

**2**<sup>nd</sup> **April**, **2009** Press Conference address by

# Shri K. Ravi Kumar

Chairman & Managing Director, BHEL

on the Company's Performance during 2008-09

# BHEL defies slowdown; Achieves all-time high Orders Inflow, Turnover, Exports

	2007-08	2008-09 (Prov.)	% change	% change (excluding provision for wage revision)
Turnover (Rs. Crore)	21,401	27,505	29%	
Profit Before Tax (Rs. Crore)	4,430	4,530	<u></u> 2%	1 21%
Net Profit (Rs. Crore)	2,859	3,039	6%	25%
Orders Inflow (Rs. Crore)	50,270	59,687	19%	
Earnings Per Share (Rs.)	58.40	62.1	€ 6%	
Value Added per employee (Rs. Lakh)	19.07	21.24	11%	
Capital Investment (Rs. Crore)	726	1,106	<b>52%</b>	

# Supercritical technology business:

Maiden orders for 800 MW supercritical boilers for Krishnapatnam and 660 MW supercritical turbine generator sets for Barh-II, NTPC

JV formed for 2x800 MW supercritical thermal power project with TNEB

JV/MoI signed with KPCL & GSECL for 5 nos. 660/800 MW supercritical thermal power plants in Karnataka & Gujarat

#### **Nuclear field:**

First-ever order for steam generators for new rating 700 MWe Nuclear sets – moving forward to capitalise on emerging business opportunities in the Nuclear sector

MoU signed with NPCIL for formation of JV for conventional island of Nuclear Power Projects. Technology tie-ups being explored for 700/1000/1600 MW TG sets through this JV Company

MoU signed with GE-Hitachi for cooperation in Nuclear island equipments for Power plants to be set up by NPCIL

#### **Strategic Alliances:**

Partnerships forged with NTPC, KEL, HEC and PTC for leveraging equipment sales as well as strengthening the supply chain by developing additional sources for critical inputs

# **Inorganic Growth:**

Acquisition of BHPV as 100% subsidiary.

Opportunities being pursued in the areas of Transmission, Transportation, Nuclear and Renewable energy

MoUs signed with GE for Diesel Electric locomotives and manufacture of propulsion systems for these locomotives

# **Capacity Expansion:**

Manufacturing capacity expansion from 10,000 MW to 15,000 MW p.a. proceeding apace and further augmentation to 20,000 MW p.a. planned by 2011-12

Foundation stone for a new plant in Tirumayam in Pudukottai district of Tamil Nadu laid for manufacture of boiler components

#### **Customer Confidence:**

Confidence reposed by Private Sector customers; orders worth Rs.13,317 Crore\_placed by Jindal Power, Jaiprakash Power Ventures, GVK Power, Hindalco, HPCL Mittal Energy Ltd., Adani Power, Tatas, ACC, among others

Highest value order of Rs.2,010 Crore received in Industry Sector business segment from Hindalco for 6x150 MW BTG package for Mahan (MP)

First ever order for generator transformers for 800 MW sets and also the largest rating to be installed in India for Mundra UMPP, reinforcing technological and market leadership in transformers

#### **Green Initiatives:**

BHEL Space Grade Solar Panels supplied for first satellite export project of ISRO for EADS-Astrium of Europe. The satellite was successfully launched by the European Ariane-5 launch vehicle from French Guyana

MoU signed with BEL for formation of a JV to address Solar Photovoltaic business and for setting up manufacturing facility for silicon wafers, solar cells and modules

#### **Global Forays:**

Physical export orders of Rs.3,265 Crore – up 41% from 22 countries in 5 continents

Forays in new markets – Senegal, Rwanda and new market segments in Syria, Tajikistan, Japan and Nigeria

Long term business tie-up – Six-year Rate Contract for 126 MW rated Gas Turbine Generating Sets from Oman – one of its kind in the world

MoU signed with TGR, Hungary for exploring opportunities for conventional boilers and R&M of boilers in European and CIS countries

# **Technology Edge:**

BHEL becomes sole supplier in the world for 420 kN/320 kN porcelain insulators for  $\pm$  800kV HVDC transmission lines, following successful testing at STRI, Sweden; first consignment for PGCIL flagged-off

R&D spend at Rs.650 Crore - 40% higher than the previous year; 29% growth in BHEL's IPR capital with 202 patents/copyrights filed taking the total number to 857

An understanding has been reached with Sheffield Forgemasters International Ltd., UK for technology transfer in the area of Forgings required for Advanced class Gas Turbines, Hydro Turbines and Thermal & Nuclear sets up to 1,000 MW rating

MoU for TCA signed with Nuovo Pignone S.p.A Italy for Centrifugal Compressors\_

# **Equipment Performance:**

All 6 thermal power stations awarded with Govt. of India's Meritorious Productivity Awards are equipped with BHEL equipment, reinforcing the reliability and quality of BHEL's equipment

BHEL built sets contributed 73% of the power generated in the country during the year All-time high Operating Availability of BHEL thermal sets; PLF higher than the national average

#### Other Initiatives:

- HR initiatives Manpower ramped up by 4,500 persons in 2008-09 as a capability building measure
- On-line project monitoring system introduced implemented in Dadri and Mejia
- In a bid to maintain complete transparency in its major contracts and procurement, BHEL adopts 'Integrity Pact' and signs MoU with Transparency International India (TII)

#### **Accolades:**

For the third year running, only PSU in Forbes Asia 'Fabulous 50' list of the best of Asia-Pacific's publicly-traded companies with revenues or market capitalisation of at least US\$ 5 billion

BHEL and its units were awarded 4 'ICWAI Awards for Excellence in Cost Management' for 2008 – the highest among public and private sector companies

# **FINANCIAL PERFORMANCE**

- During 2008-09, BHEL recorded the highest-ever turnover of **Rs.27,505 Crore**, up by **29%**, compared to Rs.21,401 Crore of the previous year.
- The company's Net Profit (PAT) went up by 6% at Rs.3,039 Crore against Rs.2,859 Crore in the previous fiscal. Profit Before Tax (PBT) also rose by 2% at Rs.4,530 Crore, during the year. With this, BHEL maintained its track record of earning profits uninterruptedly since 1971-72.
- The growth in PBT and PAT after neutralising the impact of wage revision provision is **21%** and **25%**, respectively.
- An interim equity dividend of **90%** on the enhanced post-bonus equity capital has already been paid for fiscal 2008-09.
- Earnings Per Share (EPS), during the year, stood at **Rs.62.1** an increase of **6%** over 2007-08.
- Economic Value Added (EVA) rose **8%** at **Rs.1,955 Crore** over that of Rs.1,810 Crore in 2007-08.
- Net Asset Value (NAV) per share increased to **Rs.263.3**, from Rs.220.1 in the previous year, reflecting the intrinsic strength of the company, while Value Added per employee went up to **Rs.21.24 lakh** from Rs.19.07 lakh in 2007-08.
- Total export turnover (Physical + Deemed) was also at an all-time high of **Rs.8,406 Crore** during the year, accounting for over **31%** of the company's turnover during the year.

This performance is significant in the backdrop of the subdued economic environment in the country and demand contraction in the industrial segment, adversely affecting the entire manufacturing sector. During the year, provisioning of Rs.1,728 Crore has been done for the impending wage revision (due w.e.f. 1.1.2007) which has impacted the net profit of the company. The company withstood all these pressures because of its inherent strength and strong fundamentals.

# **ORDERS INFLOW**

Operating in an intensely competitive environment, BHEL obtained a record order inflow of **Rs.59,687 Crore**, during the year. Fiscal 2008-09 has ended with a cumulative order book for execution in 2009-10 and beyond, of **Rs.1,17,000 Crore** – the highest-ever in physical as well as financial terms.

In the **Power Sector business** segment, BHEL secured orders worth **Rs.44,407 Crore**, for **17,020 MW** of power plants. Major highlights of the year included the first-ever orders for 800 MW supercritical boilers, 660 MW supercritical turbine generator sets and largest number of orders for 8 sets of 600 MW. Significantly, **100%** share of the R&M market for thermal sets was retained for the third successive year with orders of **Rs.2,770 Crore** including the supply of spares and services.

# Significant orders received in the Power Sector include:

- Maiden order for 2x800 MW Supercritical SG Package for APPDCL, Krishnapatnam
- First order for 2x660 MW Supercritical TG Package for NTPC, Barh Stage-II
- First-ever order for 4 nos. steam generators for new rating 700 MWe Nuclear sets from NPCIL for KAPP
- PPCL Pragati-III CCPP (1371 MW) and OTPC Pallantana CCPP (726.6 MW) on EPC basis with Advanced class 9FA Gas Turbines
- Highest value single order for 4x600 MW OP Jindal STPP, Raigarh, besides orders for 4 Nos. 600 MW sets from MPPGCL; TNEB and APGENCO
- 500 MW sets 13 Nos. from NTPC; MSPGCL; NTPL; CSEB and DVC
- 250/270 MW sets 7 Nos. from GVK Power Ltd.; Bina Power Supply Company Ltd.; RRVUNL and MSPGCL
- Highest-value hydro order for Rampur HEP (6x68.7 MW) of SJVNL

In the **Industry Sector business** segment also, BHEL secured record orders worth **Rs.10,254 Crore** - a growth of **30%** over the previous year, in Captive Power, Transportation, Power Transmission, Oil & Gas and other industrial segments.

Transmission Projects group, after its consolidation during 2007-08, has turned around and achieved highest-ever revenue and profits.

### Significant orders received in the Industry Sector include:

- Highest-value order ever received from Hindalco for 6x150 MW BTG package for Mahan (MP)
- Highest-value order received in the refinery segment from HMEL (JV of HPCL & Mittal Energy Ltd.) for 153 MW Combined cycle CPP on LSTK basis. Orders for highest-rating slow-speed pressurised synchronous Motors also won for the same project
- First order for 2x150 MW BTG package from OPG Power Gujarat Pvt. Ltd.
- EPC order for 68 MW Cogeneration Captive Power Plant Package from MRPL
- STG sets from various process industries viz. Meghalaya Power, Century Pulp and Paper, Lokmangal Agro Industries, Lokmangal Mauli Industries, Krishnaveni Sugars, Siruguppa Sugars & Chemicals Ltd. and ACC Ltd., Chanda
- BHEL's leadership in transformer business reaffirmed with bulk order for 40
  Transformers from Coastal Gujarat Power Ltd. for Mundra UMPP, involving country's
  highest-rating Generator Transformers (930 MVA, 400 KV, 3 phase banks). BHEL will
  also supply Busducts and largest vertical Motors for CWP application for the same
  project
- Maiden order for Generator Transformers for 660 MW sets and highest-rating BFP motors from NTPC for Barh Stage-II followed by order for Generator Transformers for Tirora Project of Adani Power (3x660 MW)
- 26 nos. 400 KV Shunt Reactors from PGCIL largest shunt reactor order ever placed in India
- Upgradation & Refurbishment of 12 onshore drilling rigs and upgradation of existing advanced instrumentation system for 53 onshore rigs from ONGC
- Highest-ever orders for Compressors from HMEL-Bhatinda, HPCL-Mumbai, BRPL-Bongaigaon & MRPL-Mangalore; Turbo Blower Package from SAIL, Rourkela Steel Plant
- All-time high orders for Well Heads and X-mas trees from PSUs ONGC, OIL & private companies
- Developmental order for 765 KV Transformer, Reactor, CT, CVT & CB from PGCIL
- Traction Electrics for Kolkata Metro, after nearly two decades, from ICF Chennai
- First-ever order in Defence business for supply of ACS/IPMS (Auxiliary Control Systems-Integrated Platform Management System) from Mazagon Dock Ltd.
- PV Modules of various ratings from BEL, Bangalore; Alps Environmental Technologies, CREDA, Chhattisgarh and other customers
- Continued focus on After Sales Services led to orders for Spares & Services from Oman, Saudi Arabia, Indonesia, New Zealand, USA, Cyprus, Sri Lanka, UAE, Nepal, Sudan and Libra
- In International Business, bucking the global recessionary trend, BHEL achieved a physical export order inflow of Rs.3,265 Crore during the year an increase of 41% over that of the previous fiscal. The year marked significant steps towards globalisation with successful forays in new markets and new product areas, apart from firmly establishing the company's presence in existing export markets and areas.

# **PROJECTS EXECUTED**

BHEL synchronised **4,182 MW** of power plant equipment during the year comprising Utility & Captive sets.

Utility sets totaling to **5,795 MW** were put under Commercial Operation.

The installed capacity of BHEL supplied Utility sets went up to **87,646 MW** and BHEL's share stands at **64%** in the country's total installed capacity of **1,38,175 MW**.

BHEL supplied **850 MW** of power generating equipment during the year, to customers in several countries including Bangladesh, Iraq, Libya, UAE, Sudan, Indonesia, etc. In addition, three 230 kV substations were

# Major power projects synchronised include:

1x500 MW thermal set for Sipat STPS

2x250 MW thermal sets for Bhilai TPS

1x250 MW thermal set for Chandrapura TPS

1x250 MW thermal set for Raigarh TPS

1x250 MW thermal set for Lehra Mohabbat TPS

1x250 MW thermal set for Suratgarh TPS

1x250 MW thermal set for Trombay TPS

1x210 MW thermal set for Bakreswar TPS

1x210 MW thermal set for Amarkantak TPS

1x125 MW thermal set for Giral TPS

1x75 MW thermal set for Kutch Lignite TPS

1x125 MW hydro set for Ghatghar HEP

1x125 MW thermal set for JSL Duburi

1x120 MW STG set for Tisco

1x80 MW thermal set for Hindustan Zinc Ltd.

1x45 MW & 1x30 MW STG sets for Hooghly, Metcoke

1x48 MW STG set for Shri Ram Alkalies

1x45 MW STG set for Monnet Ispat

commissioned in Bangladesh and Ethiopia, while **27** Transformers totalling to nearly **2,885** MVA were commissioned in Egypt, Bangladesh, Afghanistan and Ethiopia.

# **EQUIPMENT PERFORMANCE**

During the year, BHEL-built power generating sets generated **464** Billion Units of electricity which was **73%** of the total power generation in the country.

BHEL built thermal sets achieved an all-time high Operating Availability (OA) of **88.2%**; Plant Load Factor (PLF) at **80.1%** was 3.1% higher than the national average.

BHEL make 200-500 MW thermal sets, which form the backbone of the country's thermal generating capacity, operated at an impressive PLF and OA of **84.3%** and **91%**, respectively.

Notably, 77 sets achieved PLF of over 90% and 141 sets achieved OA higher than 90%.

All the **6** power stations awarded with the Ministry of Power's Meritorious Productivity Awards for 2007-08 are equipped with generating equipment manufactured and supplied by BHEL, reaffirming the quality and reliability of BHEL's equipment.

# **CUSTOMER FOCUS**

BHEL reinforced its commitment to providing prompt and efficient customer service aimed at facilitating uninterrupted power supply and keeping power plants in good running condition. During the year, BHEL overhauled **96** thermal utility/captive and **5** hydro sets.

Demonstrating the highest level of customer commitment to overcome the challenges of difficult logistics of Afghanistan, BHEL airlifted two transformers each weighing 90 Metric Tonnes along with other equipment for the substation. This is a rare occasion when such heavy engineering equipment has been airlifted from India.

Responding to ONGC's request for repair of an imported Gear Box at Hazira, BHEL took up the job and successfully put it back in operation, saving enormous time and enabling the customer to restore operation of critical processing units in a short duration.

# TECHNOLOGY DEVELOPMENT

BHEL's products and systems are technology intensive and R&D/technology development is of strategic importance to the company. During the year, BHEL spent Rs.650 Crore on R&D efforts – 40% higher than the previous year. This corresponds to 2.36% turnover of the company. A turnover of Rs.5,405 Crore was achieved through products and systems developed in-house, an increase of 81% over the previous year.

BHEL also filed **202** patents and copyrights, enhancing the company's intellectual capital to **857** patents and copyrights filed, which are in productive use in the company's business.

#### Some of the significant developments during the year include:

- As its contribution to the armed forces, BHEL has developed a compact 2.4 TPD RO-based desalination plant skid (water filtration system suitable for sea water) for Indian Navy submarines. Following successful testing in the presence of Indian Navy personnel, the skid was dispatched and received at Naval Dockyard, Vizag for field testing.
- Following successful testing of in-house developed 320kN / 420kN HVDC Porcelain Insulators at STRI, Ludvika, Sweden, BHEL has become the sole manufacturer of such insulators in the world. Also, to augment its range of disc insulators for meeting customer requirements, has developed 800 kV Hollow Insulators for the first time in the country. These insulators will be used in 765 kV Ultra High Voltage AC transmission systems.
- Consistently offering tailor-made designs to suit customer needs, BHEL has developed a new design of a Steam Turbine in the 120-150 MW range. Apart from reduced manufacturing cycle time, the new Single Cylinder Reheat Turbine offers improved load efficiency with a compact design leading to reduced installation costs.
- > Extending the range of exciters for meeting customer requirements, a more reliable Brushless Exciter with Permanent Magnet Generator has been designed, developed and manufactured for 250 MW Turbo Generators. The new exciter offers benefits like reduced manufacturing cycle time, better dynamic behaviour and more efficient site operation. A Patent has already been granted for the development and usage can be extended for a wide range of sets (210-800 MW) in future.
- As part of its endeavour to establish technology for the entire spectrum of products for supercritical power plants, BHEL has designed and developed a Deaerator for 1,000 MW power plants. This inhouse development will not only address the emerging need for supercritical equipment but also result in substantial savings by eliminating the need for a technology tie-up with an international player.
- > To address the demand and technology trend for compact, economical and more efficient 2-cylinder turbines, BHEL has developed a combined HP-IP module to cover the range of 500-650 MW TG Sets. The development of this module will enable BHEL to offer a technically more competitive design, enhancing its business potential in the output range of 500-650 MW with sub-critical parameters.

- Aimed at significantly reducing erection cycle time in hydro projects, BHEL has developed a new compact design of site welded stay ring for hydro turbines which gives multiple advantages like 45% weight reduction for medium/high head stay rings and permits accommodation of semi-umbrella bearing arrangement in the limited space in underground caverns. This concept can also be applied in large size projects.
- In a bid to enhance reliability of its boilers for the benefit of it customers, BHEL has established a supercritical test advanced research facility to conduct heat transfer studies at super critical pressure conditions. This facility is also capable of analysing ultra supercritical boiler requirements being considered worldwide for economical power generation. The facility will cater to the technology requirement of supercritical boilers in India for the next two decades.
- ➤ BHEL has become the only motor manufacturer in India to have a High Voltage test facility for offering HT motors with enhanced safety for application in an explosive gas atmosphere as per the new IS 6381:2004 requirement.
- > BHEL is upgrading facilities for Solar Photovoltaics to handle thinner and larger multi & mono-crystalline wafers. With this state-of-the-art facility, BHEL will be able to offer high quality Solar Cells of 15-16% efficiency and PV Modules up to 270 W power output from 2009-10 onwards. Capacity augmentation for fabrication of Space Quality Battery is also underway to meet growing techno-commercial demands of ISRO for its satellite projects.
- In addition to the above, R&D projects driven by its business plans have been approved and are at various stages of execution. Areas covered include:
  - Transmission systems Development of various products for 765 kV and 1200 kV transmission systems such as auto transformers, capacitor-voltage transformers, shunt reactors, current transformers, circuit breakers, etc.
  - Transportation systems IGBT based 3-Phase Drive Equipment for AC-EMU's etc.
  - Clean coal technologies Development/refinement of various critical components/processes such as Gas Filter System, Multi-Contaminant Gas Cleanup for Coal Gas, Ceramic filter candles for Hot Gas filtration, etc.
  - Fuel cells Development of various critical components/modules such as catalytic combustor for a typical Fuel cell module, Performance evaluation of Proton Exchange Membrane Fuel Cell (PEMFC), Standardization of electrode making process, etc.
  - Nano Technology Development of processes for addition of nano/micro particles for improving material characteristics

# **CAPACITY AUGMENTATION & ASSET MODERNISATION**

- In order to capitalise on the emerging opportunities in the country's power capacity addition programme, it was decided to augment the manufacturing capacity for Power Plant Equipment from 10,000 MW per annum to 15,000 MW per annum. All Schemes for capacity enhancement to 15,000 MW per annum are proceeding apace.
- BHEL made a capital investment of Rs.1,106 Crore during 2008-09 towards augmentation of manufacturing capacity and facilities in manufacturing units and for construction equipment at power project sites, as against Rs.726 Crore invested during 2007-08, registering an increase in capital investment of 52%.
- Focussed attention was given on **Rebuilding and Retrofitting** of existing facilities to enhance their life, accuracy and productivity through an additional investment of over **Rs.60 Crore**.

The foundation stone for a new plant in Tirumayam in Pudukottai district of Tamil Nadu laid for manufacture of boiler components.

# **HUMAN RESOURCE**

- An Integrated Human Resource Management System has been introduced companywide. Consequently, the entire organisation is now on a common platform with respect to master data of employees. This facilitates access to reports on a real time.
- In line with changing market requirements, the knowledge and skills of BHEL employees are continuously upgraded. Each employee on an average was exposed to developmental programmes for 16.77 mandays during the year. In addition, 989 customer personnel were trained at various units.
- Manpower is being ramped up in a commensurate and timely manner and around **4,500** persons were recruited in 2008-09.
- Industrial Relations continued to remain cordial contributing to production and productivity. Thrust on a participative culture was re-emphasised through the apex level bipartite forum, 'Joint Committee'.
- A workshop on 'Tackling Business Challenges' was organised to apprise 'Joint Committee' Members about the challenges being faced by BHEL and the role of the employees in overcoming these challenges. The workshop focused on evolving strategies to meet the challenges and customer commitments.

# **CORPORATE SOCIAL RESPONSIBILITY**

- As part of its Corporate Social Responsibility (CSR), during the year, BHEL undertook socio-economic and community development programmes to promote education, improvement of living conditions and hygiene in villages and communities located in the vicinity of its manufacturing plants and project sites spread across the country.
- BHEL has joined hands with DVC and Coal India to set up an ITI which will provide learning opportunities and fulfill the manpower needs of the power sector. Aimed at providing high quality technical education and to give a fillip to the economic and developmental needs of the region, the Kabiguru Industrial Training Centre is being set up at Bolpur near Shantiniketan in West Bengal.

As part of social commitment, **4,139** Act Apprentices were trained in the company.

# **QUALITY**

16 units of BHEL are moving ahead in the CII Exim Award Scheme for business excellence as per the globally recognised model of European Foundation for Quality Management (EFQM). Continuing its winning streak, BHEL's units at Bhopal and Jhansi and its Power Sector Northern and Eastern Region construction divisions have won 'Commendations for Significant Achievements/Strong Commitment to TQM'.

BHEL's Insulator Plant at Jagdishpur bagged the 'Certificate of Merit' commendation as part of the R.K. Bajaj Quality Awards.

Quality Circle teams from BHEL's Trichy unit and Electroporcelains Division, Bangalore won the highest Gold Awards at the International Quality Circle Conference (ICQCC – 2008) held at Dhaka, Bangladesh.

# **GREEN INITIATIVES**

In continuation of its pioneering role in the development of clean coal technology by way of research on Integrated Gasification Combined Cycle (IGCC) technology, BHEL has signed an MoU with APGENCO for formation of a Joint Venture. The JV will set up the country's largest 182 MW IGCC in Andhra Pradesh. This will be the first commercial scale IGCC plant in India. The plant is based on Pressurised Fluidised Bed Gasification (PFBG) technology which has been developed in-house by BHEL to suit Indian coal. It also provides benefits such as lower greenhouse gas emissions, lower NOx emissions, etc.

An MoU has been signed with BEL for formation of a JV to address Solar Photovoltaic business and for setting up manufacturing facility for silicon wafers, solar cells and modules.

In conformity with its concern for the environment, BHEL has been contributing to the national effort for developing and promoting renewable energy based products on a sustained basis. During the year, 47 Solar PV powered systems (5.94 kWp each) were installed for dispensing petrol at HPCL retail outlets, located all over India. These systems have enabled HPCL to illuminate and run the company-owned and operated petrol pumps smoothly irrespective of Grid power outage.

# **ACCOLADES**

Continuing its tradition of bagging prestigious national/international awards, the organisation and its employees won several awards during the year. Notable among these included;

For the third consecutive year, BHEL's performance was recognised by the prestigious publication 'Forbes Asia', which featured BHEL in its fourth annual 'Fabulous 50' list of the best of Asia-Pacific's publicly-traded companies with revenues or market capitalisation of at least US\$ 5 billion, having highest long-term profitability and sales & earnings growth. Significantly, BHEL is the only Indian PSU to figure on the elite list, since the list was conceived.

Prime Minister's Shram Awards, Vishwakarma Rashtriya Awards and National Safety Awards.

BHEL and its units were awarded 4 'ICWAI Awards for Excellence in Cost Management' for 2008 – the highest among both public and private sector companies.

• BHEL won EEPC's Top Export Award for the eighteenth year in succession.

- The company was awarded the 2<sup>nd</sup> position in the SCOPE 'Best Enterprise Award' for initiatives taken to develop women employees.
- BHEL's Electroporcelains Division, Bangalore received the 'Greentech Environment Excellence Silver Award 2008'.
- BHEL was awarded the first DSIJ (Dalal Street Investment Journal) 'Most Investor Friendly PSU' Award for 2009.
- For commendable contribution and achievements over several decades of excellence in the industry, Mr. K. Ravi Kumar, CMD, BHEL, was conferred the 'ENERTIA Individual Contribution Award in Thermal Power Sector 2008'.

In recognition of his leadership in the financial field, Mr. C.S. Verma, Director (Finance), BHEL, was conferred the 'Best Performing CFO Award 2008' in the Capital Goods and Infrastructure sector, by CNBC-TV18. Mr. Verma was also awarded the 'TOP RANKERS Excellence Award 2007-08' for Best Finance Professional.

# PERSPECTIVE FOR THE FUTURE

The Power Sector in India continues to exhibit growth momentum. Orders for around 80,000 MW have already been placed for the the XI Plan and ordering for the XII Plan projects has begun. It is expected that the share of private sector projects and the share of supercritical thermal power projects would be much higher in the XII Plan period. The domestic market for power plant equipment is expected to witness enhanced competition.

In line with the 'Capacity and Capability' enhancement strategy adopted by the company, BHEL's manufacturing capacity expansion from 10,000 MW p.a. to 15,000 MW p.a. is proceeding apace and plans are afoot to hike this further to 20,000 MW by 2011-12.

Capability building initiatives being pursued by the company include, forging strategic alliances by way of JVs to leverage equipment sales in the Supercritical technology domain, JVs for technology sourcing, JVs for sourcing critical inputs, equipment, etc. Such alliances include partnerships with NTPC, NPCIL, TNEB, KPCL, GSECL, KEL, BEL, HEC and PTC.

To deal with the competition in the domestic market, BHEL has introduced new ratings of 150 MW, 270 MW, 525 MW, 600 MW, in the sub-critical segment and 660 MW and 800 MW unit sizes in the supercritical segment. Further, the company is introducing new technologies, like Advanced class Gas Turbines, IGCC, etc., for which orders have already been received.

To pursue inorganic growth, tie-ups are being explored in the areas of Transmission with focus on 765 kV and 1200 kV segments; Transportation with focus on IGBT-based propulsion systems, metro coaches, electric locos etc.; Photovoltaics with focus on manufacture of silicon wafers, solar cells, modules and setting up a greenfield PV project, and in Nuclear with focus on the reactor side, for which cooperation with GE-Hitachi to implement projects being pursued by NPCIL. Bharat Heavy Plate & Vessels (BHPV), engaged in the manufacture of industrial boilers and process equipment, has been acquired as a 100% subsidiary.

In order to remain cost competitive and to retain market share, capability-building initiatives, through Design To Cost (DTC), Lean Manufacturing (Lean) and Purchase & Supply Management (PSM) tools have been undertaken for identified products at select units of BHEL.

International business will be further enhanced by focusing on consolidation in existing international markets as well as entering new markets. Growth will also be driven by initiatives for manufacturing and service presence in select countries.

The company is thus future ready and is on track to becoming a Rs.45,000 Crore turnover company by 2011-12 as per the 'Strategic Plan' of the company.

The above performance is a result of the tireless efforts and commitment of a team of 46,000 dedicated employees and the confidence reposed by BHEL's stakeholders including the Government of India. I thank the Board members, all my colleagues, stakeholders and our friends from the media for enabling us to set new benchmarks.

Note: Company results for 2008-09 are provisional, subject to audit

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