

## **Bharat Heavy Electrical Ltd. (BHEL): An overview**

**Arvnendra Kumar Thakur**  
**(Research Scholar-Management)**

**University Department of Commerce And Business Administration**  
**L.N. Mithila University, Darbhanga**

**Dr. I.D. Prasad**  
**Rtd. Associate Professor**

**University Department of Commerce And Business Administration**  
**L.N. Mithila University, Darbhanga**

### ***Abstract :***

*Bharat Heavy Electrical Limited (BHEL) is a indigenous Heavy Electrical Equipment industry. It was counted into a public limited company in 1991. Over time, it developed the capability to produce a variety of electrical, electronic and mechanical equipments for all the sectors, including transmission, transportation, oil and gas and other allied industries. The major portion of revenue of the BHEL is earned from the sale of many equipments like turbines, boilers etc. The company has also supplied. Several locomotives to railway in the country. It is exporting its power and industries segment products and services for more than four yester decades. The cumulative overseas installed capacity of BHEL manufactured power plants exceeds more than 10,000 MW across 24 countries. Its investment in R&D is amongst the highest in corporate sector in India. BHEL is one of the four Indian Companies and only Indian Public Sector Enterprise figuring in "The Global Innovation 1000" of Booz & co., a list of 1000 publicity treated companies which are the biggest spenders on R&D in the world.*

**Keywords :** *BHEL, Emplpyees, Plant, R & D, Satisfaction.*

### **Introduction :**

Bharat Heavy Electrical Limited (BHEL), a **NAVARATNA** – one of the crown jewels of Public Sector. BHEL was established in 1964 ushering in the Heavy Electrical Equipment industry in India. Heavy Electricals (India) Limited was merged with BHEL in 1974. In 1991, BHEL was converted into a public company. Over time, it developed the capability to produce a variety of electrical, electronic and mechanical equipment for all sectors, including

transmission, transportation, oil and gas and other allied industries. However, the bulk of the revenue of the company is derived from sale of equipment for power generation such as turbines, boilers, etc. As of 2017, BHEL supplied equipment contributed to about 55% of the total installed power generation capacity in India. The BHEL has also supplies thousands of Electric locomotives to Indian Railways, as well as defence equipment such as the Super Rapid Gun Mount (SRGM) naval guns manufactured in partnership with the Indian Ordnance Factories and Defence Simulators to the Indian Armed Forces.

Bharat Heavy Electricals Ltd (BHEL) is an integrated power plant equipment manufacturer and one of the largest engineering and manufacturing companies in India. The company is also one of the leading international companies in the power field. The company is engaged in the design engineering manufacture construction testing commissioning and servicing of a wide range of products and services for the core sectors of the economy viz. Power Transmission Industry Transportation Renewable Energy Oil & Gas and Defence. The company is a ISO 9000 ISO 9001-2000 ISO 14001 and OHSAS-18001 certified public sector corporate situated in New Delhi. The company offers over 180 products and provides systems and services to meet the needs of core sectors like power transmission industry transportation oil & gas non-conventional energy sources and telecommunication. They have a wide-spread network comprising 17 Manufacturing Divisions 2 Repair Units 4 Regional Offices 8 Service Centres 4 Overseas Offices 6 Joint Ventures 15 Regional Marketing Centres besides a large number of project sites spread all over India and abroad. This enables them to be close to its customers and cater to their specialized needs with total solutions - efficiently and economically. BHEL also has a widespread overseas footprint in 82 countries across all the six continents with cumulative overseas installed capacity of BHEL manufactured power plants nearing 10000 MW. They won International Asia Pacific Quality Award (IAPQA 2005) from the International Asia Pacific Quality Organization (APQO) for their Ranipet Unit. The company was the first engineering & Manufacturing organization as well as the first PSU in the country to received this award. During the year 2005-06 the BHEL got FICCI Award for environmental conservation and pollution control ICWAI National Award for Excellence in Cost Management-2005. During the year 2006-07 the company was conferred again the same ICWAI National Award for Excellence in Cost Management-2006. The company was qualified for the Business Standard Star Public Sector Company Award-2006 and also the CII Exim Award. The company is the first public sector company to receive the CII Exim award. In April 2007 the company opened a new line of business in the form of Gas Insulated Substations

(GIS). The corporate R&D department of the company successfully developed an indigenous GIS.

The BHEL also bagged major contract for 1200 MW Thermal Power Plant. Singareni Collieries also placed Rs.40710 Million Mega Contract for setting up thermal power plant in Andhra Pradesh. In 2012 the company developed India's first Ultra High Voltage AC 1200 kV Transformer successfully commissioned. The company signs Rs.6300 Million Contract with Abhijeet Projects Limited for setting up a 300 MW Thermal Power Plant in Visakhapatnam. The company bags contract for installing 160 MW Combined Cycle Power Plant at Ramgarh in Rajasthan. The company wins major contract for 500 MW thermal power plant; NTPC reposes confidence places Rs.1143 Crore order for setting up thermal unit at Vindhyachal. The BHEL receives Rs.9500 Million Mega Contract for 1020 MW Hydroelectric Project in Bhutan. This organisation Signs MoU with Govt. of Tajikistan for setting up a 100 MW Hydro-Electric Power Project in the Republic of Tajikistan. In 2013 the company wins Rs.2650 Million contract from BPCL for Kochi Refinery project.

BHEL wins order for 120 MW Hydro Electric Project in Uttarakhand. The company wins DSIJ Award 2013 for the Most Efficient Maharatna PSU. The organisation bags National Intellectual Property Award 2014. The BHEL signs MoU for setting up Renewable Energy Projects in Yemen. The company bags World Intellectual Property Organisation (WIPO) Award for Innovative Enterprises. The BHEL achieves milestone in the Middle East market with the commissioning of another Gas Turbine-based Power Plant in Oman. The company commissions 600 MW Thermal Unit in Odisha. The company and BGGTS achieve major milestone Successfully.

The BHEL achieves another Milestone with the successful Renovation Modernisation and Uprating of 110 MW Unit Working Life Extended by 15-20 Years. The company bags India Today Best Maharatna PSU Awards for Global Presence & Innovation & R&D. The company achieves major breakthrough Wins country's first ever EPC contract for 800 MW rating Supercritical Power Project. The company also bags EPC contract for 2x660 MW rating Supercritical Power Project. The company wins order for 444 MW Hydro Electric Project. In Uttarakhand the company wins contract for supply and installation of ESP package for 2x800MW Darlipali Supercritical Thermal Power Project. The company achieves another Milestone with Successful Renovation and Modernisation (R and M) of 110 MW Unit at Muzaffarpur Thermal Power Station; Working Life Extended by 15-20 Years. The company wins ICAI National Award for Excellence in Cost Management for the ninth consecutive year. The company bags PSE Excellence Award 2014 for R and D and Technology Development In

2015 this organisation has commissioned its fourth 270 MW coal based thermal power plant at Rattan India Power Limited Nandgaonpeth in Amravati Maharashtra.

The BHEL also signs three strategic MoUs in Kazakhstan. On 4 March 2016 BHEL announced that it has achieved a significant milestone by successfully commissioning its first 700 MW supercritical thermal unit at Bellary Thermal Power Project in Karnataka. On 7 April 2016 BHEL announced that the company recorded the highest ever commissioning of projects of 15059 MW in a single year in the fiscal 2015-16. On 25 May 2016 BHEL announced that it has successfully commissioned the first 800 MW Supercritical thermal unit in Karnataka.

**Vision, Mission And Values :**

BHEL's Vision

A global engineering enterprise providing solutions for a better tomorrow.

BHEL's Mission

Providing sustainable business solutions in the fields of Energy, Industry & Infrastructure.

**Governance :**

We are stewards of our shareholders' investments and we take that responsibility very seriously.

We are accountable and responsible for delivering superior results that make a difference in the lives of the people we touch.

**Respect :**

We value the unique contribution of each individual. We believe in respect for human dignity and we respect the need to preserve the environment around us.

**Excellence :**

We are committed to deliver and demonstrate excellence in whatever we do.

**Loyalty :**

We are loyal to our customers, to our company and to each other.

**Integrity :**

We work with highest ethical standards and demonstrate a behavior that is honest, decent, and fair. We are dedicated to the highest levels of personal and institutional integrity.

**Commitment :**

We set high performance standards for ourselves as individuals and our teams. We honour our commitments in a timely manner.

**The Values that inspire BHEL :**

**Innovation**

We constantly support development of newer technologies, products, improved processes, better services and management practices.

**Teamwork :**

We work together as a team to provide the best solutions & services to our customers. Through quality relationships with all stakeholders, we deliver value to our customers.

<b>BHEL at a glance:</b>	
Type	Public Sector Undertaking
Traded as	BSE: 500103 NSE: BHEL
ISIN	INE257A01026
Industry	Electrical equipments
Founded	1964, 56 years ago
Founder	Government of India
Headquarters	New Delhi, India
Area served	Worldwide
Key people	Nalin Shinghal (Chairman & Managing Director)
Product	Gas and Steam Turbines Boilers Electric Motors Electric Locomotives Generators Heat Exchangers Switchgears and Sensors Automation and Control System Power electronic Transmission systems
Revenue	₹22,066.64 crore (US\$3.1 billion) (2020)
Operating income	₹-155.16 crore (US\$-22 billion) (2020)
Net income	₹-1472.97 crore (US\$-210 billion) (2020)
Total assets	₹60,784.32 crore (US\$8.5 billion) (2020)
Total equity	₹28,651.65 crore (US\$4.0 billion) (2020)
Owner	Government of India (63.17%)
Number of employees	40,370 (2020)

Source: bhelindia.org.in

**Human Resource Development**

Human Resource Development in BHEL is the process of helping people to acquire competencies. The employees in an BHEL are helped in a continuous and planned way to Acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles.

Develop their general capabilities as individuals and discover and exploit their inner potential  
Develop an organizational culture in which supervisor – subordinate relationship team work and collaboration among the sub-units are strong and contribute toward the professional well being motivation and pride of employees.

HRD process is facilitated by mechanisms like performance appraisal training OD, Feedback and counselling, Career development retention development job rotation rewards etc.

Employees are continuously helped to acquire new competence thro a process of performance planning feedback training periodic reviews creating opportunities through training job rotation etc.

People need competencies to perform tasks. Higher degree and quality of performance of tasks require higher degree of level of skills. Without continuous development of competencies in people an organization is not likely to achieve goals. Competent and motivated employees are essential for organizational survival growth and excellence.

Over a period of time BHEL may achieve a saturation point in terms to its growth. Even to maintain such a saturation level of growth employee competencies need to be sharpened or develop as organization operated in environment that keep changing requiring the employees to have new competencies.

BHEL is interested in improving its services and its effectiveness in other way (e.g cost reduction in delays, increased customer satisfaction, improved quality, promptness of services, market image etc.) needs to develop its employee competencies to perform tasks required to bring about such improvement. For example if a university wants to do better than before by improving its nature of course offered and quality of teaching, it has to undertake a faculty development program. If it decided to improve its administration, HRD activities may need to be undertaken to equip administration with better competencies.

Thus the core objectives of the training is to enhance the competencies, skill of the employees to help him perform better in one way or the other. The individual with enhanced competencies and skills can contribute and relate with an organization in a more productive way.

**Internal Resources for Evaluation**

Most of the organisation consider conducting an impact evaluation, it often turn to outside expert in the belief that only outsiders can provide the unbiased, objective expertise that produces credible results, But BHEL have learned that external evaluation does not guarantee appropriated recommendations, partly because outsiders cannot always grasp the realities of the workplace and the related training need, of a particular organization in the short period of time that they are given to conduct the evaluation.

There is growing support in the evaluation community for participator's evaluation which allows stakeholders to assess their own achievement, drawing on special external expertise (for example in sampling) only when necessary. In the training business, the key stakeholders include the managers and staff of the training organization or program, and the managers and staff of BHEL that send their staff to be trained. Evaluating a training program through a participatory process that includes representatives from both organizations has important benefits

**BHEL of Tomorrow**

Today India is on the cusp of higher economic growth. The new era will present new growth opportunities. However, the landscape of technology and competition is under transformation. BHEL too is transforming and has embarked upon a journey with a vision of “Creating BHEL of Tomorrow” – an organization that will be Responsive, Robust and Rising, to the needs of the customers, shareholders, employees and society.

Leveraging BHEL’s enviable strengths, glorious past and contribution towards nation building, the company has put together a series of initiatives focusing on sustaining growth and profit, asserting leadership in core business sectors, developing people, enhancing digital capabilities and building potentials in new and diversified businesses as well as technologies for sustained growth.

**Conclusion :**

Bharat Heavy Electrical Limited (BHEL) owned and founded by Government of India is an manufacturing and engineering organisation established in 1964. BHEL is India's biggest power generation equipment manufacture In 1991, BHEL was transformed into India Public Limited company. It has developed the capacity to produce a variety of electrical, electronic and mechanical equipments for many sectors including transmission, transportation, oil and

gas and other allied industries. The bulk of the revenue of the company is proceed from sale of turbines, boilers and other power generation equipments. It has supplied equipments contribute to near about 64% of the total installed power generation capacity of India. BHEL is engaged in the design, engineering, manufacturing construction, testing, commissioning and servicing of a wide range of products, systems and services for the core sector of the economy.

BHEL has retained its market leadership position and exporting its power and industry segment products and serviced for more than four yester decades to more than twenty four countries of the world BHEL's investment in Research and Development is amongst the largest in the corporate sector in India. BHEL is one of the only four Indian Companies of Indian Public Sector figuring in the "The Global Innovation 1000" of Booz & co., a list of 1,000 publicly traded companies, which are biggest spenders on R & D in the world. It has established four specialised institutes namely Welding Research Institute (WRI) at Tiruchirappalli Ceramic Technology Institute (CTI) at Bangalore, Centre for Electric Traction (CET) at Bhopal and Pollution Control Research Institute (PCRI) at Gurgaon pursues R&D in photo voltaic applications. As on 2023. Its revenue is Rs. 25,076.86 crore (US\$ 4.2 billion) and number of employees working there is 40,37. BHEL is giving more focus on employees betterment, welfare and satisfaction for achieving goal of the organisation.

**Reference :**

1. *Poongavanam, S (2011). "A Study on 'Labor Welfare Facility' with Reference to BHEL Bhopal", International Journal of Research in Commerce, Economics & Management, Vol.1, No.1, May, pp.40-44.*
2. *Bharti, K. & Qureshi, T. (2017). Impact of employee participation on job satisfaction, employee commitment and employee productivity by BHEL. International Review of Business Research Papers, 3(2), 54-68.*
3. *Dinesh K Srivatsav, (2005) Strategies for Performance Management, Excel, New Delhi. pp.-181-82.*
4. *Bharat Heavy Electricals Ltd. Bhel.com*
5. <https://www.bseindia.com/bseplus/AnnualReport/>
6. [http://www.bhel.com/financial\\_information/](http://www.bhel.com/financial_information/)
7. <https://www.business-standard.com/>