules 1 to 23 and accounting policies attached form part of balance sheet and profit & loss account.

Sd/-
N.K. SINHA
Secretary

Sd/-
C. SRINIVASAN
Director (Finance)

Sd/-
K.G.RAMACHANDRAN
Chairman & Managing Director

As per our report of even date
For Shiromany Tyagi & Company
Chartered Accountants

Sd/-
PRADEEP TYAGI
Partner

Date : August 16, 2002
Place : New Delhi



SCHEDULE 1 SHARE CAPITAL

	(Rs. in Lakhs)	(Rs. in Lakhs)
	AS AT 31.3.2002	AS AT 31.3.2001
Authorised Capital		
32,50,00,000 equity shares(Previous Year 32,50,00,000) of Rs. 10/- each	<u>32500.00</u>	<u>32500.00</u>
Issued,Subscribed & Paid up capital		
24,47,60,000 (Previous year 24,47,60,000) Fully paid Equity Shares of Rs. 10/- each of which 7,41,11,200 (Previous year 7,41,11,200) shares alloted for consideration other than cash	24476.00	24476.00
	<u>24476.00</u>	<u>24476.00</u>

SCHEDULE 2 RESERVES & SURPLUS

	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)	(Rs. in Lakhs)
	Balance as at 01.04.2001	Additions/ Adjustments	Deductions/ Adjustments	Balance as at 31.03.2002
Capital Reserve	276.98	-	-	276.98
Foreign Project Reserve	3389.73	102.01	485.19	3006.55
Bonds Redemption Reserve	-	10000.00	-	10000.00
General Reserve	354893.58	52405.19*	-	407298.77
Profit & Loss Account	-	1902.24	-	1902.24
	<u>358560.29</u>	<u>64409.44</u>	<u>485.19</u>	<u>422484.54</u>

* includes Rs.26920 lakhs towards Deferred Tax Assets as on 1.4.2001 (refer Note No.23 of Schedule 19)

SCHEDULE 3 SECURED LOANS

	(Rs. in Lakhs)	(Rs. in Lakhs)
	AS AT 31.3.2002	AS AT 31.3.2001
500 - 8.85% Non-convertible, secured, Redeemable Taxable Bonds, face value of Rs. 1 crore each with 7 years (15.11.2008) tenor and put/call option at the end of 5 years (15.11.2006)	50000.00 *	
Loans and Advances from banks		
Cash Credit	27.97	1793.18
Working capital demand loan		32100.00
Commercial Papers (redeemable at Rs. 16500 lakhs on maturity)		16106.82
(secured by hypothecation of raw materials, components, stores & spares, work-in-progress, finished goods, book debts & other current assets for cash credit limit of Rs. 75000 lakhs (Prev yr. Rs.50000 lakhs) sanctioned by consortium of banks)		
	<u>50027.97</u>	<u>50000.00</u>

*(secured by way of a Legal Mortgage and charge in favour of Trustees on the immovable properties of the company situated at Apartment No.A/T -1 on 3rd Floor in Shrikrishna Apartments, Nr. Gowan Square, Nagpur, by equitable mortgage by deposit of title deeds in respect of the Company's immovable properties situated at Hardwar and Ramachandrapuram, Hyderabad units and by hypothecation of the whole of the movable properties of the Company of these units including its movable plant & machinery, machinery spares, tools and accessories and other movables, both present and future (except specific assets on which exclusive first charge had already been created and book debts)

SCHEDULE 4 UNSECURED LOANS

Public Deposits		1.39
Short term loans & advances		
From Banks		
Cash Credit (Previous year temporary arrangements for an additional short term credit facilities to an extent of Rs. 38000 lakhs from various banks was made by the company)		25140.68
Commercial Papers (redeemable at Rs. 15500 lakhs on maturity)		15156.28
From Financial Institutions	14.00	9358.00
Other loans & advances		
From financial institutions		19.60
Post shipment credit		
- From EXIM Bank	1546.93	2650.67
- From Banks	12627.63	
Interest accrued and due on State Governments Loans	233.29	233.29
	<u>14421.85</u>	<u>52559.91</u>



SCHEDULE 5

(Rs.in lakhs)

Fixed Assets	Gross Block				Net Block				
	Cost as at 01.04.2001	Additions/ adjustments during the year	Deductions/ adjustments during the year	Cost As at 31.03.2002	Lease adjustment Account	Depreciation upto 31.03.2002	As at 31.03.2002	As at 31.03.2001	Depreciation for the year
Factory/ Office Complex									
Freehold land (including development expenses)	745.75			745.75	-		745.75	745.75	
Leasehold land (including development expenses)	650.76	20.76	27.58	643.94	-	40.47	603.47	608.57	2.72
Roads, bridges and culverts	808.07	58.08	45.28	820.87	-	341.52	479.35	492.42	69.50
Buildings	23839.64	1814.29	166.68	25487.25	-	14209.49	11277.76	10341.48	863.59
Leashold buildings	308.77			308.77	-	79.06	229.71	234.83	5.12
Drainage, sewerage and water supply	1190.74	47.47	0.60	1237.61	-	771.73	465.88	454.54	35.64
Railway siding	754.03	8.15		762.18	-	742.71	19.47	15.79	4.47
Plant & Machinery	166628.34	13245.55	1370.09	178503.80	-	134829.81	43673.99	40199.81	8732.42
Construction equipment	12351.18	504.07	94.27	12760.98	-	10659.09	2101.89	2585.43	987.61
Electronic data processing equipments	5658.38	960.22	99.38	6519.22	-	4523.96	1995.26	1646.76	592.97
Electrical installations	6334.24	1218.69	3.63	7549.30	-	5080.00	2469.30	1648.49	377.63
Locomotives and wagons	1598.34			1598.34	-	1261.80	336.54	379.41	42.87
Vehicles	1879.70	25.62	86.33	1818.99	-	1199.87	619.12	723.04	120.66
Furniture & fixtures	595.82	32.43	1.42	626.83	-	328.48	298.35	295.25	28.04
Office & other equipments	5033.48	237.99	67.57	5203.90	-	3544.62	1659.28	1713.84	267.54
Trade marks, patents and designs	0.12			0.12	-	0.12			
Fixed assets costing upto Rs.10000/-	3301.47	166.42	2.14	3465.75	-	3465.75			166.42
Locomotives given on lease	50817.15		1102.27	49714.88	5225.76	16784.62	38156.02	41596.24	3977.49
Capital expenditure	107.69		63.64	44.05	-	22.76	21.29	30.10	8.81
EDP Equipment taken on lease		1845.63		1845.63		189.35	1656.28		189.35
Office & other equipment taken on lease		609.84		609.84		37.63	572.21		37.63
	282603.67	20795.21	3130.88	300268.00	5225.76	198112.84	107380.92	103711.75	16510.48
Township/ Residential									
Freehold land (including development expenses)	80.94			80.94	-		80.94	80.94	
Leasehold land (including development expenses)	284.27	27.58		311.85	-	38.00	273.85	252.62	1.91
Roads, bridges and culverts	487.52			487.52	-	211.68	275.84	283.81	7.97
Buildings	11911.16	34.15	2.14	11943.17	-	3961.39	7981.78	8138.51	190.62
Leasehold buildings	33.17			33.17	-	15.29	17.88	19.18	1.30
Drainage, sewerage and water supply	1652.62	6.24		1658.86	-	1017.12	641.74	675.98	40.48
Plant and Machinery	821.87	11.07		832.94	-	526.86	306.08	351.78	56.77
Electrical installations	1213.07	0.65		1213.72	-	1117.96	95.76	129.85	34.74
Vehicles	117.83		3.12	114.71	-	83.10	31.61	37.32	5.71
Furniture & fixtures	29.00			29.00	-	10.00	19.00	19.34	0.33
Office & other equipments	1011.98	60.04	3.71	1068.31	-	516.78	551.53	560.11	68.58
Fixed assets costing upto Rs. 10000/-	157.44	1.27	1.27	157.44	-	157.44			1.27
	17800.87	141.00	10.24	17931.63		7655.62	10276.01	10549.44	409.68
Total of factory & township	300404.54	20936.21	3141.12	318199.63	5225.76	205768.46	117656.93	114261.19	16920.16
Previous year	281081.46	20630.68	1307.60	300404.54	4137.34	190280.69	114261.19	108779.67	15777.97

Gross Block excludes fixed assets of small value charged off upto 31.3.1991 amounting to Rs. 7815.31 lakhs (Prev. Year Rs. 7815.31 lakhs). Gross Block excludes cost of assets purchased out of grant received from Government of India Rs.2827.82 lakhs (Prev. Yr Rs. 2610.97 lakhs) for research and assets as executing agency since the property does not vest with the Company.

Depreciation on fixed assets upto 31.3.2002 includes Rs. 2219.97 lakhs (Prev. Year Rs. 2219.97 lakhs) of fixed assets charged off to revenue. The Company's contribution or expenditure towards construction, development of assets not owned by the Company is capitalised under the general head 'Capital Expenditure' and written off to revenue in five years.

Building costing Rs.2275.35 lakhs (Prev. Yr Rs. 1209.28 lakhs) has been constructed on land not owned or leased by the company.

Building includes purely temporary structures of Rs. 76.78 lakhs (Prev. Yr. Rs. 68.22 lakhs) on which 100% depreciation has been provided.

Building includes other erection/project items amounting to Rs. 2477 lakhs (Prev. Yr. Rs. 2485.43 lakhs) on which depreciation has been provided as per Accounting Policy No. 9 (iv), the depreciation on which is Rs.2162.07 lakhs (Prev. Yr. Rs.2116.65 lakhs).

Accumulated depreciation includes Rs. 27.71 lakhs (Prev. Yr. Rs. -5.89 lakhs) on account of depreciation adjustments for prior period.

SCHEDULE 6
CAPITAL WORK IN PROGRESS (AT COST)

	(Rs. in Lakhs)	(Rs. in Lakhs)
	AS AT 31.3.2002	AS AT 31.3.2001
Construction work-in-progress-civil	622.34	1093.96
Construction stores (including in transit)	209.40	152.84
Plant & Machinery		
Under erection/ fabrication/ awaiting erection @	2873.10	2123.19
In transit	1962.12	2747.83
Incidental expenditure pending allocation		0.22
	5666.96	6118.04

@ Includes Rs. Nil (previous year Rs. 136.48 lakhs) on account of Capital Expenditure in progress in respect of assets not belonging to the company.

SCHEDULE 7
INVESTMENTS

Long term, unless otherwise stated

Shares & Bonds

UNQUOTED AT COST

TRADE

360 (previous year 360) Equity shares of Rs.1000/- each at par in Engineering Projects (India) Ltd.	3.60	3.60
460960 (previous year 460960) Equity shares of Rs10/- each at par in AP Gas Power Corporation Ltd.- fully paid up (includes 192960 (previous year 192960) shares allotted as bonus shares)	26.80	26.80
268000 (previous year 268000) Equity shares of Rs10/- each at a premium of Rs. 14/- in APGas Power Corporation Ltd. - fully paid up	64.32	64.32
16333 (previous year 16333) Equity Shares of Rs 10/- each at par in Management & Technology Applications(India) Ltd.	1.63	1.63
1000000 Equity shares of Rs. 10/- each in Konark Met Coke Ltd. (KMCL), Bhubaneswar**	100.00	
Advance paid to Konark Met Coke Ltd(KMCL),Bhubaneswar towards allotment of Shares **	400.00	500.00
<u>Shares in Joint Ventures Companies</u>		
19,99,999 (previous year 19,99,999) Equity Shares of Rs. 10/- each at par in Powerplant Performance Improvement Ltd.	200.00	200.00
23,79,999 (previous year 2379,999) Equity Shares of Rs. 10/- each at par in BHEL - GE Gas Turbine Services Ltd.	238.00	238.00

OTHER THAN TRADE

3 (previous year 3) Shares of Rs.100/- each at par in BHEL House Building Cooperative Society Ltd.,Hyderabad	***	***
	1034.35	1034.35

** Refer Note no. 13 of Schedule 19.

*** Value less than Rs. 1000/-



SCHEDULE 8 CURRENT ASSETS

	(Rs. in Lakhs)		(Rs. in Lakhs)	
	AS AT 31.3.2002		AS AT 31.3.2001	
Interest Accrued on Deposits/investments		0.50		0.37
Rent Receivable on Leased Assets				48.12
		0.50		48.49
Inventories @				
(As certified by the management)				
Stores & spare parts				
- Production	7077.86		7900.25	
- Fuel stores	420.35		371.06	
- Miscellaneous	616.12	8114.33	753.94	9025.25
Raw materials & components		47088.09		48132.92
Materials-in-transit (including raw material & components)		14924.62		14179.88
Materials with fabricators/contractors		3547.31		3722.10
Loose tools		911.67		858.02
Scrap(at estimated realisable value)		1210.79		1207.62
Finished Goods	14552.66		17472.66	
Inter division transfers in transit	4009.02		3425.26	
Includes :				
- Rs. 417.40 lakhs (previous year Rs. 417.40 lakhs) towards non-BHEL spares held on behalf of various SEBs/ NTPC(pool members) monitored by CEA;				
- Rs. 839.04 lakhs (previous year Rs. 247.95 lakhs) finished goods in transit				
		18561.68		20897.92
Work-in-progress		107413.61		108143.61
(Including items with sub-contractors)				
		201772.10		206167.32
Less: Provision for non-moving stock	1993.72		2259.68	
Provision for profit element in inter unit inventory	355.51	2349.23	433.45	2693.13
@ Valued as per significant accounting policy no. 7		199422.87		203474.19
Sundry Debtors **				
Debts outstanding for a period exceeding 6 months		265872.14		235605.14
Other debts		256376.51		242706.36
		522248.65		478311.50
Less: Provision for Bad & doubtful debts		63829.42		60881.40
		458419.23		417430.10

** Includes deferred debts Rs. 146881.30 lakhs (previous year Rs. 142384.19 lakhs)

SCHEDULE 8 (Contd.)

			(Rs. in Lakhs)	(Rs. in Lakhs)
			AS AT 31.3.2002	AS AT 31.3.2001
Particulars of Sundry Debtors				
a) Debts considered good for which the Company holds no security other than the debtors' personal security			458419.23	417430.10
b) Debts considered doubtful and provided for			63829.42	60881.40
			522248.65	478311.50
Cash and Bank Balances				
Cash, cheques, demand draft and stamps in hand			119.37	1867.16
Remittances in transit			103.55	1341.24
Balances with Scheduled Banks				
Current Account			3294.39	4758.29
Cash Credit Account			43391.90	24273.13
Deposit Account			2.52	4.26
Balances with Non-scheduled Banks				
	Maximum balance during the year			
	2001-2002	2000-2001		
	(Rs. in lakhs)	(Rs. in lakhs)		
Current Accounts				
Barclays Bank Limited, Zambia	0.68	0.68	0.68	0.68
Bank of Cyprus, Nicosia	34.45	1.08	34.01	1.07
Bhumiputra Commerce (Bank of Commerce), Malaysia	120.45	88.81	88.13	56.81
National Bank of Egypt	33.35	9.44	11.31	9.44
Deutsche Bank		33.08		1.07
Bank Muscat (Oman)	2896.98	2391.34	309.49	732.45
Oman International Bank	1849.74	2255.25	104.91	87.27
Standard Chartered Grindlays, Dubai	14.71	5.70	7.80	2.56
Arab Bank, Jordan	11.68		5.57	
Indo Zambia Bank, Lusaka	6.39		6.39	
Deposit Accounts				
Bhumiputra Commerce (Bank of Commerce), Malaysia	145.15	134.46	145.15	134.46
Unclaimed Dividend Bank a/c			33.75	33.69
			47658.92	33303.58
Summary of Current Assets				
Interest accrued on deposits			0.50	48.49
Inventories			199422.87	203474.19
Sundry Debtors			458419.23	417430.10
Cash & Bank Balances			47658.92	33303.58
			705501.52	654256.36



SCHEDULE 9 LOANS AND ADVANCES

	(Rs. in Lakhs)		(Rs. in Lakhs)	
	AS AT 31.3.2002		AS AT 31.3.2001	
Loans				
Loans to Employees	1216.48		1847.39	
Loans to others	52.75		58.31	
Interest accrued on loans	2923.25	4192.48	3297.37	5203.07
Advances				
(Recoverable in cash or in kind or for value to be received)				
To employees	1657.33		1325.55	
For purchases	7825.36		13066.18	
To others	29329.13		29478.40	
For capital expenditure	580.68	39392.50	351.33	44221.46
Deposits				
Balance with Customs, Port Trust and other Govt Authorities *[includes pledge of NSC Rs. Nil (Previous year Rs. Nil) and Rs. 4.71 lakhs (prev year Rs 4.71 lakhs) by pledge of Post Office pass book with Central Excise Authorities)]	13356.83		13124.15	
Others	28516.69	41873.52	29507.72	42631.87
Advance tax paid & tax deducted at source	71424.11		83215.82	
Less: Provision for taxation	55300.00	16124.11	70400.71	12815.11
		101582.61		104871.51
Less: Provision for doubtful loans and advances		1706.96		1507.99
		99875.65		103363.52

* includes sales tax of Rs. 7391.85 lakhs (previous year Rs. 7265.85 lakhs); excise duty of Rs. 1655.43 lakhs (previous year Rs. 1829.10 lakhs) and custom duty of Rs. Nil (previous year Rs. Nil) paid under protest/court orders.

Particulars of loans and advances

a) Loans & Advances considered good in respect of which the Company is fully secured		8001.30		5078.52
b) Loans & Advances considered good for which the Company holds no security other than the Debtors' personal security		91874.35		98285.00
c) Loans & Advances considered doubtful & provided for		1706.96		1507.99
		101582.61		104871.51

	Maximum Amount			
	2001-2002 (Rs. in lakhs)	2000-2001 (Rs. in lakhs)		
Due from Directors of the Company	1.11	0.63	0.72	0.36
Due from Officers of the Company	22.81	31.04	15.18	21.15

SCHEDULE 10 CURRENT LIABILITIES

	(Rs. in Lakhs)		(Rs. in Lakhs)	
		AS AT 31.3.2002		AS AT 31.3.2001
Acceptances		2778.48		3831.84
Sundry Creditors				
i) Total outstanding dues of small scale industrial undertakings(incl. interest)	13213.34		9937.69	
ii) Total outstanding dues of creditors other than small scale industrial undertakings	<u>172502.41</u>	185715.75	<u>152226.18</u>	162163.87
Advances received from customers and others		189542.41		162039.37
Deposits from Contractors	5611.64		5849.68	
Less : Investments received as security deposits	<u>307.61</u>	5304.03	<u>337.76</u>	5511.92
Trustees of employees' CPF		1400.88		1328.87
Unclaimed dividend		33.75		33.69
Other liabilities		20222.18		20523.48
Interest accrued but not due		1890.26		312.42
		<u>406887.74</u>		<u>355745.46</u>

SCHEDULE 11 PROVISIONS

Dividend		9790.40		7342.80
Corporate dividend tax				748.97
Contractual obligations		38804.04		39341.27
Others		16103.80		13117.72
		<u>64698.24</u>		<u>60550.76</u>

SCHEDULE 12 DEFERRED REVENUE EXPENDITURE

Lump sum payment under Voluntary Retirement Scheme		24927.73		22858.96
		<u>24927.73</u>		<u>22858.96</u>



SCHEDULE 12A EXTRA-ORDINARY ITEMS

	(Rs. in Lakhs) For the year ended 31.03.2002	(Rs. in Lakhs) For the year ended 31.03.2001
Income	-	-
Expenditure		
Amortisation of Lumpsum payment under Voluntary Retirement Scheme	19999.61	15623.42
Extra-ordinary items (Net)	<u>19999.61</u>	<u>15623.42</u>

SCHEDULE 12B PRIOR PERIOD ADJUSTMENTS

Income				
Adjustment of turnover	410.47		12.27	
Miscellaneous Income	-6.58		94.02	
Changes in opening stock	665.84			
Others	34.82	1104.55		106.29
Expenditure				
Employees' remuneration	1.15			
Depreciation	32.51		-5.89	
Sub-contractors' payments	31.77		13.73	
Purchases	462.80		47.30	
Rent			17.95	
Repair & Maintenance	-1.19			
Payment to technical expert			36.73	
Others	29.32	556.36	41.04	150.86
Prior period adjustments (Net)		<u>548.19</u>		<u>-44.57</u>

**SCHEDULE 13 A
TURNOVER**

	(Rs. in Lakhs) For the year ended 31.3.2002	(Rs. in Lakhs) For the year ended 31.3.2001
Sales less returns (incl. despatches made to customers Rs. 191793.36 lakhs) (Previous year Rs. 183849.06 lakhs)	649004.94	552574.32
Income from external erection and other services	77678.55	80505.75
Revenue from works contract	1979.05	1696.12
	<u>728662.54</u>	<u>634776.19</u>

**SCHEDULE 13 B
OTHER OPERATIONAL INCOME**

Export incentives	19043.03	18353.53
Rental income on leased assets	8887.91	9162.84
Add: Lease equalisation account	537.29	937.56
Scrap sales	4445.13	4459.20
Receipts from sale/transfer of surplus stock	62.17	209.93
Others	2930.22	5451.21
	<u>35905.75</u>	<u>38574.27</u>

**SCHEDULE 13 C
OTHER INCOME**

Profit from sale of fixed assets	183.44	164.08
Dividend on investment	226.10	83.30
Others (including grants of Rs. 9.26 lakhs (previous year Rs 16.66 lakhs) from Govt. of India for research & development projects)	6771.79	6241.95
	<u>7181.33</u>	<u>6489.33</u>

**SCHEDULE 13 D
OTHER INTEREST INCOME**

From customers	4425.70	3982.99
From employees	222.30	295.85
From banks	9.71	28.64
Others	437.44	183.24
	<u>5095.15</u>	<u>4490.72</u>



SCHEDULE 14
ACCRETION/(DECRETION) TO WORK-IN PROGRESS,
FINISHED GOODS & SCRAP

	(Rs. in Lakhs)		(Rs. in Lakhs)	
	For the year ended 31.3.2002		For the year ended 31.3.2001	
Work-in-Progress				
Closing Balance	107413.61		108143.61	
Opening Balance	108809.45*	-1395.84	84620.19	23523.42
Finished Goods				
Closing Balance	14552.66		17472.66	
Opening Balance	17472.66	-2920.00	15990.54	1482.12
Scrap				
Closing Balance	1210.79		1207.62	
Opening Balance	1207.62	3.17	1127.60	80.02
Inter-division transfers in transit		583.75		-14.19
		-3728.92		25071.37

* Difference in opening balance is due to capitalisation of borrowing cost

SCHEDULE 15
EMPLOYEES' REMUNERATION AND BENEFITS

Salaries, wages, bonus, allowances and other benefits	110968.41	168452.49
Contribution to gratuity fund	9097.37	19923.19
Contribution to provident and other funds	9816.58	15743.12
Group insurance	327.32	238.00
Staff welfare expenses	14252.04	12664.36
	144461.72	217021.16

Note :Expenditure on Transfer TA on retirement / death and LTC is accounted for on payment basis.

	2001-2002				2000-2001			
	(Rs. in Lakhs)				(Rs. in Lakhs)			
	Salaries and Allowances	C.P.F	Gratuity	Others	Salaries and Allowances	C.P.F	Gratuity	Others
Directors (including Chairman & Managing Director)	33.35	3.60	3.31	5.11	60.78	3.18	3.88	6.32

- The above figures exclude the premium paid for group insurance policy.
- The Chairman & Managing Director and Functional Directors have been allowed the use of staff car including for both duty and non-duty journeys. The ceiling of the non-duty journey is 1000 KM. per month against recovery of prescribed amount in accordance with their terms & conditions of appointment.

The monetary value of the above perquisite for the use of car, if calculated in accordance with the provisions of Income Tax Rules, 1962, would amount to Rs. 0.59 lakhs (previous year Rs. 0.34 lakhs).



SCHEDULE 16 (Contd.)

	(Rs. in Lakhs)		(Rs. in Lakhs)	
	For the year ended 31.3.2002		For the year ended 31.3.2001	
d/ Payment to auditors:		17.05		16.32
Fees includes Rs. 1.32 lakhs to auditors abroad (previous year Rs. 1.99 lakhs)				
Expenses		11.28		14.13
Income tax matters include Rs.6.59 lakhs (Previous year Rs. 5.40 lakhs) to auditors abroad		9.48		8.52
Certification work includes Rs.0.06 lakhs (previous year Rs. Nil) to auditors abroad		3.34		2.75
Other professional services includes Rs. 0.40 lakhs (previous year Rs. Nil) to auditors abroad		0.50		0.91
Payment to cost auditors		0.65		0.78
e/ *Expenditure on entertainment		349.79		304.71
f/ *Expenditure on foreign travel for 383 tours (previous year 358 tours)		490.71		476.84
g/ Expenditure on publicity and public relations				
- Salaries, allowances & other benefits	378.80		510.62	
- Other expenses	558.72	937.52	611.37	1121.99
h/ Directors' Fees		1.63		0.48

*As certified by the management

SCHEDULE 17 INTEREST & OTHER BORROWING COSTS

Bonds		1660.89		
Bank / financial institution borrowings		5236.37		2965.07
Others		3439.27		1411.34
Other borrowing costs		90.01		
		10426.54		4376.41
Less: Borrowing costs capitalised		728.97		
		9697.57		4376.41

SCHEDULE 18 PROVISIONS

Doubtful debts, loans & advances		8123.78		7610.95
Contractual obligations		12982.50		12098.72
Others		11616.36		8673.80
		32722.64		28383.47

SCHEDULE - 19

EXPLANATORY NOTES

- Estimated amount of contracts, net of advances, remaining to be executed on capital account and not provided for is Rs. 11761.81 lakhs (previous year Rs. 11809.49 lakhs).
- Details regarding rentals in respect of assets taken on lease prior to 1.4.2001 is as given below:

(Rs. in lakhs)

Assets	Cost of Assets		Rentals payable over unexpired period of lease	
	2001-2002	2000-2001	2001-2002	2000-2001
Computers & Peripherals	9914.89	12595.66	3784.90	6612.63
Land & Buildings	124.12	119.80	25.01	50.32
Office equipments	1172.80	1115.53	439.50	516.69
Others	11.78	92.00	0.59	58.39
TOTAL	11223.59	13922.99	4250.00	7238.03

- Land and buildings include:
 - 15304.997 acres of land (previous year 14201.732 acres), 79 flats (previous year 79 flats) and one building (previous year one building) for which formal transfer/lease deeds have not been executed including for 51.52 acres of land (previous year 51.52 acres) for which the cost paid is provisional; registration charges and stamp duty net of provision already made thereon, would be accounted for on payment.
 - 95 acres of land (previous year 95 acres) leased to Ministry of Defence, Government Departments and others.
 - 180 acres of land including 100 acres given on licence valid upto 30th November, 1990 (previous year 180 acres and 100 acres respectively) being used by the Ministry of Defence and for which further approval of the competent authority for continuance of licensing of this land is awaited.
 - 209.507 acres (previous year 209.507 acres) of land is under adverse possession.
- The impact on the profit of providing 100 percent depreciation on fixed assets upto Rs.10000/- each, without considering such impact of earlier years, is as under :

(Rs. in lakhs)

	2001-2002	2000-2001
100% depreciation on assets upto Rs.10,000/- charged off in the accounting year	275.11	430.09
Normal depreciation on above	88.37	96.14
Excess amount charged off	186.74	333.95

- Sales and despatches to customers :
 - Includes Rs. 17003.80 lakhs (previous year Rs. 13717.12 lakhs) based on provisional prices.
 - Includes Rs. 18193.95 lakhs (previous year Rs. 19697.10 lakhs) for escalation claims raised in accordance with the sales contracts, inclusive of escalation claims on accrual basis to the extent latest indices were available;
 - Includes despatches of equipment valued at Rs. 5366.87 lakhs (previous year Rs. 10280.56 lakhs) held on behalf of customers at their request for which payment has been received by the Company; and
 - Excludes Rs. 901.91 lakhs (previous year Rs. 566.62 lakhs) for price reduction due to delay in delivery as per terms of the contract.



6. Contingent Liabilities :

- (a) Claims against the company not acknowledged as debt include :
- Income Tax pending appeals Rs. 29709.89 lakhs (previous year Rs. 30145.21 lakhs).
 - Sales Tax demand Rs. 28349.86 lakhs (previous year Rs. 28649.64 lakhs) against which Rs. 7392.75 lakhs (previous year Rs. 7265.85 lakhs) has been paid under protest/court orders.
 - Excise Duty demands Rs. 26524.53 lakhs (previous year Rs. 46812.48 lakhs), against which Rs. 1655.43 lakhs (previous year Rs. 1829.10 lakhs) has been paid under protest/court orders.
 - Customs Duty demands Rs. 5.82 lakhs (previous year Rs. 5.82 lakhs).
 - Court / Arbitration cases Rs. 4548.53 lakhs (previous year Rs. 4696.05 lakhs) against which Rs. 21.07 lakhs (previous year Nil) paid under protest/court orders.
 - Liquidated Damages Rs. 9827.00 lakhs (previous year Rs. 11603.20 lakhs).
 - Counter claim by contractors Rs.4113.52 lakhs (previous year Rs. 4088.63 lakhs).
 - Others Rs. 1972.88 lakhs (previous year Rs. 2846.33 lakhs).
- (b) Bills discounted under IDBI scheme outstanding at the close of the year amounting to Rs. 30610.16 lakhs (previous year Rs. 45477.94 lakhs).
- (c) Bank Guarantees outstanding at the close of the year amounting to Rs. 273879.37 lakhs (previous year Rs. 248632.66 lakhs).
7. The company has created a first charge, by way of hypothecation of raw materials, components, work-in-progress, finished goods, stores & book debts for its counter guarantee/indemnity obligations in regard to bank guarantee/letter of credit limits aggregating Rs. 750000 lakhs (previous year Rs. 700000 lakhs) sanctioned by consortium of banks.
8. The Company has filed an appeal in Income Tax Appellate Tribunal contesting the non-acceptance of Company's claim of Extra ordinary exchange variation loss of Rs. 26816.00 lakhs (previous year Rs. 26816.00 lakhs) on accrual basis relating to the assessment year 1992-93 . Based on the legal decisions, the demand is likely to be deleted, hence no provision thereof has been made and it continues to be shown as contingent liability as in the past. The demand of Rs. 24974.61 lakhs (previous year Rs. 24974.61 lakhs) raised by the income tax department in respect of the said income tax liability has been adjusted by the income tax department against the refunds due to the company and the company has shown the same as "other deposits" in Schedule 9-Loans and Advances in the balance sheet.
9. Responses to confirmation of outstanding balances and stocks held by sub-contractors/ fabricators were received only in a few cases, some of them seeking details.
10. (a) Capital equipments and civil works costing Rs. 700.60 lakhs (previous year Rs. 710.85 lakhs) relating to EPP at HEEP-Hardwar unit, was fully depreciated/provided for in the earlier years, for non use of these equipments and civil works on account of non-availability of essential raw materials. The matter continues to be under investigation.
- (b) The matter connected with purchase of Heavy Forge Press at CFFP, Hardwar is under Court proceedings, the impact whereof is unascertainable.
11. ESI Authorities have raised a demand in the earlier years amounting to Rs. 241.91 lakhs (previous year Rs. 230.75 lakhs) at HEEP, Hardwar relating to contractor's employees, for the period from 1966-67 to 1996-97. Based on the legal opinion, a sum of Rs. 21.82 lakhs was paid and debited to the profit and loss account in earlier years and the balance amount of Rs. 220.09 lakhs continues to be included in Contingent Liability.
- In respect of Trichy Unit, demand of Rs. 296.73 lakhs (previous year Rs. 296.73 lakhs) in respect of earlier years raised by the ESI Authorities is still unpaid as the Unit has obtained a stay order from the court.
12. Consequent to the taking over of the Amorphous Silicon Solar Cell Plant (ASSCP), Gurgaon from Ministry of Non-conventional Energy Sources on lease for a period of 30 years, the accounts of the ASSCP have been merged with the accounts of Corporate Research & Development Division of the Company. However, the lease agreement with the Government is yet to be finalised.

13. During the year 1999-2000, a sum of Rs. 500 lakhs was invested as advance towards equity shares of Rs. 10/- each (at par) in Konark Met Coke Ltd. (KMCL), Bhubaneswar to secure orders for equipment to be supplied by the Company. The equity participation is restricted to 7.5 % of the value of the orders with a maximum of Rs. 2250 lakhs. Out of the above advance, KMCL has allotted 10 lakhs shares of nominal value of Rs. 10/ each during 2001-2002 in favour of BHEL and the balance of advance of BHEL has been retained by them as share money pending allotment. Government approval for investment in equity shares of KMCL is awaited.
14. Liability due to small scale industrial undertakings shown in Schedule-10 has been determined from database maintained at units/divisions of the company, and updated to the extent responses received from such undertakings as to their SSI status.
15. The details of lumpsum amount paid under Voluntary Retirement Schemes 1999-2000,2000-2001 and 2001-2002 by the company and charging off of the same as per Accounting Policy No.16 is as follows:

(Rs. in lakhs)

	Total lumpsum amount paid	Charged off upto 2000-2001	Charged off in 2001-2002	Balance amount deferred
	(a)	(b)	(c)	(d)
VRS 1999-2000				
--paid in 1999-2000	28913.10	14456.61	9637.72	4818.77 *
--arrear paid in 2000-2001	9554.27	4777.15	3184.77	1592.35 *
--arrear paid in 2001-2002	3.40		2.82	0.58 *
VRS 2000-2001				
--paid in 2000-2001	4833.84	1208.49	1611.27	2014.08 **
--Spillover paid in 2001-2002	561.43		187.15	374.28 ***
VRS 2001-2002				
-- Paid in 2001-2002	21503.55		5375.88	16127.67 ****
Total	65369.59	20442.25	19999.61	24927.73

* Being 1/6th of the total lumpsum to be charged off in the next accounting year.

** To be charged off over the next two accounting periods in the ratio of 1/3rd & 1/12th respectively of the total sum.

*** To be charged off over the next two accounting periods in the ratio of 1/3rd & 1/3rd respectively of the total sum.

**** To be charged off over the next three accounting periods in the ratio of 1/3rd, 1/3rd & 1/12th respectively of the total sum.

16. The company has modified its accounting policy relating to depreciation on 'Electronic Data Processing Equipment' by increasing the rate of depreciation from 16.21% to 20% (Refer Significant Accounting Policy No. 9 (i)). This has resulted in decrease in profit before tax for the year by Rs. 109.67 lakhs.
17. Other liabilities include a sum of Rs. 10051.51 lakhs towards guarantee fee demanded by the Government of India in respect of Foreign Currency loans taken by BHEL at the instance of the Government upto 1990-91. The matter for its waiver has been taken up by BHEL with the Government since there was no stipulation for payment of such guarantee fee at the time the loans (guaranteed by Government) were taken.
18. In accordance with the Accounting Standard 16 issued by the Institute of Chartered Accountants of India, the amount capitalised during the financial year 2001-2002 is Rs. 728.97 lakhs. The borrowing cost for the previous year Rs. 609.63 lakhs has been adjusted to the opening balance of inventory as on 1/4/2001 with a corresponding credit disclosed under the head "Prior Period Items".



19.

SEGMENT INFORMATION FOR THE YEAR ENDED 31ST MARCH 2002				
				Rs. in lakhs
		Power	Industry	Total
	Segment Information :			
A.	Primary Segment - Business Segments			
I	Segment Revenue	539216.62	244348.92	
	Inter Segment Revenue (considered above)	728.77	25706.00	
	Operating Revenue (External) (net of Inter Segment Revenue)	538487.85	218642.92	757130.77
II	Segment Results	121780.56	24449.24	146229.80
	Common Expenses (Net of income)			50249.41
	Profit before Interest, DRE & Incometax			95980.39
	Interest			9697.57
	Deferred Revenue Expenditure Written Off			19999.61
	Net Profit before Income Tax			66283.21
	Income Tax			19488.56
	Net Profit after Income Tax			46794.65
III	Assets & Liabilities			
a.	Segment Assets	517515.53	293649.41	811164.94
	Common Assets			111869.16
	Total Assets			923034.10
b.	Segment Liabilities	305746.71	128307.84	434054.55
	Common Liabilities			37531.43
	Total Liabilities			471585.98
IV	Other Information :			
a.	Cost incurred during the period to acquire Fixed Assets	13075.94	3900.12	
b.	Depreciation	7112.80	4315.94	
c.	Non Cash Expenses (other than depreciation)	8569.67	3145.55	
B.	Secondary Segment – Geographical Segments:			
		Within India	Outside India	Total
1	Net Sales / Income from Operations	658412.51	98718.26	757130.77
2	Total Assets	921768.72	1265.38	923034.10
3	Cost incurred during the period to acquire Fixed Assets	20711.79	2.69	20714.48
	Notes :			
1	The products and services of the Company have been grouped under "Power" and "Industry" segments depending upon the sector to which they are predominantly identified in the market.			
2	Power Sector includes products and services relating to various power generation sets and its auxiliaries.			
3	Industry Sector includes products and services relating to transportation and transmission, electric machines, industrial sets and DG sets, telecommunications and other industrial products and systems.			
4	Inter-segment transfers have been carried out at mutually agreed prices.			

20. Related Party Transactions:

i) Related Parties where control exists:

<u>Name of Related Party</u>	<u>Nature of Relationship</u>
Powerplant Performance Improvement Ltd.	Joint Venture Company
BHEL-GE Gas Turbine Services Ltd.	Joint venture Company

ii) Other Related Parties with whom Transactions taken place during the year:

<u>Name of Related Party</u>	<u>Related through</u>
SWIL Ltd.	Key Management Personnel
Tata Refractories Ltd.	Key Management Personnel
Spectrum Power Generation Ltd.	Key Management Personnel

iii) Details of transactions:

(Rs. in lakhs)

	Particulars	Joint Ventures	Key Management Personnel
a.	Purchase		80.11
b.	Sales	956.44	33.00
c.	Dividend,Royalty Income	276.71	
d.	Amounts due to BHEL at end of the year	407.53	33.00
e.	Amounts due from BHEL at end of the year		10.34
f.	Provision for Doubtful debts	12.02	
g.	Amounts written off	-	-
h.	Amounts written back	-	-
i.	Guarantees given on behalf of	1960.00	

21. In line with the new Accounting Standard on leases, the company has modified its significant accounting policy on lease in respect of assets taken/given on finance lease w.e.f. 1.4.2001 (refer Significant Accounting Policy No. 6). Since no asset has been given on finance lease after 1.4.2001 the impact on profit before tax is Nil. In respect of assets taken on finance lease after 1.4.2001, the profit before tax for the year is higher by Rs. 80.89 lakhs.

Details of assets taken on **finance lease** after 1st April, 2001 are as under:

(Rs. in lakhs)

		EDP Equipments	Office & Other Equipments
a.	Outstanding balance of Minimum Lease payments		
	-not later than one year	655.93	170.75
	-later than one year and not later than five years	1558.51	623.50
	-later than five years		77.68
	Total minimum lease payments at the balance sheet date	2214.44	871.93
b.	Present Value of (a) above		
	-not later than one year	479.14	138.36
	-later than one year and not later than five years	1082.52	392.32
	-later than five years		36.28
	Total minimum lease payments at the balance sheet date	1561.66	566.96
c.	Finance charges	652.78	304.97



22. As per the Accounting Standard 20 issued by the Institute of Chartered Accountants of India, while calculating the Earning per Share:

- the amount used as numerator in calculating the basic and diluted earning per share is the net profit of Rs. 46794.65 Lakhs for the year disclosed in the Profit & Loss Account; and
- The weighted average number of equity shares used as the denominator in calculating both basic and diluted earnings per share is 2447.60 lakhs.
- Nominal value of share is Rs. 10/-.

23. In line with the new Accounting Standard 22 on Accounting for Taxes on Income, the accumulated net deferred tax asset amounting to Rs. 26920 lakhs on account of timing differences between book and tax profit as on 1.4.2001 has been credited to General Reserve.

The break up of net deferred tax asset on account of timing differences as at 31.03.2002 is as under:

(Rs. in lakhs)

	Deferred Tax Assets	Deferred Tax Liabilities
Provisions	43842.08	
Deferred Revenue Expenditure of Voluntary Retirement Schemes	617.55	
Statutory dues	1236.24	
Modvat Adjustments	728.20	
Depreciation		15962.27
	46424.07	15962.27
Net Deferred Tax Assets		30461.80

24. The annual accounts adopted by the Board on 14th June, 2002 and reported upon by the Auditors on 15th June, 2002 have been revised in the light of observations made by the Comptroller & Auditor General of India during the course of audit under Section 619(4) of the Companies Act, 1956. Consequent to the revision, change in Profit & Loss Account and Balance Sheet are summarised as under:

(Rs. in Lakhs)

	Increase	Decrease
Profit & loss Account		
Earnings		557.48
Outgoings	394.53	
Profit before Tax		952.01
Balance Sheet		
Reserves & Surplus		576.24
Fixed Assets incl capital WIP		2.75
Inventories		175.59
Sundry Debtors		50.95
Loans & Advances	128.82	
Current Liabilities	479.65	
Provisions	171.89	
Deferred Tax Asset	175.77	

25. Previous year's figures have been generally rearranged/regrouped wherever practicable to make them comparable to current year's presentation and rounded off to the nearest thousand rupee.

SCHEDULE - 19A

Balance Sheet Abstract and Company's General Business Profile

i) Registration details :

Registration No.

State Code

Balance Sheet

Date Month Year

ii) Capital raised during the year (Amount in Rs. Lakhs)

Public Issue

NIL

Bonus Issue

NIL

Right Issue

NIL

Private Placement

NIL

iii) Position of mobilisation and deployment of funds (Amount in Rs. Lakhs)

Total Liabilities

Sources of Funds

Paid Up Capital

Secured Loans

Credits for Assets taken on Lease

Application of Funds

Net Fixed Assets*

* It includes Capital WIP Rs. 5666.96 Lakhs

Net Current Assets

Accumulated Losses

Nil

iv) Performance of Company (Amount in Rs. Lakhs)

Turnover **

**total earnings including accretion/decretion in inventory, other operational income & revenue for the year is Rs. 804102.54 Lakhs as against total expenditure.

Profit Before Tax

Earning Per Share in Rs.

Total Assets

Reserves & Surplus

Unsecured Loans

Investments

Misc. Expenditure (Deferred Revenue Exp.)

Deferred Tax Assets

Total Expenditure

Profit After Tax

Dividend rate

%

v) Generic names of three principal products/services of Company (as per monetary terms)

1. Item Code No. :
(ITC Code)

Product Description : Boilers other than parts

2. Item Code No. :
(ITC Code)

Product Description : Complete generating sets including hydro turbines

3. Item Code No. :
(ITC Code)

Product Description : Gas Turbine of thrust exceeding 115000 KW



SCHEDULE 20
Sales, Opening Stocks & Closing Stocks

(Rs. in lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
BHOPAL							
SWITCHGEAR, CONTROLGEAR, RECTIFIER, CAPACITORS							
Switchgear-11 kv to 220 kv high speed air blast circuit breakers	Nos	2734 (2865)	4951.51 (6415.68)	0 (113)	0.00 (173.17)	71 (0)	116.24 (0.00)
Control Panels	Nos	606 (246)	1109.55 (903.72)	100 (2)	66.34 (2.52)	2 (100)	6.24 (66.34)
Industrial controlgear	Nos	7 (4)	924.06 (881.41)	0 (0)	0.00 (0.00)	0 (0)	0.31 (0.00)
Traction controlgear for AC, DC & diesel system	Nos	192 (183)	4891.64 (3864.56)	0 (0)	0.00 (0.00)	0 (0)	0.00 (0.00)
Rectifiers with Electronics	HQH	453 (480)	3358.30 (4091.94)	16 (5)	17.49 (17.53)	0 (16)	0.00 (17.49)
Capacitors	MVAR	1818 (956)	1230.93 (828.39)	0 (0)	0.54 (0.00)	558 (0)	289.49 (0.54)
Bushings		- -	626.81 (599.09)	0 (0)	14.25 (0.00)	0 (0)	0.00 (14.25)
TRANSFORMERS							
Power transformers (upto 400 kv)	MVA/Nos	8566.50/65 (7906/54)	7976.03 (11726.88)	350/4 (944/8)	807.29 (1321.93)	727/9 (350/4)	775.70 (807.29)
Instrument, welding ,transformers and reactors	MVA/Nos	0/505 (106/463)	2439.97 (1202.00)	0/19 (106/84)	29.98 (343.46)	0/61 (0/19)	55.25 (29.98)
INDUSTRIAL AND TRACTION MACHINES							
Traction Motors for AC,DC & diesel system,main & auxiliary generators	Nos	3552 (2178)	24124.85 (22079.71)	171 (223)	751.65 (1172.65)	64 (171)	333.28 (751.65)
Industrial machines, AC motors upto 1000 HP, DC motors & generators of all types	Nos	479 (399)	5585.05 (3624.54)	11 (13)	121.59 (112.15)	0 (11)	0.00 (121.59)
Repair contract - EMRP	-	-	2265.73 (1226.04)	0 (0)	0.00 (0.00)	0 (0)	0.00 (0.00)
HEAVY ROTATING PLANT & TURBINES							
Large electrical machines above 1000 HP	Nos	92 (102)	4708.32 (4749.88)	2 (3)	54.99 (32.89)	1 (2)	22.70 (54.99)
Water wheel alternators & water turbines & Mini micro turbines & generators	Nos/ MW	5/T 395 7/G 795 (6/T) (376) (7/G) (230)	11711.08 10699.15 (11649.85) (6354.00)	0 0 (0)	114.83 12.90 (0.99)	0 0 (0)	1142.79 391.60 (114.83) (12.90)

SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
Turbo Alternators & Steam turbines & Heat Exchangers	Nos/MW		5635.89		70.27		162.14
			0.00		155.05		179.13
	15 H.Ex		4079.69		0.00		0.00
			(4813.33)		(15.48)		(70.27)
	(2)		(682.22)		(0.00)		(155.05)
	(11 H.Ex.)		(3104.21)		(0.00)		(0.00)
Others			2676.60		27.91		0.00
			(5637.55)				(27.91)
		TOTAL	98995.16		2245.08		3474.87
JHANSI							
Power transformers and special transformers	Nos	86	8820.10	4	407.47		
		(71)	(6054.77)	(4)	(371.00)	(4)	(407.47)
ESP Transformer	Nos	81	676.48				
		(86)	(1015.07)				
ACEMU Transformer	Nos		-0.06				
			(0.00)				
Freight Loco transformers	Nos	32	714.58				
		(18)	(428.03)				
Instrument transformers	Nos	1507	1486.47	3	2.62	2	1.78
		(980)	(986.29)	(8)	(2.82)	(3)	(2.62)
Bus Duct	Nos		1665.65		2.57		49.56
			(173.37)				(2.57)
Dry Type Transformer	Nos	43	448.44	0.07	13.32	15	66.04
		(22)	(264.00)	(0.01)	(3.18)	(7)	(13.32)
Diesel Shunters	Nos	2	230.84				
		(4)	(336.16)				
AC Locomotives	Nos						
Others	Nos		685.54		9.22		11.74
		(-)	(1338.50)		(13.00)		(9.22)
		TOTAL	14728.04		435.20		129.12
HEEP, HARDWAR							
Electrical Machines	MW/Nos	113/117	3167.17	17/39	628.55	13/45	531.27
		(122/128)	(2775.13)	(13/21)	(498.46)	(17/39)	(628.55)
Industrial controls panels	Nos	50	12.70	9	30.97	15	44.65
		(53)	(50.81)	(3)	(19.24)	(9)	(30.97)
Turbo Sets	MW/Nos	2330/6	45065.34	-	193.28	0	435.84
		(500/2)	(45029.83)	-	(320.84)		(193.28)
Hydro sets	MW/Nos	15/1	1376.99	-	0.56	-	5.94
		-	(624.40)	-	-	-	(0.56)



SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
Super Rapid Gun Mount	Nos.	-	185.94 (1100.20)	-	89.15 -	-	89.15 (89.15)
Light Aircraft	Nos.	-	(0.13)	-	-	-	-
Others		-	16893.96 (15281.60)	-	107.27 (84.05)		193.62 (107.27)
		TOTAL	66702.10		1049.78		1300.47
CFFP, HARDWAR							
Steel Castings	MT	52.00 (26.50)	71.46 (32.90)	14.613 (100.628)	29.16 (212.20)	2.085 (14.613)	3.62 (29.16)
Steel forgings	MT	45.964 (94.836)	129.18 (187.32)	31.610 (36.432)	63.73 (75.70)	24.622 (31.610)	50.90 (63.73)
NF Casting	MT	-	-			2.080	3.43
		TOTAL	200.64		92.89		57.95
BOILER PLANT & SSTP TRICHY							
Boilers	MT	+ 129812 + (114435)	144875.77 (132593.88)	1116 (2595)	881.70 (2484.70)	2569 (1116)	1177.45 (881.70)
Valves	Nos *	30258 (26527)	11157.03 (9507.00)	1397 (2362)	198.97 (134.62)	2658 @ (1397)@	123.05 (198.97)
Income from testing & other services		-	6209.63 (9864.55)	-	-	-	-
Seamless steel tubes	MT	2937 (3068)	1209.19 (1294.69)	5** (28)**	3.23** (14.52)**	21** (5)**	12.78** (3.23)**
Armoured recovery vehicle	Nos	9 (28)	3666.67 (10847.00)	2	681.00 -	(2)	(681.00)
		TOTAL	167118.29		1764.90		1313.28
BAP, RANIPET							
Boiler auxiliaries	MT	10401 (7107)	4971.70 (5207.65)	1701 (1781)	567.71 (702.98)	3221 (1701)	1063.67 (567.71)
Wind Mill	MT		60.46 (122.49)				
Income from testing & other services		-	244.48 (280.19)	-	-	-	-
Income from external erection & other services		-	973.43 (980.02)	-	-	-	-
		TOTAL	6250.07		567.71		1063.67
HYDERABAD							
60 MW Sets	MW	1+P (P)	483.91 (2428.60)	-	-	-	-

SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin.Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
110/120 MW Sets	MW	1+P (1+P)	5067.30 (3923.93)			1+P	297.70
Small & Medium Sets	MW	7+P (2+P)	11247.19 (8045.27)		261.52 (115.89)	-	762.93 (261.52)
Pumps and heaters	Nos	2+P (3+P)	8741.47 (7966.97)	(3)	38.00 (35.42)	1+P	105.88 (38.00)
Compressors	Nos	2+P (5+P)	3185.62 (19349.61)	-	-	-	-
Gas Turbine	Nos	3+P (5+P)	50554.29 (41201.64)	3+P (2+P)	7940.14 (4725.91)	1+P (3+P)	2952.33 (7940.14)
Aux.Prodn.Breakers	Nos	205 (155)	2623.08 (2779.13)	61 (94)	431.55 (1083.73)	56 (61)	280.75 (431.55)
Bowl Mills		29+P (2+P)	14152.04 (11197.58)	-	-	-	-
Heat Exchangers		10+P (10+P)	1477.63 (1842.32)	-	-	-	-
Erection Income			326.85 (1516.92)	-	-	-	-
Castings			788.25 (726.94)		376.54 (101.20)		209.11 (376.54)
Others (serv.)		-	6701.48 (5943.31)	-	-	-	-
Breakers Spares		-	503.54 (824.03)	-	-	-	-
Spares Other than breakers		(-)	17894.71 (15167.69)	-	(132.57)	-	60.51
		TOTAL	123747.36		9047.75		4669.21
INDUSTRIAL SYSTEMS GROUP							
Control panels			347 (180)	1231.60 (878.81)	-	-	-
Motors & spares			10 (32)	323.14 (255.11)	-	-	-
Other Equipments			426 (-)	3088.98 (2295.43)	-	2.71 (0.64)	- (2.71)
Other services			-	553.71 (859.66)	-	-	-
		TOTAL	5197.43		2.71		0.00
ELECTRONICS DIVISION							
Energy meters a/ Single Phase	Nos	310841 (538150)	2036.89 (3462.70)	1650 (33050)	8.01 (137.00)	26847 (1650)	180.19 (8.01)



SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
b/ Poly Phase	Nos	93830 (75165)	1517.23 (1333.10)	3088 (585)	25.52 (5.37)	32678 (3088)	467.78 (25.52)
Capacitors-Electrolytic	Nos	4232 (37425)	2.95 (43.16)	7631 (12381)	8.63 (13.77)	7674 (7631)	0.00 (8.63)
Power devices	Nos	3949 (2411)	140.69 (66.65)	740 (1092)	18.13 (41.94)	781 (740)	25.90 (18.13)
Photovoltaics	KWs	887 (468)	2741.90 (1283.06)	145 (7026)	304.09 (128.63)	154 (145)	401.28 (304.09)
Telecommunications	Lines	333776 (301864)	9214.98 (7888.02)	(0)	(0.00)	(0)	(0.00)
Simulators(Defence Electronics)	Sets	172 (2008)	4776.54 (3832.17)	(0)	(0.00)	(0)	(0.00)
Control Equipments	Cubicles	876 (820)	20679.94 (20761.36)	0 (3)	0.00 (34.70)	7 (0)	12.13 (0.00)
		TOTAL	41111.12		364.38		1087.28
ELECTRO PORCELAINS DIVISION							
Insulators & bushings	MT	7019 (5498)	7215.84 (4869.59)	576 (862)	444.89 (597.39)	431 (576)	251.75 (444.89)
Ceralin	MT	962 (869)	905.88 (905.88)	50 (24)	29.19 (13.21)	20 (50)	29.19 (29.19)
Income from testing & other services		-	60.88 (187.66)	-	-	-	-
		TOTAL	8182.60		474.08		280.94
POWER GROUP							
Income from erection			85843.91		417.40		481.98
Other services & spares		(-)	(85706.33)	-	(425.40)	-	(417.40)
		TOTAL	85843.91		417.40		481.98
OVERSEAS PROJECTS CO-ORDINATION UNIT							
Income from sales, erection			88638.95		603.83		
Other services & spares		(-)	(16764.95)	-	-	-	(603.83)
		TOTAL	88638.95		603.83		0.00
JAGDISHPUR							
Insulators	CMT	4475.21 (3827)	2825.11 (2325.38)	381 (254)	192.81 (127.44)	330.00 (381)	207.23 (192.81)
Ceralin	MT	456.76 (466)	488.53 (464.98)	(6)	0.00 (3.99)		
Erection & Services			1.69				
		TOTAL	3315.33		192.81		207.23

SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
GOINDWAL							
Industrial Valves	Nos	0 (9)	0.00 (2.52)	124 (87)	29.50 (13.50)	135 (124)	32.02 (29.50)
Other Services			(0.64)				
		TOTAL	0.00		29.50	-	32.02
CENTRE OF TECHNOLOGY TRANSFER, HYDERABAD							
8 HP Servo Motor	Nos	1 (0)	11.75 (0.00)	-	-	-	-
MCBG for Railways	Nos	4 (0)	25.06 (0.00)	-	-	-	-
Spares for PC8A Micro Processor	Lots	0 (1)	0.00 (1.44)	-	-	-	-
Electronic Governor For Loco	Nos	0 (3)	0.00 (6.21)	-	-	-	-
Income from testing & services			115.67 (94.91)	-	-	-	-
Pump & Motor Unit For Radar Cooling System of Light Combat Aircraft	Set	0 (3)	0.00 (20.02)	-	-	-	-
Spares for tank truck automation	Lot	1 (0)	10.28 (0.00)	-	-	-	-
Automation of Tank Truck Filling	Set	1P (1P)	13.77 (34.70)	-	-	-	-
Welding Robot Controller	Nos	(1)	(51.40)				
		TOTAL	176.53		0.00		0.00
CFP/RUDRAPUR							
HAWM	Nos	0 (0)	0.00 (0.00)	8 (8)	0.40 (0.40)	8 (8)	0.40 (0.40)
SWHS	Nos	2135 (1202)	236.79 (133.85)	361 (262)	21.12 (14.27)	243 (361)	12.48 (21.12)
Solar Lantern	Nos	16831 (10770)	530.27 (362.03)	655 (230)	10.48 (3.45)	1190 (655)	15.72 (10.48)
		TOTAL	767.06		32.00		28.60
HERP/VARANASI							
Spares & Repairs for Boiler/ Turbine & Auxiliaries			2805.99 (2565.60)		152.64 (104.64)		107.41 (152.64)
		TOTAL	2805.99		152.64		107.41



SCHEDULE 20 (Contd.)
Sales, Opening Stocks & Closing Stocks

(Rs. in Lakhs)

Product	Unit	Sales during the year 2001-02		Op. Stock of Fin. Goods 1.4.2001		Cl. Stock of Fin. Goods 31.3.2002	
		Qty.	Value	Qty.	Value	Qty.	Value
ADVANCE RESEARCH PROJECT							
Others (Services)		-	58.85 (101.52)	-	-	-	-
		TOTAL	58.85		0.00		0.00
TPG BHOPAL							
Spares(Including Services)		-	14823.11 (13492.43)	-	0.00 (0.00)	-	318.63 (0.00)
		TOTAL	14823.11		0.00		318.63
		GRAND TOTAL	728662.54		17472.66		14552.66

Figures in brackets represent previous year's figures

* Correct weight particulars in terms of tonnage could not be ascertained

	Nos.	Rs. in Lakhs
@ This excludes closing stock meant for Boiler treated as WIP	2588	83.24
Valves drawn for Boilers	36694	2165.45

** This excludes opening stock of 46 MT (Rs. 21.34 lakhs) and closing stock of 56 MT of Rs. 27.68 lakhs meant for Boiler Plant treated as WIP.

'P' denotes partly completed units, 'T' Turbines, 'G' Generators & 'H.Ex' Heat Exchanger.

+ This includes 27980 MT (Previous Year 20434 MT) of BAP Ranipet composite turnover for Fossil Boiler.

SCHEDULE 21

Licensed Capacity, Installed Capacity and Actual Production

Sl No	Product	Unit	Installed Capacity		Actual Production	
			2001-2002	2000-2001	2001-2002	2000-001
BHOPAL						
1	Turbo Sets					
	- Steam Turbine	Nos	3	3	0	0
		MW	360	360	0	0
	- Marine Turbine	Nos	2	2	0	0
		MW	24	24	0	0
	- Nuclear Turbine	Nos	1	1	0	0
		MW	236	236	0	0
	- Industrial Turbine	Nos	0	0	0	2
		MW	0	0	0	0
2	Hydro Sets					
	- Hydro Turbine	Nos	12	12	5	6
		MW	720	720	395	376
	- Hydro Generator	Nos	12	12	7	7
		MW	720	720	795	230
3	Large Electrical Machine	Nos	100	100	97	102
4	Traction Machines (Incl.TG/AG,Blower Motors,BPRV etc.)	Nos	2850	2850	3473	2165
5	Power Transformers	Nos	65	65	71	51
		MVA	10000	10000	8948	7362
6	Instrument Transformer	Nos	200	200	547	398
7	Electrical Machines	Nos	550	550	471	400
8	Switchgear	Nos	3000	2640	3061	2818
9	Capacitor	MVAR	3200	1500	2380	963
10	Industrial Controlgear	Nos	250	250	7	4
11	Traction Controlgear	Set	220	220	192	187
12	Control Equipment	Set	600	600	534	680
13	Heat Exchangers	Nos	52	52	15	11
		MT	1100	1100		
14	Control Panels	Nos	600	600	592	562
15	Cathodic Protection System	Tonne	2700	2700	0	0
JHANSI						
1	Power Transformers 33kV/ 132kV #	Nos/MVA	65/4000	65/4000	91/4663	79/3756
2	Other Transformer					
	- Special Purpose Transformer (Dry Type Trfr. etc.)	Nos	180	180	59	42
	- Traction Transformer. (Frt. Loco & ACEMU)	Nos	140	140	66	32



SCHEDULE 21 (Contd.)
Licensed Capacity, Installed Capacity and Actual Production

Sl No	Product	Unit	Installed Capacity		Actual Production	
			2001-2002	2000-2001	2001-2002	2000-001
	- Instrument Transformer	Nos	1960	1960	1635	1074
	- ESP Transformer	Nos	*	*	110	86
3	Bus Duct	Set	@	@		
4	Diesel Shunters	Nos	10	10	2	4
5	AC Locomotives (Upto 6500 HP)	Nos	30	30	-	-

* ESP Trfr. are being manufactured by using the installed capacity of instrument Trfs.

@ Bus duct manufacturing is being done within the existing capacity of Transformers.

Actual production for 2001-2002 includes job done for internal use for the following Products

Dry Type Trfr. : 2 Nos.

One number Power Transformer appearing in the closing balance of FG as on 31.3.2001 has been cannibalised.

HEEP - HARDWAR

1	Turbo Sets	MW	3500	3500	2330	500
2	Hydro Sets	MW	625	625	15	
3	Electrical Machines	MW	450	450	114	126
4	Light Aircraft	NO		-		
5	Gas Turbine @@	MW			450	
6	Super Rapid Guns	NOS	3	3		

@@ Capacity installed for manufacture of gas turbines components like rotor equivalent to 600 MW Gas Turbines, Balance Components for Gas Turbines from existing thermal sets facilities.

CFFP HARDWAR

1	Steel Castings	MT	6000	6000	3117	2775
2	Steel Forging					
	(a) Heavy Forgings	MT	2410	2410	841	690
	(b) Medium Forgings	MT	3000	3000	1642	1815
3	Billets and Blooms	MT	4000	4000	446	391
4	C I Casting	MT	7170	7170		
5	N F Casting	MT	250	250	20	30

HYDERABAD

1	Thermal Sets	MW	770	770	120	197
2	Industrial Turbo Sets	MW	65	65	110.99	95.32
3	Gas Turbine & Accessories	MW			440.8	546.46
4	Compressors	NOs			7	7
5	Drive Turbines	NOs	12	12	4	5
6	Pumps	NO	137	137	52	47
7	Breakers	NO	1050	1050	200	136
		132 kv eqa	xx 1035	xx 1035	622	331.55

SCHEDULE 21 (Contd.)

Licensed Capacity, Installed Capacity and Actual Production

Sl No	Product	Unit	Installed Capacity		Actual Production	
			2001-2002	2000-2001	2001-2002	2000-001
8	Bowl Mills	NOs	80	80	40	26
9	HP Heaters	NOs	20	20	45 #	49 #
10	De-aerators	NOs			6	5

Includes LP Heaters, Gas Coolers, Spl. H Ex. manufactured using the capacity of H.P. Heaters.

xx 132 kV Equivalent no. of Breakers.

Note: A. Installed Capacity for items (3), (4) & (10) can not be stated separately since BHEL Hyderabad had diversified into these products without any additional / with addition of marginal facilities.

1) Sl. No. (3) Gas Turbine & Accessories are manufactured using facilities of Sl.No.(1) & (2).

2) Sl. No. (4) Compressors are manufactured using facilities of Sl.No.(5).

3) Sl. No. (10) De-aerators are manufactured using facilities of Sl.No.(9).

B. Actual production figures against items (1), (2) and (3) include sets where the orders were only for partial sets viz without Turbine or sets without Generator

EDN - BANGALORE

1	Energy Meters	Nos	600000	600000	460050	585151
2	Capacitors -Electrolytic	MLNS	0	0	0	0.03
3	Control Equipments	CUBICLE	1200	1200	1000	871
4	Power Devices	Nos	30000	30000	8537	8875
5	Photovoltaics	KWS	2000	2000	1070	665
6	Telecommunications	LINES	275000	275000	333776	301864
7	Simulators (Defence Electronics)	SETS	*	*	172	2008

* Not ascertainable as it varies in quantity depending upon product mix.

Devices include net internal issues:

	<u>2001-2002</u>	<u>2000-2001</u>
Power Devices	2487	2270

TIRUCHY

1	Boilers	MT	+* 108000	+* 108000	+* 104991	+* 94131
2	Valves	MT	*A 2712	*A 2712	4258	3970
3	Nuclear Steam Generating Equipments	MW	** 382/500	** 382/500	XX	XXX
4	Seamless Steel Tubes	MT	40000	40000	20376	18306
5	Armoured Recovery Vehicles	Nos	25	25	7	30

+ Including 5000 MT for manufacture of equipments for Process Industries.

** Corresponding to 6.5 Steam Generators and 6.5 Reactor Headers for 235 MW (or) 4 Steam Generators and 4 Reactor Headers for 500 MW.

A Excludes 788 MT of IVP/Goindwal.

* Includes sub-contracting and sub-delivery.

XX The capacity was utilised for manufacturing components for nuclear projects and other heat exchangers, pressure vessels, 2 nos. steam generators, 1 no. passive cooler, 1 no. pre-cooler, 1 no. bleed cooler, 2 nos. standby cooling HX, 4 nos. standby coolers have been manufactured during 2001-2002.



SCHEDULE 21 (Contd.)

Licensed Capacity, Installed Capacity and Actual Production

Sl No	Product	Unit	Installed Capacity		Actual Production	
			2001-2002	2000-2001	2001-2002	2000-001
XXX	The capacity was utilised for manufacturing components for nuclear Projects & other Heat Exchangers, Pressure Vessels, 1 no. inner vessel, 2 nos. steam generators, 1 no. bleed cooler and 1 no. emergency condenser were manufactured during 2000-2001.					
BAP - RANIPET						
1	Boiler Auxiliaries	MT	57000	57000	42238	35325
2	Wind Mill *	MT				
	* No separate installed capacity added.					
I V P GOINDWAL						
	Industrial Valves	MT	788	788	616	556
		Nos			4854	4804
EPD - BANGALORE						
1	Insulators & Bushings	CMT	6250	6250	5214	4171
2	Assembled Production	MT			8253	6412
3	Ceralin	CMT	745	745	769	690
4	Ceralin (Assembled)	MT			1639	1495
IP - JAGDISHPUR						
1	Insulators	CMT	6000	6000	4641	3973
2	Ceralin	MT	330	330	508	499
CFP - RUDRAPUR						
1	S W H S	Nos	4000	4000	2020	1316
2	Solar Lanterns	Nos	4000	4000	17377	11406

SCHEDULE 22

	(Rs. in Lakhs)	(Rs. in Lakhs)
	For the year ended 31.03.2002	For the year ended 31.03.2001
Information regarding Imports & Exports		
Value of imports		
CIF basis		
Raw materials	29684.35	28523.82
Components and spare parts	101722.46	94748.53
Capital goods	6376.58	6114.60
Expenditure in foreign currency on account of		
Royalty	104.76	137.42
Know-how, professional consultation fee	1028.17	1932.84
Interest and others (including on foreign sites)	1372.09	2265.07
Dividend :@		
- Interim Dividend		
a) number of non-resident shareholders (Nos.)		212
b) number of shares held (Nos.)		28691697
c) gross amount of dividend		430.38
- tax deducted at source Rs. Nil (previous year Rs. Nil)		
d) year to which dividend relates		1999-2000
- Final Dividend		
a) number of non-resident shareholders (Nos.)	269	240
b) number of shares held (Nos.)	38815286	30816140
c) gross amount of dividend	1164.46	462.24
- tax deducted at source Rs. Nil (previous year Rs. Nil)		
d) year to which dividend relates	2000-2001	1999-2000
@ No payment of dividend to the non-resident shareholders has been made in foreign currency relating to 1999-2000 and 2000-2001 paid during the financial year 2000-2001 and 2001-2002 respectively. The payments have been made to their respective Bankers or Power of Attorney holders in India and the exact amount of dividend remitted in foreign currency cannot be ascertained.		
Value of consumption of raw materials, components, stores & spare parts		
# Imported (including customs duty)	144531.36	129037.56
Indigenous	186145.46	175923.55
Percentage of total consumption		
Imported	44	42
Indigenous	56	58
Earnings in foreign exchange		
Export of goods (FOB basis) **	97464.30	23155.19
Interest	127.01	184.06
Erection charges	1252.75	1590.74
Miscellaneous	102.73	15.13

** This does not include Rs.117850.09 lakhs (previous year Rs. 91717.60 lakhs) on account of deemed exports

Includes canalised items wherever ascertained



SCHEDULE 23

			For the year ended 31.03.2002		For the year ended 31.03.2001
Statement for Raw Materials and Components Consumed					
Group of materials	Units	Quantity	Value	Quantity	Value
			(Rs. in Lakhs)		(Rs. in Lakhs)
Ferrous materials	MT	120,410		151,004	
	Meters	3,988,324		3,817,865	
	Nos	1,027,122		1,036,656	
	Sq.M	31,826		71,000	
	Kg.	28,349,851		22,790,503	
	SC			13,100	
	OTHERS	3		214	
			65778.57		64270.41
Non-ferrous materials	MT	96,056		746	
	Meters	131,903		151,470	
	Nos	118,635		99,369	
	Kg.	3,410,500		3,938,687	
	RL	11,914		3,745	
	SET	420		846	
	OTHERS	9,220		9,383	
			9753.51		8977.36
Insulating materials	Meters	28,278,578		24,433,711	
	MT	4,317		3,971	
	Nos	94,755		102,824	
	Sq.M.	219,386		169,666	
	Kg	888,542		622,126	
	M3	2		8	
	LT	4,124,254		2,011,728	
	RL	132,212		64,440	
	M2	71,941		38,945	
	ST	1,360		42	
	OTHERS	62,827		1,175	
			6763.47		5448.14
Insulated cables and Magnet wires	Meters	322,273		284,398	
	Nos.			99	
	Kg	246		80	
			211.39		226.74
Components			224489.62		198573.47
Others			6301.56		8166.14
			313298.12		285662.26

Sd/-
N.K. SINHA
Secretary

Sd/-
C. SRINIVASAN
Director(Finance)

Sd/-
K.G.RAMACHANDRAN
Chairman & Managing Director

As per our report of even date
For Shiromany Tyagi & Company
Chartered Accountants

Sd/-
PRADEEP TYAGI
Partner

Date : August 16, 2002
Place : New Delhi

CASH FLOW STATEMENT FOR THE YEAR ENDED 31.03.2002

	(Rs. in lakhs)	(Rs. in lakhs)
	2001-2002	2000-2001
A. CASH FLOW FROM OPERATING ACTIVITIES		
NET PROFIT BEFORE TAX AND EXTRAORDINARY ITEMS	86282.82	45032.05
Adjustment for		
Depreciation	16952.67	15772.08
Foreign Exchange Variation	0.00	48.00
Interest	9697.57	4376.41
Interest/Dividend Income	(-) 5508.42	(-) 4651.31
Gain/Premium on redemption of Bonds	0.00	0.00
Profit on sale of Fixed assets	(-) 183.44	(-) 164.08
OPERATING PROFIT BEFORE WORKING CAPITAL CHANGES	107241.20	60413.15
Adjustment for		
Trade & Other Receivables	(-) 37597.91	(-) 31866.23
Inventories	4051.32	(-) 26845.99
Trade Payable & Other Liabilities	54341.83	(-) 42591.60
CASH GENERATED FROM OPERATIONS	128036.44	(-) 40890.67
Interest Paid	(-) 8119.73	(-) 4158.08
Direct Taxes Paid	(-) 23230.36	1851.88
CASH FLOW BEFORE EXTRAORDINARY ITEMS	96686.35	(-) 43196.87
Extraordinary Items	(-) 22068.38	(-) 14388.11
NET CASH INFLOW FROM OPERATING ACTIVITIES	74617.97	(-) 57584.98
B. CASH FROM INVESTING ACTIVITIES		
Purchase of Fixed Assets	(-) 20714.48	(-) 19475.69
Purchase of Investments	0.00	0.00
Investment in Joint Venture Companies	0.00	0.00
Sale and Disposal of Fixed Assets	771.24	(-) 458.84
Sale of Investments	0.00	0.00
Interest & Dividend Receipts	5882.41	4853.84
NET CASH USED IN INVESTING ACTIVITIES	14060.83	15080.69
C. CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from Issue of Share Capital	0.00	0.00
Short Term Borrowing	(-) 72707.10	53121.10
Repayment of Loans	61502.90	(-) 1613.10
Dividend Paid	(-) 8091.71	(-) 8532.69
NET CASH USED IN FINANCING ACTIVITIES	19295.91	(-) 42975.31
D. NET INC./(DEC.) IN CASH AND CASH EQUIVALENT	41261.23	(-) 29690.36
Cash and Bank Balances	33303.58	36060.08
Cash Credit	(-) 26933.86	0.00
(Opening Balance)	6369.72	36060.08
Cash & Bank Balances	47658.92	33303.58
Cash Credit	(-) 27.97	(-) 26933.86
(Closing Balance)	47630.95	6369.72

Sd/-
N.K.SINHA
SECRETARY

Sd/-
C.SRINIVASAN
DIRECTOR (FINANCE)

Sd/-
K.G.RAMACHANDRAN
CHAIRMAN & MANAGING DIRECTOR

The above Cash Flow Statement has been derived from the Accounts of the Company for the year ended 31st March, 2002 as audited by us.

For SHIROMANY TYAGI & CO.,
CHARTERED ACCOUNTANTS

Sd/-
(PRADEEP TYAGI)
PARTNER

Place : New Delhi.
Date : August 16, 2002.



NAMES OF THE SMALL SCALE INDUSTRIAL UNDERTAKINGS TO WHOM THE COMPANY OWES A SUM EXCEEDING RS. 1 LAKH WHICH IS OUTSTANDING FOR MORE THAN 30 DAYS WITHIN THE AGREED TERMS (IN TERMS OF NOTIFICATION NO. G.S.R. 129 (E), DATED 22ND FEBRUARY, 1999)

2 M Company	Balaji Engg. Enterprises
21 st Century Fabricators	Bangalore Malleables
A Bond Strands Pvt.Ltd.	Bangalore Nonferrous Casting
A-1 Industries	Bansal Fabwell Industries
AB Metal Formers (P) Ltd.	Baroda Rolling Works
Acme Forgings Pvt. Ltd.	Bend Joints
Aeravent Projects Pvt. Ltd.	Bhagirath Coach Builder
Ag Measurematics Pvt.Ltd.	Bhanwar Sales Corpn.
Agile Heavy Engg. P. Ltd.	Bharat Chemical & General Ind.
Ahsanali Eng. Workshop	Bharat Minerals
Aishu Castings Pvt. Ltd.	Bharat Stamping Products
Ajantha Fabrication Works	Bharat Trading Co.
Ajmer Minerals & Grinding Co.	Bharath Engineering Works
Alert Engineering Enterprises	Bhartiya Elmech Corpn.
Aliasons Industries	Bhavani Automats
Allied Rubber Products	Bhopal Engineering
Altec Fabricators	Bhopal Timbers
Alucoat Aplicators P. Ltd.	Bimco Engg. Enterprises Industries
Alumetal Works (P) Ltd.	Bindu Enterprises
Ambarnath Transformers	Blasters & Corrosion Preventor
Ambika Forgings	BMW Steels Ltd.
Ames Impex, Ahmedabad	Bombay Oil Seals Co.
AMP Control Equipments Pvt. Ltd.	Bora Brothers Industries
AN Instruments Pvt. Ltd.	Browns Hitech Structure Pvt. Ltd.
Anand Udyog	Bumper India Pvt.Ltd.
Ananda Fabrication	Byte Communications Pvt. Ltd.
Anupam Industries	Calburg Engineering
Anupam Mudaram	Calmet Industries
Aravali Minerals (P) Ltd.	Canara Metal Works
Arco Electro Technologies (P) Ltd.	Capronics Pvt. Ltd.
Arco Industries	Cauvery Engineering Works
Arun Structural	Ccube Systems
Aruna Machine Tools	Cenlub Industries Ltd.
Ashoka Electronics	Champion Engineering Industries
Associated Engineers	Chaudhary & Sons(Forgings) Pvt.Ltd.
Associated Enterprise	Chetan Fastener Manufacturers
Associated Road Carriers Ltd.	Chhabi Electricals Pvt. Ltd.
Athena Controls (India) Ltd.	Chino Laxsons (India) Pvt.Ltd.
Atlas Fastners	Coimbatore Super Alloys Pvt. Ltd.
AV Engineering Works	Connect Well Industries Pvt. Ltd.
AV Valves Limited	Control Dynamics
B.K.Enterprises	Control Infotech Limited, Bangalore
B.T.Solder Pvt Ltd.	Control Systems
B.V.K. Industries	Copper Strips Pvt. Ltd.
Babubhai Narotamdas & Co.	Cori Engineers Pvt. Ltd.
Baby Industries	Craftsman Automation Pvt. Ltd.

Crescent Valves Mfg. Co. Pvt. Ltd.
Crown Furniture & Saw Mill Industrs
Crystal Chemical Products
D.K.Electro-Mech Corpn
Deepak Industrial Engg. Works
Deepam Engineering Enterprises
Delta Trans Conductors(P) Ltd.
Design and Assemblies Inc.
Dhanalakshmi Die Castings
Dhathu Nirman Pvt. Ltd.
Dielectric Corporation
Dinesh Engg. Corporation
Dolphin Screens
Doon Galvanising (P) Ltd.
Dumdum Valves & Bearing Pvt. Ltd.
Durai Industrial Works
Efficient Fastener Manufacture
Electro Auto Industries
Electro Mechanicals
Electro Systems Associates P. Ltd.
Electronics & Industrial Ancillaries
Elmec Components Industries
Elmex Controls Pvt. Ltd.
Elpro Engineering
EM Electronix (P) Ltd.
Engineering Enterprises
Entek Ird International (India) Ltd.
Enterprising Engineers
EP Products
EPC Electrical Pvt. Ltd.
EPE Process Filters & Accumulators Pvt. Ltd.
Ess Vee Packaging Pvt. Ltd.
Essen Dienki
Euroflex Transmissions (India) P. Ltd.
Eutoteck Engineering
Everest Electronics Compo P. Ltd.
Excel Engineers
Excel Engineers, Patan Chem (AP)
Excel Hydro-Pneumatics (P) Ltd.
Excel Industries
Excel Par Electronics
Excel Pressings
Excel Process (Bangalore) Pvt. Ltd.
Farmer Engineers
FCQ Power Industries
FE N FE Metallurgicals
Fibradite Products Pvt. Ltd.
Fibreglass Moulding Co.
Fisher Rosemount (India) Ltd.
Five Star Industries

Floricon Enterprises
Fluid Line Engg. & Fabricators
Fortifori Plastics Ltd.
Fujitsu Optel Ltd.
G.S. Alloys Castings Pvt. Ltd.
Galaxy Controls Pvt. Ltd.
Gargi Enterprises
GB Engg. Enterprises Pvt. Ltd.
Gea Energy System (I) Ltd.
Geerthana Engg. Works
Gem Equipments
Ghaziabad Ispat Udyog Pvt. Ltd.
Glass Fibre & Allied Industries
Go Goal Engg. Industries
Golden Plastic Enterprises
Goodlass Nerolac Paints Ltd.
Goyal MG Gases Limited
Goyolene Fibre(India) Pvt. Ltd.
GS Alloy Castings Ltd.
Gujrat Smelting & Refining Co.P. Ltd.
Gulab Chand Kochar
Guru Nanak Engineering Works
Gwalior Tanks & Vessels Ltd.
Harihar Alloy Castings Ltd.
Haritha Industries
Heaters India
Heavy Metal & Tubes Pvt.Ltd.
Hilpine Industries
Himgiree Engg. Industries
Hindustan Forgings
Hi-Tech Resistors Pvt. Ltd.
Hitek Heavy Equipments Pvt. Ltd.
Hitesh Screw Products
HMW Metal Works (P) Ltd.
Hyderabad Castings Ltd.
Hyderabad Heavy Engg. Pvt. Ltd.
Hyderabad Heavy Machining Ind.
Hydropack (India) Pvt.Ltd.
Hydroquip Engineering
I.T.M. Pvt. Ltd.
IEE Engg. Enterprises Pvt. Ltd.
Iftekhhar Timber Works
IGP Engineers Pvt. Ltd.
Inapuri Ancillary Industries
India Insulators
Indian Core Oils Pvt.Ltd.
Indian Metals & Alloys Mfg Co.
Indira Industries
Indo-Tech Precision Products Pvt. Ltd.
Industrial Tapes & Fabrics Pvt. Ltd.



Industrial Tubes Mfrs. Pvt. Ltd.
Infocontrol Systems Inc.
Ingersollrand Wadco Tools Limited
Innovations
Inspros Engineers Pvt. Ltd.
Instruments And Controls
Integral Systems & Components Pvt. Ltd.
Integrated Electro Tech. Pvt. Ltd.
Intra Vidyut Ltd.
Iyyappan Engg. Industries
J.V. Industries
Jadon Engg. Industries
Jai Ganesh Engg.
Jayaram Engineering
Jayashree Electron Pvt. Ltd.
Jayaswals Neco Ltd.
JDM Enterprise
Jindal Electronics Private Limited
Jindal Steel Products Ltd.
JMC Mechanical Engg. (P) Ltd.
JMP Auto
JMP Manufacturing Co.
K.C.S.Fastners
K.K.Engineering Works
K.R. Industries
K.S. Instruments Pvt. Ltd.
Kalpa Elektrikal Pvt. Ltd.
Kalyani Engg. Works Ghaziabad
Kanpur Metal Products
Kappa Electricals Pvt. Ltd.
Kaptronics (P) Ltd.
Kareyn Precision Machines Pvt. Ltd.
Karnataka Plasto Industries (P) Ltd.
Karnataka Press Tools
Kerala Electrical And Allied Engg.
Kisan Mechanical Works
Kissan Steels Pvt. Ltd.
Kith Engineering
Kiyosh Electronics
Kran Rader Pvt.Ltd.
Krishna Engg. Co. Pvt. Ltd.
Krishna Gal Works
Kumaran Industries
Kwality Forged Fittings
Laguna Enterprises
Lakshmi Engg. Works
Lakshmi Enterprises
Lalitha Industries
Laxmi Engineering Industries
Laxmi Engineering

Lee Vedla Industrial Corporation
Levcon Instruments Pvt. Ltd.
Levcon Valves Pvt. Ltd.
Lifting Equipments & Accessories
Lipi Engravers
Lonestar Industries
M Harinath & Co
M.K. Enterprises
Madhya Pradesh Cupro Metals Pvt. Ltd.
Madras Cuprum Metals (P) Ltd.
Madras Industrial Products
Manisha Rubber Enterprises
Manixon Industrial Corporation
Manjunatha Printers
Mantek Engineering Enterprises
Marudhar Laminations (P) Ltd.
Mas Casts
Mech & Fab Industries
Mechanical Constructors
Meenatchi Industries
Mehi Udyog
Mekaster Engg. & Equipments Pvt. Ltd.
Metallic Bellows Pvt. Ltd.
Metplast Industries India
Mica-Mould
Micaply
Micro Instruments Co.
Microsign Products
Mikroflo Filters Pvt. Ltd.
Mipalloy
MJ Engineering
Modern Allied Industries
Modern Fabricators & Engg.
Multi Tech Engineers
Muthumeena Enterprises
Mysore Polymers Pvt. Ltd.
N.S. Engineering Company P. Ltd.
Nag Fastening Systems
Nagachandra Plasto Metals (P) Ltd.
Nagadevi Engineers
Nagarjuna Fabricators
National Refractory
Navketan Furniture Systems (P) Ltd.
New Bharat Engineering Works
Nirmal Engg. Works Jwalapur
Nitin Industries
Nivo Controls Pvt.Ltd.
Nootan Engineering Industries
Nucleus Electro Enterprise
Ohm Sakthi Engineering

Orient Metal Industries	Reprographics India
Orion	Righill Electrics (P) Ltd.
P.V.K. Engineers	Rine Engg. (P) Ltd.
Padma Machine Shop	Rohit Interlocks & Automation Pvt. Ltd.
Pal Engg. Cooperative	RS Steel Works
Pal Engineering Corporation	Rungta Steel
Panam Controls	S N T Controls Limited
Patny Systems Pvt. Ltd.	S.G.Chemicals
Pearl Insulations Private Limited	S.K. Industries
Peeve Engineering	S.L.N. Enterprises
Permal Wallance Ltd.	S.V. Engineers
Pioneer Engineering Industries	Saini Engg. Works
Pipe Supports India P. Ltd.	Sajas Electricals
Plastic Product Engineering	Salem Automech
Ponni Engineering	Sandeep Steel Industries
Pooja Cables Pvt. Ltd.	Sanjay Fabricators
Power Piping Company	Santosh Enterprises
Powerline Industries	Sarada Fabricators
Pragati Electricals Pvt.Ltd.	Satchitanand Precision Tooling Centre
Prakash Engg. Enterprises	Satyam Industries
Prammen Industries	Saurabh Metals Pvt. Ltd.
Pranam Associated Industries	Scientific Silica Products
Preci-Fit (India)	Scope Engg. Works
Precious Engg.Works	Seema Enterprises
Precision Electronic Products	Senapathy Symons Insulation(P) Ltd.
Precision Machine Tools Dehradun	Shamstron
Premier Engineering Industries	Shanker Iron Industries
Premier Industries	Shanta Sales Corporation
Punitha Engineering	Shavo Norgren (India) Pvt. Ltd.
Purnima Electrical Industries	Sheela Industries Hardwar
Pyro Electric Instruments Goa Pvt. Ltd.	Sherry Forge Pvt. Ltd.
Pyrotech Control (India) Pvt. Ltd.	Shet Electricals(P) Ltd.
Pyrotech Electronics (P) Ltd.	Shiva Engineering Works, Calcutta
Quality Engineering Works	SHPE Engg
R. Industries	Shrao Engg.Works
R.S.Engineering Works	Shree Cables & Conductors (P) Ltd.
R.V. Mehta & Sons	Shree Hans Alloys Limited
Raab Pipeworks (Pvt.) Ltd.	Shree Krishna Engg. Works
Radhika Industries	Shree Pomani Metals & Allys Pvt. Ltd.
Radiant Cables (P) Ltd.	Shreeji Fasteners
Rajesh Engineering Works	Shri Durga Oil & Steel Works
Rajshi Engineering	Shri Lakshmi Engg. Works Hardwar
Rakesh Engineering Industries	Shubham Enterprises
Raleema Electronics	Silkaans Elect.Mfg. Co. Pvt. Ltd.
Ram Sagar & Sons	Sirveen Control Systems
Ramakrishna Engineering Works	Skilt Fabricators Pvt. Ltd.
Rangasayee Alloy Castings	Skylab Industries
Rashm Enterprises	Smith & Hammer Pvt. Ltd.
Rattan Engg. Co. (Pvt.) Ltd.	SOL Engineers Pvt. Ltd.
Refrigeration & Electrical Applian	Southern Lubrication Pvt. Ltd.



Speed Steel Industry
Sree Gayathri Industries
Sree Lakshmi Plastic Industry
Sree Venkateswara Steellite
Sreenivasa Machine Tools
Sri Balaji Metalisers
Sri Bhagawan Balaji Industries
Sri Jyothi Engg. Works
Sri Lakshmi Industries
Sri Lakshmi Krishna Engg. Works
Sri Laxmivitreous
Sri M. Industries
Sri Raju & Raju Presstronics
Sri Rama Engineering Ind.
Sri Venkateswara Mech. & Elec. Engg. Works
Sri Vijaya Laxmi Engg. Works
Srisai Engineers & Fabricators
SS Pipe Fittings & Forgings
SS Rubbers Pvt. Ltd.
Standard Cables Ltd., Bangalore
Static Safe System
Steel Craft Industries Yamunanagar
Sterling Gases Ltd.
Subhadra Industries
Suchitra Industries
Sudeep Packaging Industries Pvt. Ltd.
Sudha Engineering Works
Sugo Industries
Suhas Precision Engg. Works
Sukrut Udyog
Sumuka Industries
Super Industrial Components
Superflo Filters Pvt.Ltd.
Surendra Engineering Works
T.V. Engineering
Talbro Private Ltd.
Taurus Thermotech Pvt. Ltd.
TCXPLAS (I) Pvt. Ltd.
Technical Consultancy & Service
Technology Products
Technostrength
Thapsons Chemicals
The Hyderabad Heavy Engg. Works
Thermowel Insulation & Packaging Pvt. Ltd.
Thillai Engg. Works
Tide Steel Company
Tonk & Associates (P) Ltd.

Tool Fab.
Tools & Components Industries
Trakolly Engineering Pvt. Ltd.
Transpower Industries
Triomech Engg. Pvt. Ltd.
Triveni Industries
Turbomachinery Engg. Industries P. Ltd.
Twilight Plastic Industries
Ubah Instruments Pvt.Ltd.
Uniglass Industries (Pvt.) Ltd.
Unique Engineering Enterprises
Unitech Machines Limited
United Engineering Industries
United Engineers
United Metal Coiners
United Metals (India)
United Rubber Industries
Universal Transformers
Uppal Ferrocast Pvt. Ltd.
Upper India Special Castings Ltd.
Utsav Electro-Mech Pvt. Ltd.
V.R.K. Industries
Value Trek Engineers
Vapcon Manufacturing Engineers
Varsha Cables Pvt. Ltd.
Vasan Industries
Vasanthalakshmi Engg. Works
Vasanthi Heavy Machining P. Ltd.
Vasuda Engineering Works
Veeyes Alloys Pvt. Ltd.
Vema Metals And Conductors Ltd.
Vetril Electronics Pvt. Ltd.
Vetrivel Engineering
Vidya Enterprises
Vijay Power & Spares
Vikas Machino Fabs P. Ltd.
Vimlesh Industries (P) Ltd.
Vinir Engineering Pvt. Ltd.
Vishal Malleables
Vishnu Forge Industries Ltd.
V-Megh Industries
Vyjayanth Engg. Pvt. Ltd.
Wadhwa Brothers Engineering
Wellcut Industries
Western Extrusion Inds. (1975)
Western India Forgings Ltd.
Wood & Insulation Products
Yashmun Engineers Ltd.

BANKERS

State Bank of India
State Bank of Hyderabad
State Bank of Travancore
State Bank of Mysore
Canara Bank
Bank of Baroda
Punjab National Bank
Deutsche Bank
HDFC Bank Ltd.
Standard Chartered Bank
CITIBANK NA
ICICI Bank Ltd.
IDBI Bank Ltd.
Hongkong and Shanghai Banking
Corporation Ltd.

SHARE TRANSFER AGENT

Karvy Consultants Ltd.
Unit : BHEL
105-108, Arunachal Building
19, Barakhamba Road
New Delhi-110 001
Phone : 3324401 3324409, 3324417,
3324435, 3324613
Fax : 011-3730743

REGISTERED OFFICE

BHEL House, Siri Fort
New Delhi - 110 049 (India)
Phone : 6001010 (15 Lines)
Fax : 011-6493021 / 6492534

AUDITORS

Shiromany Tyagi & Co., New Delhi

Vasan & Sampath, Bangalore

Bhasin Raghavan & Co., New Delhi

S.L. Chhajed & Co., Bhopal

M. Bhaskara Rao & Co., Hyderabad

Bansal & Company, New Delhi

Raj Gupta & Co., Ludhiana

S.P. Puri & Co., New Delhi

V. Ramaswamy Iyer & Co., Vellore

Vinay Kant & Associates, Varanasi

Sagar & Associates, Hyderabad

Dinesh Ashok & Co., Kanpur

V. Soundrarajan & Co., Chennai

P. G. Joshi & Co., Nagpur

Nundy Roy & Co., Kolkata

Suri & Co., Chennai