

Azadi Ka Amrit Mahotsav

बी एच ई एल
BHEL

Exploring *Expanding* **NEW POSSIBILITIES** HORIZONS

BHARAT HEAVY ELECTRICALS LIMITED

ANNUAL REPORT **2021-22**



CREDENTIALS

- India's largest engineering & manufacturing enterprise of its kind
- The second largest employer in the Indian Capital Goods industry
- The largest contributor to country's total installed conventional generation capacity with 53% share
- Present pan India: 16 manufacturing units; 8 service centres

OFFERINGS

- Power- thermal, hydro, gas, nuclear, and solar PV
- Transportation
- Transmission
- Defence & Aerospace
- Oil & Gas
- Energy Storage
- Water

BHEL

Making the Nation
Aatmanirbhar in
Power & Industry



Presence

Executed 461 coal, 422 Hydro, 103 Gas, 12 Nuclear & 58 nos. MW scale Grid-connected Solar PV plants across all states and 6 union territories of the country

References in 88 countries in all 6 inhabited continents

India's flagship engineering and manufacturing company

Single source of sustainable solutions for energy, industry and infrastructure segments Undisputed leader amongst Indian power plant equipment manufacturers, backed by a talented and skilled workforce

Serving strategic sectors of the country

World class technology and assets

Highest investment on R&D and innovation in the Indian engineering field

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Dr. Nalin Shinghal
Chairman & Managing Director

Letter to Shareholders

Dear Shareholders,

It is an honour and a privilege to present the 58th Annual Report of the company to our valued shareholders. I am happy to share that your company is back in black after two years of loss.

The past year has been challenging, with the first quarter severely impacted by the devastating second wave of COVID-19 affecting operations of manufacturing/ EPC industry across the country. Global supply chain disruptions due to COVID-19 restrictions, as well as geopolitical developments in the fourth quarter leading to drastic increase in input costs, particularly steel, CRGO, CRNGO, amongst others, added to these challenges. However, sustained demand during the year from both private and government sectors as well as improved industrial production activity has helped economic recovery with India's GDP growing by 8.7% during FY 2021-22—the highest amongst the major economies of the world.

Despite these challenging circumstances, sustained efforts made by the company over the past two years towards reorientation of the company's operational ideology, from 'Revenue Centric' to 'Project Centric', business diversification, and prudent financial management, have started bearing fruit, resulting in the highest erection tonnage at project sites in the past five years, highest ever project closures, lowest number of outstanding punch points, highest ever order booking in nuclear power and defence businesses, signing of highest ever number of long term spares supply and service agreements, as well as reduction in other expenses to decadal lows.

Key performance highlights

- Your company achieved revenue from operations of ₹21,211 Crore in FY 2021-22, an increase of 23% as against ₹17,308 Crore in the previous year

- The company made a profit after tax (PAT) of ₹410 Crore in FY 2021-22 against a loss of ₹2,717 Crore in the previous year
- The trade receivables are at their lowest in the last 10 years, at ₹6,229 Crore against ₹7,213 Crore, in the previous year. The cash & bank balance (net of short term borrowings) has also improved to ₹2,409 Crore from ₹1,868 Crore in the previous year
- Your company secured orders worth ₹23,693 Crore amidst intense competition and subdued market conditions
- The company continues to retain its leadership position in nuclear power segment and emission control business. BHEL received the largest ever orders in nuclear segment under fleet mode, valued at over ₹12,000 Crore.
- The company received the first order for two upgraded SRGMs (main gun on Indian warships) for which BHEL is the sole supplier in the country
- Your company has booked the maiden order for flexible operation of thermal power plant, a requirement in future years for grid stabilization considering the increasing share of renewables in the energy mix. This order is under advanced stage of execution. The company also received the maiden order for propulsion electrics of 'Vande Bharat Express' (Trainsets), marking BHEL's entry into semi-high speed rail segment.
- With over 150 MW floating solar power plants commissioned till date including the country's largest floating solar power plant at Ramagundam, BHEL has become the largest EPC player in floating solar segment in the country with design and engineering capabilities to address a range of complex site requirements including lakes, ponds, canals and reservoirs, amongst others. Such solutions provide the twin benefit of clean electricity generation as well as conserving water by reducing evaporation.
- During the year, your company achieved a capacity addition/ synchronization of 3,305 MW in utility power projects segment

As a responsible corporate citizen, your company extended vital support to not just its employees and their families but also to various stakeholders and society at large during the devastating second wave of COVID-19 pandemic. The company supplied over 80,000 cylinders of medical grade oxygen supporting almost entire Uttarakhand, western UP, parts of NCR and the city of Bhopal, which helped in saving many lives. Vaccination drives were carried out across manufacturing units/ divisions/ project sites and oxygen generating plants based on CSIR-IIP technology were developed and supplied to hospitals, amongst many other initiatives. Your company also launched a 'COVID Assistance Scheme' for providing aid & support to the dependents of employees who unfortunately succumbed to COVID-19.

Going forward

The recent geopolitical events and supply chain disruptions have brought into sharp focus the need for self-reliance as well as need to swiftly set up an ecosystem for indigenous design, development and manufacturing of a wide range of equipment/ systems to meet national requirements. The AatmaNirbhar Bharat initiative of Government of India, with focus on Making in India for India as well as Making in India for the World, is providing huge opportunities to Indian manufacturing industry, especially in critical sectors like Energy, Defence, Aerospace, Transportation, etc.

The rise in crude oil prices, as well as the recent energy crisis across Europe has further highlighted the importance of energy security for the nation, and underlined the need for India to rely on utilizing its vast coal reserves for reducing dependence on hydrocarbon imports. Technologies for cleaner use of coal are therefore likely to gain traction in the coming years. To attain the country's net zero targets, nuclear power is expected to come to the forefront in the near future. Additionally, hydro and emission control equipment segments will continue to offer business, albeit in an intensely competitive market. Demand for transmission related products and systems is expected to continue growing–irrespective of the source of power generation. Modernization program of Indian Railways and Defence sectors will further provide new growth opportunities in the future.

In this emerging situation, cost competitiveness with timely and high quality delivery/ execution will be the key to survival in the short and medium term, while the company's engineering and technological prowess will be the key differentiators for long term sustainable growth.

The company's Strategic Plan 2022-27 therefore focuses, in the short term, on turning the company around through initiatives and enablers for timely, cost effective and quality project execution as well as creating an order book pipeline by enhancing its

market share in traditional business, while intensifying diversification initiatives to create a foothold in new businesses and, in the long term, building capabilities as well as markets for areas such as defence, aerospace, urban mobility including rail transportation, as well as for futuristic businesses based on emerging technologies such as carbon capture, hydrogen value chain, additive manufacturing, IIoT based solutions, etc.

Clearly, India with its huge coal reserves and paucity of oil & gas reserves, will have no option but to continue to utilize coal to fuel its economic growth. At the same time, the country is acutely conscious of its role and contribution required as a responsible citizen of planet earth and has made major commitments in this direction in COP 26. In this situation, technologies for cleaner use of coal need to take center stage.

The Advanced Ultra Supercritical (AUSC) technology successfully developed by the company in collaboration with NTPC and IGCAR provides best-in-class efficiency in coal-based power generation and has the potential to reduce CO_2 emissions by 20% as compared to subcritical technology-based power plants. This gains significance considering over 145 GW of installed capacity in the country is based on subcritical technology of which over 45 GW is more than 20 years old. Coal gasification is another technology in focus on account of the potential to convert syngas derived from coal into a variety of chemicals which are currently imported, as well as to power IGCC power plants. Your company's most significant technology development effort in recent times resulted in the successful demonstration of indigenously developed 0.25 TPD coal to methanol plant–first of its kind using high ash Indian coal, at Hyderabad in the last year. A dedicated team is now working to upscale and commercialise this technology in a time bound manner which will enable your company to capitalize on the upcoming opportunities under the Government of India's National Coal Gasification Mission to achieve 100MT coal gasification by 2030. Your company is in discussions with leading coal and lignite suppliers of the country for setting up such plants in the country.

Carbon capture is another emerging area which is expected to gain traction with continued use of coal based technologies. The company is positioning itself appropriately for the future, to address this opportunity.

BHEL continues to be a leader in the emission control business, with orders booked for 66 FGDs and 11 SCRs. Concerted efforts have been made to improve the project execution timelines as well as economics. These efforts include engineering optimization, indigenisation of critical FGD equipment, and deployment of Integrated Project Management System and Site Data Digitization which had already been implemented for major power projects over the past year.

BHEL has been a pioneer in the Indian nuclear power sector and is the only company to be part of all the three stages of India's nuclear program. As the sole indigenous supplier of Nuclear Turbines and Generators, BHEL has supplied 14 TG sets to PHWR technology-based nuclear power plants, with the balance 4 being imported from Russia & Canada many decades ago. With nuclear power gaining importance in the coming years, the company is striving to strengthen and expand its position in design, development and manufacture of nuclear equipment meeting a range of national requirements.

Indian Railways (IR) have initiated one of the most important modernization programs in its history with a large scale shift from conventional trains to trainsets as well as procurement of high HP locos and modernization of signaling systems. BHEL has been an important supplier to IR with a substantial share of the locomotives and EMUs carrying a range of BHEL equipment. The company has received its first order for supply of underslung propulsion equipment for Vande Bharat Trains and is making focused efforts to maintain its leadership position, in rail transportation field, with technology and manufacturing tie-ups with major international and national players in this area

In the defence sector, your company has been supplying a wide range of specialized equipment and systems for various applications for the past five decades. Your company has taken up indigenization initiatives for upgraded SRGM—main gun on Indian warships, heat exchangers for fighter aircrafts and helicopters, permanent magnet motor technology-based products, and propulsion systems for strategic vessels and warships, amongst others. It has recently signed an MoU with a leading international OEM for manufacturing state-of-the-art Electric Propulsion System for Indian Navy ships, which are more efficient and offer several tactical advantages. With the recent geopolitical developments creating a number of challenges for the defence forces in procurement and operation of various equipment, your company has come to the fore for indigenous development and supply of various spares/ components.

To address the opportunities in upcoming areas such as EV chargers and hydrogen value chain, dedicated

business groups are making concerted efforts with all stakeholders such as government agencies, customers, and research institutes, etc., for building partnerships & ecosystem in these relatively nascent areas.

Your company is also looking to indigenize various equipment imported by the company as well as engineering imports of the country. During the year, several equipment used in FGD systems have been successfully indigenized. Developmental orders have been received in the Oil & Gas segment, displaying the company's strong resolve towards contributing to AatmaNirbhar Bharat initiative of the Government of India.

BHEL has pioneered the Quality movement in the country and a number of initiatives have been taken in the past two years to regain this position under the overarching Quality First initiative. These include enhancing Quality System maturity as per "Quality 360" model, best practices sharing through Quality Conversation "Qonverse", amongst others. Continuous and sustained focus on quality is reflected in HEEP Haridwar and HEP Bhopal receiving coveted Platinum recognition, while HPBP Trichy and HPEP Hyderabad receiving Gold Plus recognition under "CII EXIM Bank award for Business Excellence 2021".

Human resources are the most important contributor to the success of any organization and your company continues its efforts towards improving employee skills, engagement and productivity as well as making the workforce agile in the ever changing business environment. Various initiatives underway include focus on manpower development for upgrading skills and capabilities of its executives, supervisors and workers, assessment & development centers for leadership development, deployment of e-Modules for online training, etc.

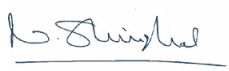
I am happy to say that the company is working in a focused and targeted manner to overcome challenges due to liquidity issues resulting from adverse payment terms and competitive pricing in old projects under execution through improved project execution, tight financial control, focus on quality and development of manpower resources and at the same time, working towards its vision of becoming a Global Engineering Enterprise by capitalizing on emerging opportunities in traditional as well as new business areas.

Acknowledgement

The success of these efforts is possible only through constant support and encouragement of various stakeholders. I would like to express sincere thanks and gratitude to our valued customers, as well as business partners for reposing their confidence, our employees for their engagement, passion and perseverance, members of the Board for their guidance, and you, our esteemed shareholders for support and trust in the company. I would like to thank various Ministries of Government of India, particularly the Ministry of Heavy Industries, for their valuable guidance and support in all our endeavours.

I am confident that multiple initiatives currently under implementation will help us build a strong base for long-term sustained and profitable growth of your company.

With best wishes,



(Dr. Nalin Shinghal)
Chairman & Managing Director

New Delhi
September 4, 2022

Leadership at BHEL

Board of Directors as on 25.08.2022



Dr. Nalin Shinghal

Chairman & Managing Director

Functional Directors



Shri Subodh Gupta

Director (Finance)



Ms. Renuka Gera

Director
(Industrial Systems & Products)



Shri Upinder Singh Matharu

Director (Power)
Addl. Charge-Human Resources
(w.e.f. 22.04.2022)



Shri Jai Prakash Srivastava

Director
(Engineering, Research & Development)

Government Directors/ Part-time Official Directors



Shri Shashank Priya
Special Secretary
& Financial Adviser
Ministry of Commerce
& Industry



Shri Vijay Mittal
Joint Secretary
Ministry of Heavy
Industries

Independent Directors



Shri Raj Kamal Bindal
Independent Director



Shri Manish Kapoor
Independent Director



Dr. Raj K Agarwal
Independent Director



Dr. K Sivaprasad
Independent Director



Dr. Lekhasri Samantsinghar
Independent Director

Leadership at BHEL

Management Team

as on 25.08.2022



Dr. Nalin Shinghal
Chairman & Managing Director



Subodh Gupta
Director (Finance)



Renuka Gera
Director
(Industrial Systems & Products)



Upinder Singh Matharu
Director (Power), Addl. Charge-Human Resources
(w.e.f. 22.04.2022)



Jai Prakash Srivastava
Director (Engineering, R&D)



Shakil Kr. Manocha
ED (PSM-T&G, NTPCBG) New Delhi, Addl. charge-SSBG, Noida



Anil Joshi
ED (COC), New Delhi



Alka Tuteja
ED (PS-PEM), Noida



Rajiv Bhatnagar
ED (CSM), Secretary-MC Addl. Charge-IO & CC, New Delhi



S K Grover
ED (ESSG, New Business Area & IPM), New Delhi



G Murali
ED (PS-SR), Chennai



Pankaj Gupta
ED (SBD), Bengaluru



Pravin Chandra Jha
ED (HEEP & CFFP), Haridwar



S B Naithani
ED (CMD Sectt), Addl. charge CDT, New Delhi



Manoj Kumar Sinha
GM I/c (HBG), Noida



Milind Girish Koppikar
GM I/c (ISG), Bengaluru



S V Srinivasan
GM I/c (HPBP), Tiruchy



P Sudhir Babu
GM I/c (PE&SD), Hyderabad



T S Murali
GM I/c (CQ&BE), Addl. charge CTM, New Delhi



Rajeev Singh
GM I/c (BAP), Ranipet



Pankaj Jain
GM I/c (PCSG), Noida



Meena Kesri
GM I/c (TBG), Noida



Pushpendra Kumar Saxena
GM I/c (PS-HQ & PS-PMG), New Delhi



Amit Kerketta
GM & Head (CAPEX & SS&P), New Delhi, Addl. Charge – FSIP, Jagdishpur



B Balasubramanian
GM & Head (NBG), Noida



T S Varadarajan
GM & Head (HPEP), Hyderabad, Addl. Charge-HPVP, Vizag



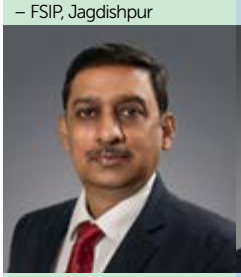
K Ravishankar
GM & Head (Corp R&D), Hyderabad



M Thiruneelakandan
GM & Head (Corp Finance), New Delhi



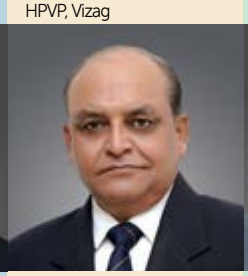
Sanjeev Kumar Kak
GM & Head (ROD), New Delhi



Narendra Kumar
GM & Head (CPPP & PMG), Addl. Charge-DABG, New Delhi



Sushil Kumar Baveja
GM & Head (HEP), Bhopal



Vinay Nigam
GM & Head (TP), Jhansi



Arumoy Mukherjee
GM & Head (PS-WR), Nagpur



Praveen Kishore
GM & Head (PS-ER), Kolkata



K S Murthy
GM & Head (COM), New Delhi



B V N Kishore
GM & Head (PS-TS), Noida



M Isadore
GM & Head (Corp HR), New Delhi



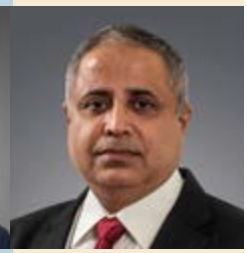
Bani Varma
GM & Head (EDN), Bengaluru & TBSG, New Delhi



Surojit Mandal
GM (PS-NR), Noida & Project Director HPCL, Vizag



Jitendra Das
GM (MII), Noida & CFP, Rudrapur



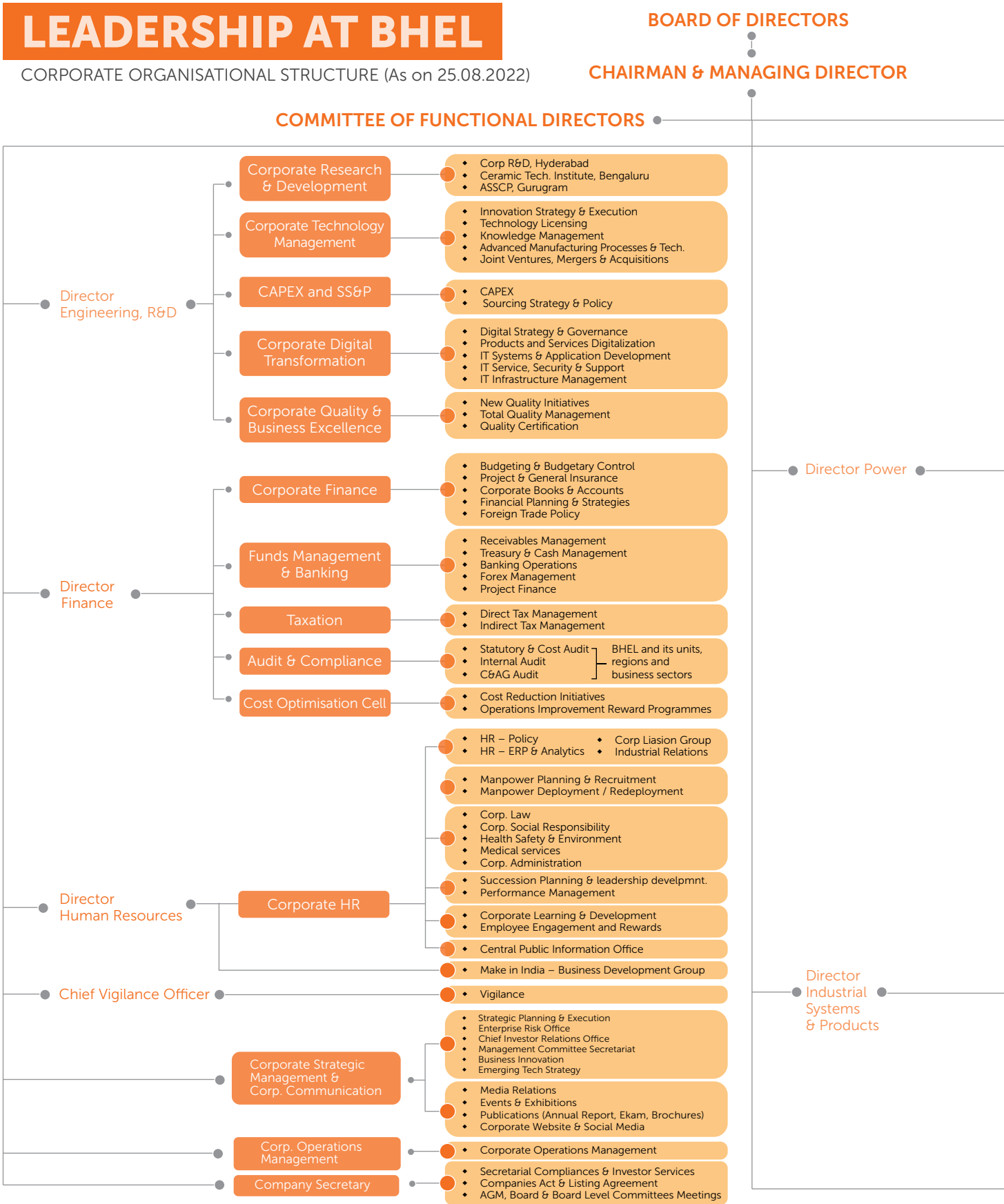
Sandeep Kataria
GM (Corp. Internal Audit), New Delhi



Rajeev Kalra
Company Secretary

LEADERSHIP AT BHEL

CORPORATE ORGANISATIONAL STRUCTURE (As on 25.08.2022)



MANAGEMENT COMMITTEE

- PS – Marketing (Thermal & Gas)
- Coal to Chemicals
- NTPC Business Group
- Nuclear Business Group
- Hydro Business Group
- Project Management Group
- Technical Services
- Project Closure Synergy Group
- Project Engineering Management
- Spares & Services Business Group
- Heavy Equipment Repair Plant ,Varanasi
- Industrial Systems Group, Bengaluru
- PS Northern Region, Noida
- PS Southern Region, Chennai
- PS Eastern Region, Kolkata
- PS Western Region, Nagpur
- PS – HQ, MSX, HR

- Captive Power & Process Plants
- IS – Project Management Group
- Regional Operations Division (Transmission & Electrical products)
- Transportation Business & Systems Group
- Defence & Aerospace Business Group
- Transmission Business Group
- Project Engg & Systems Division
- Energy Storage Solutions Group
- Mechanical Products
- New Business Areas
- International Operations

- **Bhopal**
  - Heavy Electrical Plant
- **Haridwar**
  - Heavy Electrical Equipment Plant
  - Central Foundry Forge Plant
- **Hyderabad**
  - Heavy Power Equipment Plant
- **Tiruchirapalli**
  - High Pressure Boiler Plant, Tiruchy
  - Seamless Steel Tube Plant, Tiruchy
  - Industrial Valves Plant, Goindwal
  - Power Plant Piping Unit, Thirumayam & Piping Centre, Chennai
- **Ranipet**
  - Boiler Auxiliaries Plant
- **Bengaluru**
  - Electronics Division, Bengaluru
  - Electronics Systems Division, Bengaluru
  - Electrical Machine Repair Plant, Mumbai
  - Solar Business Division, Bengaluru [2]
- **Jhansi**
  - Transformer Plant
- **Jagdishpur**
  - Fabrication, Stamping & Insulator Plant [3]
- **Rudrapur**
  - Component Fabrication Plant [1]
- **Visakhapatnam**
  - Heavy Plates and Vessels Plant

1 : Report to Director (Human Resources)

2 : Report to Director (Industrial Systems & Products)

3 : Report to Director (Engineering, R&D)

YEAR AT A GLANCE 2021-22

01

Total outstanding order book **₹1,02,500 Crore**

02

Focus on **developing non-coal business**- highest ever orders in Nuclear

03

194 GW+ power generating capacity installed in India and abroad till date

04

Leadership in Core Business- Single largest market share in emission control equipment business in the country

05

New Horizons-installed **0.25 TPD** demonstration plant for methanol generation using high ash Indian Coal with indigenously designed gasifier technology

06

BHEL has been registered as seller in GeM portal and has helped secure orders worth **₹123 Crore** from online channel

YEAR AT A GLANCE 2021-22

07

Secured largest ever Nuclear order for **supply of 6x700 MW TG** island package on EPC basis from NPCIL under fleet mode

08

New Business Model- **Eight LTSSA** proposals finalized for spares procurement in a span of two years

09

26.8 Million Units of power generated through more than **29 MWp in-house renewable energy systems**

10

Over **₹230 Crore invested** in company's assets for modernisation and upgradation of facilities, debottlenecking of production process

11

Approx. **₹700 Crore** invested in R&D and innovation; **516** patents and copyrights filed; **5,208** Total Intellectual Capital

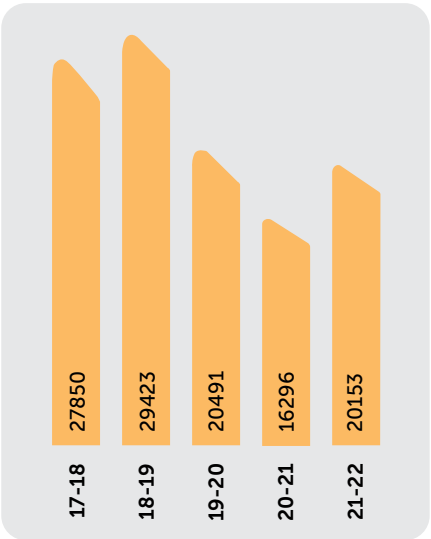
12

Human capital base: **30,758; 9000+** engineers

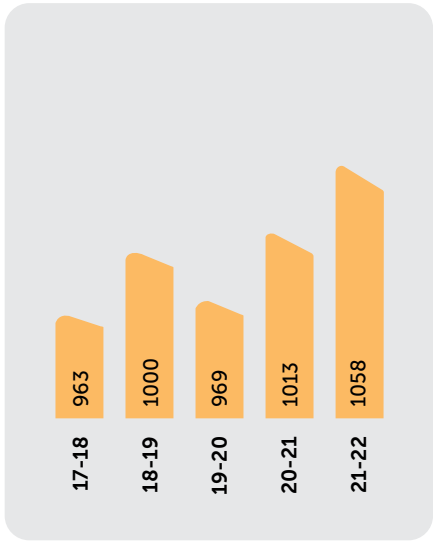
YEAR AT A GLANCE

(Figures are in ₹ Crore unless otherwise stated)

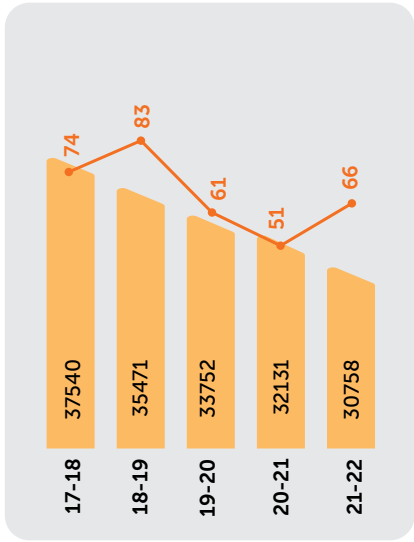
REVENUE



OTHER OPERATIONAL INCOME

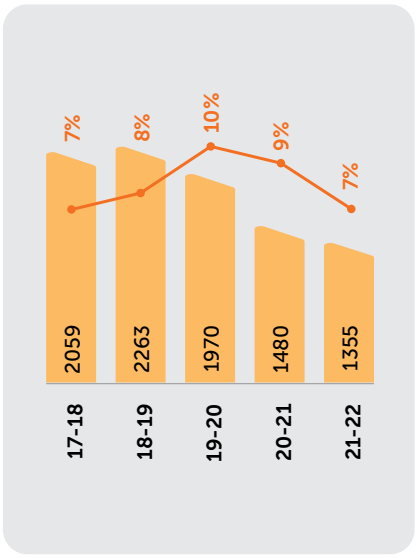


MANPOWER (NOS) AND REVENUE PER EMPLOYEE (₹ Lakh)



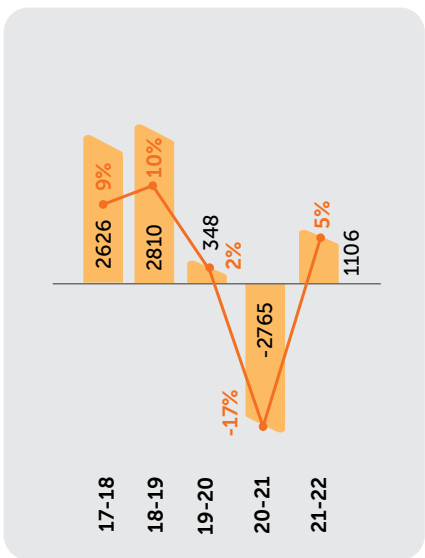
TOTAL (Nos) REVENUE PER EMPLOYEE (₹ Lakh)

OTHER EXPENSES TO REVENUE %



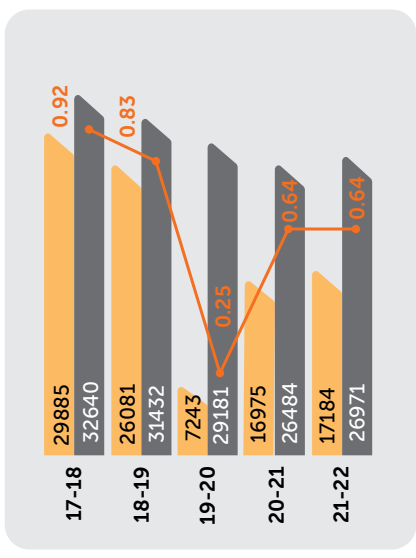
OTHER EXPENSES % OF REVENUE

EBIDTA



EBIDTA EBIDTA AS % OF REVENUE

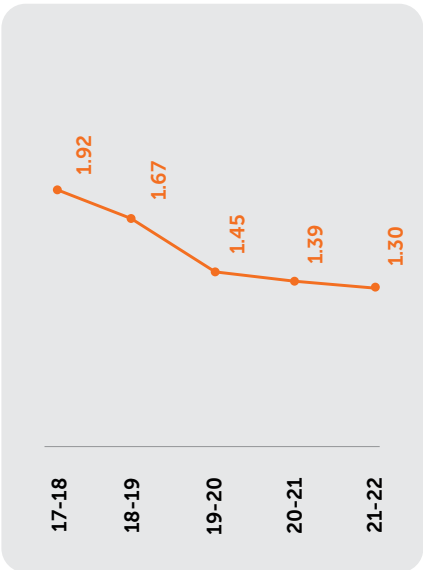
MARKET CAPITALISATION TO NET WORTH



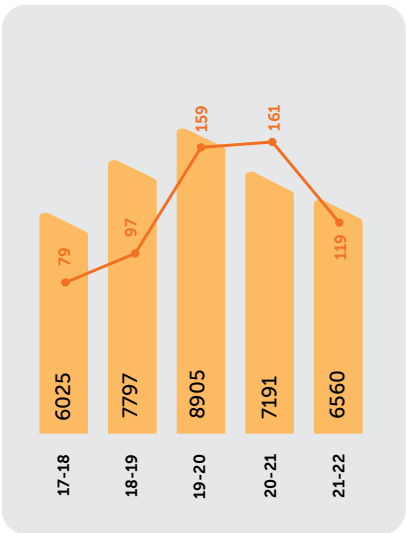
MARKET CAPITALISATION NET WORTH MARKET CAPITALISATION TO NET WORTH

YEAR AT A GLANCE

CURRENT RATIO



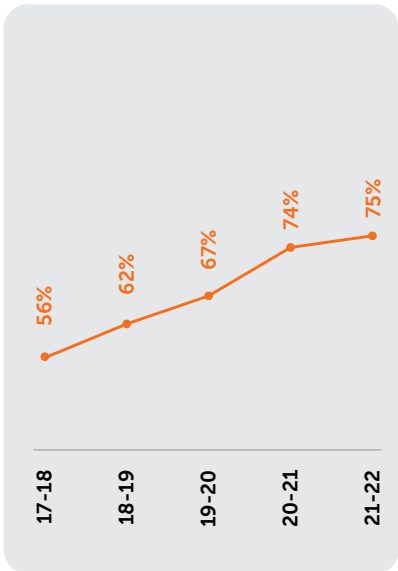
INVENTORY POSITION ₹ CRORE AND NO. OF DAYS



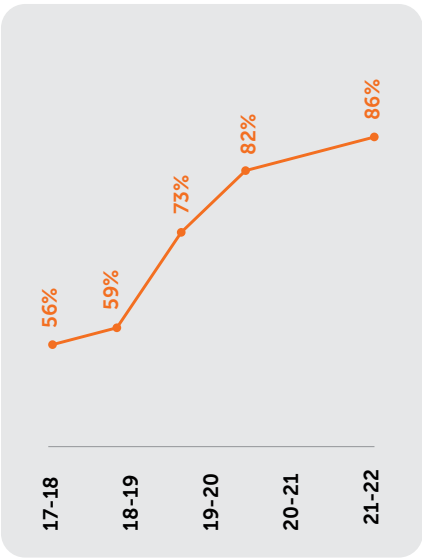
INVENTORY INVENTORY IN NO OF DAYS

% LIQUIDATION OUT OF TOTAL POTENTIAL

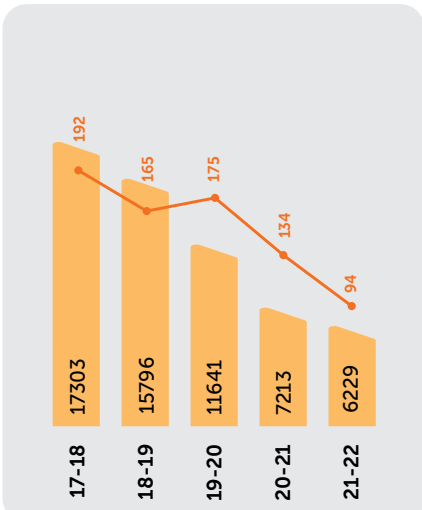
(Opening net Trade receivable + Current year Net billing)



LIQUIDATION OUT OF CURRENT YEAR NET BILLING %



TRADE RECEIVABLES (₹ CRORE) AND NO. OF DAYS



TRADE RECEIVABLE TRADE RECEIVABLE (IN NO. OF DAYS)

About BHEL

BHEL is India's largest engineering and manufacturing enterprise in the energy and infrastructure sector. Established in 1964, we are a leading power equipment manufacturer globally and one of the earliest and leading contributors towards building an Aatmanirbhar Bharat. We serve our customers with a comprehensive portfolio of products, systems and services in the areas of power-thermal, hydro, gas, nuclear & solar PV; transmission; transportation; defence & aerospace; oil & gas and new areas like BESS and EV chargers.

Right from developing country's power generation capacity to creating multiple capabilities in country's core industrial & strategic sectors, BHEL is deeply aligned to the vision of a self-reliant India. Consistent expenditure of more than 2.5% of its turnover on R&D and innovation; establishment of world-class manufacturing assets, development and absorption of new technologies; and creating sustainable business solutions and initiatives in skilling youth, promoting health & hygiene, education, cleanliness and environment protection, stand as a testimony to our commitment to contribute not just to our business interests, but also to society at large. A skilful and motivated workforce, currently more than 30,000 strong, is the driving force behind our journey over the years





Forging at CFFP Haridwar

Company's pan-India presence includes a network of 16 manufacturing facilities, 2 repair units, 4 regional offices, 8 service centres, 3 active joint ventures, 15 regional marketing centres, 3 overseas offices and current project execution at more than 150 project sites across India and abroad. BHEL manufactures a wide range of high quality & reliable products adhering to national and international standards.

The worldwide installed base of power generating equipment supplied by BHEL exceeds 194 GW, making it the undisputed leader amongst Indian power plant equipment manufacturers. Having installed more than 1000 thermal, hydro, nuclear, gas and solar PV based power generating sets in the country, the company is actively engaged in building strong foundations for cleaner and greener energy generation and usage in future with critical technologies coal to methanol.

BHEL is a name to reckon with in various sectors of Indian capital goods industry. This is evident from supply of traction equipment for significant number of locomotives & EMUs of Indian Railways; commissioning of 225+ electric substations and 6 major HVDC projects in the country; being the largest manufacturer and supplier of power transformers and electrical AC machines in the country, and 1.2GW+ solar portfolio spread across the country.

POWER SECTOR

BHEL is one of the few companies in the world having the capability to manufacture the equipment for entire range of power plants- thermal, gas, hydro and nuclear, with proven capabilities to execute large size projects. Offerings include -

- Steam turbines, generators, boilers and matching auxiliaries for fossil-fuel applications upto 1000 MW unit size
- Emission control equipment including Flue Gas Desulphurisation systems for SOx emission control, high efficiency Electrostatic Precipitators for particulate emission control, and Boiler modification and Selective Catalytic Reduction systems for NOx emission control
- Gas turbines and generators upto 299 MW unit size
- Hydro turbines and generators up to 400 MW unit size
- 220/235/500/540/700 MWe nuclear turbine generator sets
- Plant performance improvement through renovation, modernization, uprating, residual life assessment, health diagnostics and life extension of plants

BHEL has a widespread footprint in all the inhabited continents of the world with references in 88 countries including the neighbouring countries of Bangladesh, Afghanistan, Bhutan, and Nepal, Indonesia, Oman, Iraq, Sudan, Afghanistan, United States and New Zealand. Till date, around 11 GW power generating capacity has been installed in overseas markets. An additional 6 GW is under execution, including the 2x660 MW Maitree Super thermal power project in Bangladesh and 4x225 MW Arun-3 Hydroelectric project in Nepal.

BHEL plays a crucial role in the strategic sectors of the nation, being the sole Indian supplier for many technology intensive products and systems. BHEL is the only supplier of nuclear steam turbines in the country; the only company associated with all three stages of India's Nuclear Power programme; a major supplier of critical equipment and services in defence & aerospace sector for over three decades; and a trusted supplier of naval guns to Indian navy for their warships.



5 X 800 MW Yadadri Super Thermal Power Station under commissioning by BHEL in Telangana

INDUSTRY SECTOR

BHEL's major offerings for industry and infrastructure sectors include:

- **Transportation:** IGBT based propulsion equipment (traction converter/auxiliary converter/Vehicle Control Unit), traction transformers for electric Locos and ACEMUs/ MEMUs, EMU coaches, electric locomotives upto 6000 HP and diesel electric locos upto 3000 HP, electrics upto 9000 HP for locomotives
- **Defence & Aerospace:** Strategic equipment for Indian defence forces including Super Rapid Gun Mount & Integrated Platform Management System for naval ships, compact heat exchangers, space grade Lithium ion cells, space grade solar panels and space grade batteries etc, Hot forming of spacecraft propellant tank, Forming of Titanium Shell/Domes, welding & machining of Titanium sheet and tubes
- **Renewables:** EPC solutions from concept to commissioning for grid connected and standalone solar PV applications including floating solar power plants
- **Energy storage solutions & new business areas:** EV Chargers and associated electrical system, EPC solutions for Electric vehicle charging station including Solar Based EV Charging stations and battery energy storage systems
- **Captive Power & process plant:** standalone STGs, BTG package, Refinery CPP on EPC basis, UB package, Downstream oil & gas packages.
- **Transmission:** EHV substations (AIS and GIS types) ranging upto 765 kV, UHV substations and HVDC converter stations up to ±800 kV, power transformers, shunt reactors, vacuum switchgear, gas insulated switchgears, Flexible AC Transmission system devices etc.
- **Industrial products:** Oil rigs, wellheads & X-mas tree valves, mechanical packages, fabricated equipment & boiler feed pumps, compressors & AC machines.



Loco Shop at BHEL Jhansi

Making the sun count!

BHEL is one of the few companies in India providing end-to-end in-house solutions for solar power plants. Company's solar portfolio has expanded to more than 1200 MW with more than 1000 MW solar power plants already commissioned across the country. Company offers solution for ground mounted, roof top, canal top and floating solar PV plants.

BHEL has established itself as leading EPC player in the floating solar PV segment of domestic market. Several large scale floating solar power plants including 100MW NTPC Ramagundam - largest in the country), 25 MW NTPC Simhadri and 22 MW NTPC Kayamkulam commissioned by BHEL during the year.

With an experience of 150+ MW capacity of floating solar power plants commissioned, BHEL has uniquely positioned itself to deliver plants on all kinds of water bodies like natural reservoirs, man-made reservoirs and saline back-water kayals.



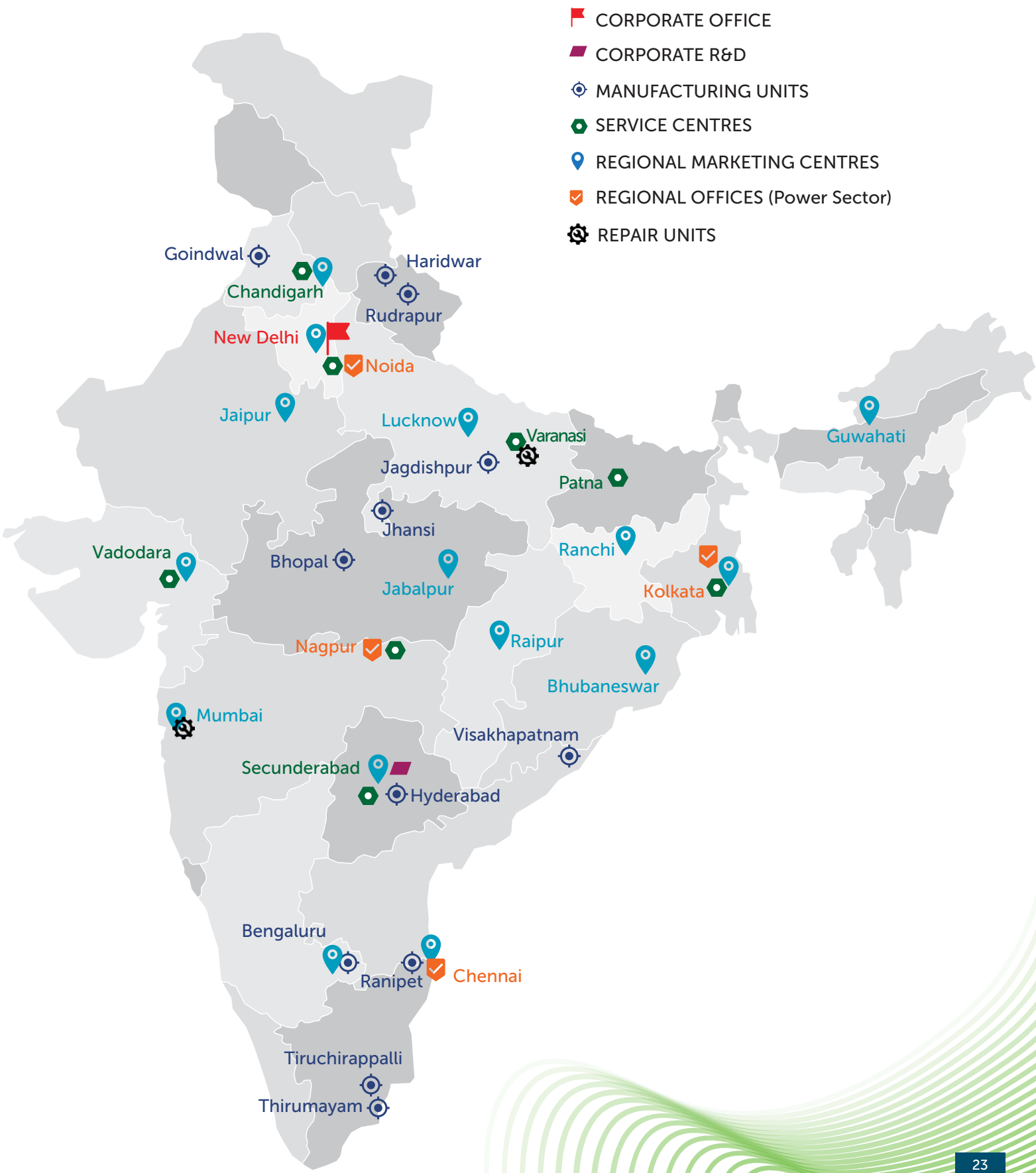
100 MW Floating Solar PV Plant at NTPC, Ramagundam

PAN INDIA PRESENCE

Manufacturing Units	Service Centres	Regional Marketing Centres	Project Sites in India & abroad	Regional Offices	Repair Units
16	08	15	150+	04	02

Manufacturing Plants/ Unit Locations

BHEL Manufacturing Units	Bengaluru	1. Electronics Division (EDN)
		2. Electronics Systems Division (ESD)
		3. Solar Business Division (SBD)
	Bhopal	4. Heavy Electrical Plant (HEP)
	Goindwal	5. Industrial Valves Plant (IVP)
	Haridwar	6. Heavy Electrical Equipment Plant (HEEP)
		7. Central Foundry Forge Plant (CFFP)
	Hyderabad	8. Heavy Power Equipment Plant (HPEP)
	Jagdishpur	9. Fabrication Stamping & Insulator Plant (FSIP)
	Jhansi	10. Transformer Plant (TP)
	Rudrapur	11. Component Fabrication Plant (CFP)
	Ranipet	12. Boiler Auxliaries Plant (BAP)
	Tiruchirappalli	13. High Pressure Boiler Plant (HPBP)
		14. Seamless Steel Tube Plant (SSTP)
	Thirumayam	15. Power Plant Piping Unit (PPPU)
	Visakhapatnam	16. Heavy Plates & Vessels Plant (HPVP)
BHEL Repair Units	Mumbai	1. Electrical Machine Repair Plant (EMRP)
	Varanasi	2. Heavy Equipment Repair Plant (HERP)


CORPORATE OFFICE
CORPORATE R&D
MANUFACTURING UNITS
SERVICE CENTRES
REGIONAL MARKETING CENTRES
REGIONAL OFFICES (Power Sector)
REPAIR UNITS
Goindwal
Chandigarh
Haridwar
Rudrapur
New Delhi
Noida
Jaipur
Lucknow
Varanasi
Jagdishpur
Patna
Guwahati
Jhansi
Vadodara
Bhopal
Jabalpur
Ranchi
Kolkata
Nagpur
Raipur
Bhubaneswar
Mumbai
Visakhapatnam
Secunderabad
Hyderabad
Bengaluru
Ranipet
Chennai
Tiruchirappalli
Thirumayam

World of BHEL

VISION

A global engineering enterprise providing solutions for a better tomorrow

MISSION

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

A National Institution

- One of the largest engineering & manufacturing companies in India serving core sectors of the economy
- Pan India presence with 16 Manufacturing Units and 150+ project sites globally

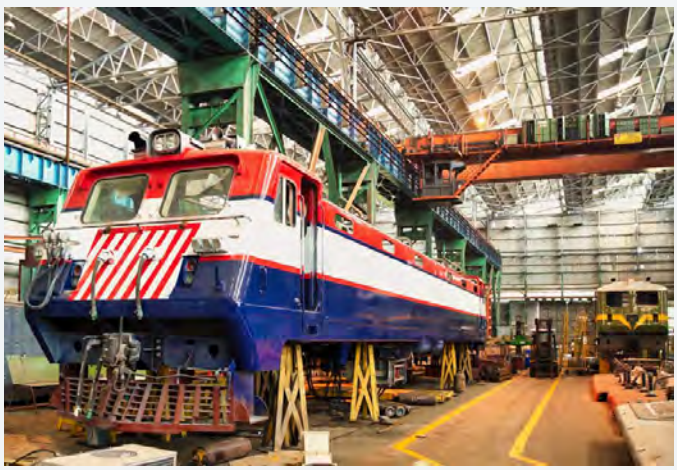


Energizing India

- 194+ GW power generating equipment installed in India and abroad
- 18,500+ MW Captive Power Plants commissioned
- 1.2+ GW total solar portfolio
- BHEL supplied 54% of the thermal power generation capacity, 47% of the nuclear power generation capacity (secondary side) and 45% of the hydro power generation capacity installed in the country as on 31.03.2022

Unparalleled contribution in core sectors

- 7,00,000+ MVA transmission equipment supplied
- 33,000+ AC machines supplied
- 800+ Locos supplied to Indian Railways
- 410+Compressors supplied and 90 Oil drilling Rigs- Supplied
- 13000+ Well Heads & Christmas Tree valves supplied
- 40+ Super Rapid Gun Mount supplied for Indian Navy ships





Global Footprints

- Footprints in 88 countries
- 11 GW power generation capacity built outside India; 6 GW under execution
- Entry into new markets – Brunei Darussalam and Mexico

DID YOU KNOW?

- BHEL is the only company associated with all three stages of national Nuclear plan
- BHEL dispatched its 42nd Nuclear Steam Generator for Rawatbhata Nuclear Power Plant from its Trichy manufacturing unit
- BHEL has been a pioneer in the coal gasification technology in the country since the 1990s
- BHEL has developed and supplied Air to Air Heat Exchanger (AAHE) for Su-30MKI aircraft
- BHEL has indigenously designed and developed a prototype Air Pollution Control Tower (APCT) and the same has been installed in Noida city on pilot basis



Valuing people

- Committed workforce, more than 30,000+ strong
- 1800+ Female employees
- 9000+ Engineers
- Participative management culture since 1973





Technology for a sustainable future

- Demonstrated 0.25 TPD coal to methanol plant using indigenous coal gasification technology
- Spearheading the development, installation and indigenisation of emission control equipment for coal based power plants in India
- Carbon footprint avoidance of nearly 25,235 MT of CO_2-equivalent through in-house 29 MWp solar power installations
- Developed 122 kW DC fast charger for Electric Vehicles
- 10 manufacturing units are now 'Zero Liquid Discharge' entities

Growing with society

- Committed to Principles of UN Global Compact
- Signatory to Integrity Pact of Transparency International
- 68,000 saplings planted across BHEL during 2021-22 to enhance green cover



Innovation

- R&D Expenditure consistently more than 2.5% of Turnover, 5200+ IP equity
- Collaborative R&D with leading academic institutions & research organizations
- Five research institutes; 14 Centres of Excellence
- In-house R&D Centres of 12 Manufacturing units & Divisions recognized by DSIR

Recognition of Excellence

1. **18 employees from BHEL have been conferred 11 prestigious Prime Minister's Shram Awards (PMSA) for 2018** declared by Ministry of Labour & Employment, Government of India. This is the highest ever by BHEL's workmen from the date of incorporation (1985) of PMSA. BHEL has garnered 65% of the awards for the Public Sectors.

2. **25 Employees of the company won 7 Vishwakarma Rastriya Puraskar (VRP) (Performance year- 2018)** declared by Ministry of Labour & Employment, GoI. Three Manufacturing Units of the Company (EDN-Bengaluru, IP-Jagdishpur, HPBP-Trichy) won 8 nos. 'National safety Awards' (Performance year 2018) announced by DGFASLI (Ministry of Labour & Employment, GoI).

3. **BHEL received the Golden Peacock Innovative Product/ Service Award 2021** under the Power Equipment Sector for Development of Regenerative Braking System for WAG-7 Electric Locomotive

4. **BHEL received the Golden Peacock Environment Management Award** for the year 2021 in the Power Equipment Sector

5. **BHEL adjudged Clarivate South and South East Asia Innovation Award 2021** under Corporations in India - Heavy Industries segment, recognising BHEL's efforts as a leader in Innovation and placing the company among top innovators in India.

6. **The prestigious 'EEPC India Northern Region Award'** for Engineering Export Excellence in the category of Top Exporter for the year 2017-18 - "Top exporters for the year 2017-18, Silver Trophy - Large Enterprise"

7. **BHEL has been placed among the top 25 best workplaces in the '2021 top companies list',** to grow your career in India, by LinkedIn.

8. **BHEL has been selected amongst the top 200 Sustainable Companies.** The company has been ranked 109 in India's Most Sustainable Companies by Business World.

9. **BHEL has won ICC PSE Excellence Awards 2021** for the category 'Contribution of Women Power in CPSEs'.



6.

10. **BHEL received SKOCH Order of Merit Awards** for the following projects:

- State-of-the-Art Technology Deployment in Indigenous Development of Hot Box for ACC Equipped Power Plants
- Technology Deployment for Learning & Development
- Pressure Vacuum Swing Adsorption (PVSA) based Medical Oxygen plant

11. **BHEL has achieved a major milestone in its journey of business excellence with four of its major units (Haridwar, Bhopal, Hyderabad & Trichy) winning accolades under the 'CII-EXIM Bank Award for Business Excellence 2021'.**



11.



The company's Haridwar and Bhopal Units have got the 'Platinum recognition award', Trichy and Hyderabad units have been awarded the 'Gold Plus recognition'- The Award is based on the internationally recognized European Foundation for Quality Management (EFQM) excellence model

12. **'Par Excellence Award'** to eight Quality Circle (QC) teams and 'Excellence award' to one QC team in the '46th International Convention on Quality Control Circles – 2021 (ICQCC-2021)' held at Hyderabad.

13. **BHEL received the Chennai Port Trust's** 'Best Performance Award'-2020-21 in the Project Export (Break Bulk) category

14. **BHEL was conferred by the Institute of Chartered Accountants of India "ICAI Award for excellence in Financial reporting" for the financial year 2020-21** and honoured with the prestigious plaque in the category of Infrastructure and construction sector. BHEL has achieved this coveted recognition for the second year in succession (which was received last year for the first time after a gap of nearly four decades) in recognition of excellence of preparation and presentation of qualitative financial statements

On behalf of BHEL the award was received by Sh. Subodh Gupta, Director[Finance] from Dr. Jitendra Singh, Hon'ble Minister of State (IC) for Science & Technology, Earth Sciences; Minister of State for Prime Minister's Office; Personnel, Public grievances and Pensions, Department of Atomic Energy and Department of Space in the presence of eminent Guests of Honour, Chief Executives of various organisations and other dignitaries.







15. **CMD, BHEL conferred with CEO with HR Orientation award by World HRD Congress** for his efforts at transformation of BHEL into a future ready Global Engineering Organisation through a multidimensional strategy including review and revamp of the entire HR paradigm in the company and ensuring alignment of stakeholder interests with the interests of the organisation.

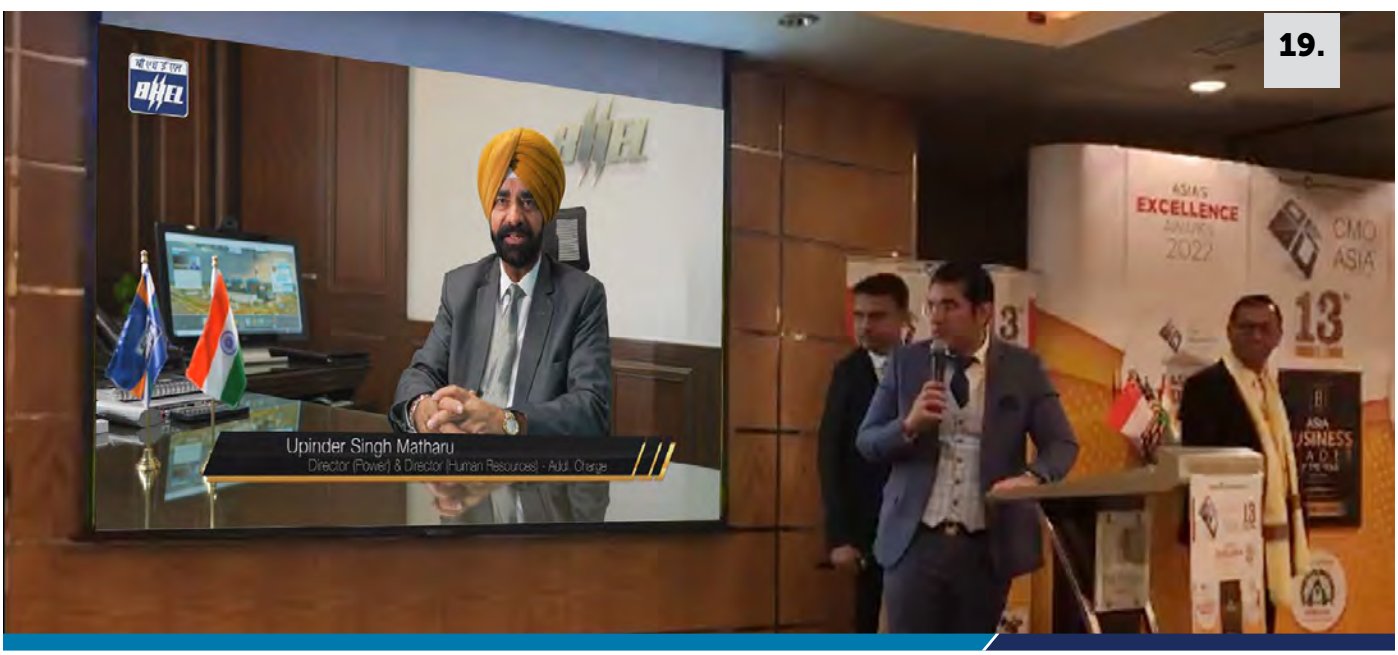


16. **BHEL has been conferred with Business Innovation Awards 2021** for the categories Organization with Innovative Practices in HR & Best Digital PSU.

17. **BHEL has been conferred with Global HR Excellence Award** for the categories Best Work Place practices, Excellence in Learning & Development.

18. **Director (IS&P), Ms. Renuka Gera was conferred with CIGRE Women in Energy Award** at Cigre, Paris Session 2022

19. **BHEL has Won Asia's Best CSR Practices Award for its CSR Project – Heal A Soul** under organizational category: Concern for health. BHEL accepted the Award virtually at Pan Pacific, Singapore hosted by CMO ASIA.





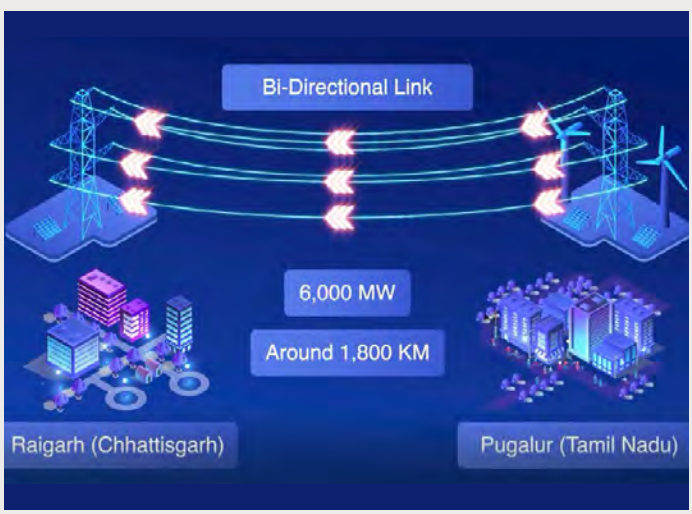




Delivering Transmission Projects of National Importance

BHEL has 40+ years of experience of providing substation solution for transmission network. Company has been involved in six complex transmission project of HVDC types in India with its partners. This year company achieved another great milestone of enabling record power transmission of 6,000 MW over the recently commissioned ±800 kV, 6,000 MW Ultra High Voltage Direct Current (UHVDC) Link between the Western Region Grid (Raigarh, Chattisgarh) and the Southern Region Grid (Pugalur, Tamil Nadu). This UHVDC link will bring relief to the power deficit Southern Grid.

Fully commissioned in October 2021, it is proud moment for BHEL to be associated in building this prestigious project of national importance.





BOARD'S **REPORT**

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Report of the Board of Directors

Dear Members,

The Board of Directors has pleasure in presenting the 58th Annual Report on the business and operations of your Company and the Audited Financial Statements for the year ended March 31, 2022.

Financial Results

(₹ Crore)

	For the year ended	
	March 31, 2022	March 31, 2021
Revenue	**20153**	16296
Revenue from operations	**21211**	17308
Profit/(loss) after tax	**410**	(2717)
Total comprehensive income / (loss)	**487**	(2697)
EPS (in ₹)	**1.18**	(7.80)

Note: Figures in () represent negative values.

State of Company Affairs

Sustained efforts made by the company over the past two years towards Project Centric operations, business diversification, and prudent financial management, have started yielding results. The company has made a profit after tax of ₹410 Crore (PY loss of ₹2,717 Crore), after two consecutive loss years. This marks the initial successes in resolving numerous legacy issues faced by the company in addition to the challenges posed by a declining thermal market and a volatile business scenario.

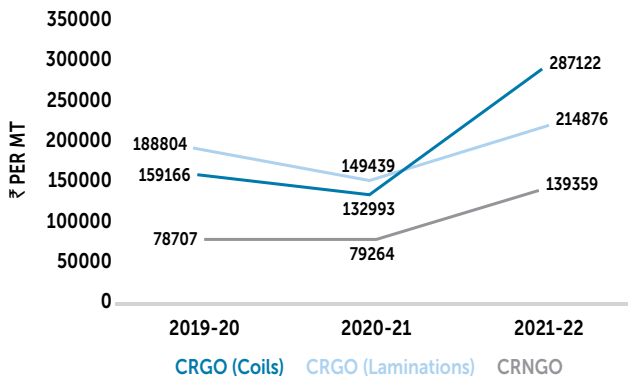
The Revenue of the company increased by approx. 24% to ₹20,153 Crore as compared to ₹16,296 Crore in the previous year, largely on the back of sustained improvement in execution even in the face of the devastating second wave of COVID-19 at the beginning of FY 2021-22. The reorientation of the company's operational ideology, from being Revenue Centric to Project Centric, resulted in the highest erection tonnage at project sites in the past five years, highest ever project closures and lowest number of outstanding punch points.

The company's efforts at expanding its coal business as well as diversification into non-coal business have started bearing fruits with the maiden order booked for flexible operation of thermal power plant (huge requirement in future years for grid stabilization considering the increasing integration/ share of renewables in the energy mix), signing of highest ever 8 nos. of long term spares supply as well as service agreements, highest ever order booking in nuclear power business of more than ₹12,000 Crore, highest ever order booking of ₹1,552 Crore in defence & aerospace business (previous year ₹239 Crores), and maiden order for propulsion equipment for Vande Bharat trainsets. The company also established a firm foothold in the upcoming coal gasification area with inauguration of the country's first Coal to Methanol demonstration plant based on in-house technology for gasification of high ash Indian coal, which is being pursued as a major business area in the years to come.

Economic and Environmental Challenges

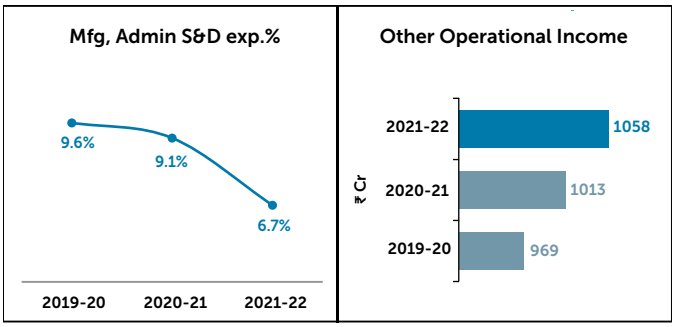
The year was severely impacted by supply chain disruptions emanating from COVID-19 restrictions, even from neighboring countries, as well as from recent geopolitical developments. This directly impacted the bottom lines of Indian manufacturing companies, besides causing operational challenges in arranging man and material, especially in first two quarters of the year. Your company's continued and concerted efforts on project execution at project sites as well as shop floors, enabled BHEL to overcome these operational challenges.

During the year, global prices of various commodities increased drastically (particularly Steel, CRGO, CRNGO, amongst others) which impacted margins significantly. Supply chain disruptions created severe issues affecting timely availability of critical raw material for shop production. Global shortage of critical inputs viz., Semiconductor Chips, CRGO and CRNGO also impacted BHEL's product deliveries. The cost of erection activities, including civil construction, also witnessed an upswing during the year.

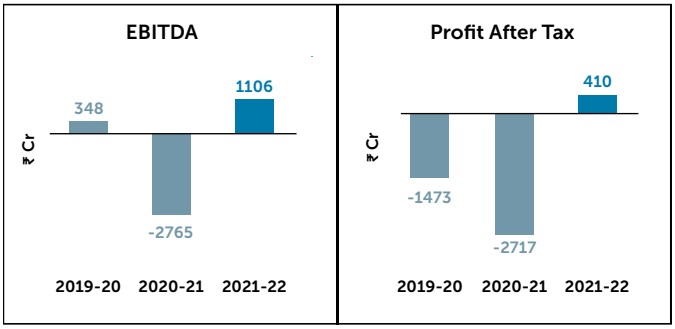


Overcoming these hurdles, your company achieved a 23% increase in Revenue from Operations in FY 2021-22 vis-à-vis the previous year. The focused efforts on project execution have significantly contributed to the improvement in the financial performance. Project performance data on many fronts showed up as the best in the last five years, including erection of more than 4.5 lakh tonnes of steel, highest ever project closures and lowest ever number of outstanding punch points.

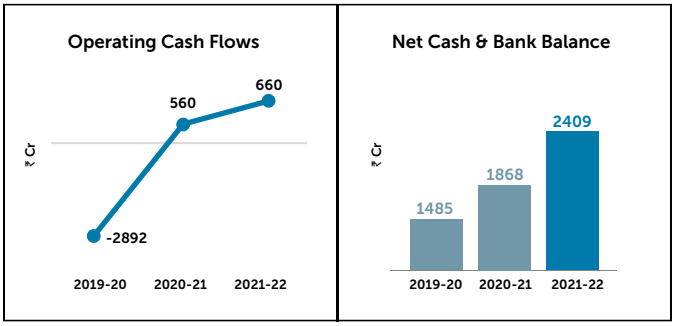
A significant cost reduction drive within the company led to reduction in the manufacturing, administrative and sales & distribution (S&D) expenses to less than 7% of revenues from a level of more than 9% last year. Targeted focus on improving other operational income also contributed significantly to the bottom line. It is pertinent to mention that the company has achieved the highest Other Operational Income of ₹1,058 Crore.



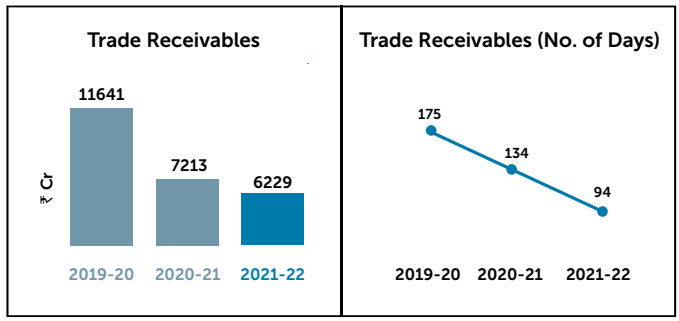
Overall, the company achieved an EBITDA of ₹1,106 Crore despite significant pressure on margins due to sharp spike in metal prices and increase in fuel costs. Profit After Tax for FY 2021-22 stands at ₹410 Crore. The company's focus on improving its quality of assets, specifically receivables, in the balance sheet over the last two years resulted in lowering the provision cost for FY 2021-22, which has also contributed to the improved bottom line of the company. Positive efforts made in the taxation area helped the company receive Income Tax refunds totaling ₹667 Crore, which significantly contributed to net cash generation.



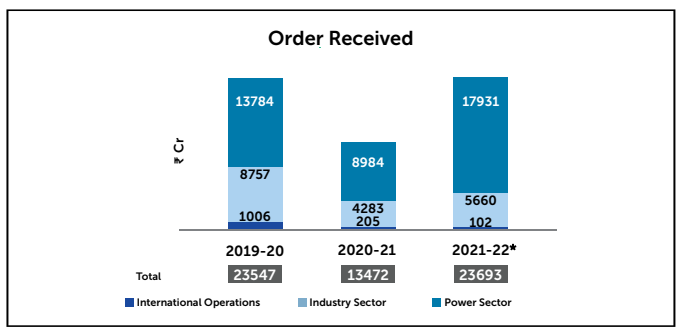
Traditionally, with higher revenues, the company has seen higher investments in working capital. In FY 2021-22, there is a working capital release of ₹586 Crore, despite revenues increasing by about 24%. Overall, there is net positive cash generation of ₹660 Crore from operations, as against ₹560 Crore last year. The Company had cash & bank balances (net of short term borrowings) of ₹2,409 Crore, as at the end of FY 2021-22, which is 29% higher than the balance of ₹1,868 Crore at the end of FY 2020-21.



The total receivables are at ₹33,169 Crore, which are only marginally higher than Mar'21 levels (₹31,292 Crore), despite annual revenues rising by 24%. The trade receivables are at their lowest in the last 10 years, at ₹6,229 Crore, (previous year ₹7,213 Crore). Though contract assets are marginally higher, however, with better pace of project executions, which should aid achievement of intermediate milestones, the contract assets should also tend towards lower trajectories.



The Company secured Orders worth ₹23,693 Crore in FY 2021-22. This comprises orders worth ₹17,931 Crore in the Power Sector*, ₹5,660 Crore in the Industry Sector* and ₹102 Crore in International Operations. The Order Book outstanding at the end of 31st March 2022 was ₹1,02,542 Crore against ₹1,02,090 Crore as on 31st March 2021. The Order book figures are inclusive of applicable taxes.



Transfer to Reserve

The company has not transferred any amount to the Reserves during FY 2021-22.

Dividend

The Board of Directors, in its meeting held on May 21, 2022 has recommended a final dividend @20% (₹0.40 per share of ₹2 each), amounting to ₹139.28 Crore, out of profit for FY 2021-22, subject to your approval.

The Company has a dividend distribution policy in place in pursuance of the requirements of Regulation 43A of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 ("LODR"). Dividend distribution policy is available on the Company's website at https://www.bhel.com/dividend-distribution-policy-bhel-0

Deposits

The Company has not accepted deposits from the public falling within the ambit of Section 73 of the Companies Act,

For FY 2021-22, BGGTS orders considered in Industry Sector.

2013 during FY 2021-22.

Capital & Finance

During FY 2021-22, the company has met its CAPEX and operating fund requirements through internal accruals. The company invests any available surplus funds to maximise the interest income to the company. To meet any intermittent operational fund requirement, short term borrowing options used by the company include WCDL, Commercial Papers (listed on NSE and BSE), PCFC, etc. PCFC borrowings provide a natural forex hedge to the company. Prudent treasury management led to the closing cash & bank balance (net of short term borrowings) rising by 29% in the current financial year as compared to the previous period. The company continues to retain its status as Zero Debt Company.

Loans and Investments

Details of loans and investments covered under the provisions of Section 186 of the Companies Act, 2013 form part of financial statement. Loan of ₹3 Crore towards working capital given during 2015-16 to M/s BHEL EML, BHEL's subsidiary company, already provided for impairment, has been written off this year consequent to transfer of our full stake to the Govt. of Kerala. There are no instances of investments by the loanee in the company or its subsidiary.

Credit Rating

The credit ratings of your Company are as follows:

Rating Agency	Date of Rating	Long Term Rating	Outlook	Short Term Rating
CRISIL	24-07-2020	CRISIL AA	Negative	CRISIL A1+
	18-06-2021	CRISIL AA-	Negative	CRISIL A1+
INDIA RATINGS & RESEARCH	06-07-2020	Ind AA	Negative	Ind A1+
	01-07-2021	Ind AA-	Negative	Ind A1+
CARE	27-06-2020	CARE AA	Stable	CARE A1+
	24-06-2021	CARE AA-	Stable	CARE A1+

N.B. The above ratings have been reaffirmed by M/s CARE & M/s India Ratings & Research in the month of June 22 and M/s CRISIL in the month of July 22.

During FY 2021-22, the Company has worked relentlessly towards improving key performance indicators to strengthen its financial position and has been able to turn around after two years in a persistently challenging business environment. **The Company is continuously taking firm measures to cut down expenses, so as to improve the bottom-line which is also helping in cash conservation.** Cash release from working capital, lowest current ratio in last ten years, and improved quality of assets in the balance sheet are testament to the success of the company's overall treasury management strategies.

Material Changes and Commitments affecting the Financial Position

There are no material changes and commitments affecting the financial position of the Company between the end of the FY 2021-22 and the date of this report. There are no significant and material orders passed by the regulators or courts or tribunals impacting the going concern status and company's operations in future.

Suspension of Trading

The Equity Shares of the company are listed on NSE & BSE. The shares of the Company were not suspended from trading during the FY 2021-22.

Directors' Responsibility Statement

Pursuant to section 134(5) of the Companies Act, 2013, the Board of Directors confirm that:

a) In the preparation of the Annual Accounts, the applicable Accounting Standards (Ind AS) have been followed along with proper explanations relating to material departures;

b) The Directors have selected such accounting policies & applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of financial year and of the profit of the Company for that period;

c) The Directors have taken proper and sufficient care for maintenance of adequate accounting records in accordance with the provisions of this Act for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;

d) The Directors have prepared the Annual Accounts on a going concern basis;

e) The Directors have laid down internal financial controls to be followed by the Company and that such internal financial controls are adequate and operating effectively;

f) The Directors have devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

Management Discussion & Analysis

This report conveys the Management's perspective on the external environment, company's strategy for the future, operating and financial performance, risks and concerns, and various initiatives taken in various areas such as diversification of business areas, revamping project execution, cost optimization, digitalization, quality, and development of futuristic technologies etc., during FY 2021-22.

In the midst of a continuously challenging business and economic environment, your company has continued to focus on regaining growth. Strengthening the core business, focus on execution, and determined efforts towards increasing business in non-coal areas are critical enablers for sustainable growth. For further details, please refer **Annexure-I to the Board's report.**

AatmaNirbhar Bharat

To capitalize on the opportunities arising out of Hon'ble Prime Minister's vision of an AatmaNirbhar Bharat, BHEL has

undetaken several "Make in India" initiatives. Technology leadership and self-sufficiency in its areas of operations is a major focus for the company.

The Government of India's National Coal Gasification Mission, which aims at gasification of 100 Million Tonnes of coal by 2030 provides a new opportunity for cleaner use of coal for indigenous manufacturing of many chemicals such as methanol, ammonia, ammonium nitrate, etc. BHEL has been a pioneer in the coal gasification in the country since the 1990s. In September 2021, a 0.25 TPD Coal to Methanol plant at Hyderabad funded by DST was successfully commissioned. The complete technology for this project has been developed by BHEL's R&D engineers. Earlier experience in gasification, coupled with the latest R&D efforts has helped BHEL in developing a completely indigenous commercial level gasification technology for handling high ash Indian coals. Your company is targeting this upcoming business avenue in a major way and is working to collaborate with other PSUs as well, to achieve Aatmanirbharta in manufacturing of many chemicals which presently are largely imported.

The Advanced Ultra Supercritical Technology (AUSC), indigenously developed by BHEL along with NTPC and IGCAR, is another promising technology advancement to establish energy security for our country. Many of the aging and comparatively inefficient power generating units can be replaced with AUSC sets, which will also help the environment with substantially reduced atmospheric emissions.

Your company is indigenously developing numerous equipment hitherto being imported such as valves and turbine blades used in power plants, boiler water feed pump for nuclear application, Flue Gas Desulphurization components, amongst others. Developmental orders have also been received for some products like Surface Unit of Sucker Rod Pump, 15000 psi Well Head and X-MAS Tree Valves, etc.

Concerted efforts towards indigenization resulted in highest ever order booking in Defence & Aerospace and Nuclear sectors as well as maiden order for underslung propulsion for Vande Bharat train sets. More than 21% of the company's revenue has been achieved from in-house developed products, systems and services.

COVID Response

BHEL's efforts continued on multiple levels to respond to challenges of COVID-19 since the first wave, for its own employees, stakeholders as well as society at large. When the devastating second wave of COVID-19 hit the country in April 2021, TEAM BHEL responded with all resources at its command for taking care of its people as well as supplementing national efforts. This interalia included:

- Within BHEL, detailed SOP's duly incorporating Government directives were put in place and strict implementation of the same was ensured. Conducted regular fumigation, sanitization, etc., at factories, offices, townships and nearby areas and facilitated Work from Home to control the spread of COVID-19
- Augmented hospital infrastructure within units/ townships and support groups were formed for taking care of employees and their families at units as well as project sites
- Assisted national efforts with all its resources for dealing with the acute shortage of oxygen for saving precious lives. The manufacturing and piping facilities at various plants were quickly converted into oxygen cylinder filling facilities with BHEL Haridwar and Bhopal units supporting almost the entire Uttarakhand, western UP, parts of NCR as well as city of Bhopal during the critical time. Over 80,000 cylinders (~5,75,000 cubic meters) of medical oxygen were filled and supplied and many emergency situations responded to, resulting in saving of countless lives
- Revived 40-year-old oxygen plant at HPEP Hyderabad (shut down for more than 10 years), for supplying oxygen for medical use
- Developed prototype for oxygen generating plant of 500 LPM (based CSIR-IIP, Dehradun technology) in a record time of 40 days, from signing of Transfer of Technology, and delivered the first order within 35 days from receipt of the order
- Set-up vaccination centers across the manufacturing units, project sites as well as corporate office/ service centers to ensure vaccination of not just its employees, but also their family members, labours deployed by contractors and the society at large (more than 1,30,000 doses administered)
- BHEL vaccination efforts continued not just within the country but also at overseas project site at Maitree, Bangladesh, by taking special permission from government for export of vaccines from India

Despite all efforts to minimize the impact of COVID-19 on the employees and their families, the company lost 155 employees due to the pandemic. The Directors of your company deeply regret this loss and are grateful to each and every employee and his/her family for putting in efforts to fight this pandemic. Continuing with the ethos of being a caring company, an Assistance Scheme has been launched for providing monetary, housing and medical assistance to the dependents of employees who succumbed to COVID-19

Corporate Governance

Pursuant to Regulation 34 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015, a report on Corporate Governance (including Board & Committee Meetings details) is given at **Annexure-II to the Board Report** together with the following,

(i) Certificate of Non-Disqualification of Directors under Schedule V of the SEBI Listing Regulations.

(ii) Auditors certificate on Corporate Governance under SEBI Listing Regulations & Department of Public Enterprises (DPE) guidelines on Corporate Governance.

(iii) Secretarial Audit Report under Section 204 (1) of the Companies Act, 2013.

Declaration of Independence

Declaration under Section 149(6) of the Companies Act, 2013 pertaining to criteria of independence has been given by the Independent Directors to the Board of Directors. All the Independent Directors have registered themselves on the online database of the Indian Institute of Corporate Affairs (IICA), notified under Section 150 of the Companies Act, 2013.

Shri Raj Kamal Bindal and Shri Manish Kapoor have qualified the online proficiency self-assessment test conducted by IICA, while Shri Raj K. Agarwal is exempted from the said test (exemption certificate received from IICA). In the opinion of the Board, the Independent Directors possess integrity and necessary expertise and experience.

Compliances

In addition to focus on many other areas, the company continuously reviews and strengthens its compliance of systems and processes.

- The Company considers sound Corporate Governance as one of its core values committing itself to maintaining high degree of transparency in disclosures.
- To strengthen compliance mechanism across various laws, a quarterly legal compliance report on the Applicable laws/ Acts is reviewed by the Board of Directors.
- Being a listed company, compliance with the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 is ensured. There is no adverse comment from SEBI for the FY 2021-22 on any financial matter.
- The Company has complied with the applicable secretarial standards.
- For preparation of financial statements, the company ensures compliance to the Indian Accounting Standards (Ind AS), Guidance Notes and other authoritative literature issued by the ICAI, Companies Act, 2013 and other applicable statutes. The quality of financial reporting and disclosures have also been recognized by the Institute of Chartered Accountants of India

The company endeavours to constantly improve its disclosures and transparency standards in the Financial Statements.

Contribution to the Exchequer

The Company, over the years, has been consistently making significant contribution to the Exchequer, and maintaining high standards of integrity with respect to tax compliances. During the current year, the Company's contribution to exchequer stood at over ₹3,050 Crore.

The company has also received a **Certificate of appreciation from Ministry of Finance, Government of India, for the second year in succession,** for sizeable contribution in cash, prompt filing of return and timely payment of Goods and Services Tax to Government (in respect of multiple states), thereby contributing in building a strong and resilient nation.

Audit Committee

The Company has in place a Board Level Audit Committee in terms of the requirements of the Companies Act, 2013 read with rules made thereunder and Regulation 18 of the SEBI (Listing Obligations & Disclosure Requirements) Regulations 2015, the details in respect of which are given in the Corporate Governance Report. All the issues are fairly and transparently deliberated in the meetings which are held at regular intervals. The views and suggestions of the Board Level Audit Committee members are taken into account and imbibed into the Company's processes. Further, there has been no instance where the Board of Directors have not accepted the recommendations of the Board Level Audit Committee.

Details of changes in Directors & Key Managerial Personnel

Appointment

Dr. Raj K. Agarwal, Dr. K. Sivaprasad and Dr. Lekhasri Samantsinghar have been appointed as Part-time Non-Official (Independent) Directors w.e.f. November 9, 2021.

Shri Upinder Singh Matharu has been appointed as Whole Time (Functional) Director w.e.f. March 21, 2022 and has taken charge as Director (Power).

Shri Vijay Mittal, Joint Secretary, Ministry of Heavy Industries, has been appointed as Part-time Official Director w.e.f. March 25, 2022.

Shri Jai Prakash Srivastava has been appointed as the Whole Time (Functional) Director w.e.f. August 12, 2022 and has taken charge as Director (Engineering, R&D).

In line with Regulation 17 (1C) of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 and Article 67(iv) of the Articles of Association of the Company, Shri Upinder Singh Matharu and Shri Vijay Mittal who were appointed as additional directors to hold directorship upto the next general meeting or within a time period of three months, whichever is earlier, were appointed as Directors by the shareholders of the Company on June 15, 2022, through postal ballot.

In accordance with applicable statutory provisions and Article 67(iv) of the Articles of Association of the Company, Dr. Raj K. Agarwal, Dr. K. Sivaprasad, Dr. Lekhasri Samantsinghar and Shri Jai Prakash Srivastava having been appointed as additional directors, shall hold directorship upto the 58th Annual General Meeting of the Company and are eligible for appointment as Directors at the Meeting.

Further, pursuant to Section 152 of the Companies Act, 2013 and Article 67(i) of the Articles of Association of the Company, Ms. Renuka Gera and Shri Subodh Gupta will retire by rotation at the Annual General Meeting and being eligible, offers themselves for re-appointment.

Cessation

Shri Anil Kapoor, who was appointed as Director (HR) on October 15, 2019, ceased to be a Director of the Company on attaining the age of superannuation on January 31, 2022.

Shri Rajesh Sharma, who was appointed as Part-time Non-official (Independent) Director on February 20, 2019, ceased to be a Director of the Company on completion of his tenure on February 13, 2022.

Shri Jeetendra Singh, Joint Secretary, Ministry of Heavy Industries, who was appointed as Part-time Official Director on June 18, 2021, ceased to be Part-time Official Director on March 25, 2022.

Shri Aditya Prasad Sahu, who was appointed as Part-time Non-Official (Independent) Director w.e.f. December 29, 2021, ceased to be a Director of the Company consequent to his resignation on May 30, 2022 from BHEL's Board of Directors. Shri Sahu tendered his resignation as he was contesting the Rajya Sabha Elections from Jharkhand. Further, he also confirmed that there are no other reasons other than those provided by him for resignation.

The Board of Directors place on record their deep appreciation for the valuable services rendered as well as advice and guidance provided by S/Shri Anil Kapoor, Rajesh Sharma, Jeetendra Singh and Aditya Prasad Sahu during their respective tenures.

In compliance with Regulation 36(3) of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015, brief resume of the Directors proposed for appointment and re-appointment along with the nature of their expertise in specific functional areas and names of companies in which the person holds directorship along with the membership of the Committees of the Board are given in the explanatory statement/ annexure to the Notice.

CEO/CFO Certificate

CEO/CFO certificate as per Regulation 17(8) of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 is placed at **Annexure- III to the Board's Report.**

Consolidated Financial Statements

The brief on consolidated financial statements prepared pursuant to section 129 (3) of the Companies Act, 2013 and Regulation 34 of the SEBI (Listing Obligations & Disclosure Requirement) Regulations 2015, is given in para 1.5.4 under Management Discussion & Analysis.

Sustainable Development

Sustainability is a continuous journey ingrained in our business processes & activities, and is evident from our mission statement – 'Providing sustainable business solutions in the fields of Energy, Industry & Infrastructure'.

Sustainable development at BHEL addresses the three pillars of sustainability, namely, Environmental, Economic and Social. With a vision to create a responsible and sustainable organization, BHEL strives towards the integration of environment, health, social equity and economic vitality within the organization and beyond. The manifestation of this vision is evident in our approach towards development of greener products, increased renewable energy generation, efficient water management, enhanced green cover, optimization of usage of natural resources and improved energy efficiency and conservation.

The brief of some of these activities are given in **Annexure-IV to the Board's Report.**

Business Responsibility and Sustainability Report

In line with the requirement of the listing regulations, Business Responsibility and Sustainability Report describing the initiatives taken by the company from environmental, social and governance perspectives is enclosed at **Annexure-V to the Board's Report.**

Achievements of R & D and Technological Development

BHEL has a robust innovation and R&D framework in place to address the challenging technological environment, both in existing business areas and emerging technology areas. R&D expenditure of the company for FY 2021-22 was approx. ₹700 Crores, approx. 3.5% of revenue. This includes expenditure incurred on R&D efforts made at manufacturing units for modifications and improvements in products and designs against customer requirements, apart from other R&D projects. The company filed 516 patent and copyrights applications during the year, enhancing the company's intellectual capital to more than 5000. These in-house developed products, systems and services have significantly contributed to the company's yearly revenue.

Further details have been provided in **Annexure-VI to the Board's Report.**

Implementation of Official Language

Official Language Implementation Committees are constituted in all the Units/Divisions to give impetus to the implementation of Official Language in BHEL. Quarterly meetings are being held regularly in all units/divisions including Corporate Office. To further accelerate the pace of Official Language implementation in the Company, more than 100 Rajbhasha Chakras were formed across the Company. Various activities / programmes were organized during the year for effective implementation of Official Language. The company has received many Rajbhasha Awards for its excellent efforts towards implementation of Official Language. Further details have been provided in **Annexure-VIII to the Board's Report**



Hon'ble Union Minister of Heavy Industries, Dr. Mahendra Nath Pandey, addressing employees at BHEL Hyderabad during his visit to Coal to Chemical Plant

Vigil Mechanism

Transparency, fairness and objectivity form the basis for all decision making processes for the company.

The Company has in place a full-fledged Vigil Mechanism consisting of Vigilance Department, Internal Audit, Whistle-blower Policy mechanism, Independent External Monitor(s), as well as Board Level Audit Committee.

The Vigilance function of BHEL is headed by Chief Vigilance Officer (CVO) who acts as an extended arm of Central Vigilance Commission (CVC) in the Company. All units & divisions of BHEL have a Vigilance set-up headed by a Senior Officer reporting to the CVO.

Preventive Vigilance has been the focus area of BHEL as proactive vigilance is better to reduce the chances of corruption. The main objective is to progressively reduce ambiguity and discretion in the process by plugging the loopholes in the system, thereby making decision making process more and more objective & transparent and also reducing the scope for engaging in malpractices. The audit reports (internal, statutory and CAG reports) relating to BHEL are regularly scrutinized so as to determine whether there is any vigilance angle involved in respect of the irregularities brought out in such reports.

A panel of two Independent External Monitors (IEMs) is in place to oversee implementation of Integrity Pact and address any concerns related to the same.

The company encourages reporting of unfair and unethical practices and has a Whistle-blower Policy mechanism which provides adequate safeguard against victimization to the complainant.

The Board Level Audit Committee reviews the functioning of the Whistle Blower/ Vigil mechanism and annual review of the Vigilance function is also done by the Board of Directors. Further details have been provided in **Annexure-VIII to the Board's Report.**

Health, Safety & Environment (HSE)

BHEL focusses on developing sustainable practices for ensuring the safety & health of its workforce as well as protecting the planet from various environmental impacts of its operations. We believe that good health, safety and environmental performance will result in long-term benefits, in terms of enhanced customer loyalty, valuable partnerships & collaborations and sustainable development.

BHEL, in its pursuit of achieving the highest levels of Occupational, Health & Safety and Environmental performance, has its manufacturing units and Power Sector regions certified under Occupational Health and Safety Certification (ISO 45001:2018) and Environmental Management Systems Certification (ISO 14001:2015). To enhance regular compliance, internal audits of manufacturing units and project sites are also carried out by a team of HSE experts within the organisation.

Further details are provided in **Annexure-VIII to the Board's Report.**

Data and Cyber Security

BHEL deploys multi-layered protection with state-of-the-art features for its IT assets and data. Security tools with centralized controls cover all IT assets from the perimeter to end user devices. Cyber Security Operations Centre (C-SOC) integrated with Global Threat Intelligence is in place to monitor all incoming / outgoing Internet traffic. Timely action in compliance to cyber security advisories from various government agencies is ensured.

Your company believes in educating and training not only the IT experts, but also employees to help protect BHEL against cybercrimes, including social-engineering attacks. User awareness and sensitization is continuously ensured through interventions like simulation exercises, training programmes, and communications across the company.

The overarching initiative in the field of information security in BHEL is the implementation of the Information Security Management System (ISMS) since 2005 to ensure the Confidentiality, Integrity and Availability of its information systems. Auditors from the Standardisation, Testing and Quality Certification (STQC) Directorate, an organization under the Ministry of Electronics and Information Technology, Government of India, audit the information security infrastructure of the organization and certifies for ISO 27001:2013 periodically. In 2021-22, BHEL has successfully integrated 23 different ISMS certificates awarded to different BHEL units into a single ISMS Certificate for the entire organisation.

The Covid-19 pandemic and the consequent lockdowns required employees to Work from Home which added a new dimension to the cyber threat landscape. BHEL adapted quickly to the changed scenario to ensure security of the entire gamut of IT operations. The learnings from the process have helped further strengthening of BHEL's cyber security profile.

Other disclosures

Information in accordance with the provisions of Section 134(3)(m) of the Companies Act, 2013 read with Companies (Accounts) Rules, 2014 regarding conservation of energy, technology absorption and foreign exchange earnings and outgo is given at **Annexure-VII to the Board's Report.**

As per provisions of section 197 of the Companies Act, 2013 read with the Rule 5 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014, every listed company is required to disclose the details of the remuneration of the Directors etc. in the Board report. However as per Notification No. GSR 463(E) dated June 5, 2015 issued by the Ministry of Corporate Affairs, Government Companies are exempted from complying with provisions of section 197 of the Companies Act, 2013. BHEL being a Government Company, such particulars are not included as part of Board's Report.

Statement pursuant to Section 129 of the Companies Act, 2013 (Form AOC-1) relating to subsidiary companies & joint ventures and Form AOC-2 pursuant to section 134(3)(h) of the Companies Act read with Rule 8(2) of the Companies (Accounts) Rules, 2014 is given at **Annexure-IX to the Board's Report.**

Auditors

The Statutory Auditors of your Company are appointed by the Comptroller and Auditor General of India. Three firms of statutory auditors were appointed as joint statutory auditors and four firms were appointed as branch auditors. The names of audit firms appointed for FY 2021-22 are given separately in the Annual Report.

Auditors' Report on the Accounts

The Auditors' Report on Standalone and Consolidated Financial Statements for FY 2021-22 of the Company are given at **Annexure- X** to the Board's Report. There is no qualification in the Auditors report on the Financial Statements of the Company. During FY 2021-22, there has not been any fraud reported by the Auditors of the company. The Supplementary Audit report under section 143(6) read with section 129(4) of the Companies Act, 2013 issued by the Comptroller & Auditor General of India also forms part of **Annexure-X.**

Secretarial Audit

In terms of section 204(1) of the Companies Act, 2013, the Company engaged M/s Agarwal S. & Associates, Company Secretaries in whole-time practice, as Secretarial Auditors for conducting Secretarial Audit for FY 2021-22 and their report forms part of Corporate Governance section.

Secretarial Auditor in their Audit report have observed non-compliance in composition of the Board of Directors as per Regulation 17 (1) (a) & (b) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and Para 3.1.4 of the DPE Guidelines on Corporate Governance during the period from 01.04.2021 to 08.11.2021, as the Company did not have requisite number of independent directors (including at least one independent woman director) on its Board.

The Management noted the observation and explained that BHEL, being a Government Company, the independent directors are appointed by Government of India. The Company was in constant communication for the appointment of requisite number of independent directors (including at least one independent woman director) on its Board. Pursuant to the appointment of three independent directors (including one independent woman director), the Company has complied with the provisions of the applicable SEBI Listing Regulations and DPE Guidelines w.e.f. 09.11.2021.

Cost Auditors

In terms of provisions of Section 148 of the Companies Act, 2013 and as per the Companies (Cost Records and Audit) Rules, 2014 and amendments thereof, the Board, on the recommendation of the Audit Committee, approved the appointment of seven firms of Cost Accountants as Cost Auditors for auditing the cost accounts of your Company for FY 2021-22. Cost accounts and records as specified by the Central Government under sub-section (1) of section 148 of the Companies Act, 2013 have been properly maintained and complied with.

The detail of cost auditors appointed for FY 2021-22 are given separately in the Annual Report. The Cost Audit Report for FY 2020-21 has been filed under XBRL mode on August 27, 2021, well within the due date of filing and there was no qualification in the cost audit report.

Appreciation and Acknowledgement

Your Directors gratefully acknowledge with deep sense of appreciation, the co-operation and guidance received from Government of India, particularly the Ministry of Heavy Industries in various spheres of Company's operations and strategic initiatives.



Secretary (HI) during his visit to TP Jhansi

We are deeply appreciative of and thankful to Ministry of Power, Ministry of Railways, Ministry of Coal, Ministry of Finance and statutory authorities/ departments of the Government of India for their valuable support and continuous cooperation.

The Directors place on record their sincere appreciation towards the Company's valued customers in India and abroad for their co-operation in addressing various issues faced in complex long gestation construction contracts, especially during COVID times.

The Directors also express their gratitude to the Comptroller and Auditor General of India, professional bodies, Statutory Auditors, Branch Auditors, Secretarial Auditor and Cost Auditors for their constructive suggestions and continuous cooperation.

The Directors place on record their sincere appreciation towards the Company's esteemed shareholders for the support and confidence reposed by them in the management of the Company and look forward to the continuance of this mutually supportive relationship in future.

The Directors also wish to place on record their appreciation for the continued cooperation received from all the technology collaborators, suppliers and contractors. The support provided by the financial institutions, bankers and stock exchanges are also acknowledged and appreciated.

Last but not the least, your Directors wish to place on record their sincere appreciation for the diligent efforts, hard work and commitment put in by all BHEL employees, who have worked day and night, in these trying times, to meet the company's commitments..

For and on behalf of the Board of Directors of

BHARAT HEAVY ELECTRICALS LTD.

Dr. Nalin Shinghal

Chairman & Managing Director

Place: New Delhi

Dated: 04.09.2022

Annexure-I to the Board's Report

Management Discussion and Analysis

1.1 Economic & Business Overview

India's economic activity is on the recovery path since the subsidence of the second wave of COVID-19, with GDP growth of 8.7% during FY 2021-22. Sustained demand from both private and government as well as improved industrial production activity has helped the economic recovery.

The pandemic induced lockdowns have caused massive disruptions in global supply chains, especially from neighboring countries. Geo-political instability has further aggravated the supply chain disruptions across industries, leading to unprecedented rise in raw material and crude oil prices. To combat the slowdown induced by the pandemic, most of the central banks infused liquidity, adding to inflationary pressure across economies. All these factors have impacted the profitability of manufacturing companies.

Electricity demand has picked up in the past year with increased economic activity and Government's push for domestic manufacturing. Power deficit in the recent months has led central as well as state utilities to expedite the process of setting up new coal based power plants—mainstay of Indian power sector—in the short and medium term. In the long run, the ongoing energy transition coupled with the country's commitments to combat climate change, is expected to affect the demand for thermal power plants.

During the past few years, the tendering for coal based power plants has remained muted, while business activity in hydro and nuclear segment has improved. Demand for emission control equipment continued to be steady from both central as well as state sectors. Under these market conditions, BHEL maintained its leadership position by winning the highest ever orders in nuclear sector, and prominent orders in the hydro sector and emission control equipment segment. Going forward order pipeline for thermal sector is expected to improve along with increased ordering in hydro and nuclear segment to assist GoI's push for manufacturing and AatmaNirbhar Bharat.

In transportation segment, Indian Railways continue to move ahead with initiatives to decarbonize its operation and upgrade & modernize the infrastructure. Along with the Mumbai-Ahmedabad High-Speed Rail (HSR) corridor, country is now progressing for seven more HSR corridors. Several new opportunities in Urban transportation are coming up including semi high-speed trains like Vande Bharat (Trainsets), high HP locomotives for freight hauling, Metrolite, amongst others.

The ongoing geo-political situation has given renewed impetus to the domestic Defence & Aerospace business and the Government is endeavoring to meet defence needs through Make in India and AatmaNirbhar Bharat initiatives. New opportunities for indigenous Defence technology platforms and products are emerging for domestic manufacturing entities.

Many industries in the core sectors of economy are firming up their capacity expansion plans, presenting good business prospects in these areas.

There is renewed focus on clean coal technologies for the utilization of India's vast coal reserves. Under the National Coal Gasification Mission, the Government has identified projects for cleaner use of coal to produce syngas which can be converted into a number of chemicals. This impetus on Coal-to-Chemical business based on indigenous technology will open opportunities for commercialization of coal gasification, especially for companies which can gasify high ash Indian coal.

1.2 Opportunities &Threats

The ongoing challenges have at the same time brought multiple opportunities for the Indian industry. The pandemic resulted in many global companies exploring manufacturing bases outside China. India being one of the major markets and a potent destination, many elements of the supply chains are expected to be relocated to India. Also, current geopolitical events have highlighted the importance of self-reliance, especially in strategic sectors like Defence and Energy which can provide good business opportunities to Indian manufacturing companies. The ongoing energy transition as well as AatmaNirbhar Bharat Abhiyaan are also expected to present opportunities in new areas such as Coal to Chemicals,Hydrogen economy value chain, etc., besides opportunities in traditional areas of solar, hydro, coal and nuclear segments.

Prolonged Russia-Ukraine crisis or emergence of any other destabilizing geo-political event will lead to continued increase in input material and crude oil prices, and will negatively impact profitability of Indian Industries. Continued high inflation may impact capital support for planned and upcoming infrastructure projects. Lastly, resurgence of COVID in form of another wave or any other pandemic can also not be ruled out.

Team BHEL continues to strive to make all efforts to grasp the upcoming opportunities that the challenges are throwing up, with the firm belief that the trying circumstances bring out the best in us.

1.3 Business initiatives

1.3.1 Retaining leadership in Traditional Business

BHEL continues to assert leadership in its core business areas and is well placed to capitalize opportunities arising in thermal segment.

BHEL's focus on nuclear and hydro sectors has resulted in strong order booking in these areas. During 2021-22, BHEL received major orders in nuclear segment including largest ever order for EPC of Turbine Island package for 6x700 MWe Pressurized Heavy Water Reactors and first ever order for

supply of Reactor Header Assemblies as well as for Steam Generators from NPCIL under the fleet mode. BHEL continued its dominance in Hydro Segment, winning key orders for Electro mechanical works and Renovation, Modernization & Upgradation, among others.

Company maintained its leadership in domestic emission control business with a portfolio of 66 flue gas desulphurisation sets & 11 selective catalytic reduction sets. Focusing on execution of these projects, company's first FGD plant at Dadri was successfully commissioned during the year.

BHEL is now looking forward to capitalize on the opportunities arising in thermal sector by offering AUSC technology having best-in-class efficiency, lower rating supercritical plants and indigenously developed clean coal technologies such as coal gasification and is working towards process development for synthesis of chemicals from coal. Additionally, the company is providing comprehensive solutions for emission control and is expanding current offerings in Nuclear segment. Spares & Services business is a major focus area with revamp of the business model, which would be more responsive to customer requirements as well as cater to BHEL and non-BHEL sets. Efforts are also underway to expand the range of IT enabled/ IoT based services offered by the company in this segment. Your company is also working with customers for signing long term spares supply as well as service agreements, which will provide quick availability of spares and services to customers as well as larger market share and regular revenues for BHEL. BHEL is also offering customized solutions for flexible operation of power plants considering the increasing integration/ share of renewables in the energy mix. With concerted efforts, maiden order for Flexible operations study has been received during the year, opening up newer avenues for providing engineering services.

1.3.2 Diversification initiatives

The company is well on its way to transform itself from primarily a Thermal Power Equipment& EPC Company to an 'Engineering Company' covering a wide spectrum of products & services for various sectors of the economy. Resolute focus on growth in **Rail transportation, Defence, Aerospace, Oil & Gas sectors** has resulted in addressing a range of opportunities as well as expansion of company's role and presence in these sectors. A range of new products, systems and solutions including urban mobility, new defence programs, ISRO related opportunities, LSTK opportunities in oil & gas business, energy storage solutions, among others, are being developed as new drivers of growth. Efforts are also underway to enter into strategic partnerships with Global OEMs, to leverage the upcoming opportunities in these areas.

BHEL received its first order for supply of 3-phase IGBT based propulsion systems for Vande Bharat Express Trains from ICF Chennai, marking its entry into domestic semi high-speed mobility segment. BHEL is geared to address the upcoming opportunities in rail transportation, especially the upcoming requirements of semi high speed trainsets as well as higher rating electric locomotives.

Strong focus on defence and aerospace business in the recent years resulted in highest order booking for the segment. This includes order for Upgraded SRGM, the main gun on Indian warships, for which BHEL is the sole supplier; and strategic equipment/ engineering orders from Ministry of Defence, amongst others.

Implementation of cross cutting enablers for these adjacent business areas, including resource augmentation, enabling organization structure, forging partnerships, technology development, among others is a key focus area.

1.4 Operational excellence

1.4.1 Revamping Project Execution

Your company's change in operational ideology from being Revenue Centric to Project Centric has led to successful closure of long pending projects, resolution of performance issues, arresting continuous project delays, reduction in damages & rework for material/ equipment lying at sites for long periods and improving quality of material/ equipment available for Erection & Commissioning. As a result of this, the past year saw the highest ever liquidation of current year billing (86% in FY 2021-22). Successful implementation of Integrated Project Management System (IPMS) coupled with ongoing work on Site Data Digitization (SDD) has enabled real time monitoring of project progress as well as quick intervention in case of issues. All these efforts has also resulted in savings due to reduction in project timelines. During the year despite COVID related impediments, work continued uninterrupted at site largely due to the various initiatives taken by your company such as vaccination drives for labour deployed by contractors, channelizing sufficient liquidity to vendors at site, etc.

1.4.2 Cost Optimization

With a view to control the rapidly rising input costs as well as to maintain competitiveness, a "Cost Optimisation Cell" had been formed in the company in February 2021. The group focused on review and optimization of design of various projects & products, review of system/ civil designs to reduce cost during execution, amongst other initiatives. These efforts helped your company to cushion the abnormal rise in raw material costs during the year.

The group is focusing on extensive use of latest design techniques as well as use of advanced softwares such as advanced 3D Structural analysis for offering optimum designs to our valued customers. 'Make or Buy' decision, utilization of surplus materials, smart project execution, timely closure of project sites and efficient energy management & assets utilisation are some other focus areas which are expected to bring long term sustained cost benefits.

1.4.3 Receivables Management

Maintaining liquidity and improvement in cash position of the company continues to be a top priority. Concerted efforts on quality billing and resolution of long standing issues with customers resulted in reduction of Trade Receivables to ₹6,229 crore in FY 2021-22, lowest in the last ten years as against ₹7,213 crore in FY 2020-21. However, some of the major projects under execution by the Company have skewed payment terms in the form of supply payments partly getting linked to achievement of intermediary milestones, increased

proportion of payments linked to completion activities etc., resulting in increase in contract assets.

Despite above, the Company has been making efforts to liquidate the old as well as current year outstanding in a timely manner. The outcome of these efforts is visible in the form of improvement of liquidation of Current Year billing to 86% in FY 2021-22 as against 82% in FY 2020-21.

Focus on realizing old debts through closure of punch points, completion of performance guarantee tests as well as settlement of long pending time extension cases are helping garner cash from commissioned projects.

1.4.4 Quality focus

The Quality First initiative launched earlier, has been implemented in mission mode across the entire organization, and has started yielding results. Initiatives have been taken for enhancing Quality system maturity as per "Quality 360" model, reviving Business Excellence journey as per EFQM2020, revitalizing Quality Health through "QHI (Quality Health Index)", digitization of Quality systems, best practices sharing through Quality Conversation "Qonverse" and rigorous pre-installation inspections. As a result, HEEP Haridwar and HEP Bhopal received coveted Platinum recognition while HPBP Trichy and HPEP Hyderabad received Gold Plus recognition under "CII EXIM Bank award for Business Excellence 2021". Further details are included in Section 1.11.

1.4.5 Digital Transformation

BHEL continues on its journey to become an IT enabled organization to improve operational efficiencies and provide state-of-the-art customer centric solutions to enhance customer satisfaction. Integrated Project Management System (IPMS) for real time monitoring of projects has been successfully implemented for the major projects under execution by the company. This coupled with the ongoing work for Site Data Digitisation for capturing data directly from sites will further strengthen company's ideology of being 'Project Centric' and is transforming the decades old methodology for project monitoring.

For manufacturing units, centralized data centres as well as data warehousing solutions are being implemented. As part of company's commitments to handle technological challenges, several skill enhancement programs have been incorporated in key areas like Artificial Intelligence, Machine Learning, Internet of Things, Industry 4.0, and Augmented and Virtual Reality.

1.5 Employee Development & Engagement

Success of any organization is due to its dedicated and motivated workforce. In line with its ethos of being an employee centric organization, your company has been continuously revamping its policies and implementing structural changes for ensuing continual employee development. During the year, the Performance Management System has been comprehensively reviewed and revamped to link individual performance with the performance of the Company/ Unit. Several initiatives including focus on manpower development for reskilling the workforce (executives, supervisors as well as workers) in this dynamic business environment, leadership development, strengthening of internal communication, development of e-Modules for continual online training, strengthening processes for knowledge sharing, etc. have been implement. Further details are included in Section 1.12.

1.6 Technology development

Technology development is an integral part of growth in core areas and new businesses. BHEL's technology focus in growth areas including clean coal, transportation, defence, aerospace, energy storage, and emerging technologies will yield results in the years to come.

Your company has indigenously developed coal gasification technology suitable for high-ash Indian coal and has recently commissioned indigenously designed 0.25 TPD coal to methanol pilot plant using 1.2 TPD Fluidized bed gasifier plant at Hyderabad.

BHEL is also working towards development of critical technologies in the areas of underslung propulsion for trains, high speed locomotives, urban mobility solutions, strategic equipment for defence applications, fuel cell technology for green power generation, PERC solar cells, electric vehicle chargers, electrolyser for hydrogen generation, etc. Indigenization initiatives are also being implemented for critical components like propulsion equipment for higher rating locomotives, Heat Exchangers for fighter aircrafts & helicopters, blast furnace components in steel sector, and FGD components, amongst others. Ethernet based communication system has also been developed and installed in MEMU by BHEL for the first time in the country, enabling deployment of futuristic technologies requiring high bandwidth connectivity throughout the train.

Dedicated business group has been constituted to explore new areas, design suitable business models, support development of indigenous technology, build partnerships and provide research support to government for effective policy making in these relatively nascent areas.

Multiple such initiatives are laying the foundation for achieving long term growth.

1.7 Profile and Performance of Business Segments

The company has two business segments i.e. Power & Industry. These segments are driven by the three business sectors i.e. Power Sector, Industry sector, International Operations.

The Power segment comprises thermal, gas, hydro and nuclear power plant businesses, spares & services business apart from new businesses of coal to chemicals, emission control equipment and spares for Non-BHEL sets. BHEL has been in this business for more than five decades, having commissioned its first coal-based set in 1969.

The Industry segment caters to major equipment supplies and EPC works for a variety of sectors including transportation, transmission, defence & aerospace, captive power, renewables, downstream oil & gas, energy storage, and electric mobility, among others.



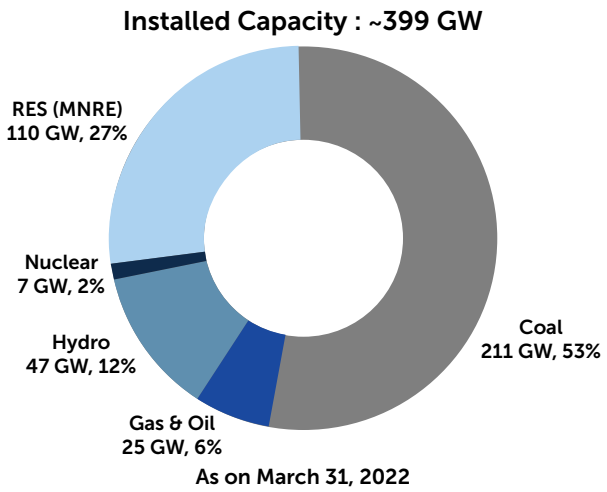
Profile &
Performance of
Business Segments

POWER SECTOR

1.7.1 Power Sector

Overview

India aims to continue on its strong economic growth journey, and the AatmaNirbhar Bharat Abhiyaan along with large scale infrastructure development will play pivotal role in creating the base for the same. The nation's energy sector growth continues to remain strongly correlated with the economic growth of the country. Accordingly, availability of reliable and quality energy for all at affordable rates becomes vital for sustained economic growth. India currently possesses an installed capacity base of ~399 GW and has an annual



Source: Central Electricity Authority CEA, Ministry of Power

electricity generation of ~1,492 Billion Units (BUs) (as on 31st March 2022). The country has witnessed a capacity addition of approximately ~4.9 GW from conventional sources in the year mainly from thermal power plants (TPPs). On the other hand, the capacity addition from Renewable Energy Sources (excl. Hydro) was ~15.5 GW in the year, with solar power capacity addition contributing ~13.9 GW to it. This is a testament of the marked shift in country's policies towards supply of greener electricity.

Current Business Environment

The Power Sector is in the midst of a major energy transition, with growing international focus on sustainable development for climate change mitigation. India has also made major commitments towards decarbonisation in COP 26, in the form of the five elements for climate change mitigation, the 'Panchamrit'. At the same time, the nation is balancing these requirements of sustainable development with those of economic development. There has been a significant focus on industrial development and infrastructure creation, making capacity addition in power sector imperative.

As a result of various issues faced by the Power Sector, significantly muted ordering levels have been witnessed in the past few years, with ordering of only ~16.3 GW (average ~3.3 GW p.a.) taking place across the conventional power sector in 2017-22, including ordering for only ~8.3 GW in thermal segment as against projections of ~46 GW.

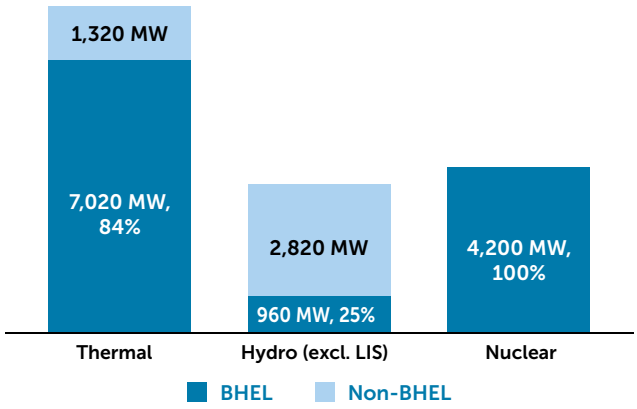
The lower ordering in the thermal power segment (less than 20% of projections), the core part of BHEL operations resulted in underutilization of manufacturing capacity, and impacted the revenue generation adversely.

Despite the challenging market scenario, BHEL has made all-out efforts to maintain its market leadership in the power sector and has secured orders for ~12.2 GW (~75%) out of these limited opportunities in the sector.



2x660 MW super critical power plant under commissioning by BHEL at Suratgarh, Rajasthan

Power Sector Ordering (2017-22): 16,320 MW
BHEL Ordering (2017-22): 12,180 MW (~75% Market Share)



Recent Government policies have displayed a marked shift towards Renewable Energy Sources (RES) based power. While substantial opportunities are expected to emerge in the Renewables, Hydro and Nuclear segments, coal based power plants are expected to remain the mainstay of India's power generating capacity in the coming years, in view of their suitability for continuous, round-the-year operation, availability of indigenous technology and the large domestic reserves of coal. In order to meet the demand for power in the future, especially the baseload of the grid, coal based high-efficiency supercritical power plants are expected to play a crucial role. Though the ordering levels in the thermal sector have remained muted in recent years (~1.7 GW annual ordering levels in 2017-22), company is witnessing green shoots in the thermal segment. Consequent to various cost optimization measures and competitive pricing strategy, BHEL is favorably placed in a major tender for an upcoming thermal power plant. There is also a good order pipeline of coal-based power plants which are expected to fructify in the near future.

As a result of the Government's focus on lower emissions from thermal power plants, opportunities are expected to continue from emission control equipment business and Renovation & Modernization (R&M) Business.

Capacity addition of RES based power generating systems also calls for enhancement of hydro-electric capacity, from both conventional (large & small hydro plants) as well as pump storage generating stations, to meet the grid balancing and stabilization requirements necessitated by the inherent variability of RES based power systems. Around 36% of India's huge hydropower potential of 145 GW has been harnessed till date, with future potential of approx. 93 GW yet to be utilized. The Hydro policy approved by Cabinet in Mar'19 is likely to give impetus in medium term to hydropower development. Further, over 30% of India's hydropower plants have completed 30 - 35 years, providing potential for Renovation & Modernization (R&M) for life extension and performance & efficiency upgrades. Your company is strategically placed to address these upcoming opportunities.

Nuclear power continues to form an essential part of country's overall power mix and is poised to grow substantially in the future. In addition to the 2x700 MWe project at Gorakhpur Haryana Anu Vidyut Pariyojna (GHAVP 1&2), the government has sanctioned 10x700 MWe Nuclear Power Projects (GHAVP Unit 3&4, Kaiga Unit 5&6, Mahi Banswara and Chutka) in 2017 for installation under the "Fleet Mode" implementation. Major packages for first phase of these Fleet Mode Projects have been finalised by NPCIL. As a result of its endeavours to improve its offerings, including design and cost optimization, BHEL has been able to successfully secure orders for over ₹12,000 Crore in the last year itself. BHEL maintains the distinction of being the sole Indian supplier for nuclear turbine and generators and is associated with all three stages of the country's nuclear power program.

Offerings

BHEL is one of the few companies in the world that manufactures & supplies equipment to the entire range of power plants, with proven capabilities for executing thermal, gas, hydro and nuclear power projects.

In thermal power segment, BHEL has the capability from concept to commissioning of thermal power plants, encompassing steam turbines, generators, boilers and associated auxiliaries up to 1,000 MW ratings. The Company has the experience of executing numerous projects with supercritical thermal sets of 660/700/800 MW ratings on EPC basis.

BHEL offers gas turbines and matching generators upto 299 MW (ISO) rating, tailored to meet specific needs, for both open and combined cycle operation. BHEL also supplies and executes Circulating Fluidized Bed Combustion (CFBC) boilers for thermal plants, suitable for wide range of low-calorific fuels like pet-coke, lignite, etc.

In nuclear power segment, BHEL is amongst the few organizations which are associated with all the stages of indigenous nuclear power programme of the country, both on primary and secondary side (220/235/500/540/700MWe). BHEL's sets comprise a majority of the PHWRs (Pressurized Heavy Water Reactors) forming the base of Indigenous Indian nuclear power programme. BHEL's offerings include equipment in the primary as well as secondary sides of nuclear power plant, such as Steam Generators, Reactor Headers, Turbine Generators Sets, MSRs, Heat Exchangers, Condensers, etc. and 'EPC' of TG Island.

In hydro power segment, BHEL has the capability for engineering, manufacturing, installation and commissioning of custom-made conventional hydro turbines of Kaplan types upto 100 MW, Francis and Pelton types upto 400 MW, custom-made salient pole vertical synchronous hydro generator upto 400 MW, Bulb turbine and generator upto 10 MW, horizontal generator upto 20 MW along with matching static excitation system/Brushless excitation system, Pump turbines upto 250 MW, high capacity pumps for Lift Irrigation Schemes upto 200 MW, fixed speed generator-motor upto 300 MW and turbines for small hydro power plants.

In the emission control equipment business, BHEL offers customized equipment for controlling emissions from thermal power plants and has the capability to provide retrofit



42nd Nuclear Steam Generator despatched to NPCIL, to be installed for a 700 MWe unit at NPCIL's Rajasthan Atomic Power Project (RAPP)

solutions of ESP, FGD, NOx control equipment and furnace modification.

The company has proven expertise in plant performance improvement through renovation, modernization and uprating of a variety of power plant equipment, besides specialized know-how of residual life assessment, diagnostics and life extension of plants. Retrofit packages for ESP and C&I with state-of-the-art technologies are also being offered by BHEL.

Achievements during the Year

Order Booking

In 2021-22, BHEL has secured orders for 4,700 MW, aggregating to ₹17,931 Crore, amidst intense competition and a limited pipeline of orders. This includes orders for ₹2,942 Crore from the Spares and Services Business.*

Significant utility orders received in the year are:

Customer	Project(s)	Scope
NPCIL	GHAVP (Unit 1-4) and Kaiga (Unit 5 & 6)	TG Island Pkg on EPC Basis
NPCIL	Fleet Mode Procurement for PHWRs	Supply of 12 Steam Generators
DVC	Panchet	R&M Works
NHPC	Loktak	R&M Works
Prathima Infrastructure	Kaleshwaram Project-Link-IV-Pkg-1	Pump-Motor works for LIS Pkg
NTPC	Sipat	FGD Pkg
WBPDCL	Sagardighi 5	Chimney Pkg
NTPL	Tuticorin	Chimney Pkg for FGDs
THDCIL	Khurja	Cooling water System Civil works package
TANGEDCO	North Chennai Stage-II	Procurement of HP Turbine Module, IP Bladed Rotor & IP Inner Casing
RRVUNL	Chhabra	ESP Restoration (Pass-A & B) along with civil works

**For FY 2021-22, BGGTS orders considered in Industry Sector.*

BHEL has taken various steps for improving its competitiveness in the power sector, and as a result, has been able to reaffirm its market leadership in the Indian nuclear power industry. BHEL has bagged its largest-ever nuclear order from Nuclear Power Corporation of India Limited (NPCIL) for 6x700 MW Turbine Island Package Projects under fleet procurement mode, being set up at GHAVP (Unit 1-4) and Kaiga Unit 5&6. With this order, BHEL has retained its market leadership position of being the sole Indian supplier of nuclear steam turbines and generators.

BHEL has also received a major order for supply of 12 Steam Generators for NPCIL's 700 MWe Pressurized Heavy Water Reactors (PHWRs) to be installed in fleet mode at various locations within the country.

In the spares and services segment, BHEL has been registered as seller in GeM, which has helped in securing orders from the portal worth ₹123 Crore during the year (against ₹14 Crore in FY 2020-21).



BHEL appreciated by customer (NTPC Ltd.) for best safety performance at 660 MW NPGCL Nabinagar

Further, BHEL has secured maiden orders for:

» Flexible operation study and services for thermal power project.

» Monitoring the performance of boiler during trial co-firing of biomass (straw) based torrefied pellets.

» Root cause analysis of PCP (Power Cycle Piping)/ hangers vibration issue in turbine area for non-BHEL set.

Such orders showcase the faith reposed by customers on BHEL's engineering expertise and capabilities and shall be helpful in opening up newer avenues for engineering services.

BHEL has also taken various initiatives for securing business opportunities through Long Term Spares Supply Agreement (LTSSAs) and Long Term Service Agreement (LTSAs):

» 08 new LTSSA proposals finalized with NTPC (approx. 5000 items) in for the year for spares procurement.

» 1st ever LTSA has been finalized with NTPC for Generator overhauling works. In addition, LTSA finalized with IOCL for major & minor overhauling works of BHEL make equipment installed at various IOCL projects.

Project Execution

Since its inception in 1964, BHEL has added 461 coal based utility sets, 422 hydro utility sets, 103 gas based utility sets and 12 nuclear based utility sets in India upto FY 2021-22. Through its concerted efforts, BHEL achieved a capacity addition/ synchronization of 3,305 MW** in FY 2021-22 in utility power projects (Capacity Addition: 1,705 MW, Synchronization: 1,600 MW). In addition, capacity addition has been achieved for projects having limited BHEL scope (viz. SG/ESP/PCP), which aggregate to 2,120 MW.

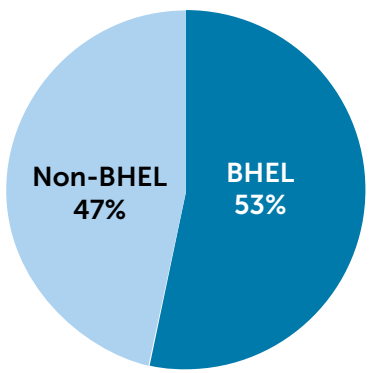
***- 1 Unit of 1x250 MW NSPCL/ Rourkela TPS considered as captive power plant by CEA, hence not considered in Installed capacity of utility power projects.*

In the supercritical thermal power segment, BHEL has commissioned 28 Supercritical SGs and 21 Supercritical TGs till March 31, 2022. Achieving a major project execution milestone, BHEL dispatched its 42nd Nuclear Steam Generator, for Rawatbhata Atomic Power Project, from its Trichy manufacturing unit.

Recent focus on resolving long standing customer issues, has started bearing fruit and a number of such issues have been closed/ reaching closure resulting in release of bank guarantees as well as payments linked to such milestones.

With this, BHEL maintained its lion's share of 53% in the country's total installed capacity of Utility power projects:

Installed capacity - Utility*
3,11,987 MW (March 31, 2022)

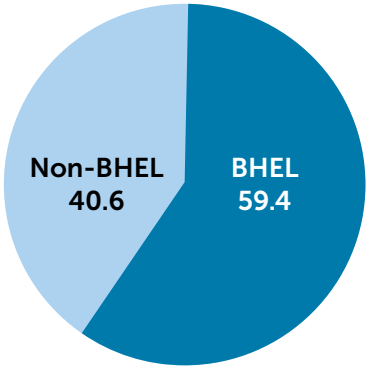


**Includes Coal, Gas & CCPP, Diesel, Nuclear & Hydro; Excludes Solar, Wind and Bio-Power; Based on capacity at the time of installation*

Performance of Equipment

59.4% of the country's total generation of 1,078.5 BUs from Coal & Lignite based utility sets has been contributed by BHEL supplied sets.

Generation - Utility (Coal & Lignite)
1,078.5 BU (2021-22)



Among BHEL supplied supercritical sets, Kothagudem-12 achieved highest Plant Load Factor (PLF) of 83.6% and Operating Availability (OA) of 89.1%. Further, BHEL's first supercritical unit Barh-4 (660 MW) has clocked around 58,009 hours of operation and achieved PLF of 71.2% and OA of 98.5%. BHEL supplied 38 years old subcritical unit Korba STPS 3 (200 MW) has clocked around 2,98,139 hours of operation and achieved PLF 101.1% and OA of 99.8%. In fact, 7 nos. of more than 38 years old BHEL supplied subcritical units, achieved PLF of more than 90% (Korba STPS 1, 2, 3; Singrauli 1, 2, 4, 5). Two BHEL supplied thermal sets clocked uninterrupted operation for more than 365 days in Korba STPS Unit 3 (418 days) and Vindhyachal 12 (366 days) demonstrating remarkable performance of BHEL supplied sets. In Nuclear Segment, BHEL sets registered OA of 83.3% and five BHEL supplied Nuclear sets achieved PLF of more than 90% and out of these, Tarapur Unit 4 operated at PLF of more than 100%. BHEL supplied nuclear sets clocked uninterrupted operation for more than 365 days in RAPS 4 (643 days) and Kaiga 1 (450 days)

Power plants with BHEL supplied equipment continue to exhibit above par performance in respect of OA, PLF, and outages. BHEL supplied thermal sets generated 6,40,843 MUs in FY 2021-22, ~18% more than previous year's generation (5,44,195 MUs).



BHEL's first supercritical unit Barh-4 (660 MW) has clocked around 58,009 hours of operation and achieved PLF of 71.2% and OA of 98.5%.

Performance Guarantee Tests:

During the year, focused approach and coordination have paid rich dividends to BHEL in completion of Performance Guarantee (PG) Tests:

» Completed PG tests of total 75 packages (Power Sector: 43; SSBG R&M: 15; Industry Sector: 15 and HBG: 2), is an increase of 37% vis-à-vis last year. This even includes project commissioned five years back as well as Performance Equipment Test (PET) on highest rating (139 MW) BHEL motor-pump set.

» PG Tests for complete main plant package (Turbine, Boiler, ESP & Mills as applicable) were completed for 11 Units (including R&M).

» PG test on all packages (SG, TG & ESP) of Rayalseema U-6 completed within a short span of 3 days.

Renovation & Modernization (R&M)

During the year, BHEL completed Renovation & Modernization of various projects for ESPs, De-NOx System (Combustion Modification), and C&I Pkgs.

Acknowledgements & Recognition of Excellence

BHEL's efforts for providing higher value to customers through timely project completion, improvement in equipment performance and Service After Sales (SAS) support have been appreciated by various customers and other agencies:

Customer	Appreciated BHEL for
NTPC and its JVs/ Subsidiaries	• Best safety Performance at Nabinagar (660 MW) • Retrofitting Works of Boiler pressure parts of Barh Unit-5 • Floating & Set Pressure Setting of Main Steam Safety Valve for Boiler Unit-1 of 660 MW Barh • Resolving High vibration problem in Turbo Generator and Overhauling of Generator of Rihand Unit- 4 • Completing Overhauling of Turbo Generator at Unchahar U#4
MAHAGENCO	Outstanding performance in field of Safety at Bhusawal Project
MPPGCL	Completion of IPBD work of Unit #5 of Birsinghpur (1x500 MW)
WBPDCL	Troubleshooting, which resulted in significant reduction of Hydrogen consumption in Generator at Bakreswar Unit-5



Korba STPS Unit 1,2 and 3 have achieved PLF over 90, out of which, 38 year old Korba Unit 2 (200 MW) has clocked 2,98,139 hours of operation and achieved PLF of 101.1% and OA of 99.8%

NHPC	Supervisory Services for Rotor levelling and alignment of NHPC Parbati Stage-II Unit- 2
OHPC	Timely completion of supplies and execution of BF Valve & Auxiliaries of Indravati HEP, Mukhiguda
DVC	Facilitation/completion of balance activities
TSGENCO	Attending balance work during Annual Overhauling at Kakatiya Stg II.

Future perspective

While a pipeline of thermal orders is again becoming visible in the short run on account of emerging energy security issues in recent times, the company is working to strengthen its base through efforts in areas like enhancing EPC capabilities, emission reduction solutions (FGD, SCR systems as well as AUSC technology based power plants), increasing spares and services business including customized solutions for R&M of BHEL and non-BHEL sets, coal to chemicals and carbon capture & its utilization and sequestration technologies.

It has taken proactive steps, as already brought out earlier, for increase in spares and services business through long term (LTSA) agreements with customers, coupled with advance procurement & manufacturing action for faster supply of spares, offering flexiblisation solutions for BHEL and non-BHEL sets for dealing with grid stability issues due to fluctuations in renewable power generation, in-house manufacture of DeNOx (SCR) systems as well as indigenization of several equipment required for flue gas desulphurisation systems.

The Advanced Ultra Super Critical (AUSC) technology developed jointly by BHEL, NTPC and Indira Gandhi Centre for Atomic Research (IGCAR) has a potential to replace old and higher pollution emitting sets of more than 50 GW (thermal power plants which will be at least 30 years old by 2030) with highest efficiency and lowest emissions thermal power plants. This will further aid in the country's efforts to achieve the Hon'ble Prime Minister's Panchamrit goals.

Given India's reserves of around 300 billion tonnes of coal and the fact that international technologies are not available for high ash coals, the recent development of indigenous technology by BHEL for gasification of Indian high ash coal is a major step forward and is expected to open up a major business potential for conversion of coal to chemicals. This technology can also be used for greener electricity production through Integrated Coal Gasification Combined Cycle technology.Your company is working to capitalize opportunities in these areas in a time bound and focussed manner.

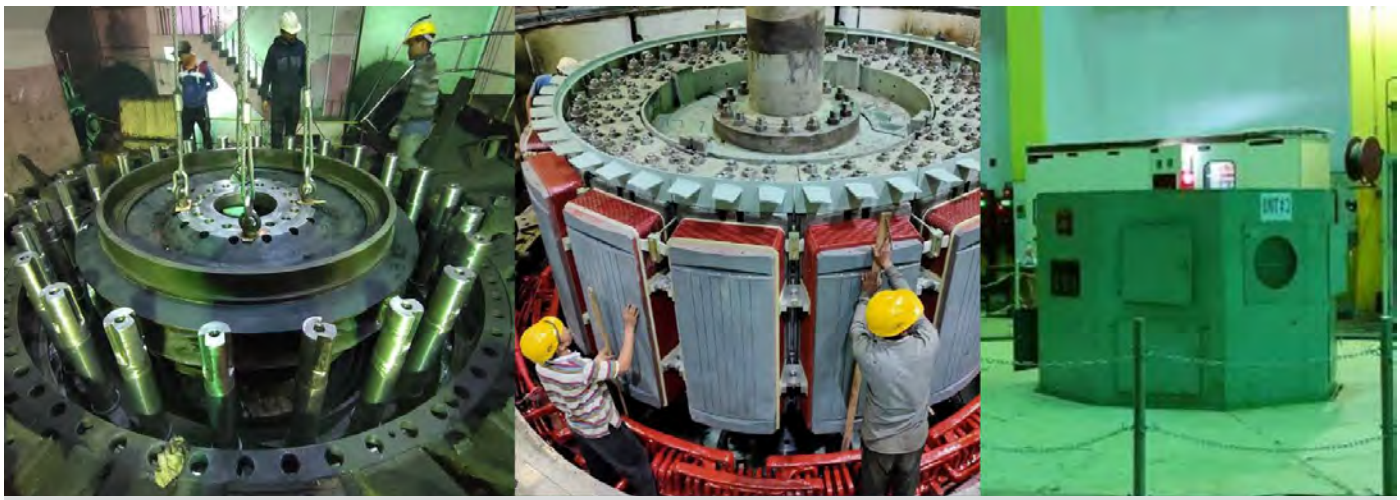
The usage of coal along with the imperatives of sustainability, will create a huge requirement of technologies for Carbon Capture and its utilisation as well as sequestration. This is another major futuristic area identified by your company, where it aspires to be a leading player.

Ministry of Power has framed a policy for Biomass co-firing in thermal power plants. The first successful demonstration of biomass co-firing at NTPC Dadri thermal power plant by BHEL has been followed by implementation of biomass co-firing at many BHEL supplied boilers. Your company aims to further support the country's utilities in reducing their green-house emissions through its engineering services and solutions for biomass co-firing.

Nuclear power is likely to play an important role in catering to base loads in the coming decades. Your company has already secured its biggest order worth over ₹12,000 Crore to supply nuclear steam generators, turbines and generators, reactor

headers, etc, for NPCIL projects being implemented in fleet mode. Your company continues to remain the only Indian supplier for nuclear steam turbines and generators as well as associated with the country's three stage nuclear programme. Your company is executing works at Kudankulam 2x1000 MW Units 3&4, being setup with Russian co-operation and further working with various stakeholders to indigenize and increase its offerings in the sector.

Hydro power will play a key role for management of peak power requirements due to the variability of renewable energy production. BHEL with an experience of over 5 decades in this sector, offers customized solutions of various types and sizes of hydro turbines and generators of upto 400 MW. The company has developed efficient runner profiles and has reduced weights of hydro turbines, which is reflected in recent successes in this segment. With its own NABL accredited hydro lab for developing in-house hydro profiles, BHEL is the undisputed market leader in E&M packages for green field hydro projects and is a lead player for R&M of old hydro sets. Your company is the ideal partner of hydropower producers for achieving an efficient upgradation of turbine profiles (for BHEL as well as non-BHEL make), increasing their lifespan as well as reliability. BHEL is a leading player in large size pump-motors required in Lift Irrigation Scheme projects.

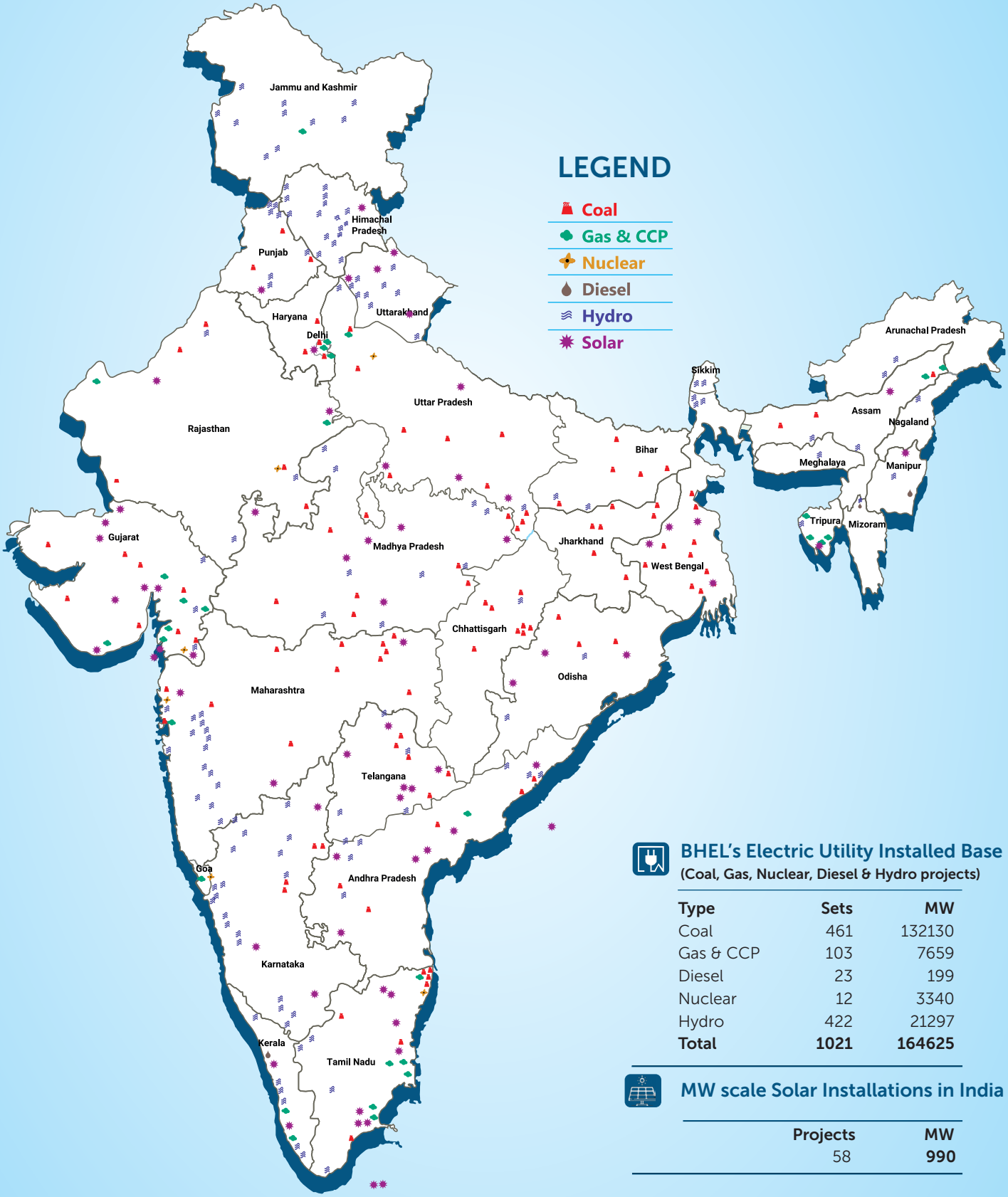


Hydro R&M completed for Baira Siul Unit 3

BHEL

Make Electric Utility Installations

Commissioned as on 31.03.2022



BHEL's Electric Utility Installed Base

(Coal, Gas, Nuclear, Diesel & Hydro projects)

Type	Sets	MW
Coal	461	132130
Gas & CCP	103	7659
Diesel	23	199
Nuclear	12	3340
Hydro	422	21297
Total	**1021**	**164625**

MW scale Solar Installations in India

Projects	MW
58	**990**



Accelerating **Transportation System to Smarter, Safer & Greener solutions!**

BHEL has been a pioneer in the growth journey of India's transportation sector and has been partnering with Indian Railways to meet their rolling stock requirements through innovative solutions and supply of 'Made in India' systems & equipment.

The first 3-phase Ethernet based AC Mainline Electric Multiple Unit (MEMU) with BHEL manufactured IGBT based electrics has been rolled out from Indian Railways production unit during the year. Indian Railways has shown confidence on BHEL's technical capability and placed prestigious maiden order for electrics of Vande Bharat (Trainsets).

BHEL is preparing to play a major role in the upcoming requirements of Vande Bharat trainsets as well as high HP locos, besides new opportunities like Metro/ Metrolite, Battery Powered Locomotives, High Speed Rail and Signalling.





Profile &
Performance of
Business Segments

INDUSTRY SECTOR



RCF MEMU rake

1.7.2 Industry Sector

Industry Sector offers a broad range of industrial systems and products for the major sectors of the Indian economy. With focus on growth of non-coal based businesses of the company, Industry Sector comprising of market-focused groups, is offering comprehensive solutions for transportation, defence & aerospace, transmission, renewables, oil & gas, captive power plants, industrial products, energy storage, e-Mobility, and new business areas. During FY 2021-22, Industry Sector* secured orders worth ₹5,660 Crore as compared to ₹4,283 Crore in the previous year, in a challenging business environment.

1.7.2.1 Transportation

BHEL has been a key player in the growth journey of India's rail transportation segment for the last six decades and has been meeting Indian Railways' rolling stock requirements by offering innovative solutions and supplying 'Made in India' systems & equipment. Significant numbers of locomotives & EMUs of Indian Railways carry traction equipment manufactured by BHEL.

Indian Railways has embarked on an ambitious modernization plan, which is creating several opportunities in the sector. As a part of this, Indian Railways is projecting a requirement of around 62,000 coaches of various types including MEMU, EMU and Trainsets, 11,000 locos and signaling for approx. 17,000km track length. The total associated expenditure expected in the next 10 years is of the order of ₹2.8 Lakh Crore. In the urban mobility segment, states are pursuing mass rapid transit projects in cities having a population of over two million and light rail/ monorail solutions are being explored for smaller cities. All these along with metro/ metrolite announcements in 50 cities are expected to offer multiple opportunities in the transportation segment in the years to come.

**For FY 2021-22, BGGTS orders considered in Industry Sector.*

Current range of offerings

- **Rolling Stock**
  - » Complete Electric locomotives up to 6000 HP (electrics upto 9000 HP)
  - » Diesel-Electric locomotives up to 3000 HP
  - » Diesel Electric Tower Cars (DETCs)
- **Traction Machines**
  - » Traction Motors and Alternators
- **Traction Drive System & Controls**
  - » Insulated-Gate Bipolar Transistor (IGBT) based propulsion systems for rolling stock
  - » Train control management system & vehicle control unit
  - » Hotel load converter and composite converter
  - » Control gear equipment for conventional rolling stock
  - » Regenerative braking system for conventional rolling stock
- **Traction Transformers**
- **Conventional Traction Electrics for Rolling Stock**

Achievements during the year:

- Mainline Electric Multiple Unit (MEMU) equipped with BHEL manufactured IGBT based electrics has rolled out from RCF Kapurthala. For the first time in India, Ethernet based communication system was developed and installed in this train which enables deployment of futuristic technologies requiring high bandwidth connectivity throughout the train.
- Maiden order received for propulsion electrics of Vande Bharat Express (Trainsets) from ICF, Chennai; marking BHEL's entry into Indian semi high-speed mobility segment.



Diesel Electric Tower Car

- BHEL manufactured & supplied environment friendly 1350 HP Diesel Electric Shunting Locomotive (DESL) meeting US EPA Tier-II standards to M/s JSW, Dolvi.
- Order received for six 6000 HP Electric Locomotives from NTPC for material handling operations replacing the Diesel Electric Locomotives.

Future perspective

As per National Rail Plan, Railways plans to increase the share in freight transportation from 30% to 45% by year 2030, while also focusing on increasing average speed of goods trains by 50% through introduction of high HP locos. For passenger traffic, it is introducing semi high-speed trainsets to reduce travel time and improve passenger comfort. Indian Railways has already released orders for train electrics for 44 semi high speed trainsets and is going ahead with big-ticket procurement using novel business models for state-of-the-art Vande Bharat trainsets for passenger operations and high HP electric locomotives of 9000 HP/ 12000 HP power capacity for freight duties.

Leveraging its manufacturing experience, technological competence and pan India presence, BHEL is working to develop technology self-sufficiency and strengthen in-house capability for design & manufacturing of advanced mechanical and electric systems for all types of rolling stock. Your company is also working with OEM's/ collaborators to address upcoming businesses, especially of high HP locos, Metro/Metrolite, Monorail, Maglev, Battery and Alternate Fuel Powered Locomotives, High Speed Rail and Signaling.

1.7.2.2 Transmission

India is the third largest power producer and second largest power consumer in the world. An efficient and reliable Power transmission system is key to the ever increasing demand of a growing nation like India. While there may be transition in the source of electricity generation from fossil fuels to renewables, hydro, nuclear, etc., at the same time, enhancement of transmission sector will play a key role in quality delivery of electricity across the country. Ministry of Power has accordingly planned for scaling up of transmission sector. There is an urgent need for up-gradation of the existing transmission networks and addition of new Extra High Voltage (EHV) systems & associated lines to cater to the evacuation and transmission of power to load centres. Gas Insulated Substation (GIS) projects shall continue to see robust demand due to optimized land requirements and reduced O&M expenditures.

Multiple HVDC projects are in various stages of planning for power evacuation from far flung generation centers.

Current range of offerings

- **Turnkey transmission solutions** including Extra High Voltage Substations (both Air Insulated Substation (AIS) & Gas Insulated Substation (GIS) types) upto 765 kV and High Voltage Direct Current (HVDC) converter stations upto ±800 kV on EPC basis
- **Power Transformers upto 1200 kV & Shunt reactors** upto 765 kV, Capacitive Voltage Transformers (CVT) upto 1200 kV, Instrument transformers (CT, PT) upto 400kV, traction power transformers, dry type transformers, vacuum switchgear, capacitor banks, control & protection equipment, HVDC Converter Transformers upto 800kV, thyristor valves, etc.
- **Gas Insulated Switchgear (GIS)** upto 420 kV
- **Insulators**
- **Flexible AC Transmission System (FACTS) Solution:** Fixed Series Compensation for 400 kV lines, Controlled Shunt Reactor (CSR) and Phase Shifting Transformer (PST) for controlling and balancing power flow upto 400 kV applications.

Achievements during the year

- Secured order for supply of 17 Transformers for RUMS (Rewa Ultra Mega Solar).
- Secured order for supply of 33 Transformers and Shunt Reactors from POWERGRID for their multiple RE power evacuation and system strengthening projects.
- Successfully developed and tested On Load Tap changer for 765 kV 500 MVA Auto Transformer.
- Carried out Short Circuit testing of 765 kV 330 MVA Single Ph Generator Transformer at NHPTL, Bina. This is the highest rated 765 kV Generator Transformer which has successfully passed short circuit test, in the world.
- Successfully completed short circuit testing for 500 MVA 400/220/33 kV Auto transformer—India's highest rated auto transformer
- Successfully carried out short circuit test (SCT) on 42 MVA 220/27 kV traction power transformer for Indian Railways. This would help BHEL in targeting opportunities in higher capacity traction transformers.
- Commercial operation declared for ±800 kV, 6000 MW, Raigarh - Pugalur HVDC Line

Future perspective

In recent years, a sharp increase in the CAPEX related to Transmission equipment & projects (substations and transmission Lines) has been witnessed. Ministry of Power in December 2021, has approved setting up of 23 new Interstate Transmission System (ISTS) projects at an outlay of ₹15,900 crore.



±800 kV, 6,000 MW Ultra High Voltage Direct Current (UHVDC) Link between the Western Region Grid (Raigarh, Chattisgarh) and the Southern Region Grid (Pugalur, Tamil Nadu) successfully implemented by BHEL.





BHEL has been the front runner in transmission segment through its in-house R&D efforts, developing new products/ systems and making continuous improvement in the existing ones to cater to the varied need of Utilities.

With the renewed focus on digitalization, the company has successfully commissioned a digital substation as a collaborative project with POWERGRID wherein in-house developed products have been deployed. BHEL is now fully geared-up to offer complete EPC solutions in this segment.

With a wide exposure to industry's best practices and intent to serve customers, the company has established itself as a reliable partner and reputed industry player.

1.7.2.3 Defence & Aerospace

Ministry of Defence (MoD) is focusing on 'Make in India' and 'Aatmanirbhar Bharat Abhiyan' in defence which will promote Indian industryin this sector. Defence spending and investments are expected to increase as India fast-tracks its military modernization, especially considering the current geopolitical developments. Release of positive indigenisation lists of defence equipment to be manufactured locally, reflects the growing confidence of the Government in the capabilities of domestic industry.

Over the years, BHEL has upgraded its facilities to cover a wide spectrum of precision manufacturing, heavy forging, special purpose welding and advanced CNC machining activities which will be utilized for indigenous manufacturing of these defence equipment and systems. Most of these complex and special purpose machines and equipment are one of their kind in the country, and comparable to the best available in the world. Your company has also acquired certifications such as Approval of Firm & its Quality Management System (AFQMS), AS9100D & CEMILAC which demonstrates the highest quality standards of the goods and services offered.

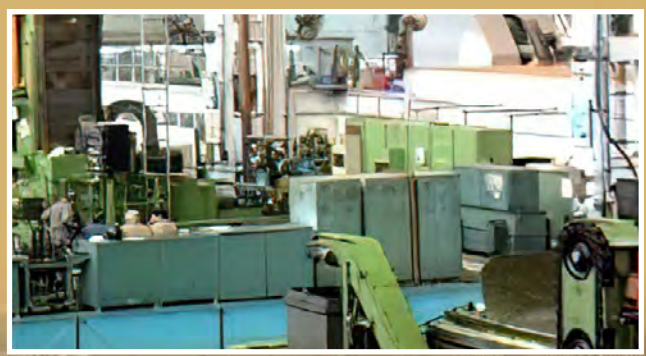
Current range of offerings

- Super Rapid Gun Mount (SRGM), including the Upgraded SRGM, the main gun for Indian Navy warships, and its life time product support including overhauling, health audit and training etc.
- IPMS (Integrated Platform Management System)
- Compact Heat Exchangers & Pump modules for aerospace applications
- Equipment & Systems for Strategic Vessels
- Capability for hot forming of Titanium Shell/Domes for spacecraft tanks
- Capability for precision machining & welding of Titanium sheets and tubes.
- Assembly and testing of Space Grade Solar Panels & Batteries of Satellites
- Precision machining of Titanium based Propellant tank parts for Satellites
- Space grade Lithium ion cells.

Achievements during the year

- Received first order for 2 nos. Upgraded SRGM along with accessories - BHEL is the sole supplier in the country
- First ever contract for service life extension cum major overhaul of SRGM from Indian Navy completed within contractual timelines.
- Order for Compact Heat Exchanger for LCA Tejas received

Dedicated state of art manufacturing facilities for Naval Gun manufacturing with wide variety of CNC machines and test equipment at BHEL Haridwar.



from HAL

- Order for Strategic equipment received from Ministry of Defence
- Successfully designed and supplied DC-AC & AC-AC Permanent Magnet based Rotary Frequency Converter.

Future perspective

BHEL has a five-decade long track record of supporting the country's defence forces which began with the indigenization of main turbines for the Leander class frigates in the 1970s. Since then, significant progress and contribution has been made by BHEL in design and development of a wide range of specialized equipment and systems for Defence applications, including the SRGM for warships, wide variety of equipment for the strategic vessel program, Heat Exchangers for Fighter Aircraft, Integrated Platform Management System for the INS Vikrant- Indigenous Aircraft Carrier, Missile Launchers, Pump Modules for aerospace application, Gun Control System, Antenna Control System, amongst others.

The company is now offering upgraded state-of-the-art SRGM and is also augmenting its capacities in line with the requirement of Indian Navy. BHEL has proven expertise in permanent magnent motor technology and is fully geared up for the indigenous design and development of propulsion systems for vessel and warships. Your company is also offering its experience in Renovation & Modernization and Life Extension services for various equipments to Indian Navy. BHEL is one of the select few firms in the world having the capability to design and manufacture compact heat exchangers and pump modules for military aircraft/ helicopters and is currently developing variety of compact heat exchangers and pump modules. The company is also working in close coordination with customers such as DARE, HAL, ISRO, ADA, etc. for a diverse range of equipment and services for the defence and aerospace sectors.

In the current international scenario, BHEL with its wide range of design, engineering & manufacturing capabilities, is well placed to play a much wider role in indigenization of critical national defence requirements.

1.7.2.4 Renewable Energy

India's recently updated Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) suggests for about 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030. The majority of this is expected to be solar capacities.

Current range of offerings

- EPC solutions from concept to commissioning of Solar PV Power Plants with or without BESS (Battery Energy Storage System).
- Ground mounted, Roof Top, Canal top and Floating solar power plants.
- Solar Inverters for utility as well as traction applications
- Loose Multi Crystalline Solar PV Cells meeting Domestic Content Requirement (DCR)
- Mono-PERC Solar PV Modules (up to 400 Wp)

Achievements during the year

- Successful commissioning of some of the largest floating solar power projects of the country. 80 MW of the 100 MW NTPC Ramagundam floating Solar PV - country's largest floating solar SPV plant, was commissioned by BHEL as on 31st March 2022 and the entire 100 MW has been commissioned thereafter.
- BHEL commissioned around 270 MW capacity in FY 2021-22, the highest capacity addition of solar executed by BHEL in a financial year
- In house upgradation of SPV Module manufacturing plant



100 MW NTPC Ramagundam floating Solar PV- country's largest floating solar SPV plant, commissioned by BHEL

enabling manufacturing of higher size cell modules (up to 400 Wp) using advanced mono PERC cells

Future perspective

India's recently updated NDC is expected to give impetus to expansion of solar capacities. As an established EPC player in domestic solar energy market with a portfolio of 1.2 GW, indigenous manufacturing assets of solar PV cells (105 MW/annum) and PV modules (226 MW/annum) and imposition of Basic Custom Duty on imported Solar PV cells & modules w.e.f. 01st April 2022, BHEL is strategically placed to address these opportunities.

1.7.2.5 Captive Power & Process Plant

Govt. of India's thrust for stringent environment norms/ compliances has led secondary steel plants for gainfully utilizing the waste heat generated from process. The waste heat generated is being used to generate captive power at a very economical rate. This is expected to drive the demand of CPP in secondary steel and other process industries.

GoI push for infrastructure growth will drive the demand of steel, aluminium and cement. Expected capacity expansion in various industries viz. Aluminium, Steel, Cement, Oil & Gas, Chemical, Fertilizers, Paper, Textiles etc. is likely to generate demand of 5,000 MW of captive power in next 5 years.

With regard to Oil & Gas segment, BHEL is the only OEM having 230 gas turbines successfully operating in the country. Planned capacity expansion of Indian refineries would catalyze the demand for gas turbines.

Current range of offerings

- Standalone Steam Turbine Generator (STG) sets
- Boiler Turbine Generator (BTG) package, Pulverized Fuel (PF), Circulating Fluidized Bed Combustion (CFBC), Atmospheric Fluidized Bed Combustion (AFBC), Utility Boiler (UB) /gas fired boilers
- Gas Turbine based Open, Cogeneration and Combined Cycle Captive Power Plants
- Process packages and equipment of Downstream Oil and Gas sector (DSOG)

Achievements during the year

Orders for nine STGs booked in FY 2021-22 including repeat orders from Rashmi Group, Shyam Group and Shree Cement.

Future perspective

Indian refineries have expansion plans calling for substantial investments. Besides CPP business, the successful execution of IOCL Paradip SRU project (maiden order in DSOG segment) shall open up avenues for BHEL to address various other downstream Oil & Gas EPC packages in future.

The capability of CFBC boiler to operate on multiple low grade fuels available as by-product from secondary steel and other process industries would continue to drive the demand of CFBC based CPP projects.

1.7.2.6 Industrial Products (including Oil & Gas and Electrical Machines)

BHEL has been serving Oil & Gas sector for more than five decades and most of the refineries & petro - chemicals industries in India utilize BHEL supplied static & rotating equipment. Further, as the existing refining capacity of 249 Million Metric Ton Per Annum (MMTPA) in India is expected to reach 298 MMTPA by 2025 (as per Ministry of Petroleum & Natural Gas); enhanced business opportunities are envisaged for centrifugal compressors, fired heaters, heat exchangers, high tonnage columns & vessels etc.

Current range of offerings

- **Oil Rigs** - A variety of on-shore drilling rigs with AC-VFD (Variable Frequency Drive) and AC-SCR (Silicon-controlled Rectifier) technology for drilling up to depths of 9,000 metres (3000 HP), work-over rigs for servicing up to depths of 6,100 metres (650 HP).
- **Well heads and X-mas Trees** - Up to 10,000 psi, Mud Line Suspension System, Choke and Kill manifold, Coalbed methane (CBM) Wellheads, DSPM H- Manifold Assembly, Mud valves, etc
- **Centrifugal Compressors** - Multi-stage Centrifugal Compressors as per API 617 Chapter-2 up to 3,00,000 m3/hr for application in Fertilizers, Refineries, Petro-chemicals, Pipelines, Gas processing, Steel industries etc.



Centrifugal compressor manufactured by BHEL

- **Mechanical Packages** - Fired Heaters, Columns, Reactors, Pressure Vessels, Heat Exchangers and Purge Gas Recovery Unit.
- **Electrical Machines**- AC squirrel cage, slip ring, synchronous motors for safe and hazardous area applications, variable speed motors, industrial alternators, special purpose machines and LT VFD.

Achievements during the year

- First ever order for 11 standalone Heat Exchangers received for IOCL Barauni from CB&I Limited.
- First ever order received from CB&I India Limited for 2.5

MW Centrifugal Compressor for IOCL Barauni DHDT Project.

- Order of highest flameproof motor rating (1285 kW, 6.6 kV, 2P Ex-d SCIM) received from Oil and Petroleum segment.
- Successfully manufactured and delivered BHEL's highest rating 14425 KW, 11 KV, 8 pole ID Fan motor in 2000 mm Outer Dia (OD) frame.

Future perspective

BHEL is working towards indigenisation of various imported items required for centrifugal compressor packages as a contribution towards "Aatmanirbhar Bharat Abhiyan". BHEL is also working to increase its offerings for petro-chemicals segment. Next five years will witness increased CAPEX in key core sectors of the country and BHEL is well prepared to address opportunities emerging out of these investments.

1.7.2.7 Energy Storage Solutions and New Business Areas

Electric Mobility

Under the National Electric Mobility Mission Plan (NEMMP), Ministry of Heavy Industries (MHI) launched Faster Adoption and Manufacturing of Electric and Hybrid Vehicles (FAME) scheme in India. After the success of FAME-I scheme, MHI notified FAME-II scheme which has now been extended to March 31, 2024.

The 4W-EV penetration is expected to increase from less than 1% presently to 30% by 2030 (CEEW COP26 working paper). This increased penetration will necessarily require a pan India network for EV chargers which your company is well placed to address with its own design, engineering and manufacturing capabilities. The outlook for this business looks promising with MHI under FAME-II scheme sanctioning EV Charging Stations for cities across States/UTs and along Expressways/ Highways. Further Oil PSUs like BPCL/HPCL/IOCL have plans to setup 22,000 EV charging stations at their retail outlets.

Current range of offerings

- Supply of EV Chargers and associated electrical system
- EPC solution for setting up of EV Charging Stations with upstream electrical system

Achievements during the year

- In-house developed 122 KW EV charger compliant to CCS/ CHAdeMO/Type-II charging protocol has been certified at ARAI, Pune.
- Solar based EV-charging stations have been setup at 20 strategic locations along Delhi-Chandigarh Highway making it the first e-mobility friendly highway in the country.

Future Perspective

With its commitment to the nation's e-Mobility mission, BHEL has taken up several in-house developments. With successful development and certification of 122 kW charger, BHEL is geared up to address the requirements of EV charging stations by offering EPC solutions in the segment. Also, initiatives to develop and manufacture other ratings of EV chargers are being undertaken.

Battery Energy Storage Systems (BESS)

By 2030, solar power installed capacity will have significiant share out of total installed power generation capacity in India. The penetration of solar power poses challange of grid stability due to fluctuations in power generation. Energy storage technologies is set to become an integral part of the



Inauguration of EV charging stations by Hon'ble Union Minister of Heavy Industries installed by BHEL on Delhi- Chandigarh Highway



Medical Oxygen Plant at BHEL, Haridwar

power system to ensure grid stability and enable large scale integration of renewable power into the grid. As per CEA Report on optimal generation capacity mix, the expected market for BESS is likely to be 108 GWh by 2030.

Current range of offerings

- Complete EPC solutions for BESS
- Energy Management Systems

Achievements during the year

BHEL is executing its maiden BESS project of TERI having a cumulative rating of 410 kWh, located at three different sites in the NCT of Delhi. This will be one of its kind project in India as it caters to multiple applications including energy time shifting, power backup, DT overload management, peak shifting & energy arbitrage. The batteries under this BESS project are also equipped to handle the high discharge rates.

Future perspective

BHEL is actively pursuing Battery Energy Storage business opportunities in EPC Mode and is in discussions with various developers to offer BESS.

Rail Track Electrification

BHEL offers complete EPC solution for Rail Track Electrification and is executing 440 Track kilometers (TKM) railway line electrification project in three sections. Train operations with Electric Locomotives have started on these sections.

Medical Oxygen Generation Plants

To supplement the Nation's efforts of battling the COVID-19 pandemic, BHEL has manufactured and supplied 7 nos of Pressure Vacuum Swing adsorption (PVSA) based Oxygen Generation Plants (500 LPM & 1000 LPM) based on CSIR (IIP-Dehradun) technology.

Recent efforts for AatmaNirbhar Bharat

In the Oil & Gas sector, your company has bagged developmental orders for Surface Units of Sucker Rod Pump, 15000 psi Wellheads and X-Mas Tree valves. Additionally, your company is working on indigenization of various items including valves, turbine blades of all variants for turbines of rating 800 MW & 660 MW, boiler water feed pump for nuclear power plant application, items of Flue Gas Desulphurization (FGD), etc. BHEL is also working with global OEMs for manufacturing items/sub-assemblies for India as well as for exports.

Aatmanirbhar in **Defence & Aerospace!**

BHEL has been a reliable supplier of critical equipment and services in the Defence and Aerospace sector for over three decades. Company's dedicated engineering group, specialised manufacturing facilities and capabilities has enabled BHEL become a major contributor towards India's self-reliance in Defence equipment production.

BHEL is one of the few firms worldwide with capability to design and manufacture Heat Exchangers for military aircraft and is supplying Heat Exchangers for 'TEJAS'. Company is rapidly expanding its offering in the aerospace segment and contributing strongly to Nation's space programme. BHEL is one of the long-standing partners of Indian Space Research organisation (ISRO), since 1992. BHEL takes immense pride in its association with major space programmes of ISRO. Most of the Indian Satellites launched by ISRO are equipped with BHEL supplied solar panels & Li-ion batteries. A dedicated facility has also been established to manufacture prismatic Li-ion cells for aerospace applications. BHEL has also been supplying Titanium alloy based propellant tank components for spacecraft.

Achieving new milestones in 2021-22, BHEL bagged first order for two nos. Upgraded SRGM along with accessories, first ever contract for service life extension cum major overhaul of SRGM from Indian Navy, order for the supply of Compact Heat Exchanger for LCA Tejas and equipment/ systems for Strategic Vessel.











Profile &
Performance of
Business Segments

INTERNATIONAL OPERATIONS

1.7.3 International Operations

Overview

BHEL has been the flag-bearer of Indian capital goods exports across the globe for over four decades. The company's international references encompass almost the entire range of BHEL's products and services, covering thermal, hydro and gas-based turnkey power projects, solar PV based projects, substation projects, R&M projects, besides a wide variety of products like transformers, compressors, motors, valves, oil field equipment, electrostatic precipitators, photovoltaic equipment, insulators, heat exchangers, switchgears, castings and forgings, etc. Today our global footprints stand at 88 countries across all 6 inhabited continents of the world. The cumulative portfolio of BHEL's overseas power project stands at 17 GW out of which 11 GW have already been commissioned.

Currently, the company is executing several major projects, including 2x660 MW Maitree thermal power project in Bangladesh, 6x200 MW Punatsangchhu-I and 6x170 MW Punatsangchhu-II hydro projects in Bhutan, 2 x 200 MW Tishreen Thermal in Syria, 26 MW Calabar Gas based power project and 1.3 MW Kaduna Solar Mini grid projects in Nigeria, 4x225 MW Arun-3 hydro project and 40 MW Rahughat hydro project in Nepal. The company has also been providing after sales support to its international customers in the form of spares and services.

Last two years have been difficult for the world economy on account of the COVID-19 pandemic. Supply chain disruptions and more recently, global inflation with surge in energy prices, non-food commodity prices and rising freight costs have created challenging times for most of the economies. Despite these challenging circumstances, BHEL has been able to expand its global footprints by making an entry in Brunei Darussalam and Mexico.

Order Booking

- Maiden order for Grid connected Solar PV power plant in overseas market, 8 MWac Heneritta Solar Photovoltaic (PV) Power Plant in Mauritius.
- Re-entry in international compressor market - Order received for electric motor driven Recycle Gas Centrifugal Compressor from Northern Refineries Company (NRC), Iraq. The new compressor will replace the existing compressor, also supplied by BHEL in the year 2000, which was damaged due to the war in Iraq.
- Entry into new markets – Brunei Darussalam and Mexico: Secured maiden orders from Brunei Darussalam (After-Sales support for Supply of Fr-5 and Fr-6B Un-Bucketed Rotors for non BHEL make GT sets) and Mexico (supply of motor).
- Products & after sales assistance – Focused efforts on product sales and after-sales support has led to securing orders for spares, services & other products from 20 countries including Bangladesh, Bhutan, Brunei Darussalam, Ethiopia, France, Georgia, Indonesia, Kenya, Kuwait, Mexico, New Caledonia, Nigeria, Oman, Saudi Arabia, Senegal, Sri Lanka, Turkey, Uganda, UAE & Vietnam.



2x 660 MW Maitree Supercritical Power Project being executed by BHEL in Bangladesh



Project Execution

Currently, the company is executing several major projects, including the prestigious 2x660 MW Maitree thermal power project in Bangladesh, 4x225 MW Arun-3 hydro project and 40 MW Rahughat hydro project in Nepal, 6x200 MW Punatsangchhu-I and 6x170 MW Punatsangchhu-II hydro projects in Bhutan, 8 MW Solar PV Project in Mauritius, 2 x 200 MW Tishreen Thermal in Syria, & 26 MW Calabar Gas based power project and 1.3 MW Kaduna Solar Mini grid projects in Nigeria.

During the year, restoration of Generating Unit #3 (180 MW) of Mangdechhu hydroelectric project, Bhutan was successfully completed and the unit synchronized ahead of the schedule.

The 2 x 660 MW Maitree project also saw the completion of major milestones:

- Non-Drainable Hydro Test and Chemical Cleaning of Unit-1 boiler
- 230 kV Start-up Power through GIS Charged
- Auxiliary Boiler Light-up

To ensure continuity of work during the devastating second wave of COVID-19, nearly 2000 doses of COVID-19 vaccine were administered at Maitree Bangladesh site after obtaining special permission for export of vaccine.

Recognition

BHEL has won the prestigious EEPC India Northern Region Award for Engineering Export Excellence in the category of Top Exporter for the year 2017-18 - "Top exporters for the year 2017-18, Silver Trophy - Large Enterprise."

Future perspective

Global economy is gradually coming out of the shadows of COVID-19 pandemic and the world energy landscape is evolving with transitions driven by COP 26. The Russia-Ukraine conflict has forced the world to choose between green energy and energy security & the collapse of Sri Lankan economy has forced developing nations to relook at their debt strategy.

To ensure energy security, several countries still intend to build thermal power plants in the short and medium term. Meanwhile, major power-plant equipment manufacturers have announced plans to drop coal from their portfolio. BHEL, offering the complete range of thermal power plants (PF, CFBC, oil-fired, etc) is well-positioned to address these requirements and is working on CFBC-based opportunities in Africa and South East Asia and expects to expand its footprints in these regions.

Due to climate considerations, hydropower is expected to create an additional market opportunities. BHEL has been a competitive player in the neighbouring countries region and your company is geared for opportunties arising in this region. Apart from these, your company is also prepared to address upcoming hydro projects in Africa and South East Asia.

BHEL GLOBAL FOOTPRINTS



NORTH AMERICA
Canada
Mexico
United States of America

SOUTH AMERICA
Chile
Suriname
Trinidad & Tobago

AFRICA
Algeria
Benin
Chad
Comoros
DR Congo
Egypt
Eswatini
Ethiopia
Ghana
Kenya
Libya
Liberia
Malawi
Mauriius
Mozamique
Nigeria
Rwanda
Senegal
South Africa
Sudan
Tanzania
Togo
Uganda
Zambia
Zimbabwe

EUROPE
Belarus
Belgium
Bulgaria
Cyprus
Estonia
Finland
France
Georgia
Germany
Greece
Ireland
Italy
Malta
Poland
Romania
Russia
Sweden
Switzerland
Turkey
Ukraine
United Kingdom

ASIA
Afghanistan
Azerbaijan
Bangladesh
Bahrain
Bhutan
Brunei
China
Hong Kong
Indonesia
Iran
Iraq
Japan
Jordan
Kazakhstan
Kuwait
Laos
Malaysia
Myanmar
Nepal
Oman
Philippines
Saudi Arabia
Singapore
South Korea
Sri Lanka
Syria
Taiwan
Tajikistan
Thailand
U.A.E
Vietnam
Yemen

OCEANIA
Australia
New Caledonia
New Zealand
Samoa

with presence in

88 countries

in all six inhabited continents

This graphical representation does not purport to be the physical map of the world

1.8 Comprehensive Analysis of Financial Performance

(Based on Financial Statements prepared in compliance with Ind AS, Guidance Notes, Companies Act 2013 and other applicable statutes.)

1.8.1 BHEL Standalone

A. Financial Results

1. Total Income

(₹ Crore)

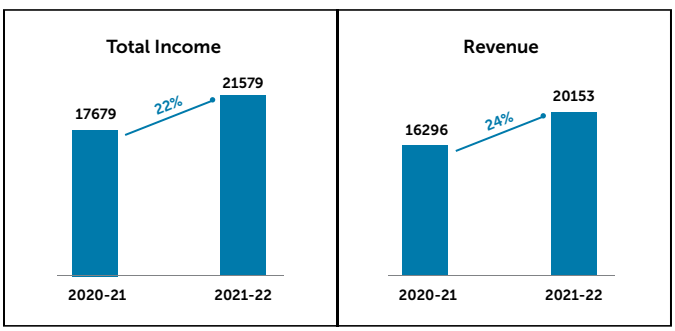
Particulars	2021-22	2020-21
Revenue from contract with customers	**20153**	16296
Other operational Income	**1058**	1013
Other Income	**368**	370
Total Income	**21579**	17679

Total income in FY 2021-22 has increased by about 22% as compared to previous financial year. Item wise explanation for each element of total income is given below:

1.1 Revenue from contracts with customers

(₹ Crore)

Particulars	2021-22	2020-21
Revenue from construction and project related activity	**14107**	10581
Sale of Product & Other Services	**6046**	5715
Total Revenue from contract with customers (as per Ind AS 115)	**20153**	16296



Continuous focus and concerted efforts on execution at project sites as well as our shopfloors enabled us to overcome numerous operational challenges such as severe impact of the devastating second wave of COVID in the first quarter of the year, Q1 21-22, extended supply chain disruptions, and higher input cost pressures owing to abnormal increase in the prices of key commodities, and achieve break even during the year

The overall growth in topline in the current year is 24% as compared to previous year, with a Revenue of ₹20,153 Crore as compared to ₹16,296 Crore for the previous year. This has been achieved despite a lower order book due to nil thermal ordering over the past couple of years. Sustained efforts made over the past couple of years, towards change in ideology for being 'Project Centric', increased pace of project closures, business diversification, prudent treasury management, etc., have yielded significant results. This has been achieved despite:

a) FY 2021-22 witnessed the devastating 2nd COVID-19 wave as well as widespread 3rd wave in the fourth quarter of the year. Pandemic induced lockdown, disruption of supply chains and shortage of industrial oxygen severely hampered the operations of the company in Q-1/21-22 across the project sites, units and vendor's works. The normal supply of Industrial oxygen could be restored only by Q-2 FY22, hampering the fabrication activities not only at most of the manufacturing units and erection work at project sites, but also at vendors & ancillary works.

b) The global supply chain constraints also affected timely availability of critical raw material for shop production. Continued increase in global prices of various key commodities coupled with global shortage of critical inputs viz, Semiconductor Chips, CRGO and CRNGO further impacted deliveries.

1.2 Other operational income

(₹ Crore)

Particulars	2021-22	2020-21
Other operational income	**1058**	1013

The Company has achieved its highest Other operational income of ₹1058 Crore during the year.

1.3 Other income

(₹ Crore)

Particulars	2021-22	2020-21
Interest income	**303**	321
Dividend on investment in joint venture – BGGTS	**30**	21
Profit on sale of units of Mutual Fund / items of PPE, Govt. grants & others	**35**	28
Total	**368**	370

The decline in the interest income is due to lower rate of interest on Fixed Deposits caused by general decline in the interest rates in the economy in FY 2021-22. However, BHEL's treasury operations have yielded higher returns on investments as compared to the cost of borrowings.

2 Expenses

2.1 Material consumption, erection and engineering expenses

(₹ Crore)

Particulars	2021-22	2020-21
Cost of Raw Materials consumed	**5055**	4347
Purchases of Bought Out Items	**4142**	3812
Civil, erection & engineering expenses	**4793**	2912
Sub total	**13990**	11071
Changes in inventories of finished goods, work in progress and scrap	**532**	511
Total	**14522**	11582
Material cost % of revenue	**72%**	71%

Elevated levels of above 70% material cost has emerged as the biggest challenge in improving gross margins. The global geo political developments have a tendency to further escalate the prices of various commodities. The cost of civil construction, structural fabrication and erection activities also continued to be at elevated levels during the year.

The company is chalking out various strategies including cost optimization in design, indigenization, etc., to mitigate the impact of significantly higher metal prices to some extent. Your company is also focusing on garnering orders from strategic sectors such as Nuclear, defence, aerospace, etc.

2.2 Employee benefits expenses

(₹ Crore)

Particulars	2021-22	2020-21
Employee benefits expenses	5517	5372
No. of Employees	30758	32131

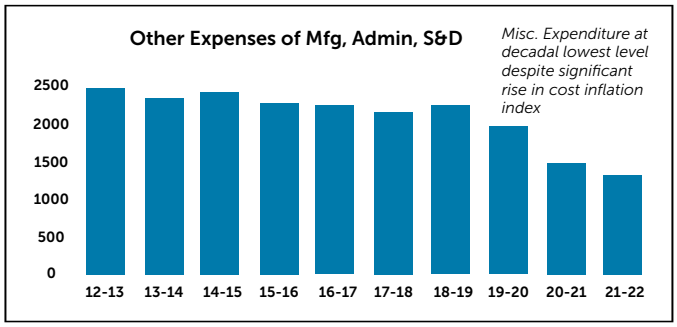
The overall employee benefit expenses, though appearing to be marginally higher in FY 21-22, are lower than the long term average. Strict control is also being exercised on all variable elements.

2.3 Other expenses

(₹ Crore)

Particulars	2021-22	2020-21
(a) Other expenses of Mfg., Admn., Selling & Distribution	1355	1481
(b) Power & Fuel	415	319
(c) Provisions (net)	(1526)	1467
(d) Exchange Rate Variations	(82)	(66)
Total	**162**	**3201**

Stringent control on other expenses such as manufacturing, administrative and sales & distribution (S&D) expenses (especially expenses not directly linked to production) continues to remain an area of focus within the company. This has resulted in such expenditure being curtailed to less than 7% of the revenues in FY 2021-22 as against more than 9% in the previous financial year, adding up to the margins by more than 200 basis points. Higher fuel prices have also been a matter of concern during the year, which has negatively impacted the bottom-line by ~₹80 Crore



Note: Previous year figures have been regrouped / rearranged, wherever considered necessary

Details of Provisions (net) as under:

(₹ Crore)

Particulars	2021-22	2020-21
Doubtful debts, liquidated damages, loans, advances & deposits and others	**(1345)**	2141
Bad debts, LD, Investment & losses written off	**350**	278
Provision for expected credit loss (Time value)	**(157)**	(691)
Contractual obligations	**(374)**	(261)
Total	**(1526)**	1467

Over the last couple of years, the company has been focusing to improve the quality of its assets (specifically, receivables) in the balance sheet. Concerted efforts has resulted in resolution of disputes and has contributed to reduction in provision cost, which has helped in improving the bottom-line of the company. Closure of old contractual issues and settlement of old time extension cases with customers, enabled better cash realization from old dues and higher vacation of provisions during the year.

With persistent efforts towards improving the quality of Assets in the Balance Sheet (especially Receivables), there has been reduction in provision cost during the year, contributing to the bottom-line of the company.

The Company recognizes provision for expected credit loss (time value of money) in line with the requirements of Ind AS

109.

3. Finance costs

(₹ Crore)

Particulars	2021-22	2020-21
Discount & other expenses on commercial papers	**139**	164
Interest expense	**60**	67
Un- winding of provisions	**156**	142
Total	**355**	373

The company managed its treasury operations effectively, minimising interest cost as well as earning higher returns on the cash surplus invested during the year. During FY 2021-22, the company had been able to raise Commercial paper /WCDL, at a lower rate due to which there is reduction in overall finance cost. Borrowing at the current year-end is ₹4,745 Crore as compared to ₹4,834 Crore as on 31st March 2021.

4. Depreciation & amortisation expenses

(₹ Crore)

Particulars	2021-22	2020-21
Depreciation & amortisation expenses	**314**	473

During FY 21-22, a periodic review of the estimated useful life of certain items of PPE have been carried out, in line with para 51 of IND AS 16. This resulted in reduction of depreciation & amortization cost by about ₹126 Crore as compared to last year.

5. Tax expenses

(₹ Crore)

Particulars	2021-22	2020-21
Current tax - current year	**49**	33
-Earlier years	**(126)**	(17)
Deferred tax -current year	**109**	(908)
-Earlier years	**(5)**	(2)
Total	**27**	(894)

The tax expense for the year is ₹27 Crore mainly due to reversal of current tax expense for the adjustment of refunds pertaining to earlier assessment years. Deferred tax liabilities (Net) represent the tax impact of items considered in tax computation for which Deferred Tax Assets has been reversed or on which income tax shall be payable in the future periods.

The company received Income Tax refunds of ₹667 Crore in FY 21-22, which contributed positively to the financial position of the company.

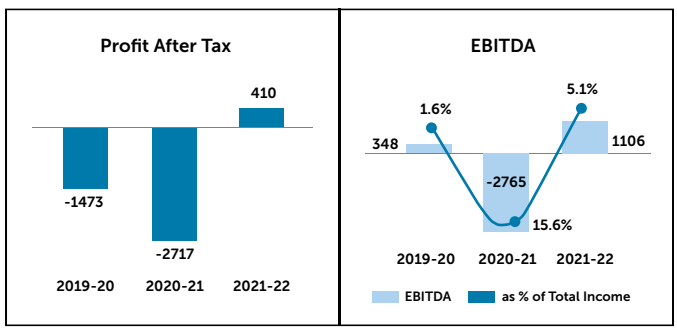
There have been major achievements in the taxation area and the company received Income Tax refund of ₹667 Crore in FY 21-22, which contributed positively not only in Cash flows but also in profitability. Interest income of ₹47 Crore was also received during the year as part of refunds.

6. Profitability

Material cost has been a challenge across the industry spectrum, domestically as well as globally and also for BHEL. The spike in metal prices not only impacted the material cost but also the revenues of the company.

Pressures on operational budgets due to inflation are being dealt through stringent budgetary controls. The company's change in operational ideology from being Turnover Centric to Project Centric, with focus on expedited project execution and prudent financial management have resulted in a profit after tax of ₹410 Crore (PY loss of ₹2,717 Crore), after two consecutive loss years.

Overall, the company achieved EBITDA of ₹1,106 Crore, which is more than 5% of the total income.



7. Other comprehensive income

(₹ Crore)

Particulars	2021-22	2020-21
Re-measurement of defined employee benefits gain/(loss)	**103**	27
Less: Income tax related to above item	**26**	7
Total	**77**	20

Other Comprehensive income represents re-measurement gain/ (loss) on defined benefit plans such as gratuity, PF, Post-Retirement Medical Benefit (PRMB), etc.

B. Financial position

8. Property, plant and equipment (PPE), intangible assets and capital WIP

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	PPE	Intangible	Total	PPE	Intangible	Total
Gross carrying value	6331	309	**6640**	6172	291	6463
Less: Accumulated depreciation / amortisation	3995	247	**4242**	3746	229	3975
Net carrying value (net block)	**2336**	**62**	**2398**	2426	62	2488
CWIP & intangible assets under development	422	9	**431**	403	17	420
Total			**2829**			2908

In line with applicable Ind AS, the company annually assesses and modifies the useful life of PPE, and depreciation is calculated accordingly. The financial impact of change in useful life is disclosed as part of notes to accounts. Properties (i)2nd Floor office in Chatterjee International Centre, Kolkata (ii) Indora Residential flats, Nagpur – Land & buildings and (iii) Vadodra Township - Land & buildings, having a net block value of ₹1.42 Crore, have been identified for sale under asset monetisation drive, subject to requisite approvals.

9. Equity investments

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Investment	Impairment	Net	Investment	Impairment	Net
Investment in joint ventures	718	(52)	**666**	718	(52)	666
Investment in subsidiary Company	-	-	**-**	5	(5)	-
Investment in other equity instruments	6	(2)	**4**	6	(2)	4
Total	**729**	**(59)**	**670**	729	(59)	670

Investment in joint ventures (JVs) and subsidiary company were accounted at cost after considering impairment loss, if any, in line with Ind AS. Investment in other equity are accounted at fair value through profit and loss account and changes in carrying value have been made based on fair value on the reporting date.

During the year, BHEL's entire stake (51%) in its subsidiary BHEL – EML has been transferred to Government of Kerala on 11th August, 2021 at a consideration of ₹1.

Regarding investment in Neelanchal Ispat Nigam Limited (NINL), subsequent to Board approval of strategic disinvestment of equity in NINL, a strategic buyer was approved by Ministry of Finance for privatization of NINL on 31.01.2022. The company has already realised a sum of more than ₹25 Crore on 4th July 2022 (the capital gain on which will be accounted in FY 22-23) against our original investment of ₹5 Crore.

10. Trade receivables (Net)

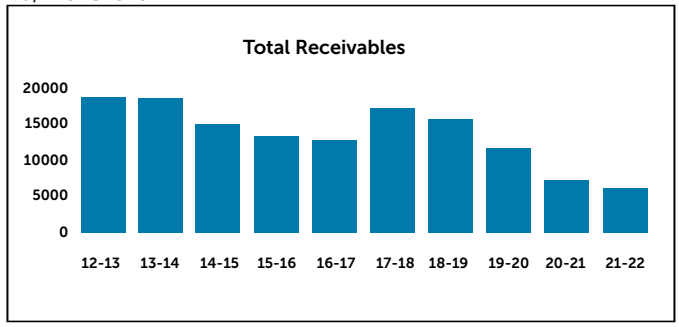
(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-current	Current	Total	Non-current	Current	Total
Gross Receivables	15137	3618	**18755**	16134	4911	21045
Less: Allowances for Bad & doubtful debts	11933	593	**12526**	12955	877	13832
Trade receivables (net)	3204	3025	**6229**	3179	4034	7213

Trade Receivables (net) are at their lowest level in last 10 years at ₹6229 Crore. With continuous focus on cash realisation, the company improved liquidation of current year billing to highest levels.

Net Trade Receivables in number of days of Revenue from Operations (Gross) reduced to 94 days in FY 21-22 from 134 days in PY.

Concerted efforts in the company resulted in reduction of Net Trade Receivables by ₹984 Crore (14% from the level of March 2021), despite increase in volume of operations. Improved focus on quality of billing, sequential dispatches, closure of pending issues with customers, prioritizing projects where cash is realizable, etc., were some strategies adopted, resulting in improved liquidation of Current year billing to its highest levels (86%). With continuous focus on cash realization, Trade Receivables (net) are at their lowest level in last 10 years at ₹6,229 Crore.



Note: Previous year figures have been regrouped / rearranged, wherever considered necessary

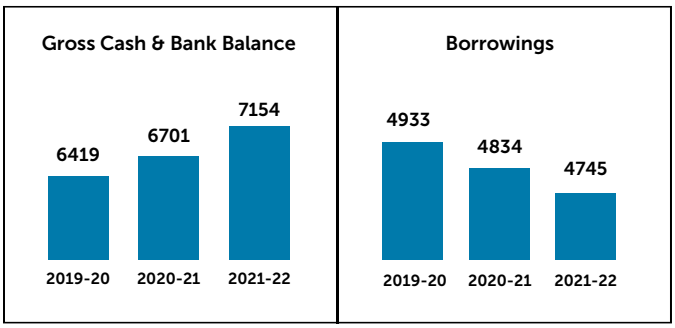
Net Trade Receivables in number of days of Revenue from Operations (Gross) has reduced to 94 days in FY 21-22 from 134 days in PY.

11. Cash & cash equivalents and bank balances

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Cash & cash equivalents	**733**	1527
Deposits having maturity more than 3 months but not more than 12 months	**6411**	5160
Earmarked bank balances & FD against margin money	**10**	14
Total	**7154**	6701

Cash generation & conservation continues to remain a critical success factor for the company. The overall cash & bank balance was higher by ₹453 Crore at the end of FY 21-22 as compared to the previous year. The company generated ₹660 Crore cash from operating activities during FY 21-22 (₹560 Crore during FY 20-21).



There has been improvement in cash collection ratios also. Project-centric approach & sequential dispatches has resulted in 86% liquidation of current year billing, the highest in last 10 years, against 82% in FY 20-21.

12. Deferred tax assets (net)

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Deferred tax assets (net)	**3530**	3660

Deferred tax asset is created mainly on account of items for which benefit is not available in the current year's taxable income but shall be adjustable against future taxable income on meeting certain conditions in line with the provisions of the Income Tax Act. Such items include carry forward of losses, provision for doubtful debts, dues allowable on payment basis etc. The reduction in Deferred Tax Assets represent the tax impact of items considered in tax computation for which Deferred Tax Assets created in earlier assessment years has been reversed.

13. Other assets

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-Current	Current	Total	Non-Current	Current	Total
Contract assets (Net)	18248	8692	**26940**	16585	7494	24079
Input tax credit receivable	-	964	**964**	-	1031	1031
Claim recoverable	189	755	**944**	65	731	796
Deposit with tax authorities & others	110	533	**643**	119	577	696
Advances & others	76	92	**168**	136	159	295
Less: Provision	96	243	**339**	53	216	269
Total	18527	10793	**29320**	16852	9776	26628

Contract assets represent unbilled revenue not yet due for payment as per contract terms. Increase in contract assets is mainly on account of stringent and skewed payment terms of many projects currently under execution. These orders were obtained under stiff competitive bidding with zero deviation where higher proportion of receivables are linked to milestone achievement / final completion.

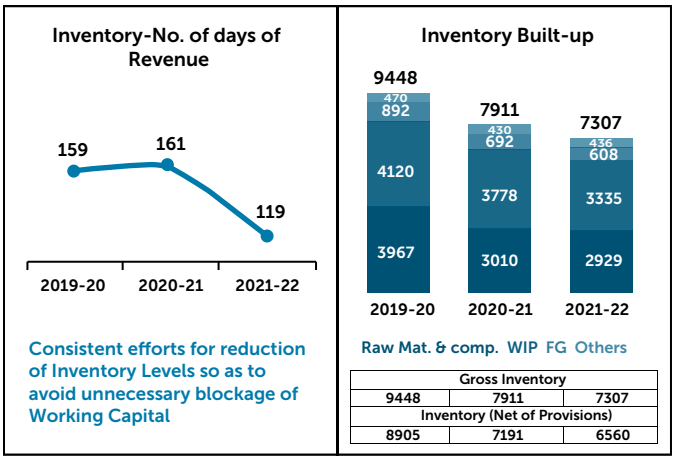
14. Inventories

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Raw material & components	**2929**	3010
WIP	**3335**	3778
FG	**608**	693
Stores & spare parts	**208**	220
Other inventory	**228**	210
Sub total	**7307**	7911
Less: Provision for non-moving inventory	**747**	720
Total	**6560**	7191

During the year, efforts were made to streamline the procurement process, strengthening internal controls for usage of available inventory, synchronizing delivery of items with site requirements & manufacturing lead time, and ensuring alternate usage of available inventory to the extent feasible. This resulted in reduction in inventory levels by around 9%.

Such measures contributed to improved working capital management and also helped in avoiding obsolescence and wastage of materials.



15. Current tax assets /(liabilities) - Net

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Current tax assets / (liabilities) -net of provisions	**119**	404

The amount mainly represents TDS (net of provision for tax), which is due for refund in near future.

16. Share Capital

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Authorised share capital	**2000**	2000
Issued, subscribed & paid up share capital	**696**	696

There has been no change in the share capital during the current financial year. The shareholding of promoter [GOI] stands unchanged at 63.17%.

17. Other equity

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Opening balance	**25788**	28485
Add: Reinstatement due to change in policies	**-**	-
Total comprehensive income/(loss) for the year	**487**	(2697)
Less : Dividend (incl. interim dividend) paid during the year	**-**	-
Closing balance	**26275**	25788

The other equity includes capital reserve of ₹35 Crore (PY ₹35 Crore) and capital redemption reserve of ₹38 Crore (PY ₹38 Crore)

The increase in net worth is due to post tax profit during the year. In line with the dividend distribution policy of the company, the Board has recommended 20% dividend for FY 2021-22, subject to approval of shareholders.

18. Borrowings & Lease Liabilities

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-Current	Current	Total	Non-Current	Current	Total
Borrowings	-	4745	**4745**	-	4834	4834
Lease Liabilities	35	50	**85**	53	48	101
Total	**35**	**4795**	**4830**	53	4882	4935

The company resorted to intermittent short term borrowings to bridge the temporary gaps in cash inflows/outflows. Short term borrowings in the form of WCDL, PCFC loan, and commercial paper were availed at optimal interest rates. Despite pandemic induced liquidity challenges across sectors, the company remained zero debt and has no long term borrowings.

The company had positive net cash & bank balance (net of short term borrowings) of ₹2,409 Crore as at March 31,2022 as against ₹1,868 Crore as at March 31,2021, an increase of 29%.

The company has continued to ensure repayment of its borrowings on or before the due date.

19. Financial liabilities

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-current	current	Total	Non-current	current	Total
Trade payables	2132	7750	**9882**	1884	6675	8559
Other financial liabilities	215	1124	**1339**	217	917	1134
Total	2347	8874	**11221**	2101	7592	9693

The company continued to pro- actively engage with the vendors/sub-contractors and release timely payments to them. A significant part of the trade payables is due to retention money not due as per contractual terms, and some cases being under litigation /arbitral settlement.

20. Provisions

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-current	current	Total	Non-current	current	Total
Provision for contractual obligation	2620	1235	**3855**	2506	1486	3992
Provision for employee benefits	857	1061	**1918**	1093	827	1920
Other provisions	293	760	**1053**	312	832	1144
Provision for CSR	2	10	**12**	2	19	21
Total	**3771**	**3067**	**6838**	3913	3164	7077

The provision for employee benefits is based on actuarial valuation of leave, medical and gratuity benefits. Other provisions mainly include provisions for loss making contracts. The CSR provision of ₹12 Crore represents unspent amount on ongoing projects, transferred to a separate bank account last year as per Companies Amendment Rules 2021.

21. Other liabilities

(₹ Crore)

Particulars	March 31, 2022			March 31, 2021		
	Non-current	Current	Total	Non-current	Current	Total
Advances from customers (incl. valuation adjustments)	2194	3854	**6048**	2807	4057	6864
Statutory dues	-	776	**776**	-	617	617
Govt. grants	19	6	**25**	25	6	31
Total	2213	4636	**6849**	2832	4680	7512

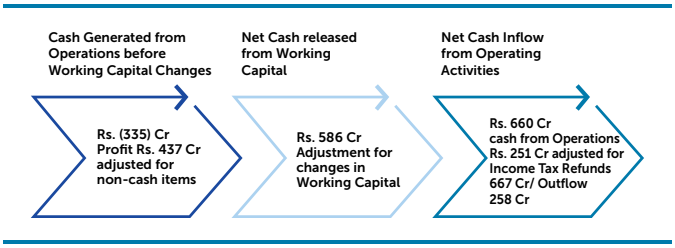
Advances from customers get adjusted progressively during execution of the projects. Statutory dues are primarily GST liability, to be discharged on due dates after adjustment of input tax credit disclosed under "other assets" (Refer Sl No. 13 above). The company has been discharging all its GST and other dues on time.

C. Fund Position

22. Fund flow position and liquidity

(₹ Crore)

Particulars	2021-22	2020-21
Cash generated from Operations before working capital changes	**(335)**	(1870)
Net cash inflow / (outflow) from working capital changes	**586**	2620
Net cash inflow / (outflow) from operating activities	**660**	560
Net cash inflow / (outflow) from investing activities	**(1125)**	(43)
Net cash inflow / (outflow) from financing activities	**(330)**	(393)



D. Key Financial Ratios

In compliance with the requirement of listing regulations, the key financial ratios along with explanations, wherever required, have been provided in Note[44] of the financial statements.

Profitability Ratios	2021-22	2020-21
Operating Profit/(loss) Margin (%)	**3.48**	(18.11)
Net Profit /(loss) Margin (%)	**1.93**	(15.70)
Return on Net Worth	**1.51**	(9.62)

The efforts of the company in the past couple of years resulted in the company achieving an operating profit margin and net profit margin of 3.48% and 1.93% respectively. The qualitative net worth is also now better aligned to the market capitalisation of the company.

Other Key Ratios	2021-22	2020-21
Trade receivable Turnover	**3.00**	1.73
Inventory Turnover	**2.93**	2.02
Interest Coverage Ratio	NA [Zero Debt company]	
Debt Equity Ratio		
Liquidation % out of current year Net Billing*	**86%**	82%
Current Ratio*	**1.30**	1.39

* Best performance in Last 10 years

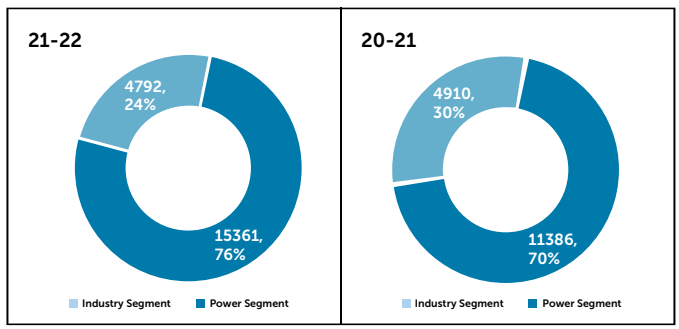
The current ratio at 1.30 is the lowest in the last ten years and is a reflection of effective working capital management.

E. Segment performance

The Company has two operating segments, power and industry. The performance of segments is given below:

(₹ Crore)

Particulars	2021-22		2020-21	
	Power	Industry	Power	Industry
Segment revenue	**15361**	**4792**	11386	4910
Segment results	**1949**	**(39)**	(1246)	(850)
Segment capital employed	**17100**	**3440**	16733	3973



1.8.2 Financial Review of Subsidiary Company

BHEL Electrical Machines Ltd.

BHEL has transferred its stake in BHEL-EML to Govt. of Kerala on 11th August, 2021. Brief financials of BHEL –EML are tabulated below:

(₹ Crore)

Particulars	2021-22*	2020-21*
BHEL Share (%)	-	51%
BHEL's Investment in Equity	-	5.36
Revenue from Operations	-	0.25
Profit/ (Loss) for the year	**(2.69)**	(5.28)

* based on provisional unaudited figures

1.8.3 Financial Review of Joint Venture Companies

a. BHEL-GE Gas Turbine Services Private Limited (BGGTS):

BHEL-GE Gas Turbine Services Private Limited (BGGTS) is a Joint Venture Company of BHEL and GE, USA formed to take up repair & servicing of GE designed gas turbines. The financials in brief are as below:

(₹ Crore)

Particulars	2021-22	2020-21
BHEL share (%)	**One share less than 50%**	One share less than 50%
BHEL's investment in equity	**2.38**	2.38
Revenue from operations	**801.18**	791.76
Profit/(loss) after tax	**100.84**	88.29
Net worth	**403.21**	362.99

In FY 2021-22, BGGTS paid final dividend of 400% (for FY 20-21) and interim dividend of 875% on the equity share capital of ₹ 4.76 Crore.

b. NTPC BHEL Power Projects Private Limited (NBPPL):

NTPC BHEL Power Projects Private Limited (NBPPL) is a Joint Venture Company of BHEL and NTPC Limited promoted to execute EPC contracts for Power Plants and manufacture power plant equipment. The JVC has a manufacturing facility for Balance of Plant (BoP) equipment at Mannavaram in Andhra Pradesh. The brief financials are tabulated below:

(₹ Crore)

Particulars	2021-22*	2020-21
BHEL share (%)	**50%**	50%
BHEL's investment in equity	**50.00**	50.00
Revenue from operations	**24.06**	42.93
Profit/(Loss) for the year	**(40.52)**	(12.61)

* based on provisional unaudited figures

In-principle approval for pursuing winding up of NBPPL has been accorded by the Board of Directors in its meeting held on February 8, 2018. Ministry of Power, Government of India vide letter dated 23.08.2019 advised NTPC Ltd. to consider buying out the stake of BHEL and thereafter decide either to continue it as an in-house EPC arm or close it after completion of present work.

c. Raichur Power Corporation Limited (RPCL):

Raichur Power Corporation Limited (RPCL) is a Joint Venture Company of BHEL and Karnataka Power Corporation Limited (KPCL) promoted for setting up of 2x800 MW supercritical thermal power plant at Yeramarus, Raichur, Karnataka and 1x800 MW supercritical thermal power plant at Edlapur, Raichur, Karnataka on build, own and operate basis. The paid-up equity capital as on March 31, 2022 was ₹2999.76 Crore with contribution of ₹2335.72 Crore from KPCL and ₹664.04 Crore from BHEL. The financials of the Company are as under:

(₹ Crore)

Particulars	2021-22*	2020-21
BHEL share (%)	**22.14%**	27.97%
BHEL's investment in equity	**664.04**	664.04
Revenue from operations	**3027.00**	2029.79
EBITDA	**1555.19**	982.25
Profit/(Loss) for the year	**(565.00)**	(1431.84)
Cash generated from Operations	**19.20**	(1645.77)

* based on provisional unaudited figures

In FY 2021-22 due to improved plant operations, the company generated higher level of revenues which resulted in substantial growth in EBITDA and also positive cash flow from operations. Going ahead, the company is expected to further improve its performance. Reduction in percentage of ownership in RPCL is due to subscription of Rights issue by the other shareholder M/s KPCL.

d. Power plant Performance Improvement Private Limited (PPIL)

Power plant Performance Improvement Private Limited (PPIL) is a Joint Venture Company of BHEL and Siemens AG, Germany promoted for performance improvement of old fossil fuel power plants.

Since sufficient business to ensure viability of the Company was not forthcoming, the promoter partners mutually agreed to gradually wind up the Company. All the pending contracts of the JVC were closed and the process of winding up was initiated during FY 2018-19. The JVC is under liquidation.

Investment in PPIL is ₹ 2 Crore which has been fully provided for.

1.8.4 Consolidated Financial Statement (CFS)

Consolidated Financial Statements have been prepared in accordance with Ind AS -110 on "Consolidated Financial Statements" and Ind AS 28 "Investments in Associates and Joint Ventures".

The financial statements of subsidiary Company is combined on a line by line basis after fully eliminating the intra group balances and intra-group transactions and for joint ventures,

Equity method is adopted in line with Ind AS. M/s PPIL was not considered for CFS as it is under liquidation.

A summary of the results on financial performance, in line with the afore-mentioned Ind AS are as under:

Financial performance

(₹ Crore)

Particulars	For the year ended	
	March 31, 2022	March 31, 2021
Revenue from operations	**21211**	17309
Profit /(loss) before tax	**470**	(3596)
Profit /(loss) after tax	**445**	(2700)
Other comprehensive income/(loss)	**77**	20
Total comprehensive income / (loss)	**522**	(2680)

The share of profit in respect of joint venture - BGGTS was ₹50.42 Crore in FY 2021-22 as against profit of ₹44.14 Crore in FY 2020-21. The joint venture companies (NBPPL and RPCL) have incurred losses in FY 2021-22. The accumulated losses equal to the cost of investment in these two JVs have already been recognized in the consolidated financial results, in FY 2018-19.

Financial position

(₹ Crore)

Particulars	March 31, 2022	March 31, 2021
Assets		
Property, plant and equipment, intangible assets and CWIP (net carrying value)	**2829**	2911
Investment accounted for using equity method	**202**	182
Non-current financial assets	**3294**	3281
Deferred tax assets (net)	**3530**	3671
Non-current other assets	**18527**	16852
Current assets	**27862**	28343
Total	**56244**	55240
Equity and Liabilities		
Equity share capital	**696**	696
Other equity	**25810**	25287
Non-controlling interest	**-**	(12)
Non-current liabilities	**8366**	8911
Current liabilities	**21372**	20358
Total	**56244**	55240

1. 9 Capital Investment

During the FY 2021-22, BHEL has incurred a Capital Expenditure of ₹231 Crore. for modernizing and upgrading its existing facilities, debottlenecking production processes, strengthening the Company's infrastructure and for welfare measures. Towards growth and development, BHEL has undertaken investments in building and augmenting manufacturing capability in diversified segments such as Defence, Aerospace, Nuclear, and Transmission.

To meet the challenge posed by the pandemic, your Company set up three on-site Oxygen Generations Plants for BHEL Hospitals at various units, apart from five Oxygen Generation Plants for factory/ industrial use during the year.

1. 10 Internal Financial Control System

The Internal Financial Control (IFC) of BHEL is designed in the form of well documented policies and procedures for ensuring orderly and efficient conduct of its business, including adherence to Company's policies, safeguarding of assets, prevention & detection of frauds and errors, accuracy & completeness of the accounting records, and timely preparation of reliable financial information.

The source of implementation and maintenance of IFC are Manuals, Guidelines, Delegation of Powers and IT system & controls, and are effected through well-defined organizational structure i.e. people operating in various departments within the Company at different levels at each stage of the processes.

BHEL has an in-house Internal Audit Department commensurate with its size of operations and nature of its business. In addition to Corporate Internal Audit department, 12 Internal Audit Cells are set up across BHEL to cover internal audit activities at all locations of BHEL. With a view to assess the adequacy and effectiveness of IFC, Internal Audit carries out continuous audit of risk focussed areas and critical appraisal of the functioning of the processes and systems designed at respective locations. Based on the report of internal audit function, process owners undertake corrective action(s) in their respective area(s), thereby strengthening controls.

Audit assignments are conducted as per Annual Audit Programme approved by Board Level Audit Committee (BLAC). Results of Internal Audit activities are shared with all Units and Regions. BLAC also reviews major Internal Audit observations and CAG audit findings, and issues directions, wherever required, to strengthen the IFC, keeping in view the dynamic environment in which the Company is operating.

Internal Financial Controls in BHEL has been evaluated at all locations by the Internal Audit during the year by applying test of controls and the controls tested have been found in place and operating effectively within the company.

Independent Auditors Report on the Internal Financial controls of the company in terms of Clause (i) of sub-section 3 of section 143 of the Companies Act, 2013 by the Statutory Auditors is placed along with the Financial statements. Statutory Auditors in its report expressed an unmodified opinion on the adequacy and operating effectiveness of the

Company's internal financial controls over financial reporting.

1.11 Quality Performance

BHEL pioneered the development of Quality management systems in India as early as the 1970s, with the adoption of the then prevalent state-of-the-art technology and Quality processes and systems. Since then, the company has worked towards continual improvement in the Quality of its products, services and internal systems. The company is known for introducing the concept of Quality Circles in India, launching Quality maturity model called Quality Management Effectiveness Review (QMER - a copyright of BHEL), adopting Total Quality Management and other major Quality initiatives.

BHEL is implementing a companywide 'Quality First' initiative to put in place state-of-the-art systems to make quality a hallmark of the company's products and services as part of its efforts to turn the firm into a *Future-Ready Global Engineering Organization*. Initiatives have also been taken for enhancing maturity of the Quality systems as per "Quality 360" model, reviving Business Excellence journey as per EFQM2020, and revitalizing Quality Health through "QHI (Quality Health Index)" measurement. HEEP Haridwar and HEP Bhopal received the



Quality Month was observed companywide in November 2021

coveted Platinum recognition whereas HPBP Trichy and HPEP Hyderabad received Gold Plus recognition under "CII EXIM Bank award for Business Excellence 2021".

A comprehensive Quality Roadmap has been developed and implemented across the organization for overall improvement in Product, Process and People Quality.

Periodic Quality Audits, Quality Management Effectiveness Review and Total Quality Management (TQM) assessment by CII/ CQ & BE are being conducted to strengthen the existing Quality Systems in Manufacturing Units, Engineering Centers, and Power Sector project sites. Twenty-three BHEL divisions were subjected to Quality360 review and TQM assessment as per EFQM 2020 model in 2021-22.

Integrated **Quality Health Index (QHI)** is implemented across the Organization covering 23 divisions considering Quality Performance Indicators, Quality Management System maturity, overall Business Excellence and Quality Image. HEEP Haridwar, HPEP Hyderabad and EDN Bangalore are the top three units based on QHI score 2021-22 with an overall increase across the organization of over 13% (Y-o-Y).

BHEL was the first organization in India to introduce the concept of Quality Circle (QC) movement in 1981. There are 1157 Quality Circles in the company and every year an inter-unit annual QC summit is held in BHEL where Quality Circles showcase their case studies.

Conversation on Quality "Qonverse" deliberation/ workshop with all Quality Heads of MUs, Regions & Engineering Centers has been in practice since 2020-21 which encourages units to adapt best & unique practices followed in other BHEL units. This platform for best practices is now being used by other functions like Production, Erection & Commissioning and HR as well.

Major focus is given to training in which Quality Management training programs are conducted at different centres of BHEL in addition to trainings conducted by Human Resource Development (HRD) Centres of units for capability building of employees in the field of Quality.

With diversification of BHEL into new areas, major thrust is being given to establishing Quality Management Systems for new products. In 2021-22, BAP Ranipet was certified for AS 9100 Standard with the scope "Manufacturing and Supply of Aerospace Components".

1.12 Human Resource

People are the greatest asset for an engineering organization and BHEL takes pride in its motivated and competent workforce. Towards continuous development of its people, initiatives like training/retraining of the workforce, use of e-Modules for ensuring continual training, leadership development programs, strengthening of internal communication, simplifying policies for making them employee centric, etc. were taken during the year.

During the COVID-19 pandemic, multiple initiatives were undertaken to tackle the dynamic situation as enumerated earlier. COVID Assistance Scheme was also launched in July 2021 for providing succour to dependents of employees who succumbed to COVID-19.

Recognizing the efforts of the company, BHEL was conferred with 'Global HR Excellence Award' for the categories of 'Best Workplace practices' and 'Excellence in Learning and Development', and 'Business Innovation Awards 2021' for the categories 'Organization With Innovative Practices in HR & Best Digital PSU' during FY 21-22.

1.12.1 Learning and Development

Learning & Development is extremely important to prepare a future ready workforce, especially considering company's focus on diversified businesses.

Towards this endeavour, Corporate Learning and Development (CLD) division worked on three focus areas: a) Technical and Functional Training b) e-Learning through UNNAYAN portal



Learning Week was celebrated across the organisation in September 2021

c) Managerial and Behavioural Training. On the one hand, programmes for specialized and high-end technical inputs on emerging technologies in New Growth Areas were developed, and on the other hand, training programmes to enhance skilling of artisans were introduced. 76 e-learning modules have been developed, which are widely used by all employees. Focused efforts are being made towards knowledge sharing sessions and sharing of best practices across units. In order to capture the tacit knowledge of superannuating employees, there is concerted effort to organize and facilitate sessions in their respective areas as well.

Various programs on internal capability development for technical/functional trainings have also been designed and conducted, including a 3-month long engagement named "Faculty Development Program". A program titled "The Art & Science of Coaching" was completed, aimed at developing the Coaching acumen of employees in middle as well as senior management grades.

BHEL's 6th Learning Week was celebrated across units and regions from 5th to 11th September 2021, with theme, 'Creating a Future Ready Workforce to Achieve BHEL Vision'.

To improve communication across the company, 3C (Connect-Collaborate-Create) initiative, launched in January 2021, has continued to gain impetus. As part of the initiative, a large section of employees across BHEL shared organizational issues, concerns as well as ideas and suggestions for improvement of the company. Around 10,000 views were gathered of which 1,174 ideas have been taken up as projects for implementation. The success stories emerging out of this initiative are regularly being published in company's monthly online magazine EKAM.

1.12.2 Performance and Career Development

Succession planning and revamp of Performance Management System have been focus areas for your company.

Special programs in collaboration with leading management institutes are being implemented for developing leadership at all levels. Focused training programs to develop technical and behavioral skills in sync with the organization needs/ ethos have been designed and implemented.

These interventions in Performance and Career Development have helped in improved Employee Engagement.

PCMM Level 3

Concerted efforts in the past year resulted in certification of BHEL operations at Maturity Level 3 in the People Capability Maturity Model (PCMM) from Maturity level 2 earlier.

Employee Satisfaction and Engagement Survey 2021-22

An Employee Satisfaction and Engagement Survey at an organization level is conducted every alternate year. The drivers of Engagement and Satisfaction are dependent on parameters like Learning & Development, Communication, Career & Performance Management, Rewards & Recognition and Health, Safety, Environment, Compensation and Physical Work Environment. The Employee Satisfaction & Engagement index ESEI for 2021-22 stands at 7.88 (on a scale of ten).

Disclosure under section 134 (3)(p) of the Companies Act

As per Section 134 (3) (p) of the Companies Act 2013, the Board's Report of a Listed Company shall include a statement indicating the manner of formal annual evaluation of Board, individual directors etc. Ministry of Corporate Affairs has, vide its notification dated 5th June, 2015, notified the exemptions to Government Companies from the provisions of the Companies Act, 2013 which inter-alia provides that Sec. 134(3) (p) regarding statement on formal annual evaluation shall not apply to Government Companies in case the directors are evaluated by the Ministry which is administratively in-charge of the company as per its own evaluation methodology. Further, in line with above exemptions, Sub-Sections (2), (3) & (4) of Sec. 178 regarding appointment, performance evaluation and remuneration shall not apply to Directors of Government Companies.

In a CPSE, the MoU signed between the Company and the

Govt. of India details out the parameters and initiatives that the Company is required to undertake during that financial year. This MoU is evaluated at the end of the year by the Govt. and a performance rating is assigned based on the CPSE's performance. There is a well laid down procedure for performance evaluation of CMD and Functional Directors Based on Department of Public Enterprises (DPE) format and procedure for evaluation of Functional Director's performance. The tenure of Functional Directors as spelt out in their Terms and Conditions of Appointment is five years or the date of their superannuation, whichever is earlier. The terms of reference of Board Level Committees are approved by the Board. The minutes of Board Level Committees are placed before the Board for its perusal.

Appointment of Independent Directors and tenure (normally three years) is decided by the Government of India. DPE, through BHEL's Administrative Ministry (MHI), has been evaluating/ assessing the performance of Independent Directors on the Board of the Company.

1.12.3 Industrial Relations

'All round Development through Participation of All', ensured by way of BHEL's policy of open and continuous communication with all sections of employees, has been the driving mantra of our Industrial Relations journey. The impetus given to participatory culture by the Management in close collaboration with various employee groups has been instrumental in maintaining and building up a congenial harmonious Industrial Relations climate in the organization.

Industrial Relations in various manufacturing units, divisions and offices of the Company remained harmonious and peaceful during FY 2021-22. 'NIL' man days were lost during the year on account of strike against Company policies, which bears testimony to the concerted efforts undertaken by the Management as well as the employee groups to work jointly towards the organisation's goals.

One meeting of the apex level bipartite forum, was held during the year. 37 meetings of Plant Councils and 220 meetings of Shop Councils were held at various manufacturing units. In addition, meetings were also held with the representatives of executives and supervisors on business prospects & challenges, company level issues, etc. The focus of discussions in the various bipartite forums centred on improvement in the overall performance of the Company by way of increase in productivity, improvement in quality, safety and delivery in order to meet customer commitments and adopting various cost reduction measures for betterment of the financial health of the Company, eventually benefitting different stakeholders including employees.



BHEL employees at its Noida Township celebrating Azadi ka Amrit Mahotsav

1.12.4 Manpower Strength

The Manpower Strength of BHEL as on 31st March 2022 is **30,758** consisting of **10,280** Executives, **4,758** Supervisors and **15,720** Workers.

1.12.5 Status on Presidential Directives

No Presidential Directives have been received w.r.t (A) Reservation policy for reserved category persons (B) Safeguard of Women at Workplace during the years 2019-20, 2020-21 and 2021-22.

1.12.5.1 Directives on Reservation Policy for Reserved Category Persons

Presidential Directives on reservation policy issued by Central Government from time to time provide for certain percentages of reservation in direct recruitment as well as promotion in specified posts and for specified reserved category of candidates, i.e. SCs, STs, OBCs and Persons with Disabilities (PwD). Besides, the Directives also contain provision for certain concessions and relaxations for specified category of employees in direct recruitment and promotion. The Presidential Directives are being strictly complied with and reservation percentages are ensured through maintenance of Post Based Roster system as prescribed by Govt.

Other relevant information on the subject is furnished below:

i. Representation of SC/ST/OBC /EWS employees

The overall representation of SC/ST/OBC employees in total manpower as on 31st December, 2021 was 20.81%, 7.48% and 36.03% for SCs, STs and OBCs respectively. During the year 2021, 30 candidates were directly recruited and 4 Chief Security Officers were taken on deputation basis.

The Annual Statement in the prescribed format showing the representation of SCs, STs, OBCs and EWS as on 31st Decemeber'2021 and number of appointments made during the calendar year, as furnished to the Government, is given at **Annexure - A.**

ii Manpower strength of PwD employees as on 31st December, 2021

Total number of PwD employees as on 31st December, 2021 was 843. During the year, one recruitment took place in OH Category in Group C. The group wise manpower strength of PwD employees in the Company as on 31st Decemeber, 2021 is given at **Annexure - B.**

1.12.5.2 Safeguard of Women at Workplace

The provisions of the "The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Rules, 2013" thereon are being strictly complied with. In accordance with the Act, Internal Complaints Committee exists in all units of BHEL and their constitution and contact details are hosted on the unit's website. Posters highlighting the key provisions of the Act, Duties of the Employer, Complaints Redressal Mechanism, Action for Malicious Complaints & various misconceptions about Sexual Harassment have been displayed at conspicuous places in all units in Hindi, English and Regional languages. At unit level, ten Workshops /awareness programmes were conducted on Sexual Harassment of Women at Workplace Act and Gender Sensitization.

The Annual Report showing details on number of complaints of sexual harassment received during the year 2021-22 and status thereof as on 31st March 2022 is given at **Annexure - C**.



International Women's Day celebrated at Corporate Office, New Delhi

Annexure 'A'

Groups	Representation of SCs/STs/OBCs/EWS (As on December 31,2021)					No. of appointments made during the calendar year 2021											
						By Direct Recruitment					By Promotion*			By Deputation/ Absorption			
	Total No. of Employees	SCs	STs	OBCs	EWS	Total	SCs	STs	OBCs	EWS	Total	SCs	STs	Total	SCs	STs	OBCs
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Group A	10321	1866	871	2761	2	0	0	0	0	0	N/A			4	0	0	2
Group B	6259	1248	628	1605	0	0	0	0	0	0				0	0	0	0
Group C	14229	3273	816	6733	2	30	1	0	11	2				0	0	0	0
Group D (Excl. SW)	193	25	1	0	0	0	0	0	0	0				0	0	0	0
Group D (SW)	27	44	4	83	0	0	0	0	0	0				0	0	0	0
Total	31029	6456	2320	11182	4	30	1	0	11	2	0	0	0	4	0	0	2

* In BHEL, no appointments are made at induction level by promotion

Annexure 'B'

Statement showing number of persons with disabilities appointed during the calendar year 2021

Group	Number of Employees				Direct Recruitment							Promotion*						
	Total number of employees	VH	HH	OH	No. of vacancies reserved			Total	No. of appointments made			No. of Vacancies reserved			Total	No. of appointments made		
					VH	HH	OH		VH	HH	OH	VH	OH	HH		VH	HH	OH
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Group A	10321	5	15	247	0	0	0	0	0	0	0	----------NA----------						
Group B	6259	1	10	171	0	0	0	0	0	0	0							
Group C	14229	16	24	347	0	1	1	2	0	0	1							
Group D	220	1	4	2	0	0	0	0	0	0	0							
Total	31029	23	53	767	0	1	1	2	0	0	1							

Note:

(i) VH stands for Visually Handicapped (persons suffering from blindness or low version)
(ii) HH stands for Hearing Handicapped (persons suffering from hearing impairment)
(iii) OH stands for Orthopaedically Handicapped (persons suffering from locomotor disability or cerebral palsy)

*As per RPwD Act 2016, there is no reservation in Promotion for PwD employees in the year 2021

Annexure- C

Annual Report on Safeguard of Women at Workplace

1	No. of complaints received during the year 2021-22 (incl. complaints C/F from previous year)	3
2	Number of complaints disposed off during the year 2021-22 (incl. complaints C/F from previous year)	1
3	Number of complaints pending as on 31.03.2022	2
4	Number of cases pending for more than ninety days	2
5	Number of workshops or awareness programme against sexual harassment carried out	10

Nature of action taken by the employer on recommendation of ICC

Out of the three cases, one case was not found to be a case of sexual harassment at workplace and the same has been disposed off and other 2 cases are in the process of disposal.

1.13 Right to Information Act, 2005

In consonance with the provisions of the Right to Information Act, 2005 (the Act), BHEL works towards promoting transparency and accountability. A Central Public Information Officer (CPIO) at Corporate Office, along with 24 other CPIOs at each of the major administrative units are functioning in the Company. 25 First Appellate Authorities also function in the Company to dispose off first appeals filed against the orders of the CPIO (s), as provided under the Act.

As a measure to facilitate citizens in filing their RTI applications and first appeals online, BHEL has adopted the Online RTI web portal (https:// rtionline.gov.in) launched by Department of Personnel & Training. Consequently, RTI applications and RTI first appeals filed on the portal are being replied through online mode. Section 4 (1) (b) disclosures have been made available on BHEL's website. In addition, certain guidelines & proforma(s) indicating procedure for obtaining information and for filing RTI first appeals under the Act have been placed on BHEL's website.

The CPIOs and other internal stakeholders involved are sensitized about their obligations under the Act through training and workshops.

BHEL being a member of Steering Committee on RTI constituted by Standing Conference of Public Enterprise (SCOPE) actively participates in its meetings and discussions related to RTI matters organized by SCOPE. Quarterly RTI Returns for all the four quarters have been submitted to the Central Information Commission. During 2021-22, 806 applications and 88 appeals were received, and 732 applications and 72 appeals were disposed off.

1.14 Risks and Concerns

BHEL's business have exposure to various types of internal and external risks related to financial, operational, sectoral, ESG specific, and cyber security. Changing business environment, dynamic customer requirements, technology considerations, long duration of contracts, and timely on-site product support requirements in adverse conditions, are some risks specific to the working of BHEL.

Considering the pervasiveness of industry risks, diversity of the company's business portfolio and geographical locations of operations, BHEL has in place a robust Risk Management Policy. The process for risk identification is consciously guided by the Company's objectives, external environment, Industry reports as well as internal and external stakeholders, amongst others.

BHEL has in place a Board approved Risk Management Charter & Policy to implement a structured and comprehensive enterprise risk management system. The charter is intended to establish a common understanding, language and methodology for identifying, assessing, responding, monitoring and reporting risks and to provide assurance to the management that key risks are being properly identified and effectively managed in the company.

The Risk Management framework of BHEL has three tier Structure, with the Board of Directors (BoD), represented by Board Level Risk Management Committee (BLRMC) at the Apex Level, the Risk Management Steering Committee (RMSC) at Corporate Level and Unit Risk Management Committees (URMCs) at the Regions/ Units/ Business Sectors.

The 'Board Level Risk Management Committee' (BLRMC) is assigned the responsibility of reviewing the company's Risk Governance structure, Risk Assessment & Risk Management framework, Guidelines, Policies and Processes. The Board / BLRMC regularly reviews top risk areas.

Chief Risk Officer (CRO), the convener of BLRMC & RMSC is responsible for periodic reporting on risk management to Board/ BLRMC. Key risks faced by the company are analysed in detail by the Risk Management Steering Committee, which is responsible for adopting & implementing the risk management framework and leading the risk management initiative across the company.

RMSC revisits risk parameters & their measuring parameters to ensure their relevance and accordingly recommends amendment/ deletion/ addition to the same. In this year, RMSC recommended changes in the methodology of risk measurement for the risk statement of 'Technology Readiness' so as to closely evaluate and quantify the Company's readiness in meeting current/future market requirements enabling it to formulate strategies to effectively address the associated risk. The RMSC also reviewed and recommended the adoption of revised 'Risk Management Charter and Policy' incorporating changes in line with the SEBI LODR amendments dtd. 5 May 2021. The same has been finally adopted and is in-force.

Risk management committees at unit level analyse the risks concerned to their respective areas, prepare mitigation plans, ensure their implementation and also inform the top management, if required.

Top six key risks which the company faces and corresponding strategies for mitigation are mentioned in the table below:

Risk Statement	Mitigation Strategies
Excess domestic manufacturing capacities, Changes in business mix due to policy changes and Increasing Competition leading to lower Order Book	• Thrust on Strategic tie ups for venturing into new areas • Exploration of business opportunities in Emerging technologies viz. coal to chemical and hydrogen economy. • Cater to opportunities arising out of 'AatmaNirbhar Bharat', 'Make in India' missions and 'PLI Scheme' • Increasing non-coal based and spares business

Risk Statement	Mitigation Strategies
Delayed delivery of projects leading to LDs, penalties, customer dissatisfaction and impacting company image	• Focus on Project centric operations reviews by Senior Management. • Activities like engineering etc., to commence at pre-award stage for faster execution of projects. • Implementation of 'Integrated Project Management Software (IPMS)' in projects for faster execution. • Implementing concept of 'Project Director' for faster decision making to ensure timely execution of Projects. • Inclusion of 'Bonus clause' to encourage and incentivize contractor's performance.
Rising Debtors	• Constitution of Cross Functional Teams for improved efficacy of Cash realization from every element of debtors against Ongoing as well as Commissioned projects. • Vigorous monitoring of billing / cash collection process through separate focus on liquidation of old bills and current year bills. • Action against defaulting customers in line with the Trade Receivables policy of the company including Arbitration/ NCLT/ AMRCD proceedings.
Rising direct material cost affecting profitability	• Focused approach for cost reduction in the direction of design optimization, engineering excellence and judicious procurement right from customer ordering till execution stage. • Products of same generic type made in more than one-unit design /manufacturing practices are being unified & optimized. • Surplus material identification and its utilization at sites/units is being done through in-house developed online portal.
Non- availability of technology in core products to meet current/future market requirements may lead to loss of business	• Development and upgradation of technologies through in-house efforts. • Technology collaboration agreement with suitable partners • Pursuing for entering into MoUs for commercializing Coal to Chemical
Online data & information security breach leading to loss and critical information infrastructure breakdown	• All Internet traffic is monitored 24x7 through the Cyber SOC (Security Operations Center) integrated with the Global Threat Intelligence (GTI) database. • Integration of all the internet routers of BHEL with "Cyber Swachhta Kendra" (Botnet Cleaning and Malware Analysis Centre of CERT-In, MeitY) • Integration of Information Security Management System (ISMS) across all the ISO 27001 certified BHEL units. • Creating awareness among employees to sensitize them about phishing mail risks, Phishing simulation exercise is conducted at periodic intervals.

For and on behalf of the Board of Directors of

BHARAT HEAVY ELECTRICALS LTD.

Dr. Nalin Shinghal

Chairman & Managing Director

Place: New Delhi

Dated: 04.09.2022

Annexure-II to the Board's Report

Corporate Governance

2.1 Our Philosophy on Corporate Governance

BHEL functions within a sound Corporate Governance framework, which underlines its commitment to quality of governance, transparency in disclosures, consistent enhancement of stakeholders' value and corporate social responsibility. BHEL endeavours to transcend beyond the basic and regulatory requirements of corporate governance, focusing consistently on building confidence of its shareholders, customers, employees, suppliers and the society at large. BHEL's corporate governance framework rests upon the cornerstones of transparency, full disclosure, independent monitoring, and fairness to all, especially minority shareholders.

The following factors strengthen Corporate Governance in BHEL:

i. Independence and versatility of the Board
ii. Integrity and ethical behavior of all employees
iii. Recognition of obligations towards all stakeholders – shareholders, customers, employees, suppliers and the society
iv. High degree of disclosure and transparency levels
v. Full legal and regulatory compliance in all areas in which the Company operates
vi. Achievement of goals with compassion for people and environment

The Company believes in conducting its business in compliance with Corporate Governance procedures and Code of Conduct, exemplifies each of the core values, which positions BHEL to deliver long-term returns to the shareholders, favourable outcomes to the customers, attractive opportunities to the employees, opportunity to the suppliers to partner the Company in progress, and enrichment of society.

2.2 Board of Directors

i. Composition & Category of Directors

Pursuant to Section 2(45) of the Companies Act, 2013, BHEL is a 'Government Company' as 63.17% of the total paid-up share capital of the Company is held by the Central Government through the President of India.

The composition of Board of Directors of BHEL has an appropriate mix of Executive Directors represented by Functional Directors including CMD and Non-Executive Directors represented by Government Nominees & Independent Directors, to maintain independence of the Board and to separate the Board functions of management and control.

The composition of the Board of Directors as on March 31, 2022 is as follows:

Category of Directors	Board Structure	Actual Strength as on March 31, 2022
Chairman & Managing Director	1	1
Whole-time Executive (Functional) Directors	5	3
Part-time Official Directors (Government Nominees) representing the Ministry of Heavy Industries, Government of India	2	2
Part-time Non-official (Independent) Directors	8	6
TOTAL	**16**	**12**

As on March 31, 2022, there exists two vacancies of Part-time Non-official (Independent) Directors and two vacancies of Whole-time Executive (Functional) Directors i.e. Director (E, R&D) and Director (HR), on the Board of BHEL. The matter of filling up of these vacancies is under consideration of Government of India.

ii. Attendance of each Director at the Board Meetings held during 2021-22 and the last AGM

Director's Name S/ Shri	No. of Board Meetings		Last AGM (held on 23.09.2021)
	Held	Attended	
Executive Directors			
Dr. Nalin Shinghal, Chairman & Managing Director[@]	11	11	Yes
Subodh Gupta, Director (Finance)[#]	11	11	Yes
Kamalesh Das, Director (E, R&D) (upto July 31, 2021)	4	4	*
Anil Kapoor, Director (HR)[$] (upto January 31, 2022)	9	9	Yes
Ms. Renuka Gera, Director (IS&P)[©]	11	11	Yes
Upinder Singh Matharu, Director (Power) (w.e.f. March 21, 2022)	0	0	*

Part-Time Official Directors – Govt. Nominees			
Shashank Priya, Special Secretary & Financial Adviser, Ministry of Commerce & Industry	11	10	Yes
Amit Mehta, Joint Secretary, Ministry of Heavy Industries (upto June 18, 2021)	2	2	*
Jeetendra Singh, Joint Secretary, Ministry of Heavy Industries (w.e.f. June 18, 2021 upto March 25, 2022)	9	7	No
Vijay Mittal, Joint Secretary, Ministry of Heavy Industries (w.e.f. March 25, 2022)	0	0	*
Part-Time Non-Official (Independent) Directors			
Rajesh Sharma (upto February 13, 2022)	9	9	Yes
Raj Kamal Bindal	11	11	Yes
Manish Kapoor	11	11	Yes
Dr. Raj K. Agarwal (w.e.f. November 9, 2021)	4	4	*
Dr. K. Sivaprasad (w.e.f. November 9, 2021)	4	4	*
Dr. Lekhasri Samantsinghar (w.e.f. November 9, 2021)	4	4	*
Aditya Prasad Sahu (w.e.f. December 29, 2021)	3	3	*

@Held additional charge of Director (HR) w.e.f. February 1, 2022.

#Held additional charge of Director (Power) w.e.f. February 1, 2022 upto March 20, 2022.

$ Held additional charge of Director (Power) upto January 31, 2022.

©Held additional charge of Director (E, R&D) w.e.f. August 1, 2021.

* denotes the respective person was not a Director of BHEL as on last AGM date

A. Details of Directorships, Committee Memberships and Committee Chairmanship in other companies as on March 31, 2022#

Director's Name S/ Shri	Details of Directorships in other Companies	Details of Committee Memberships and Committee Chairmanship in other Companies*
Dr. Nalin Shinghal, Chairman & Managing Director	Heavy Engineering Corporation Pvt. Ltd.	-NIL-
Subodh Gupta, Director (Finance)	1. Raichur Power Corporation Ltd. 2. BHEL-GE Gas Turbine Services Pvt. Ltd.	-NIL-
Ms. Renuka Gera, Director (IS&P)	-NIL-	-NIL-
Upinder Singh Matharu, Director (Power)	-NIL-	-NIL-
Shashank Priya, Part-time Official Director	1. The State Trading Corporation of India Ltd. 2. MMTC Ltd. 3. India International Convention & Exhibition Centre Ltd. 4. India Trade Promotion Organization 5. Invest India 6. H.M.T. Ltd.	**Audit Committee:** 1. MMTC Ltd. (Member) 2. India Trade Promotion Organization (Member)
Vijay Mittal, Part-time Official Director	1. H.M.T. (International) Ltd. 2. H.M.T. Ltd. 3. HMT Machine Tools Ltd. 4. Heavy Engineering Corporation Pvt. Ltd. 5. Andrew Yule & Co. Ltd.	**Audit Committee:** H.M.T. Ltd. (Member)

Raj Kamal Bindal, Independent Director	1. Avika Consulting Pvt. Ltd. 2. Namah Shivay Ventures Pvt. Ltd. 3. Raj Kamal Bindal Foundation	-NIL-
Manish Kapoor, Independent Director	Genext Lifecare Pvt. Ltd.	-NIL-
Dr. Raj K. Agarwal, Independent Director	1. Agrima Infra Projects Pvt. Ltd. 2. Aspiring IT Solutions Pvt. Ltd. 3. Corporate Professionals Capital Pvt. Ltd. 4. Corporate Professionals Infrastructure Pvt. Ltd. 5. RRA Foundation 6. RRA Mutual Benefit Fund Ltd. 7. Third Wave Stock Brokers Pvt. Ltd.	-NIL-
Dr. K. Sivaprasad, Independent Director	-NIL-	-NIL-
Dr. Lekhasri Samantsinghar, Independent Director	-NIL-	-NIL-
Aditya Prasad Sahu, Independent Director	Chinnamastika Infra Realty Pvt. Ltd.	-NIL-

** Only Chairmanship/ Membership of the Audit Committee and Stakeholders Relationship Committee has been considered.*

#The Directorships/ Committee Memberships in other companies are based on the latest disclosure received from respective Directors on the Board.

No Director of the Company holds office at the same time as Director in more than twenty (20) companies. No Director of the Company is a member in more than ten (10) Committees or acts as Chairperson of more than five (5) Committees across all listed companies in which he/she is a Director.

Disclosure of relationship between Directors inter-se: NIL

B. Details of Directorships in Listed Entities & Category of Directorship

As on March 31, 2022, the following Directors held Directorship in listed entities, as under:

Director's Name S/Shri	Name of Listed Entity	Category of Directorship
Shashank Priya, Part-time Official Director	1. The State Trading Corporation of India Ltd. 2. MMTC Ltd. 3. H.M.T. Ltd.	Government Nominee Director
Vijay Mittal, Part-time Official Director	1. H.M.T. Ltd. 2. Andrew Yule & Co. Ltd.	Government Nominee Director

iii. No. of Board Meetings held, dates on which held

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 the Chairman & Managing Director, sends a written notice of each Board meeting to each Director.

The members of the Board have access to all information of the Company and are free to recommend inclusion of any matter for discussion in agenda which is usually sent in advance. The senior management is invited to attend the Board Meetings to provide additional inputs relating to the items being discussed and/ or to give presentation to the Board, as per requirement. The Board meets at least once in a quarter to review the quarterly results and other items on the agenda. Additional meetings are held, whenever necessary.

During the year under review, the Board met eleven times on the following dates:

(i) May 28, 2021	(ii) June 11, 2021	(iii) July 5, 2021
(iv) July 30, 2021	(v) September 3, 2021	(vi) October 27, 2021
(vii) November 9, 2021	(viii) November 15, 2021	(ix) January 27, 2022
(x) March 17, 2022	(xi) March 21, 2022	

The Board minutes are prepared promptly after every Board meeting and circulated to all Directors for their comments, if any, and approved by the Chairman thereafter. The approved minutes are then circulated to the departments/ groups concerned for initiating appropriate action and implementation.

iv. List of core skills/ expertise/ competence

As BHEL is a Government Company, all Directors on its Board viz., Functional Directors, Government Nominee Directors and Independent Directors are selected and appointed by the Government as per a well laid down process for each category

of directors. The requirements of core skills, expertise and competence for the Board to function effectively, in context of business segment BHEL operates in, forms an integral part of the government's process of selection of these directors. Therefore, the Board of BHEL by itself does not identify any such core skills or competence required for the job as well as identification of directors for particular skill/ expertise/ competence.

v. Board's 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 the stakeholders.

vi. Independent Directors

Independent Directors play an important role in deliberations at the Board and Committee meetings and bring to the Company their expertise in the fields of engineering, finance, management, law, public policy etc.

The Independent Directors are part of important Committees constituted by the Board such as the Audit Committee, Nomination & Remuneration Committee, Stakeholders Relationship Committee and CSR Committee. In terms of Companies Act, 2013 and Listing Regulations, the Audit Committee and the Nomination & Remuneration Committee are chaired by an Independent Director and function within their respective defined terms of references.

Further, in line with DPE OM dated December 28, 2012 on Model Role & Responsibilities of Non-Official Directors for CPSEs, the Board had constituted a Committee of Independent Directors. The said Committee is in compliance with the requirements of Listing Regulations and the Code of Independent Directors under Companies Act, 2013.

Details regarding familiarization programme of Independent Directors are available on the website of the Company www.bhel.com at web link https://www.bhel.com/familiarization-programme-directors under the heading 'Familiarization Programme for Directors'.

In the opinion of the Board, the Independent Directors fulfill the conditions specified in the Listing Regulations and are independent of the Management.

vii. Information placed before the Board of Directors

The agenda placed before the Board *interalia* includes the following:-

- Annual operating plans and budgets and any updates.
- Capital budgets and any updates.
- Significant Capital Investment proposals.
- Short term investment of surplus funds.
- Sale of investments, subsidiaries and assets which are material in nature and not in normal course of business.
- Changes in significant accounting policies & practices and reasons for the same.
- Quarterly results for the Company and its operating divisions or business segments.
- Quarterly details of foreign exchange exposures and the steps taken by management to limit the issues of adverse exchange rate movement, if material.
- Quarterly report on compliance of various laws.
- Status of Arbitration cases and major legal disputes.
- Minutes of meetings of Audit Committee and other Committees of the Board.
- The information on recruitment of senior officers just below the Board level.
- Details of any Joint Venture or R&D project or technical collaboration agreement requiring approval of Board of Directors.
- Significant labour problems and their proposed solutions.
- Any significant development in Human Resources/ Industrial Relations front like signing of wage agreement, implementation of Voluntary Retirement Scheme etc.
- Action Taken Report on matters desired by the Board.
- Any contract(s) in which Director(s) are deemed to be interested.
- Disclosure of Interest by Directors about directorships and Committee positions occupied by them in other companies.
- Any other matters required to be presented to the Board either for information or approval under Listing Regulations, DPE guidelines and Secretarial Standard-1 on Meetings of the Board of Directors etc.

The Board has constituted various Committees to facilitate the smooth and efficient flow of decision making process. The minutes of all Board level committees are circulated and discussed in the Board meetings. There was no instance where the Board had not accepted any recommendation of any Committee of the Board which is mandatorily required, during the year under review.

viii. Selection of New Directors

As per Articles of Association of BHEL, the President of India through the Ministry of Heavy Industries, appoints the Chairman & Managing Director and Functional Directors on the Board of BHEL. Two Part-time Official Directors are nominated by the Administrative Ministry on the Board of BHEL. The President of India also appoints Part-time Non-official (Independent) Directors on the Board of BHEL.

The Independent Directors are selected by the Ministry of Heavy Industries in consultation with the Search Committee of the Department of Public Enterprises which maintains a panel of eminent personalities having wide experience in the field of Management, Finance, Engineering, Administration, Industry etc.

ix. Membership Term & Retirement Policy

The appointment of Chairman & Managing Director and Functional Directors is made for a period of five years from the date of their assumption of charge of the post, or till the date of their superannuation or until further orders, whichever is the earliest. The Part-time Official Directors continue to be on the Board of BHEL at the discretion of the Government of India. The tenure of Part-time Non-official (Independent) Directors is decided by the Administrative Ministry. Normally,

an Independent Director is appointed for a period of three years.

x. Code of Conduct

BHEL has in place a Board approved 'Code of Business Conduct and Ethics for Board Members and Senior Management Personnel' in line with Clause 49 of the erstwhile Listing Agreement since 2005. The Code is revised from time to time in line with changes in the regulatory framework including changes in the Listing Agreement & business dynamics and to incorporate other relevant provisions to strengthen the Code. The extant Code is also in compliance with the Listing Regulations, as amended.

The Code encompasses:

- General Moral Imperatives;
- Specific Professional Responsibilities; and
- Specific Additional Provisions for Board Members and Senior Management Personnel.

A copy of the Code has been placed on the Company's website www.bhel.com.

xi. Charter of the Board of Directors

For the purpose of clearly defining the roles and responsibilities of the Board and individual Directors, the Board has laid down a Charter of the Board of Directors. The Charter also articulates BHEL corporate governance objectives and approach.

In line with the DPE guidelines, listing agreement and with the objective of providing the Directors a) insight into guidelines and procedures for successful discharge of their statutory duties, b) better understanding of the business environment to envision the future and develop strategies and c) need based training to meet the specific requirements of the board members, BHEL Board has approved a policy for Training of Directors. It covers both general and specific trainings more tuned towards Company specific areas.

xii. Certificate by Company Secretary in Practice

The Company has received a certificate from a company secretary in practice that none of the Directors on the Board of the Company have been debarred or disqualified from being appointed or continuing as Director of the Company by SEBI/ Ministry of Corporate Affairs or any such statutory authority. The same is enclosed.

xiii. CEO/ CFO certification

CEO / CFO certification pursuant to Listing Regulations is enclosed at **Annexure-III** of the Board's Report.

2.3 Board Level Audit Committee

i. Terms of Reference

The terms of reference of the Board Level Audit Committee specified by the Board are in conformity with the requirements of Section 177 of the Companies Act, 2013 as well as Listing Regulations. In line with the amendment to the terms of reference of the Audit Committee in the Listing Regulations, the terms of reference of the Board Level Audit Committee were revised by the Board w.e.f. May 5, 2021 as under:

1. Oversight 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. Recommendation for appointment, remuneration and terms of appointment of auditors of the company;
3. Approval of payment to statutory auditors for any other services rendered by the statutory auditors;
4. Reviewing, with the management, the annual financial statements and auditor's report thereon before submission to the board for approval, with particular reference to:
    i. Matters required to be included in the Director's Responsibility Statement to be included in the Board's report in terms of clause (c) of sub-section 3 of section 134 of the Companies Act, 2013;
    ii. Changes, if any, in accounting policies and practices and reasons for the same;
    iii. Major accounting entries involving estimates based on the exercise of judgment by management;
    iv. Significant adjustments made in the financial statements arising out of audit findings;
    v. Compliance with listing and other legal requirements relating to financial statements;
    vi. Disclosure of any related party transactions;
    vii. Qualifications in the draft audit report;
5. Reviewing, with the management, the quarterly financial statements and auditor's report thereon before submission to the board for approval;
6. Reviewing, with the management, the statement of uses/ application of funds raised through an issue (public issue, rights issue, preferential issue, etc.), the statement of funds utilized for purposes other than those stated in the offer document/ prospectus/ notice and the report submitted by the monitoring agency monitoring the utilization of proceeds of a public or rights issue and making appropriate recommendations to the Board to take up steps in this matter;
7. Review and monitor the auditor's independence and performance, and effectiveness of audit process;
8. Approval or any subsequent modification of transactions of the company with related parties;
9. Scrutiny of inter-corporate loans and investments;
10. Reviewing the utilization of loans and/ or advances from/ investment by the holding company in the subsidiary exceeding rupees 100 crore or 10% of the asset size of the subsidiary, whichever is lower including existing loans/ advances/ investments existing as on the date of coming into force of this provision;
11. Valuation of undertakings or assets of the company, wherever it is necessary;
12. Evaluation of internal financial controls and risk management systems;

13. Reviewing, with the management, performance of statutory and internal auditors, adequacy of the internal control systems;
14. Reviewing the adequacy of internal audit function, if any, 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;
15. Discussion with internal auditors of any significant findings and follow up there on;
16. 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;
17. Discussion with statutory auditors before the audit commences, about the nature and scope of audit as well as post-audit discussion to ascertain any area of concern;
18. 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;
19. To review the functioning of the Whistle Blower/ Vigil mechanism;
20. To review the Audit paras referred to BLAC by the Internal Audit / Board and / or Govt. of India and to provide its suggestions / guidance / comments on the issues referred to it;
21. Discussion with Statutory Auditors/ Internal Auditors periodically about internal control systems;
22. To consider and comment on rationale, cost-benefits and impact of schemes involving merger, demerger, amalgamation etc., on the listed entity and its shareholders;
23. To seek professional advice from external sources in appropriate cases, wherever required;
24. The Audit Committee shall also review the following information:
    i. Management discussion and analysis of financial condition and results of operations;
    ii. Statement of significant related party transactions;
    iii. Management letters / letters of internal control weaknesses issued by the statutory auditors; and
    iv. Internal audit reports relating to internal control weaknesses;
25. Carrying out any other function related to the terms of reference of the Audit Committee as prescribed under the Companies Act, SEBI Regulations and other statutory regulations.

ii. Composition of Committee, name of Members & Chairperson

The composition of the Audit Committee is in compliance with Listing Regulations and Companies Act, 2013. The Audit Committee is chaired by an Independent Director. The member Directors comprise of professionals of repute and standing with background in commerce, finance, administration and governance.

The Audit Committee was last reconstituted w.e.f. February 14, 2022. The composition of the Audit Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Rajesh Sharma, Independent Director (upto February 13, 2022)	Chairperson	6	6
Manish Kapoor, Independent Director	Chairperson (w.e.f. February 14, 2022)	1	1
	Member (upto February 13, 2022)	6	6
Shashank Priya, SS & FA, M/o Commerce & Industry, Part-time Official Director	Member	7	7
Raj Kamal Bindal, Independent Director	Member	7	7
Dr. Raj K. Agarwal, Independent Director	Member (w.e.f. December 20, 2021)	2	2
Dr. K. Sivaprasad, Independent Director	Member (w.e.f. December 20, 2021)	2	2

Director (Finance) and Director (E, R&D) are permanent invitees. Company Secretary acts as Secretary to the Committee.

Head of Internal Audit and a representative of the Statutory Auditor may be present as invitees for the meetings of the Audit Committee. The Auditors of the Company and the Key Managerial Personnel shall have a right to be heard in the meetings of the Audit Committee when it considers the Auditor's Report but shall not have the right to vote.

iii. Meetings and Attendance

The Audit Committee met seven times on April 30, 2021, June

11, 2021, July 23, 2021, July 30, 2021, November 9, 2021, January 27, 2022 and March 17, 2022 during the year under review. The details of attendance of each member is given in the above table.

2.4 Nomination and Remuneration Committee

i. Remuneration Policy

BHEL being a Public Sector Undertaking, the appointment and remuneration of Chairman & Managing Director/ Functional Directors are decided by the Government of India. The terms of appointment of Chairman & Managing Director/ Directors, as approved by the President of India, provide for fixation of certain perks and benefits, as per rules of BHEL. The part-time non-executive directors are not paid any remuneration except sitting fees to Independent Directors for attending meetings of the Board or Committee thereof.

ii. Terms of Reference

In line with the requirements of Section 178 of the Companies Act, 2013 and Clause 49 of the erstwhile Listing Agreement (now Listing Regulations), the Board constituted the Nomination & Remuneration Committee (NRC) w.e.f. March 30, 2015. The terms of reference of the Committee are in line with the requirements of Section 178 of the Companies Act, 2013 as well as the Listing Regulations and are as under:

1. To identify persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down and recommend to the Board for their appointment and removal and shall specify the manner for effective evaluation of performance of Board, its committees and individual directors to be carried out either by the Board, by the Nomination and Remuneration Committee or by an independent external agency and review its implementation and compliance;
2. To formulate the criteria for determining qualifications, positive attributes and independence of a director and recommend to the Board a policy, relating to the remuneration of the directors, key managerial personnel and other employees in compliance with the provisions of Act/ Listing Regulations/ DPE guidelines;
3. Formulation of criteria for evaluation of Independent Directors and the Board;
4. Devising a policy on Board diversity;
5. To recommend to the Board, nomination of BHEL officials in the Boards of its subsidiaries and other government organizations which are required to be approved by the Board of BHEL before further submission to MHI;
6. Oversight of the company's policy on specific remuneration packages, perquisites for Whole-time Directors including pension rights and any compensation payment, which are not fixed by the President of India;
7. Approve certain perquisites for Whole-time Directors which are within the powers of Board. Review of the elements of remuneration package of individual directors summarized under major groups, such as incentives/ benefits, bonus, stock options, pension etc.;
8. Finalization of policies on perks and benefits and other related matters which are not fixed by the President of India but within the powers of Board;
9. Approval of fixed component and performance linked incentives based on the performance criteria;
10. Finalization of the criteria of making payments to Non-Executive Directors;
11. Recommendation of fees/ compensation/ stock options, if any, to be paid/ granted, to non-executive directors, including independent directors, to the Board of Directors/ Shareholders;
12. Recommendation to the board, all remuneration, in whatever form, payable to senior management;
13. To decide the bonus/ variable pay pool and policy for its distribution across the executives and non-unionized supervisors;
14. Carrying out any other function related to the terms of reference of the NRC as prescribed under the Companies Act, SEBI Regulations and other statutory regulations.

MCA vide Notification dated June 5, 2015 provided that Section 178 (2), (3) & (4) of the Companies Act, 2013 with regard to performance evaluation of Directors shall not apply to Government Company.

iii. Composition of Committee, name of Members & Chairperson

The Nomination & Remuneration Committee was last reconstituted w.e.f. March 25, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Rajesh Sharma, Independent Director (upto February 13, 2022)	Chairperson	1	1
Manish Kapoor, Independent Director	Chairperson (w.e.f. February 14, 2022)	0	0
	Member (upto February 13, 2022)	1	1
Amit Mehta, JS, MHI, Part-time Official Director (upto June 18, 2021)	Member	0	0
Jeetendra Singh, JS, MHI, Part-time Official Director (upto March 25, 2022)	Member (w.e.f. June 18, 2021)	1	0

Name of the Director S/Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Vijay Mittal, JS, MHI, Part-time Official Director	Member (w.e.f. March 25, 2022)	0	0
Dr. Lekhasri Samantsinghar, Independent Director	Member (w.e.f. December 20, 2021)	1	1
Aditya Prasad Sahu, Independent Director	Member (w.e.f. February 14, 2022)	0	0

Head (HR), Corporate Office is permanent invitee. Company Secretary acts as Secretary to the Committee.

iv. Meetings and Attendance

The Nomination & Remuneration Committee met once on February 12, 2022 during the year under review. The details of attendance of each member is given in the above table.

v. Details of remuneration of Functional Directors during the year 2021-22 are given below:

(in ₹)

Sl. No.	Name of the Director S/ Shri	Salary	Benefits	Other Benefits	Performance Linked Incentives	Total	Service Contract/ Notice Period Severance Fee
1.	Dr. Nalin Shinghal	55,30,908	7,57,345	39,600	-	63,27,853	----
2.	Subodh Gupta	44,54,611	6,97,951	3,33,050	-	54,85,612	Liable to retire by rotation
3.	Kamalesh Das (upto July 31, 2021)	40,88,765	2,65,087	7,43,028	-	50,96,880	----
4.	Anil Kapoor (upto January 31, 2022)	61,78,389	5,84,558	6,20,184	-	73,83,131	----
5.	Ms. Renuka Gera	45,11,548	7,06,073	6,47,940	-	58,65,561	Liable to retire by rotation
6.	Upinder Singh Matharu (w.e.f. March 21, 2022)	4,15,392	21,406	23,069	-	4,59,867	Liable to retire by rotation

vi. Details of payments made to Independent Directors during the year 2021-22 are given below: -

(in ₹)

Name of the Independent Director	Sitting Fees		Total
	Board Meeting	Committee Meeting	
Shri Rajesh Sharma	2,70,000/-	2,80,000/-	5,50,000/-
Shri Raj Kamal Bindal	3,30,000/-	3,20,000/-	6,50,000/-
Shri Manish Kapoor	3,30,000/-	3,00,000/-	6,30,000/-
Dr. Raj K. Agarwal	1,20,000/-	60,000/-	1,80,000/-
Dr. K. Sivaprasad	1,20,000/-	1,00,000/-	2,20,000/-
Dr. Lekhasri Samantsinghar	1,20,000/-	60,000/-	1,80,000/-
Shri Aditya Prasad Sahu	90,000/-	20,000/-	1,10,000/-

During FY 2021-22, Independent Directors were entitled for sitting fee @ ₹ 30,000/- per Board Meeting and ₹ 20,000/- per Board Level Committee Meeting attended by them. Independent Directors are not entitled to Stock Option.

vii. Equity Shares held by Directors

Except as stated hereunder, none of the Directors hold any Equity Shares in BHEL (as on March 31, 2022):

Name of the Director	No. of shares held
Dr. Nalin Shinghal (jointly with spouse)	100

The Company has not issued any stock options during the year 2021-22.

2.5 Shareholders Committees

2.5.1 Stakeholders Relationship Committee

i. Terms of Reference

The Board of Directors on May 12, 2014 reconstituted the Shareholders'/ Investors' Grievance Committee as the Stakeholders Relationship Committee (SRC), in line with the requirements of Companies Act, 2013 and erstwhile Listing Agreement (now Listing Regulations). The terms of reference of the Committee are in line with the requirements of Section 178 of the Companies Act, 2013 as well as the Listing Regulations and are as under:

1. Resolution of the grievances of the security holders of the Company including complaints related to transfer/ transmission of shares, non-receipt of annual report, non-receipt of declared dividends, issue of new/ duplicate certificates, general meetings etc.;
2. Reviewing measures taken for effective exercise of voting rights by shareholders;
3. Reviewing adherence to the service standards adopted by the Company in respect of various services being rendered by the Registrar & Share Transfer Agent;
4. Reviewing the various measures and initiatives taken by the Company for reducing the quantum of unclaimed

dividends and ensuring timely receipt of dividend warrants/ annual reports/ statutory notices by the shareholders of the company;

5. To look into various aspects of interest of shareholders, debenture holders and other security holders;
6. Carrying out any other function related to the terms of reference of the Committee as prescribed under the Companies Act, SEBI Regulations and other statutory regulations.

ii. Composition of Committee, name of Members & Chairperson

The Stakeholders Relationship Committee was last reconstituted w.e.f. February 14, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Manish Kapoor, Independent Director	Chairperson	4	4
Shashank Priya, SS & FA, M/o Commerce & Industry, Part-time Official Director	Member	4	3
Dr. K. Sivaprasad, Independent Director	Member (w.e.f. December 20, 2021)	1	1
Director (Finance)	Member	4	4
Director (HR)	Member (upto February 13, 2022)	3	3
Director (IS&P)	Member (w.e.f. February 14, 2022)	1	1

Chief Investor Relationship Officer (CIRO) is permanent invitee. Company Secretary acts as Secretary to the Committee.

Shri Rajeev Kalra, Company Secretary is the Compliance Officer in terms of the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015.

iii. Meetings and Attendance

The Committee met four times on April 30, 2021, July 17, 2021, November 8, 2021 and March 17, 2022 during the year under review. The details of attendance of each member is given in the above table.

Detail of shareholders' complaints

As reported by Alankit Assignments Limited (RTA), 37 complaints were received from the shareholders during the year under review and all complaints were redressed up to March 31, 2022. No complaint was pending at the end of the period under report.

2.5.2 Share Transfer Committee

The Share Transfer Committee was constituted by the Board of Directors on March 25, 1992. Subsequently, the Board of Directors revised the terms of reference of the Committee w.e.f. August 1, 2014. The Share Transfer Committee considers and approves share related issues pertaining to transposition, sub-division, consolidation, issue of duplicate share certificate etc. in physical mode. The Share Transfer Committee was last reconstituted w.e.f. February 6, 2021 with Director (Finance) as Chairperson along with Director (E, R&D) and Director (IS&P) as Members.

Meetings during 2021-22

The Share Transfer Committee met six times during the year. The minutes of the Share Transfer Committee meetings are periodically placed before the Board of Directors.

2.6 Board Level Committee for Corporate Social Responsibility

i. Terms of Reference

Pursuant to the DPE Guidelines on Corporate Social Responsibility for CPSEs, the Board constituted the Board Level Apex Committee for CSR on November 25, 2010 for proper & periodic monitoring of CSR activities. The Committee is presently christened as the Board Level Committee for Corporate Social Responsibility. In line with Section 135 of the Companies Act, 2013, the terms of reference of the Committee are as under:

1. Formulation and recommendation to the Board the Corporate Social Responsibility Policy which shall indicate the activities to be undertaken by the Company in areas or subject, specified in Schedule VII to the Companies Act, 2013;
2. Recommendation of the Projects, Programs and amount of expenditure to be incurred on the activities referred to in clause (1);
3. Monitoring the Corporate Social Responsibility activities of the Company from time to time;
4. Ensuring compliance with guidelines on Corporate Social Responsibility and Sustainable Development issued by the Government of India from time to time.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted w.e.f. February 14, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Manish Kapoor, Independent Director	Chairperson	2	2
Rajesh Sharma, Independent Director (upto February 13, 2022)	Member	2	2
Dr. K. Sivaprasad, Independent Director	Member (w.e.f. December 12, 2021)	1	1
Aditya Prasad Sahu, Independent Director	Member (w.e.f. February 14, 2022)	0	0
Director (Finance)	Member	2	2
Director (HR)	Member (upto February 13, 2022)	2	2

Head (CSR), Corporate Office is permanent invitee. Company Secretary acts as Secretary to the Committee.

iii. Meetings and Attendance

The Committee met two times on July 17, 2021 and January 27, 2022 during the year under review. The details of attendance of each member is given in the above table.

2.7 HR Committee

i. Terms of Reference

The Board constituted the HR Committee on May 31, 2006 specifically to look into the following matters:

a. Review of present policies with respect to promotion and reward/ incentive to the Executives.

b. Suggest both short term and long term changes in the policies to prepare BHEL for the changed/ emerging business environment.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted w.e.f. February 14, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position
Raj Kamal Bindal, Independent Director	Chairperson
Director (HR)	Member (upto February 13, 2022)
Director (IS&P)	Member
Director (E,R&D)	Member (w.e.f. February 14, 2022)

Head (HR), Corporate Office is permanent invitee. Company Secretary acts as Secretary to the Committee.

iii. Meetings and Attendance

No meeting of the HR Committee took place during the year.

2.8 Committee of Independent Directors

i. Terms of Reference

The Board, in line with DPE OM dated December 28, 2012 on Model Role & Responsibilities of Non-Official Directors for CPSEs, constituted a Committee of Independent Directors, which is also in compliance with the requirements of Schedule IV of the Companies Act, 2013 and Listing Regulations.

ii. Composition of Committee, name of Members & Chairperson

The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Rajesh Sharma (upto February 13, 2022)	Chairperson & Lead Independent Director	1	1
Raj Kamal Bindal	Chairperson & Lead Independent Director (w.e.f. February 14, 2022)	0	0
	Member (upto February 13, 2022)	1	1
Manish Kapoor	Member	1	1

Dr. Raj K. Agarwal (w.e.f. November 9, 2021)	Member	1	1
Dr. K. Sivaprasad (w.e.f. November 9, 2021)	Member	1	1
Dr. Lekhasri Samantsinghar (w.e.f. November 9, 2021)	Member	1	1
Aditya Prasad Sahu (w.e.f. December 29, 2021)	Member	1	1

iii. Meetings and Attendance

The Committee met one time on February 12, 2022 during the year under review. The details of attendance of each member is given in the above table.

2.9 Board Level Risk Management Committee

i. Terms of Reference

In line with erstwhile Listing Agreement (now Listing Regulations), the Board of Directors on November 14, 2014 constituted the Board Level Risk Management Committee. In line with the amendment to the terms of reference of the Risk Management Committee in the Listing Regulations, the terms of reference of the Board Level Risk Management Committee were revised by the Board w.e.f. May 5, 2021 as under:

1. To formulate a detailed risk management policy which shall include (a) A framework for identification of internal and external risks specifically faced by the listed entity, in particular including financial, operational, sectoral, sustainability (particularly, ESG related risks), information, cyber security risks or any other risk as may be determined by the Committee,(b) Measures for risk mitigation including systems and processes for internal control of identified risks, (c) Business continuity plan;
2. To ensure that appropriate methodology, processes and systems are in place to monitor and evaluate risks associated with the business of the Company;
3. To monitor and oversee implementation of the risk management policy, including evaluating the adequacy of risk management systems;
4. To periodically review the risk management policy, at least once in two years, including by considering the changing industry dynamics and evolving complexity;
5. To keep the board of directors informed about the nature and content of its discussions, recommendations and actions to be taken;
6. The appointment, removal and terms of remuneration of the Chief Risk Officer (if any) shall be subject to review by the Risk Management Committee;
7. To seek information from any employees, obtain outside legal or other professional advice and secure attendance of outsiders with relevant expertise, if it considers necessary;
8. To coordinate its activities with other committees, in instances where there is any overlap with activities of such committees, as per the framework laid down by the Board of Directors;
9. Carrying out any other function related to the terms of reference of the Committee as prescribed under the Companies Act, SEBI Regulations and other statutory regulations.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted on February 14, 2022. The composition of the Committee during the year comprised of the following members:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Shashank Priya, SS & FA, M/o Commerce & Industry, Part-time Official Director	Chairperson	2	2
Raj Kamal Bindal, Independent Director	Member	2	2
Dr. Raj K. Agarwal, Independent Director	Member (w.e.f. December 20, 2021)	0	0
Director (Finance)	Member	2	2
Director (HR)*	Member (w.e.f. December 20, 2021 upto February 13, 2022)	2	2
Director (IS&P)	Member	2	2
Director (Power)*	Member	2	2
Director (E, R&D)	Member (w.e.f. December 20, 2021)	0	0
Chairman, Risk Management Steering Committee	Member	2	2
Chief Risk Officer	Member & Convener	2	2

* During these meetings, Director (HR) was holding additional charge of the post of Director (Power).

iii. Meetings and Attendance

The Committee met two times on June 15, 2021 and November 8, 2021 during the year under review. The details of attendance of each member is given in the above table.

2.10 Board Level Project Review Committee

i. Terms of Reference

The Board of Directors in its meeting held on August 9, 2019 approved the revival of the Board Level Project Review Committee with the following revised terms of reference:

(i) The Committee shall review the status of all projects with contract value of ₹ 500 Crore and above;

(ii) The Committee shall review the periodical status of the debtors;

(iii) The Committee may invite such executives, as it considers appropriate to be present at the meetings of the Committee.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted on March 25, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Amit Mehta, JS, MHI, Part-time Official Director (upto June 18, 2021)	Chairperson	1	0
Jeetendra Singh, JS, MHI, Part-time Official Director (upto March 25, 2022	Chairperson (w.e.f. June 18, 2021)	1	1
Vijay Mittal, JS, MHI, Part-time Official Director	Chairperson (w.e.f. March 25, 2022)	0	0
Raj Kamal Bindal, Independent Director	Member*	2	2
Dr. Raj K. Agarwal, Independent Director	Member (w.e.f. December 20, 2021)	0	0
Dr. Lekhasri Samantsinghar, Independent Director	Member (w.e.f. December 20, 2021)	0	0
Director (Finance)	Member (upto December 20, 2021)	2	2
Director (Power)	Member	2	2
Director (IS&P)	Member	2	2

*Shri Raj Kamal Bindal was elected as Chairperson of the Meeting held on April 20, 2021.

Head (PS-PMG) & GM (Receivable Management) are Convener of the Committee for the respective agenda. Director (Finance) is invitee to the meetings of the Committee. Heads of respective Business Sectors shall be invited as and when required. Company Secretary shall act as Secretary to the Committee.

iii. Meetings and Attendance

The Committee met two times on April 20, 2021 and December 18, 2021 during the year under review. The details of attendance of each member is given in the above table.

2.11 Committee on Arbitration & Major Legal Disputes and Alternative Dispute Resolution

i. Terms of Reference

The terms of reference of the Committee is to review the arbitration cases as well as major legal disputes and thereafter apprise the Board accordingly and to act as the Competent Authority for accepting/ rejecting the draft settlement agreement under the BHEL Conciliation Scheme, 2018.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted w.e.f. March 25, 2022. The composition of the Committee during the year comprised of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Raj Kamal Bindal, Independent Director	Chairperson	4	4
Amit Mehta, JS, MHI, Part-time Official Director (upto June 18, 2021)	Member	1	1
Jeetendra Singh, JS, MHI, Part-time Official Director (upto March 25, 2022)	Member (w.e.f. June 18, 2021)	3	3
Vijay Mittal, JS, MHI, Part-time Official Director	Member (w.e.f. March 25, 2022)	0	0

Rajesh Sharma, Independent Director (upto February 13, 2022)	Member	4	4
Dr. Lekhasri Samantsinghar, Independent Director	Member (w.e.f. December 20, 2021)	1	1
Aditya Prasad Sahu	Member (w.e.f. February 14, 2022)	0	0
Director (Power)#	Member	4	4
Director (E,R&D)*	Member	4	3
Director (HR)#	Member (upto February 13, 2022)	4	4
Director (IS&P)*	Member (w.e.f. December 20, 2021)	1	1

During the meetings, Director (HR) was holding additional charge of the post of Director (Power).

* During the meetings held on November 8, 2021 and January 27, 2022, Director (IS&P) was holding additional charge of the post of Director (E, R&D).

Head-Law, Corporate Office is convener of the Committee and furnishes the required information for review by the Committee. Head (HR), Corporate Office is permanent invitee.

iii. Meetings and Attendance

The Committee met four times on April 30, 2021, July 17, 2021, November 8, 2021 and January 27, 2022 during the year under review. The details of attendance of each member is given in the above table.

2.12 General Meetings

i. Location and time of last three AGMs:

Year	Location	Date	Time
FY 2018-19 (55thAGM)	Manekshaw Centre, Parade Road, Khyber Lines, Delhi Cant., Delhi-110010	September 19, 2019	10.00 a.m.
FY 2019-20 (56thAGM)	Meeting was held through video-conferencing. Deemed venue was Registered Office of the Company	September 28, 2020	10.00 a.m.
FY 2020-21 (57th AGM)	Meeting was held through video-conferencing. Deemed venue was Registered Office of the Company	September 23, 2021	10.00 a.m.

ii. Details of Special Resolutions passed in previous three AGMs

In line with the provisions of Section 149 of the Companies Act, 2013, a special resolution was passed in the 55th Annual General Meeting held on September 19, 2019, for reappointment of Shri R. Swaminathan as an Independent Director for a second term.

iii. Postal Ballot

No special resolutions were passed through postal ballot in the previous year. In line with the requirements of Regulation 17(1C) of the SEBI Listing Regulations, resolutions for obtaining approval of shareholders, *interalia,* for Directors appointed after January 1, 2022 are proposed to be passed through postal ballot during FY 2022-23.

2.13 Disclosures

i. Disclosures on materially significant related party transactions that may have potential conflict with the interests of Company at large

The Company has not entered into any materially significant related party transactions (RPTs) that may have potential conflict with the interests of the Company at large. Nonetheless, transactions with related parties have been disclosed in Note no. 38 to the financial statements 2021-22 in the Annual Report.

The Company's policy determining Material Subsidiaries and policy dealing with Related Party Transactions is available at

https://www.bhel.com/sites/default/files/Policy%20on%20RPTs%20wef%2001042022.pdf

ii. Non-compliances, penalties & strictures imposed on the Company related to capital markets during the last three years

There were no cases of non-compliance by the Company on any matter related to capital markets during the last three years and no penalties/ strictures were enforced on the Company by Stock Exchanges/ SEBI or any other statutory authority on any matter related to capital market.

However, the Company received notices from NSE as well as BSE regarding non-compliance with the provision of Regulation 17 (1) of the SEBI Listing Regulations and imposition of fine for not having 50% Independent Directors (including at least one Independent Woman Director) on its Board upto November 8, 2021. In response to the notices, the Company clarified to the Exchanges that the shortfall in Independent Directors was not due to any negligence/ default of the Company, as the appointment is not within its control. However, pursuant to the induction of four Independent Directors on BHEL Board, the number of Independent Directors is 50% of the actual strength of the Board (including one Independent Woman Director). In view thereof, the Company has requested the Exchanges to waive-off the fines under their carve-out policies.

iii. Vigil Mechanism / Whistle Blower Policy

In pursuance of the DPE Guidelines on Corporate Governance for Central Public Sector Enterprises and Clause 49 of the Listing Agreement between listed Companies & the Stock

Exchanges and Section 177 of the Companies Act, 2013, a detailed Whistle Blower Policy was drafted by the Company and it was duly approved by the Board of Directors in its 464th meeting held on August 12, 2014. The policy is also in line with Listing Regulations. Subsequent to this, a Circular notifying the Whistle Blower Policy and informing the contact details of the Competent Authority and of Chairman, Audit Committee was issued for the notice of all employees.

A copy of the Whistle Blower Policy has also been placed on the website of the Company www.bhel.com for wide publicity. Changes in address, contact number(s) and email address of the Competent Authority and Chairman, Audit Committee are being notified from time to time.

The complaints received under the Policy are being processed as per the guidelines in this regard and no employee has been denied access to the Audit Committee.

iv. Compliance with the requirements of DPE Guidelines on Corporate Governance, compliance with mandatory requirements and adoption of the non-mandatory Corporate Governance requirements of Listing Regulations

All mandatory requirements of the DPE Guidelines on Corporate Governance for CPSEs and SEBI (Listing Obligations and Disclosure Requirements), 2015 have been duly complied with by the Company as on March 31, 2022. With regard to non-mandatory requirements under the Listing Regulations, BHEL is already in the regime of financial statements with unmodified audit opinion.

No expenditure has been debited in books of accounts which is not for the purpose of business and no expenses incurred and accounted which are personal in nature and incurred for the Board of Directors and Top Management. The other expenses (including administrative, and other miscellaneous expenses) as a % age of total expenses have been curtailed to 6.41% .The same has been made possible by various cost reduction measures and stringent budgetary controls.

v. Presidential Directives

No Presidential Directive was received during the last three years i.e. 2019-20, 2020-2021 and 2021-22.

vi. Risk Management

In compliance of SEBI Regulations, 2015 & amendments thereof and DPE guidelines on Corporate Governance for CPSEs, BHEL has in place a Board approved Risk Management Charter & Policy, laying down procedures to inform Board members about the risk assessment, minimization and mitigation. An important purpose of the Charter is to implement a structured and comprehensive risk management system across the company which ensures that the risks are being properly identified and effectively managed. The risk management process includes risk identification, risk assessment, risk evaluation, risk mitigation and regular review & monitoring. Details are in Para 1.14 'Risks and Concerns'

vii. Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013

The information on disclosure in relation to Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act, 2013 is part of Board's Report and is available as Annexure C to Para 1.9.5.2 "Safeguard of Women at Workplace".

viii. Utilization of funds raised through preferential allotment or qualified institutions placement as specified under Regulation 32 (7A)

NIL

ix. Total fees for all services paid by the listed entity and its subsidiaries, on a consolidated basis, to the statutory auditor and all entities in the network firm/ network entity of which the statutory auditor is a part

Total fees for all services paid to the statutory auditors and branch auditors are disclosed in Notes to the financial statements. The auditors of subsidiary company and joint venture companies were appointed separately by them and were not same auditors who have conducted audit of financial statements of BHEL.

x. Compliance Certificate on Corporate Governance

Compliance Certificate on Corporate Governance is enclosed.

2.14 Means of Communication

As required under the Listing Regulations, the Company issues a notice in advance, to the Stock Exchanges, of the Board Meetings in which the unaudited/ audited financial results are due for consideration. Further, the said results are intimated immediately to the Stock Exchanges, after they are taken on record/ approved. These approved financial results are published within 48 hours of conclusion of the Board Meeting in at least one English daily newspaper circulating in the whole or substantially the whole of India and in one daily newspaper published in the language of the region, where the registered office of the Company is situated and also uploaded on the Company's website (www.bhel.com). Other information pertaining to shareholders viz., changes in directorship, details of unpaid dividend, Annual Reports etc., are also displayed on the Company's website. Official news releases including important events like receipt of major orders, major projects commissioned, important collaborations, other material events etc. are posted on the website of the Company and simultaneously sent to the Stock Exchanges. During FY 2021-22, conference calls were held and detailed result documents & supplementary information/presentations were also uploaded post financial result declaration on the stock exchange websites as well as on Company's website, though BHEL has not made any presentation on financial results to analysts or institutional investors separately. BHEL has also participated in various investor conferences/ meetings in addition to regular face-to-face interactions.

In compliance with Regulation 46 of the Listing Regulations, the Company disseminates on its website information which *interalia* contains, details regarding composition of various committees of Board of Directors, code of conduct, policy dealing with RPTs, contact information of the designated officials of the Company responsible for assisting and handling

investor grievances etc.

In pursuance of the "Green Initiatives" of the Ministry of Corporate Affairs, Government of India, the Company sends the Annual Report and the Notice convening the Annual General Meeting through email to those shareholders who have registered their email ids with the Depository Participants/ RTA and have not opted for a physical copy of the Annual Report. For continued success of this initiative, shareholders are requested to register their email ids with their Depository Participants/RTA.

2.15 General Shareholder Information

	AGM Date	Time	Venue
i	September 29, 2022	10:00 AM	The Company is conducting meeting through VC pursuant to the MCA Circular dated May 5, 2022 read with MCA Circular dated May 5, 2020 and as such deemed venue for the AGM shall be the registered office of the Company. For details please refer to the Notice of this AGM.
ii	**Financial year**	April 1, 2021 to March 31, 2022	
iii	**Record Date**	Friday, September 16, 2022	
iv	**Dividend payment date**	On or before October 28, 2022	

The annual return is available at https://www.bhel.com/agm-related

v. Dividend History:

The details of dividend paid by BHEL (and not due for transfer to Investor Education Protection Fund) are summarized as under:

Year	Rate of Dividend	Total Amount of Dividend Paid (₹ in Crore)	Date on which Dividend was Declared
2014-2015 (Final)	31%	151.75	22.09.2015
2015-2016 (Final)	20%	97.90	22.09.2016
2016-2017 (Interim)	40%	195.81	07.02.2017*
2016-2017 (Final)	39%	190.92	22.09.2017
2017-2018 (Interim)	40%	293.72	08.02.2018*
2017-2018 (Final)	51%	374.48	19.09.2018
2018-2019 (Interim)	40%	278.57	05.02.2019*
2018-2019 (Final)	60%	417.85	19.09.2019
2021-2022 (Final)	20%	139.28	**

* Date of meeting of Board of Directors in which interim dividend was declared.

** The Board in its meeting held on May 21, 2022 recommended final dividend for FY 2021-22, subject to approval of shareholders in AGM.

Note:

(1) During 2017-18, the Company allotted Bonus Equity Shares to its Shareholders on 03.10.2017 in the ratio of 1:2 i.e. one fully paid up new bonus equity share of ₹ 2 each for every two fully paid up equity shares. Consequently, the total number of shares increased from 244.76 Crore to 367.14 Crore.

(2) During 2018-19, the Company made Buy Back of 18,93,36,645 fully paid up equity shares representing 5.16% of the total issued and paid-up equity share capital of the Company from its shareholders as on the record date (i.e. Tuesday, November 06, 2018), on a proportionate basis, through the "Tender Offer" process at a price of ₹ 86 (Rupees Eighty- Six Only) per Equity Share payable in cash for an aggregate consideration of ₹ 1628.30 Crore Consequently, the total number of shares have decreased from 367.14 Crore to 348.21 Crore.

(3) In case a shareholder has not claimed/received dividend for any of the last seven years and the same has not yet been transferred to the Investor Education & Protection Fund (IEPF), he/ she can claim this unpaid dividend by following the procedure uploaded on the company's website (www.bhel.com). Unclaimed dividend for the year 2013-14 (Final) & 2014-15 (Interim) has already been transferred to Investor Education & Protection Fund (IEPF) during the year 2021-22. Further, unclaimed dividend for the year 2014-15 (Final) is due for transfer to IEPF on 22.10.2022.

(4) In respect of dividend/shares which have been transferred to IEPF, shareholders can claim the same from IEPF authority by following the procedure prescribed under IEPF Authority (Accounting, Audit, Transfer and Refund) Rules, 2016. These Rules are available on the website of IEPF (www.iepf.gov.in) and company's website (www.bhel.com).

vi. a) Listing on Stock Exchanges and Stock Code

BHEL's Equity shares are listed on the following Stock Exchanges for which listing fees for 2021-22 has been paid:

Name of the Stock Exchange	Stock Code
1. BSE Limited Phiroze Jeejeebhoy Towers, Dalal Street, Mumbai - 400 001	500103
2. National Stock Exchange of India Limited Exchange Plaza, Plot no. C/1, Block - G, Bandra Kurla Complex, Bandra (East), Mumbai - 400 051	BHEL

In addition, the Commercial Papers issued by the Company are also listed on BSE & NSE.

b) Payment of Annual Custodian Fee to Depositories

The Annual Custodian fee has been paid to NSDL and CDSL for the financial year 2021-22.

vii The High, Low, Close & Volume of BHEL shares and market index during each month in the financial year 2021-22 at BSE & NSE are indicated below:

Market Price Data: High, Low, Close during each month in the financial year 2021-22										
Months	BSE				NSE				Market Index (Close)	
	High	Low	Close	Volume	High	Low	Close	Volume	S&P BSE SENSEX	NSE NIFTY
	(in ₹)			(No. of shares in Crore)	(in ₹)			(No. of shares in Crore)		
Apr-21	53.00	43.00	48.30	6.36	53.05	43.00	48.30	87.28	48782.36	14631.10
May-21	77.70	47.45	71.05	18.60	77.70	47.40	71.05	301.85	51937.44	15582.80
Jun-21	79.50	60.65	65.80	17.32	79.55	60.60	65.55	178.99	52482.71	15721.50
Jul-21	69.00	58.80	59.45	10.64	69.00	58.80	59.40	84.93	52586.84	15763.05
Aug-21	61.30	49.95	52.55	7.66	61.35	49.95	52.55	73.99	57552.39	17132.20
Sep-21	65.20	52.60	64.65	8.62	65.25	52.60	64.65	96.91	59126.36	17618.15
Oct-21	78.65	62.65	68.25	11.94	80.35	62.70	68.25	155.42	59306.93	17671.65
Nov-21	74.50	56.80	58.90	7.20	74.50	56.80	58.90	77.81	57064.87	16983.20
Dec-21	66.00	56.10	58.95	5.98	66.05	56.05	58.95	67.67	58253.82	17354.05
Jan-22	64.60	56.30	58.00	6.12	64.60	56.30	58.00	61.95	58014.17	17339.85
Feb-22	61.65	44.05	49.80	7.67	61.65	44.00	49.85	66.56	56247.28	16793.90
Mar-22	53.10	47.45	49.35	4.76	53.10	47.50	49.35	50.31	58568.51	17464.75

Source: www.bseindia.com / www.nseindia.com

viii. Policy on Insider Trading

BHEL endeavours to preserve the confidentiality of unpublished price sensitive information and to prevent misuse of such information. For this purpose and in line with the SEBI (Prohibition of Insider Trading) Regulations, 1992, the Company had adopted "Code of Conduct for Prevention of Insider Trading" on 26th August, 2002 which was subsequently revised w.e.f. 29th January, 2009.

The Board, in its 469th meeting held on 6th April, 2015, approved the 'Code of Conduct for Regulating & Reporting Trading by Insiders and for Fair Disclosure, 2015' in line with SEBI (Prohibition of Insider Trading) Regulations, 2015. In pursuance to SEBI (Prohibition of Insider Trading) (Amendment) Regulations, 2018, the Board had also approved the revised BHEL Code of Conduct for Regulating & Reporting Trading by Designated Persons & their Immediate Relatives and for Fair Disclosure effective from 01.04.2019. The objective of the Code is to regulate, monitor and report trading by Designated Persons and Immediate Relatives of Designated Persons towards achieving compliance with SEBI (Prohibition of Insider Trading) Regulations, 2015, as amended. The Code also provides for practices and procedures for fair disclosure of Unpublished Price Sensitive Information. Head-Corporate Strategic Management Department is the Chief Investor Relations Officer of the company under this code.

ix.(A) Registrar & Share Transfer Agent for Equity Shares (RTA)

The Company has appointed M/s Alankit Assignments Limited as its Registrar and Share Transfer Agent (RTA) for handling all matters relating to the Equity shares of BHEL (both physical as well as demat mode). All matters relating to the Equity shares of company such as consolidation, loss of share certificates, transmission, dematerialization, dividend, change of address, etc. and related correspondence and queries may be addressed to:-

M/s Alankit Assignments Limited
Unit: Bharat Heavy Electricals Limited
4E/2, Alankit House, Jhandewalan Extension,
New Delhi-110055
Tel No.: 011-42541234
Fax No.: 011-23552001
Email: rta@alankit.com
Website: www.alankit.com

(B) Registrar & Share Transfer Agent for Commercial Papers:

M/s KFin Technologies Private Limited
Selenium Tower B, Plot 31-32,
Gachibowli Financial District, Nanakramguda,
Hyderabad – 500 032
Tel. No. : 040- 67162222
Fax No. : 040- 23001153
E-mail : einward.ris@kfintech.com
Website : www.kfintech.com

RTA's performance in servicing shareholders has been satisfactory. All the investor grievances have been promptly attended to.

x. Share Transfer System

All share transfer activities under physical segment like receipt/dispatch of documents and their verification are being carried out by M/s Alankit Assignments Limited. As per SEBI (Listing Obligations and Disclosure Requirements (Fourth Amendment) Regulations, 2018, w.e.f. 01.04.2019, requests for effecting transfer (except in case of transmission or transposition of securities) of securities shall not be processed unless the securities are held in the dematerialized form. In line with Listing Regulations, share certificates are being issued within the timeline prescribed for transmission, transposition, sub-division and consolidation.

xi. Distribution of Shareholding

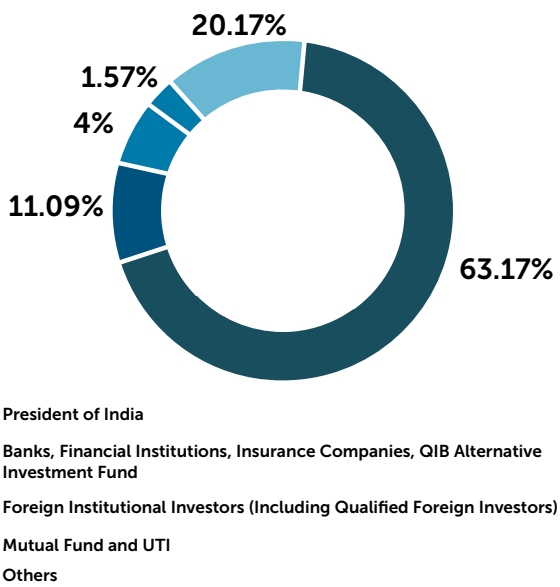
a. Distribution of shares according to size of holding as on March 31, 2022

No. of equity share(s) held	No. of Shareholders	% of Shareholders	No. of Shares	% of Shareholding
1 - 500	1099984	83.51	132821041	3.81
501 - 1000	107715	8.18	86166105	2.47
1001 - 2000	58129	4.41	87821479	2.52
2001 - 3000	19108	1.45	49292305	1.42
3001 - 4000	8385	0.64	30222611	0.87
4001 - 5000	6956	0.53	32951652	0.95
5001 - 10000	9937	0.75	73817971	2.12
10001 and above	7021	0.53	2988970191	85.84
Total	**1317235**	**100**	**3482063355**	**100**

b. Shareholding Pattern as on March 31, 2022

Category	2022		2021	
	Voting strength (%)	No. of Shares held	Voting strength (%)	No. of Shares held
Promoters Holding				
Indian Promoters-				
President of India (POI)	63.17	2199650402	63.17	2199650402
Total Promoter holding	**63.17**	**2199650402**	**63.17**	**2199650402**
Non-promoters Holding				
Banks, Financial Institutions, Insurance Companies, Qualified Institutional Buyers, Alternative Investment Fund	11.09	386286711	12.31	428740274
Foreign Institutional Investors (including Qualified Foreign Investor)	4.00	139407793	4.47	155519893
Mutual Funds and UTI	1.57	54537776	1.33	46172073
Others				
Individuals, HUF, Employees	18.36	639427887	16.65	579818714
Bodies Corporate	0.83	28818539	0.69	23948963
NRIs & Foreign National/ Entity	0.64	22123766	0.72	24980324
Trust	0.02	610839	0.01	462075
Clearing Members	0.31	10754500	0.64	22402985
IEPF	0.01	435642	0.01	366052
Directors & Relatives	0	300	0	100
State Govt.	0	9200	0	1500
Total Non-promoter holding	**36.83**	**1282412953**	**36.83**	**1282412953**
Grand Total	**100.00**	**3482063355**	**100.00**	**3482063355**

Shareholding Pattern as on March 31, 2022



c. List of shareholders who are holding more than 1% of the shares of the Company as on March 31, 2022

Category & Shareholder's Name	March 31, 2022	
	Voting strength	No. of shares held
Promoters		
President of India	63.17	2199650402
Non-promoters		
Life Insurance Corporation of India	10.07	350647914

xii. 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 Limited (NSDL) and Central Depository Services (India) Limited (CDSL) for admission of its securities under demat mode. As on 31st March, 2022, 99.97% (NSDL: 89.40%, CDSL: 10.57%) of the total equity share capital of BHEL is being held in demat mode by the shareholders. Shares held in physical mode by the shareholders are 0.03%. Shareholding of Hon'ble President of India (being the Promoter of the company holding 63.17% of the paid-up share capital of the company) is also held in dematerialized form. The International Securities Identification Number (ISIN) allotted to Company is INE257A01026.

xiii. Outstanding GDRs /ADRs / Warrants or any convertible instruments, conversion date and likely impact on equity

NIL

xiv.List of Credit Ratings received during the year is disclosed in the main Report of the Board of Directors.

xv. Foreign Exchange risk or Commodity price risk and hedging activities

Hedging activities/transactions during the financial year 2021-22 are in line with the Board approved Foreign Exchange Risk Management Policy.

Exposure of the listed entity to commodity and commodity risks faced by the entity throughout the year:

a) Total exposure of the listed entity to commodities in INR: ₹ 3710 Cr. (approx.)

b) Material exposure of the listed entity to various commodities:

Commodity Name	Exposure in INR towards the particular commodity (in ` Crore) (approx.)	Exposure in Quantity terms towards the particular commodity (in MT) (approx.)	% of such exposure hedged through commodity derivatives				
			Domestic market		International market		Total
			OTC	Exchange	OTC	Exchange	
Steel	3104	362011	-				
Copper	544	6218	-				
Aluminium	25	1080	-				
Nickel	32	230	-				
TIN	5	15	-				

c) Major Industrial commodities like Steel, Copper, Aluminium etc. are being procured centrally by one of the identified units by bulking the requirements of various BHEL units, to the extent possible, to derive price advantage. To insulate the Company against price fluctuations, Framework Agreements are finalized periodically.

xvi. Plant locations

BHEL - Manufacturing Units	
Bengaluru	1. Electronics Division (EDN)
	2. Electronics Systems Division (ESD)
	3. Solar Business Division (SBD)
Bhopal	4. Heavy Electrical Plant (HEP)
Goindwal	5. Industrial Valves Plant (IVP)
Haridwar	6. Heavy Electrical Equipment Plant (HEEP)
	7. Central Foundry Forge Plant (CFFP)

Hyderabad	8. Heavy Power Equipment Plant (HPEP)
Jagdishpur	9. Fabrication, Stamping & Insulator Plant (FSIP)
Jhansi	10. Transformer Plant (TP)
Rudrapur	11. Component Fabrication Plant (CFP)
Ranipet	12. Boiler Auxiliaries Plant (BAP)
Tiruchirappalli	13. High Pressure Boiler Plant (HPBP)
	14. Seamless Steel Tube Plant (SSTP)
Thirumayam	15. Power Plant Piping Unit (PPPU)
Visakhapatnam	16. Heavy Plates & Vessels Plant (HPVP)
BHEL - Repair Units	
Mumbai	1. Electrical Machine Repair Plant (EMRP)
Varanasi	2. Heavy Equipment Repair Plant (HERP)

xvii. Address for correspondence

Shareholders can send their queries and any other correspondence relating to the shares of the Company either to:

M/S ALANKIT ASSIGNMENTS LIMITED
UNIT: BHEL

4E/2, Alankit House,
Jhandewalan Extension,
New Delhi – 110055

Phone: 011-42541234
Fax: 011-23552001
Email: rta@alankit.com

OR

Shri Rajeev Kalra
Company Secretary

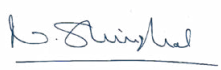
Phone: 011-26001046
Fax : 011-66337533
Email : shareholderquery@bhel.in

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

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

Declaration: Pursuant to Listing Regulations, it is hereby declared that all the Board members and Senior Management personnel have affirmed compliance with BHEL's "Code of Business Conduct and Ethics" for the financial year 2021-22

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Date: 04.09.2022

CERTIFICATE OF NON-DISQUALIFICATION OF DIRECTORS

{pursuant to Regulation 34(3) and Schedule V Para C clause 10(i) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015}

The Members,
Bharat Heavy Electricals Limited
BHEL House, Siri Fort,
New Delhi-110049

We have examined the relevant registers, records, forms, returns and disclosures received from the Directors of **Bharat Heavy Electricals Limited** having CIN: **L74899DL1964GOI004281** and having registered office at BHEL House, Siri Fort, New Delhi-110049 (hereinafter referred to as the 'Company'), produced before us by the Company for the purpose of issuing this Certificate, in accordance with Regulation 34(3) read with Schedule V Para C clause 10 (i) of the Securities & Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

In our opinion and to the best of our information and according to the verifications (including Directors Identification Number (DIN) status at the portal www.mca.gov.in) as considered necessary and explanations/ representations furnished to us by the Company & its Director/ officers, we hereby certify that none of the Directors on the Board of the Company as stated below for the Financial Year ending on 31st March, 2022 have been debarred or disqualified from being appointed or continuing as Directors of companies by the Securities & Exchange Board of India, Ministry of Corporate Affairs, or any such other Statutory Authority:

Sr. No.	Name of Director (as per DIN)	DIN	Date of appointment in Company
1	Nalin Shinghal	01176857	08-07-2019
2	Shashank Priya	08538400	04-10-2019
3	Vijay Mittal	09548096	25-03-2022
4	Raj Kamal Bindal	07423392	31-01-2020
5	Manish Kapoor	02405818	31-01-2020
6	Raj Kumar Agarwal	00001415	09-11-2021
7	Sivaprasad Kodungallur	09392812	09-11-2021
8	Lekhasri Samantsinghar	09392192	09-11-2021
9	Aditya Prasad	07840914	29-12-2021
10	Subodh Gupta	08113460	18-04-2018
11	Renuka Gera	08970501	01-12-2020
12	Upinder Singh Matharu	09541886	21-03-2022

Ensuring the eligibility of the appointment/ continuity of every Director on the Board is the responsibility of the management of the Company. Our responsibility is to express an opinion on these based on our verification. This certificate is neither an assurance as to the future viability of the Company nor of the efficiency or effectiveness with which the management has conducted the affairs of the Company.

For **P. P. AGARWAL & CO.**
Company Secretaries

-sd/-
(Pramod Prasad Agarwal)
Proprietor
C.P. No.: 10566 FCS: 4955
P. R.C. No. 1241/2021
UDIN: F004955D000426145

Place: New Delhi
Date: 30-05-2022

CERTIFICATE ON COMPLIANCE WITH THE CONDITIONS OF CORPORATE GOVERNANCE

The Members,

Bharat Heavy Electricals Limited

1. We have examined the compliance of conditions of Corporate Governance by **Bharat Heavy Electricals Limited** (CIN: L74899DL1964GOI004281) for the year ended 31st March, 2022, as prescribed in the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (Listing Regulations) and Guidelines on Corporate Governance for Central Public Sector Enterprises (CPSEs) issued by Department of Public Enterprises (DPE), Government of India.
2. The compliance of conditions of Corporate Governance is the responsibility of the management of the Company. Our examination has been limited to review of procedures and implementations thereof, adopted by the Company for ensuring the compliance of the conditions of Corporate Governance as stipulated in the said Regulations and guidelines. It is neither an audit nor an expression of opinion on the financial statements of the Company.
3. In our opinion and to the best of our information and according to the explanations given to us and based on the representations made by the Management, we certify that w.e.f. 09.11.2021, the Company is in compliance with all the applicable conditions of Corporate Governance as stipulated in the Listing Regulations and Guidelines on Corporate Governance for CPSEs issued by DPE. Prior to this date, the Company was unable to comply with the provisions of Regulation 17(1) (a) and (b) of the Listing Regulations and Clause 3.1.4 of the DPE Guidelines, as the Company did not have requisite number of independent directors on its Board including at-least one independent woman director till 08.11.2021.
4. The Company has explained that BHEL, being a Government Company, the appointment of the Independent Directors is made by the Govt. of India. The Company was in constant communication with Govt. of India for appointment of requisite number of independent directors (including at least one independent woman director) on its Board. Pursuant to appointment of three independent directors (including one independent woman director), the Company is in compliance with the provisions of the Regulations w.e.f. 09.11.2021.
5. We further state that such compliance certificate is neither an assurance as to the future viability of the Company nor the efficiency or effectiveness with which the Management has conducted the affairs of the Company.

For **Agarwal S. & Associates,**
Company Secretaries,
ICSI Unique Code: P2003DE049100

-sd/-
CS Ajay Kumar Choudhary
Partner
ACS No.: 51674
CP No.: 21297

Date : 31-05-2022
Place: New Delhi
UDIN: A051674D000439490

Form No. MR-3
SECRETARIAL AUDIT REPORT
FOR THE FINANCIAL YEAR ENDED MARCH 31, 2022

[Pursuant to Section 204(1) of the Companies Act, 2013 and Rule 9 of the Companies (Appointment and Remuneration of Managerial Personnel) Rules, 2014]

To,
The Members,
Bharat Heavy Electricals Limited

We have conducted the Secretarial Audit of compliance of applicable statutory provisions and adherence to good corporate practices by **Bharat Heavy Electricals Limited, CIN: L74899DL1964GOI004281** (hereinafter called 'the Company' or 'BHEL'). The Secretarial Audit was conducted in a manner that provided us a reasonable basis for evaluating the corporate conducts/statutory compliances and expressing our opinion thereon.

Based on our verification of the BHEL's books, papers, minute books, forms and returns filed and other records maintained by the Company and also the information provided by the Company, its officers, agents and authorized representatives during the conduct of secretarial audit, we hereby report that in our opinion, the Company has, during the audit period covering the financial year ended on 31st March, 2022 complied with the statutory provisions listed hereunder and also that the Company has proper Board processes and Compliance-mechanism in place to the extent, in the manner and subject to the reporting made hereinafter.

We have examined the books, papers, minute books, forms and returns filed and other records maintained by BHEL for the financial year ended on 31st March, 2022 according to the provisions of:

(i) The Companies Act, 2013 ('the Act') and the rules made thereunder;

(ii) The Securities Contracts (Regulation) Act, 1956 ('SCRA') and the rules made thereunder;

(iii) The Depositories Act, 1996 and the Regulations and bye-laws framed thereunder;

(iv) Foreign Exchange Management Act, 1999 and the rules and regulations made thereunder to the extent of Foreign Direct Investment, Overseas Direct Investment and External Commercial Borrowings;

(v) The following Regulations and Guidelines prescribed under the Securities and Exchange Board of India Act, 1992 ('SEBI Act'):-

  (a) The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011;

  (b) The Securities and Exchange Board of India (Prohibition of Insider Trading) Regulations, 2015;

  (c) The Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018;

  (d) The Securities and Exchange Board of India (Employee Stock Option Scheme and Employee Stock Purchase Scheme) Guidelines, 1999;

  (e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008;

  (f) The Securities and Exchange Board of India (Registrars to an Issue and Share Transfer Agents) Regulations, 1993 regarding the Companies Act and dealing with client;

  (g) The Securities and Exchange Board of India (Delisting of Equity Shares) Regulations, 2021; and

  (h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018;

(vi) Compliances/processes/systems under other specific applicable Laws (as applicable to the industry), including as listed below (being verified on the basis of periodic certificate under internal compliance system submitted to the Board of Directors of the Company) :

  1) Atomic Energy (Radiation Protection) Rules, 2004

  2) Batteries (Management and Handling) Rules, 2001;

  3) Factories Act, 1948;

4) The Indian Boilers Act, 1923; and

5) Manufacturing, Storage and Import of Hazardous Chemical Rules, 1989.

We have also examined compliance with the applicable clauses of the following:

(a) Mandatory Secretarial Standards issued by the Institute of Company Secretaries of India;

(b) The Securities Exchange Board of India (Listing Obligations& Disclosure Requirements) Regulations, 2015 and Equity Listing Agreements with National Stock Exchange of India Limited & BSE Limited; and

(c) DPE Guidelines on Corporate Governance for CPSE (DPE Guidelines).

During the period under review, the Company has complied with the provisions of the Act, Rules, Regulations, Guidelines, Standards, etc. mentioned above, subject to the following observation:

The composition of the Board of Directors was not in compliance with Regulation 17 (1) (a) & (b) of the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and Para 3.1.4 of the DPE Guidelines on Corporate Governance during the period from 01.04.2021 to 08.11.2021 as the Company did not have requisite number of independent directors (including at least one independent Woman director) on its Board.

The Company has explained that being a Government Company, the independent directors for BHEL are selected by the Govt. of India. Pursuant to appointment of three independent directors (including one independent woman director), the Company has complied with the provisions of the applicable SEBI Listing Regulations and DPE guidelines w.e.f. 09.11.2021.

We further report that changes in the composition of the Board of Directors that took place during the period under review were carried out in compliance with the provisions of the Act.

Generally, adequate notice is given to all Directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting. In case of convening of meeting including sending of agenda at shorter notice, consent of members present in the meeting were taken.

All the decisions made in the Board/Committee meeting(s) were carried out with unanimous consent of all the Directors/ Members present during the meeting.

We further report that there are adequate systems and processes in the Company commensurate with the size and operations of the Company to monitor and ensure compliance with applicable laws, rules, regulations and guidelines.

We further report that during the audit period, no specific events / actions having a major bearing on the company's affairs in pursuance of the above referred laws, rules, regulations, guidelines, standards, etc. referred to above has occurred in the Company.

For **Agarwal S. & Associates,**
Company Secretaries,
ICSI Unique Code: P2003DE049100
Peer Review Cert. No.: 626/2019

-sd/-
Ajay Kumar Choudhary
Partner
ACS No. :51674
C.P No. :21297
UDIN: A051674D000493654

Date: 15.06.2022
Place: New Delhi

This report is to be read with our letter of even date which is annexed as "Annexure A" and forms an integral part of this report.

"Annexure A"

To,
The Members,
Bharat Heavy Electricals Limited

Our report of even date is to be read along with this letter.

(i) Maintenance of secretarial records is the responsibility of the management of the Company. Our responsibility is to express an opinion on these secretarial records, based on our inspection of records produced before us for audit.

(ii) We have followed the audit practices and processes as were appropriate to obtain reasonable assurance about the correctness of the contents of the secretarial records. The verification was done on test basis to ensure that correct facts are reflected in secretarial records. We believe that the processes and practices, followed provide a reasonable basis for our opinion.

(iii) We have not verified the correctness and appropriateness of financial records and Books of Accounts of the Company and our report is not covering observations/comments/ weaknesses already pointed out by the other Auditors.

(iv) Wherever required, we have obtained the Management representation about the compliance of laws, rules and regulation and happening of events etc.

(v) The compliance of the provisions of corporate and other applicable laws, rules, regulations, standards is the responsibility of management. Our examination was limited to the verification of procedures on test basis and to give our opinion whether Company has proper Board-processes and Compliance-mechanism in place or not.

(vi) The Secretarial Audit Report is neither an assurance as to future viability of the Company nor of the efficacy or effectiveness with which the management has conducted the affairs of the Company.

For **Agarwal S. & Associates,**
Company Secretaries,
ICSI Unique Code: P2003DE049100
Peer Review Cert. No.: 626/2019

-sd/-
Ajay Kumar Choudhary
Partner
ACS No. :51674
C.P No. :21297

Date: 15.06.2022
Place: New Delhi

Annexure-III to the Board's Report

CEO and CFO Certification

(in terms of Regulation 17(8) of SEBI (LODR) Regulations 2015)

To,

The Board of Directors
Bharat Heavy Electricals Ltd.,
New Delhi.

(a) We have reviewed Financial Statements and the Cash Flow statement of Bharat Heavy Electricals Ltd for the year ended 31st March, 2022 and that to the best of our knowledge and belief:

(i) These statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;

(ii) These statements together present a true and fair view of the Company's affairs and are in compliance with the applicable Ind AS, laws and regulations.

(b) There are, to the best of our knowledge and belief, no transactions entered into by the company during the year 2021-22 which are fraudulent, illegal or violative of the Company's Code of Conduct.

(c) We accept responsibility for establishing and maintaining internal controls for financial reporting and that we have evaluated the effectiveness of the internal control systems of the Company pertaining to financial reporting and we have disclosed to the Auditors and the Audit Committee, deficiencies in the design or operation of such internal controls, if any, of which we are aware and the steps we have taken or propose to take to rectify these deficiencies.

(d) We have indicated to the Auditors and the Audit Committee;

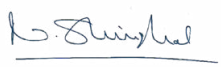
(i) Significant changes, if any, in internal control over financial reporting during the year 2021-22;

(ii) Significant changes, if any, in the accounting policies during the year 2021-22 and the same have been disclosed in the notes to the financial statements; and

(iii) Instances of significant fraud of which we have become aware and the involvement therein, if any, of the management or an employee having a significant role in the company's internal control system over financial reporting.



(Subodh Gupta)
Director (Finance)



(Dr. Nalin Shinghal)
Chairman & Managing Director

Place: New Delhi
Date: May 21, 2022



SUSTAINABILITY AND CORPORATE SOCIAL RESPONSIBILITY



Training on raising community nursery in different villages of Kandhamal, Odisha - Financial support to the "Professional Assistance for Development Action (PRADAN)" for the project

Annexure-IV to the Board's Report

Sustainability and CSR

4.1 Sustainability Performance –Environmental

The tenets of sustainability have been incorporated into our management framework and is part of our decision-making processes and activities emanating out of those decisions. It is duly reflected in our Mission Statement "Providing sustainable business solutions in the fields of Energy, Industry & Infrastructure".

BHEL manages its environmental impact across the entire manufacturing value chain in a responsible manner. Internally, various initiatives are in place to optimally manage key aspects of materials, water, energy, emissions and biodiversity in the larger interest of society. All our activities are carried out with utmost regard to the environment and it's carrying capacity in terms of responsible consumption of natural resources for production of goods & services including imbibing the concept of 3-R (Reduce-Recycle-Reuse), moving towards more sustainable energy mix, demand side management through energy efficiency/conservation measures, water and biodiversity conservation, managing emissions within the prescribed limits, etc. Further within our value chain, using state-of-the-art facilities created over the years, we are providing our customers products which are environmental friendly by virtue of – being long lasting, being efficient and using lesser quantum of natural resources as well as reducing emissions during their operation phase, capturing emissions in the existing power plants, which result in reduced environmental footprint. Our constant endeavor to improve product performance through R&M as well as life extension services, providing futuristic technologies such as AUSC and coal gasification for reducing emissions, offering state-of-the-art solutions for hydro and nuclear sector as well as retrofitting of FGD and SCR to reduce emissions of existing power plants are steps to ensure efficient and sustainable use of natural resources.

Details of some of these initiatives carried out during 2021-22 is given in the sections below.

4.1.1 Responsible Material & Natural Resource Consumption

As a responsible corporate citizen involved in manufacturing of plethora of products and systems, use of natural resources for production and consumption are minimised. We understand that efficient use of resources is also synonymous with reduction in costs and improvement in profitability in the long term. The principles of 3-R (Reduce-Recycle-Reuse) are being applied diligently towards achievement of this goal. A number of steps have been taken in this regard including usage of excess material lying at project sites, nesting plan for cutting metal sheets devised in a way to minimise metallic wastages, etc. Some initiatives implemented during the year include recycling of 275 MT of Mild Steel scrap in Foundry shop for manufacturing various castings and erection of containerized Bio gas plant of 500 kg per day for canteen waste at Bhopal.

4.1.2 Energy Management

Sustainable use of energy across our premises is an important element of business decision making process. Energy efficiency / conservation efforts are taken in the organization on continual basis. Some of our manufacturing units are energy intensive and for identification and harnessing of every opportunity to conserve energy, we have undertaken Energy Management System certification (ISO 15001) through third party audits. To reduce energy consumption, we have been replacing our conventional lighting systems and fixtures with energy efficient systems. Replacement of old ACs with more efficient 4/5 star rated systems and installation of Automatic Power Controller (APFC) system are also regular features in BHEL. New initiatives taken during 2021-22 includes, installation of APFC panels in select substations and operation of HT capacitor banks to keep the factory power factor close to unity at HPEP Hyderabad, installation of eco-friendly refrigerant air-cooled system at EDN Bengaluru, upgradation

from conventional to regenerative burners based combustion system for reheating furnaces at CFFP Haridwar, amongst others.

Further, a novel initiative of installation of 1 MW capacity Grid-connected Roof Top Solar PV System under MNRE Scheme for Government Buildings (RESCO Model) in BHEL Haridwar at a fixed tariff for 25 Years without any capital investment of BHEL is likely to generate approx. 1.2 Million Units/annum. Overall across the organization, 27.17 million units of green energy was generated during 2021-22 taking the overall energy generating by solar systems during last 5 years to over 130 million units.



5MW in-house Solar PV installation at BHEL Haridwar for captive power generation

4.1.3 Water and Biodiversity Management

Water is a very precious natural resource and managing water & wastewater sustainably and enhancing the green cover across our premises are important elements of our business activities. There are 126 rainwater harvesting systems, including rooftop rain water collection systems, groundwater recharging pits/ pond/lake/wells which enable collection of rain water and recharging of groundwater. Further a total of 22 effluent treatment plants and 16 sewage treatment plants have been established in various BHEL units for grey water management. Most of our units are Zero Liquid Discharge entities. Further, to maintain the green belt across our establishments, treated wastewater is reused for horticultural purpose which helps us in reducing the demand for fresh water.

Some of the specific activities carried out during 2021-22 include construction of rain water recharging pond of 7000 cubic meter capacity in Berkheda at HEP Bhopal, capturing storm water from catchment area of approx. 17 acres through percolation pits at EDN Bengaluru, installation of a 7 MLD STP and use of recycled industrial water for cleaning of roof top solar panels at HEEP Haridwar, etc.

During the financial year 2021-22, our efforts towards increasing our verdant cover continued and in our Bhopal unit, more than 30,000 saplings were planted. Overall across the organization & in its vicinity more than 68,000 saplings were planted during the last year and during the last five years, the number of saplings planted stood at more than 2,12,000 which will act as carbon sink of future.

BHEL is supplying the country's largest air cooled condensers for North Karanpura and Patratu projects which will further help in reducing water consumption in thermal power plants and has initiated activities for in-house development of this technology for a range of applications.

4.1.4 Carbon Management

Our efforts in energy conservation/efficiency, increasing greenery in our premise, development of cleaner products, use of cleaner fuel in our operations, use of piped gas wherever feasible– all of them help us in reducing our carbon footprint also.



7 MLD Sewage Treatment Plant at BHEL Haridwar



Sapling plantation by Hon'ble Union Minister (HI) at BHEL Noida Township

BHEL has installed solar systems in its units having a capacity of more than 29 MWp (rooftop as well as ground mounted solar plants). This large-scale installation has helped in carbon footprint avoidance to the tune of 25,540 MT CO_2-equivalent during 2021-22. Well maintained and ever-increasing verdant cover is also contributing towards carbon sequestration in a considerable manner. Energy efficiency/conservation in processes has helped significantly reduce BHEL's Scope-2 emissions and converting furnaces to RLNG from LPG at Haridwar unit has helped cut Scope-3 emissions associated with carriage of the fuel through roadways.

4.1.5 Waste Management

BHEL is a manufacturing organization using large quantum of raw material and works towards minimizing it as well as trying to reuse it to the extent feasible. Almost all non-hazardous waste generated is either used in-house through recycling/ reuse or sent to authorised recyclers. Food waste generated at units like HEEP Haridwar, HPBP Trichy, HERP Varanasi, FSIP Jagdishpur, etc., are used for making vermicompost for horticulture. During 2021-22, almost 583 Metric Tonnes of scrap generated at EDN Bengaluru and 6650 MT at HPEP Hyderabad was recycled through authorised recyclers, MS scrap of 275 MT was used in Foundry shop in manufacturing of various castings at HPEP Hyderabad unit, waste sand reclamation by 20% (approx.) for reuse at CFFP Haridwar etc., were some of activities in this area.

All the waste management rules are scrupulously followed in the organization and returns for the same as per the formats are filed as per stipulations. Further, to fight the menace of plastic pollution, all our 14 townships have received third party certification as being "Single Use Plastic Free" and the same have been recertified during the year.

4.2 Sustainability Performance – Social

BHEL has identified seven thrust areas for carrying out its CSR initiatives. These seven thrust areas are elaborated in



Providing Hand Sanitizers, thermal scanners & masks to Dept. of Women & Child Development of Bangalore Urban, Bangalore Rural, Chikkaballapur & Kolar Districts of Karnataka State to fight against Coronavirus (COVID -19)

BHEL's CSR policy. All the activities in these thrust areas are in line with activities and areas mentioned in Schedule VII of the Companies Act, 2013. Brief description of some key interventions during the year, in these thrust areas, are given below:

Clean India (स्वच्छ भारत)

- BHEL continued with its CSR program for constructing bio-digester toilets in Haridwar & Rishikesh. Twenty-three clusters of these Bio-digester toilets have been completed.

Educated India (शिक्षित भारत)

- Financial support for distribution of "You can be Happy" series books followed by health & career counselling for KVS students in Delhi NCR through ISKCON.
- Construction of boys & girls hostel buildings at Govt. Polytechnic, Nizamabad, Telangana.



Financial support for construction, operation and maintenance of sulabh toilet complex at 12 Places in Varanasi and Chandauli, Uttar Pradesh



Distribution of Anti Haemophilic Factors (AHF) to poor haemophilic patients under CSR program "Heal-A-Soul-IV"-4th program in a series after Heal -A- Soul-I, II & III.

Healthy India (स्वस्थ भारत)

- BHEL continued with its program "Heal-A-Soul" and providing Anti Haemophilic Factors (AHF) to patients with Haemophilia in various aspirational districts across India.
- Financial support to Sulabh International Social Service Organisation for construction, operation and maintenance of sulabh toilet complex at 12 Places in Varanasi and Chandauli, Uttar Pradesh.



Free Health Camps under BHEL supported Jan Arogyam Community Healthcare program at village Sangail, District Nuh,Haryana

- Financial support for procurement of medical equipment for the health clinic in village Sangail, Nuh Block, district Nuh (Aspirational District), Haryana.



Flag off ceremony of Mobile Healthcare Unit under CSR initiatives of BHEL with HelpAge India at Noida, Uttar Pradesh

- BHEL continued its Financial support to HelpAge India for providing service of 03 (three) Mobile Healthcare Units, one each at Satpura (MP), Bikaner (Rajasthan) & Noida (UP).
- Financial support to "Nav Bharat Jagriti Kendra (NBJK), Hazaribag (Jharkhand)" for free cataract surgery in Bihar and Jharkhand. A total of 89 eye screening camps were organised covering 8230 individuals. A total of 1996 free cataract surgeries were conducted.
- Financial assistance to Impact India Foundation for providing healthcare service through "Lifeline Express – Hospital on Train" stationed at Panki Railway Station, Kanpur (UP) for treatment of major ailments such as eye care, ear care, plastic surgery, orthopedic and dental. It also covered awareness and education programme for the rural population and local medical staff. The project was extended from 5th July, 2021 till 24th July 2021 covering total of 7029 individuals from 3852 households.
- BHEL continued its financial support to NGO - "CanKids KidsCan" for providing medical assistance to 200 children aged between 0-19 and medical equipments for hospitals & palliative care centre for the children suffering from cancer across India (covering Aspirational Districts).
- Financial support for providing rainwater drainage system in Village Adsar, Tehsil Sridungargarh, Bikaner.

Inclusive India (समावेशी भारत)

- Financial support to Municipal Commissioner, Varanasi for installation of heritage street lighting system in Varanasi.
- BHEL continued its financial support to the "Professional Assistance for Development Action (PRADAN)" for the project: Motivating AgRarian communities of Kandhamal for Economic Transformation (MARKET) in Aspirational district Kandhamal of Odisha .

4.3 Annual Report for CSR Activities

(as per the requirement of The Companies (CSR Policy) Rules, 2014)

1 Brief outline on CSR Policy of the Company. **(Annexure-A)**

2. Composition of CSR Committee

S. No.	Name of Director	Designation/ Nature of Directorship	Number of meetings of CSR Committee Held during the year	Number of meeting of CSR Committee attended during the year
1	Manish Kapoor Independent Director	Chairperson	2	2
2	Rajesh Sharma Independent Director (upto February 13, 2022)	Member	2	2
3	Dr. K. Sivaprasad Independent Director (w.e.f. December 12, 2021)	Member	1	1
4	Aditya Prasad Sahu Independent Director (w.e.f. February 14, 2022)	Member	0	0
5	Director (Finance)	Member	2	2
6	Director (HR) (upto February 13, 2022)	Member	2	2

Head (CSR), Corporate Office is Permanent Invitee. Company Secretary acts as Secretary to the Committee.

3. Provide the web-link where Composition of CSR Committee, CSR Policy and CSR Projects approved the Board are disclosed on the website of the Company

   Web-link - https://www.bhel.com/csr

4. Provide the details of Impact assessment of CSR Projects carried out in pursuance of sub-rule (3) of rule 8 of the Companies (Corporate Social Responsibility Policy) Rules, 2014, if applicable (attach the report).

   An Impact Assessment of following completed CSR project valuing more than Rs. 1.00 Crore was got done from external agency. The details of project are as below.

Project	Implementing Agency	Impact Assessment done by
Construction of concrete cemented road in three villages of Davanagere, Karnataka.	BHEL	Crux Management Services Pvt. Ltd

   Executive summary of Impact assessment report is attached as **Annexure-B**

   Detailed Impact Assessment report will be available at the web link-https://www.bhel.com/csr

5. Details of the amount available for set off in pursuance of sub-rule (3) of rule 7 of the Companies (Corporate Social Responsibility Policy) Rules, 2014 and amount required for set off for the financial year, if any

S.No.	Financial Year	Amount available for set-off from preceding Financial Year (in ₹)	Amount required to be set-off for the Financial Year, if any (in ₹)
	Nil	NIL	NIL

6. Average net profit of the company as per section 135 (5). ------₹ (-)725.56 Crore

7. (a) Two percent of average net profit of the company as per section 135 (5) - ₹ (-)14.51 Crore

   (b) Surplus arising out of the CSR Projects or Programmes or activities of the previous Financial Years. --- Nil

   (c) Amount required to be set off for the Financial Year, if any. -- Nil

   (d) Total CSR obligation for the Financial Year (7a + 7b + 7c) --- Nil

8. (a) CSR amount spent or unspent for the Financial Year:

Total Amount Spent for the Financial Year (in ₹)	Amount Unspent (in ₹)				
	Total Amount transferred to Unspent CSR Account as per Section 135 (6)		Amount transferred to any fund specified under Schedule VII as per second proviso to section 135 (5)		
	Amount (In ₹Lakh)	Date of Transfer	Name of the Fund	Amount	Date of Transfer
Nil	Nil	N/A	Nil	Nil	N/A

* Unspent CSR amount ₹2126.95 lakh was transferred last year to a separate bank A/c as per Companies (CSR Policy) Amendment Rules, 2021. Out of this ₹911.08 lakh has been spent in FY 2021-22.

(b) Details of CSR amount spent against ongoing projects for the financial year: **₹867.10 lakh Attached as Annexure-C**

(c) Details of CSR amount spent against other than ongoing projects for the financial year:- Nil

(d) Amount spent in Administrative Overheads----------₹43.35 Lakh

(e) Amount spent on Impact Assessment, if applicable----₹0.626 Lakh

(f) Total amount spent for the Financial Year ----------₹911.08 Lakh
(8b + 8c + 8d + 8e)

(g) Excess amount for set off, if any ---------- ----------Nil---------

S. No.	Particular	Amount (in ₹lakh)
(i)	Two percent of average net profit of the company as per section 135 (5)	-1451
(ii)	Total amount spent for the Financial Year	911.08
(iii)	Excess amount spent for the financial year [(ii) – (i)]	Nil
(iv)	Surplus arising out of the CSR projects or programmes or activities of the previous financial years, if any	Nil
(v)	Amount available for set off in succeeding financial years [(iii) – (iv)]	Nil

9. (a) Details of Unspent CSR amount for the preceding three financial years:

S. No.	Preceding Financial Year	Amount transferred to Unspent CSR A/c under Sec 135 (6) (in ₹ Lakh)	Amount spent in the reporting Financial Year (in ₹ Lakh)	Amount transferred to any fund specified under Sch. VII as per sec. 135 (6), If any			Amount remaining to be spent in succeeding Financial years (in ₹ Lakh)
	2018-19	Nil	1601.45	Nil	Nil	N/A	2182.47
	2019-20	Nil	3511.53	Nil	Nil	N/A	1550.94
	2020-21	2126.95	1441.99	Nil	Nil	N/A	2126.95

(b) Details of CSR amount spent in the financial year for ongoing projects of the preceding financial year(s): ₹ 749.71 Lakh

Details attached as Annexure-D

10. In case of creation or acquisition of capital asset, furnish the details relating to the asset so created acquired through CSR spent in the financial year.: Nil

11. Specify the reason(s), if the company has failed to spend two per cent of the average net profit as per section 135(5).

1) As per section 135 (5), two percent of average net profit of the company for FY 2021-22 was ₹(-) 14.51 Crore. Therefore, CSR budget for FY 2021-22 was Nil

2) CSR spent during FY 2021-22 was out of CSR projects continuing from previous year and fund released from previous years completed/dropped CSR projects. As per CSR Policy of BHEL, the unspent committed amount will not lapse and will be used for CSR projects in future.

12. We hereby, declare that the implementation and monitoring of CSR Policy, is in compliance with CSR objectives and Policy of the company.

New Delhi
Date: 04.09.2022

Chairman & Managing Director

Chairperson
CSR Commitee

Annexure-A

BHEL Corporate Social Responsibility (CSR) Policy Outline

CSR Vision:

To be a responsible corporate citizen working towards a better tomorrow.

CSR Mission:

To sincerely & effectively discharge company's responsibility in the identified CSR thrust areas and other areas listed out in the Companies Act, 2013.

Objectives of the Policy:

- To define CSR projects or programs which BHEL plans to undertake and which fall within the purview of the Companies Act 2013, the Companies (CSR Policy) Rules, 2014 and the prevailing DPE Guidelines.
- Modalities of execution of such CSR projects or programs.
- Monitoring process of such CSR projects or programs.
- To make the stakeholders aware about CSR practices in BHEL.
- To work keeping in mind the larger objective of sustainable development in conduct of business and in pursuit of CSR agenda.

Salient Features of the Policy:

- It covers the requirements stated in the Companies Act-2013, the Companies (CSR Policy) Rules-2014 and DPE Guidelines on CSR & Sustainability;
- It defines the thrust areas for CSR activities, which are based on the activities mentioned in Schedule VII of the Companies Act, 2013.
- It specifies that 2% of average net profit during the three immediately preceding financial years will be allocated for CSR activities.
- The company shall give preference to the local areas for spending at least 75% of the amount earmarked for CSR activities.
- A project having total value equal to or more than ₹1 Crore will be termed as Mega project and Impact assessment of such projects will be mandatorily got done through an external agency.
- There is a provision to reserve 5% of the annual CSR budget as Emergency Fund to take up relief activities for any disaster/ calamity.
- It stipulates that 5% of total CSR expenditure for the year shall be kept as a reserve for capacity building including administrative overheads.
- It provides information about organizational structure for CSR in BHEL.

Web-Link to CSR Policy:

BHEL CSR Policy is hosted on www.bhel.com under CSR section and can be accessed through the link https://www.bhel.com/csr

Annexure-B
Executive Summary of Impact Assessment

CRUX

HR SOLUTIONS ● BPO SOLUTIONS ● BUSINESS CONSULTANCY ● TRAINING SOLUTIONS

Impact Assessment of CSR Project of Construction of Concrete Cement Road atthree villages viz. Musturu, Siddihally, MoodalaMachikere in Jagaluru Taluk,Davanegere District, Karnataka

Executive Summary

Solar Business Division, BHEL Bengaluru has focused its Corporate Social Responsibility (CSR) activities as a policy for sustainable development with an integrated approach towards health care and well-being of the people. With focus on overall well-being of the disadvantaged groups and also the socio-economic growth, development and healthcare of the underprivileged masses in the society, BHEL SBD undertook the project of construction of concrete roads in three villages viz.

Musturu, Siddihally, MoodalaMachikere in Jagaluru Taluk, Davanegere District, Karnataka in 2016-17. The villages are isolated villages with no road to reach for any basic amenities or aid in travel for study, work or business. Even till date, a villager of this district cannot drive a vehicle as the roads do not exist or even if they sparely do exist the condition of the road is bad and thus the poor villager faces lot of difficulties to reach or commute anywhere. The first need mentioned by the people was to connect to the other villages. 75% of the population is earning livelihood through agricultural labour and farming, while around 25% of the people are engaged in labour.

The road construction of these three villages was a proposal made under the SaansadAdarsh Gram Yojana, which aims at creating ideal Indian village keeping in view the present context, and was thereby considered an important aspect to consider under various CSR activities.

BHEL SBD undertook the CSR Mega project of construction of concrete cement roads in these three villages for a cost of Rs. 2.87 Crore. The implementing agency for the construction was Engineering Projects (India) Ltd. The duration of the project spanned from 24.02.2016 to 28.03.2018.

Crux Management Services Pvt. Ltd. HYDERABAD

CRUX MANAGEMENT SERVICES (P) LTD.

410 Life Style Building, 4th Floor,
My Home Tycoon, Kundanbagh,
Begumpet, Hyderabad - 500 016.
Phone : 040 - 2340 0339
email : mailadmin@cruxmanagement.com
email : crux.backend@gmail.com

Post implementation, SBD conducted Impact Assessment study of the project through third party M/s Crux Management Services (P) Ltd. The analysis followed the basic essence of impact assessment on the aspects of relevance, efficiency, effectiveness & uniqueness, Impact and sustainability for the project.

The Party conducted the assessment by collecting primary data from field visits to the three villages. To get a holistic view, the research team interviewed the beneficiaries, implementing agencies and BHEL officials. The assessment rates the projects high on the aspects of relevance, efficiency, effectiveness & uniqueness and Impact as the project yields positive results in those parameters. The impact assessment highlights inputs from the beneficiaries regarding the benefits of the road as immense to farmer community in saving time to reach other villages to sell produce, movement of vehicles, connectivity to schools, road safety in terms of street lights etc.

The CSR intervention of BHEL was aimed to improve the various aspects of the isolated area with the road laying before which the villagers were facing a lot of hardship to even manage their routine travel activities. The ripple effect of connecting people and communities across the region was observed.

The assessment however suggests scope of improvement in the parameter of sustainability such as, (i) Construction of road hump to avoid accidents where roads have bends and turns (ii) Developing a local team for maintaining the road free from road-wise weed growth. (iii) Installation of traffic signal lights to avoid accidents at sensitive points. (iv) Periodic repair of roads to control wear and tear of road.



Annexure-C

Details of CSR amount spent against ongoing projects for the financial year

(In ₹ Lakh)

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implementation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
											Amt. In ₹ Lakh
1	Providing Free Anti Haemophilic Factor (AHF) to Persons & Children with Haemophilia (P & Cwh) across India	1. Healthy India (स्वस्थ भारत)	Yes	Pan India	2	78.20	15.64	46.92	No	Haemophilia Federation India	N/A
2	Providing financial support for running 3 Mobile Health care Unit	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Gautam Budhh Nagar], Rajasthan [Bikaner], Madhya Pradesh [Satpura]	2	85.40	28.35	57.05	No	HelpaAge India	N/A
3	Financial support for distribution of "You can be Happy"series books followed by health & career counseling for KVS students in Delhi / NCR	2. Educated India (शिक्षित भारत)	Yes	Delhi/NCR	4	10.00	0.00	5.00	No	ISKCON, New Delhi	N/A
4	Community based mass communication programme for ovarian cancer and relationship of risk factors of vitamin D to rural/ underpriviledged society	1. Healthy India (स्वस्थ भारत)	Yes	Delhi/NCR	2	10.00	10.00	0.00	No	Sahbhagita International Foundation	N/A
5	Financial support to project Umeed- Sustainable menstrual health awareness and knowledge to menstruator	1. Healthy India (स्वस्थ भारत)	Yes	Delhi	2	10.00	10.00	0.00	No	Sachhi Saheli, Delhi	N/A
6	Financial support for carry out door disinfection in vicinity of Sector-17, Noida by using BHEL Mister Machine	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Gautam Budhh Nagar]	2	8.00	0.00	3.58	Yes	BHEL	N/A
7	Financial support for providing COVID testing facilities to under privileged workers and their families	1. Healthy India (स्वस्थ भारत)	Yes	Delhi	2	1.00	0.30	0.70	No	BHEL	N/A
8	Financial Support for "Providing free Healthcare to poor & needy" through Dispensaries run by "Shirdi Sai Baba Temple Society"	1. Healthy India (स्वस्थ भारत)	Yes	Haryana [Faridabad] & Delhi	2	10.00	6.00	0.00	No	Shirdi Sai Baba Temple Society, Faridabad	N/A

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implementation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
9	Financial support for COVID related activities for underprivileged section of society	1. Healthy India (स्वस्थ भारत)	Yes	Delhi/NCR	2	10.00	7.85	2.15	Yes	BHEL	N/A
10	Financial support for COVID related activities for underprivileged section of society	1. Healthy India (स्वस्थ भारत)	Yes	Delhi/NCR	2	1.00	0.00	1.00	Yes	BHEL	N/A
11	Providing Sanitizers, Gloves, Tharmometer etc to various Govt. schools	1. Healthy India (स्वस्थ भारत)	Yes	Tamil Nadu [Vellore]	2	2.42	2.42	0.00	No	BHEL	N/A
12	Installation of 4 Solar Water Pumps	4. Green India (ग्रीन भारत)	No	Chhatisgarh [Bastar] & Assam [Karimganj, Cachar]	5	50.00	2.35	6.60	No	BHEL	N/A
13	Providing AC Ambulance to BBMP(South Zone)	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	10.00	7.78	2.22	Yes	BHEL	N/A
14	Construction of Two Toi-lets with water facility in Govt. aided school, Deepanjalingara	2. Educated India (शिक्षित भारत)	Yes	Karnataka [Bangalore]	4	6.80	0.00	0.72	Yes	BHEL	N/A
15	Providing approx. 10, 000 RT PCR testing kits to Health Officer, Bruhuth Bengaluru Ni-gam Palike(BBMP), for testing people for pre-vention of COVID	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	0.68	0.00	0.68	Yes	BHEL	N/A
16	Providing Masks and Sanitizers to BBMP	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	6.32	2.72	3.60	Yes	BHEL	N/A
17	Providing 9300 numbers of Viral Transport Media to BBMP Health Officials	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	0.78	0.00	0.08	Yes	BHEL	N/A
18	Providing equipment and consumables to Viral Research and Diagnostic Laboratory (VRDL), Vija-yanagar Institute of Med-ical Sciences, Bellary	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bellary]	2	6.22	0.65	5.01	Yes	BHEL	N/A
19	Installation of 25 sets of Community Bio-digester Toilets Cluster along with drinking water facility	1. Clean India (स्वच्छ भारत)	Yes	Uttarakhand [Haridwar]	9	565.00	22.53	72.98	No	FICCI & DRDO	N/A
20	Financial support for distribution of Aids and Appliances to Divyang-jan."	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Haridwar], Telangana [Khammam], MP [Damoh], Bihar [Khagaria]	2	100.00	73.22	1.72	No	ALIMCO	N/A

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implementation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
21	Financial support to "MISSION SMILE" for cleft surgery of cleft patients	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Haridwar]	4	56.00	11.20	33.60	No	Mission Smile	N/A
22	Financial support to Lati-ka Roy Memorial Founda-tion, Dehradun for "Lati-ka Vihar – Come one: Come All."	2. Inclusive India (समावेशी भारत)	Yes	Uttarakhand [Dehradun]	3	19.00	0.00	9.27	No	Latika Roy Me-morial Founda-tion	N/A
23	COVID-19 Awareness, Sanitization, Distribution of Masks etc. and Health Camps during Kumbh Mela 2021	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Haridwar]	2	20.00	10.63	9.37	No	BHEL	N/A
24	Sanitization of Ghats and Roads etc. in Kumbh area through BHEL Mister during Kumbh Mela 2021	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Haridwar]	2	18.47	0.15	18.32	No	BHEL	N/A
25	Repair & Maintenance of Working Women Hostel	3. Responsible India (ज़िम्मेदार भारत)	Yes	Uttarakhand [Haridwar]	4	0.84	0.84	0.00	No	BHEL	N/A
26	Financial support to Chief Education Officer, Haridwar for the pro-curement and installation of 8 nos. of Water purifi-ers in the Hostels, Kas-turba Gandhi Residential	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Haridwar]	2	6.52	6.50	0.02	No	BHEL	N/A
27	Financial support for the treatment of leprosy patients and procure-ment of equipment at TLMTI Hospital, Salur (AP) and at TLMTI Hospital, Muzaffarpur (Bihar).	1. Healthy India (स्वस्थ भारत)	Yes	Andhra Pradesh [Viziana-garam], Bihar [Muzaf-farpur]	2	62.02	45.04	0.00	No	The Leprosy Mission Trust India (TLMTI), New Delhi	N/A
28	Financial support to Mu-nicipal Commissioner Varanasi for Installation of Heritage Street Light-ing system	3. Inclusive India (समावेशी भारत)	Yes	Uttar Pradesh [Varanasi]	3	100.00	30.00	70.00	No	Municipal Com-missioner Vara-nasi	N/A
29	Financial support to Sulabh International, Lucknow for construc-tion, operation and maintenance of Sulabh Toilet Complex at 12 Places	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Varanasi, Chandauli]	3	315.00	104.29	210.71	No	Sulabh Interna-tional, Lucknow	CSR 00000185
30	Financial support for motivating agrarian communities of Kandha-mal (Odisha) for their Economic Transformation	2. Inclusive India (समावेशी भारत)	No	Odisha [Kandhamal]	3	131.90	38.73	86.84	No	Professional Assistance for Development Action (PRA-DAN), NOIDA	N/A

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implementation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
31	Supply of foot operated wash basin to schools to control COVID	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Amethi]	2	1.00	1.00	0.00	Yes	BHEL	N/A
32	Distribution of Thermal Scanner to schools to control COVID19	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Amethi]	2	1.44	1.44	0.00	Yes	BHEL	N/A
33	Sanitization of primary school to control COVID	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Amethi]	2	0.46	0.46	0.00	Yes	BHEL	N/A
34	Construction of RCC Deck Slab Bridge from Makali to Horokyathanahalli Road	3. Inclusive India (समावेशी भारत)	Yes	Karnataka [Bangalore]	9	75.35	1.91	0.01	No	DM, Bangalore North, Karnataka	N/A
35	Providing Sanitizers, Masks and Thermal Scanners to the Anganwadi Centres	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	2.50	0.00	0.25	Yes	BHEL	N/A
36	Providing Sanitizers, Masks and Thermal Scanners to the Anganwadi Centres	1. Healthy India (स्वस्थ भारत)	Yes	Karnataka [Bangalore]	2	4.50	0.00	0.14	Yes	BHEL	N/A
37	Financial support for treating children born with club foot disability	1. Healthy India (स्वस्थ भारत)	Yes	Uttarakhand [Rishikesh], Uttar Pradesh [Jhansi], Assam [Guwahati], Odisha [Bhubaneshwar]	2	31.65	22.84	0.00	No	Cure International India Trust (CIIT), New Delhi	N/A
38	Distribution of Covid cum Nutrition kits amongst 1450 labourers in and around PSER/ Rourkela Site	1. Healthy India (स्वस्थ भारत)	Yes	Odisha [Sambalpur]	2	9.93	0.34	0.05	Yes	BHEL	N/A
39	Distribution of Covid cum Nutrition kits amongst 1200 villager families in and around PSER/North Karanpura site	1. Healthy India (स्वस्थ भारत)	Yes	Jharkhand [Chatra]	2	9.80	0.31	0.21	Yes	BHEL	N/A
40	Distribution of Covid cum Nutrition kits amongst 1150 villagers / labourers in and around PSER/Sagardighi site	1. Healthy India (स्वस्थ भारत)	Yes	West Bengal [Murshidabad]	2	8.80	0.17	0.25	Yes	BHEL	N/A
41	Construction of Sarai building (for 100 People) at Dr. RPGMC, Kangra	1. Healthy India (स्वस्थ भारत)	Yes	Himachal Pradesh [Tanda]	8	200.00	80.00	40.00	No	PWD, HP and HSCC	N/A
42	JAN AROGYAM Community Healthcare Programme in Nuh	1. Healthy India (स्वस्थ भारत)	Yes	Haryana [Nuh]	2	20.00	8.87	2.96	No	Bisnouli Sarvo-daya Gramodyog Sewa Sansthan (BSGSS)	N/A

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implemen-tation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
43	Providing medical assis-tance for 200 children suffering from cancer across India	1. Healthy India (स्वस्थ भारत)	Yes	Pan India	2	95.26	75.53	19.73	No	Cankids Kidscan	N/A
44	Providing financial suppoer to Impact Indai Foundation to Heathcare services throgh Lifeline Express-Hospital on train	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Kanpur]	2	99.61	87.24	12.37	No	Impact India Foundation	N/A
45	Financial support for Procurement of Medical Equipment for the Health Clinic in Village Sangail, Nuh Block	1. Healthy India (स्वस्थ भारत)	Yes	Haryana [Nuh]	1	13.10	13.10	0.00	No	Bisnouli Sarvo-daya Gramodyog Sewa Sansthan (BSGSS)	T12900486
46	Construction of Boys & Girls Hostel buildings at Govt. Polytechnic	2. Educated India (शिक्षित भारत)	Yes	Telangana [Nizamabad]	5	300.00	0.00	62.14	No	Dist. Panchayat Raj Engineer, PIU, Nizamabad	N/A
47	Installation of Pyrolator Unit for solid waste management	1. Clean India & Green India (स्वच्छ भारत) (ग्रीन भारत)	Yes	Tamil Nadu [Tiruvallur]	4	75.00	35.91	39.09	No	District Collec-tor, Tiruvallur	N/A
48	Providing financial sup-port to district Collector for setting up 36 Gyms	1. Healthy India (स्वस्थ भारत)	Yes	Telangana [Suryapet]	2	360.00	26.39	333.61	No	District Collec-tor, Surayapet	N/A
49	Providing sanitizer, masks, soaps to BPL families affected during COVID	1. Healthy India (स्वस्थ भारत)	Yes	Tamil Nadu [Virudhnagar]	2	0.59	0.59	0.00	No	Hand in Hand India, Chennai	N/A
50	Financial support for free cataract surgery of cataract-blind patients	1. Healthy India (स्वस्थ भारत)	Yes	Jharkhand [Hazaribag]	2	44.00	32.25	0.09	No	Nav Bharat Ja-griti Kendra (NBJK), Hazari-bag (Jharkhand)	N/A
51	Financial Support for Providing Rainwater Drainage system in Village Adsar	1. Healthy India (स्वस्थ भारत)	Yes	Rajasthan [Bikaner]	2	20.00	20.00	0.00	No	Development Officer, Pancha-yat Samiti, Sridungargarh, Bikaner	N/A
52	Financial support for construction of Tin shed & Chowki at Govt. Sr. Sec,. School, Janglu	1. Healthy India (स्वस्थ भारत)	Yes	Rajasthan [Bikaner]	2	18.90	6.08	12.83	No	BDO, Panchu	N/A
53	Financial support for construction of Tin shed (mid day meal) at Govt. Hr. Primary School, Lunkaransar	1. Healthy India (स्वस्थ भारत)	Yes	Rajasthan [Bikaner]	2	10.00	0.00	10.00	No	Chief Block Edu-cation Officer, Lunkaransar	N/A

S. No.	Name of the project	Item No. from schedule VII in the Act	Local Area (Yes/ No)	Location of the Project	Project duration (Years)	Amt. allocated	Amt. spent in Current FY	Amt. transferred to unspent CSR A/c.	Implementation Mode Direct (Yes/No)	Implementing Agency	
				State, District						Name	CSR Registration No
54	Providing Auto Kerato Refractometer to Kalyanam Karoti, who is working for eradication of blindness	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Mathura]	2	3.65	3.65	0.00	No	Kalyanam Karoti	N/A
55	Providing a Scan Machine to Kalyanam Karoti, who is working for eradication of blindness	1. Healthy India (स्वस्थ भारत)	Yes	Uttar Pradesh [Mathura]	2	4.50	4.50	0.00	No	Kalyanam Karoti	N/A
56	Providing Racking/ Shelving system for Cold Storage of AHF to HFI	1. Healthy India (स्वस्थ भारत)	Yes	Delhi	2	1.50	1.50	0.00	No	Hemophilia Federation India	N/A
57	Providing centralized Digital Scanner for HFI	1. Healthy India (स्वस्थ भारत)	Yes	Delhi	2	0.50	0.50	0.00	No	Hemophilia Federation India	N/A
58	Distribution of Food packets among Ariyalur site labour and nearby villagers	1. Healthy India (स्वस्थ भारत)	Yes	Tamil Nadu [Kallakurchi]	2	2.00	0.35	0.02	No	BHEL	N/A
59	Provide Mask, surgical gloves and Surgical Masks to Mahatma Gandhi Govt. Hospitals and Govt. Primary Health Centres	1. Healthy India (स्वस्थ भारत)	Yes	Tamil Nadu [Tiruchirappal-li]	2	5.00	5.00	0.00	Yes	BHEL	N/A
						3120.59	**867.10**	**1215.87**			

Annexure-D

Details of CSR amount spent in the financial year for ongoing projects of the preceding financial year(s)

(In ₹ Lakh)

S. No.	Project ID	Name of the project	Financial Year in which the project was commenced	Project duration (Yrs)	Total Amount allocated for the project	Amount spent on the project in the reporting Financial year	Cumulative amount spent at the end of the reporting FY	Status of the project, completed/ ongoing
1	CSR/AA/20-21/01	Providing Free Anti Haemophilic Factor (AHF) to Persons & Children with Haemophilia (P & Cwh) across India	2020-21	2	78.20	15.64	31.28	Ongoing
2	CSR/AA/20-21/02	Providing financial support for running 3 Mobile Health care Unit	2020-21	2	85.40	28.35	28.35	Ongoing
3	CSR/AA/20-21/03	Community based mass communication programme for ovarian cancer and relationship of risk factors of vitamin D to rural/underprivileged society	2020-21	2	10.00	10.00	10.00	Completed
4	CSR/AA/20-21/04	Financial support to project Umeed-Sustainable menstrual health aware-ness and knowledge to menstruator	2020-21	2	10.00	10.00	10.00	Completed
5	CSR/AA/20-21/06	Financial support for providing COVID testing facilities to under privileged workers and their families	2020-21	2	1.00	0.30	0.30	Completed
6	CSR/AA/20-21/07	Financial Support for "Providing free Healthcare to poor & needy" through Dispensaries run by "Shirdi Sai Baba Temple Society"	2020-21	2	10.00	6.00	10.00	Completed
7	CSR/AA/20-21/08	Financial support for COVID related activities for underprivileged section of society	2020-21	2	10.00	7.85	7.85	Ongoing
8	CSR/BAP/20-21/02	Providing Sanitizers, Gloves, Thermometer etc to various Govt. schools	2020-21	2	2.42	2.42	2.42	Completed
9	CSR/EDN/17-18/01	Installation of 4 Solar Water Pumps	2017-18	5	50.00	2.35	43.40	Completed
10	CSR/EDN/20-21/01	Providing AC Ambulance to BBMP (South Zone)	2020-21	2	10.00	7.78	7.78	Completed
11	CSR/EDN/20-21/03	Providing Masks and Sanitizers to BBMP	2020-21	2	6.32	2.72	2.72	Completed
12	CSR/EPD/20-21/02	Providing equipment and consumables to Viral Research and Diagnostic Laboratory (VRDL), Institute of Medical Sciences, Bellary	2020-21	2	6.22	0.65	1.21	Completed
13	CSR/HEEP/14-15/01	Installation of 25 sets of Community Bio-digester Toilets Cluster along with drinking water facility	2014-15	9	565.00	22.53	492.02	Ongoing

S. No.	Project ID	Name of the project	Financial Year in which the project was commenced	Project duration (Yrs)	Total Amount allocated for the project	Amount spent on the project in the reporting Financial year	Cumulative amount spent at the end of the reporting FY	Status of the project, completed/ ongoing
14	CSR/HEEP/20-21/01	Financial support for distribution of Aids and Appliances to Divyangjan.	2020-21	2	100.00	73.22	98.28	Completed
15	CSR/HEEP/19-20/01	Financial support to "MISSION SMILE" for cleft surgery of cleft pa-tients in Haridwar	2019-20	4	56.00	11.20	22.40	Ongoing
16	CSR/HEEP/20-21/03	COVID-19 Awareness, Sanitization, Distribution of Masks etc. and Health Camps during Kumbh Mela 2021	2020-21	2	20.00	10.63	10.63	Completed
17	CSR/HEEP/20-21/04	Sanitization of Ghats and Roads etc. in Kumbh area during Kumbh Mela 2021	2020-21	2	18.47	0.15	0.15	Completed
18	CSR/HEEP/18-19/03	Expenses on Repair & Maintenance of Working Women Hostel	2018-19	4	0.84	0.84	0.84	Completed
19	CSR/HEEP/20-21/10	Financial support to Chief Education Officer, Haridwar for the procurement and installation of 8 nos. of Water purifiers in the Hostels, Kasturba Gandhi Residential	2020-21	2	6.52	6.50	6.50	Completed
20	CSR/HERP/20-21/01	Financial support for the treatment of leprosy patients and procurement of equipment at TLMTI Hospital, Salur (AP) and at TLMTI Hospital, Muzaffarpur (Bihar).	2020-21	2	62.02	45.04	62.02	Completed
21	CSR/HERP/20-21/02	Financial support to Municipal Commissioner Varanasi for Installation of Heritage Street Lighting system	2020-21	3	100.00	30.00	30.00	Ongoing
22	CSR/HPVP/20-21/01	Financial support for Motivating AgRarian communities of Kandhamal (Odisha) for their Economic Transformation	2020-21	3	131.90	38.73	45.06	Ongoing
23	CSR/IP/1-20/02	Supply of foot operated wash basin to schools to control COVID-19	2020-21	2	1.00	1.00	1.00	Completed
24	CSR/IP/1-20/03	Distribution of Thermal Scanner to schools to control COVID-19	2020-21	2	1.44	1.44	1.44	Completed
25	CSR/IP/1-20/04	Sanitization of primary school to control COVID-19	2020-21	2	0.46	0.46	0.46	Completed
26	CSR/ISG/13-14/01	Construction of RCC Deck Slab Bridge from Makali to Horokyathanahalli Road, Bangalore North	2013-14	9	75.35	1.91	75.34	Completed
27	CSR/PSER/20-21/01	Financial support for treating children born with club foot disability at Rishikesh(Uttarakhand), Jhansi(UP), Guwahati (Assam) and Bhubaneshwar (Odisha)	2020-21	2	31.65	22.84	31.65	Completed
28	CSR/PSER/20-21/02	Distribution of Covid cum Nutrition kits amongst 1450 labourers in and around PSER/Rourkela Site	2020-21	2	9.93	0.34	9.89	Completed
29	CSR/PSER/20-21/03	Distribution of Covid cum Nutrition kits amongst 1200 villager families in and around PSER/North Karanpura site	2020-21	2	9.80	0.31	9.59	Completed

S. No.	Project ID	Name of the project	Financial Year in which the project was commenced	Project duration (Yrs)	Total Amount allocated for the project	Amount spent on the project in the reporting Financial year	Cumulative amount spent at the end of the reporting FY	Status of the project, completed/ ongoing
30	CSR/PSER/20-21/06	Distribution of Covid cum Nutrition kits amongst 1150 villagers / labourers in and around PSER/Sagardighi site	2020-21	2	8.80	0.17	8.54	Completed
31	CSR/PSNR/15-16/01	Construction of Sarai building (for 100 People) at Dr. RPGMC, Tanda, HP	2015-16	8	200.00	80.00	160.00	Ongoing
32	CSR/PSNR/20-21/01	JAN AROGYAM Community Healthcare Programme in Nuh, Haryana	2020-21	2	20.00	8.87	17.04	Ongoing
33	CSR/PSNR/20-21/02	Providing medical assistance for 200 children suffering from cancer across India	2020-21	2	95.26	75.53	75.53	Ongoing
34	CSR/PSNR/20-21/03	Providing financial support to Impact India Foundation to Heathcare services through Lifeline Express Hospital on train	2020-21	2	99.61	87.24	87.24	Completed
35	CSR/PSSR/19-20/01	Installation of Pyrolator Unit for solid waste management	2019-20	4	75.00	35.91	35.91	Ongoing
36	CSR/PSSR/20-21/01	Providing financial support to district Collector for setting up 36 Gyms	2020-21	2	360.00	26.39	26.39	Ongoing
37	CSR/PSSR/20-21/09	Providing sanitizer, masks, soaps to BPL families affected during COVID	2020-21	2	0.59	0.59	0.59	Completed
38	CSR/PSWR/20-21/01	Financial support for free cataract surgery of cataract-blind patients from nearby areas in Bihar and Jharkhand.	2020-21	2	44.00	32.25	43.91	Completed
39	CSR/RODM/19-20/01	Financial Support for Providing Rainwater Drainage system in Village Adsar, Bikaner	2020-21	2	20.00	20.00	20.00	Completed
40	CSR/RODM/19-20/02	Financial support for construction of Tin shed & Chowki at Govt. Sr. Sec,. School, Janglu, Bikaner	2020-21	2	18.90	6.08	6.08	Ongoing
41	CSR/TBG/20-21/01	Providing Auto Kerato Refractometer to Kalyanam Karoti, who is working for eradication of blindness	2020-21	2	3.65	3.65	3.65	Completed
42	CSR/TBG/20-21/02	Providing a Scan Machine to Kalyanam Karoti, who is working for eradication of blindness	2020-21	2	4.50	4.50	4.50	Completed
43	CSR/TBG/20-21/03	Providing Racking/ Shelving system for Cold Storage of AHF to HFI	2020-21	2	1.50	1.50	1.50	Completed
44	CSR/TBG/20-21/04	Providing centralized Digital Scanner for HFI	2020-21	2	0.50	0.50	0.50	Completed
45	CSR/TBG/20-21/06	Distribution of Food packets among Ariyalur site labour and nearby villagers	2020-21	2	2.00	0.35	1.98	Completed
46	CSR/HPBP/20-21/09	Provide Mask, surgical gloves and Surgical Masks to Mahatma Gandhi Govt. Hospitals and Govt. Primary Health Centres	2020-21	2	5.00	5.00	5.00	Completed
					2434.48	**749.71**	**1550.93**	

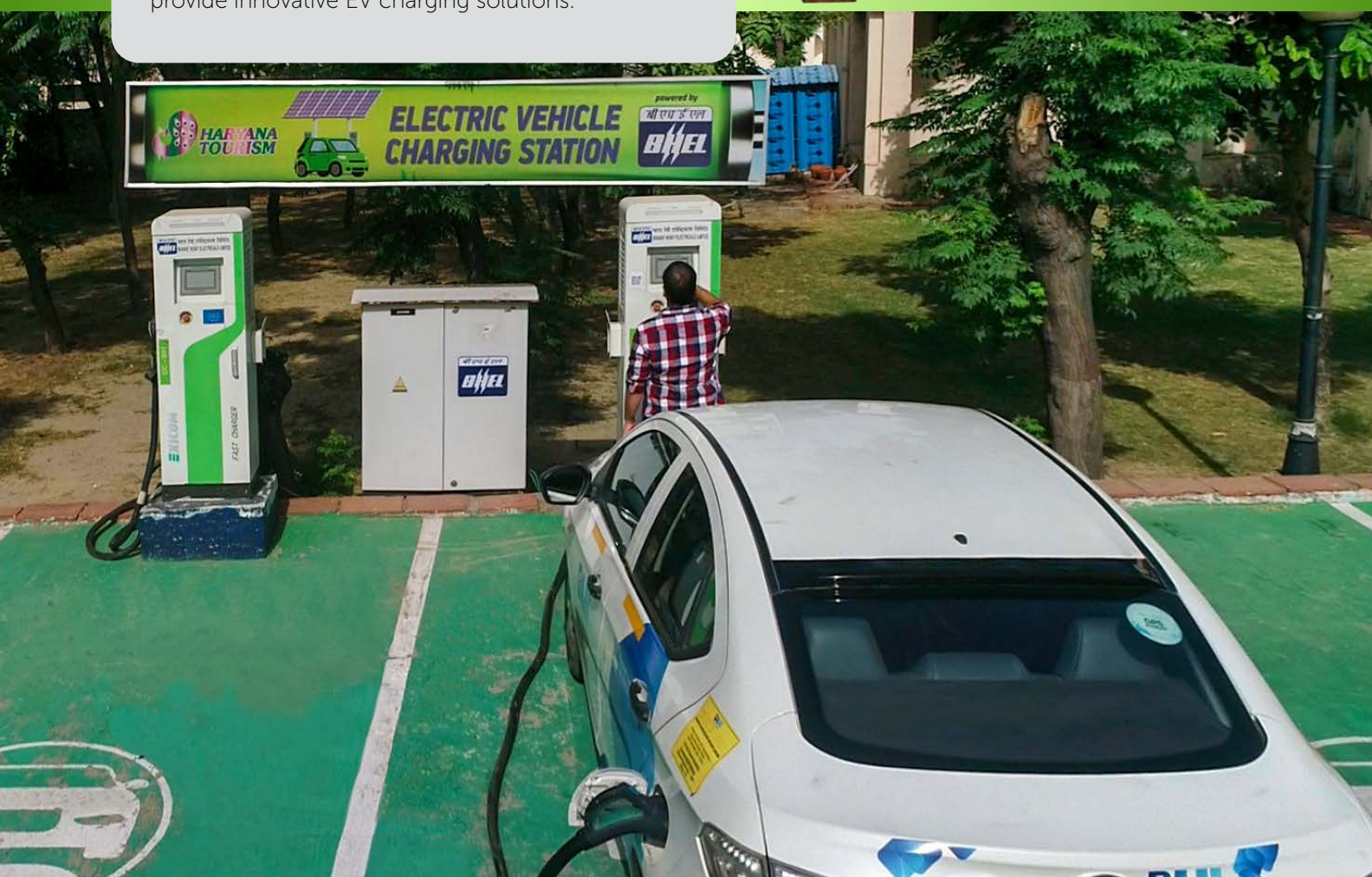
Energizing **e-mobility !**

BHEL is committed to the nation's e-mobility mission and has set up several EV-charging stations across India. Company has installed solar based EV-charging stations (combination of AC001/DC001/72 kW charger rating) at 20 locations along Delhi-Chandigarh Highway making it the first e-mobility friendly highway in the country.

Proliferation of e-vehicles in domestic market is inevitable and for their quick adoption requires high speed chargers. BHEL has now developed and certified from ARAI Pune, its 122 kW EV fast charger compliant to CCS / CHAdeMO / Type-II charging protocols.

The prime focus is now to develop and offer different rating EV chargers for prevalent electric cars and e-buses. Equipped with engineering and product development capabilities BHEL is fully geared-up to provide innovative EV charging solutions.





Annexure-V Business Responsibility & Sustainability Report

Section A: General Disclosures

I. Details of the listed entity

1	**Corporate Identity Number (CIN) of the Company:**	L74899DL1964GOI004281
2	**Name of the Company:**	BHARAT HEAVY ELECTRICALS LIMITED
3	**Year of incorporation**	13 November 1964
4	**Registered Office Address:**	BHEL House, Siri Fort, New Delhi–110 049
5	**Corporate Address**	BHEL House, Siri Fort, New Delhi – 110049
6	**E-mail id:**	shareholderquery@bhel.in
7	**Telephone:**	011-66337598
8	**Website:**	**www.bhel.com**
9	**Financial Year reported:**	2021-22
10	**Name of the Stock Exchange(s) where shares are listed:**	BSE and NSE
11	**Paid-up Capital:**	₹696.41 crores
12	**Name and contact details (telephone, email address) of the person who may be contacted in case of any queries on the BRSR report:**	Ajay Saxena (AGM – Corporate Strategic Management), email: ajaysaxena@bhel.in, 011-66337390
13	**Reporting boundary - Are the disclosures under this report made on a standalone basis (i.e. only for the entity) or on a consolidated basis (i.e. for the entity and all the entities which form a part of its consolidated financial statements, taken together):**	Standalone basis

II. Products/Services

14. Details of business activities (accounting for 90% of the turnover):

S.No.	Description of Main Activity	Description of Business Activity	% of Turnover of the entity
1	Manufacturing	Electrical equipment, General Purpose and Special purpose Machinery & equipment, Transport equipment	100%

15. Products/Services sold by the entity (accounting for 90% of the entity's Turnover):

S.No.	Product/Service	NIC Code	% of total contributed Turnover
1.	Manufacture of Steam Generators including auxiliary plant for use with steam generators	2513	29%
2.	Construction of Power Plant	4220	23%
3.	Manufacture of Turbine, Generator sets including auxiliaries	2811	23%
4.	Manufacture of electric motors, transformers and electricity distribution and control apparatus etc.	2710	15%

III. Operations

16. Number of locations where plants and/or operations/offices of the entity are situated:

Location	Number of plants	Number of offices	Total
National	16	29	45
International	0	3	3

The company has 16 manufacturing units (or plants), 2 repair units, 4 regional offices, 8 service centres, and 15 regional marketing centres. For plant names, Refer 'Pan India Presence'.

International locations : Damascus, Syria; Dhaka, Bangladesh; Kathmandu, Nepal.

17. Markets served by the entity:

a. Number of locations

Locations	Number
National (No. of States)	28 (states), 8 (Union Territories)
International (No. of Countries)	88

b. What is the contribution of exports as a percentage of the total turnover of the entity?

Exports contribute 7.53% of total turnover.

c. A brief on types of customers

In domestic market, BHEL customer ranges from Government and private owned entities. While in International market, BHEL customers ranges from Government ministries or entities, Parastatal agencies, Independent Power Producers (IPP) and Private companies.

IV. Employees

Refer definitions of 'Employee' under Sec 2 (l) of the Industrial Relations Code, 2020 and 'worker' under Sec 2 (zr) of the Industrial Relations Code, 2020 as per the guidelines of BR&SR format. Also refer definition of 'permanent employee' and 'permanent worker' 2020 in the guidelines of BR&SR format.

18. Details as at the end of Financial Year:

a. Employees and workers (including differently abled):

SNo	Particulars	Total (A)	Male		Female	
			No. (B)	% (B/A)	No. (C)	% (C / A)
Employees						
1.	Permanent (D)	30758	28925	94%	1833	6%
2.	Other than Permanent (E)	15324	13791	90%	1533	10%
3.	Total employees (D + E)	46082	42716	93%	3366	7%
Workers						
4.	Permanent (F)	15720	15305	97%	415	3%
5.	Other than Permanent (G)	15260	13728	90%	1532	10%
6.	Total workers (F + G)	30980	29033	94%	1947	6%

b. Differently abled Employees and workers:

SNo	Particulars	Total (A)	Male		Female	
			No. (B)	% (B/A)	No. (C)	% (C / A)
Differently Abled Employees						
1.	Permanent (D)	842	816	97%	26	3%
2.	Other than Permanent (E)	50	36	72%	14	28%
3.	Total employees (D + E)	892	852	96%	40	4%
Differently Abled Workers						
4.	Permanent (F)	415	410	99%	5	1%
5.	Other than Permanent (G)	50	36	72%	14	28%
6.	Total workers (F + G)	465	446	96%	19	4%

19. Participation/ Inclusion/ Representation of women

	Total (A)	No. and percentage of Females	
		No. (B)	% (B/A)
Board of Directors	12	2	16.67%
Key Management Personnel	1	0	0%

* status as on March 31, 2022

20. Turnover rate for permanent employees and workers

	Male	Female	Total	Male	Female	Total	Male	Female	Total
Permanent employee	5.45%	3.77%	5.29%	4.13%	5.28%	5.17%	3.81%	6.26%	6.04%
Permanent worker	3.71%	6.51%	3.78%	6.71%	4.60%	4.65%	6.25%	4.73%	4.77%

Natural attrition has major contribution to employee turnover rate for BHEL.

V. Holding, Subsidiary and Associate Companies (including joint ventures)

21. (a) Names of holding / subsidiary / associate companies / joint ventures

Refer Annexure IX to the Board Report – Form AOC –I. These entities do not participate in Business Responsibility initiatives of BHEL.

VI. CSR Details

22. CSR details

(i) Whether CSR is applicable as per section 135 of Companies Act, 2013: (Yes/No)
Yes, CSR is applicable for BHEL

(ii) Turnover: ₹ 20,153 crore

(iii) Net worth: ₹ 26,971 crore

VII. Transparency and Disclosures Compliances

23. Complaints/Grievances on any of the principles (Principles 1 to 9) under the National Guidelines on Responsible Business Conduct:

Stakeholder group from whom complaint is received	Grievance Redressal Mechanism in Place (Yes/No) (If Yes, then provide web-link for grievance redress policy)	FY 2021-22			FY 2020-21		
		Number of complaints filed during the year	Number of complaints pending resolution at close of the year	Remarks	Number of complaints filed during the year	Number of complaints pending	Remarks
Communities	Yes https://pgportal.gov.in	253	0	-	225	0	-
Investors (other than shareholders)	No	0	0	-	0	0	-
Shareholders	Yes The contact details provided at www.bhel.com	37	0	-	265	0	-
Employees and workers	Yes, (Internal system)	53	32	-	57	42	-
Customers*	Yes, (Internal system)	509	173	-	361	19	-
Value Chain Partners	Yes https://suvidha.bhel.in/	68	11	-	63	11	-
Other (please specify)	-	-	-	-	-	-	-

* System for consolidating customer complaint is under implementation

Refer Annexure – II to Board's Report, Corporate Governance, Shareholders committee

Refer Annexure – VIII to Board's Report, Vigil Mechanism

24. Overview of the entity's material responsible business conduct issues

Refer Annexure – I to Board's Report, Risks and Concerns.

SECTION B: MANAGEMENT AND PROCESS DISCLOSURES

This section is aimed at helping businesses demonstrate the structures, policies and processes put in place towards adopting the NGRBC Principles and Core Elements.

Disclosure Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
Policy and management processes									
1. a. Whether your entity's policy/policies cover each principle and its core elements of the NGRBCs. (Yes/No)	Y	Y	Y	Y	Y	Y	N	Y	Y
b. Has the policy been approved by the Board? (Yes/No)	Once a policy is approved by the Board, it need not be necessarily signed by CMD/Board Director								
c. Web Link of the Policies, if available	Weblinks have been provided wherever applicable								
2. Whether the entity has translated the policy into procedures. (Yes / No)	Y	Y	Y	Y	Y	Y	Y	Y	Y
3. Do the enlisted policies extend to your value chain partners? (Yes/No)	N	N	N	N	N	N	N	N	N
4. Name of the national and international codes/certifications/labels/ standards (e.g. Forest Stewardship Council, Fairtrade, Rainforest Alliance, Trustea) standards (e.g. SA 8000, OHSAS, ISO, BIS) adopted by your entity and mapped to each principle.	ISO 9001; ISO 14001; OHSAS 18001/ ISO 45001; ten principles of UNGC on human rights, labour, environment and anti-corruption; DPE guidelines								
5. Specific commitments, goals and targets set by the entity with defined timelines, if any.	Any commitments, goals and targets are provided in Section C wherever applicable								
6. Performance of the entity against the specific commitments, goals and targets along-with reasons in case the same are not met.	Performance against specific commitments, goals and targets are provided in Section C wherever applicable								
Governance, leadership and oversight									
7. Statement by director responsible for the business responsibility report, highlighting ESG related challenges, targets and achievements ***(listed entity has flexibility regarding the placement of this disclosure)***									
8. Details of the highest authority responsible for implementation and oversight of the Business Responsibility policy (ies).	Name: Upinder Singh Matharu Designation: Director (Power), additional charge (HR) DIN: 0009541886 Telephone: 011- 26001002, Email id: pmgus@bhel.in								
9. Does the entity have a specified Committee of the Board/ Director responsible for decision making on sustainability related issues? (Yes / No). If yes, provide details.	Yes Name: Upinder Singh Matharu Designation: Director (Power), additional charge (HR) DIN: 0009541886 Telephone: 011- 26001002, Email id: pmgus@bhel.in								

Subject for Review	Indicate whether review was undertaken by Director / Committee of the Board/Any other Committee									Frequency (Annually/ Half yearly/ Quarterly/ Any other – please specify)								
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P1	P2	P3	P4	P5	P6	P7	P8	P9
10. Details of Review of NGRBCs by the Company:																		
Performance against above policies and follow up action	Reviews and frequency are provided in Section C of BRSR wherever applicable.																	
Compliance with statutory requirements of relevance to the principles, and, rectification of any non-compliances	Review and frequency on compliance with statutory requirement are provided in Section C of BRSR wherever applicable.																	
11. Has the entity carried out independent assessment/ evaluation of the working of its policies by an external agency? (Yes/No). If yes, provide name of the agency.	P1	P2	P3	P4	P5	P6	P7	P8	P9									
	Policies and procedures of the organization are subject to audits/ reviews during/ by ISO 9001, ISO 14001, OHSAS 18001, ISO 27001, CAG, Parliamentary Committees, Administrative Ministry etc.																	

Notes

1. We have various practices & procedures established based on these principles, but do not have formal policy document with respect to one of them.
2. Once a policy is approved by the Board, it need not be necessarily signed by CMD/Board Director.
3. Policies and procedures of the organization are subject to audits/reviews during/by ISO 9001, ISO 14001, OHSAS 18001, ISO 27001, CAG, Parliamentary Committees, Administrative Ministry etc.

12. If answer to question (1) above is "No" i.e. not all Principles are covered by a policy, reasons to be stated:

Questions	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8	P 9
The entity does not consider the Principles material to its business (Yes/No)	No	No	No	No	No	No	No	No	No
The entity is not at a stage where it is in a position to formulate and implement the policies on specified principles (Yes/No)	No	No	No	No	No	No	Yes	No	No
The entity does not have the financial or/human and technical resources available for the task (Yes/No)	No	No	No	No	No	No	No	No	No
It is planned to be done in the next financial year (Yes/No)	No	No	No	No	No	No	No	No	No
Any other reason (please specify)	No	No	No	No	No	No	No	No	No

In respect of Principle 7 referring to Policy Advocacy, although company doesn't have policy but follow established practices based on 'Policy advocacy in responsible manner'.

SECTION C: PRINCIPLE WISE PERFORMANCE DISCLOSURE

Principle 1: Ethics, Transparency and Accountability

The company has a Board approved 'Code of Business Conduct & Ethics' for all Board Members and Senior Management personnel in compliance with the requirements of DPE Guidelines on Corporate Governance for CPSEs and SEBI's Listing Regulations.

https://www.bhel.com/code-business-conduct-ethics-board-members-senior-management-personnel

The Board has a laid down a Charter of the Board of Directors which clearly defines the roles and responsibilities of the Board and individual Directors. Further, the company endeavors to preserve the confidentiality of unpublished price sensitive information and prevent abuse of such information. Towards this a Board approved policy 'BHEL Code of Conduct for Regulating & Reporting Trading by Designated Persons & their Immediate Relatives and for Fair Disclosure' in line with SEBI (Prohibition of Insider Trading) Regulations - 2015 and Listing Regulations directs that Board members and other Designated Employees of the company have a duty to safeguard the confidentiality of all such information obtained in the course of their work at the company. The Code also provides for practices and procedures for fair disclosure of unpublished price sensitive information (UPSI).

https://www.bhel.com/code-conduct-prevention-insider-trading

For effective implementation of the Insider Trading Code, an internal Operating Guidelines is in place. A structured digital database containing names of all 'Designated Persons' along with details of additional persons with whom UPSI was shared is in place. Details of initial and continual disclosures are being submitted by these Designated Persons within prescribed timelines. In addition, emails notifying the 'Designated Persons' that they are in possession of UPSI and that they must ensure its confidentiality, is sent simultaneously along with the emails intimating Closure of Trading Window. A separate email is also sent to those persons with whom UPSI is shared by the 'Designated Persons'.

In line with the requirements of DPE Guidelines on Corporate Governance and the Listing Regulations, BHEL provides progress reports on quarterly basis to MHI and stock exchanges. The audit of the Company's compliance with corporate governance requirements as well as secretarial audit of BHEL's compliance with statutory laws is conducted each year and the said reports form part of the Annual Report of the Company. In compliance with the Listing Regulations, all Board members and Senior Management personnel affirm annually that they have fully complied with the provisions of the Code of Business Conduct and Ethics during the relevant financial year and affirmation to this effect is given by the Chairman & Managing Director in the Annual Report of the Company. For the purpose of the 'Code of Conduct for Regulating & Reporting Trading by Insiders and for Fair Disclosure, Director (Finance) is the compliance officer of the Company. In addition, the Chief Investor Relations Officer of the Company ensures compliance of 'Code of Practice and Procedure for Fair Disclosure'.

In addition, as a part of BHEL's persisting endeavor to set a high standard of conduct for its employees (other than those governed by standing orders), 'BHEL Conduct, Discipline and Appeal Rules, 1975' is in place. This is augmented by Fraud Prevention Policy and Whistle Blower Policy which not only arm the company against unacceptable practices but also act as a deterrent. The Company is subject to RTI Act 2005, audit by Statutory Auditors and CAG audit under section 139 of the Companies Act, 2013.

https://www.bhel.com/bhel-fraud-prevention-policy-0

https://www.bhel.com/whistle-blower-policy-0

In the area of business dealings with vendors and customers, BHEL has signed MoU with Transparency International India (TII) to adopt 'Integrity Pact' to make procurement and contracting more transparent by binding both the parties to ethical conduct. A panel of two Independent External Monitors (IEMs) has been appointed to oversee implementation of Integrity Pact in BHEL, with due approval of Central Vigilance Commission. Within BHEL, accountability is well defined for various functionaries through 'Delegation of Power'. Works Policy, Purchase Policy and other policy documents facilitate transparency in BHEL's working and commitment of highest order of integrity. In addition, Internal Audit carries out independent audit of purchase/ works contracts.

Essential Indicators

1. Percentage coverage by training and awareness programmes on any of the Principles during the financial year:

BHEL conducts several training programmes for its employees and Directors. These training programmes are curated based on the requirement and includes several topics (which in some form covers the nine principles) within a program.

Segment	Total number of training and awareness programmes held	Topics / principles covered under the training and its impact	%age of persons in respective category covered by awareness programmes
Board of Directors	3	Business familiarization, capacity building for directors	100%
Key Managerial Personnel (other than Board of directors)	1	CSR	100%
Employees other than BoD and KMPs	763	Technical, functional, safety, managerial & behavioral topics in line with nine principles	56.7%
Workers	763		28.1%

2. Details of fines / penalties /punishment/ award/ compounding fees/ settlement amount paid in proceedings (by the entity or by directors / KMPs) with regulators/ law enforcement agencies/ judicial institutions, in the financial year.

There were no fines/ penalties/punishment/ award/ compounding fees/ settlement amount of material nature paid in proceedings by the directors/ KMPs to regulators/ law

enforcement agencies/ judicial institutions during FY 2021-22.

3. Of the instances disclosed in Question 2 above, details of the Appeal/ Revision preferred in cases where monetary or non-monetary action has been appealed-

Not Applicable

4. Does the entity have an anti-corruption or anti-bribery policy?

Yes, BHEL has policy for anti-corruption and anti-bribery. As a part of BHEL's persisting endeavor to set a high standard of conduct for its employees (other than those governed by standing orders), 'BHEL Conduct, Discipline and Appeal Rules, 1975' is in place. This is augmented by Fraud Prevention Policy and Whistle Blower Policy which not only arm the company against unacceptable practices but also act as a deterrent. The Company is subject to RTI Act 2005, audit by Statutory Auditors and CAG audit under section 139 of the Companies Act, 2013.

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5. Number of Directors/KMPs/employees/workers against whom disciplinary action was taken by any law enforcement agency for the charges of bribery/ corruption:

Refer Annexure - VIII to the Board' Report, Vigil Mechanism

6. Details of complaints with regard to conflict of interest:

	Number	Remarks	Number	Remarks
Number of complaints received in relation to issues of Conflict of Interest of the Directors	0	--	0	--
Number of complaints received in relation to issues of Conflict of Interest of the KMPs (other than directors)	0	--	0	--

7. Provide details of any corrective action taken or underway on issues related to fines / penalties / action taken by regulators/ law enforcement agencies/ judicial institutions, on cases of corruption and conflicts of interest-

Refer Annexure - VIII to the Board' Report, Vigil Mechanism

Leadership Indicators

1. Awareness programmes conducted for value chain partners on any of the Principles during the financial year:

Total number of awareness programmes held	Topics / principles covered under the training	%age of value chain partners covered (by value of business done with such partners) under the awareness programmes
22	1. Awareness on Public Procurement Policy for Micro & Small Enterprises (MSEs) - Order for MSEs (issued by Ministry of MSME - GoI) 2. Online supplier registration portal 3. Government-e-Marketplace (GeM) 4. BHEL General Conditions of Contract	40%

2. Does the entity have processes in place to avoid/ manage conflict of interests involving members of the Board?

Yes, the Company has an elaborate legal framework in place to avoid/ manage conflict of interests involving members of the Board.

The Companies Act, 2013 and the SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015 have detailed provisions which require the Directors of the Board to disclose their concern or interest (including their shareholding) in any company (ies)/ bodies corporate/ firms/ other association of individuals, periodically as well as whenever there is any change in the disclosures already made. In this regard, the Directors also submit a certificate to the Board stating that they do not have any conflict of interest with regard to the business of the Company on account of their concern/ interest and whenever any such conflict/ interest arises they shall promptly inform the same to the Board.

Apart from this, the Company's Board has approved a 'Code of Business Conduct & Ethics for all Board Members and Senior Management Personnel'. The Code encompasses (i) General Moral Imperatives (ii) Specific Professional Responsibilities as well as (iii) Specific Additional Provisions for Board Members and Senior Management Personnel. In addition, for the purpose of clearly defining the roles and responsibilities of the Board and individual Directors and to enable the Board to effectively perform its role, the Board has laid down a Charter for the Board of Directors.

Further to these processes in place, to avoid/ manage conflict of interests involving members of the Board, the Independent

Directors on the Board are required to comply with certain additional provisions viz., submission of declaration of their independence (i.e. they meet the criteria of independence & that they are not aware of any circumstance or situation, which exist or may be reasonably anticipated, that could impair or impact their ability to discharge his duties with an objective independent judgment & without any external influence) and compliance with Schedule IV of the Companies Act which inter-alia provides for (i) Guidelines of professional conduct (ii) Role & functions and (iii) Duties for Independent Directors.

Principle 2: Product lifecycle sustainability

BHEL is contributing to a greener environment through development of environment friendly technologies and improvement in efficiency of equipment. Continuous improvement in power cycle efficiency and reduced emissions from coal based power plants have been achieved over the time by evolution of technology from sub-critical to supercritical. Attributes of BHEL supplied power plant equipment such as lower auxiliary power consumption, higher plant efficiency, lower design heat rate and higher operating availability help in attaining lower life cycle cost.

BHEL provides comprehensive solutions for reducing emissions through supply and commissioning of Flue-gas Desulphurization (FGD) systems, Selective Catalytic Reduction (SCR) systems, Solar Photovoltaic plants, Electrostatic Precipitators (ESP). BHEL also offers zero liquid discharge solutions through supply of Effluent Treatment Plants and Sewage Treatment Plants (STP). BHEL has developed fully indigenous Pressurized Fluidized Bed Gasification (PFBG) technology for generating syngas from high ash Indian Coal. The syngas further acts as a feed for production of industrial chemicals. There is also conscious effort towards reduction of embodied carbon in products. Company has opted to replace polluting fuels with cleaner ones, e.g., gas is now used as a source of heat energy (instead of coal earlier) during production of products like ceralin, and has also converted furnaces to RLNG from LPG at its manufacturing plants.

Essential Indicators

1. Percentage of R&D and capital expenditure (capex) investments in specific technologies to improve the environmental and social impacts of product and processes to total R&D and capex investments made by the entity, respectively.

	FY 2021-22	FY 2020-21
R&D % (in Rs. Cr)	2.24% (699.57)	4.98% (726.49)
Capex % (in Rs. Cr)	0% (2.97)	0% (6.71)

BHEL in association with IGCAR and NTPC has developed Advanced Ultra Supercritical Technology under the aegis of the National Mission on Clean Coal Technology. The technology will yield targeted efficiency of 45-46% against efficiency of ~38% of subcritical and ~41-42% of supercritical sets.

In result, this will further reduce coal consumption and CO_2 emission by about 11% as compared to Super Critical power plants and by about 20% as compared to Subcritical power plants for single unit of power generation. The R&D phase of the project has been completed successfully.

With environmental concerns leading to rapid establishment of renewable energy capacity, coal gasification is being looked upon as a cleaner option compared to combustion. Syngas produced from coal gasification is usable in producing various chemicals/ fuels (e.g. methanol, ammonia, ammonium nitrate, hydrogen, etc.). BHEL has established a 0.25 TPD Coal to Methanol Pilot plant from high ash Indian Coal Work on various Chemicals/ fuels such as ammonium Nitrate, Methanol, Hydrogen, etc. has been initiated.

BHEL has indigenously developed Passivated Emitter Rear Contact (PERC) technology for high efficiency c-Si solar cells. With this development, BHEL has the know-how and dedicated cell level R&D facility to support upgradation to PERC technology. In parallel, BHEL is also working on development of Heterojunction solar cell technology with 24% efficiency.

In urban mobility sector, there is favorable movement towards Electric mobility as the future mode of transportation. BHEL has developed Permanent magnet motors, Induction motors & IGBT controller for E-Buses, Electric Charging Stations for E-mobility infrastructure.

Refer Annexure- VI to Board's Report, 'R&D and Technological Achievements', 6.3 Achievements during the year

Refer Annexure-VII to the Board's Report, 7.2 Technology Absorption and Research & Development

2. a. Does the entity have procedures in place for sustainable sourcing? (Yes/No)

b. If yes, what percentage of inputs were sourced sustainably?

No. BHEL sources varied input material and component from several of its value chain partners which are certified and compliant with standards such as ISO 14001, OHSAS 18001 etc

3. Describe the processes in place to safely reclaim your products for reusing, recycling and disposing at the end of life, for (a) Plastics (including packaging) (b) E-waste (c) Hazardous waste and (d) other waste.

BHEL products falls under capital goods category whose life goes beyond 25 years in majority of cases. The market requirement is for extension of the life of products or systems through process of refurbishments. After end of fruitful life of Capital goods, they become unfit for reuse and hence being disposed as scrap by owner of the capital good products.

4. Whether Extended Producer Responsibility (EPR) is applicable to the entity's activities (Yes / No).

Extended Producer Responsibility (EPR) is not applicable to BHEL's activities.

Leadership Indicators

1. Has the entity conducted Life Cycle Perspective / Assessments (LCA) for any of its products (for manufacturing industry) or for its services (for service industry)?

No, company has not conducted Life Cycle Assessments for products.

2. If there are any significant social or environmental concerns and/or risks arising from production or disposal of your products / services, as identified in the Life Cycle Perspective / Assessments (LCA) or through any other means, briefly describe the same along-with action taken to mitigate the same.

Not applicable

3. Percentage of recycled or reused input material to total material (by value) used in production (for manufacturing industry) or providing services (for service industry).

Company's manufacturing processes generate fair amount of metal scrap, however engineering measures are taken to minimize waste generation. The scrap subsequently undergoes recycling within the company and is reused. For example, Central Foundry Forge Plant (CFFP) in Haridwar manufactures Steel Forgings and Castings for which steel scrap is a major raw material. Reusable material is also used in packaging manufactured goods.

The value of such recycled/reused items is not being captured at the moment. Refer Annexure –IV to the Board's Report, Sustainability and CSR

4. Of the products and packaging reclaimed at end of life of products, amount (in metric tonnes) reused, recycled, and safely disposed:

BHEL's business is B2B in nature and products/ systems we supply falls under capital goods category with long lifecycle (25 years and beyond). All the associated packaging material in which we supply our products become the property of our customer spread across the country and abroad. In this given situation, it is not feasible to reclaim the product (end of life) or packaging material from the customer.

5. Reclaimed products and their packaging materials (as percentage of products sold) for each product category.

As explained in point 4 (previous point).

Principle 3: Employee's Well-being

BHEL has been a front-runner in the area of human resource management. The guiding principle for company's Human Resource Management policy is to ensure availability of competent, motivated and effectively contributing human resources and to facilitate achievement of their full potential at all times to realize organizational goals. Company has documented HRM policies and rules in the form of a 'Personnel Manual' to ensure transparency and uniformity of implementation for regulating employment relationship, career growth/ development and employees' emoluments/ benefits, healthcare and well-being. These policies are further complemented by a grievance redressal mechanism through two schemes – one for workers and other for staff & officers. A grievance for the purpose of the scheme means a grievance relating to any individual employee arising out of the implementation of Company policies/rules or Management Decisions. Both these schemes provide for three-tier resolution. Defined timelines are laid down for resolution of grievance at each stage. Besides, an appellate mechanism is also provided under the scheme, in the case of grievance redressal scheme for staff & officers which an aggrieved employee can approach in case he/she is not satisfied with the resolution of the grievance.

BHEL has a Health, Safety & Environment (HSE) policy which underlies the commitment of the organization to provide safe and healthy work environment to all its employees as well as other stakeholders giving due consideration for the safeguard of environment. The policy conforms to the requirements of ISO 14001 & ISO 45001 management system certification standards and can be accessed through the link https://www.bhel.com/sites/default/files/HSEPOLICY.pdf. HSE cells at all units/ divisions implement this policy and Corporate HSE department provides strategic guidance related to HSE matters at organization level. The HSE policy is prominently displayed at all workplaces to create awareness amongst the employees and other stakeholders about the same and is also translated into local language. Periodic audits by internal as well as external agencies are carried out to ensure the effectiveness of ISO 14001 and ISO 45001 management systems implemented at workplaces which includes the working of the policy and its critical elements.

Essential Indicators

1. a. Details of measures for the well-being of employees:

Category	Total (A)	% of employees covered by									
		Health insurance		Accident insurance		Maternity benefits		Paternity Benefits		Day Care facilities	
		Number (B)	% (B/A)	Number (C)	% (C/A)	Number (D)	% (D/A)	Number (E)	% (E/A)	Number (F)	% (F/A)
Permanent employees											
Male	28925	28925	100	28925	100	0	0	28925	100	0	0
Female	1833	1833	100	1833	100	1833	100	0	0	0	0
Total	30758	30758	100	30758	100	1833	6	28925	94	0	0
Other than Permanent employees											
Male	13791	13791	100	13791	100	0	0	0	0	0	0
Female	1533	1533	100	1533	100	1533	100	0	0	479	31
Total	15324	15324	100	15324	100	1533	10	0	0	479	3

BHEL extends medical facility to its employees and their dependents. The facility is extended to its employees/ spouse on superannuation/ death as well. Day care facilities are also extended in several premises including BHEL's manufacturing plants.

b. Details of measures for the well-being of workers:

Category	Total (A)	% of workers covered by									
		Health insurance		Accident insurance		Maternity benefits		Paternity Benefits		Day Care facilities	
		Number (B)	% (B/A)	Number (C)	% (C/A)	Number (D)	% (D/A)	Number (E)	% (E/A)	Number (F)	% (F/A)
Permanent employees											
Male	15305	15305	100	15305	100	0	0	15305	100	0	0
Female	415	415	100	415	100	415	100	0	0	0	0
Total	15720	15720	100	15720	100	415	3	15305	97	0	0
Other than Permanent employees											
Male	13728	13728	100	13728	100	0	0	0	0	0	0
Female	1532	1532	100	1532	100	1532	100	0	0	479	31
Total	15260	15260	100	15260	100	1532	10	0	0	479	3

BHEL extends medical facility to its employees and their dependents. The facility is extended to its employees/ spouse on superannuation/ death as well. Day care facilities are also extended in several premises including BHEL's manufacturing plants. In case of 'other than permanent workers' insurance is inbuilt in the Works contract.

Refer Section on COVID Response

2. Details of retirement benefits, for Current FY and Previous Financial Year.

	FY 2021-22			FY 2020-21		
Benefits	**No. of employees covered as a % of total employees**	**No. of workers covered as a % of total workers**	**Deducted and deposited with the authority**	**No. of employees covered as a % of total employees**	**No. of workers covered as a % of total workers**	**Deducted and deposited with the authority**
PF	100	100	Y	100	100	Y
Gratuity	100	100	Y	100	100	Y
ESI *	-	-	-	-	-	-
Others (BHEL Pension scheme)	100	100	NA	100	100	NA

As a retirement benefit apart from PF and Gratuity, all employees and workers are also covered under BHEL pension scheme.

* ESI is not applicable as BHEL extends medical facility scheme to all employees.

3. Accessibility of workplaces

Are the premises / offices of the entity accessible to differently abled employees and workers, as per the requirements of the Rights of Persons with Disabilities Act, 2016?

Yes, BHEL's premises and office are accessible to differently abled employees and workers. The structural modifications and other changes (in policies etc) are made in accordance to the requirements of the Rights of Persons with Disabilities Act, 2016.

4. Does the entity have an equal opportunity policy as per the Rights of Persons with Disabilities Act, 2016?

Yes, the company takes affirmative action in recruitment and promotion for representation of employees from socio-economically backward sections of society, minorities, disabled personnel and women as mandated by the Govt. of India. The company is an equal opportunity employer and does not discriminate on the basis of gender, race, caste, religion, linguistic, region etc. in recruitment and employment relationship.

In case of an employee made to retire on medical grounds prematurely, provisions of The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, are kept in consideration. Additionally, Transfer and Job Rotation policy mandated for applicability of Government guidelines for the transfers of PwD employees.

5. Return to work and Retention rates of permanent employees and workers that took parental leave.

Gender	Permanent employees		Permanent workers	
	Return to work rate	Retention rate	Return to work rate	Retention rate
Male	100%	100%	100%	100%
Female	100%	99%	100%	100%
Total	100%	100%	100%	100%

6. Is there a mechanism available to receive and redress grievances for the following categories of employees and worker?

There is well laid out grievance redressal mechanism through two schemes – one for workers and other for staff & officers. A grievance for the purpose of the scheme means a grievance relating to any individual employee arising out of the implementation of Company policies/rules or Management Decisions. Both these schemes provide for three-tier resolution. Defined timelines are laid down for resolution of grievance at each stage. Besides, an appellate mechanism is also provided under the scheme, in the case of grievance redressal scheme for staff & officers, which an aggrieved employee can approach in case he/she is not satisfied with the resolution of the grievance.

	Yes/No
Permanent Workers	Yes
Other than Permanent Workers	Yes
Permanent Employees	Yes
Other than Permanent Employees	Yes

For 'other than permanent employees/ worker' the grievances are settled on case to case basis or through the contractors as the case may be.

7. Membership of employees and worker in association(s) or Unions recognised by the listed entity:

Category	FY 2021-22			FY 2020-21		
	Total employees / workers in respective category (A)	No. of employees / workers in respective category, who are part of association(s) Or Union (B)	% (B/A)	Total employees / workers in respective category (C)	No. of employees / workers in respective category, who are part of association(s) or Union (D)	% (D/C)
Total Permanent Employees	30758	30758	100	32131	32131	100
- Male	28925	28925	100	30238	30238	100
- Female	1833	1833	100	1893	1893	100
Total Permanent Workers	15720	15720	100	16414	16414	100
- Male	15305	15305	100	15969	15969	100
- Female	415	415	100	445	445	100

BHEL has 29 participative trade unions represented in the apex level bipartite body, namely the Joint Committee for discussing workers' and Company's interest related issues based on the principle of participative management. Besides the above, there are two employee associations, one each for executives and supervisors in BHEL.

All three categories of employees viz. Executives, Supervisors and Workers are represented by their respective associations/ trade unions.

8. Details of training given to employees and workers:

Category	FY 2021-22					FY 2020-21				
	Total (A)	On Health and safety measures		On Skill upgradation		Total (D)	On Health and safety measures		On Skill upgradation	
		Number (B)	% (B/A)	Number (C)	% (C/A)		Number (E)	% (E/D)	Number (F)	% (F/D
Employees										
Male	13620	2060	15.1%	6884	50.5%	14269	1517	10.6%	7174	50.3%
Female	1418	289	20.4%	851	60.0%	1448	237	16.4%	817	56.4%
Total	15038	2349	15.6%	7735	51.4%	15717	1754	11.2%	7991	50.8%
Workers										
Male	15305	1461	9.5%	3192	20.9%	15969	602	3.8%	1374	8.6%
Female	415	40	9.6%	133	32.0%	445	22	4.9%	86	19.3%
Total	15720	1501	9.5%	3325	21.2%	16414	624	3.8%	1460	8.9%

9. Details of performance and career development reviews of employees and worker:

	FY 2021-22			FY 2020-21		
Category	**Total (A)**	**No. (B)**	**% (B/A)**	**Total (C)**	**No. (D)**	**% (D/C)**
Employees						
Male	28925	28925	100	30238	30238	100
Female	1833	1833	100	1893	1893	100
Total	30758	30758	100	32131	32131	100
Workers						
Male	15305	15305	100	15969	15969	100
Female	415	415	100	445	445	100
Total	15720	15720	100	16414	16414	100

10. Health and safety management system:

a. Whether an occupational health and safety management system has been implemented by the entity?

Yes, OHSMS is implemented across the company. Each and every employee of the company is covered under the Occupational Health and Safety Management System and the system is applicable at all the work places.

b. What are the processes used to identify work-related hazards and assess risks on a routine and non-routine basis by the entity?

Company has strong systems / processes to identify the work-related hazards and assess risks on routine and non-routine basis. A few are listed below:

HIRA (Hazard Identification and Risk Assessment) – All our units are following HIRA for identifying the risks. Respective formats are available and this document is reviewed yearly for any changes required.

JSA (Job Safety Analysis) – JSA is a procedure of analyzing jobs for the specific purpose of finding the hazards in each step in the job and developing the safety precautions to be adopted. This is done at the stage of planning for job / process.

Method Statement – It outlines the safe way of performing a specific job or accomplishing a project and ensure that necessary precautions or control measures are communicated to those involved. A method statement provides evidence that significant health & safety risks have been identified and there are safety systems in place.

c. Whether you have processes for workers to report the work related hazards and to remove themselves from such risks.(Y/N)

Yes, a process is in place for workers to report work related hazards and to remove themselves from such risks. There is a system to record the Unsafe Act and Unsafe Condition online / offline modes. Workers are trained to observe any of such work-related hazards and inform the same through the mode available at their respective work premises. Further, systems are established to remove all these hazards and risks.

d. Do the employees/ worker of the entity have access to non-occupational medical and healthcare services? (Yes/ No)

Yes, employees and workers have access to non-occupational medical and healthcare services offered through company operated health care facilities as well as external healthcare facilities which are compensated suitably as per the company policy.

11. Details of safety related incidents, in the following format:

Safety Incident/ Number	Category	FY 2021-22	FY 2020-21
Lost Time Injury Frequency Rate (LTIFR) (per one million-person hours worked)	Employees	0	0
	Workers	0	0
Total recordable work-related injuries	Employees	0	0
	Workers	46	34
No. of fatalities	Employees	0	0
	Workers	0	0
High consequence work-related injury or ill-health (excluding fatalities)	Employees	0	0
	Workers	0	0

12. Describe the measures taken by the entity to ensure a safe and healthy work place.

BHEL strongly believes in providing safe work place and safe environment to all its employee and people we work with. It

shows our commitment to develop safety and sustainability culture through active leadership and by ensuring availability of required resources.

Refer Annexure – VIII to Board's Report, Health, Safety & Environment (HSE)

13. Number of Complaints on the following made by employees and workers:

No complaints received. Systems are in place at respective premises of BHEL for registering unsafe conditions related to safety. The same is addressed promptly by concerned departments and it is a continuous ongoing process.

14. Assessments for the year:

	% of your plants and offices that were assessed (by entity or statutory authorities or third parties)
Health and safety practices	100%
Working Conditions	100%

15. Provide details of any corrective action taken or underway to address safety-related (if any) and on significant risks / concerns arising from assessments of health & safety practices and working conditions.

Root Cause Analysis (RCA) are conducted for all the safety-related incidences and suitable corrective actions are taken. Safety Inspections and Safety Audits are also being done periodically. Corrective actions are being taken for all the observations given by the auditors (internal as well as external).

Leadership Indicators

1. Does the entity extend any life insurance or any compensatory package in the event of death of (A) Employees (Y/N) (B) Workers (Y/N).

Yes, BHEL extends life insurance or compensatory package to employees as well as workers in the event of death.

2. Provide the measures undertaken by the entity to ensure that statutory dues have been deducted and deposited by the value chain partners.

All of the BHEL's value chain partners comes under PF act and ESI act which makes them liable to deduct and deposit statutory dues. Both central and state labour departments, PF and ESI departments conduct periodic inspections in this regard.

In addition, the service contract between BHEL and service provider also contains clause under 'payment terms' for necessary statutory payments like PF, ESI etc by service provider.

3. Provide the number of employees / workers having suffered high consequence work related injury / ill-health / fatalities (as reported in Q11 of Essential Indicators above), who have been are rehabilitated and placed in suitable employment or whose family members have been placed in suitable employment:

No employees were rehabilitated during 2021-22 & 2020-21.

4. Does the entity provide transition assistance programs to facilitate continued employability and the management of career endings resulting from retirement or termination of employment?

Yes, BHEL provides transition assistance to facilitate continued employability and the management of career endings resulting from retirement or termination.

5. Details on assessment of value chain partners:

All of the BHEL's value chain partners comes under relevant labour laws and acts. Because of which both central and state labour department conduct periodic inspections in related to Health and Safety practices and working conditions at the premise of value chain partners. Any gaps identified are suitability addressed by the partners.

6. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from assessments of health and safety practices and working conditions of value chain partners. -- Refer point 5 above

Principle 4: Stakeholder Engagement

BHEL has identified 'Customers', 'Employees', 'Shareholders', 'Vendors' and 'Society' as its stakeholders. Processes are in place to ensure inclusion of stakeholder expectations and concerns. Key issues are identified through stakeholder engagement and addressed by programmes or action plans with clear and measurable targets. BHEL units regularly organize vendor meets specifically for MSEs (including local suppliers) towards capacity and capability building, which also provides opportunities for open communication, mutual benefit and support. Customers are engaged through several modes like customers meets, surveys. Investor community is engaged through meetings, conferences, publications etc and is provided with relevant information pertaining to their investment decisions.

BHEL has clearly identified the disadvantaged, vulnerable, poor, needy & marginalized stakeholders in the vicinity of the BHEL manufacturing units / regions / divisions / sites / offices and their concerns are addressed as per BHEL's CSR Policy which is in compliance with section 135 & Schedule VII of the Companies Act 2013 and rules made thereunder as well as DPE Guidelines on CSR & Sustainability for CPSEs.

https://www.bhel.com/sites/default/files/BHEL_CSR_Policy_July2017.pdf

Essential Indicators

1. Describe the processes for identifying key stakeholder groups of the entity.

Stakeholders which directly or indirectly impacts BHEL's revenue earning capability, its ability to share benefits are identified as key stakeholders.

2. List stakeholder groups identified as key for your entity and the frequency of engagement with each stakeholder group.

Stakeholder Group	Whether identified as Vulnerable & Marginalized Group (Yes/No)	Channels of communication (Email, SMS, Newspaper, Pamphlets, Advertisement, Community, Meetings, Notice Board, Website), Others	Frequency of engagement (Annually/ Half yearly/ Quarterly / others – please specify)	Purpose and scope of engagement including key topics and concerns raised during such engagement
Shareholders	No	Email, Newspaper Advertisement, Disclosure available on Stock Exchanges & BHEL Website	Engagement is done on Quarterly, Half yearly & Annual basis as well as whenever the event occurs	All material events affecting the Company as well as disclosures required under SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015
Suppliers	No	Email, Advertisement, Vendor meets, website etc.	Regular	To make suppliers aware of: ▪ Public Procurement Policy (Preference to Make in India) ▪ Import substitution ▪ Participating in tenders issued on GeM portal ▪ Lodging and tracking grievances on BHEL's grievance redressal portal, SUVIDHA ▪ BHEL's quality objectives
Employees	No	Email, Monthly Newsletter, Notice Boards, Intranet Websites, Shop Floor, Shop Council, Plant Council and Joint Council Meetings	Monthly	Sharing monthly progress of the company and the business verticals, targets, achievements and department/section level concerns etc
Customers	No	Email, Advertisement, telephone calls, meetings, website etc	Regular	Assessment of customer needs, their requirement vis-à-vis existing capital good assets, complaints resolution, business enquiries etc
Communities	Yes	Meetings, local NGOs	Case-to-case basis	Assessing their problems that lead to their vulnerability and which holds back in attaining better standard of living

Not all stakeholder groups are 'Vulnerable & Marginalized', but there is section of people in stakeholder groups who are considered as Vulnerable & Marginalized like SC/ ST and women owned MSMEs.

Leadership Indicators

1. Provide the processes for consultation between stakeholders and the Board on economic, environmental, and social topics or if consultation is delegated, how is feedback from such consultations provided to the Board.

The most important forum for the shareholders of BHEL to have access to the Board of Directors is at the Annual General Meeting of the Company. During these meetings, shareholders raise various queries regarding the performance, strategies and outlook of the Company, share their grievances as well provide valuable feedback regarding improvements in the Company performance, not only from a business perspective but also on critical economic, environmental and social topics/ areas.

2. Whether stakeholder consultation is used to support

the identification and management of environmental, and social topics.

Yes. Stakeholders have provided their support to various environmental & social endeavors of BHEL viz., indigenization under Aatmanirbhar Bharat, efforts in manufacturing medical oxygen plants to mitigate the emergent need for supply of medical oxygen during the COVID waves, utilization of solar energy & water harvesting capacity in BHEL's factories & project sites, empowerment of woman employees, vaccination drive of BHEL employees & contract workers etc.

3. Provide details of instances of engagement with, and actions taken to, address the concerns of vulnerable/ marginalized stakeholder groups.

For underprivileged section of the community, BHEL spend on CSR projects after baseline survey is conducted by local NGOs. These local NGOs during their baseline surveys engage with communities and understand their needs and problems.

Principle 5 - Human Rights

BHEL policies are in line with the principles of Human Rights, The Constitution of India, and applicable laws. BHEL has special provisions for ensuring safeguard of women employees at the workplace. In context of human rights abuse, no such instance has been reported in the Company.

BHEL is one of the founding member of Global Compact Network, India (GCNI) and is a part of initiatives in India. The company reports its performance on ten principles of UNGC on annual basis since 2001 through Communication on Progress (CoP) which includes BHEL's commitment towards upholding the principles of UNGC. This CoP can be accessed through the webpage:

https://www.bhel.com/commitment-ungc-programme

Essential Indicators

1. Employees and workers who have been provided training on human rights issues and policy(ies) of the entity:

Category	FY 2021-22			FY 2020-21		
	Total (A)	No. of employees / workers covered (B)	% (B/A)	Total (C)	No. of employees/ workers covered (D)	% (D/C)
Employees						
Permanent	15038	686	4.6%	15717	895	5.7%
Other than permanent	0	0	0	0	0	0
Total Employees	15038	686	4.6%	15717	895	5.7%
Workers						
Permanent	15720	205	1.3%	16414	109	0.7%
Other than permanent	0	0	0	0	0	0
Total	15720	205	1.3%	16414	109	0.7%

Note: For company policy related program, only HR policy related are considered here

2. Details of minimum wages paid to employees and workers, in the following format:

Category	FY 2021-22					FY 2020-21				
	Total	Equal to Minimum Wage		More than Minimum Wage		Total	Equal to Minimum Wage		More than Minimum Wage	
	(A)	No. (B)	% (B/A)	No. (C)	% (C/A)	(D)	No. (E)	% (E/D)	No. (F)	% (F/D)
Employees										
Permanent										
Male	28925	0	0	28925	100	30238	0	0	30238	100
Female	1833	0	0	1833	100	1893	0	0	1893	100
Other than Permanent										
Male	13791	6264	45.4%	7527	54.6%	15302	4095	26.8%	11207	73.2%
Female	1533	652	42.5%	881	57.5%	1715	400	23.3%	1315	76.7%
Workers										
Permanent										
Male	15305	0	0	15305	100%	15969	0	0	15969	100%
Female	415	0	0	415	100%	445	0	0	445	100%
Other than Permanent										
Male	13728	6264	45.6%	7464	54.4%	15302	4095	26.8%	11207	73.2%
Female	1532	652	42.6%	880	57.4%	1715	400	23.3%	1315	76.7%

3. Details of remuneration/salary/wages:

Salary/ wage structure of BHEL employee and workers are set as per the guidelines of DPE.

	Male		Female	
	Number	Median remuneration/ salary/ wages of respective category	Number	Median remuneration/ salary/ wages of respective category
Board of Directors (BoD)*	5	₹ 41,40,000	1	₹ 45,00,000
Key Managerial Personnel*	1	₹ 40,00,000	0	0
Employees other than BoD and KMP*	28925	₹ 14,59,670	1832	₹ 17,45,770
Workers*	15305	₹ 10,16,243	415	₹ 11,10,120

* Payments are excluding terminal benefits such as PF, Gratuity, Pension, PRMB and other non-monetary perks like car, housing, furniture etc.

4. Do you have a focal point (Individual/ Committee) responsible for addressing human rights impacts or issues caused or contributed to by the business?

Yes, grievance redressal officers are there in each BHEL premise for addressing human rights issues.

5. Describe the internal mechanisms in place to redress grievances related to human rights issues.

There is formal well laid out grievance redressal mechanism related to human rights issues. The mechanism provides for three-tier resolution. First stage with Controlling Officer, second stage with Head of the Department, third stage with Grievance Redressal Committee.

6. Number of Complaints on the following made by employees and workers:

During 2021-22, two cases of sexual harassment were filed and two were pending for resolution. During 2020-21, one case of sexual harassment were filed & one was pending. No complaint of child labor/ forced labor/ involuntary labor/ wages/ discriminatory employment has been received

Refer Annexure – I to Board' Report, Management Discussion and Analysis, Human Resource, Status on Presidential Directives, Safeguard of Women at Workplace & Annexure-C.

7. Mechanisms to prevent adverse consequences to the complainant in discrimination and harassment cases.

As a preventive step, identity of complainant is known only to Internal Complaints Committee and is protected. All meetings in the Enquiry (Complainant and Respondent) are never done face to face.

8. Do human rights requirements form part of your business agreements and contracts?

Yes, human rights requirement forms part of business agreement or contract. The service contracts between BHEL and service provider contains clause meeting human rights requirement like child labour, minimum wages etc.

9. Assessments for the year:

All BHEL premises are periodically inspected by central and state labour departments, PF and ESI departments and other government institutions or department for the compliance related to relevant law/ act/ statute and identifying gaps

10. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 9 above.

No significant risk/ concerns was identified.

Leadership Indicators

1. Details of a business process being modified / introduced as a result of addressing human rights grievances/ complaints.

Not applicable

2. Details of the scope and coverage of any Human rights due-diligence conducted.

Not applicable

3. Is the premise/office of the entity accessible to differently abled visitors, as per the requirements of the Rights of Persons with Disabilities Act, 2016?

Refer Principle 3, Essential Indicator no. 3.

4. Details on assessment of value chain partners:

BHEL didn't assess its value chain partners on Human Rights criteria as these entities comes under labor related laws/ acts/ statutes and are assessed or inspected by relevant Govt department/ institution.

5. Provide details of any corrective actions taken or underway to address significant risks / concerns arising from the assessments at Question 4 above.

Not applicable

Principle 6: Environment

BHEL has a well-established Environmental Management System (EMS) accredited to ISO 14001. Based on the corporate HSE policy, all manufacturing units and regions have derived their HSE systems in line with the requirement of ISO 14001 'Environmental Management System' standard. The EMS provides an excellent framework to proactively identify and manage the risks related to environment in a systematic manner. HSE cells at all BHEL units as well as Power Sector regions oversee the implementation of HSE policy supported by Corporate HSE department at apex level to provide strategic guidance. Periodic audits are carried out by the certifying body to ensure the compliance to the EMS and requirements of ISO 14001 are met. The company's HSE policy is available on the internet and can be accessed through the web link: https://www.bhel.com/sites/default/files/HSEPOLICY.pdf

Refer Annexure – VII to the Board's Report, 7.1 Conservation of Energy

Essential Indicators

1. Details of total energy consumption (in Joules or multiples) and energy intensity:

Parameter	FY 2021-22	FY 2020-21
Total electricity consumption (A) (in kilo Joules)	7.56×10^{11}	7.23×10^{11}
Total fuel consumption (B) (in kilo Joules)	1.93×10^{12}	1.98×10^{12}
Energy consumption through other sources (C) (in kilo Joules)	9.78×10^{10}	9.79×10^{10}
Total energy consumption (A+B+C) (in kilo Joules)	**2.78×10^{12}**	**2.81×10^{12}**
Energy intensity per rupee of turnover (Total energy consumption in kilo Joule/ turnover in rupees)	13.855	17.249
Energy intensity (optional) – the relevant metric may be selected by the entity	-	-

Note: Indicate if any independent assessment/ evaluation/ assurance has been carried out by an external agency? (Y/N) If yes, name of the external agency.

No assessment/ evaluation/ assurance has been carried out by any external agency.

2. Does the entity have any sites / facilities identified as designated consumers (DCs) under the Performance, Achieve and Trade (PAT) Scheme of the Government of India?

None of the BHEL facilities has been identified as designated consumers (DCs) under the Performance, Achieve and Trade (PAT) Scheme.

Refer Annexure – VII to the Board's Report, 7.1 Conservation of Energy

3. Provide details of the following disclosures related to water, in the following format:

Parameter	FY 2021-22	FY 2020-21
Water withdrawal by source (in kilolitres)		
(i) Surface water	12299078	12524754
(ii) Groundwater	6107431	6942497
(iii) Third party water	1496445	1714531
(iv) Seawater / desalinated water	0	0
(v) Others	469869	481022
Total volume of water withdrawal (in kilolitres) (i + ii + iii + iv + v)	20372823	21662804
Total volume of water consumption (in kilolitres)	20224824	21518805
Water intensity per rupee of turnover (Water consumed / turnover – Litre per Rs.)	0.100	0.132
Water intensity (optional) – the relevant metric may be selected by the entity	--	--

No assessment/ evaluation/ assurance has been carried out by any external agency.

4. Has the entity implemented a mechanism for Zero Liquid Discharge? If yes, provide details of its coverage and implementation.

Yes. As a responsible corporate citizen, BHEL has set up large number of Sewage Treatment Plants / Effluent Treatment Plants (STPs & ETPs) to ensure that the water which is discharged from our premises conform to the effluent standards as per the statutory requirement and its quantity is minimized to the extent feasible. In this regard, 10 number of our manufacturing units have been declared as zero liquid discharge entities and remaining are in the process of achieving the same. Treated effluent/sewage is used for horticulture inside the manufacturing plant.

5. Please provide details of air emissions (other than GHG emissions) by the entity, in the following format:

Parameter	Unit	FY2021-22	FY2020-21
NOx	Metric Tonne (MT)	113.77	242.64
SOx	Metric Tonne (MT)	164.14	161.59
Particulate Matters (PM)	Metric Tonne (MT)	104.05	148.4
Persistent organic pollutants (POC)	Metric Tonne (MT)	0	0
Volatile organic compounds (VOC)	Metric Tonne (MT)	5.6	7.85
Hazardous air pollutants (HAP)	Metric Tonne (MT)	8.45	30.5

The data pertains to ten units of BHEL. Air emissions are assessed by Advance Environment Testing & Research Lab, Gwalior; Tamil Nadu Pollution Control Board, Vellore; PCRI Haridwar; Hubert Enviro Care System (P) Ltd, Chennai; M/s Evergreen Solutions System Pvt. Ltd., Bengaluru etc.

6. Provide details of greenhouse gas emissions (Scope 1 and Scope 2 emissions) & its intensity, in the following format:

Parameter	Unit	FY 2021-22	FY 2020-21
Total Scope 1 emissions (Break-up of the GHG into CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3, if available)	*Metric tonnes of CO_2 equivalent*	126295	135055
Total Scope 2 emissions (Break-up of the GHG into CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3, if available)	*Metric tonnes of CO_2 equivalent*	198339	188816
Total Scope 1 and Scope 2 emissions per rupee of turnover	*gm of CO_2 equivalent per Rs*	1.61	1.987

No assessment/ evaluation/ assurance has been carried out by any external agency.

7. Does the entity have any project related to reducing Green House Gas emission?

Yes. BHEL has set up nearly 29 MWp of capacity of Solar Power plants including rooftop ones which has helped the organization in reducing its GHG Emissions. This includes solar project set up at our BAP Ranipet of 5 MW capacity.

Energy conservation projects are taken up each year at our units to reduce the energy consumption and thereby reducing the carbon emission associated with electricity consumption.

Refer Annexure – IV to the Board's Report, 4.1.2 Energy Management

Refer Annexure – IV to the Board's Report, 4.1.4 Carbon Management

Refer Annexure – VII to the Board's Report, 7.1 Conservation of Energy

8. Provide details related to waste management by the entity:

Parameter	FY 2021-22	FY 2020-21
Total Waste generated (in metric tonnes)		
Plastic waste **(A)**	24.46	22.84
E-waste **(B)**	74.47	49.26
Bio-medical waste **(C)**	6.45	6.33
Construction and demolition waste **(D)**	403	250
Battery waste **(E)**	65.87	51.23
Radioactive waste **(F)**	0	0
Other Hazardous waste. Please specify, if any. **(G)**	805.02	930.16
Other Non-hazardous waste generated **(H)**. Please specify, if any. (Break-up by composition i.e. by materials relevant to the sector)	24342.29	20407.86
Total (A+B + C + D + E + F + G + H)	25721.56	21717.68
For each category of waste generated, total waste recovered through recycling, re-using or other recovery operations (in metric tonnes)		
Category of waste		
(i) Recycled	1825.03	1257.76
(ii) Re-used	4594.18	2474.37
(iii) Other recovery operations	143.77	91.8
Total	6562.98	3823.93
For each category of waste generated, total waste disposed by nature of disposal method (in metric tonnes)		
Category of waste		
(i) Incineration	29.384	186.236
(ii) Landfilling	2995.99	2422.81
(iii) Other disposal operations	16877.92	15226.71
Total	19903.29	17835.76

In the table, other disposal operations include the data for sale of the scrap through e-auction/ other means to external agencies for its recycle/reuse/recovery as well. After considerable amount of scrap is accumulated, it is sold to the agency for final disposal. The data for incineration also includes the hazardous waste sent to Treatment, Storage & Disposal Facilities (TSDF) for final disposal. No assessment/ evaluation/ assurance has been carried out by any external agency.

Refer Annexure – IV to the Board's Report, 4.1.1 Responsible Material & Natural Resource Consumption

Refer Annexure – IV to the Board's Report, 4.1.3 Water and Biodiversity Management

Refer Annexure – IV to the Board's Report, 4.2 Waste Management

9. Briefly describe the waste management practices adopted in your establishments.

In our manufacturing activity, reduction of waste generation is taken as a very important activity and our nesting plan for cutting of metal sheet is made in such a way to take care of this aspect. However, once the scrap is generated, it is either used in the local foundry shop for making castings/ forgings or sent to CFFP Haridwar / authorized recycler for melting into the furnace for avoidance of virgin material consumption.

Across BHEL, solid wastes/ scrap having resale value were collected, segregated, stored and sold to authorized recyclers. Some of it not having any resale value is used for filling up low lying areas. Hazardous wastes/ e-waste are disposed of as per the stipulations in the relevant statutes.

The hazardous waste generated at units are disposed as per the regulatory requirement and necessary records for scrutiny of authority is duly maintained. Hazardous waste which can be used outside is sent to authorized recyclers. Rest of the hazardous waste which is to be incinerated or buried in secured landfill is sent to Treatment Storage and Disposal Facility (TSDF) of their respective states for ultimate disposal of such hazardous wastes.

Refer Annexure – IV to the Board's Report, 4.1.1 Responsible Material & Natural Resource Consumption

Refer Annexure – IV to the Board's Report, 4.1.3 Water and Biodiversity Management

Refer Annexure – IV to the Board's Report, 4.2 Waste Management

10. If the entity has operations/offices in/around ecologically sensitive areas where environmental approvals / clearances are required, please specify details:

Not applicable

11. Details of environmental impact assessments of projects undertaken by the entity based on applicable laws, in the current financial year:

Not applicable

12. Is the entity compliant with the applicable environmental law/ regulations/ guidelines in India:

Yes, BHEL is compliant with the applicable environmental law/ regulations/ guidelines in India

Leadership Indicators

1. Provide break-up of the total energy consumed (in Joules or multiples) from renewable and non-renewable sources:

Parameter	FY 2021-22	FY 2020-21
From renewable sources		
Total electricity consumption (A)	97812	97943
Total fuel consumption (B)	0	0
Energy consumption through other sources (C)	0	0
Total energy consumed from renewable sources (A+B+C)	97812	97943
From non-renewable sources		
Total electricity consumption (D)	759595	723124
Total fuel consumption (E)	1929497	1989747
Energy consumption through other sources (F)	0	0
Total energy consumed from non-renewable sources (D+E+F)	2689092	2712871

No independent assessment/ evaluation/assurance was carried out by an external agency

2. Provide the following details related to water discharged:

There are number of Sewage Treatment Plants (STP), Effluent Treatment Plants (ETP) and Oxidation Ponds established at our manufacturing units which gives the desired level of treatment to sewage/ trade effluent generated. The effluent is then discharged to municipal sewer, nallah, stream etc. after meeting the discharge norms. No independent assessment/ evaluation/assurance was carried out by an external agency.

Parameter	FY 2021-22	FY 2020-21
Water discharge by destination and level of treatment (in kilolitres)		
(i) To Surface water	135000	146000
- No treatment	0	0
- With treatment – please specify level of treatment	135000	146000
(ii) To Groundwater	0	0
- No treatment	0	0
- With treatment – please specify level of treatment	0	0
(iii) To Seawater	0	0
- No treatment	0	0
- With treatment – please specify level of treatment	0	0
(iv) Sent to third-parties	0	0
- No treatment	0	0
- With treatment – please specify level of treatment	0	0
(v) Others	495067	359216
- No treatment	0	0
- With treatment – please specify level of treatment	495067	359216
Total water discharged (in kilolitres)	630067	505216

No independent assessment/ evaluation/assurance was carried out by an external agency

3. Water withdrawal, consumption and discharge in areas of water stress (in kilolitres):

Not applicable

4. Please provide details of total Scope 3 emissions & its intensity:

At many energy intensive manufacturing units, we have switched over from usage of LPG to RLNG which is being supplied through the pipeline. In this way we are avoiding scope-3 emissions associated with transportation of the fuel to that extent. Our employees are also encouraged to use car pool to save energy and avoid Scope-3 emissions.

These are some of the ways BHEL is trying to reduce Scope-3 emissions. However, it is not being quantified at the moment.

No independent assessment/ evaluation/assurance was carried out by an external agency

5. With respect to the ecologically sensitive areas reported at Question 10 of Essential Indicators above, provide details of significant direct & indirect impact of the entity on biodiversity in such areas along-with prevention and remediation activities.

Not applicable

6. If the entity has undertaken any specific initiatives or used innovative technology or solutions to improve resource efficiency, or reduce impact due to emissions / effluent discharge / waste generated, please provide details:

Sr. No	Initiative undertaken	Details of the initiative (Web-link, if any, may be provided along-with summary)	Outcome of the initiative
1.	5 MW Solar PV plant at BHEL's manufacturing unit at Bhopal	Not available	Replacing grid electricity from captive renewable source

As a responsible global citizen, the organization acknowledges the relation between Green House Gas (GHG) emissions and climate change. To address this global challenge, BHEL has been putting efforts in reducing carbon footprint of its products and services, thereby enabling the customers to generate power in a sustainable manner with reduced environmental footprints over the life cycle of the plant. In internal operations also, the organization is putting a major thrust in energy efficiency and use of renewable energy sources. The company has established a total of approx. 29 MWp of Solar Photo Voltaic (ground mounted and roof-top) plants at various BHEL locations which has helped company in making its energy mix more sustainable. Company's inventory of renewable application also includes solar water heaters, solar street lighting etc. The Company has also taken a number of projects related to water and energy conservation, tree plantation, waste management, resource conservation, etc.

Refer Annexure – IV to the Board's Report, Sustainability Performance – Environment

Refer Annexure – VII to the Board's Report, Conservation of Energy

7. Does the entity have a business continuity and disaster management plan?

Yes, BHEL has a business continuity and disaster management plan. Same was prepared and acted upon during COVID-19 outbreak. Business continuity plan and/ or disaster management plan were not published on internet.

8. Disclose any significant adverse impact to the environment, arising from the value chain of the entity. What mitigation or adaptation measures have been taken by the entity in this regard.

Not applicable

9. Percentage of value chain partners (by value of business done with such partners) that were assessed for environmental impacts.

100% of value chain partners were assessed for environmental impact.

Principle 7: Policy Advocacy

BHEL is a member of many industry bodies/ chambers. BHEL uses various mechanisms of interaction with such bodies (e.g. participation in seminars & meetings, participation in working groups etc) for putting forth its views and opinions in matter related to policy. Company's interests are represented via inputs to government queries, knowledge sharing, response to surveys, feedback on industry needs, formation of government policies like GST, fiscal budget, foreign trade, Company Law, Industrial Policy, Capital Goods Policy, Export Promotion etc.

The company's views are also presented in various inter-governmental forums such as Joint Ministerial Commission (JMC), Joint Steering Committee (JSC), Joint Working Group (JWG), Joint Trade Committee (JTC), Joint Economic and Trade Committee (JETCO), Joint Commission Economic Corporation (JCEC), Working Group on Trade (WGT), etc to facilitate international trade and collaboration. Company also interacts with government bodies like MHI, DPE, DIPP, NITI Aayog and participates in policy formulation.

Essential Indicators

1. a. Number of affiliations with trade and industry chambers/ associations.

Eleven affiliations

b. List the top 10 trade and industry chambers/ associations (determined based on the total members of such body) the entity is a member of/ affiliated to.

Sr. No	Name of the trade and industry chambers/ associations	Reach of trade and industry chambers/ associations (State/National)
1.	Indian Electrical and Electronics Manufacturers' Association (IEEMA)	National
2.	Engineering Export Promotion Council of India (EEPC)	National
3.	Project Exports Promotion Council of India (PEPC)	National
4.	Confederation of Indian Industry (CII)	National
5.	Federation of Indian Chambers of Commerce & Industry (FICCI)	National
6.	Associated Chambers of Commerce and Industry of India (ASSOCHAM)	National
7.	Standing Conference of Public Enterprises (SCOPE)	National
8.	India Energy Storage Alliance (IESA)	National
9.	United Nations Global Compact India Network	National
10.	PHD Chamber of Commerce and Industry	International

2. Provide details of corrective action taken or underway on any issues related to anticompetitive conduct by the entity, based on adverse orders from regulatory authorities.

No instance of anti-competitive conduct by BHEL has been raised

Leadership Indicators

1. Details of public policy positions advocated by the entity:

S. No.	Public policy advocated	Method resorted for such advocacy	Whether information available in public domain? (Yes/No)	Frequency of Review by Board (Annually/ Half yearly/ Quarterly/ Others – please specify)	Web Link, if available
1.	Inputs to boost (i) Capital Goods Sector, (ii) Development of Indian Power Sector, (iii) Atmanirbhar Bharat initiatives, (iv)MSME development & Collaborative Management (v) Growth of Indian manufacturing industry Exports and Brand Perception of PSEs etc.	Through representations to various Industrial Bodies viz. CII, FICCI, ASSOCHAM, SCOPE etc.	No	--	--
2.	Facilitation of international trade and collaboration	Though representations in various inter-governmental forums such as Joint Ministerial Commission (JMC), Joint Steering Committee (JSC), Joint Working Group (JWG), Joint Trade Committee (JTC), Joint Economic and Trade Committee (JETCO), Joint Commission Economic Corporation (JCEC), etc	No	--	--
3.	Participation in various activities viz. Vision India @2047, growth and skill development, Make in India, promotion of in-house R&D, roadmap for development of CPSEs etc	Through interaction with government bodies like MHI, DPE, DIPP, NITI Aayog etc	No	--	--
4.	Inputs on matters such as Customs, Export promotion & Export incentives	Pre-budget memorandum for Budget 2022-23	No	-	-

Principle 8: Inclusive Growth

BHEL has a well-structured organizational set-up, policy & procedures through which various CSR programmes are implemented. The CSR policy has identified several activities from Schedule-VII of the Companies Act, 2013 as its thrust areas. The seven thrust areas defined in CSR Policy are: Clean India, Green India, Healthy India, Heritage India, Inclusive India, Educated India and Responsible India. The policy is hosted on website link https://www.bhel. com/sites/default/files/BHEL_CSR_Policy_July2017.pdf and is fully in conformance with requirements of Section 135 of the Companies Act 2013.

The policy is implemented through a three-tier structure at the corporate level (Board level committee on CSR, Level-1 committee & Level-2 Committee for screening and approval of proposals) along with unit level CSR Committee. Company supports numerous social initiatives across the country targeting poor, needy and economically weaker sections of society through specialized agencies such as NGOs, govt. agencies etc in line with the CSR Policy. BHEL has undertaken several CSR initiatives in the field of health, education, Swachh Bharat, environment protection, vocational training, skill development programmes, infrastructure development and community development programmes, which ultimately contributed to holistic welfare and inclusive growth of the society.

and to ensure fruitfulness of the initiatives undertaken.

Essential Indicators

1. Details of Social Impact Assessments (SIA) of projects undertaken by the entity based on applicable laws, in the current financial year.

Refer Annexure –IV of Board's Report, Sustainability and CSR, Annual Report for CSR activities, Annexure B

2. Provide information on project(s) for which ongoing Rehabilitation and Resettlement (R&R) is being undertaken by your entity:

Not applicable

3. Describe the mechanisms to receive and redress grievances of the community.

Community raises their grievances through Centralised Public Grievance Redress and Monitoring System (CPGRAMS)/ Public Grievance Portal which are then assigned to Public Grievance Officer in BHEL.

4. Percentage of input material (inputs to total inputs by value) sourced from suppliers:

	FY 2021-22	FY 2020-21
Directly sourced from MSMEs/ small producers	29%	34%
Sourced directly from within the district and neighbouring districts	10%	16%

Leadership Indicators

1. Provide details of actions taken to mitigate any negative social impacts identified in the Social Impact Assessments (Reference: Question 1 of Essential Indicators above):

Refer Annexure –IV of Board's Report, Section 4.3

2. Provide the following information on CSR projects undertaken by your entity in designated aspirational districts as identified by government bodies:

Refer Annexure –IV of Board's Report, Section 4.3 - Annexure C and D

3. (a) Do you have a preferential procurement policy where you give preference to purchase from suppliers comprising marginalized / vulnerable groups?

Yes, preferential procurement happens as mandated in the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order for MSEs (issued by Ministry of MSME-GoI).

(b) From which marginalized / vulnerable groups do you procure?

Company procures from marginalized/ vulnerable groups like MSEs owned by women, SC/ST individual.

(c) What percentage of total procurement (by value) does it constitute?

Company has been supporting Micro and Small Enterprises (MSEs). MSEs tend to employ a larger share of the vulnerable section of the workforce, such as women, youth, and people from poorer households. Regular Vendor Meets and Supplier development programs are being organized by BHEL units, specifically for MSEs (including local suppliers) as well as specific to SC/STs, which serves as a platform for identification of needs and formulation of action plan for mutual benefits. BHEL has procured 29% of its procurement from MSMEs in 2021-22.

4. Details of the benefits derived and shared from the intellectual properties owned or acquired by your entity (in the current financial year) based on traditional knowledge:

Company do not own or acquired intellectual property based on traditional knowledge. However, company has invested in Research & Development in the field of engineering which has yielded intellectual properties owned by BHEL. During FY2021-22, BHEL has filed 516 patent & Copyrights.

The revenue (benefit) earned by BHEL from patents & copyrights cannot be quantified in isolation as these patents & copyrights result out of the processes, technologies & products development. These IPRs result into competitiveness of BHEL products and expand product offerings. It also provides technological edge for long-term benefit and secure the business interests of the company. More than 21% of the company's revenue, has been achieved from its in-house developed products, systems and services.

Refer Annexure –VI to the Board's Report of Annual Report, Research & Development and Technological achievements

5. Details of corrective actions taken or underway, based on any adverse order in intellectual property related disputes where in usage of traditional knowledge is involved.

No dispute related to Intellectual Property rights emerged during FY 2021-22.

6. Details of beneficiaries of CSR Projects:

Refer Annexure –IV of Board's Report, Sustainability and CSR, Annual Report for CSR activities

Refer Annexure –IV of Board's Report, Annexure C and D

Principle 9: Customer Value

Essential Indicator

1. Describe the mechanisms in place to receive and respond to consumer complaints and feedback.

Customer value is an integral part of BHEL's culture which is also reflected in our Vision, Mission and Values statement. Company is constantly working towards creating value for customer through products and services. Every product offering of BHEL is labelled with detailed product labels/ name plates/ test certificates as per the requirement and terms of contracts with customers besides the mandatory statutory requirements.

Complaints of customers are received through various channels like letters, emails, phone calls, during meetings. The complaints are subsequently escalated for resolution.

All major quality issues reported are being taken up for Root Cause Analysis (RCA) and are being resolved through RCA committees. Apart from complaints, customer feedback is taken through customer satisfaction surveys, customers' meets, face-to-face interactions, video-conferencing and appreciation letters.

2. Turnover of Products and/services as a percentage of turnover from all products/services that carry information about.

BHEL products are capital goods and hence have long operating life of 25 years. The products/ systems are offered to customers with manuals covering safety, operating in environmental friendly manner etc. The same aspects are covered in training of customer personnel by BHEL.

3. Number of consumer complaints in respect of the following:

	FY 2021-22		Remarks	FY 2020-21		Remarks
	Received during the year	Pending resolution end of year		Received during the year	Pending resolution end of year	
Data privacy	0	0	-	0	0	-
Advertising	0	0	-	0	0	-
Cyber-security	0	0	-	0	0	-
Delivery of essential services	Not applicable					
Restrictive Trade Practices	0	0	-	0	0	-
Unfair Trade Practices	0	0	-	0	0	-
Other	-	-	-	-	-	-

4. Details of instances of product recalls on account of safety issues:

There are no instances of product recall that happened on account of safety issues

5. Does the entity have a framework/ policy on cyber security and risks related to data privacy?

Yes. BHEL is in B2B business and do not deal with individual customers. Hence, any individual customer data is not stored.

Refer 'Data and Cyber Security' in Report of the Board of Director

6. Provide details of any corrective actions taken on Underway on issues relating of advertising, and delivery of essential services; cyber security and data privacy of customers; re-occurrence of instances of product recalls; penalty / action taken by regulatory authorities on safety of products / services.

Not applicable

Leadership Indicators

1. Channels / platforms where information on products and services of the entity can be accessed (provide web link, if available).

Information on products and services of BHEL can be accessed from **www.bhel.com**

2. Steps taken to inform and educate consumers about safe and responsible usage of products and/or services.

Operation Manual and Training on products or systems are provided to customers as per the contractual requirements.

3. Mechanisms in place to inform consumers of any risk of disruption/discontinuation of essential services.

BHEL is in regular touch with its customers and any disruptions (for ex. due to COVID-19 in the recent past) are informed by emails, letter and any other communication means agreed to in the contract/ PO.

4. Does the entity display product information on the product over and above what is mandated as per local laws? (Yes/No/Not Applicable) If yes, provide details in brief. Did your entity carry out any survey with regard to consumer satisfaction relating to the major products / services of the entity, significant locations of operation of the entity or the entity as a whole? (Yes/No)

Yes. All the required and standard information are displayed/ stenciled on the products dispatched by BHEL.

Yes, BHEL conducts customer satisfaction survey for major products/ services.

5. Provide the following information relating to data breaches:

a. Number of instances of data breaches along-with impact

NIL

b. Percentage of data breaches involving personally identifiable information of customers

Nil

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Dated: 04.09.2022



RESEARCH & DEVELOPMENT AND TECHNOLOGICAL ACHIEVEMENTS

Annexure-VI to the Board's Report

Research & Development and Technological Achievements

6.1 R&D Strategy

BHEL has been a leader in the area of R&D and innovation in the country and over 21% of the company's revenues have been achieved from in-house developed products, systems and services in FY 21-22 and 5,208 IPR's have been filed till date. The company has one of the highest R&D spends in the engineering industry with consistent expenditure of over 2.5% of its revenue over past many years. Major themes taken-up under BHEL's R&D program are in sync with the national priorities and company's long term vision.

With the ongoing energy transition and focus on clean energy and the country's imperative to utilize its vast reserves of coal for energy security, BHEL has taken-up clean coal technologies as a major focus area. To provide cost effective and efficient solutions for reducing emissions from thermal power plants, your company has been focusing on indigenization of various products and systems for emission control equipment. Concerted efforts in the past year resulted in-house development of cost effective corrosion resistant polymer coating to replace imported and expensive C276, slurry recirculation pump, oxidation blower, etc., for FGD systems. The company has also completed the design of Advanced Ultra Super Critical (AUSC) technology jointly with NTPC and IGCAR having best-in-class efficiency and lowest emissions. BHEL has also indigenously developed gasification technology for high ash Indian coal and commissioned a 0.25TPD coal to methanol demonstration plant at Hyderabad. Focused efforts are now being made for indigenization of syngas to chemicals technology which will help reduce the country's import bill. Usage of coal will necessitate requirement of technologies for Carbon Capture and its utilisation as well as sequestration wherein BHEL aspires to be a leading player.

In the transportation sector, BHEL is developing technology self-sufficiency and strengthening its in-house capabilities for design & manufacturing of advanced electric systems for all types of rolling stock. The company is also working with a leading OEM for indigenization of Train Control & Management



Control System Manufacturing at Switchgear Division (SCR), BHEL Bhopal for DETC (Diesel Electric Tower Car)



Radial Fan test track at Centre of Excellence for Heat Transfer and Fluid Flow at Corporate R&D, BHEL Hyderabad

System (TCMS) which will enable BHEL to provide TCMS solutions including train system integration for trainsets for EMU/ MEMU & Metros, etc. In the past, your company has worked in close coordination with Indian Railways to provide customized solutions such as regenerative braking system for conventional WAG-7 locos, IGBT based propulsion system for India's first Air conditioned local train, composite convertors, solar PV plant alongside the tracks for direct feeding to 25 KV Traction System, etc.

In the defence & aerospace sector, your company is working in close coordination for a diverse range of equipment and services, which are strategic in nature, with customers such as DARE, HAL, ISRO, ADA, etc.

Appreciating the change in the technological space and to address various new business areas/ opportunities, BHEL is focusing on R&D through in-house development, collaborating with academia as well as with technology support from established players through Technology Collaboration Agreements (TCA). BHEL has 13 ongoing TCAs with Indian entities and global engineering & manufacturing leaders. There is a continuous push towards fast absorption and indigenization of such technologies to meet Indian market requirements as well as for export avenues.

Ongoing Technology Collaboration Agreements

Technology Collaboration with Indian Entity

Sl.	Name of Collaborator	Product
1	Indian Space Research Organisation (ISRO), India	Space Grade Lithium Ion Cells
2	CSIR- IIP, Dehradun, India	PVSA based Oxygen Plant

Technology Collaboration with global OEMs

Sl.	Name of Collaborator	Product
1	Mitsubishi Heavy Industries Ltd, Japan	Pumps
2	Siemens Energy Global GmbH & Co. KG., Germany	Steam Turbines, Generators and Lateral/Axial Condensers
3	Mitsubishi Heavy Industries Ltd, Japan	Flue Gas Desulphurization
4	Leonardo S.p.A., Italy	76/62 Super Rapid Gun Mount
5	Vogt Power International Inc., USA	Heat Recovery Steam Generators
6	Kawasaki Heavy Industries Limited, Japan	Stainless steel coaches and bogies for metros
7	HLB Power Co., Ltd., Republic of Korea	Gates and Dampers
8	NANO Co. Ltd., Republic of Korea	SCR Catalyst for De-NOx applications
9	Babcock Power Environmental Inc., USA	SCR System De-NOx applications
10	General Electric Technology GmbH, Switzerland	Steam Turbine for Nuclear Power Projects
11	Valmet Automation Oy., Finland	New Generation C&I Automation (Distributed Control System)

BHEL has also been focusing on creation of a knowledge ecosystem within the company as well as upgrading the same through continual training of its employees. Engineering has been identified as a target area for design optimization and reducing cycle time in all its products, which will ultimately lead to reduction in cost.

6.2 R&D Structure

The R&D structure of the company is headed by Director (E, R&D), supported by Corporate Technology Management (CTM) and Corporate R&D divisions, at apex level. While CTM is mandated to formulate company's innovation/ technology strategy, Corp R&D Division works towards in-house technology development. The R&D efforts are complemented by a dedicated Research & Product Development (RPD) group, in various product groups at manufacturing units.

These groups are well supported by well-equipped state-of-the-art R&D infrastructure. BHEL has 14 Centres of Excellence at Corporate R&D Hyderabad (e.g. Intelligent Machines and Robotics, Machine Dynamics, UHV Laboratory, Computational Fluid Dynamics, Permanent Magnet Machines, etc.), HPBP Tiruchirapalli (e. g. Coal Research Centre) and EDN Bengaluru (e. g. Power Electronics, IGBT & controller Technology).

BHEL also has 5 Specialized Research Institutes, namely Pollution Control & Research Institute (PCRI), Haridwar, Welding Research Institute (WRI), Trichy, Ceramic Technological Institute (CTI), Bengaluru, Centre for Electric Transportation (CET), Bhopal and Amorphous Silicon Solar Cell Plant (ASSCP), Gurugram.

Industry–academia collaboration is a key determinant of success of application of innovation for product as well as process improvements. BHEL has partnered with leading academic and research institutions of the country including IITs, NITs, CSIR, ARAI, etc. to carry out research in identified areas.

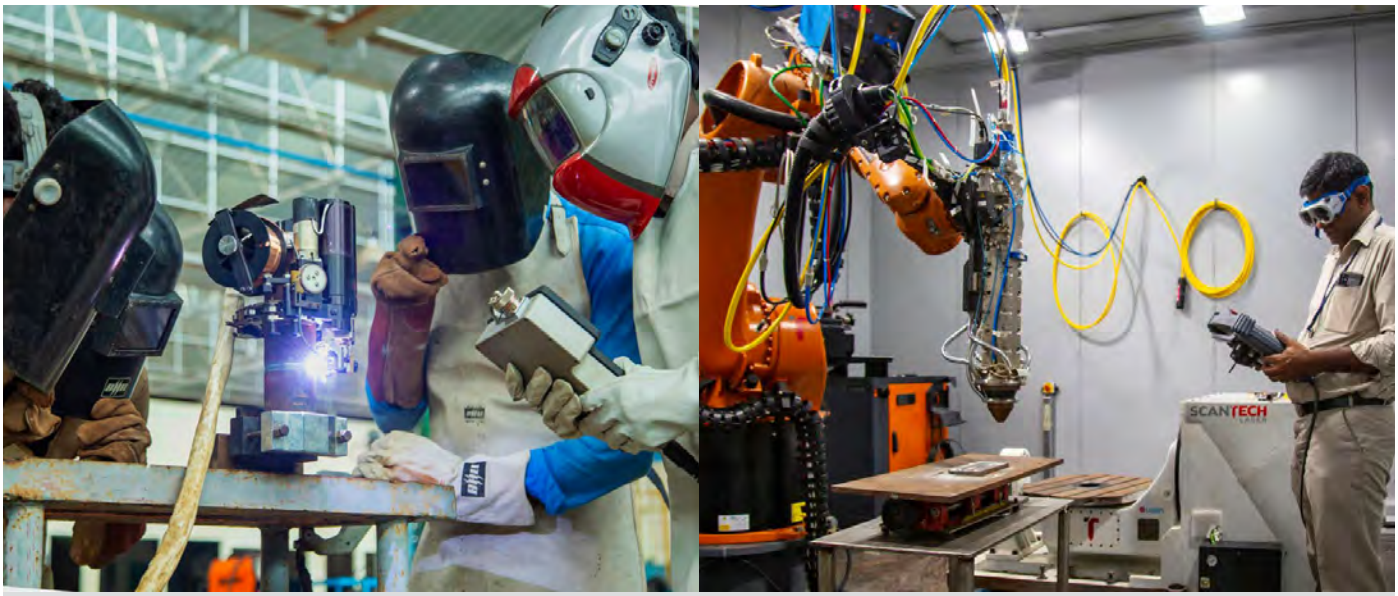
6.3 Achievements during the year

BHEL's R&D efforts for development of new and improved products, processes and systems have resulted in following major developments:

- BHEL has indigenously designed, installed and demonstrated a 0.25 TPD methanol generation technology demonstration plant using high ash Indian Coal at Hyderabad. The plant has produced Methanol with purity of more than 99%. Conversion of high ash Indian coal to methanol through gasification route is the first of its kind technology demonstration in India.
- BHEL has manufactured and supplied electrics for 3-phase Ethernet-based AC Mainline Electric Multiple Unit (MEMU) train with state-of-the-art Train Control Management System and Regenerative Braking system.
- BHEL has developed a compact 122 kW DC fast charger for charging Electric Vehicles (EVs) to meet the emerging way side charging infrastructure business, which has successfully passed the certification tests at ARAI, Pune.
- BHEL has developed 3-5 kW Proton Exchange Membrane (PEM) Fuel Cell Stack with high power density fuel cell for E- mobility applications.
- Successfully developed 4 inch C150 Class Motor Operated Gate valve and tested at Fluid Control Research Institute (FCRI), Palakkad for Nuclear power plants applications.
- Successfully designed, manufactured & tested highest rating 1605 kW / 6.6 KV motor for export project, in line with IS/IEC 60079-7:2015 with additional purge facility for



Impact Testing using Fully Automated Robotized Impact Test System at BHEL Corporate R&D, Hyderabad



Orbital testing machine test setup (left) and robotic arm laser welding setup (right) at Welding Research Institute, BHEL Tiruchirapalli

hazardous area application motors.

- Under "Make in India" initiative:
  - Indigenously designed, manufactured and tested prototype slurry recirculation pump for handling wet limestone based slurry for FGD application.
  - Developed aero-thermal design of top pressure recovery turbine (TRT) of 30 MW capacity and generation of performance maps with inlet guide vane mechanism (IGV) for blast furnace application in steel sector.
  - Developed aero Mechanical design of motor driven multistage axial compressor 5,40,000 Nm3/Hr capacity with multistage guide vane system for blast furnace application in steel sector.
  - Completed design and development of Oxidation blower with handling air capacity of 9650 Nm3/hr with Shear ring design for 1x660 MW Flue Gas Desulphurization (FGD) applications.
  - **As an import substitution initiative,**
  - Developed, tested and supplied one Air to Air Heat Exchanger (AAHE) for Su-30MKI aircraft.
  - Developed Pre-cooler for Advanced Light Helicopter.
- BHEL has developed a cost effective corrosion resistant polymer coating to replace imported and expensive C276 (Ni- based super alloy) cladded plate in Flue Gas Desulphurization (FGD) system. These polymer coatings can be applied easily on large areas using airless spray system and maintenance is also simpler.
- BHEL's largest size Kaplan turbine, 7 meter in diameter, has been successfully developed for Polavaram HEP Project (12 x 80 MW). Hydraulic profile development of the turbine was a challenge as the spiral casing and draft tube had to be redesigned to be compatible with the existing civil structure already constructed for another OEM (to whom the work was allocated earlier).
- Supplied, constructed, erected and commissioned concrete volute pumps (CVP) large size pumps with a flow capacity of 45,500 m3/hr per pumpf for 800MW power plant applications and performance guarantee tests have also been completed.
- Successful completion of design and engineering of a compact, modular design 420 kV hybrid gas insulated switchgear (HGIS).
- BHEL has indigenously designed and developed steam turbine and valve modules for 210 MW LMZ old Russian design turbine sets to address energy efficient Renovation & Modernization (R&M) and Life Extension of the existing old thermal power plants.
- Developed process for making carbon nanotube fibre and non- woven mat for various applications.
- BHEL is a core member of consortium of CoE at IIT Kharagpur for projects related to Additive Manufacturing and has successfully completed development of model for 3D Closed Compressor Impeller & clamping piece for LP steam turbine rotor
- 30 Nos of CNC machines across 8 manufacturing units have been connected through in-house developed MOLA software based IIoT system. This will be used for monitoring utilization & predictive maintenance of CNC machines, to enhance their productivity.
- To improve the design of BHEL offerings, following analyses have been completed successfully:
  - Seismic and thermal Analysis of Nuclear Valves for meeting customer qualification requirement
  - Shock and vibration analysis of AC Machine starting panel of 1 MW Main Motor Generator(MMG) for

strategic applications.

- Design analysis of indigenously developed traction motor IM3003AZ (270 kW) for Semi High Speed Train

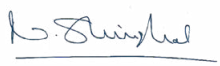
- In the area of Knowledge Based Engineering (KBE), following initiatives have been completed:
  - Design automation of rotor assembly of induction motor
  - Assembly sequencing of cooling water pumps
  - Design automation of wound stator assembly of hydro generator (5 MW – 400 MW) covering all variants
  - Development of integrated application for engineering design automation of 3 phase induction motor for EMU, MEMU and DEMU.

6.4 Focus areas for R&D & technology development

BHEL's R&D focus is building and consolidating R&D capabilities in the following emerging and existing areas

- Total solutions for rail transportation in areas of three-phase AC drive system for electric locos & Electric Multiple Units (EMU), high powered locomotives.
- Post successful development & demonstration of coal gasification technology, specifically for high ash Indian coal, your company is working to develop indigenous technology to generate chemicals and green fuels (methanol, hydrogen, etc.) from syngas.
- Development of high efficiency solar cells, grid connected renewable energy Solar PV applications.
- Products and systems such as aero structures, marine gas turbines, Li-ion battery system, heat exchangers, etc., for defence and strategic applications.
- Development of solutions for E-mobility ecosystem including power train, charging stations, energy storage systems, etc.
- Products & systems for Hydrogen economy and fuel cell applications.
- Application of Industry 4.0 with deployment of new technologies including intelligent machines & robotics and Advanced Manufacturing Technologies.
- Products for downstream oil and gas sector
- Products and systems for Nuclear power plants.
- Products and systems for digital substation and advanced power transmission like ±800kV HVDC, 765 kV, 1200 kV transmission systems.
- Indigenization of higher capacity axial compressors for blast furnace in Steel industries under the AatmaNirbhar Bharat Abhiyaan
- Indigenization of Flue Gas Desulphurization (FGD) systems technology which will also help reduce the import bill of the country.

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place : New Delhi
Dated: 04.09.2022

Annexure –VII to the Board's Report

7.1 Conservation of Energy

Sustainable Development tenets are ingrained in the business processes of BHEL and our mission statement "Providing Sustainable business solutions in the fields of Energy, Industry & Infrastructure" bears testimony to this.

As a leading manufacturing organization, BHEL continuously strives towards efficient management of energy consumption within its premises and providing energy efficient technologies to its customers. Energy efficiency/ conservation projects are pro-actively undertaken in the organization on continual basis.

BHEL's energy intensive manufacturing units have been certified/ re-certified for Energy Management System (ISO 50001). Steps have been taken across the company for replacement of conventional lighting systems and fixtures with energy efficient lighting system; replacement of old ACs with more efficient 4/5 star rated systems; installation of Automatic Power Factor Correction panels in substations and operation of HT capacitor banks to keep the factory's power factor closer to unity, etc.

Further, installation of 1 MW capacity Grid-connected Roof Top Solar PV System under MNRE Scheme for Government Buildings (RESCO Model) in HEEP Haridwar at a fixed tariff for the next 25-Years (without any capital investment from BHEL) is likely to generate ~1.2 Million Units/ annum. Across the company, 27.17 Million Units of green energy was generated during FY 2021-22 taking the overall energy generation through solar systems during the last 5-years to 129.69 Million Units.

7.2 Technology Absorption and Research & Development

Research & Development

1. Specific areas in which R&D carried out by the Company	}	Given in the Directors' Report under Annexure-VI "R&D and Technological Achievements"
2. Benefits derived as a result of the above R&D		
3. Future Focus areas		
4. Expenditure on R&D		
Total	..	₹ 699.57 crore
a) Recurring	..	₹ 696.60 crore
b) Capital		₹ 2.97 crore
Expenditure as a percentage of revenue	..	**3.47 %**

7.3 Technology Absorption

Details of technology imported during the last 5 years:

Technology	Year of import	Absorption status
Stainless Steel Metro Coaches & Bogies	2017	Technology absorption in progress
Gates and Dampers	2018	
Selective Catalytic Reduction (SCR) Catalyst	2018	
SCR System	2018	
Steam Turbine for Nuclear PHWR application	2018	
New Generation C&I Automation	2020	

7.4 Foreign Exchange Earnings and Outgoings (₹ Crore)

Particulars	2021-22	2020-21
Foreign Exchange Used	1886	1598
Foreign Exchange Earned	2477	1839

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

Dr. Nalin Shinghal
Chairman & Managing Director

Place : New Delhi
Dated: 04.09.2022

Annexure –VIII to the Board's Report

8.1 Implementation of Official Language

Official Language Implementation Committee has been constituted under the Chairmanship of Head of the unit/ division in all the units of BHEL. Quarterly meetings are being held regularly in all units/divisions including Corporate Office. Hindi Divas/Week/Fortnight/Month was celebrated in all the units/ divisions including Corporate Office during which various competitions, seminars, cultural programmes and Kavi Sammelans were organized. Various programs such as "Hindi Divas Samaroh" and "Rajbhasha Ullas Parv" have been organized during the year.

BHEL is playing an active role in Town Official Language Implementation Committees (TOLIC) located in different cities. Heads of all the units / divisions are members of the TOLIC located in their respective cities. Many competitions, seminars, conferences and programmes are organized under the auspices of these committees. BHEL is making contribution in organizing TOLIC competitions as well as other activities and our employees enthusiastically participate in all the competitions and win many prizes. Six employees of Delhi offices won prizes in various competitions organized by TOLIC (Undertakings-1) Delhi during October-November-December 2021. Many of our units have also been awarded by their respective TOLIC. Corporate Office organized an online translation competition on 25th November, 2021 for the member offices of TOLIC (Undertakings-1) Delhi. Employees of 29 member offices participated in this competition.

BHEL Corporate Office was awarded in both the translator and vetter categories for uploading more than 6500 TM (sentences) in Translators category and more than 8000 TM (sentences) in Vetter category during a competition held from March 01 to May 31, 2021 which was conducted by Department of Official Language, Ministry of Home Affairs, Government of India for progressive usage of KANTHASTHA, an online memory based translation tool.

A total of 17 Hindi magazines are being published across the Company. 30 employees from various units/divisions were awarded cash prize for their excellent articles published in these magazines. Under the "Inter-Unit Official Language Shield" competition, 15 units/divisions of the Company were awarded Official Language Shield for excellent implementation of Official Language.

On the occasion of Vishva Hindi Divas, various competitions / programs were organized in all units/ divisions of the company. Official language inspection of BHEL Corporate Office, New Delhi was conducted by Hon'ble Parliamentary Committee on Official Language on 27th December, 2021. Appreciating the efforts being made by the corporate office on the official language implementation, Hon'ble Parliamentary Committee on Official Language directed for more emphasis on official language implementation. In addition, Hon'ble Parliamentary Committee on Official Language also inspected TBG- Vadodara on 22nd September, 2021 and Power Sector- Southern Zone, Chennai on 22nd February 2022. The committee appreciated the efforts being made towards the implementation of Official Language and advised us to achieve the targets.

16 sessions were organized on various topics relating to Rajbhasha during the year covering nearing 1800 participants from various units/ divisions.



Rajbhasha Ullas Parv was observed in BHEL in September 2021



CMD BHEL administered the Integrity Pledge on the inaugural day of Vigilance Awareness Week 2021

8.2 Vigil Mechanism

Transparency, fairness and objectivity form the basis for all decision making processes for the company. The Company has in place a full-fledged Vigil Mechanism consisting of Vigilance Department, Internal Audit, Whistle-blower Policy mechanism, Independent External Monitor(s), as well as Board Level Audit Committee.

The Vigilance function of BHEL is headed by Chief Vigilance Officer who acts as an extended arm of Central Vigilance Commission (CVC) in the Company. All units & divisions of BHEL have a Vigilance setup headed by a Senior Officer reporting to the CVO.

Preventive Vigilance has been the focus area of BHEL as proactive vigilance is better than the reactive one and it reduces the chances of corruption. The main objective is to progressively reduce ambiguity and discretion in various processes by plugging the loopholes in the system, thereby making decision making process more objective & transparent and also reducing the scope for malpractices. The Audit reports (internal, statutory and CAG reports) are also being scrutinized so as to determine whether there is any vigilance angle involved in respect of the irregularities brought out in such audit reports.

Random checks of the activities in the organization were conducted through routine inspections, surprise checks, system studies, CTE type inspection etc. Based on the findings of these inspections/ scrutiny's, Improvements were suggested on various provisions of BHEL Policies / Guidelines / Manuals so as to minimize discretionary powers and to bring clarity in provisions where there is scope for misinterpretation. Annual Property returns of about **3459** employees (about 23% of employee covered under CDA Rules) were scrutinized during the year 2021-22.

During the financial year 2021-22, **148** training programs / workshops on Preventive Vigilance were organized for employees associated with decision making process across the Units/Regions.

A session on preventive vigilance has been added in all the General Management Programs / Strategic Management Programs / Young Managers Programs organized by BHEL's Corporate Learning & Development department. As per the suggestion of the Commission, a two days training programs on 'Preventive Vigilance' has also been included in the induction training and mid-career training programs for executives from January, 2022 (CSM to check). During the FY 2021-22 four such training programs on 'Preventive Vigilance' were organized.

During the FY 2021-22, **27 cases** were taken up for investigation, 71 penalties (12 major and 59 minor) were imposed and **12** warning / advisory letters were also issued. Further, out of **210** complaints (**207** received during the year 2021-22) **204** were disposed and rest are under different stages of disposals. Recoveries of **₹239.83 lakh (approx.)** have been made from various agencies, employees, vendors and contractors, on the advice of Vigilance.

As per directives issued by CVC vide circular no. 15/09/2021 dated 1st September, 2021, the Vigilance Awareness Week (VAW)-2021 was observed from 26th October to 1st November, 2021 on the theme **"Independent India @75: Self Reliance with Integrity** (स्वतंत्र भारत @75 : सत्यनिष्ठा से आत्मनिर्भरता) in BHEL.

The link of 'Integrity Pledge' - https://pledge.cvc.nic.in was provided on BHEL internet and all the intranet sites of the various manufacturing Units/ Regions/ Offices and all the stakeholders were encouraged to take the integrity pledge.

Vigilance Department organized various programmes (approx. 200), i.e., debates, elocutions, panel discussions, essay writing, quiz, slogans/ cartoon / poster competitions etc. on the theme of Vigilance Awareness Week for employees, their wards and students of schools and colleges in various cities

across India.

As a part of awareness series, 10 animated clips (VAW Theme, PIDPI complaint, Housekeeping activities, lodging of complaints, etc.) were developed in-house and released during the VAW.

Central Vigilance Commission entrusted BHEL with the responsibility of conceptualizing and producing a short film for spreading awareness about Integrity Pledge amongst citizens. Accordingly, a short film on Integrity Pledge was prepared jointly by Corporate Vigilance Department and Corporate Communication department of BHEL. This short video clip (https://cvc.gov.in/media/video-gallery/integrity-pledge-hindi) was screened at various forums and also telecast on Doordarshan National Network on 26.10.2021 during the inaugural of Vigilance Awareness Week-2021. The quality and contents of the film were highly appreciated by stakeholders and citizens alike.

Vigilance Department publishes quarterly e-Newsletter 'DISHA' with a view to create awareness about procurement policy, rules and procedures etc., to disseminate the instructions/ guidelines issued by CVC and Government of India from time to time and to share best practices, case studies and articles. Four issues were published during the year and thirty-six have so far been published since 2013. The e-newsletter is given wider publicity and is sent to all employees through e-mail and also hosted on BHEL's units/ Regions Intranet webpage.

8.3 Health, Safety & Environment (HSE)

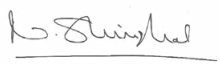
BHEL believes in providing safe work environment to all its employee as well as stakeholders we work with. During the second wave of COVID-19, your company proactively ensured good health and safety of its employees by means of providing immediate medical assistance to affected employees, issuing guidelines and SOPs, circulating preventive measures, conducting audits to ensure compliance to all guidelines/ rules, etc. Your company also supplied over 80,000 medical oxygen cylinders from its manufacturing plants to supplement national efforts to tackle shortage of medical oxygen.

BHEL, over the last couple of years has been emphasizing to make good HSE practices as part of its work culture. For this, BHEL has conducted HSE trainings / expert talks / webinars on regular basis for their employees and sub-contractors' employees. In addition to the structured trainings to spread awareness for safe work place, a special campaign was run across the organization, "BHEL Safety Fortnight-2022" during 4th – 17th, March starting from National Safety Day. Other HSE campaigns were also organized on large scale i.e. Environment Awareness Month (5th June – 30th June, 2021), Swachhta Pakhwada (16th – 31st August 2021), etc..

BHEL's effort in increasing its safety performance and environmental enrichment has been well appreciated and the company has received many awards as a recognition of these efforts. Awards received during the year include:

- Golden Peacock Environment Management Award (GPEMA) - 2021 in Power Equipment Sector for exemplary contribution to environment management by Institution of Directors.
- 8 National Safety Awards for performance year 2018 instituted by Ministry of Labour & Employment, Government of India.
- Gold Award under Apex India Safety Awards 2022 in Engineering sector hosted by Management of Apex India Foundation.

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Date: 04.09.2022

Annexure – IX to the Board's Report

Form AOC- I

(Pursuant to first proviso to sub-section (3) of section 129 read with rule 5 of Companies (Accounts) Rules, 2014)

Statement containing salient features of the financial statement of subsidiaries/associate Companies/joint ventures

Part "A": Subsidiaries

(Information in respect of each subsidiary to be presented with amounts in ₹ Crore)

1. Sl. No.	01
2. Name of the subsidiary	BHEL ELECTRICAL MACHINES LIMITED
3. The date since when subsidiary was acquired	19th January, 2011
4. Reporting period for the subsidiary concerned, if different from the holding company's reporting period	N.A.
5. Reporting currency and Exchange rate as on the last date of the relevant Financial year in the case of foreign subsidiaries.	N.A.
6. Share capital	NIL
7. Reserves & surplus	NIL
8. Total assets	NIL
9. Total Liabilities	NIL
10. Investments	NIL
11. Turnover	NIL
12. Profit before taxation*	(3.64)
13. Provision for taxation*	0.95
14. Profit after taxation*	(2.69)
15. Proposed Dividend	NIL
16. % of shareholding**	NIL

Figures given in brackets are negative

* Represents figures upto 11th August, 2021

** BHEL's stake in BHEL-EML has been transferred to Govt. of Kerela on 11th August 2021.

1. Names of subsidiaries which are yet to commence operations	NIL
2. Names of subsidiaries which have been liquidated or sold during the year.	BHEL EML**

Part "B": Associates and Joint Ventures

Statement pursuant to Section 129 (3) of the Companies Act, 2013 related to Associate Companies and Joint Ventures

(₹ Crore)

Name of Joint Ventures	BHEL-GE Gas Turbine Services P. Ltd.	NTPC BHEL Power Projects Pvt Ltd	Raichur Power Corporation Ltd.
1. Latest Audited Balance Sheet Date	31.03.2021	31.03.2021	31.03.2021
2. Date on which Associate or Joint Venture was associated or acquired	5th May, 1997	28th April, 2008	15th April, 2009
3. Shares of JVs held by BHEL on the year end			
No.	2379999	50000000	664040000
Amount of investment	2.38	50.00	664.04
Extent of Holding %	50% minus one share	50%	22.14%
4. Description of how there is significant influence	Jointly controlled entities		
5. Reason why the associate/ JV is not consolidated	N.A.	N.A.	N.A.
6. Net worth attributable to Shareholding as per latest audited Balance Sheet	201.60*	NIL	NIL
7. Profit/ (Loss) for the year	As per equity method		
i. Considered in consolidation	50.42	NIL	NIL
ii. Not considered in Consolidation	-	(20.26)	(125.09)

* At the end of FY 2021-22.

Figures given in brackets are negative. In RPCL,300 shares are held by BHEL in the name of its nominee.

M/s Power Plant Performance Improvement Ltd. is under liquidation and hence not considered in consolidation. The investment in this JV amounting Rs 2.00 crore has been fully provided for.

For and on behalf of Board of Directors

(Rajeev Kalra)
Company Secretary
M.No. 14567

(Subodh Gupta)
Director (Finance)
DIN: 08113460

(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date attached

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277

(Shrey Gupta)
Partner
M.No. 522315

(Devender Magoo)
Partner
M. No. 085739

(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Form No. AOC-2

(Pursuant to clause (h) of sub-section (3) of section 134 of the Act and Rule 8(2) of the Companies (Accounts) Rules, 2014)

Form for disclosure of particulars of contracts/arrangements entered into by the company with related parties referred to in sub-section (1) of section 188 of the Companies Act, 2013 including certain arm's length transactions under third proviso thereto

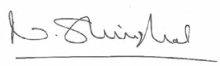
1. Details of contracts or arrangements or transactions not at arm's length basis

(a)	Name(s) of the related party and nature of relationship	:	NIL
(b)	Nature of contracts/arrangements/transactions	:	NIL
(c)	Duration of the contracts / arrangements/transactions	:	NIL
(d)	Salient terms of the contracts or arrangements or transactions including the value, if any	:	NIL
(e)	Justification for entering into such contracts or arrangements or transactions	:	NIL
(f)	Date(s) of approval by the Board	:	NIL
(g)	Amount paid as advances, if any	:	NIL
(h)	Date on which the special resolution was passed in general meeting as required under proviso to section 188	:	NIL

2. Details of material contracts or arrangements or transactions at arm's length basis:

(a)	Name(s) of the related party and nature of relationship	:	NIL
(b)	Nature of contracts/arrangements/transactions	:	NIL
(c)	Duration of the contracts / arrangements/transactions	:	NIL
(d)	Salient terms of the contracts or arrangements or transactions including the value, if any	:	NIL
(e)	Date(s) of approval by the Board, if any	:	NIL
(f)	Amount paid as advances, if any	:	NIL

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Dated: 04.09.2022

Annexure - X to the Board's Report

INDEPENDENT AUDITOR'S REPORT

To the Members of
Bharat Heavy Electricals Limited

Report on the Audit of the Standalone Financial Statements

Opinion

We have audited the accompanying standalone financial statements of **Bharat Heavy Electricals Limited ("the Company"),** which comprise the Balance Sheet as at March 31, 2022, the Statement of Profit and Loss (including Other Comprehensive Income), the Statement of Changes in Equity and the Statement of Cash Flows for the year then ended, and a summary of the significant accounting policies and other explanatory information (hereinafter referred to as "the Standalone financial statements") in which are incorporated the returns for the year ended on that date for 19 branches audited by us and 10 branches audited by the branch auditors of the company.

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements give the information required by the Companies Act, 2013 ("the Act") in the manner so required and give a true and fair view in conformity with the Indian Accounting Standards prescribed under section 133 of the Act read with the Companies (Indian Accounting Standards) Rules 2015, as amended, ("Ind AS") and other accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2022, the profit and total comprehensive income, changes in equity and its cash flow for the year ended on that date.

Basis for Opinion

We conducted our audit of the standalone financial statements in accordance with the Standards on Auditing (SAs) specified under section 143 (10) of the Companies Act, 2013. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the standalone financial statements under the provisions of the Companies Act, 2013 and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the standalone financial statements.

Emphasis of Matter

We draw attention to Notes 39 (b) & Additional disclosure of Note 3.1 (point no. 5) of the financial statements, which describes the impact of Change in accounting estimate on account of Contractual Obligation and Change of useful life of assets respectively. Our opinion is not modified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that in our professional judgement were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the standalone financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have determined the matters described below to be the key audit matters to be communicated in our report.

Key Audit Matter	Auditor's Response
Accuracy of recognition, measurement, presentation and disclosures of revenues and other related balances in respect of "Revenue from contracts with Customers" under Ind AS 115. The application of this revenue accounting standard involves certain key judgments relating to identification of distinct performance obligations, determination of transaction price of identified performance obligations, the appropriateness of the basis used to measure revenue recognized over a period, and disclosures including presentations of balances in the financial statements. Estimated efforts is a critical estimate to determine revenue, as it requires consideration of progress of the contract, efforts incurred till date, efforts required to complete the remaining performance obligation. **Refer Note 40 to** the standalone financial statements	**Principal Audit Procedures** Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Evaluated the effectiveness of controls over the preparation of information that are designed to ensure the completeness and accuracy. • Selected a sample of existing continuing contracts and new contracts, and tested the operating effectiveness of the internal control, relating to identification of the distinct performance obligations and determination of transaction price. • Tested the relevant information, accounting systems and change relating to contracts and related information used in recording and disclosing revenue in accordance with Ind AS 115. • Reviewed a sample of contracts to identify possible delays in achieving milestones, which require change in estimated efforts to complete the remaining performance obligations. • Performed analytical procedures and test of details for reasonableness and other related material items.
Assessment and recoverability of Trade Receivables and Contract Assets The Company has trade receivables outstanding (net) of ₹ 6228.59 Crore and contract assets (net) of ₹ 26939.87 Crore at the end of March 31, 2022. These balances are related to revenue recognized in line with Ind AS 115 "Revenue from contracts with customers" for ongoing contracts and completed contracts. The assessment of its recoverability is a key audit matters in the audit due to its size, pending balance confirmation of letters sent and high level of management judgment **Refer Notes 6, 9, 40** to the standalone financial statements.	**Principal Audit Procedures** We have assessed the Company's internal process to recognize the revenue and review mechanism of trade receivables and contract assets. Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Evaluated the process of invoicing, verifications, and reconciliations with customers. • Obtained the list of project wise outstanding details and its review mechanism by the management. • Reviewed the guidelines and policies of the Company on impairment of trade receivables and contract assets. • Tested the accuracy of aging of trade receivables and contract assets at the year-end on sample basis. • Performed analytical procedures and test of details for reasonableness, recoverability and other related material items.

Assessment of Contingent Liability	Principal Audit Procedures
There are a number of litigations pending before various forums against the Company and the management's judgement is required for estimating the amount to be disclosed as contingent liability. We determined the above area as a Key Audit Matter in view of associated uncertainty relating to the outcome of these matters which requires application of judgment in interpretation of law. Accordingly, our audit was focused on analyzing the facts of subject matter under consideration and judgments/ interpretation of law involved. **(Refer Note 32** to the standalone financial statements)	The audit procedures included but were not limited to: • Obtaining a detailed understanding processes and controls of the Management with respect to claims or disputes • Performing following procedures on samples selected: • Understanding the matters by reading the correspondences, communications, minutes of the management meeting • Making corroborative inquiries with appropriate level of the management personnel including status update, expectation of outcomes with the basis, and the future course of action contemplated by the Company, and perusing legal opinions, if any, obtained by the Management. • Obtaining direct confirmation from the legal attorneys of the company and considering their opinions /probability assessment of the outcomes. • Evaluating the evidence supporting the judgement of the management about possible outcomes and the reasonableness of the estimates. • Evaluating appropriateness of adequate disclosures in accordance with the applicable accounting standards.

Information Other than the Standalone Financial Statements and Auditor's Report Thereon

The Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the information included in Management Discussion and Analysis, Board's Report including Annexures to Board's Report, Business Responsibility & Sustainability Report, Corporate Governance and Shareholder's information, but does not include the standalone financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the standalone financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Management's Responsibility for the Standalone Financial Statements

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of these financial statements that give a true and fair view of the financial position, financial performance, total comprehensive income, changes in equity and cash flows of the Company in accordance with the Ind AS and other accounting principles generally accepted in India. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the standalone financial statements, Management of Company is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Management of Company either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The Board of Directors are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Standalone Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee

that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these standalone financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal financial controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(i) of the Companies Act, 2013, we are also responsible for expressing our opinion on whether the company has adequate internal financial controls system in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the standalone financial statements, including the disclosures, and whether the standalone financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Materiality is the magnitude of misstatements in the standalone financial statements that, individually or in aggregate, makes it probable that the economic decisions of a reasonably knowledgeable user of the financial statements may be influenced. We consider quantitative materiality and qualitative factors in (i) planning the scope of our audit work and in evaluating the results of our work; and (ii) to evaluate the effect of any identified misstatements in the financial statements.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the standalone financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

We did not audit the financial statements/information of 10 **(Ten)** branches included in the standalone financial statements of the Company whose financial statements/ financial information reflect total assets of ₹ **33573 Crore** as at 31st March, 2022 and total revenue of ₹ **11630 Crore** for the year ended on that date, as considered in the standalone financial statements. The financial statements/information of these branches have been audited by the branch auditors whose reports have been furnished to us, and our opinion in so far as it relates to the amounts and disclosures included in respect of these branches, is based solely on the report of such branch auditors.

Our opinion is not modified in respect of these matters.

Report on Other Legal and Regulatory Requirements

(1) As required by the Companies (Auditor's Report) Order, 2020 ("the Order") issued by the Central Government of India in terms of sub-section (11) of section 143 of the Act, we give in the "**Annexure A**" a statement on the matters specified in paragraphs 3 and 4 of the Order, to the extent applicable.

(2) As required by Section 143 (3) of the Act, based on our audit we report that:

a. We have sought and obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purposes of our audit:

b. In our opinion, proper books of account as required by law have been kept by the company so far as it appears from our examination of those books and proper returns adequate for the purpose of our audit have been received from the branches not visited by us;

c. The reports on the accounts of the branch offices

of the Company audited under Section 143(8) of the Act by branch auditors have been sent to us and have been properly dealt with by us in preparing this report;

d. The Balance Sheet, the Statement of Profit and Loss (including other comprehensive income), Statement of Changes in Equity and the Statement of Cash Flow dealt with by this Report are in agreement with the books of account;

e. In our opinion, the aforesaid financial statements comply with the Indian Accounting Standards prescribed under Section 133 of the Act, read with Companies (Indian Accounting Standards) Rules 2015;

f. In terms of Notification no. G.S.R. 463 (E) dt. 05-06-2015 issued by Ministry of Corporate Affairs, the Provision of Section 164(2) of the Companies Act, 2013 in respect of disqualification of directors are not applicable to the Company;

g. With respect to the adequacy of the internal financial controls over financial reporting of the Company and the operating effectiveness of such controls, refer to our separate Report in **"Annexure B"**;

h. With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditors) Rules, 2014, in our opinion and to the best of our information and according to the explanations given to us:

   i) The company has disclosed the impact of pending litigations on its financial position in its standalone financial statements. **Refer Note 32** to the financial statements;

   ii) The company has made provision, as required under the applicable law or accounting standards, for material foreseeable losses, if any, on long-term contracts including derivative contracts. **Refer Note 39** to the financial statements;

   iii) There has been no delay in transferring the amount, required to be transferred in accordance with the relevant provisions of the Companies Act, 2013 and the rules made thereunder, to the Investor Education and Protection Fund by the Company.

   iv) Based on the representation received from Management, no funds have been advanced / received or loaned or invested by the company with the understanding that the intermediary shall lend or invest in other persons or entities identified in any manner whatsoever by or on behalf of the Company / funding party received by the company.

   v) As stated in Note 31 to the financial statements, the Board of Directors of the company has proposed final dividend for the year which is subject to the approval of the members at the ensuing Annual General meeting. The dividend proposed is in accordance with section 123 of the Act to the extent it applies to the declaration of dividend.

(3) On the basis of such checks of the books and records of the Company, as we considered appropriate and according to the information and explanations given to us, we are enclosing our report in terms of Section 143(5) of the Act, on the directions and sub directions issued by the Comptroller and Auditor General of India in **"Annexure C"**.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

(Shrey Gupta)
Partner
M. No. 522315
UDIN :22522315AJJEWE4289

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRIA7411

For S. L. Chhajed & Co LLP
Chartered Accountants
FRN – 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJEMT8771

Place : New Delhi
Date : May 21, 2022

"Annexure A" to Independent Auditors' Report

(Referred to in Paragraph 1 under "Report on Other Legal and Regulatory Requirements" of our report to Members of Bharat Heavy Electricals Limited of even date)

To best of our information and according to the explanation provided to us by the Company and the books of account and records examined by us in the normal course of audit, we state that:

i) In respect of Company's Property, Plant and Equipment and Intangible Assets:

(a) A. The Company has maintained proper records showing full particulars including quantitative details and situation of its Property, Plant & Equipment.

B. The Company has maintained proper records showing full particulars of Intangible assets.

(b) The Company has program of verification to cover all the items of Property, Plant & Equipment in a phased manner, over a period of three years, which, in our opinion, is reasonable having regard to the size of the Company and nature of its business. Pursuant to the program, certain Property, Plant and Equipment were physically verified by the management during the year. According to the information and explanation given to us, no material discrepancies were noticed on such verification.

(c) According to the information and explanation given to us, the records examined by us, the title deeds of immovable properties are held in the name of Company except those disclosed in Additional disclosure of Note 3.1 Property, Plant and Equipment.

(d) The Company has not revalued its Property, Plant & Equipment (including Right of Use assets) or intangible assets during the year.

(e) No proceedings have been initiated or pending against the Company for holding any benami property under the Benami Transactions (Prohibition) Act, 1988 (45 of 1988) and rules made thereunder.

ii) (a) The physical verification of inventory (excluding stocks lying with third parties) has been conducted at reasonable intervals by the Management during the year. In respect of inventory lying with third parties, these have substantially been confirmed by them. In respect of inventories of stores and spares, the Management has a verification programme with appropriate procedures designed to cover the items over a period of three years, which in our opinion, is appropriate. The discrepancies noticed on physical verification of inventory as compared to books record were not material.

(b) According to the information and explanations given to us, and relevant records produced, the company has been sanctioned working capital limit of ₹ 60000 Crores, during the year under consortium finance from Banks/Financial institution on basis of security of current assets. As per records verified by us, in our opinion, the quarterly returns or statement filed by the company with such banks are in agreement with books of accounts of the Company.

(iii) According to the information given to us, the Company has not granted any loans or advances in the nature of loans, secured or unsecured to companies, firms, Limited Liability Partnerships or other parties listed in the register maintained under section 189 of the Companies Act, 2013. Therefore, clauses (iii) (a-A, B), (iii) (b), (iii) (c), (iii) (d), iii) (e) and iii (f) of Paragraph 3 of the Order are not applicable to the Company.

iv) The Company has complied with the provisions of section 185 and 186 of the Companies Act, 2013 in respect of loans, investments, guarantees and securities.

v) According to the information and explanation given to us and based on our audit procedure, the company has not accepted any deposits within the meaning of section 73 to 76 of the Act or any other relevant provisions of the Companies Act, 2013 and the Companies (Acceptance of Deposit) Rules 2014.

vi) We have broadly reviewed the books of account and records maintained by the Company pursuant to the Companies (Cost Records and Audit) Rules 2014 prescribed by the Central Government under section 148(1) of the Companies Act, 2013 and are of the opinion that prima facie the prescribed accounts and records have been made and maintained. However, we are not required to and have not carried out any detailed examination of such accounts and records.

vii) (a) According to the information and explanations given to us, in our opinion, the Company is generally regular in depositing with appropriate authorities undisputed statutory dues including Goods and Service Tax, Provident Fund, Employees' State Insurance, Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value Added Tax, Cess and any other statutory dues as applicable to it.

(b) There were no undisputed amount payable in respect of Goods and Service Tax, Provident Fund, Employee State Insurance, Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value added Tax, Cess and any other Statutory dues as at March 31, 2022 for a period of more than six months from the date they became payable.

(c) According to the information and explanations given

to us, the particulars of Goods and Service Tax, Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value Added Tax, which have not been deposited on account of dispute are as under:

(₹in crore)

Sl. No.	Name of the Statute	Nature of the Dues	Pending Amount	Amount paid under protest	Forum where dispute is pending
1	Central Sales Tax Act, Value Added Tax and Sales Tax Act of various States	Sales Tax, VAT	43.34	9.72	Assessing Officer
			259.16	70.85	Dy. Commissioner/ Jt. Commissioner/ Commissioner (Appeals)
			218.93	87.11	Appellate Tribunal
			103.53	1.28	High Court
			4.84	4.84	Supreme Court
			359.53	22.32	Various Appellate Authorities
2	Central Excise Act, 1944	Excise Duty	43.79	-	Assessing Officer
			32.51	-	Commissioner (Appeals)
			61.40	4.68	Appellate Tribunal
			28.04	0.55	Supreme Court
3	Service Tax under the Finance Act, 1994	Service Tax	1.87	0.04	Commissioner (Appeals)
			845.70	18.07	Appellate Tribunal
			1.56	-	Various Appellate Authorities
4	Customs Act, 1962	Custom Duty	5.80	5.80	High Court
			2.48	0.01	Commissioner (Appeals)
			14.09	-	Various Appellate Authorities

viii) According to the records of the Company examined by us and the information and explanations given to us, no transactions have been recorded in the books of accounts which have been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961.

ix) According to the records of the Company examined by us and the information and explanations given to us:

a) Company has not defaulted in repayment of loans or other borrowings or in the payment of interest thereon to any lender.

b) Company is not a declared wilful defaulter by any bank or financial institution or other lender.

c) The Company has not taken any Term Loan during the year and there are no outstanding term loan at the beginning of the year and hence, reporting under clause 3(ix) (c) of Order is not applicable.

d) According to the information and explanation given to us, and the procedures performed by us, and on overall examination of the financial statement of the company, we report that no funds raised on short-term basis have been used for long –term purposes by the company.

e) According to the information and explanation given to us, and on an overall examination of the financial statement of the company, we report that the company has not taken any funds from any entity or person on account of or to meet the obligations of its subsidiaries, associates or joint ventures.

f) According to the information and explanation given to us, and procedures applied by us, we report that the company has not raised any loans during the year on the pledge of securities held in its subsidiaries, joint ventures or associate companies.

x) (a) The Company has not raised any monies by way of initial public offer or further public offer (including debt instruments) hence reporting under clause 3(x) (a) of the Order is not applicable.

(b) During the year, the Company has not made any preferential allotment or private placement of shares or debentures (fully or partly or optionally) and hence reporting under clause 3(x) (b) of the Order is not applicable.

xi) (a) During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, and according to the information and explanations given to us, no fraud by the Company or any fraud on the Company by its officers or employees has been noticed or reported during the year, nor we have been informed of such case by the management.

(b) No report under sub-section (12) of section 143 of the Companies Act, has been filed in Form ADT-4 as prescribed under rule 13 of Companies (Audit and Auditors) Rules, 2014 with Central Government.

(c) We have taken into consideration the whistle blower complaints received by the company during the year while determining the nature, timing and extend of audit procedures.

xii) Since the Company is not a Nidhi Company, provisions of clause no. 3(xii) of the Order is not applicable to the Company.

xiii) According to the information and explanations, all the transactions with related parties are in compliance with section 177 and 188 of the Companies Act, 2013 where ever applicable and the details have been disclosed in

the Financial Statement, as required by the applicable accounting standard.

xiv) (a) In our opinion and based on examination, the company has an internal audit system commensurate with the size and nature of its business

(b) We have considered the internal audit report of the company issued till date, for the period under audit.

xv) According to information and explanation given to us, in our opinion during the year Company has not entered into any non-cash transactions with directors or persons connected with its directors and hence provisions of section 192 of the Companies Act, 2013 are not applicable to the company.

xvi) (a) In our opinion, Company is not required to be registered under section 45-IA of the Reserve Bank of India Act, 1934. Hence, reporting under clause 3(xvi) (a), (b) and (c) of the Order is not applicable.

(b) In our opinion, the Company is not Core investment Company and hence reporting under clause 3(xvi) (b) is not applicable.

xvii) The company has not incurred cash losses in the current and in the immediately preceding financial year.

xviii) There has been no resignation of the statutory auditors during the year.

xix) Based on our examination and the information and explanations given to us with respect to financial ratios, ageing and expected dates of realisation of financial assets and payment of financial liabilities, other information accompanying the financial statements, and ours knowledge of the Board of Directors and management plans, no material uncertainty exists as on the date of audit report that company is capable of meeting its liabilities existing as on 31st March 2022 as and when they fall due within a period of one year.

xx) According to the records of the Company examined by us and the information and explanations given to us:

(a) There are no unspent amount towards Corporate Social Responsibility (CSR) on other than ongoing projects requiring a transfer to a Fund specified in schedule VII to the Companies Act in compliance with second proviso to sub section (5) of Section 135 of the said Act. Accordingly, reporting under clause 3(xx) (a) of the Order is not applicable.

(b) In respect of ongoing projects, the Company has transferred unspent Corporate Social Responsibility amount as at the end of previous financial year, to a Special account within a period of 30 days from the end of the said financial year in compliance with the provision of section 135(6) of the Act.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M. No. 522315
UDIN :22522315AJJEWE4289

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRIA7411

For S. L. Chhajed & Co LLP
Chartered Accountants
FRN – 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJEMT8771

Place : New Delhi
Date : May 21, 2022

"ANNEXURE B"
To the independent auditors' report of even date on the Standalone Financial statements of Bharat Heavy Electricals Limited

Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

We have audited the internal financial controls over financial reporting of Bharat Heavy Electricals Limited ("the Company") as of March 31, 2022 in conjunction with our audit of the Standalone financial statements of the Company for the year ended on that date.

Management's Responsibility for Internal Financial Controls

The Company's management is responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls over Financial Reporting issued by the Institute of Chartered Accountants of India. These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to Company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013

Auditors' Responsibility

Our responsibility is to express an opinion on the Company's internal financial controls over financial reporting based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") and the Standards on Auditing, issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both applicable to an audit of Internal Financial Controls and, both issued by the Institute of Chartered Accountants of India. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the Auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system over financial reporting.

Meaning of Internal Financial Controls Over Financial Reporting

A Company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A Company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorisations of management and directors of the Company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls Over Financial Reporting

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls,

material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Opinion

In our opinion, the Company has, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2022, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M. No. 522315
UDIN :22522315AJJEWE4289

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRIA7411

For S. L. Chhajed & Co LLP
Chartered Accountants
FRN – 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJEMT8771

Place : New Delhi
Date : May 21, 2022

"Annexure C" to Independent Auditor's Report

Directions issued by the Comptroller & Auditor General of India under Section 143(5) of the Companies Act, 2013 indicating the areas to be examined by the Statutory Auditors during the course of audit of annual accounts of Bharat Heavy Electricals Limited (Standalone) for the year 2021-22

S. No.	Areas Examined	Replies
1	Whether the Company has system in place to process all the accounting transactions through IT system. If yes, the implications of processing of accounting transactions outside IT system on the integrity of the accounts along with the financial implications, if any may be stated.	Yes, the Company has system in place to process all the accounting transactions through IT system.
2	Whether there is any restructuring of an existing loan or cases of waiver / write off of debts / loans / interest etc. made by a lender due to the company's inability to repay the loan? If yes, the financial impact may be stated. Whether such cases are properly accounted for? (In case, lender is a government company, then this direction is also applicable for statutory auditor of lender company).	According to the information and explanations given to us and based on our examination of the records of the company, there has been no restructuring/ waiver/ write off of debts/loans/interest etc. made by a lender due to the company's inability to repay the loan
3	Whether funds (grants/subsidy etc.) received / receivable for specific schemes from Central / State Government or its agencies were properly accounted for /utilized as per its term and conditions? List the cases of deviation.	Fund received / receivable for specific schemes from Central / State agencies were properly accounted for / utilized as per its term and conditions

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

(Shrey Gupta)
Partner
M. No. 522315
UDIN :22522315AJJEWE4289

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRIA7411

For S. L. Chhajed & Co LLP
Chartered Accountants
FRN – 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJEMT8771

Place : New Delhi
Date : May 21, 2022

No. DG(Ener)/PAP/01-136/BHEL-SFS/2022-23/224

गोपनीय

सत्यमेव जयते

भारतीय लेखापरीक्षा और लेखा विभाग

कार्यालय महा निदेशक लेखापरीक्षा (ऊर्जा)

नई दिल्ली

INDIAN AUDIT & ACCOUNTS DEPARTMENT

Office of the Director General of Audit (Energy)

New Delhi

Dated: 21/07/2022

सेवा में,

अध्यक्ष एवं प्रबंध निदेशक,
भारत हेवी इलेक्ट्रिकल्स लिमिटेड,
नई दिल्ली

विषय:- 31 मार्च 2022 को समाप्त वर्ष के लिए भारत हेवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के लेखाओं पर कम्पनी अधिनियम 2013 की धारा 143(6)(b) के अंतर्गत भारत के नियंत्रक एवं महालेखापरीक्षक की टिप्पणियाँ।

महोदय,

मैं भारत हेवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के 31 मार्च 2022 को समाप्त वर्ष के लेखाओं पर कम्पनी अधिनियम 2013 की धारा 143(6)(b) के अंतर्गत भारत के नियंत्रक एवं महालेखापरीक्षक की टिप्पणियाँ अग्रेषित कर रहा हूँ।

कृपया इस पत्र की संलग्नकों सहित प्राप्ति की पावती भेजी जाए।

भवदीय,

संलग्नक:- यथोपरि।

दीपक

(दीपक कपूर)
महानिदेशक

पाँचवा, छठा, सातवाँ, एवं दसवां तल, सी.ए.जी बिल्डिंग, एनैक्सी, 10, बहादुर शाह ज़फर मार्ग, नई दिल्ली- 110002
5th, 6th, 7th & 10th Floor, C.A.G Building Annexe, 10 Bahadur Shah Zafar Marg, New Delhi- 110002
Tel. : 011-23239213, 23239235 Fax : 011-23239211, Email : pdaenergydl@cag.gov.in

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) OF THE COMPANIES ACT, 2013 ON THE FINANCIAL STATEMENTS OF BHARAT HEAVY ELECTRICALS LIMITED FOR THE YEAR ENDED 31 MARCH 2022

The preparation of financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2022 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under section 139(5) of the Act are responsible for expressing opinion on the financial statements under section 143 of the Act based on independent audit in accordance with the standards on auditing prescribed under section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 21 May 2022.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit of the financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2022 under Section 143(6)(a) of the Act. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

On the basis of my supplementary audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report under section 143(6)(b) of the Act.

For and on behalf of the
Comptroller & Auditor General of India

(Deepak Kapoor)
Director General of Audit (Energy),
Delhi

Place: New Delhi
Dated:21 July 2022



Financial Statements

Standalone Balance Sheet as at March 31, 2022

(₹ in Crore)

Particulars	Note	Page	As at March 31, 2022		As at March 31, 2021	
A. ASSETS						
1. Non-current assets						
(a) Property, plant and equipment	**3a**	**192**		**2336.34**		2426.16
(b) Capital work-in-progress	**3b**	**192**		**422.32**		403.21
(c) Intangible assets	**4a**	**193**		**62.12**		62.16
(d) Intangible assets under development	**4b**	**193**		**8.66**		16.35
(e) Financial assets						
(i) Investments	**5**	**201**	**669.71**		670.00	
(ii) Trade receivables	**6**	**202**	**3203.84**		3179.74	
(iii) Other financial assets	**7**	**204**	**86.73**	**3960.28**	97.39	3947.13
(f) Deferred tax assets (net of liabilities)	**8**	**204**		**3530.08**		3659.77
(g) Other non-current assets	**9**	**206**		**18526.54**		16852.44
Total non-current assets				**28846.34**		27367.22
2. Current assets						
(a) Inventories	**10**	**207**		**6560.21**		7191.23
(b) Financial assets						
(i) Trade receivables	**6**	**202**	**3024.75**		4033.63	
(ii) Cash and cash equivalents	**11**	**208**	**732.62**		1527.18	
(iii) Bank balances other than cash and cash equivalents	**12**	**208**	**6421.07**		5174.25	
(iv) Loans	**13**	**208**	**-**		-	
(v) Other financial assets	**7**	**204**	**211.56**	**10390.00**	228.18	10963.24
(c) Current tax assets (net)	**14**	**209**		**119.24**		403.59
(d) Other current assets	**9**	**206**		**10792.53**		9775.96
Total current assets				**27861.98**		28334.02
TOTAL ASSETS				**56708.32**		55701.24
B. EQUITY AND LIABILITIES						
3. Equity						
(a) Equity share capital	**15**	**209**		**696.41**		696.41
(b) Other equity	**15a**	**210**		**26274.75**		25787.64
Total equity				**26971.16**		26484.05

Standalone Balance Sheet as at March 31, 2022

(₹ in Crore)

Particulars	Note	Page	As at March 31, 2022		As at March 31, 2021	
4. Liabilities						
4.1 Non-current liabilities						
(a) Financial liabilities						
(i) Lease Liabilities	**16**	**210**	**35.12**		53.41	
(ii) Trade payables	**17**	**211**				
(i) Total outstanding dues of micro enterprises and small enterprises			**127.45**		157.92	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises			**2004.48**		1725.85	
(iii) Other financial liabilities	**18**	**212**	**215.10**	**2382.15**	216.72	2153.90
(b) Provisions	**19**	**212**		**3771.21**		3912.78
(c) Other non-current liabilities	**20**	**213**		**2212.65**		2831.54
Total non-current liabilities				**8366.01**		8898.22
4.2 Current liabilities						
(a) Financial liabilities						
(i) Borrowings	**21**	**213**	**4745.00**		4833.78	
(ia) Lease Liabilities	**16**	**210**	**49.81**		48.20	
(ii) Trade payables	**17**	**211**				
(i) Total outstanding dues of micro enterprises and small enterprises			**745.82**		751.57	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises			**7003.77**		5923.48	
(iii) Other financial liabilities	**18**	**212**	**1124.09**	**13668.49**	917.65	12474.68
(b) Provisions	**19**	**212**		**3066.70**		3164.25
(c) Other current liabilities	**20**	**213**		**4635.96**		4680.04
Total current liabilities				**21371.15**		20318.97
Total liabilities				**29737.16**		29217.19
TOTAL EQUITY AND LIABILITIES				**56708.32**		55701.24
Basis of preparation, measurement & significant accounting policies	**2**	**188**				
The accompanying notes are an integral part of these financial statements						

For and on behalf of Board of Directors



(Rajeev Kalra)
Company Secretary
M.No. 14567



(Subodh Gupta)
Director (Finance)
DIN: 08113460



(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Standalone Statement of Profit and Loss

For the year ended March 31, 2022

(₹ in Crore)

Particulars	Note	Page	For the year ended March 31, 2022		For the year ended March 31, 2021	
INCOME						
Revenue from operations	**22**	**214**		**21211.09**		17308.44
Other income	**23**	**215**		**367.81**		369.84
TOTAL INCOME				**21578.90**		17678.28
EXPENSES						
Cost of raw materials consumed				**5055.63**		4346.62
Purchases of Bought out items				**4141.75**		3811.94
Civil, erection and engineering expenses				**4792.61**		2912.47
Consumption of stores & spares				**271.44**		288.74
Changes in inventories of finished goods, work in progress and Scrap	**24**	**215**		**532.41**		510.86
Employee benefits expense	**25**	**216**		**5516.84**		5372.26
Other Expenses	**26**	**216**		**162.49**		3200.85
Finance costs	**27**	**219**		**354.72**		373.09
Depreciation & amortisation expense	**3.1** **4.1**	**195** **200**		**314.06**		473.05
TOTAL EXPENSES				**21141.95**		21289.88
PROFIT BEFORE TAX				**436.95**		(3611.60)
Tax expenses	**28**	**219**				
a) Current tax			**(77.13)**		15.82	
b) Deferred tax			**103.84**	**26.71**	(910.28)	(894.46)
PROFIT FOR THE YEAR (A)				**410.24**		(2717.14)

Standalone Statement of Profit and Loss

For the year ended March 31, 2022

(₹ in Crore)

Particulars	Note	Page	For the year ended March 31, 2022	For the year ended March 31, 2021
OTHER COMPREHENSIVE INCOME	**29**	**219**		
Items that will not be reclassified to profit or loss (net of tax)				
-Remeasurement of defined employee benefits			**76.87**	19.98
OTHER COMPREHENSIVE INCOME FOR THE YEAR (B)			**76.87**	19.98
TOTAL COMPREHENSIVE INCOME FOR THE YEAR (A+B)			**487.11**	(2697.16)
Earnings per equity share	**30**	**220**		
(1) Basic [Face value of ₹ 2 each]			**1.18**	(7.80)
(2) Diluted [Face value of ₹ 2 each]			**1.18**	(7.80)
Basis of preparation, measurement and significant accounting policies	**2**	**188**		
The accompanying notes are an integral part of these financial statements				

For and on behalf of Board of Directors

(Rajeev Kalra)
Company Secretary
M.No. 14567

(Subodh Gupta)
Director (Finance)
DIN: 08113460

(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

(Shrey Gupta)
Partner
M.No. 522315

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Standalone Statement of Changes in Equity (SOCIE)

For the year ended March 31, 2022

A. Equity Share Capital

(₹ in Crore)

Equity shares of ₹ 2 each issued, subscribed and fully paid	Number of shares		Amount	
	2021-22	2020-21	2021-22	2020-21
Balance at the beginning of the year	**3482063355**	3482063355	**696.41**	696.41
Changes in equity share capital during the year	-	-	-	-
Balance at the end of the year	**3482063355**	3482063355	**696.41**	696.41

B. Other Equity
For the year ended March 31, 2022

(₹ in Crore)

Description	Reserves and surplus				Other items of other comprehensive income	Total other Equity
	Capital Reserves	Capital Redemption Reserves	General Reserves	Retained Earnings		
Balance as at April 01, 2021	**35.18**	**37.87**	**30476.66**	**(4366.94)**	**(395.13)**	**25787.64**
Changes in accounting policy or prior period errors	-	-	-	-	-	-
Reinstated balance as at April 01, 2021	**35.18**	**37.87**	**30476.66**	**(4366.94)**	**(395.13)**	**25787.64**
Add: Total comprehensive Income for the year	-	-	-	410.24	76.87	487.11
Balance as at March 31, 2022	**35.18**	**37.87**	**30476.66**	**(3956.70)**	**(318.26)**	**26274.75**

Standalone Statement of Changes in Equity (SOCIE)

For the year ended March 31, 2022

For the year ended March 31, 2021

(₹ in Crore)

Description	Reserves and surplus				Other items of other comprehensive income	Total other Equity
	Capital Reserves	Capital Redemption Reserves	General Reserves	Retained Earnings		
Balance as at April 01, 2020	**35.18**	**37.87**	**30476.66**	**(1649.80)**	**(415.11)**	**28484.80**
Changes in accounting policy or prior period errors	-	-	-	-	-	-
Reinstated balance as at April 01, 2020	**35.18**	**37.87**	**30476.66**	**(1649.80)**	**(415.11)**	**28484.80**
Add: Total Comprehensive Income for the year	-	-	-	(2717.14)	19.98	(2697.16)
Balance as at March 31, 2021	**35.18**	**37.87**	**30476.66**	**(4366.94)**	**(395.13)**	**25787.64**

For and on behalf of Board of Directors

(Rajeev Kalra)
Company Secretary
M.No. 14567

(Subodh Gupta)
Director (Finance)
DIN: 08113460

(Dr. Nalin Shinghal)
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For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Standalone Statement of Cash Flows

For the year ended March 31, 2022

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
A. CASH FLOW FROM OPERATING ACTIVITIES		
Profit /(Loss) before tax	**436.95**	(3611.60)
Adjustments for :		
Provision and write off	**(1120.06)**	1236.15
Depreciation and amortisation	**314.06**	473.05
Finance cost (including unwinding of interest)	**354.72**	373.09
Interest & dividend income	**(333.14)**	(342.28)
Unrealised Foreign Exchange loss/(gain)	**19.26**	5.80
Others	**(6.61)**	(3.79)
Cash generated / (used) in operations before working capital changes	**(334.82)**	(1869.58)
Adjustment for changes in working capital:		
Trade Receivables	**1881.12**	4020.21
Contract Assets	**(2594.15)**	(1310.38)
Inventories	**603.40**	1537.16
Loans, advances & other assets	**143.49**	(246.26)
Sub total	**33.86**	4000.73
Trade payable	**1300.85**	(1305.64)
Advances from customers, deposits and others	**(389.90)**	(101.39)
Provisions	**(358.60)**	26.33
Sub total	**552.35**	(1380.70)
Net cash (used in) / from working capital	**586.21**	2620.03
Cash generated / (used) in operations	**251.39**	750.45
Income Tax paid	**(258.00)**	(216.65)
Refund of income taxes	**666.88**	26.26
Net cash (used in) / from operating activities	**660.27**	560.06
B. CASH FLOW FROM INVESTING ACTIVITIES		
Redemption / maturity of bank deposits (having original maturity of more than 3 months)	**(1251.12)**	(160.00)
Interest received	**257.93**	343.11
Income received from mutual funds	**-**	1.42
Dividend received from joint ventures	**30.35**	21.42
Sale of property, plant and equipment & Intangible Assets	**6.90**	1.88
Purchase of property, plant and equipment & Intangible Assets	**(169.39)**	(250.38)
Net cash (used in) / from investing activities	**(1125.33)**	(42.55)

Standalone Statement of Cash Flows

for the year ended March 31, 2022

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
C. CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from short term borrowings	**(88.78)**	(97.95)
Proceeds / (repayment) of lease obligation (Principal)	**(48.79)**	(60.30)
Proceeds / (repayment) of lease obligation (Interest)	**(9.57)**	(12.95)
Dividend paid	**(0.30)**	(0.68)
Interest paid	**(182.06)**	(221.31)
Net cash (used in) / from financing activities (refer point 4)	**(329.50)**	(393.19)
D. Net increase/(decrease) in cash and cash equivalents	**(794.56)**	124.32
Opening balance of cash and cash equivalents	**1527.18**	1402.86
Closing balance of cash and cash equivalents [Refer Note 11]	**732.62**	1527.18

(1) Statement of cash flow has been prepared under the indirect method as set out in the Ind AS 7 - Statement of Cash flow.

(2) Previous year's figures have been regrouped/reclassifed wherever applicable

(3) Closing balance of Cash & Cash Equivalents includes exchange variation loss of ₹ 0.15 Cr on March 31, 2022 (Previous year ₹ Nil).

(4) Changes in liabilities arising from financing activities are available at Note [21 vi] and Note 36 b]

(5) The overall Cash & Bank Balance (including fixed deposits) net of borrowings as on March 31, 2022 stands at ₹ 2408.69 Cr, higher by ₹ 541.04 Cr as compared to previous year balance of ₹ 1867.65 Cr as on March 31, 2021.

For and on behalf of Board of Directors



(Rajeev Kalra)
Company Secretary
M.No. 14567



(Subodh Gupta)
Director (Finance)
DIN: 08113460



(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
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(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Notes to the Standalone financial statements for the year ended March 31, 2022

Note [1] – Company Information

Bharat Heavy Electricals Limited ("BHEL or "the Company") is a public limited company domiciled in India and has its registered office at BHEL House, Siri Fort, New Delhi -110049

The Company is an integrated power plant equipment manufacturer and is engaged in 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, Water, Oil & Gas and Defence & Aerospace.

Note [2] - Significant accounting policies

1. Basis of preparation of Financial Statements

a) Statement of Compliance

The financial statements have been prepared in accordance with Indian Accounting Standards (Ind-AS) as notified by Ministry of Corporate Affairs under the Companies (Indian Accounting Standards) Rules, 2015 and subsequent amendments thereof as well as with the additional requirements applicable to financial statements as set forth in Companies Act, 2013 as amended.

b) Basis of measurement

The financial statements have been prepared on a going concern basis and on an accrual method of accounting. Historical cost is used in preparation of the financial statements except as otherwise mentioned in the policy.

c) Functional and presentation currency

The financial statements are prepared in INR, which is the Company's functional currency.

d) Use of Estimates and Judgments

The preparation of the financial statements in conformity with Ind AS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Critical estimates and judgements in applying accounting policies

Estimates and judgements made in applying accounting policies that have significant effect on the amounts recognized in the financial statements are as follows:

i) Revenue

The Company uses input method based on cost approach in accounting for the revenue in respect of construction contracts. Use of input method requires the Company to estimate its costs relative to the total expected costs in the satisfaction of its performance obligation. The estimates are assessed continually during the term of the contract and the company re-measures its progress towards complete satisfaction of its performance obligations satisfied over time at the end of each reporting period.

Company updates its estimated transaction price at each reporting period, to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

ii) Property, plant and equipment

The charge in respect of periodic depreciation is derived after estimating the asset's expected useful life and the expected residual value at the end of its life. The depreciation method, useful lives and residual values of Company's assets are estimated by management at the time the asset is acquired and reviewed during each financial year.

iii) Employee benefit plans

Employee defined benefit plans and long term benefit plans are measured on the basis of actuarial assumptions. However, any changes in these assumptions may have impact on the reported amount of obligation and expenses.

iv) Provisions and contingencies

Assessments undertaken in recognising provisions and contingencies have been made as per the best judgement of the management based on the current available information.

2. Property, Plant & Equipment (PPE)

Property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation on property, plant and equipment (other than those used abroad under contract) is charged on straight-line method as per the useful life prescribed in Schedule II of the Companies Act, 2013, except in the following items where estimated useful life is based on technically assessed estimated useful life :-

Asset Category	(Years)
Plant & Equipment	15-30
Buildings	5-60
Electrical installations & Equipments	10-30
Erection equipment, Capital tools & tackles	5
Drainage, sewerage & water supply	30
Servers and networks	5
Solar Power Generation Plant	25

Depreciation methods, useful lives and residual values are reviewed in each financial year and changes, if any, are accounted for prospectively. Right-of-use assets are amortised over the shorter of the lease term and their useful lives unless it is reasonably certain that the Company will obtain ownership by the end of the lease term

Property, Plant & Equipment costing ₹ 10,000/- or less and those whose written down value as at the beginning of the year is ₹ 10,000/- or less, are depreciated fully.

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 temporary

structures) are depreciated over the tenure of the contract after retaining residual value, if any.

Assets used outside India pursuant to long term contracts are depreciated over the duration of the initial contract.

Temporary structures are fully depreciated in the year of construction.

Significant components with different useful lives are accounted for and depreciated separately.

3. Leases

At the inception of an arrangement, the Company determines whether such an arrangement is or contains a lease.

Upon initial recognition, assets taken on lease are capitalized under right-of-use assets at cost which comprises initial measurement of lease liability at present value, initial lease payments less incentives, initial direct costs and estimated cost of dismantling and removing the underlying assets, if any.

Lease payments made under leases are apportioned between the finance expense and the reduction of the outstanding lease liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

For assets given on finance lease, the Company recognizes finance income over the lease term using effective interest rate method. Initial direct costs incurred are included in the initial measurement of the finance lease receivable and reduce the amount of income recognized over the lease term.

Lease income arising from operating lease is recognized as income over the lease period on a straight line basis except where the periodic increase in lease rentals is in line with expected general inflation.

4. Intangible assets

Intangible items costing more than ₹ 10000/- are evaluated for capitalization and are carried at cost less accumulated amortization and accumulated impairment, if any.

Intangible assets are amortised in Statement of Profit and Loss on a straight-line method over the estimated useful lives from the date that they are available for use. The estimated useful lives for the intangible assets are as follows:

Software	3 years
Others	10 years

Intangible assets having WDV ₹ 10000/- or less at the beginning of the year are amortized fully.

Amortization period and amortization methods are reviewed in each financial year and changes, if any, are accounted for prospectively.

Expenditure on research activities is recognized in statement of profit and loss as incurred. Expenditure on development activities is capitalized only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the company intends to and has sufficient resources to complete development and to use or sell the asset. The expenditure capitalized includes the cost of materials, direct labour, overhead costs that are directly attributable to preparing the asset for its intended use, and borrowing costs, if any.

Assets acquired for purposes of research and development are capitalized.

5. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, are added to the cost of such assets.

An asset that necessarily takes a substantial period of time, considered as more than twelve months, to get ready for its intended use or sale is a qualifying asset for the purpose.

All other borrowing costs are recognized in the statement of profit and loss in the period in which they are incurred.

6. Investments in Subsidiaries & Joint ventures

Investments in subsidiaries and joint ventures are accounted at cost less impairment losses, if any.

If the intention of the management is to dispose the investment in near future, it is classified as held for sale and measured at lower of its carrying amount and fair value less costs to sell.

7. Inventories

Inventory is valued at cost or net realizable value, whichever is lower. In respect of valuation of finished goods and work-in-progress, cost means factory cost. In respect of raw material, components, loose tools, stores and spares cost means weighted average cost.

8. Revenue Recognition

Revenue is recognized to depict the transfer of promised goods or services to custome` in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

In relation to construction and long term service contracts, the company transfers control of goods or services to the customer and recognizes revenue over the time. Revenue is recognized using input method based on the cost approach. Progress towards complete satisfaction of performance obligation satisfied over time is remeasured at reporting period end.

Revenue from sale of goods and services is recognized on the transfer of control to the customer and upon the satisfaction of performance obligations under the contract.

Other Income

- Dividend income is recognized in statement of profit and loss on the date on which the Company's right to receive payment is established.

- Interest Income is recognized using effective interest rate method.
- Claims for export incentives/ duty drawbacks, duty refunds and insurance are accounted for on accrual basis.

9. Foreign currency Translation/Transaction

Transaction in foreign currencies are recorded at the exchange rate prevailing on the date of the transaction.

Foreign currency denominated monetary assets and liabilities are translated into the functional currency at exchange rates in effect at the end of each reporting period. Foreign exchange gains or losses arising from settlement and translations are recognized in the statement of profit and loss.

Non-monetary assets and non-monetary liabilities denominated in a foreign currency and measured at historical cost are translated at the exchange rate prevailing at the date of transaction.

10. Employee Benefits

Defined Contribution Plans

The Company's contribution to Pension fund including Family Pension Fund for the employees is covered under defined contribution plan and is recognized as employee benefit expense in statement of profit and loss in the periods during which services are rendered by employees.

Defined benefit plans

The Company's gratuity scheme, provident fund scheme, travel claims on retirement and post-retirement medical facility scheme are in the nature of defined benefit plans.

The liability recognized in the balance sheet in respect of these defined benefit plan is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets, if any. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using an appropriate government bond rate that have terms to maturity approximating to the terms of the related liability.

Remeasurements comprising actuarial gains and losses as well as the difference between the return on plan assets and the amounts included in net interest on the net defined benefits liability (asset) are recognized in other comprehensive income (net of income tax).

Other expenses related to defined benefit plans are recognized in statement of profit and loss.

Long Term Leave Liability

The Company measures the expected cost of accumulating compensated absences as the additional amount expected to be paid as a result of the unused entitlement that has accumulated at the end of the reporting period. Expense on non-accumulating compensated absences is recognized in the period in which the absences occur. The Company records a liability for accumulated balance based on actuarial valuation determined using projected unit credit method. Remeasurements and other expenses related to long term benefit plans are recognized in statement of profit and loss.

11. Provisions

(i) Claims for liquidated damages against the Company are recognized in the financial statements based on the management's assessment of the probable outcome with reference to the available information supplemented by experience of similar transactions.

(ii) The Company provides for anticipated costs for warranties when it recognizes revenues on the related products or contracts and maintain the same throughout the warranty period. The provision is based on historical experience / technical assessment.

(iii) When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised immediately.

(iv) Other provisions are recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

However, where the effect of time value of money is material, provisions are determined and maintained by discounting the expected future cash flows, wherever applicable.

12. Government Grants

Government grants are recognized only when there is reasonable assurance that the conditions attached to them shall be complied with, and the grants will be received. Non-monetary grants are accounted at Fair Value of assets and are treated as deferred income. Deferred income is recognized in the statement of profit and loss on a systematic and rational basis over the useful life of the asset. Government grants related to revenue are recognized on a systematic basis in the statement of profit and loss over the periods necessary to match them with the related costs which they are intended to compensate.

13. Income Taxes

Income tax expense comprises current tax and deferred tax. Income tax expense is recognized in statement of profit and loss except to the extent that it relates to items recognized in other comprehensive income or directly in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates (tax laws) enacted or substantively enacted by the end of the reporting period and includes adjustment on account of tax in respect of previous years.

Deferred tax is recognized using the balance sheet method, providing for temporary difference between the carrying amount of an asset or liability in the balance sheet and its tax base.

Deferred tax is measured at the tax rates that are expected to apply when the temporary differences are either realised or settled, based on the laws that have been enacted or substantively enacted by the end of reporting period.

A deferred tax asset is recognized to the extent that it is probable that future taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of Deferred tax assets are reviewed at each reporting period and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Additional Income tax that arise from the distribution of dividends are recognized at the same time when the liability to pay the related dividend is recognized.

14. Impairment of Assets

Impairment of financial assets

The loss allowance in respect of trade receivables and lease receivables are measured at an amount equal to lifetime expected credit losses.

The loss allowance in respect of all other financial assets, which are required to be impaired, are measured at an amount equal to lifetime expected credit losses if the credit risk on that financial instrument has increased significantly since initial recognition. However, if, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the loss allowance is measured at an amount equal to 12-month expected credit losses.

Impairment of Non- Financial Assets

The carrying amount of cash generating units is reviewed at each reporting date where there is any indication of impairment. An impairment loss is recognized in the statement of profit and loss where the carrying amount exceeds the recoverable amount of the cash generating units. Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists.

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

15. Segment Reporting

Revenue and expenses are identified to segments on the basis of their relationship to the operating activities of the segment. Revenue, expenses, assets and liabilities which are not allocable to segments on a reasonable basis, are included under "Unallocated revenue/ expenses/ assets/ liabilities".

16. Financial Instruments

i) Non-derivative financial instruments

Non derivative financial instruments are classified as :

- Financial assets, measured at (a) amortized cost and (b) fair value through Profit and Loss ("FVTPL").
- Financial liabilities carried at amortized cost.

Initially, all financial instruments are recognized at their fair value. Transaction costs are included in determining the carrying amount, if the financial instruments are not measured at FVTPL. Financial assets are derecognized when substantial risks and rewards of ownership of the financial asset have been transferred. In cases where substantial risks and rewards of ownership of the financial assets are neither transferred nor retained, financial assets are derecognized only when the Company has not retained control over the financial asset. Financial liabilities are derecognized when contractual obligations are discharged or cancelled or expired.

Non-derivative financial assets are subsequently measured as below:

A. Amortized cost –

"Financial Instruments at amortized cost" are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included in finance income in the statement of profit and loss. The losses arising from impairment are recognized in the statement of profit and loss.

B. FVTPL Category –

Financial instruments classified in this category are subsequently carried at fair value with changes recorded in the statement of profit and loss. Directly attributable transaction costs are recognised in statement of profit and loss as incurred.

Non-derivative financial liabilities are subsequently measured as below:

Subsequent to initial recognition, non – derivative financial liabilities are measured at amortised cost using the effective interest method.

ii) Derivative financial instruments

Embedded derivatives, if any, having material impact, are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and the combined instrument is not measured at fair value through profit and loss.

Derivatives are recognized and measured initially at fair value. Attributable transaction cost are recognized in statement of profit and loss as cost. Subsequent to initial recognition, derivatives are measured at fair value through profit and loss.

17. Cash and Cash Equivalent

Cash and cash equivalents comprise cash at bank and on hand. It includes term deposits and other short-term money market deposits with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

Note [3a] - Non-current assets
Property, plant and equipment

Refer point 2 of Note [2] for accounting policy on property, plant and equipment (PPE) (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Gross block	**6330.89**	6172.41
Less: Accumulated depreciation	**3994.55**	3746.25
Net block (details refer to note 3.1)	**2336.34**	2426.16

The Net block includes ₹ 154.83 Cr (Previous Year ₹ 164.19 Cr) in respect of RoU assets.

Company had opted for exemption under IndAS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on IndAS transition date.

Note [3b] - Non-current assets
Capital work in progress

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Plant & machinery and other equipments:				
Under Erection/ Fabrication/awaiting erection	**131.43**		171.60	
In transit	**9.37**	**140.80**	0.63	172.23
Construction work-in-progress -Civil		**280.12**		228.77
Construction stores (including in transit)		**1.40**		2.21
Total		**422.32**		403.21

CWIP Ageing schedule - As at March 31, 2022 (₹ in Crore)

Particulars	Amount in CWIP for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	**115.39**	**127.88**	**115.41**	**51.31**	**409.99**
Projects temporarily suspended	**0.59**	**0.07**	**2.36**	**9.31**	**12.33**

CWIP Completion Schedule (CWIP which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2022

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Yea`	Total
Projects in progress					
New Building - Noida	**217.38**	**-**	**-**	**-**	**217.38**
Selective Catalyst Reduction Plant - Bengaluru	**62.12**	**-**	**-**	**-**	**62.12**
Other Projects less than ₹ 10 Crore (Total Nos - 25)	**37.83**	**-**	**-**	**-**	**37.83**
Projects temporarily suspended					
Equipment Fabrication Plant - Bhandara	**-**	**-**	**-**	**7.74**	**7.74**
Other Projects less than ₹ 1 Crore (Total Nos - 4)	**0.07**	**-**	**-**	**1.58**	**1.65**

CWIP Ageing schedule - As at March 31, 2021

Particulars	Amount in CWIP for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	174.88	141.71	46.90	27.98	391.47
Projects temporarily suspended	-	2.42	-	9.32	11.74

CWIP Completion Schedule (CWIP which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2021

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
New Building - Noida	173.01	-	-	-	173.01
Selective Catalyst Reduction Plant - Bengaluru	57.62	-	-	-	57.62
Upgradation of UHV Lab Test Plant	22.73	-	-	-	22.73
CNC Horizontal Machine - Hyderabad	18.47	-	-	-	18.47
Other Projects less than ₹ 10 Crore (Total Nos - 12)	16.94	6.78	-	-	23.72
Projects temporarily suspended					
Equipment Fabrication Plant - Bhandara	-	-	-	7.74	7.74
Other Projects less than ₹ 1 Crore (Total Nos - 5)	0.59	-	-	1.65	2.24

Note [4a] - Non-current assets Intangible assets

Refer point 4 of Note [2] for accounting policy on intangible assets

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Gross block	**308.92**	290.83
Less: Accumulated amortisation	**246.80**	228.67
Net block (details refer to note 4.1)	**62.12**	62.16

Company had opted for exemption under IndAS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on IndAS transition date.

Note [4b] - Non-current assets Intangible assets under development

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Intangible assets under development	**8.66**	16.35
Total	**8.66**	16.35

Intangible Assets under development ageing schedule - As at March 31, 2022

Particulars	Amount of Intangible Asset under development for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	**1.39**	**-**	**1.18**	**6.09**	**8.66**
Projects temporarily suspended	**-**	**-**	**-**	**-**	**-**

Intangible Assets under development Completion schedule (which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2022

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress		**-**	**-**	**-**	**-**
SCR Project Know how (overdue)	**4.71**	**-**	**-**	**-**	**4.71**
Projects temporarily suspended	**-**	**-**	**-**	**-**	**-**

Intangible Assets under development ageing schedule - As at March 31, 2021

Particulars	Amount of Intangible Asset under development for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	9.09	1.18	3.54	2.54	16.35
Projects temporarily suspended	-	-	-	-	-

Intangible Assets under development Completion schedule (which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2021

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
SCR Project Know how (overdue)	4.71	-	-	-	4.71
Projects temporarily suspended	-	-	-	-	-

NOTE 3.1 - Detail of property, plant & equipment

(₹ in Crore)

Description	Gross Block				Depreciation/ Amortization				Net Block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Land - Freehold land (including development expenses)	27.71	-	-	**27.71**	-	-	-	-	**27.71**	27.71
Buildings - Freehold Buildings	1707.08	37.93	(1.36)	**1743.65**	606.56	63.94	(0.91)	**669.59**	**1074.06**	1100.52
Roads, bridges & culverts	15.85	-	-	**15.85**	13.56	0.60	-	**14.16**	**1.69**	2.30
Drainage, Sewerage & water supply	31.17	0.32	-	**31.49**	7.04	1.17	-	**8.21**	**23.28**	24.13
Plant & Equipment	3097.21	117.42	(4.83)	**3209.81**	2265.93	128.89	(4.62)	**2390.20**	**819.61**	831.28
Railway Siding	8.85	-	-	**8.85**	4.87	0.44	-	**5.31**	**3.54**	3.98
Locomotives & Wagons	28.33	-	-	**28.33**	15.90	1.66	-	**17.57**	**10.76**	12.43
Furniture & fixtures	61.96	1.33	(1.21)	**62.09**	39.96	5.11	(0.99)	**44.08**	**18.01**	21.99
Vehicles	14.37	-	(0.04)	**14.33**	8.81	1.47	(0.03)	**10.24**	**4.09**	5.56
Office and Other equipments	138.37	4.27	(1.54)	**141.10**	110.32	11.16	(1.36)	**120.11**	**20.99**	28.05
Electronic Data Processing Equipment	133.20	0.62	19.01	**152.83**	97.46	24.70	19.81	**141.97**	**10.86**	35.74
Electrical Installations	241.20	10.93	(0.45)	**251.67**	174.16	6.66	(0.38)	**180.44**	**71.23**	67.04
Construction Equipment	71.12	0.64	0.09	**71.85**	67.47	1.58	0.17	**69.22**	**2.63**	3.65
Fixed Assets costing upto ₹ 10,000/-	21.08	1.55	(0.58)	**22.05**	21.08	1.55	(0.58)	**22.05**	**-**	-
Solar power generation	119.54	-	-	**119.54**	21.97	4.51	-	**26.48**	**93.06**	97.58
Right-of-use Assets	455.37	33.18	(58.80)	**429.75**	291.18	42.35	(58.61)	**274.92**	**154.83**	164.19
Total	**6172.41**	**208.19**	**(49.71)**	**6330.89**	**3746.26**	**295.79**	**(47.50)**	**3994.55**	**2336.34**	**2426.15**
Previous Year	6050.80	139.94	(18.32)	**6172.41**	3315.33	446.25	(15.32)	**3746.26**	**2426.15**	2735.47

Notes:

Gross Block (as per earlier IGAAP) as at 31.03.2022 ₹ 13507.29 Crore and as at 31.03.2021 ₹ 13436.30 Crore

Gross Block as at 31.03.2022 includes assets condemned and retired from active use ₹ 7.03 Crore (Previous year ₹ 14.11 Crore)

Net Block as at 31.03.2022 includes assets condemned and retired from active use ₹ 0.12 Crore (Previous year ₹ 0.12 Crore)

Gross Block excludes cost of assets purchased out of grant received from Govt of India for research as executing agency since the property does not vest with the Company ₹ 259.64 Crore (Previous year ₹ 244.43 Crore)

There is no impairment loss during the year.

Table 3.1(a): Right-of-use assets includes:

(₹ in Crore)

Description	Gross Block				Depreciation / Amortization				Net Block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Land (including development expenses)	114.78	4.08	-	**118.86**	10.39	3.74	-	**14.13**	**104.73**	104.39
Buildings	1.63	-	-	**1.63**	0.31	0.05	-	**0.36**	**1.27**	1.32
Plant & Equipment	22.14	15.67	-	**37.81**	8.85	14.25	-	**23.10**	**14.71**	13.29
Office & other equipment	16.47	0.76	(0.39)	**16.84**	14.83	0.55	(0.37)	**15.02**	**1.82**	1.64
EDP Equipment	278.40	0.01	(48.90)	**229.51**	238.31	19.34	(48.91)	**208.73**	**20.78**	40.10
Vehicle	4.50	2.00	(1.00)	**5.50**	2.63	1.27	(0.83)	**3.08**	**2.42**	1.87
Others	17.45	10.66	(8.50)	**19.61**	15.86	3.15	(8.50)	**10.51**	**9.10**	1.59
Total	**455.37**	**33.18**	**(58.80)**	429.75	**291.18**	**42.35**	**(58.61)**	274.92	**154.83**	**164.19**

Additional disclosure of Note [3.1] details of property, plant and equipment

1. (A) Title deeds of Immovable Property not held in the name of BHEL (As on 31/03/2022)

Description of item of property (under the line item of B/S)	Gross Carrying value (₹ in Crore)	Lease/ Title deeds held in the name of	Whether title deed holder is a promoter, director or relative of promoter/director or employee of promoter/director	Property held since which date	Reason for not being held in the name of the company
PPE:-					
Land- Freehold	1.64	State Govt. of Tamil Nadu	No	24-11-2010	Assignment deed is yet to be issued by Land Administration Authorities
Land- Freehold	1.24	State Govt. of Tamil Nadu	No	Various dates between 13.01.1981 to 17.02.1986	Land transfer documents (Handing over by state govt and taken over by BHEL) are available indicating area and Survey Numbers. Assignment deed is yet to be issued by State Government in favour of BHEL .
Land- Freehold	0.52	State Govt of Telangana	No	1974 onwards	Transfer of title deed in progress, matter taken up with state govt. through TSIIC
Land- Freehold	0.18	State Govt. of Madhya Pradesh	No	Since 1957	Land provided through gazette of Government of India, title deed not available in the name of BHEL.
Land- Freehold	0.11	State Govt of Telangana	No	30-01-1961	Gazette Notification issued for acquisition of Land for setting up of Heavy Electrical Plant (Ref No:171,192,92-A,61,202 in the year 1961 &63
Land- Freehold	0.08	Bachha Lal S/O Late Ram Kishore	No	08-06-1983	Due to dispute in enhanced compensation Matter is sub judice in Hon'ble High court at Allahabad. Appeal no. 659 of 1995
Land- Freehold	0.0022	B Saroja Devi	No	01-04-1965	There is a dispute between Mrs. B Saroja Devi and M/s BHEL in supreme court. The Supreme Court has referred the case back to High Court for disposal and the same is pending.
Land- Leasehold (Right-of-use of assets)	68.38	464.8287 Acres in the name of Maharashtra Industrial Development Corporation 9.0688 Acres in the name of State Govt. of Maharashtra 2.7676 Acres in the name of Private owners of Land	No	24-11-2010	Full acquisition of proposed land not yet completed.
Building - Freehold	0.11	JB Construction (Builder)	No	33 YEARS	Title in respect of 4 Flats are in dispute between builder & Land Owner
Building - Freehold	0.05	Maharashtra Cooperative Society	No	33 YEARS	6 Flats in name of Cooperative Society. There is no dispute.
Building - Leasehold (Right-of-use of assets)	2.56	State Govt. of Maharashtra	No	01-02-1991	Maharashtra Govt. has not executed the lease of land with MVIRDC, thus MVIRDC can not execute the lease deed for 2 Floors with BHEL.

Additional disclosure of Note [3.1] details of property, plant and equipment

1. (B) Title deeds of Immovable Property not held in the name of BHEL (As on 31/03/2021)

Description of item of property (under the line item of B/S)	Gross Carrying value (₹ in Crore)	Lease/ Title deeds held in the name of	Whether title deed holder is a promoter, director or relative of promoter/director or employee of promoter/director	Property held since which date	Reason for not being held in the name of the company
PPE:-					
Land- Freehold	1.64	State Govt. of Tamil Nadu	No	24-11-2010	Assignment deed is yet to be issued by Land Administration Authorities
Land- Freehold	1.24	State Govt. of Tamil Nadu	No	Various dates between 13.01.1981 to 17.02.1986	Land transfer documents (Handing over by state govt and taken over by BHEL) are available indicating area and Survey Numbers. Assignment deed is yet to be issued by State Government in favour of BHEL .
Land- Freehold	0.52	State Govt of Telangana	No	1974 onwards	Transfer of title deed in progress, matter taken up with state govt. through TSIIC
Land- Freehold	0.18	State Govt. of Madhya Pradesh	No	Since 1957	Land provided through gazette of Government of India, title deed not available in the name of BHEL.
Land- Freehold	0.11	State Govt of Telangana	No	30-01-1961	Gazette Notification issued for acquisition of Land for setting up of Heavy Electrical Plant (Ref No:171,192,92-A,61,202 in the year 1961 &63
Land- Freehold	0.08	Bachha Lal S/O Late Ram Kishore	No	08-06-1983	Due to dispute in enhanced compensation Matter is sub judice in Hon'ble High court at Allahabad. Appeal no. 659 of 1995
Land- Freehold	0.0022	B Saroja Devi	No	01-04-1965	There is a dispute between Mrs. B Saroja Devi and M/s BHEL in supreme court. The Supreme Court has referred the case back to High Court for disposal and the same is pending.
Land- Leasehold (Right-of-use of assets)	68.38	464.8287 Acres in the name of Maharashtra Industrial Development Corporation 9.0688 Acres in the name of State Govt. of Maharashtra 2.7676 Acres in the name of Private owners of Land	No	24-11-2010	Full acquisition of proposed land not yet completed.
Building - Freehold	0.11	JB Construction (Builder)	No	33 YEARS	Title in respect of 4 Flats are in dispute between builder & Land Owner
Building - Freehold	0.05	Maharashtra Cooperative Society	No	33 YEARS	6 Flats in name of Cooperative Society. There is no dispute.
Building - Leasehold (Right-of-use of assets)	2.56	State Govt. of Maharashtra	No	01-02-1991	Maharashtra Govt. has not executed the lease of land with MVIRDC, thus MVIRDC can not execute the lease deed for 2 Floors with BHEL.

Additional disclosure of Note [3.1] Details of Property, Plant and Equipment

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
2. Land and buildings includes		
a i) Acres of land for which formal transfer/lease deed have not been executed (in acres)	**8169.53**	8169.53
Net Block	**65.68**	66.40
ii) Number of flats for which formal transfer/lease deed have not been executed (in nos.)	**12**	12
Net Block	**1.06**	1.11
iii) Acres of land for which the cost paid is provisional (in acres)	**480.04**	480.04
[registration charges and stamp duty (net of provision) would be accounted for on payment]		
Net Block	**61.98**	62.70
b. Acres of land leased to Ministry of Defence, Govt. of India Departments & others (in acres)	**29.78**	30.37
c. Acres of land is under adverse possession/ encroachment (in acres)	**757.16**	751.49

d. 1297.86 acres (PY 1297.86 acres) of land pending mutation at Haridwar plant for which legal action is in process. It includes land measuring 934 acres (PY 934 acres) which is in BHEL's possession but has been wrongly got mutated in the name of SIDCUL Government of Uttarakhand in the year 2004 & 2007.

e. Further at Haridwar plant, 8 Acres of land is pending transfer to IOCl /State Government under office memorandum dated 01.12.2003 of Uttarakhand Government.

(Cost of land of (b to e) mentioned above is not material)

Particulars	As at March 31, 2022	As at March 31, 2021
3. i) Total Area of Land in acres	**16409.23**	16409.03
ii) Free hold land (Sale Deed) / Possessory Rights/license out of 2(i) in acres	**15735.89**	15735.69
iii) Leasehold land out of 2(i) in acres	**673.34**	673.34

4. The company provides 100% depreciation on an item of PPE having cost / opening net block up to ₹ 10000/- each. The impact of providing 100% depreciation on an item of PPE on profit, without considering the impact of earlier years is as under :

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
100% depreciation on PPE upto ₹ 10,000/- charged off	**6.50**	5.34
Less: Normal depreciation on above.	**(3.53)**	(1.19)
Excess amount charged to depreciation for the year	**2.97**	4.15

5. The impact on depreciation, consequent to revision in the estimated useful life of certain items of PPE, based on review done in F.Y. 2021-22 in line with para 51 of Ind AS 16 is reduction of ₹ 126.36 Cr.

6. Summary Status of capital expenditure:

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Addition to PPE & Intangible Assets	**226.44**	150.29
Increase/ (Decrease) in CWIP	**19.11**	96.47
Increase/ (Decrease) in Intangible Assets under development	**(7.69)**	9.09
Increase/ (Decrease) in Capital Advance	**(6.77)**	-
Total	**231.09**	255.85

NOTE 4.1 - Detail of intangible assets

(₹ in Crore)

Description	Gross block				Depreciation / Amortization				Net block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Internally Developed										
Others	69.78	1.24	-	**71.02**	61.49	5.16	-	**66.66**	**4.37**	8.29
Others										
Software	50.92	2.28	(0.15)	**53.05**	46.92	3.75	(0.14)	**50.52**	**2.52**	4.00
Technical Know-how	170.13	14.72	-	**184.85**	120.26	9.36	-	**129.62**	**55.23**	49.87
Total	**290.83**	**18.25**	**(0.15)**	**308.92**	**228.67**	**18.27**	**(0.14)**	**246.80**	**62.12**	**62.16**
Previous year	280.48	10.35	-	**290.83**	201.87	26.80	-	**228.67**	**62.16**	78.61

Gross Block (as per earlier IGAAP) as at 31.03.2022 ₹ 584.11 Crore and as at 31.03.2021 ₹ 575.15 Crore

There is no impairment loss during the year.

Note [5] - Non-current assets
Financial assets - Investment

Refer point 6 of Note [2] for accounting policy on investment in subsidiaries and joint ventures (₹ in Crore)

Particulars	As at March 31, 2022			As at March 31, 2021		
	No. of Shares (Face value in ₹)	Amount		No. of Shares (Face value in ₹)	Amount	
I Quoted equity instruments	**-**		**-**	-		-
II Unquoted equity instruments (fully paid up shares)						
(a) Investment in joint ventures (at cost)						
(i) Raichur Power Corporation Ltd.	**664040000 (10)**		**664.04**	664040000 (10)		664.04
(ii) BHEL-GE Gas Turbine Services Pvt. Ltd.	**2379999 (10)**		**2.38**	2379999 (10)		2.38
(iii) NTPC-BHEL Power Projects Pvt. Ltd.	**50000000 (10)**	**50.00**		50000000 (10)	50.00	
Less: Provision for impairment		**50.00**	**-**		50.00	-
(iv) Powerplant Performance Improvement Ltd.	**1999999 (10)**	**2.00**		1999999 (10)	2.00	
Less: Provision for impairment		**2.00**	**-**		2.00	-
			666.42			666.42
(b) Investment in subsidiary company (at cost)						
BHEL- Electrical Machine Limited		**-**		5355000 (10)	5.36	
Less: Provision for impairment		**-**	**-**		5.36	**-**
(c) Investment in equity instruments fully paid up (at FVTPL)						
(i) Neelachal Ispat Nigam Ltd	**5000000 (10)**	**5.00**		5000000 (10)	5.00	
Add / (Less) : Fair Value Adjustment		**(5.00)**	**-**		(5.00)	-
(ii) AP Gas Power Corporation Ltd.	**728960 (10)**	**0.91**		728960 (10)	0.91	
Add / (Less) : Fair Value Adjustment		**2.38**	**3.29**		2.67	3.58
(iii) Engineering Projects (India) Ltd.	**1892 (10)**		*****	1892 (10)		*
Share in Co-operative Societies #			**-**			-
Total			**669.71**			670.00
*Value of less than ₹ 1 lakh						
Aggregate amount of unquoted investment			**724.33**			729.69
Aggregate amount of impairment in value of investments			**54.62**			59.69

Equity shares held in various employees cooperatives societies, valuing less than ₹ 1 lakh/-

Information about joint ventures and subsidiary

(₹ in Crore)

Particulars	Country of incorporation	As at March 31, 2022	As at March 31, 2021
(A) Name of the joint ventures (JVC)		Proportion (%) of ownership	
BHEL-GE Gas Turbine Services Private Limited (BGGTS)	India	**One share less than 50%**	One share less than 50%
NTPC-BHEL Power Projects Private Limited (NBPPL)		**50%**	50%
Raichur Power Corporation Limited (RPCL)		**22.14%**	27.97%
Power Plant Performance Improvement Limited (PPIL)		**One share less than 50%**	One share less than 50%

(i) The provision for impairment in value of investment in NTPC-BHEL Power Projects Private Limited has been made to the extent of ₹ 50.00 crore (upto previous year ₹ 50.00 crore) based on the net financial position. The Board of Directors in its meeting held on February 08, 2018 has accorded in-principle approval for pursuing the winding up of NBPPL. Ministry of Power (MoP) has advised NTPC to consider buying out the stake of BHEL and decide either to continue it as an in-house EPC arm or close it after completion of present work. This advise was noted by NBPPL Board in its meeting held on 29.08.2019.

(ii) Reduction in % of ownership in RPCL is due to subscription of Right issue by the other shareholder M/s KPCL.

(iii) The provision for impairment in value of investment in Powerplant Performance Improvement Limited amounting to ₹ 2.00 crore (previous year ₹ 2.00 crore) has been made since the JVC is under liquidation and the amount paid as equity is not recoverable.

Particulars	Country of incorporation	As at March 31, 2022	As at March 31, 2021
(B) Name of the subsidiary company		Proportion (%) of ownership	
BHEL Electrical Machines Limited (BHEL EML)	**India**	**Nil**	51%

BHEL's stake in BHEL EML has been transferred to Govt of Kerela on 11th August 2021.

Note [6] - Financial assets - Trade receivables

Refer point 14 of Note [2] for accounting policy on impairment of financial assets (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Unsecured, considered good	**3538.39**	**3340.61**	3535.85	4485.39
Credit impaired (included in allowances for B&D debts)	**11599.09**	**277.54**	12598.54	425.72
	15137.48	**3618.15**	16134.39	4911.11
Less: Allowances for bad and doubtful debts	**11933.64**	**593.40**	12954.65	877.48
Total Trade Recievable (Net)	**3203.84**	**3024.75**	3179.74	4033.63

Simplified approach is followed for impairment of trade receivables, the classification is done in line with Ind AS 109.

Trade recievable includes:

(a) Due from Directors	-	-	-	-
(b) Due from Officers	-	-	-	-

Non current Trade receivable ageing schedule - As at March 31, 2022

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	39.02	38.13	172.50	288.06	1063.63	-	-	1601.34
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	0.89	5.28	16.95	66.50	1847.41	-	-	1937.03
iv) Disputed Trade receivables - credit Impaired	95.20	100.67	395.44	630.60	10377.20	-	-	11599.11

Current Trade receivable ageing schedule - As at March 31, 2022

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	2214.21	237.21	337.62	197.02	354.55	-	-	3340.61
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	-	-	-	-	-	-	-	-
iv) Disputed Trade receivables - credit Impaired	11.23	0.88	35.77	35.58	194.08	-	-	277.54

Non current Trade receivable ageing schedule - As at March 31, 2021

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	134.78	114.88	286.89	202.41	307.61	-	-	1046.57
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	12.67	5.91	95.57	138.71	2236.42	-	-	2489.28
iv) Disputed Trade receivables - credit Impaired	279.37	238.81	822.05	688.67	10569.64	-	-	12598.54

Current Trade receivable ageing schedule - As at March 31, 2021

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	2121.42	434.87	613.07	659.49	656.53	-	-	4485.38
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	
iii) Disputed Trade receivables - considered good	-	-	-	-	-	-	-	
iv) Disputed Trade receivables - credit Impaired	3.32	0.74	31.61	24.63	365.43	-	-	425.73

Note [7] - Financial assets - Others

Refer point 14 of Note [2] for accounting policy on impairment of financial assets (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Security deposits				
Deposits with SEBs, port trust & others				
Unsecured, considered good	**81.80**	**112.86**	84.64	128.32
Credit impaired	**2.87**	**11.69**	2.92	12.01
	84.67	**124.55**	87.56	140.33
Less: Allowances for bad & doubtful deposits	**2.87**	**11.69**	2.92	12.01
	81.80	**112.86**	84.64	128.32
Bank deposits with more than 12 months maturity	**4.93**		12.75	
Interest accured on banks deposits	**-**	**76.62**		77.14
Advance to Employees		**22.19**		22.80
Less: Allowance for bad and doubtful advances	**-**	**0.11**		0.08
		22.08		22.72
Total	**86.73**	**211.56**	97.39	228.18
Includes:				
Due from Directors	**-**	**-**	-	-
Dues from Officers	**-**	**0.01**	-	0.01

Note [8] - Non-current assets
Deferred tax assets (net of liabilities)

Refer point 13 of Note [2] for accounting policy on income taxes (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Deferred tax assets		
Provisions	**1629.68**	1754.90
Dues allowed on payment basis	**440.00**	487.11
Depreciation (PP&E and Intangible assets)	**46.04**	78.26
On account of taxable loss	**1311.74**	1278.30
Others	**102.62**	61.20
Sub-Total	**3530.08**	3659.77
Less : Deferred tax liabilities	**-**	-
Deferred tax assets (net of liabilities)	**3530.08**	3659.77

Movement of deferred tax balances

(₹ in Crore)

Particulars	Balance as at April 01,2021	Recognized in retained earnings	Recognized in statement of profit & loss a/c	Recognized in OCI	Balance as at March 31, 2022
Deferred tax assets					
Provisions	1754.90	-	(125.22)	-	**1629.68**
Dues allowed on payment basis	487.11	-	(21.26)	(25.85)	**440.00**
Depreciation (PP&E and Intangible assets)	78.26	-	(32.22)	-	**46.04**
On account of taxable loss	1278.30	-	33.44	-	**1311.74**
Others	61.20	-	41.42	-	**102.62**
Sub-total	**3659.77**	**-**	**(103.84)**	**(25.85)**	**3530.08**
Less: Deferred tax liabilities	-	-	-	-	**-**
Deferred tax assets (net of liabilities)	**3659.77**	**-**	**(103.84)**	**(25.85)**	**3530.08**

Note [9] - Other Assets

Refer point 14 of Note [2] for accounting policy on impairment (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contract assets (including unbilled revenue)				
Unsecured, considered good	**18248.24**	**8691.63**	16584.91	7494.34
Credit impaired	**2768.53**	**663.72**	3545.45	76.46
	21016.77	**9355.35**	20130.36	7570.80
Less: Allowances for bad and doubtful debts	**2768.53**	**663.72**	3545.45	76.46
Sub-total (A)	**18248.24**	**8691.63**	16584.91	7494.34
Security deposits				
Deposits with tax authorities and others				
Unsecured, considered good	**79.96**	**443.32**	106.80	497.11
Unsecured, considered doubtful	**30.45**	**89.74**	12.85	79.41
	110.41	**533.06**	119.65	576.52
Less: Provision for bad & doubtful deposits	**30.45**	**89.74**	12.85	79.41
Sub-total (B)	**79.96**	**443.32**	106.80	497.11
Loans & advances				
Unsecured, considered good				
Advances towards purchases (Vendors & sub - Contractors)	**41.54**	**56.42**	99.58	152.16
Input Tax credit receivable	**-**	**958.31**	-	1031.00
Claims recoverable and others	**139.76**	**642.85**	37.34	601.11
Capital advances	**17.04**	**-**	23.81	-
Advances to subsidiary	**-**	**-**	-	0.24
Unsecured, considered doubtful	**-**	**-**	-	-
Advances towards purchases (Vendors & sub - Contractors)	**11.50**	**35.69**	11.71	6.93
Input Tax credit receivable	**-**	**5.38**	-	-
Claims recoverable and others	**49.67**	**111.92**	28.14	129.77
Capital advances	**4.69**	**-**	-	-
	264.20	**1810.57**	200.58	1921.21
Less: Provision for bad & doubtful loans & advances	**65.86**	**152.99**	39.85	136.70
Sub-total (C)	**198.34**	**1657.58**	160.73	1784.51
Total (A+B+C)	**18526.54**	**10792.53**	16852.44	9775.96

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
i) Undisputed Contract Assets - considered good	**13874.67**	**8691.63**	12764.34	7494.34
ii) Undisputed Contract Assets - credit impaired	**-**	**-**	-	-
iii) Disputed Contract Assets - considered good	**4373.57**	**-**	3820.57	-
iv) Disputed Contract Assets - credit Impaired	**2768.53**	**663.72**	3545.45	76.46
Total	**21016.77**	**9355.35**	20130.36	7570.80
Loan & advances includes :				
(a) Due from Directors	**-**	**-**	-	-
(b) Due from Officers	**-**	**-**	-	-

Note [10] - Current assets
Inventories

Refer point 7 of Note [2] for accounting policy on valuation of inventories. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Raw material & components	**2799.87**		2809.70	
Material-in-transit	**129.30**	**2929.17**	199.83	3009.53
Work-in-progress (including items with sub-contractors)		**3334.54**		3778.22
Finished goods	**518.09**		628.72	
Inter - division transfers in transit	**89.85**	**607.94**	63.75	692.47
Stores & spare parts				
Production	**151.94**		166.37	
Fuel stores	**5.70**		2.58	
Miscellaneous	**50.32**	**207.96**	51.24	220.19
Other Inventory				
Materials with fabricators/contractors	**60.10**		39.80	
Loose tools	**24.32**		23.02	
Scrap (at estimated realisable value)	**143.26**	**227.68**	147.46	210.28
		7307.29		7910.69
Less: Provision for non-moving inventory		**747.08**		719.46
Total		**6560.21**		7191.23
Note :				
Write down of inventories		**76.77**		219.35
Less : reversal thereof		**49.15**		42.27
Net		**27.62**		177.08

Note [11] - Current assets
Financial assets - Cash & cash equivalents

Refer point 17 of Note [2] for accounting policy on cash and cash equivalent. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Balances with banks :				
EEFC a/c	**28.20**		202.69	
Current / cash credit a/c	**687.82**	**716.02**	1324.32	1527.01
Cheques, demand drafts on hand		**13.06**		0.08
Cash & stamps on hand		**0.08**		0.07
Remittances in transit		**3.46**		0.02
Total		**732.62**		1527.18

Note [12] - Current assets
Financial assets - Bank balances

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Fixed deposits having maturity more than 3 months but not more than 12 months		**6411.12**		5160.00
Fixed deposits against margin money for BG issued		**2.65**		2.54
Balances with banks (earmarked):				
Charging station project	**3.94**		7.88	
Unclaimed dividend a/c	**1.81**		2.11	
Non-repatriable a/c	**1.52**		1.69	
Sale proceeds of fractional shares on bonus issue	**0.03**	**7.30**	0.03	11.71
Total		**6421.07**		5174.25
Total Cash and Bank Balances [11 + 12]		**7153.69**		6701.43

Note [13] - Current assets
Financial assets - Loans

Refer point 14 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Loans				
Loan to Subsidiary*				
Credit impaired	**-**		3.70	
Less: Allowances for bad & doubtful loans	**-**	**-**	3.70	-
Loan to PSU (BP&CL) **				
Credit impaired	**-**		13.32	
Less: Allowances for bad & doubtful loans	**-**	**-**	13.32	-
Total		**-**		-

*Loan and interest thereon of ₹ 3.70 Cr has been waived on transfer of BHEL's stake to Govt of Kerala.

** Loan & interest thereon which had been impaired as on March 31, 2021 has been paid by BP&CL during the year.

Note [14] - Current assets
Current tax assets / liabilities (net)

Refer point 13 of Note [2] for accounting policy on income taxes.

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Advance tax & TDS	**180.71**	1062.15
Less: Provisions for taxation	**61.47**	658.56
Total	**119.24**	**403.59**

Note [15] - Equity
Equity share capital

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	No.of Shares (Face value in ₹)	Amount	No.of Shares (Face value in ₹)	Amount
A. Equity share capital				
Authorised	**10000000000 (2)**	**2000.00**	10000000000 (2)	2000.00
Issued, subscribed and fully paid up	**3482063355 (2)**	**696.41**	3482063355 (2)	696.41
a) The reconciliation of the number of equity shares outstanding				
Balance as at the beginning of the year	**3482063355**	**696.41**	3482063355	696.41
Add/(Less): Changes during the year	**-**	**-**	-	-
Balance as at the end of the year	**3482063355**	**696.41**	3482063355	696.41
b) Details of shares held by shareholders holding more than 5% of shares at the end of the year				
President of India (Promoter)	**2199650402**	**63.17%**	2199650402	63.17%
Percentage change of Promoter holding during the year	**-**	**Nil**	-	Nil
Life Insurance Corporation of India	**350769757**	**10.07%**	350647914	10.07%
Face value per share in (₹)		**2.00**		2.00

c) Terms / rights attached to the equity shares

The company has only one class of equity shares having par value of ₹ 2 per share (previous year ₹ 2 per share). Each holder of the equity shares is entitled to one vote per share.

d) Issue of bonus share

The Company allotted bonus share on October 03, 2017 in the ratio of 1:2 i.e. one equity share for two existing fully paid-up equity shares. Consequently, the paid-up capital was increased from ₹ 489.52 crore in FY 2016-17 to ₹ 734.28 crore in FY 2017-18 by capitalization of reserves.

e) Share buyback

The Company vide its Board approval dated October 25,2018, bought back its 18,93,36,645 fully paid-up equity shares of the face value of ₹ 2 each representing 5.16% of the total issued and paid-up equity share capital from the eligible equity shareholders of the Company for an amount of ₹ 1628,29,51,470 at a price of ₹ 86 per equity share in FY 2018-19. Consequently, the paid-up share capital was reduced from ₹ 734.28 crore in FY 2017-18 to ₹ 696.41 crore in FY 2018-19.

Note [15a] - Other Equity

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Capital reserve	**35.18**	35.18
Capital redemption reserve	**37.87**	37.87
General reserves	**30476.66**	30476.66
Retained earnings	**(3956.70)**	(4366.94)
OCI (Re-measurements of defined benefit plans)	**(318.26)**	(395.13)
Total	**26274.75**	25787.64

For additions and deduction under each of the above specific heads, SOCIE (Statement of Changes in Equity) may be referred.

Nature and purpose of reserves:

(a) Capital reserve : It represents mainly the excess of net assets taken, over the cost of consideration paid during amalgamation of the then subsidiary company (HPVP) with the BHEL.

(b) Capital redemption reserve: The Company has recognised Capital Redemption Reserve on buy back of equity shares from its general reserve.The amount in capital redemption reserve is equal to nominal amount of equity shares bought back.

(c) General reserve: This represents accumulation of profits retained by Company to meet future (known/unknown) obligations.

(d) Retained earnings: Retained earnings are profits that Company has earned till date, less transfer to general reserve, dividends (incl. dividend distribution tax) or other distributions to shareholders.

(e) Re-measurement of net defined benefit plans: Differences between the interest income on plan assets and the return actually achieved, and any changes in the liabilities over the year due to changes in actuarial assumption or experience adjustments within the plans, are recognised in 'Other comprehensive income' and these are subsequently not to be reclassified to the Statement of Profit and Loss.

Note [16] - Financial liabilities- Lease Liabilities

Refer point 3 of Note [2] for accounting policy on lease.

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Lease Liabilities	**35.12**	**49.81**	53.41	48.20
Total	**35.12**	**49.81**	53.41	48.20
Further disclosures available at Note [36] on lease				

Note [17] - Financial liabilities -Trade payables

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Trade payables				
(i) Total outstanding dues of micro enterprises and small enterprises	**127.45**	**745.82**	157.92	751.57
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**2004.48**	**6881.11**	1725.85	5809.57
(iii) Acceptances	**-**	**122.66**	-	113.91
Total	**2131.93**	**7749.59**	**1883.77**	**6675.05**
Micro and small enterprises disclosure				
(i) The principal amount remaining unpaid to supplier as at the end of the accounting year *	**886.81**		914.99	
(ii) The interest due thereon remaining unpaid, to supplier as at the end of accounting year.	**-**		**-**	
(iii) The amount of interest paid in terms of section 16, along with the amounts of the payment made to the supplier beyond appointed day during the year.	**-**		**-**	
(iv) The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding interest specified under this Act.	**-**		**-**	
(v) The amount of interest accrued during the year and remaining unpaid at the end of year.	**-**		**-**	
(vi) The amount of further interest remaining due and payable even in the succeeding years, until such date when the interest dues as above are actually paid to the small enterprises, for the purpose of disallowance as a deductible expenditure.	**-**		**-**	

* The amount shown here as outstanding includes amount shown in Note 17 & 18 to Micro and Small enterprises. The amount shown here is not due for payment contractually as on March 31, 2022.

Non current Trade Payable ageing schedule - As at March 31, 2022

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	-	-	-	-	**0.03**	**103.96**	**103.99**
ii) Others	-	-	-	-	**0.21**	**1368.24**	**1368.45**
iii) Disputed dues - MSME	-	-	-	-	-	**23.46**	**23.46**
iv) Disputed dues - Others	-	-	-	-	-	**636.03**	**636.03**

Current Trade Payable ageing schedule - As at March 31, 2022

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	-	-	-	-	**160.27**	**572.45**	**732.72**
ii) Others	**2.41**	-	-	-	**1435.21**	**4861.89**	**6299.51**
iii) Disputed dues - MSME	-	-	-	-	-	**13.11**	**13.11**
iv) Disputed dues - Others	-	-	-	-	-	**704.25**	**704.25**

Non current Trade Payable ageing schedule - As at March 31, 2021							
Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	-	-	-	-	-	149.39	149.39
ii) Others	-	-	-	-	-	1308.15	1308.15
iii) Disputed dues - MSME	-	-	-	-	-	8.53	8.53
iv) Disputed dues - Others	-	-	-	-	-	417.70	417.70

Current Trade Payable ageing schedule - As at March 31, 2021							
Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	27.85	-	0.06	0.01	209.19	421.84	658.95
ii) Others	418.01	7.38	9.68	0.15	1414.18	2487.62	4337.02
iii) Disputed dues - MSME	-	-	-	-	-	92.62	92.62
iv) Disputed dues - Others	-	-	-	-	-	1586.46	1586.46

Note [18] - Financial liabilities- Others

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Deposits from contractors & others	**206.45**	**431.36**	211.01	447.75
Liabilities :				
- Employee dues	**-**	**214.05**	-	117.61
- Capital Expenditure~	**8.65**	**80.83**	5.71	57.49
- Others*	**-**	**386.92**	-	291.72
Unpaid Dividend**	**-**	**1.81**	-	2.11
Interest accured on borrowings	**-**	**9.12**	-	0.97
Total	**215.10**	**1124.09**	216.72	917.65

* Other Includes ₹ 0.03 Cr for sales proceeds of fractional shares arising out of bonus shares.
~ includes MSME ₹ 13.54 cr for FY 2021-22 & ₹ 5.50 cr for FY 2020-21
**No amount is due and outstanding to be transferred to Investor Education & Protection Fund at the year end.

Note [19] - Provisions

Refer point 10 & 11 of Note [2] for accounting policy on employee benefits and provisions. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contractual obligation	**2620.03**	**1235.45**	2505.89	1486.56
Provision for employee benefits*	**856.82**	**1060.62**	1092.78	826.79
Provision others	**292.69**	**760.14**	312.02	831.72
Corporate social responsibility **	**1.67**	**10.49**	2.09	19.18
Total	**3771.21**	**3066.70**	3912.78	3164.25

*Further disclosure available at note (25) on employee benefits
**Disclosure as per point viii of Note 26 on CSR expense

Note [20] - Other liabilities

Refer point 12 of Note [2] for accounting policy on Government Grants (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contract liabilities (Advances received from customers incl. excess of billing over revenue)	**2193.43**	**3854.33**	2806.50	4057.18
Liabilities towards statutory dues	**-**	**775.55**	-	616.41
Deferred income- Govt. grant #	**19.22**	**6.08**	25.04	6.45
Total	**2212.65**	**4635.96**	2831.54	4680.04

#Govt. grant is received for setting up of solar PV plant and manufacturing of modules

Note [21] - Current Financial liabilities - Borrowings

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Secured		
Loans from banks	**4745.00**	201.01
Pre shipment packing credit	**-**	299.36
Buyer's Credit	**-**	45.71
(secured by hypothecation of raw materials, components, work-in-progress, finished goods & stores)		
Sub-total (A)	**4745.00**	546.08
Unsecured		
Commercial papers	**-**	4287.70
Sub-total (B)	**-**	4287.70
Total borrowings (A+B)	**4745.00**	4833.78

(i) Details of sanctioned limits

Description	Sanctioned Limit	Utilization			
		As at March 31, 2022		As at March 31, 2021	
		Value (₹/ Cr)	% Utilisation	Value (₹/ Cr)	% Utilisation
Non Fund Based Limits	**54000**	**33936**	**62.84%**	**41026**	**75.97%**
Bank Guarantees#	51000	31369	61.51%	39343	77.14%
Letter of Credit (inc. Buyer's Credit)	3000	2567	85.57%	1683	56.10%
Fund Based Limits	**6000**	**4745**	**79.08%**	**300**	**5.01%**
WCDL	-	4745	-	1.01	
PCFC	-	NIL	-	299.36	
Commercial Paper	**5000**	**NIL**	**-**	**4287.70**	**85.75%**

Total Consortium limit (fund based + non fund based) of ₹ 60000 Cr secured by first charge by way of hypothecation of raw materials, components, work in progress, finished goods, stores, trade receivables and other current assets both present and future.

Commercial Papers are in the nature of unsecured short term borrowings.

Outstanding Bank Guarantees include ₹ 439 Crores (P.Y. ₹ 630 Cr.) on a/c of BGs already replaced but pending vacation as on March 31, 2022. Excluding this, the outstanding BGs as on 31.03.2022 is ₹ 30930 Cr. (Previous Year 38713 Cr.)

(ii) Loan from Banks in FY 2021-22 represents WCDL (Working Capital Demand Loan) & for Previous Year, ₹ 200 Cr Loans against Fixed Deposit and balance for WCDL.

(iii) The company has not been declared wilful defaulter by any Bank / Financial Institution.

(iv) The quarterly returns or statements of current assets filed by the Company with Banks or Financial Institutions are in agreement with Books of accounts.

(v) Corporate Guarantees given for own obligations outstanding as on 31.03.2022 is ₹ 1165 crore (previous year ₹ 1799 crore).

(vi) Changes in Borrowings arising from Financing activities

Particulars	As at March 31, 2022	As at March 31, 2021
Opening Balance	**4833.78**	4933.39
Cash Flow during the year	**(88.78)**	(97.95)
Unrealised Foreign Exchange Loss / (Gain)	**-**	(1.66)
Closing Balance	**4745.00**	4833.78

For changes in lease liability arising from financing activities, refer Note 36(b)

Note [22]
Revenue from operations

Refer point 8 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Revenue from contracts with customers		
Revenue from Construction and Project related activity	**14107.10**	10581.15
Sale of Product & Other services	**6046.28**	5714.40
Sub-total (A)	**20153.38**	16295.55
Other operational income		
Freight & insurance	**129.35**	93.32
Scrap sales	**273.63**	141.97
Recoveries from suppliers	**113.98**	112.88
Liabilities written back	**239.95**	211.83
Insurance claims	**76.51**	163.48
Export incentives	**50.50**	156.88
Others	**173.79**	132.53
Sub-total (B)	**1057.71**	1012.89
Revenue from operations (A + B)	**21211.09**	17308.44
Revenue from Operations excludes Goods and service tax	2970.00	2392.35

Note [23]
Other income

Refer point 8 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Interest income *		
From banks	**246.75**	313.61
Others	**56.04**	7.25
Sub-total (A)	**302.79**	320.86
Dividend income		
Dividend on investment in joint ventures (long term trade)	**30.35**	21.42
Sub-total (B)	**30.35**	21.42
Other income		
Profit on sale of units of mutual funds	**-**	1.42
Government grants on Solar PV Plant for Captive Use.	**6.20**	6.45
Profit from sale of PPE & capital stores (Net)	**6.90**	1.88
Others	**21.57**	17.81
Sub-total (C)	**34.67**	27.56
Total other income (A+B+C)	**367.81**	369.84
*Includes TDS	**18.92**	20.99

Note [24]
Changes in Inventories of Finished goods, Work in progress and Scrap

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Work -in -progress				
Closing balance	**3334.54**		3778.22	
Opening balance	**3778.22**	**443.68**	4119.71	341.49
Finished goods				
Closing balance	**518.09**		628.72	
Opening balance	**628.72**	**110.63**	822.94	194.22
Scrap				
Closing balance	**143.26**		147.46	
Opening balance	**147.46**	**4.20**	117.76	(29.70)
Inter-division transfer in transit		**(26.10)**		4.85
(Increase)/Decrease		**532.41**		510.86

Note [25]
Employee benefits expense

Refer point 10 of Note [2] for accounting policy on employee benefits. (₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Salaries, wages, bonus, allowances & other benefits	**4710.99**	4695.04
Contribution to provident and other funds	**460.01**	372.65
Staff welfare expenses	**239.89**	194.86
Contribution to gratuity fund	**95.78**	101.66
Group insurance	**10.17**	8.05
Total	**5516.84**	5372.26

Note [26]
Other Expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Power & fuel		**415.08**		319.42
Expenditure on other sub contracts		**243.72**		267.49
Carriage outward		**241.23**		216.71
Payment to security agencies		**148.93**		203.25
Repairs & maintenance:				
Buildings	**27.32**		26.55	
Plant & machinery	**26.44**		29.59	
Others	**74.05**	**127.81**	67.50	123.64
Insurance		**95.88**		128.51
Travelling & conveyance		**84.89**		65.15
Bank charges		**92.17**		92.54
R&D expense		**12.10**		29.48
Hire charges		**48.22**		46.38
Expenditure on collaborations & royalty		**45.21**		34.92
Rates & taxes		**23.04**		25.06
Office expense		**27.32**		31.00
Expenditure on skill development		**12.83**		15.22
Legal, audit & certification expense		**32.45**		34.61
EDP, software & lease line expense		**17.40**		25.57
Water charges		**20.50**		34.19
Rent non-residential		**12.77**		15.88
Expenditure in connection with exports		**8.01**		11.92

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Entertainment & courtesy expenses	**2.73**	2.29
Environmental protection	**4.59**	5.72
Seminar, development and training expense	**1.28**	1.16
Unrealised loss in investment of equity share	**0.29**	-
Publicity & public relation expense	**1.94**	1.55
Corporate social responsibility	**-**	20.18
Miscellaneous expense	**49.97**	47.38
Exchange variation [Net (gain) / loss]	**(81.62)**	(65.83)
Provisions & Write off (Details at point no. vii below)	**(1526.25)**	1467.46
Total	**162.49**	3200.85

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Further details:		
(i) Legal, audit & certification expense includes :		
Payment to Statutory Auditors:		
Audit fees	**0.97**	0.94
Tax audit	**0.21**	0.20
Quarterly limited review & others	**0.60**	0.56
Audit expense	**0.08**	0.03
Payment to Cost Auditors Fees:	**0.15**	0.15
(ii) Director's fees	**0.25**	0.21
(iii) Expenditure on departmental repair & maintenance:		
Plant & machinery	**159.08**	175.27
Buildings	**33.06**	29.65
Others	**33.09**	32.88
(iv) Expenditure on research & development	**122.83**	146.01
(v) Expenditure on foreign travel		
No. of tours	**127**	77
Expenditure	**1.92**	1.28

(vi) BHEL from own contribution has spent cumulative ₹ 190 crore (upto previous year ₹ 189 crore) on AUSC project and accounted as R&D expenditure.

(vii) **Provisions & Write offs :**

(Refer Note 11 & 14 of Note 2 on provision and impairment of assets) (₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Doubtful debts, liquidated damages and loans, advances & deposits				
Created during the year	**729.55**		2583.68	
Less: withdrawal during the year	**2209.16**	**(1479.61)**	1773.13	810.55
Contractual obligations				
Created during the year	**151.95**		240.96	
Less: withdrawal during the year	**526.44**	**(374.49)**	501.81	(260.85)
Others				
Created during the year	**367.26**		768.16	
Less: withdrawal during the year	**389.38**	**(22.12)**	128.75	639.41
Investment written off		**5.36**		4.93
Bad debts written off		**98.34**		77.55
Liquidated damages & contractual charges charged off		**233.59**		170.98
Losses written off		**12.68**		24.89
Total Provisions and Write off		**(1526.25)**		1467.46

(viii) **Corporate social responsibility**

As per section 135 of the Companies Act, 2013 read with guidelines issued by DPE, the Company is required to spend, in every financial year, at least two percent of the average net profits of the Company made during the three immediately preceding financial years in accordance with its CSR policy. The details of CSR expense for the year are as under:

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
A. Amount required to be spent during the year	**-**	20.18
B. Amount available from previous year	**21.27**	15.51
C. Total (A+B)	**21.27**	35.69
D. Amount spent during the year on-		
(i) Construction/ acquisition of any asset	**-**	0.14
(ii) On purposes other than (i) above	**9.11**	14.28
Total	**9.11**	14.42
Amount carried forward:	**12.16**	21.27
Current	**10.49**	19.18
Non-current	**1.67**	2.09

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
	In cash	Yet to be paid in cash	In cash	Yet to be paid in cash
(i) Construction / acquisition of any asset	**-**	**-**	0.14	-
(ii) On purposes other than (i) above	**6.14**	**2.97**	11.25	3.03
Total	**6.14**	**2.97**	11.39	3.03
Type of CSR activities	Health, Cleanliness, Education, Responsibility & Inclusivity, Disaster Relief , Water, Biodiversity, Carbon and Waste Management			

Unspent amount on ongoing projects ₹ 21.27 Cr. was transferred last year to a separate bank account as per Companies (CSR policy) Amendment Rules.2021 and being used for the purpose.

Note [27]
Finance costs

Refer point 5 & 11 of Note [2] for accounting policy on borrowing costs and provisions. (₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Discount on commercial papers		**137.41**		163.68
Unwinding of provisions		**156.01**		141.74
Interest cost:				
Banks / Financial Institutions	**46.65**		29.34	
Foreign Financial Instituitions	**0.74**		10.77	
On lease obligation	**8.50**		12.79	
Others	**4.01**	**59.90**	13.80	66.70
Other expenses on issuance of Commercial paper		**1.40**		0.97
Sub-total		**354.72**		373.09
Less: Borrowing cost capitalised		**-**		-
Total		**354.72**		373.09

Note [28]
Tax expenses

Refer point 13 of Note [2] for accounting policy on income taxes (₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Current tax				
For current year	**48.86**		32.83	
For earlier years	**(125.99)**	**(77.13)**	(17.01)	15.82
Deferred tax				
For current year	**108.96**		(907.85)	
For earlier years	**(5.12)**	**103.84**	(2.43)	(910.28)
Total		**26.71**		(894.46)

Note [29]
Other comprehensive income / expenditure

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Income / (Expenditure)		
Re-measurement of defined employee benefits	**102.72**	26.70
Less: Income tax related to above items *	**25.85**	6.72
Total	**76.87**	19.98
* Includes		
Current tax	**-**	-
Deferred tax	**25.85**	6.72

Reconciliation of Income tax expense and accounting profit (TCI) multiplied by income tax rate.

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Total Comprehensive Income / (Loss) before tax (A)	**539.67**	(3584.90)
Statutory income tax rate (B)	**25.168%**	25.168%
Tax expense C = (AXB)	**135.82**	(902.25)
Difference due to: (D)		
Expenses not deductible for tax purposes	**48.61**	33.95
Difference in tax due to Income chargeable to tax at special rate	**(0.76)**	-
Change in tax rate	**-**	-
Change in tax expense - earlier years	**(131.11)**	(19.44)
Subtotal (D)	**(83.26)**	14.51
Net Tax Expense E = (C+D)	**52.56**	(887.74)

Note [30]
Earnings per share

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Profit / (loss) attributable to equity shareholders	**410.24**	(2717.14)
Weighted average number of equity shares	**348.21**	348.21
Basic and diluted earnings per share of ₹ 2 each	**1.18**	(7.80)

Basic earnings per equity share is computed by dividing the net profit attributable to the equity shareholders of the Company by the weightage average number of equity shares outstanding during the period. Diluted earnings per share is computed by dividing the net profit attributable to the equity shareholders of the Company by the weightage average number of equity shares considered for deriving basic earnings per equity share and also the weightage average number of equity shares that could have been issued upon conversion of all dilutive potential equity shares.

Note [31]
Dividend per share

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Proposed dividend on equity shares not recognised as liability		
Proposed final dividend of ₹ 0.40 per share for FY 2021-22 (FY 2020-21 ₹ NIL per share).	**139.28**	-

Proposed dividend on equity shares is subject to the approval of the shareholders of the Company at the Annual General Meeting and not recognised as liability as at the Balance Sheet date.

Note [32] - Contingent liabilities and commitments

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
A. Contingent liabilities		
Claims against the company not acknowledged as debt :		
(a) Sales tax matters	**1279.61**	894.74
(b) Service tax matters	**920.46**	696.04
(c) Court & arbitration matters	**592.77**	516.18
(d) Excise duty matters	**162.18**	161.76
(e) Customs duty and others	**880.06**	834.51
(f) Other matters (incl. disputed staff cases)	**48.37**	40.51
(g) Claim towards Liquidated damages (LD)	**2872.25**	2901.75
Total	**6755.70**	6045.49

(i) In view of various court cases, litigations and claims disputed by the Company, the outflow of resources is not ascertainable at this stage. Generally,contingent Liability in respect of court & arbitration cases are shown on award/court judgement and also reviewed on a case to case basis for its reporting in contingent liability.

(ii) It is not practicable for the Company to estimate the timing of actual cash outflows in respect of items (a) to (f), if any, due to pending resolution of the respective proceedings. However, the chances of cash outflow are contingent.

(iii) Liquidated damages represents likely claims or amount withheld by customer on account of delay in execution of projects which will be settled after commissioning and trial operation of project based on delay analysis and is being disclosed in line with Ind AS -37.

(iv) **Movement in contingent liabilities**

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Balance at the beginning of the year	**6045.49**	8068.47
Less: Reduction out of opening balance	**129.84**	3342.01
Add: Additions (net) during the year	**840.05**	1319.03
Balance at the end of the year	**6755.70**	6045.49

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
B. Commitments		
(a) Estimated amount of contracts, net of advances, remaining to be executed on capital account and not provided for.	**209.20**	229.15
(The above includes related to acquisition of intangible assets)	**7.56**	8.65
(b) Investment in the Joint Venture entity (NBPPL) for which the company has restrictions for their disposal for five years from the date of incorporation /commercial operation of the project/first unit of the project/ completion of first EPC contract, as the case may be. This investment has been fully provided for.	**50.00**	50.00

(c) In view of the nature of business, being long term construction contracts there may be other commitments for purchase of material etc., which has been considered as normal business process.

Note [33]

Current Financial liabilities includes a sum of ₹ **100.51 crore** (previous year ₹ 100.51 Crore) towards guarantee fee demanded by the Government of India in respect of foreign currency loans taken by the Company at the instance of the Government upto 1990-91. Since there was no stipulation for payment of such guarantee fee at the time the loans (guaranteed by Government) were taken by the company, the matter is being reviewed for appropriate action.

Note [34]

The Company had taken over Amorphous Silicon Solar Cell Plant (ASSCP), Gurgaon on April 1, 1999 from Ministry of New and Renewable Energy (MNRE) on lease for a period of 30 years. The formal lease agreement with the Ministry of New and Renewable Energy (MNRE) is yet to be finalised.

Note [35]

Balance shown under Trade receivables, Trade payables, contractors' advances, deposits and stock / materials lying with sub-contractors/ fabricators are subject to confirmation, reconciliation & consequential adjustment, if any. The Company is in the business of long term construction contracts, bills are raised on the customers as per contract in line with billing schedule approved by the customer and the reconciliation is carried out on ongoing basis & provisions made, wherever considered necessary. Final reconciliation with customer is done on completion of project (Trial Operation and PG Test completed). Trade receivable of completed projects stand at ₹ **7593 crore** (previous year ₹ 7882 crore). Out of completed contracts, the projects reconciled with customers have outstanding trade receivables of ₹ **6376 crore** (previous year ₹ 6299 crore).

Note [36]
Disclosure on Leases - Ind AS 116

Lease Commitments - Company as Lessee

The company's significant leasing agreements are in respect of land, building and EDP equipments. The company has entered into a rate contract for lease arrangement for computer items, printers, video conferecing equipments and peripherals. Assets taken on lease are capitalised and disclosed separately as Right-of-use assets in the property, plant and equipment. The lease rentals are allocated between interest, maintainence and principal value. The interest and maintenance charges are charged to Statement of Profit and Loss and principal amount is adjusted to lease obligations.

The company has applied the following available practical expedients :
(i) The short-term leases exemptions to leases with lease term less than 12 months
(ii) The low value lease exemption to leases where underlying asset is of low value (assets of less than ₹ 50000 in value).

a) Age-wise analysis of Lease Liabilities are as follows

(₹ in Crore)

Particulars	Future minimum lease payments		Interest		Present value [PV] of minimum lease payments	
	As at March 31, 2022	As at March 31, 2021	As at March 31, 2022	As at March 31, 2021	As at March 31, 2022	As at March 31, 2021
Not later than 1 year #	**54.51**	54.01	**6.60**	8.77	**47.91**	45.24
Later than 1 year and not later than 5 years	**40.52**	60.33	**5.40**	6.92	**35.12**	53.41
Later than 5 years	**-**	-	**-**	-	**-**	-

The amount of future minimim lease payments in respect of leases where remaining lease term as at the end of March 31,2022 is less than 12 months is ₹ **7.56 cr** (Previous year ₹ 9.54cr).

b) Movement in lease liabilities during the FY year 2021-2022 (₹ in Crore)

Particulars	As at	
	March 31, 2022	March 31, 2021
Lease Liabilities As at April 1*	**101.61**	132.04
Add: Additions	**33.18**	30.03
Add: Accretion of interest	**8.50**	12.79
Less : Payments/Adjustment	**58.36**	73.25
Lease Liabilities as at March 31*	**84.93**	101.61

* includes interest accrued of ₹ 1.90 crore (PY ₹ 2.96 crore) & ₹ 2.96 crore (PY ₹ 3.12 crore) as at March 31,2022 & March 31,2021 respectively

c) Amounts recognised in profit or loss: (₹ in Crore)

Particulars	For the Year Ended	
	March 31,2022	March 31,2021
Expense relating to Short-term leases (Refer Note No.34)	**2.27**	2.25
Expense relating to low value assets leases (Refer Note 34)	**1.23**	1.03
Depreciation charge of right-of-use assets	**42.35**	64.26
Interest expense (included in finance cost)	**8.50**	12.79

d) The company has various lease contracts that have not yet commenced . The future lease payments for these non-cancellable lease contracts are as follows:

(₹ in Crore)

Particulars	As at	
	March 31,2022	March 31,2021
Not later than 1 year	**-**	0.07
Later than 1 year and not later than 5 years	**-**	0.05
Later than 5 years	**-**	-

Note [37] - Disclosure on 'Employee benefits' - Ind AS 19

A. The Company has following Schemes in the nature of Defined Benefits plans :

i) Gratuity Scheme
ii) Post Retirement Medical Scheme
iii) Provident Fund Scheme
iv) Travel claim on Retirement

(i) Gratuity (Funded Plan)

The Company has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to gratuity at 15 days salary (15/26 X last drawn basic salary plus dearness allowance) for each completed year of service subject to a maximum limit of ₹ 20 Lakhs.The gratuity liability arises on account of future payments, which are required to be made in the event of retirement, death in service or withdrawal. The liability has been assessed using projected unit credit actuarial method.

Movement in net defined benefit (asset)/liability on Gratuity plan

(₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) / liability	
	As at					
	March 31, 2022	March 31, 2021	March 31, 2022	March 31, 2021	March 31, 2022	March 31, 2021
Opening balance	**2005.26**	2068.33	**1697.44**	1696.77	**307.82**	371.56
Included in Profit for the Year :						
Current Service Cost	**95.78**	101.66	**-**	-	**95.78**	101.66
Past Service Cost	**-**	-	**-**	-	**-**	-
Interest cost /(income)	**135.35**	139.61	**135.35**	139.61	**-**	-
Total amount recognised in Profit for the Year	**231.13**	241.27	**135.35**	139.61	**95.78**	101.66
Included in Other Comprehensive income (OCI) :						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Change in Demographic Assumption	**-**	-	**-**	-	**-**	-
Change in Financial Assumption	**(47.57)**	-	**-**	-	**(47.57)**	-
Experience Adjustment	**(19.22)**	(32.61)	**(15.35)**	(21.21)	**(3.87)**	(11.40)
Total amount recognised in other comprehensive income	**(66.79)**	(32.61)	**(15.35)**	(21.21)	**(51.44)**	(11.40)
Others						
Contributions paid by the Employer	**-**	-	**-**	154.00	**-**	(154.00)
Benefits paid	**(236.00)**	(271.73)	**(236.00)**	(271.73)	**-**	-
Unpaid Benefits paid	**-**	-	**-**	-	**-**	-
Closing balance	**1933.60**	2005.26	**1581.44**	1697.44	**352.16**	307.82

Details of Plan assets

Particulars	As at March 31,2022	As at March 31,2021
Funds managed by Insurer*	**76.96%**	70.80%
High quality corporate bonds (quoted)	**19.55%**	18.23%
State Government securities (quoted)	**2.80%**	2.46%
ETF (quoted)	**-**	0.97%
Bank balance	**0.69%**	7.54%
Total	**100.00%**	100.00%

*Insurer is Life Insurance Corporation of India

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rate % (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Gratuity			
	As at March 31, 2022		As at March 31, 2021	
	Increase	Decrease	Increase	Decrease
Change in Discount rate (0.50% movement)	**(91.26)**	**99.51**	(92.13)	100.65
Change in Salary escalation rate (0.50% movement)	**43.70**	**(47.40)**	51.60	(53.83)

Sensitivities due to mortality and withdrawals are not material and hence impact of change due to these are not calculated.

Sensitivities as rate of increase of pensions in payment, rate of increase of pensions before retirement & life expectancy are not applicable.

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Expected maturity analysis of the gratuity plan in future years

(₹ in Crore)

Particulars	Gratuity	
	As at March 31,2022	As at March 31,2021
Less than 1 year	**213.13**	230.35
Between 1-2 years	**149.43**	193.21
Between 2-3 years	**134.26**	140.89
Between 3-4 years	**112.14**	125.91
Between 4-5 years	**98.80**	103.76
Between 5-6 years	**87.74**	91.67
Over 6 years	**1138.10**	1119.47
Total	**1933.60**	2005.26

Expected contributions to gratuity plans for the year ending 31 March 2023 are ₹ 109.78 crore

The weighted average duration of the gratuity defined benefit plan obligation at the end of the reporting period is 14.81 years (31 March 2021: 14.95 years.)

Risk Exposures

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such, company is exposed to various risks such as increase in salary, investment risk, discount rate, mortality, disability and withdrawals.

(ii) Post Retirement Medical Benefits (Funded Plan)

The Company has Post-Retirement Medical benefit (PRMB), under which the retired employees and their spouses are provided medical facilities in the Company hospitals/empanelled hospitals subject to company medical rules.They can also avail treatment as out-patient subject to a ceiling fixed by the Company. The liability for the same is recognised annually on the basis of actuarial valuation.

Movement in net defined benefit (asset)/liability on Post retirement Medical Benefit Plan

(₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) / liability	
	As at					
	March 31,2022	March 31,2021	March 31,2022	March 31,2021	March 31,2022	March 31,2021
Opening balance	**2255.85**	2285.20	**1948.34**	1933.72	**307.51**	351.48
Included in Profit for the Year :						
Current service cost	**39.26**	39.92	**-**	-	**39.26**	39.92
Past service Cost	**-**	(49.95)	**-**	-	**-**	(49.95)
Interest cost / (income)	**152.27**	154.25	**152.27**	154.25	**-**	-
Total amount recognised in Profit for the Year	**191.53**	144.22	**152.27**	154.25	**39.26**	(10.03)
Included in Other Comprehensive Income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**-**	-	**-**	-	**-**	-
Financial assumptions	**(54.57)**	-	**-**	-	**(54.57)**	-
Experience adjustment	**(16.96)**	(9.57)	**(16.27)**	(17.25)	**(0.69)**	7.68
Total amount recognised in other comprehensive income	**(71.53)**	(9.57)	**(16.27)**	(17.25)	**(55.26)**	7.68
Others						
Contributions paid by the employer	**-**	-	**-**	41.62	**-**	(41.62)
Benefits paid	**(165.00)**	(164.00)	**(165.00)**	(164.00)	**-**	-
Closing balance	**2210.85**	2255.85	**1919.34**	1948.34	**291.51**	307.51

The plan assets of the Company are managed by Life Insurance Corporation of India through a trust managed by the Company in terms of an insurance policy taken to fund obligations of the Company

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Post Retirement Medical Benefit			
	As at March 31,2022		As at March 31,2021	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(100.44)**	**101.60**	(100.99)	103.12
Change in cost (0.50% movement)	**101.79**	**(100.97)**	103.96	(101.57)

Sensitivity due to mortality and withdrawls are not material and hence impact of change not calculated.

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Expected maturity analysis of the Post retirement medical Benefit plan in future years

(₹ in Crore)

Particulars	Post Retirement Medical Benefit	
	As at March 31,2022	As at March 31,2021
Less than 1 year	**133.39**	147.94
Between 1-2 years	**140.73**	149.62
Between 2-3 years	**149.11**	153.04
Between 3-4 years	**158.65**	158.33
Between 4-5 years	**169.44**	165.65
Between 5-6 years	**181.98**	175.29
Over 6 years	**1277.55**	1305.98
Total	**2210.85**	2255.85

Expected contributions to Post retirement medical benefit plan for the year ending 31 March 2023 are ₹ 38.66 crore.

The weighted average duration of the post retirement medical benefit plan obligation at the end of the reporting period is 12.78 years (31 March 2021: 12.42 years).

Risk Exposure

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such company is exposed to various risks such as increase in medical cost, investment risk, discount rate, mortality, disability and withdrawals.

(iii) Provident Fund

The Company pays fixed contribution to provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The Company has an obligation to ensure minimum rate of return to the members as specified by GOI. Accordingly, the Company has obtained report of the actuary. Wherever as per the actuarial valuation certificate liability for likely interest shortfall arises, the same has been provided in the accounts.

Details of interest shortfall in PF Trust

(₹ in Crore)

Particulars	For the year ended	
	2021-22	2020-21
Excess / (Shortfall) in PF interest liability based on actuarial valuation for the year	**1.26**	15.68
Accumulated provision for shortfall in PF interest liability based on actuarial valuation	**13.20**	14.46
Remeasurement gain/(loss) recognised through other comprehensive income statement	**(1.39)**	25.16
Interest shortfall / (surplus) accounted through Statement of Profit & Loss	**(2.65)**	9.48

The Company has PF trusts located at various places covering the employees of the Company and managed separately, the details of plan assets and obligations are as follows :

(₹ in Crore)

LOCATION	Defined benefit obligation		Fair value of plan assets		Surplus / (Shortfall)	
	As at					
	March 31,2022	March 31,2021	March 31,2022	March 31,2021	March 31,2022	March 31,2021
BHEL EPF Trust,Ranipur,Hardwar	**1664.32**	1574.05	**1680.03**	1581.86	**15.71**	7.81
BHEL Employee Provident Fund-Trichy	**935.88**	986.73	**929.35**	984.73	**(6.53)**	(2.00)
BHEL Employee Provident Fund Bhopal	**1394.81**	1317.70	**1395.61**	1313.87	**0.80**	(3.83)
BHEL New Delhi Employees Provident Fund Trust	**1375.80**	1291.26	**1386.09**	1297.88	**10.29**	6.62
BHEL Employee Provident Fund-Hyderabad	**823.06**	833.30	**853.42**	853.68	**30.36**	20.38
BHEL PPD EPF Trust,Chennai	**854.23**	786.92	**847.56**	778.29	**(6.67)**	(8.63)
BHEL Employee Provident Fund-Bengaluru	**620.46**	635.51	**627.07**	644.53	**6.61**	9.02
BHEL (BAP Unit) EPF Trust,Ranipet	**357.05**	390.16	**359.84**	390.62	**2.79**	0.46
BHEL Employee Provident Fund Trust Jhansi	**455.36**	437.95	**468.66**	447.68	**13.30**	9.73
Bharat Heavy Plates & Vessels Limited Employee Contributory Provident Fund-Vizag	**145.91**	141.46	**179.46**	172.72	**33.55**	31.26
Total	**8626.88**	8395.04	**8727.09**	8465.86	**100.21**	70.82

Movement in net defined benefit (asset)/liability on Provident Fund

(₹ in Crore)

Particulars	BHEL Employees Provident Fund Trust (Consolidated)			
	Defined benefit obligation		Fair value of plan assets	
	As at			
	As at March 31,2022	As at March 31,2021	As at March 31,2022	As at March 31,2021
Opening balance	**8395.04**	8160.39	**8465.86**	8194.12
Included in Profit for the Year :				
Current service cost	**337.15**	327.61	**-**	-
Interest cost / (income)	**657.45**	665.66	**657.45**	665.66
Total amount recognised in Profit for the Year	**994.60**	993.27	**657.45**	665.66
Included in Other Comprehensive Income (OCI):				
Remeasurement loss (gain):				
Actuarial loss (gain) arising from:				
Demographic assumptions	**-**	-	**-**	-
Financial assumptions	**(1.65)**	-	**-**	-
Experience adjustment	**3.54**	(17.87)	**31.28**	19.22
Total amount recognised in other comprehensive income	**1.89**	(17.87)	**31.28**	19.22
Others				
Contributions paid by the employer	**-**	-	**337.15**	327.61
Employee Contribution	**725.84**	777.25	**725.84**	777.25
Benefits paid	**(1904.95)**	(1804.50)	**(1904.95)**	(1804.50)
Settlements/Transfer-in	**414.46**	286.50	**414.46**	286.50
Closing balance	**8626.88**	8395.04	**8727.09**	8465.86

Note: Interest shortfall in respect of PF trusts having deficit and defaulted investments (₹ 42.10 cr) have been accounted through Statement of profit and loss and other Comprehensive Income Statement.

Details of Plan assets

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Govt. of India securities [Quoted]	**1026.09**	1153.72
State Government securities [Quoted]	**4061.08**	3694.89
Corporate bonds [Quoted]	**3062.28**	3027.71
Special Deposit [Unquoted]	**384.27**	417.43
Liquid Fund [Quoted]	**14.25**	2.11
Short term deposit [Unquoted]	**13.07**	10.89
Mutual Fund & Equity shares [Quoted]	**166.05**	159.11
Total	**8727.09**	8465.86

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Expected statutory interest rate on the ledger balance	**8.10%**	8.50%
Expected short fall in interest earnings on the fund	**0.05%**	0.05%
Demographic assumptions:		
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rate % (All ages)		
Upto 30 Years	**3.00%**	3.00%
From 31 to 44 years	**2.00%**	2.00%
Above 44 years	**1.00%**	1.00%

Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	BHEL Employees Provident Fund Trust			
	As at March 31,2022		As at March 31,2021	
	Increase	Decrease	Increase	Decrease
Change in Discount rate (0.50% movement)	**(1.30)**	**1.38**	(1.23)	1.28

Sensitivity due to mortality and withdrawls are not material and hence impact of change not calculated.

Expected maturity analysis in future years

(₹ in Crore)

Particulars	Provident Fund	
	As at March 31,2022	As at March 31,2021
Within the next 12 months	**916.15**	832.06
Between 2-5 years	**1681.13**	2009.34
Between 5-10 years	**2150.37**	1984.72
Beyond 10 years	**3879.23**	3568.92
Total	**8626.88**	8395.04

Risk Exposure

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such company is exposed to various risks such as increase in investment risk, discount rate, mortality, disability and withdrawals.

(iv) Travel claim on retirement - (Settlement Allowance - Unfunded Plan)

The settlement allowance is the expenditure reimbursed to an employee towards travel and shifting of baggage for proceeding to home town or any place in India where he or she intends to settle after retirement or death in service for self (including members of his/her family).

Movement in Settlement Allowance liability

(₹ in Crore)

Particulars	Settlement Allowance	
	As at March 31,2022	As at March 31, 2021
Opening balance	**10.30**	9.56
Current service cost	**0.69**	0.63
Interest cost / (income)	**0.69**	0.65
Included in Profit for the Year	**1.38**	1.28
Actuarial loss / (gain)	**2.60**	2.16
Total amount recognised in TCI for the Year	**3.98**	3.44
Others		
Contributions paid by the employer	**-**	-
Benefits paid	**(2.65)**	(2.70)
Closing balance	**11.63**	10.30

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Settlement Allowance	
	As at March 31,2022	As at March 31, 2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

B. Long term Leave Liability (Encashable Leave -EL /Half Pay Leave-HPL) - (Unfunded Plan)

The company provides for earned leave benefit and half pay leave to the employees of the company which accrue half yearly at 15 days (maximum) and 10 days respectively. The earned leave is encashable while in service subject to fulfilment of certain conditions. On retirement/superannuation, earned leave & half pay leave put together upto a maximum of 300 days is encashable subject to company policies & leave encashment rules.The leave liability has been treated as other long term benefits and has been assessed using projected unit credit actuarial method.

Movement in long term leave liability

(₹ in Crore)

Particulars	Long Term Leave Liability	
	As at March 31,2022	As at March 31,2021
Opening balance	**1241.74**	1392.37
Included in Profit for the Year :		
Current service cost	**142.00**	157.77
Interest cost / (income)	**83.82**	93.98
Actuarial loss / (gain)	**(181.51)**	(130.95)
Total amount recognised in Profit for the Year	**44.31**	120.80
Benefits paid	**255.33**	271.43
Closing balance	**1030.72**	1241.74

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Long Term Leave Liability	
	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

C. Pension Fund

The Company has recognised ₹ **254 cr** [PY ₹ 280 cr] as contribution in respect of pension scheme [defined contribution plan] for the FY 2021-22

Note [38] - Disclosure as per Ind AS 24 - Related Parties

A. List of related parties

(i)		
	Subsidiary company	BHEL Electrical Machines Limited (BHEL-EML)*
	Joint venture companies	BHEL-GE Gas Turbine Services Pvt. Ltd. (BGGTS) NTPC-BHEL Power Projects Pvt. Ltd. (NBPPL) Raichur Power Corporation Ltd. (RPCL) Powerplant Performance Improvement Ltd. (PPIL)
	Post employment benefit plans	Provident fund trusts Gratuity trust PRMB Trust Pension Trust
	Others	Central Government controlled entities

** BHEL has transferred its stake in BHEL EML to Govt. of Kerala on 11th August, 2021*

The company is a central Public Sector undertaking under the administrative control of Ministry of Heavy Industries and majority of its stake is held by Government of India. The significant transactions are with other PSUs, State owned utilities, Railways etc. which are also controlled by Govt. of India directly or indirectly. The transactions with such entities are normal, based on market driven rates at arms length price.

(ii) Other related parties

a. Key Management Personnel [KMP]

Particulars	Designation	Position Held [w.e.f /upto]
Functional Directors		
Shri [Dr.] Nalin Shinghal	Chairman & Managing Director	
Shri Subodh Gupta	Director (Finance)	
Shri Kamalesh Das	Director (Engineering, R&D)	upto July 31,2021
Shri Anil Kapoor	Director (Human Resources)	upto January 31, 2022
Ms. Renuka Gera	Director (IS & P)	
Shri Upinder Singh Matharu	Director (Power)	w.e.f March 21, 2022
Company Secretary		
Shri Rajeev Kalra	Company Secretary	

(₹ in Crore)

Particulars	For the year ended	
	March 31,2022	March 31,2021
Compensation to Key management personnel		
-Short term employee benefits	**3.15**	3.76
- Post employment benefits	**0.36**	0.49
- Other long term benefits	**-**	-
- Termination benefits	**-**	-
- Share based payment	**-**	-
Total	**3.51**	4.25

b. Government Director/Independent Director

Name	Government/Independent	Held [w.e.f /upto]
Shri Shashank Priya	Government Director	
Shri Amit Mehta	Government Director	upto 18.06.2021
Shri Jeetendra Singh	Government Director	w.e.f. 18.06.2021 & upto 25.03.2022
Shri Vijay Mittal	Government Director	w.e.f. 25.03.2022
Shri Rajesh Sharma	Independent Director	upto 13.02.2022
Shri Raj Kamal Bindal	Independent Director	
Shri Manish Kapoor	Independent Director	
Shri (Dr.) Raj K. Agarwal	Independent Director	w.e.f. 09.11.2021
Shri (Dr.) K. Sivaprasad	Independent Director	w.e.f. 09.11.2021
Smt.(Dr.) Lekhasri Samantsinghar	Independent Director	w.e.f. 09.11.2021
Shri Aditya Prasad Sahu	Independent Director	w.e.f. 29.12.2021

(₹ in Crore)

Particulars	For the year ended	
	March 31,2022	March 31,2022
Sitting Fees -- Independent Directors	**0.25**	0.21

B. Transactions with Post Employment Benefit Plans managed through separate trust

(₹ in Crore)

Government/ Independent Directors	Post Employment benefit plan	Contribution by employer For the year ended March 31	
		2022	2021
PRMB Trust	Post Retirement medical scheme	**-**	41.62
Gratuity Trust	Gratuity	**-**	154.00
Employees Superannuation Fund	Pension Fund	**115.00**	280.00
BHEL EPF Trust,Ranipur,Hardwar	Provident Fund	**55.13**	52.21
BHEL Employee Provident Fund-Trichy	Provident Fund	**53.43**	52.97
BHEL Employee Provident Fund Bhopal	Provident Fund	**53.03**	50.86
BHEL New Delhi Employees Provident Fund Trust	Provident Fund	**41.46**	39.25
BHEL Employee Provident Fund-Hyderabad	Provident Fund	**40.56**	39.36
BHEL PPD EPF Trust,Chennai	Provident Fund	**28.21**	26.34
BHEL Employee Provident Fund-Bengaluru	Provident Fund	**27.75**	29.16
BHEL (BAP Unit) EPF Trust,Ranipet	Provident Fund	**18.58**	19.24
BHEL Employee Provident Fund Trust Jhansi	Provident Fund	**13.19**	12.77
Bharat Heavy Plates & Vessels Limited Employee Contributory Provident Fund-Vizag	Provident Fund	**5.81**	5.45

C. Details of Transactions With Joint Ventures and Balances

(₹ in Crore)

Particulars	For the year ended	
	March 31,2022	March 31,2021
Sales of Goods and services		
BGGTS	**281.48**	215.85
RPCL	**3.27**	7.80
NBPPL	**3.83**	10.86
Dividend income		
BGGTS	**30.35**	21.42
Royalty income		
BGGTS	**1.80**	1.46
Purchase of Goods and Services		
BGGTS	**1.04**	1.96
NBPPL	**1.52**	0.75
Amounts due to BHEL at the end of the year		
BGGTS	**143.55**	68.79
RPCL	**550.90**	552.00
NBPPL	**263.89**	195.56
Amounts due from BHEL (incl. advances) at the end of the year		
BGGTS	**0.11**	0.15
RPCL	**20.95**	7.67
NBPPL	**67.95**	56.79
Provision for Doubtful debts & advances		
RPCL	**20.17**	20.10
NBPPL	**188.70**	187.98

Note: refer note [5] for provision for dimunition in value of investments

D. Details of Transactions with Subsidiary Company and Balances

(₹ in Crore)

Subsidiary Company	For the year ended	
	March 31,2022	March 31,2021
Amounts due to BHEL at the end of the year	-	3.94
Amounts due from BHEL (incl. advances) at the end of the year	-	0.77
Provision for Doubtful advances	-	3.70

BHEL has transferred its stake in BHEL EML to Govt. of Kerala on 11th August, 2021.

Note [39] - Disclosure [Movement in provisions] - Ind AS - 37

(₹ in Crore)

a. Liquidated Damages	As at March 31,2022	As at March 31,2021
Opening Balance	**9511.80**	8467.67
Add: Additions	**152.07**	1546.68
Less: Usage/ Write off/payment	**111.76**	98.36
Less: Withdrawal/adjustments	**992.91**	404.19
Closing Balance	**8559.20**	9511.80

Liquidated damages are provided in line with the Accounting Policy of the Company and the same is dealt suitably in the accounts on settlement or otherwise. Contingent liability relating to liquidated damages is shown in Para A (g) of Note 32.

(₹ in Crore)

b. Contractual Obligation	As at			
	As at March 31,2022		As at March 31,2021	
Opening Balance				
As disclosed in Note (19)	**3992.45**		4319.11	
As disclosed in Note (6)	**723.45**		736.93	
As disclosed in Note (9)	**699.86**	**5415.76**	483.12	5539.16
Add: Borrowing Cost		**155.78**		141.68
Add: Additions		**277.50**		447.20
Less: PV Adjustment		**107.45**		194.95
Less: Usage/ Write off/payment		**88.78**		87.56
Less: Withdrawal/adjustments		**438.94**		418.48
Add/(Less): Change in estimate and rates		**(18.11)**		(11.29)
Closing Balance				
As disclosed in Note (19)	**3855.48**		3992.45	
As disclosed in Note (6)	**708.05**		723.45	
As disclosed in Note (9)	**632.23**	**5195.76**	699.86	5415.76

The provision for contractual obligation is made considering the effect of time value of money in line with significant Accounting Policy No. 11 to meet the warranty obligations as per the terms and conditions of the contract. The same is retained till the completion of the warranty obligations of the contract. The actual expenses on warranty obligation may vary from contract to contract and on year to year depending upon the terms and conditions of the respective contract. Contractual obligation, pertaining to dues from projects fully provided for, disclosed in Non Current Allowances for B&D Debts in Note 6 and 9.

Based on the historical experience/technical assessment and in line with Significant accounting policy no. 11 (ii) duly approved by the Board, the Company has reassessed the anticipated cost for warranties. Consequently, the additions to Contractual obligation provision is less by ₹ 293.51 cr. in FY 2021-22.

Note [40] - Disclosure - Revenue from Contracts with Customers - Ind AS-115

a. Movement in impairment provisions

(₹ in Crore)

Particulars	2021-22		2020-21	
	Trade receivables	Contract assets	Trade receivables	Contract assets
Opening balance	**4887.12**	**1142.25**	5427.64	822.98
Add: Additions	**344.18**	**146.78**	677.99	337.37
Less: Write off	**216.42**	**-**	49.34	-
Less: Reversal/adjustments	**700.09**	**98.49**	1169.17	18.10
Closing balance	**4314.79**	**1190.54**	4887.12	1142.25

b. Disaggregation of revenue from contracts with customers

(₹ in Crore)

Particulars	Power		Industry		Total
	Within India	Outside India	Within India	Outside India	
2021-22					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	**2035.30**	**22.46**	**3952.87**	**35.65**	**6046.28**
(b) Over time (projects)	**11844.60**	**1458.89**	**802.88**	**0.73**	**14107.10**
2020-21					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	1902.18	10.00	3780.92	21.30	5714.40
(b) Over time (projects)	7650.09	1823.78	1107.28	-	10581.15

(₹ in Crore)

Particulars	2021-22		2020-21	
	Power	Industry	Power	Industry
Revenue from customers				
CPSUs	**3807.92**	**1405.00**	2824.59	1791.55
TSGENCO	**2644.40**	**-**	1664.61	-
TANGEDCO	**1669.85**	**-**	692.45	-
BIFPCL [Bangladesh]	**1381.44**	**-**	1653.65	-

c. Contract Balances (net of provisions)

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Trade Receivables	**6228.59**	7213.37
Contract assets (incl. unbilled revenue)	**26939.87**	24079.25
Contract liabilities	**6047.76**	6863.68

d. Contract revenue recognised

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Revenue recognised against contract liabilities (adjustment of customer advances and valuation adjustment during the year)	**3592.89**	3591.86
Revenue recognised against performance obligation satisfied in previous year(impact due to change in contract revenue)	**94.41**	92.96

Construction of power projects is a long cycle business, where the contracts received by the company are either EPC contracts (Engineering, Procurement & Construction) or BTG Packages (i.e. Boiler, Turbine and Generator packages). Power projects are long gestation period projects with normal execution period of contract ranging between 3 to 5 years. BHEL scope of services includes supply of equipment, erection, commissioning, synchronizing the plant to the grid, completing the trial operation and providing the guaranteed parameters.

Although there are several components to the overall scope, such projects are generally considered one performance obligation. The control transfers simultaneously over the execution period as the entity performs rather than at discrete points in time and hence revenue is recognized over the period of time based on measure of progress (input cost method)

Note [41]

The spread of Covid 19 pandemic globally caused disturbance & slow down of the economic activity. This impacted the Company's operations during the FY 2021-22, which recouped progressively. Based on the internal & external information upto the date of approval of these financial statements,the company expects to recover the carrying amount of its assets,investments,trade receivables,contract assets & inventories. The company will continue to monitor the future economic conditions and assess its impact on its financial statements.

Note [42] - Disclosure pursuant to Ind AS-107 [Financial Instruments - Accounting Classifications and Fair value measurements]

a. The Fair value of cash and cash equivalents, bank balances, loans, trade receivables, trade payables and others reasonably approximates their carrying amount. Trade receivables are evaluated after taking into consideration for Expected Credit Losses. Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique.

Fair value hierarchy

The fair value of financial instruments have been classified in following categories depending on the inputs used in the valuation technique.

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs)

(₹ in Crore)

b.

Financial Assets / Liabilities Classification	Carrying Amount	
	As at March 31,2022	As at March 31,2021
Financial Assets at amortised cost		
Trade receivables	**6228.59**	7213.37
Cash & cash equivalent	**732.62**	1527.18
Other bank balances	**6421.07**	5174.25
Other financial assets	**298.29**	325.57
Financial assets at fair value through profit & loss		
Investments (Equity Instruments)	**3.29**	3.58
Financial liabilities at amortised cost		
Trade payables	**9881.52**	8558.82
Other financial liabilities	**1339.19**	1134.37
Lease Liabilities	**84.93**	101.61
Short term borrowings	**4745.00**	4833.78

(₹ in Crore)

Financial assets and liabilities measured at fair value- recurring fair value measurements	Level 3 Hierarchy	
	As at March 31,2022	As at March 31,2021
Financial assets:		
Investment in unquoted equity instruments	**3.29**	3.58

c. Valuation Techniques used to determine fair value

Fair value of unquoted equity instruments is determined using Level 3 inputs which include inputs from the financial statements of the investee Company based on Net asset value per share.

Reconciliation of fair value measurement of unquoted equity shares classified as FVTPL assets

	(₹ in Crore)
As at March 31,2021	**3.58**
Changes in fair value	(0.29)
As at March 31,2022	**3.29**

Financial Risk Management

Objectives and Policies

The company's activities are exposed to different financial risks arising out of natural business exposures to any company operating in the sector. The management of financial risk has always been an integral part of the company's business strategies and policies. The company reviews and aligns its policies and guidelines from time to time to address the financial risks in line with the needs and expectations of its various stakeholders. Exposure risk from the use of financial instruments can be categorized as under:

a) Credit risk

b) Liquidity risk

c) Market risk

This note presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk, and management of Company's capital. Further quantitative disclosures are included throughout these financial statements.

Risk management framework

BHEL has in place a Board approved Risk Management Charter & Policy which provides overall framework for Risk Management in the company. The objective of the charter is to ensure that the risks are being properly identified, assessed and effectively managed by adopting suitable risk mitigation measures. The company has 3-layer risk management framework. At the first level, the Board Level Risk Management Committee (BLRMC) of the company is assigned with responsibility of reviewing the company's Risk Governance structure, Risk Assessment & Risk Management framework, Guidelines, Policies and Processes thereof. Risk Management Steering Committee (RMSC) at the second level is responsible for adopting & implementing the risk management framework and leading the risk management initiative across the company. Chief Risk Officer (CRO) being the convener of BLRMC & RMSC is responsible for periodic reporting on risk management to Board/ BLRMC. Key risks being faced by the company are analysed starting from Unit level for their respective areas to prepare risk mitigation plans and to ensure implementation.

a) Management of Credit Risk

Credit risk is considered as an integral part of risk reward balance of doing business. BHEL is involved in setting up of power projects pertaining to Government sector (State utilities, PSU's, Railways and other govt. departments etc.) and private sectors in India and abroad. The projects are generally funded by Financial Institutions/ banks or payments are covered by Letter of Credit (LC). The project duration ranges from 3 to 5 years and payments are generally realised in stages as per the terms of the contract including advance, progress payments, milestone (including intermediate) payments and also retentions which are released on completion of such projects. Since majority customers' profile pertains to Government sector, constituting 79% of total receivables coupled with the fact that the company itself is a CPSE, credit risk is relatively low. In respect of private sector customers, the payment terms are mainly through LC. The company has well established review mechanism for receivables at various levels within organisation to ensure proper attention and focus for realisation in line with the company policies, procedures and guidelines.The company uses expected credit loss model to assess the impairment loss or gain and the disclosure of the same is made elsewhere. Further, adequate provisions are maintained to address any eventuality.

i) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Cash and cash equivalents	**732.62**	1527.18
Other bank balances	**6421.07**	5174.25
Other financial assets	**298.29**	325.57
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) including impairment loss		
Trade receivables	**6228.59**	7213.37

Concentration of credit risk- Geographical	Percentage of total receivables	
	As at March 31,2022	As at March 31,2021
Within India	**93%**	92%
Outside India	**7%**	8%
Total	**100%**	100%

The company's exposure to credit risk for trade receivables,contract assets and other receivables by type of counterparty are as follows –

Particulars	Percentage of total receivables	
	As at March 31,2022	As at March 31,2021
Central Public Sector Undertakings incl Railways and Govt Deptt	**37%**	36%
State Electricity Boards	**42%**	43%
Private Customers and others	**14%**	13%
Exports	**7%**	8%
Total	**100%**	100%

ii) Impairment losses

(a) Financial assets for which loss allowance is measured using 12 month expected credit losses

The company has assets where the counter- parties have sufficient capacity to meet the obligations and where the risk of default is very low.

The movement in the allowance for impairment in respect of loans during the year was as follows:

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Balance as at April 1	**31.95**	32.38
Impairment loss recognised / write off/ withdrawal	**(17.39)**	(0.43)
Balance as at March 31	**14.56**	31.95

(b) Reconciliation of impairment loss provisions

The movement in the allowance for impairment in respect of trade receivables and contract assets during the year was as follows:

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Balance as at April 1	**6029.37**	6250.62
Impairment loss recognised	**490.97**	1015.36
Amounts written off/ withdrawal	**(1015.01)**	(1236.61)
Balance as at March 31	**5505.33**	6029.37

The company makes investments out of surplus funds as per policy of the company duly approved by the Board and in line with the DPE guidelines. Credit risk on cash and cash equivalents and term deposits is very limited as the company generally invests in deposits with financially strong banks and financial institutions.

b) Management of Liquidity risk

The Company manages liquidity risk by maintaining sufficient cash and cash equivalents including term deposits and the availability of Funding through an adequate amount of credit facilities to meet obligations as and when due. Robust cash management system and regular monitoring of cash flows enables management to plan and maintain adequate sources to finance its funds requirement throughout the year. Besides adequate cash and bank balances, company enjoys credit facilities. The company is able to meet all its fund requirements from internal resources i.e. the funds generated from operations and also through short-term borrowings for better treasury management operations.

The following are the contractual maturities of non-derivative financial liabilities, based on contractual cash flows:

(₹ in Crore)

Financial Liabilities	As at March 31,2022		As at March 31,2021	
Non-derivative financial liabilities	**Within 1 year**	**Exceeding 1 year**	**Within 1 year**	**Exceeding 1 year**
Trade payables	**7749.59**	**2131.93**	6675.05	1883.77
Deposits from contractors and others	**431.36**	**206.45**	447.75	211.01
Lease liabilities	**49.81**	**35.12**	48.20	53.41
Other Payables/liabilities				
Employee dues	**214.05**	**-**	117.61	-
Other dues	**397.85**	**-**	294.80	-
Capex dues	**80.83**	**8.65**	57.49	5.71
Short term borrowings	**4745.00**	**-**	4833.78	-
Total	**13668.49**	**2382.15**	**12474.68**	**2153.90**

c. Management of Market risk

The Company is exposed to certain currency,commodity, interest rate risks arising from its operations. The company has foreign exchange risk management policy to cover the foreign exchange risks.To insulate the company against major commodity price fluctuation,framework agreements including price pass through claims are being entered regularly with supply chain partners including suppliers and customesrs. Surplus funds generated from operation are kept invested in short term deposits with PSU Banks or large sized private banks only and in debt based schemes of public sector mutual funds, thereby minimizing any chance of risk.

Foreign currency risk exposure-: The company's exposure to foreign currency risk at the end of reporting period, are as follows:

(i) The derivative instruments that are hedged and outstanding as on 31.03.2022 is NIL (previous year Nil)

(ii) The foreign currency exposures that are not hedged by a derivative instrument or otherwise are as under:

FC ' in Million

(₹ in Crore)

Particulars	As at March 31,2022		As at March 31,2021		As at March 31, 2022	As at March 31, 2021
Assets	**Euro**	**Equivalent INR**	**Euro**	**Equivalent INR**	**Others (in INR)**	**Others (in INR)**
Trade receivable	**61.72**	**520.18**	101.84	871.66	**3.16**	1.35
Contract assets	**327.57**	**2753.33**	239.80	2056.26	**35.27**	66.87
Other assets	**0.93**	**7.56**	13.68	110.08	**21.98**	144.71
Sub Total (A)	**390.22**	**3281.07**	355.32	3038.00	**60.41**	212.93
Liabilities						
Advances from customer	**36.42**	**242.50**	41.03	281.34	**39.47**	40.97
Trade payables and others	**101.40**	**869.73**	39.42	343.91	**131.99**	107.92
Sub Total (B)	**137.82**	**1112.23**	80.45	625.25	**171.46**	148.89
Assets Net of Liabilities (A-B)	**252.40**	**2168.84**	274.87	2412.75	**(111.05)**	64.04

Particulars	USD	Equivalent INR	USD	Equivalent INR
Assets				
Trade receivable	**64.88**	**489.70**	79.62	582.87
Contract assets	**333.77**	**2517.59**	316.33	2315.32
Other assets	**6.08**	**45.30**	0.90	6.79
Sub Total (A)	**404.73**	**3052.59**	396.85	2904.99
Liabilities				
Advances from customer	**78.92**	**457.24**	115.93	675.39
Trade payables and others	**161.30**	**1231.18**	144.50	1070.18
Short term borrowings	**-**	**-**	46.68	345.06
Sub Total (B)	**240.22**	**1688.42**	307.11	2090.63
Assets Net of Liabilities (A-B)	**164.51**	**1364.17**	89.74	814.36

The above figures are net of provisions, if any

Sensitivity analysis

The impact of strengthening/weakening of the Indian Rupee vis a vis USD,EURO and others as at year end on profit or loss is as shown below. This analysis is based on foreign currency exchange rate variances that the company considered to be reasonably possible at the end of the reporting period. The analysis is performed on the same basis for previous year, albeit that the reasonably possible foreign exchange rate variances were different, as indicated below.

(₹ in Crore)

Particulars	As at			
	March 31, 2022		March 31, 2021	
Effect on Profit/(loss)	**Strengthening**	**Weakening**	**Strengthening**	**Weakening**
1% movement				
Euro	**21.69**	**(21.69)**	24.13	(24.13)
USD	**13.64**	**(13.64)**	8.14	(8.14)
Others	**(1.11)**	**1.11**	0.64	(0.64)

d. Capital Management

The company's objective, while managing capital is to continue business as a going concern, safeguard,preserve and enhance its capital to provide maximum return to shareholders, benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. The Board of Directors also montiors the level of dividends to equity shareholders. The Company monitors capital, using a medium term view and long term view, on the basis of a number of financial ratios generally used by industry as well as by the rating agencies. The Company is not subject to externally imposed capital requirements. The Company's capital structure is managed against the various financial ratios as required to maintain highest credit ratings.

Note [43] - Operating Segment

The Segments have been identified as 'Power' and 'Industry' based on the orders booked by the respective business sectors. The order booked by International operation group is taken to Power or Industry as the case may be.

The Company's Committee of functional Directors has been identified as Chief Operating Decision maker (CODM).

(₹ in Crore)

Particulars		For the year ended March 31, 2022			For the year ended March 31, 2021		
		Power	Industry	Total	Power	Industry	Total
I.	**Segment Revenue**						
	Operating Revenue-External	**15361.25**	**4792.13**	**20153.38**	11386.05	4909.50	16295.55
II.	**Segment Results**						
a.	Segment Results	**1949.24**	**(39.02)**	**1910.22**	(1246.16)	(850.48)	(2096.64)
b.	Unallocated expenses (Net of income)			**1118.55**			1141.87
c.	Profit / (loss) before finance cost & Income tax (a) - (b)			**791.67**			(3238.51)
d.	Finance cost (Including unwinding of Interest)			**354.72**			373.09
e.	Net Profit / (loss) before Income Tax (c) - (d)			**436.95**			(3611.60)
f.	Income Tax			**26.71**			(894.46)
g.	Net Profit / (loss) after Income Tax (e) - (f)			**410.24**			(2717.14)
III.	**Assets & Liabilities**						
a.	Segment Assets	**37196.23**	**8194.28**	**45390.51**	35954.72	8417.10	44371.82
b.	Common Assets			**11317.81**			11329.42
c.	Total Assets			**56708.32**			55701.24
d.	Segment Liabilities	**20096.06**	**4754.42**	**24850.48**	19221.65	4444.28	23665.93
e.	Common Liabilities			**4886.68**			5551.26
f.	Total Liabilities			**29737.16**			29217.19
IV.	**Other Information**						
a.	Capital Expenditure	**140.56**	**55.40**		112.23	38.05	
b.	Depreciation & Amortization	**209.45**	**71.29**		306.68	118.48	
c.	Non Cash Expenses (other than depreciation & amortization)	**(1241.57)**	**(62.11)**		1302.02	499.07	

(₹ in Crore)

Geographical Segments		Within India	Outside India	Total	Within India	Outside India	Total
1	Net Sales / Revenue from Operations	**18635.65**	**1517.73**	**20153.38**	14440.47	1855.08	16295.55
2.	Non- Current Assets (PPE & Intangible Assets)	**2812.21**	**17.23**	**2829.44**	2881.46	26.42	2907.88
3.	Capital Expenditure	**225.32**	**5.77**	**231.09**	253.40	2.45	255.85

Major Customer- Details of Revenue from Single Customer exceeding 10% of total revenue of the BHEL (₹ in Crore)

Particulars	Power	Industry	Total	Power	Industry	Total
CPSUs	**3807.92**	**1405.00**	**5212.92**	2824.59	1791.55	4616.14
TSGENCO	**2644.40**	**-**	**2644.40**	1664.61	-	1664.61

Note [44] - Ratios

Particulars	Numerator	Denominator	2021-22	2020-21	% Variance	Reason for variance
(a) Current ratio	Total Current Assets	Total Current Liabilities	1.30	1.39	6.51	Consistent focus on working capital management led to improvement in ratio by more than 6%.
(b) Debt-equity ratio	The company does not have any long term debt and hence these ratios are not applicable.					
(c) Debt service coverage ratio						
(d) Long term Debt to Working Capital						
(e) Interest service coverage ratio						
(f) Total Debt to Total Assets ratio	Total Borrowings	Total Assets	0.085	0.089	3.87	Improved ratio is reflective of lower borrowings and improved treasury management
(g) Inventory turnover ratio	Revenue from contracts with customers	Average Inventory (Net)	2.93	2.02	44.77	Company's approach towards better inventory management, linking procurement with lead time and manufacturing process time has led to significant improvement in ratio.
(h) Trade receivables turnover ratio	Revenue from contracts with customers	Average Trade recievable (net)	3.00	1.73	73.47	The ratio has improved due to focussed approach towards sequential supplies and liquidation of customer dues leading to trade receivable figure reaching its lowest levels in the last 10 years.
(i) Bad debts to accounts receivable ratio	Bad debts written off	Gross Trade Receivables	0.012	0.007	64.51	To improve the quality of Assets in the Balance Sheet
(j) Current Liability Ratio	Current Liabilities	Total Liabilities	0.72	0.70	3.34	Marginal change through improved vendor payment terms & reduction in non-current contract liabilites due to better project execution.
(k) Trade payables turnover ratio	Purchases and Subcontracting	Average Trade Payables	1.54	1.17	31.71	Improved liquidity management, and alignment of vendor payment terms with customer payment terms and increase in material consumption due to increase in operations has led to increase in ratio. Large part of the trade payables were contractually not due for payment as on 31st March 2022.
(l) Net capital turnover ratio	Revenue from contracts with customers	Total Current Assets - Total Current Liabilities	3.10	2.03	52.72	Increase in Revenue and efficient overall treasury management with focus on trade receivables and inventory has yielded signfiicantly improved ratio.
(m) Return on equity ratio	Profit for the year (PAT)	Average Total Equity - OCI	1.51%	(9.62%)	115.74	Major reasons for overall improved profitability paramete` are as under :- (i) Increase in Revenue (ii) Strengthened balance sheet in the last couple of years (iii) Focus on enhancing other operational income (iv) Settlement of pending customer issues (v) Strategic budgetary control measures (vi) Vehement follow-up with tax authorities leading to settlement of past cases in favour of the company & also leading to reciept of refunds.
(n) Operating profit ratio	Profit Before Interest, Depreciation & Tax - Other Income	Revenue from operations	3.48%	(18.11%)	119.21	
(o) Net profit ratio	Profit for the year (PAT)	Revenue from operations	1.93%	(15.70%)	112.32	
(p) Return on capital employed	Earning before interest and taxes	Capital Employed = Total Equity - CWIP - Intangible assets under development -Deferred tax assets	3.44%	(14.45%)	123.80	
(q) Return on investment	NA					
(r) Net worth (₹ / Cr.)	Share Capital + Reserve and Surplus		26971.16	26484.05	1.84	Improved profitability as explained above has led to higher net worth
(s) Profit After Tax (₹/ Cr.)	Profit after Tax		410.24	(2,717.14)	115.10	Improved profitability as explained above
(t) Earning Per Share (₹)	Profit for the year (PAT)	Weighted average no. of shares	1.18	(7.80)	115.10	
(u) Capital redemption reserve (₹ / Cr.)			37.87	37.87	-	

On 23rd March, 2022, Ministry of Corporate Affairs notified the **Companies (Indian Accounting Standards) Amendment Rules, 2022**, effective from 1st April, 2022. The amendment is not expected to have a material impact on the standalone financial statements of the Company.

Note [45] - Note - Additional Disclosures

(₹ in Crore)

A. Category of Imports	For the year ended 2021-22	For the year ended 2020-21
Imports on CIF basis		
Raw materials	**620.73**	918.13
Components and spare parts	**1182.34**	578.88
Capital goods	**4.75**	35.39
Total Imports	**1807.82**	1532.40

(₹ in Crore)

B. Types of Expenditure(incurred in foreign currency)	For the year ended 2021-22	For the year ended 2020-21
i) Royalty	**38.19**	26.36
ii) Know-how	**6.57**	12.50
iii) Professional consultation fee	**3.48**	0.90
iv) Interest and others (incl. on foreign sites)	**30.06**	26.13

(₹ in Crore)

C. Classification of Consumption [raw materials,components, stores & spare parts]	For the year ended 2021-22	For the year ended 2020-21
i) Imported (including custom duty)	**2016.33**	2400.61
ii) Indigenous	**7452.49**	6046.69
iii) Percentage of total consumption		
Imported	**21.29**	28.42
Indigenous	**78.71**	71.58

(₹ in Crore)

D. Earnings in foreign exchange	For the year ended 2021-22	For the year ended 2020-21
Physical Export of goods (FOB basis)	**775.33**	1101.64
Erection & other services	**608.29**	389.69
Foreign exchange on deemed exports (incl. domestic contracts and SEZ export)	**1093.21**	347.80
Total	**2476.83**	1839.13

(₹ in Crore)

E. Statement for raw materials and components consumed	For the year ended	
	2021-22	2020-21
Group of materials		
i) Ferrous materials	**1868.83**	1450.34
ii) Non-ferrous materials	**260.50**	137.96
iii) Insulating materials	**106.15**	129.51
iv) Insulated cables and Magnet wires	**4.46**	0.66
v) Bought Outs - components & goods	**4141.75**	3811.94
vi) Other Components	**2450.89**	2426.60
vii) Others	**364.80**	201.55
Total	**9197.38**	8158.56

Note [46]

As per SEBI (Listing obligations & Disclosure Requirements) Regulations, 2015, the requisite details of loans and advances in the nature of loans, given by the Company are given below:

i) In respect of Subsidiary Company:

(₹ in Crore)

Particulars	As at	
	March 31,2022	March 31,2021
BHEL Electrical Machines Ltd.		
Loans and advances in the nature of loans outstanding	-	3.00
Maximum amount of loans and advances in the nature of loans outstanding during the year	-	3.00

ii) No loans have been given (other than loans to employees), wherein there is no repayment schedule or repayment is beyond seven years; and

iii) There are no loans and advances in the nature of loans, to firms/companies, in which directors are interested.

Note [47]

Assets and Liabilities are classified between Current and Non-current considering 12 months period as operating Cycle.

Note [48]

The Company has no transactions with companies struck off under section 248 of the Companies Act, 2013 or section 560 of the Companies Act, 1956.

Note [49]

There were no charges or satisfaction yet to be registered with Registrar of Companies beyond the statutory period.

Note [50]

The Company is complying with the number of layers prescribed under clause (87) of section 2 of the Act read with Companies (restriction on number of layers) Rules, 2017.

Note [51]

No Scheme of Arrangements has been approved by the Competent Authority in terms of sections 230 to 237 of the Companies Act, 2013.

Note [52]

The Company has no transactions that has been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act, 1961 which is unrecorded in the books of accounts.

Note [53]

The Company has not traded or invested in Crypto currency or Virtual currency during the financial year.

Note [54]

Prior period errors which are material are corrected retrospectively by restating the comparative amount for the prior periods presented in which such error occurred. For the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented are restated.

Note [55]

Figures have been rounded off nearest to ₹' in crore with two decimal.

Note [56]

Previous year's figures have been regrouped/ rearranged wherever considered necessary.

Note [57]

The Board of Directors has authorised to issue the Financial Statements 2021-22 in its meeting held on May 21 , 2022.

For and on behalf of Board of Directors

(Rajeev Kalra)	**(Subodh Gupta)**	**(Dr. Nalin Shinghal)**
Company Secretary	Director (Finance)	Chairman and Managing Director
M.No. 14567	**DIN: 08113460**	**DIN: 01176857**

As per our report of even date

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For S.L. Chhajed & Co. LLP**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN - 000709C/C400277**
(Shrey Gupta)	**(Devender Magoo)**	**(Vijit Baidmutha)**
Partner	Partner	Partner
M.No. 522315	**M. No. 085739**	**M. No. 406044**

Place : New Delhi
Date : May 21, 2022



Financial Statements

INDEPENDENT AUDITOR'S REPORT

To The Members of
Bharat Heavy Electricals Limited

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the accompanying consolidated financial statements of **BHARAT HEAVY ELECTRICALS LIMITED** hereinafter referred to as "the holding company")and its subsidiary (the holding Company and its one subsidiary collectively referred to as "the Group") and three jointly controlled entities, comprising of the consolidated balance sheet as at 31st March, 2022, the consolidated statement of profit and loss (including other comprehensive income), the consolidated statement of changes in equity and the consolidated cash flow statement for the year then ended, and a summary of the significant accounting policies and other explanatory information (hereinafter referred to as "the consolidated financial statements").

In our opinion and to the best of our information and according to the explanations given to us, the aforesaid financial statements give the information required by the Companies Act, 2013 ("the Act') in the manner so required and give a true and fair view in conformity with the Indian Accounting Standards prescribed under section 133 of the Act read with the Companies (Indian Accounting Standards) Rules 2015, as amended, ("Ind AS") and other accounting principles generally accepted in India, of the state of affairs of the Company as at March 31, 2022, the consolidated profit and total consolidated comprehensive income, consolidated statement of change in equity and its consolidated cash flow statement for the year ended on that date.

Basis for Opinion

We conducted our audit of the consolidated financial statements in accordance with the Standards on Auditing (SAs) specified under section 143 (10) of the Companies Act, 2013. Our responsibilities under those Standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the Code of Ethics issued by the Institute of Chartered Accountants of India together with the ethical requirements that are relevant to our audit of the consolidated financial statements under the provisions of the Companies Act, 2013 and the Rules thereunder, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the consolidated financial statements.

Key Audit Matters

Key audit matters are those matters that in our professional judgement were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. We have determined the matters described below to be the key audit matters to be communicated in our report.

Key Audit Matter	Auditor's Response
Accuracy of recognition, measurement, presentation and disclosures of revenues and other related balances in respect of "Revenue from contracts with Customers" under Ind AS 115. The application of this revenue accounting standard involves certain key judgments relating to identification of distinct performance obligations, determination of transaction price of identified performance obligations, the appropriateness of the basis used to measure revenue recognized over a period, and disclosures including presentations of balances in the financial statements. Estimated efforts is a critical estimate to determine revenue, as it requires consideration of progress of the contract, efforts incurred till date, efforts required to complete the remaining performance obligation. **Refer Note 43 to** the consolidated financial statements.	**Principal Audit Procedures** Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Evaluated the effectiveness of controls over the preparation of information that are designed to ensure the completeness and accuracy. • Selected a sample of existing continuing contracts and new contracts, and tested the operating effectiveness of the internal control, relating to identification of the distinct performance obligations and determination of transaction price. • Tested the relevant information, accounting systems and change relating to contracts and related information used in recording and disclosing revenue in accordance with Ind AS 115. • Reviewed a sample of contracts to identify possible delays in achieving milestones, which require change in estimated efforts to complete the remaining performance obligations. • Performed analytical procedures and test of details for reasonableness and other related material items.
Assessment and recoverability of Trade Receivables and Contract Assets The Company has trade receivables outstanding (net) of Rs 6228.59 crore and contract assets (net) of Rs. 26939.87 crore at the end of March 31, 2022 These balances are related to revenue recognized in line with Ind AS 115 "Revenue from contracts with customers" for ongoing contracts and completed contracts. The assessment of its recoverability is a key audit matters in the audit due to its size, pending balance confirmation of letters sent and high level of management judgment **Refer Notes 6, 9, 43** to the consolidated financial statements.	**Principal Audit Procedures** We have assessed the Company's internal process to recognize the revenue and review mechanism of trade receivables and contract assets. Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Evaluated the process of invoicing, verifications, and reconciliations with customers. • Obtained the list of project wise outstanding details and its review mechanism by the management. • Reviewed the guidelines and policies of the Company on impairment of trade receivables and contract assets. • Tested the accuracy of aging of trade receivables and contract assets at the year end on sample basis. • Performed analytical procedures and test of details for reasonableness, recoverability and other related material items.
Assessment of Contingent Liability There are a number of litigations pending before various forums against the Company and the management's judgement is required for estimating the amount to be disclosed as contingent liability. We determined the above area as a Key Audit Matter in view of associated uncertainty relating to the outcome of these matters which requires application of judgment in interpretation of law. Accordingly, our audit was focused on analysing the facts of subject matter under consideration and judgments/ interpretation of law involved. (Refer Note **33 to** the Consolidated statements)	**Principal Audit Procedures** The audit procedures included but were not limited to: - Obtaining a detailed understanding processes and controls of the Management with respect to claims or disputes - Performing following procedures on samples selected: - Understanding the matters by reading the correspondences, communications, minutes of the management meeting - Making corroborative inquiries with appropriate level of the management personnel including status update, expectation of outcomes with the basis, and the future course of action contemplated by the Company, and perusing legal opinions, if any, obtained by the Management. - Obtaining direct confirmation from the legal attorneys of the company and considering their opinions /probability assessment of the outcomes. - Evaluating the evidence supporting the judgement of the management about possible outcomes and the reasonableness of the estimates. - Evaluating appropriateness of adequate disclosures in accordance with the applicable accounting standards.

Information Other than the Consolidated Financial Statements and Auditor's Report Thereon

The Company's Board of Directors is responsible for the preparation of the other information. The other information comprises the information included in Management Discussion and Analysis, Board's Report including Annexures to Board's Report, Business Responsibility Report, Corporate Governance and Shareholder's information, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Management's Responsibility for the Consolidated Financial Statements

The Company's Board of Directors is responsible for the matters stated in Section 134(5) of the Companies Act, 2013 ("the Act") with respect to the preparation of the consolidated financial statements that give a true and fair view of the consolidated financial position, consolidated financial performance, consolidated total comprehensive income, consolidated statement of change in equity and consolidated cash flow statement of the Group in accordance with the Ind AS and other accounting principles generally accepted in India. This responsibility also includes maintenance of adequate accounting records in accordance with the provisions of the Act for safeguarding the assets of the company and for preventing and detecting frauds and other irregularities; selection and application of appropriate accounting policies; making judgments and estimates that are reasonable and prudent; and design, implementation and maintenance of adequate internal financial controls, that were operating effectively for ensuring the accuracy and completeness of the accounting records, relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors of the companies included in the Group are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The respective Board of Directors of the company included in the group are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with SAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal financial controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances. Under section 143(3)(i) of the Companies Act, 2013, we are also responsible for expressing our opinion on whether the companies have adequate internal financial controls system in place and the operating effectiveness of such controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit of the financial statements of such entities included in the consolidated financial statements of which we are the independent auditors. We remain solely responsible for our audit opinion. Our responsibilities in this regard are further described in para 1 to para 4 of the section titled "Other Matters" in this Audit report.

Materiality is the magnitude of misstatements in the consolidated financial statements that, individually or in aggregate, makes it probable that the economic decisions of a reasonably knowledgeable user of the financial statements may be influenced. We consider quantitative materiality and qualitative factors in (i) planning the scope of our audit work and in evaluating the results of our work; and (ii) to evaluate the effect of any identified misstatements in the financial statements.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Matters

1. We did not audit the financial statements of one BHEL-GE Gas Turbine Services Pvt. Ltd. (jointly controlled entity). The accompanying statements include the unaudited financial results/statements of this associate whose financial statements/results reflect the group's share of net profit of Rs 50.42 crore and other comprehensive income of Rs 0.03 crore for the year ended 31st March, 2022 as considered in the consolidated financial statements in respect of this jointly controlled entity. Our opinion on the consolidated financial statements, in so far as it relates to the amounts and disclosures included in respect of this jointly controlled entity, and our report in terms of sub-sections (3) and (11) of Section 143 of the Act, insofar as it relates to the aforesaid jointly controlled entity, is based solely on such unaudited financial statements.
2. We did not audit the financial statements of Raichur Power Corporation Ltd. & NTPC-BHEL Power Projects Pvt. Ltd. (jointly controlled entities). The consolidated financial statements does not include the group's share of net loss and other comprehensive loss of these jointly controlled entities as the Group has already recognised accumulated losses equal to the cost of investment in its financial statements in respect of these jointly controlled entities. These financial statements are unaudited and have been furnished to us by the management and our opinion on the consolidated financial statements, in so far as it relates to the amounts and disclosures included in respect of these jointly controlled entities, and our report in terms of sub-sections (3) and (11) of Section 143 of the Act in so far as it relates to the aforesaid jointly controlled entities, is based solely on such unaudited financial statements. These financial statements are not material to the group.
3. The consolidated unaudited financial results include the results of subsidiary BHEL -EML upto 11th August 21 (full 51% stake transferred by the company to Govt. of Kerala on 11th August 21), which have not been audited. The financial results upto 11th August 2021 reflect total revenue & net cash flow of Rs. Nil, total net loss after tax of Rs. 2.69 crore and total comprehensive loss of Rs. 2.69 crore. These financial information is unaudited and have been furnished to us by the management and our opinion on the consolidated financial statements, in so far as it relates to the amounts and disclosures included in respect of this subsidiary, and our report in terms of sub-sections (3) and (11) of Section 143 of the Act in so far as it relates to the aforesaid subsidiary, is based solely on such unaudited financial statements. These financial statements are not material to the group.
4. The accounts of Power plant Performance Improvements Ltd. a Joint Venture of BHEL have not been consolidated as the said company is under liquidation and full amount of equity investment has been provided

Our opinion on the consolidated financial statements, and our report on other legal and regulatory requirements below, is not modified in respect of the above matters with respect to our reliance on the unaudited financial statements certified by the management.

Report on Other Legal and Regulatory Requirements

1. As required by Section 143 (3) of the Act based on our audit and on the consideration of unaudited financial statements certified by the management of subsidiary, jointly controlled entities as referred in "Other Matters" paragraph, we report, to the extent applicable, that:

(a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit of the aforesaid consolidated financial statements;

(b) In our opinion, proper books of account as required by law relating to preparation of the aforesaid consolidated financial statements have been kept so far as it appears from our examination of those books and management certified financials;

(c) The consolidated balance sheet, the consolidated statement of profit and loss (including other comprehensive income), consolidated statement of changes in equity and the consolidated cash flow statement dealt with by this report are in agreement with the relevant books of account maintained for the purpose of preparation of the consolidated financial statements;

(d) In our opinion, the aforesaid consolidated financial statements comply with the Indian Accounting Standards specified under Section 133 of the Act read with the Companies (Indian Accounting Standards) Rules, 2015, as amended, and other accounting principles generally accepted in India;

(e) In terms Notification no. G.S.R. 463(E) dtd. 05-06-2015 issued by the Ministry of Corporate Affairs, the provision of Section 164(2) of the Companies Act, 2013 in respect of disqualification of directors are not applicable to the Company;

(f) With respect to the adequacy of the internal financial controls over financial reporting of the holding company, its subsidiary company and jointly controlled entities incorporated in India and the operating effectiveness of such controls, refer to our separate Report in **"Annexure A"**

(g) With respect to the other matters to be included in the Auditor's Report in accordance with Rule 11 of the Companies (Audit and Auditor's) Rules, 2014 to the extent applicable, in our opinion and to the best of our information and according to the explanations given to us and based on the consideration of the management certified financial statements including the other financial information of the subsidiary company and jointly controlled entities, as noted in "Other Matters" paragraph:

i. The consolidated financial statements disclose the impact of pending litigations on the consolidated financial position of the Group and jointly controlled entities– Refer Note 33 to the consolidated financial statements;

ii. Provision has been made in the consolidated financial statements, as required under the applicable law or Indian accounting standards, for material foreseeable losses, if any, on long-term contracts – Refer Note 42 to the consolidated financial statements in respect of such items as it relates to the Group and jointly controlled entities and

iii. There has been no delay in transferring amounts, required to be transferred, to the Investor Education and Protection Fund by the holding company and its subsidiary company and jointly controlled companies incorporated in India.

2. With respect to the matter of paras 3 (xxi) and 4 of the Companies (Auditor's Report) Order 2020, the subsidiary and three joint entities remains unaudited as mentioned in the section titled "Other Matters" and no CARO report has been issued by the Auditors of such entities as on the date of issue of this report. Based on the CARO report issued by us for the company for the year ended 31st March 2022, we report that there are no qualification or adverse remarks in the CARO report.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315
UDIN : 22522315AJJEYW8336

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRJO6893

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJETI8200

Place : New Delhi
Date : May 21, 2022

ANNEXURE "A"

TO THE INDEPENDENT AUDITOR'S REPORT OF EVEN DATE ON THE CONSOLIDATED IND AS FINANCIAL STATEMENTS OF BHARAT HEAVY ELECTRICALS LIMITED

Report on the Internal Financial Controls under Clause (i) of Sub-section 3 of Section 143 of the Companies Act, 2013 ("the Act")

In conjunction with our audit of the consolidated Ind AS financial statements of the Company as of and for the year ended March 31, 2022, we have audited the internal financial controls over financial reporting of Bharat Heavy Electricals Limited (hereinafter referred to as "the Holding Company") as of that date. We did not audit the financial statements of one Subsidiary and three Jointly Control Entities out of which all three Jointly Control Entities and one subsidiary (upto date 11th August 2021) are unaudited.

Management's Responsibility for Internal Financial Controls

The respective Board of Directors of the Holding company, its subsidiary company and jointly controlled companies, which are companies incorporated in India, are responsible for establishing and maintaining internal financial controls based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India (ICAI). These responsibilities include the design, implementation and maintenance of adequate internal financial controls that were operating effectively for ensuring the orderly and efficient conduct of its business, including adherence to the respective company's policies, the safeguarding of its assets, the prevention and detection of frauds and errors, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information, as required under the Companies Act, 2013.

Auditor's Responsibility

Our responsibility is to express an opinion on the Company's, internal financial controls over financial reporting based on our audit. We conducted our audit in accordance with the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting (the "Guidance Note") issued by the ICAI and the Standards on Auditing, issued by ICAI and deemed to be prescribed under section 143(10) of the Companies Act, 2013, to the extent applicable to an audit of internal financial controls, both issued by the Institute of Chartered Accountants of India. Those Standards and the Guidance Note require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether adequate internal financial controls over financial reporting was established and maintained and if such controls operated effectively in all material respects.

Our audit involves performing procedures to obtain audit evidence about the adequacy of the internal financial controls system over financial reporting and their operating effectiveness. Our audit of internal financial controls over financial reporting included obtaining an understanding of internal financial controls over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the Company's internal financial controls system over financial reporting.

Meaning of Internal Financial Controls Over Financial Reporting

A company's internal financial control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal financial control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorisations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorised acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Inherent Limitations of Internal Financial Controls Over Financial Reporting

Because of the inherent limitations of internal financial controls over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of the internal financial controls over financial reporting to future periods are subject to the risk that the internal financial control over financial reporting may become inadequate because of changes in conditions, or that the degree of compliance with

the policies or procedures may deteriorate.

Other Matters

Our aforesaid reports under Section 143(3)(i) of the Act on the adequacy and operating effectiveness of the internal financial controls over financial reporting insofar as it relates to one subsidiary company and three jointly controlled entities, which are companies incorporated in India, is based on the corresponding management certificate of these three jointly controlled entities and one subsidiary company incorporated in India.

Opinion

In our opinion, the Holding Company, its one subsidiary company(upto 11th August 2021) and three jointly controlled entities, which are entities incorporated in India, have, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2022, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315
UDIN : 22522315AJJEYW8336

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739
UDIN : 22085739AJIRJO6893

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044
UDIN : 22406044AJJETI8200

Place : New Delhi
Date : May 21, 2022

No.PGA(E)/Acr/101-153/Misc-BHEL-CFS/2022-23/226

गोपनीय

सत्यमेव जयते

भारतीय लेखापरीक्षा और लेखा विभाग

कार्यालय महा निदेशक लेखापरीक्षा (ऊर्जा)

नई दिल्ली

INDIAN AUDIT & ACCOUNTS DEPARTMENT

Office of the Director General of Audit (Energy)

New Delhi

Dated: 21/07/2022

सेवा में,

अध्यक्ष एवं प्रबंध-निदेशक,
भारत हेवी इलेक्ट्रिकल्स लिमिटेड,
नई दिल्ली

विषय:- 31 मार्च 2022 को समाप्त वर्ष के लिए भारत हेवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के समेकित वित्तीय विवरण (Consolidated Financial Statement) पर कम्पनी अधिनियम 2013 की धारा 143(6)(b) एवं धारा 129(4) के अंतर्गत भारत के नियंत्रक एवं महालेखापरीक्षक की टिप्पणियाँ।

महोदय,

मैं भारत हेवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के 31 मार्च 2022 को समाप्त वर्ष के समेकित वित्तीय विवरण (Consolidated Financial Statement) पर कम्पनी अधिनियम 2013 की धारा 143(6)(b) एवं धारा 129(4) के अंतर्गत भारत के नियंत्रक एवं महालेखापरीक्षक की टिप्पणियाँ अग्रेषित कर रहा हूँ।

कृपया इस पत्र की संलग्नकों सहित प्राप्ति की पावती भेजी जाए।

भवदीय,

संलग्नक:- यथोपरि।

दीपक

(दीपक कपूर)
महानिदेशक

पाँचवा, छठा, सातवाँ, एवं दसवां तल, सी.ए.जी बिल्डिंग, एनैक्सी, 10, बहादुर शाह ज़फर मार्ग, नई दिल्ली- 110002
5th, 6th, 7th & 10th Floor, C.A.G Building Annexe, 10 Bahadur Shah Zafar Marg, New Delhi- 110002
Tel. : 011-23239213, 23239235 Fax : 011-23239211, Email : pdaenergydl@cag.gov.in

COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6) (b) READ WITH SECTION 129 (4) OF THE COMPANIES ACT, 2013 ON THE CONSOLIDATED FINANCIAL STATEMENTS OF BHARAT HEAVY ELECTRICALS LIMITED FOR THE YEAR ENDED 31 MARCH 2022

The preparation of consolidated financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2022 in accordance with the financial reporting framework prescribed under the Companies Act, 2013 (Act) is the responsibility of the management of the company. The statutory auditors appointed by the Comptroller and Auditor General of India under section 139 (5) read with section 129 (4) of the Act are responsible for expressing opinion on the financial statements under section 143 read with section 129 (4) of the Act based on independent audit in accordance with the standards on auditing prescribed under section 143(10) of the Act. This is stated to have been done by them vide their Audit Report dated 21 May 2022.

I, on behalf of the Comptroller and Auditor General of India, have conducted a supplementary audit of the consolidated financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2022 under section 143(6)(a) read with section 129(4) of the Act. We conducted a supplementary audit of the financial statements of Bharat Heavy Electricals Limited, but did not conduct supplementary audit of the financial statements of NTPC-BHEL Power Projects Private Limited and Raichur Power Corporation Limited for the year ended on that date. Further, Section 139(5) and 143(6)(a) of the Act are not applicable to the BHEL-GE Gas Turbine Services P. Limited being private entity, for appointment of their Statutory Auditor and for conduct of supplementary audit. Accordingly, Comptroller & Auditor General of India has neither appointed the Statutory Auditor nor conducted the supplementary audit of this company. This supplementary audit has been carried out independently without access to the working papers of the statutory auditors and is limited primarily to inquiries of the statutory auditors and company personnel and a selective examination of some of the accounting records.

On the basis of my supplementary audit nothing significant has come to my knowledge which would give rise to any comment upon or supplement to statutory auditors' report under section 143(6)(b) of the Act.

For and on behalf of the
Comptroller & Auditor General of India

Kapoor

(Deepak Kapoor)
Director General of Audit (Energy),
Delhi

Place: New Delhi
Dated: 21 July 2022

Consolidated Balance sheet as at March 31, 2022

(₹ in Crore)

Particulars	Note	Page	As at March 31, 2022		As at March 31, 2021	
A. ASSETS						
1. Non-current assets						
(a) Property, plant and equipment	**3a**	**275**		**2336.34**		2428.98
(b) Capital work-in-progress	**3b**	**275**		**422.32**		403.21
(c) Intangible assets	**4a**	**276**		**62.12**		62.16
(d) Intangible assets under development	**4b**	**276**		**8.66**		16.35
(e) Investment accounted for using equity method	**5**	**281**		**201.86**		181.76
(f) Financial assets						
(i) Investments	**5a**	**282**	**3.29**		3.58	
(ii) Trade receivables	**6**	**283**	**3203.84**		3179.74	
(iii) Other financial assets	**7**	**285**	**86.73**	**3293.86**	97.39	3280.71
(g) Deferred tax assets (net of liabilities)	**8**	**285**		**3530.08**		3671.24
(h) Other non-current assets	**9**	**286**		**18526.54**		16852.44
Total non-current assets				**28381.78**		26896.85
2. Current assets						
(a) Inventories	**10**	**287**		**6560.21**		7194.45
(b) Financial assets						
(i) Trade receivables	**6**	**283**	**3024.75**		4035.07	
(ii) Cash and cash equivalents	**11**	**288**	**732.62**		1527.19	
(iii) Bank balances other than cash and cash equivalents	**12**	**288**	**6421.07**		5174.26	
(iv) Loans	**13**	**289**	**-**		-	
(v) Other financial assets	**7**	**285**	**211.56**	**10390.00**	232.65	10969.17
(c) Current tax assets (net)	**14**	**289**		**119.24**		403.60
(d) Other current assets	**9**	**286**		**10792.53**		9776.14
Total current assets				**27861.98**		28343.36
TOTAL ASSETS				**56243.76**		55240.21
B. EQUITY AND LIABILITIES						
3. Equity						
(a) Equity share capital	**15**	**290**		**696.41**		696.41
(b) Other equity	**15a**	**291**		**25810.19**		25287.25
				26506.60		25983.66
Non controlling interest				**-**		(11.66)
Total Equity				**26506.60**		25972.00

Consolidated Balance sheet as at March 31, 2022

(₹ in Crore)

Particulars	Note	Page	As at March 31, 2022		As at March 31, 2021	
4. Liabilities						
4.1 Non-current liabilities						
(a) Financial liabilities						
(i) Lease Liabilities	**16**	**291**	**35.12**		53.41	
(ii) Trade payables	**17**	**292**				
(i) Total outstanding dues of micro enterprises and small enterprises			**127.45**		157.92	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises			**2004.48**		1725.85	
(iii) Other financial liabilities	**18**	**293**	**215.10**	**2382.15**	216.72	2153.90
(b) Provisions	**19**	**293**		**3771.21**		3925.56
(c) Other non-current liabilities	**20**	**293**		**2212.65**		2831.54
Total non-current liabilities				**8366.01**		8911.00
4.2 Current liabilities						
(a) Financial liabilities						
(i) Borrowings	**21**	**294**	**4745.00**		4849.28	
(ia) Lease Liabilities	**16**	**291**	**49.81**		48.20	
(ii) Trade payables	**17**	**292**				
(i) Total outstanding dues of micro enterprises and small enterprises			**745.82**		751.57	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises			**7003.77**		5929.26	
(iii) Other financial liabilities	**18**	**293**	**1124.09**	**13668.49**	929.58	12507.89
(b) Provisions	**19**	**293**		**3066.70**		3168.52
(c) Other current liabilities	**20**	**293**		**4635.96**		4680.80
Total current liabilities				**21371.15**		20357.21
Total liabilities				**29737.16**		29268.21
TOTAL EQUITY AND LIABILITIES				**56243.76**		55240.21
Basis of preparation, measurement and significant accounting policies	**2**	**270**				

The accompanying notes are an integral part of these financial statements

For and on behalf of Board of Directors



(Rajeev Kalra)
Company Secretary
M.No. 14567



(Subodh Gupta)
Director (Finance)
DIN: 08113460



(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Consolidated Statement of Profit and Loss

For the year ended March 31, 2022

(₹ in Crore)

Particulars	Note	Page	For the year ended March 31, 2022		For the year ended March 31, 2021	
INCOME						
Revenue from operations	**22**	**295**		**21211.09**		17308.69
Other income	**23**	**296**		**354.54**		348.42
TOTAL INCOME				**21565.63**		17657.11
EXPENSES						
Cost of raw materials consumed				**5055.63**		4346.62
Purchases of Bought out items				**4141.75**		3811.94
Civil, erection and engineering expenses				**4792.61**		2912.47
Consumption of stores & spares				**271.44**		288.74
Changes in inventories of finished goods, work in progress and Scrap	**24**	**296**		**532.41**		510.86
Employee benefits expense	**25**	**297**		**5519.05**		5378.15
Other Expenses	**26**	**297**		**162.62**		3201.20
Finance costs	**27**	**299**		**355.96**		373.95
Depreciation & amortisation expense	**3.1/4.1**	**278/280**		**314.12**		473.25
TOTAL EXPENSES				**21145.59**		21297.18
Profit / (loss) before share of net profits / loss of investments accounted for using equity method and tax				**420.04**		(3640.07)
Share of net profit / (loss) of joint venture acccounted for using equity method				**50.42**		44.14
PROFIT BEFORE TAX				**470.46**		(3595.93)
Tax expenses	**28**	**300**				
a) Current tax			**(77.13)**		15.82	
b) Deferred tax			**102.88**	**25.75**	(912.05)	(896.23)
PROFIT FOR THE YEAR (A)				**444.71**		(2699.70)
OTHER COMPREHENSIVE INCOME	**29**	**300**				
Items that will not be reclassified to profit or loss (net of tax)						
-Remeasurement of defined employee benefits				**76.87**		19.98
-Share of OCI of JV accounted using equity method				**0.03**		0.07
OTHER COMPREHENSIVE INCOME FOR THE YEAR (B)				**76.90**		20.05
TOTAL COMPREHENSIVE INCOME FOR THE YEAR (A+B)				**521.61**		(2679.65)
Attributable to:						
Equity holders of the parent				**522.93**		(2677.06)
Non-controlling interest				**(1.32)**		(2.59)
Total				**521.61**		(2679.65)

Consolidated Statement of Profit and Loss

For the year ended March 31, 2022

(₹ in Crore)

Particulars	Note	Page	For the year ended March 31, 2022	For the year ended March 31, 2021
TOTAL OTHER COMPREHENSIVE INCOME FOR THE YEAR				
Attributable to:				
Equity holders of the parent			**76.90**	20.05
Non-controlling interest			**-**	-
Total			**76.90**	20.05
TOTAL PROFIT FOR THE YEAR				
Attributable to:				
Equity holders of the parent			**446.03**	(2697.11)
Non controlling interest			**(1.32)**	(2.59)
Total			**444.71**	(2699.70)
Earnings per equity share	**30**	**300**		
(1) Basic [Face value of ₹ 2 each]			**1.28**	(7.75)
(2) Diluted [Face value of ₹ 2 each]			**1.28**	(7.75)
Basis of preparation, measurement and significant accounting policies	**2**	**270**		

The accompanying notes are an integral part of these financial statements

For and on behalf of Board of Directors



(Rajeev Kalra)
Company Secretary
M.No. 14567



(Subodh Gupta)
Director (Finance)
DIN: 08113460



(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Consolidated Statement of changes in Equity (SOCIE)

For the year ended March 31, 2022

A. Equity Share Capital

(₹ in Crore)

Equity shares of ₹2 each issued, subscribed and fully paid	Number of shares		Amount	
	2021-22	2020-21	2021-22	2020-21
Balance at the beginning of the year	**3482063355**	3482063355	**696.41**	696.41
Changes in equity share capital during the year	**-**	-	**-**	-
Balance at the end of the year	**3482063355**	3482063355	**696.41**	696.41

B. Other Equity

For the year ended March 31, 2022

(₹ in Crore)

Particulars	Reserves and surplus				Other items of other comprehensive income	Total other Equity	Non-controlling interest
	Capital Reserves	Capital Redemption Reserves	General Reserves	Retained Earnings			
Balance as at April 01, 2021	**35.18**	**37.87**	**30476.66**	**(4867.48)**	**(394.98)**	**25287.25**	**(11.66)**
Changes in accounting policy or prior period errors	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Reinstated balance as at April 01, 2021	**35.18**	**37.87**	**30476.66**	**(4867.48)**	**(394.98)**	**25287.25**	**(11.66)**
Add: Total comprehensive Income for the year	-	-	-	428.95	76.90	505.85	(1.32)
Less: Liquidation of Subsidiary Equity & Minority interest	-	-	-	(17.08)	-	(17.08)	(12.98)
Balance as at March 31, 2022	**35.18**	**37.87**	**30476.66**	**(4421.45)**	**(318.08)**	**25810.19**	**-**

Consolidated Statement of changes in Equity (SOCIE)

For the year ended March 31, 2022

For the year ended March 31, 2021 (₹ in Crore)

Particulars	Reserves and surplus				Other items of other comprehensive income	Total other Equity	Non-controlling interest
	Capital Reserves	Capital Redemption Reserves	General Reserves	Retained Earnings			
Balance as at April 01, 2020	**35.18**	**37.87**	**30476.66**	**(2170.37)**	**(415.03)**	**27964.31**	**(9.07)**
Changes in accounting policy or prior period errors	-	-	-	-	-	-	-
Reinstated balance as at April 01, 2020	35.18	37.87	30,476.66	(2170.37)	(415.03)	27964.31	(9.07)
Add: Total Comprehensive Income for the year	-	-	-	(2697.11)	20.05	(2677.06)	(2.59)
Balance as at March 31, 2021	**35.18**	**37.87**	**30476.66**	**(4867.48)**	**(394.98)**	**25287.25**	**(11.66)**

For and on behalf of Board of Directors

(Rajeev Kalra)
Company Secretary
M.No. 14567

(Subodh Gupta)
Director (Finance)
DIN: 08113460

(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

(Shrey Gupta)
Partner
M.No. 522315

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(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Consolidated Statement of Cashflows

For the year ended March 31, 2022

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
A. CASH FLOW FROM OPERATING ACTIVITIES:		
Profit /(Loss) before tax	**470.46**	(3595.93)
Adjustments for :		
Provision and write off	**(1120.06)**	1241.08
Depreciation and amortisation	**314.12**	473.25
Finance cost (including unwinding of interest)	**355.96**	373.95
Interest & dividend income	**(302.79)**	(320.86)
share of loss /(profit) in joint venture	**(50.42)**	(44.14)
Divestment of stake in subsidiary	**(17.08)**	-
Unrealised Foreign Exchange loss/(gain)	**19.26**	5.80
Others	**(6.61)**	(3.79)
Cash generated / (used) in operations before working capital changes	**(337.16)**	(1870.64)
Adjustment for changes in working capital:		
Trade Receivables	**1881.12**	4014.80
Contract Assets	**(2594.15)**	(1310.61)
Inventories	**603.40**	1536.71
Loans, advances & other assets	**143.49**	(246.86)
Sub total	**33.86**	3994.04
Trade payable	**1300.96**	(1305.40)
Advances from customers, deposits and others	**(387.69)**	(94.08)
Provisions	**(358.60)**	26.38
Sub total	**554.67**	(1373.10)
Net cash (used in) / from working capital	**588.53**	2620.94
Cash generated / (used) in operations	**251.37**	750.30
Income taxes paid	**(258.00)**	(216.65)
Refund of income taxes	**666.88**	26.30
Net cash (used in) / from operating activities	**660.25**	559.95
B. CASH FLOW FROM INVESTING ACTIVITIES		
Redemption / maturity of bank deposits (having original maturity of more than 3 months)	**(1251.12)**	(159.98)
Interest received	**257.93**	343.11
Income received from mutual funds	**-**	1.42
Dividend received from joint ventures	**30.35**	21.42
Sale of property,plant and equipment & Intangible Assets	**6.90**	1.88
Purchase of property, plant and equipment & Intangible Assets	**(169.38)**	(250.35)
Net cash (used in) / from investing activities	**(1125.32)**	(42.50)

Consolidated Statement of Cash flows

For the year ended March 31, 2022

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
C. CASH FLOW FROM FINANCING ACTIVITIES		
Proceeds from short term borrowings	**(87.53)**	(98.01)
Proceeds / (repayment) of lease obligation (Principal)	**(48.79)**	(60.30)
Proceeds / (repayment) of lease obligation (Interest)	**(9.57)**	(12.95)
Dividend paid	**(0.30)**	(0.68)
Interest paid	**(183.30)**	(222.21)
Net cash (used in) / from financing activities (refer point 4)	**(329.49)**	(394.15)
D. Net increase/(decrease) in cash and cash equivalents	**(794.56)**	123.30
Opening balance of cash and cash equivalents (excluding cash credit of subsidiary)	**1519.90**	1396.60
Adjustment of Cash credit of subsidiary - BHEL EML from opening balance	**7.28**	0.00
Closing balance of cash and cash equivalents [Refer Note 11]	**732.62**	1519.90

(1) Statement of cash flow has been prepared under the indirect method as set out in the Ind AS 7 - Statement of Cash flow.

(2) Previous year's figures have been regrouped/reclassifed wherever applicable.

(3) Closing balance of Cash & Cash Equivalents includes exchange variation loss of ₹ 0.15 cr as on March 31, 2022 (Previous year ₹ NIL cr).

(4) Changes in liabilities arising from financing activities are available at Note [21(vi)] and Note [39 b].

For and on behalf of Board of Directors

(Rajeev Kalra)
Company Secretary
M.No. 14567

(Subodh Gupta)
Director (Finance)
DIN: 08113460

(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
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(Shrey Gupta)
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For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277

(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022

Notes to the Consolidated financial statements for the year ended March 31, 2022

Note [1] Company Information

Bharat Heavy Electricals Limited ("BHEL" or "the Company") is a public limited company domiciled in India and has its registered office at BHEL House, Siri fort, New Delhi-110049

The Company is an integrated power plant equipment manufacturer engaged in design, engineering, manufacture, erection, 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.

BHEL has transferred stake in its subsidiary - BHEL EML to Govt. of Kerala on 11th August, 2021.

The Company has Joint Venture Companies namely, BHEL-GE Gas Turbine Services Ltd., NTPC-BHEL Power Projects Pvt. Ltd., Raichur Power Corporation Ltd and Power Plant Performance Improvement Ltd.

Note [2] Basis of preparation, measurement and significant accounting policies (Consolidated Financial Statement)

1.Basis of preparation of Financial Statements

a) Statement of Compliance

The financial statements have been prepared in accordance with Indian Accounting Standards (Ind-AS) as notified by Ministry of Corporate Affairs under the Companies (Indian Accounting Standards) Rules, 2015 and subsequent amendments thereof as well as with the additional requirements applicable to financial statements as set forth in Companies Act, 2013 as amended.

b) Basis of measurement

The financial statements have been prepared on a going concern basis and on an accrual method of accounting. Historical cost is used in preparation of the financial statements except as otherwise mentioned in the policy.

c) Functional and presentation currency

The financial statements are prepared in INR, which is the Company's functional currency.

d) Use of Estimates and Judgments

The preparation of the financial statements in conformity with Ind AS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Critical estimates and judgements in applying accounting policies

Estimates and judgements made in applying accounting policies that have significant effect on the amounts recognized in the financial statements are as follows:

i) Revenue

The Company uses input method based on cost approach in accounting for the revenue in respect of construction contracts. Use of input method requires the Company to estimate its costs relative to the total expected costs in the satisfaction of its performance obligation. The estimates are assessed continually during the term of the contract and the company re-measures its progress towards complete satisfaction of its performance obligations satisfied over time at the end of each reporting period.

Company updates its estimated transaction price at each reporting period, to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

ii) Property, plant and equipment

The charge in respect of periodic depreciation is derived after estimating the asset's expected useful life and the expected residual value at the end of its life. The depreciation method, useful lives and residual values of Company's assets are estimated by management at the time the asset is acquired and reviewed during each financial year.

iii) Employee benefit plans

Employee defined benefit plans and long term benefit plans are measured on the basis of actuarial assumptions. However, any changes in these assumptions may have impact on the reported amount of obligation and expenses.

iv) Provisions and contingencies

Assessments undertaken in recognising provisions and contingencies have been made as per the best judgement of the management based on the current available information.

2. Property Plant and Equipment (PPE)

Property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses, if any.

Depreciation on property, plant and equipment (other than those used abroad under contract) is charged on straightline method as per the useful life prescribed in Schedule II of the Companies Act, 2013, except in the following items where estimated useful life is based on technically assessed estimated useful life :-

Particulars	Years
Plant & Equipment	15-30
Buildings	5-60
Electricals Installations & Equipments	10-30
Erection Equipment, Capital tools & tackles	5
Drainage, sewerage & water supply	30
Servers and networks	5
Solar Power Generation Plant	25

Depreciation methods, useful lives and residual values are reviewed in each financial year and changes, if any, are accounted for prospectively. Right-of-use assets are

amortised over the shorter of the lease term and their useful lives unless it is reasonably certain that the Company will obtain ownership by the end of the lease term.

Property Plant & Equipment costing ₹ 10,000/- or less and those whose written down value as at the beginning of the year is ₹ 10,000/- or less, are depreciated fully.

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 temporary structures) are depreciated over the tenure of the contract after retaining residual value, if any.

Assets used outside India pursuant to long term contracts are depreciated over the duration of the initial contract.

Temporary structures are fully depreciated in the year of construction.

Significant components with different useful lives are accounted for and depreciated separately.

In the case of BHEL-GE Gas Turbine Services Pvt. Ltd.

Depreciation is provided on the straight line method over the estimated useful life of the assets, which are equal/ lower than the rates prescribed under Schedule II of the Companies Act, 2013. In order to reflect the actual usage of assets, the estimated useful lives of the assets is based on a technical evaluation.

Asset category	Estimated useful life (Years)
Plant and machinery	2-25
Electrical installations	2-10
Furniture and fixtures	3-10
Computers	2-5
Office equipment	2-10

The right-of-use asset is depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term.

In the case of Raichur Power Corporation Limited

Depreciation is provided on straight line method at the rates specified in the CERC/KERC Regulation 2009.

Assets are depreciated to the extent of 90% of the cost and 10% is retained as residual value.

Depreciation on additions to assets is provided on a pro-rata basis i.e. from /(upto) the date of the assets are available for its intended use(disposed off). Individual assets costing up to ₹ 5000 are fully depreciated in the year in which they are put to use.

In the case of NTPC-BHEL Power Projects Pvt. Ltd

Depreciation on Property, Plant and Equipment is charged on straight line method as per the useful life prescribed in Schedule-II of the Companies Act, 2013.

3. Leases

At the inception of an arrangement, the Company determines whether such an arrangement is or contains a lease.

Upon initial recognition, assets taken on lease are capitalized under right-of-use assets at cost which comprises initial measurement of lease liability at present value, initial lease payments less incentives, initial direct costs and estimated cost of dismantling and removing the underlying assets, if any.

Lease payments made under leases are apportioned between the finance expense and the reduction of the outstanding lease liability. The finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

For assets given on finance lease, the Company recognizes finance income over the lease term using effective interest rate method. Initial direct costs incurred are included in the initial measurement of the finance lease receivable and reduce the amount of income recognized over the lease term.

Lease income arising from operating lease is recognized as income over the lease period on a straight line basis except where the periodic increase in lease rentals is in line with expected general inflation..

4. Intangible assets

Intangible items costing more than ₹ 10000/- are evaluated for capitalization and are carried at cost less accumulated amortization and accumulated impairment, if any.

Intangible assets are amortised in Statement of Profit and Loss on a straight-line method over the estimated useful lives from the date that they are available for use. The estimated useful lives for the intangible assets are as follows:

Software	3 years
Others	10 years

Intangible assets having WDV ₹ 10000/- or less at the beginning of the year are amortized fully.

Amortization period and amortization methods are reviewed in each financial year and changes, if any, are accounted for prospectively.

Expenditure on research activities is recognized in statement of profit and loss as incurred. Expenditure on development activities is capitalized only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the company intends to and has sufficient resources to complete development and to use or sell the asset. The expenditure capitalized includes the cost of materials, direct labour, overhead costs that are directly attributable to preparing the asset for its intended use, and borrowing costs, if any.

Assets acquired for purposes of research and development are capitalized.

5. Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, are added to the cost of such assets.

An asset that necessarily takes a substantial period of time, considered as more than twelve months, to get ready for its intended use or sale is a qualifying asset for the purpose.

All other borrowing costs are recognized in the statement of profit and loss in the period in which they are incurred.

6. Inventories

Inventory is valued at cost or net realizable value, whichever is lower. In respect of valuation of finished goods and work-in-progress, cost means factory cost. In respect of raw material, components, loose tools, stores and spares cost means weighted average cost.

7. Revenue Recognition

Revenue is recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

In relation to construction and long term service contracts, the company transfers control of goods or services to the customer and recognizes revenue over the time. Revenue is recognized using input method based on the cost approach. Progress towards complete satisfaction of performance obligation satisfied over time is re-measured at reporting period end.

Revenue from sale of goods and services is recognized on the transfer of control to the customer and upon the satisfaction of performance obligations under the contract.

Other Income

- Dividend income is recognized in statement of profit and loss on the date on which the Company's right to receive payment is established.
- Interest Income is recognized using effective interest rate method.
- Claims for export incentives/ duty drawbacks, duty refunds and insurance are accounted for on accrual basis.

In the case of BHEL-GE Gas Turbine Services Pvt. Ltd.

Sales of parts

Revenue from sale of gas turbine parts in the course of ordinary activities is measured at fair value of the consideration received or receivable, net of GST and sales return. Revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services.

Engineering services

Revenue from fixed-price, fixed-timeframe engineering and supply contracts, where the performance obligations are satisfied over time and where there is no uncertainty as to measurement or collectability of consideration, is recognized as per the percentage-of-completion method.

Repair services

In case of repair services, revenue is recognized as per the terms of the contract with customer. Sale of replacement parts supplied under repair service contract is recognized upon transfer of significant risk and rewards of ownership to the customer and is net of sales tax and sales returns.

In the case of Raichur Power Corporation Ltd. (RPCL)

- Income from contractors arising out of interest on works advance given to contractors is accounted on realization / acceptance basis.
- Revenue from Sale of infirm energy and other miscellaneous receipts is accounted by reducing the same against the Capital Cost as per CERC/KERC guidelines.
- Revenue from Sale of energy is recognised as per the guidelines in the CERC / KERC (Terms and conditions for determination of Generation tariff) Regulations 2014.

8. Foreign currency Translation/Transaction

Transaction in foreign currencies are recorded at the exchange rate prevailing on the date of the transaction.

Foreign currency denominated monetary assets and liabilities are translated into the functional currency at exchange rates in effect at the end of each reporting period. Foreign exchange gains or losses arising from settlement and translations are recognized in the statement of profit and loss.

Non-monetary assets and non-monetary liabilities denominated in a foreign currency and measured at historical cost are translated at the exchange rate prevailing at the date of transaction.

9. Employee Benefits

Defined Contribution Plans

The Company's contribution to Pension fund including Family Pension Fund for the employees is covered under defined contribution plan and is recognized as employee benefit expense in statement of profit and loss in the periods during which services are rendered by employees.

Defined benefit plans

The Company's gratuity scheme, provident fund scheme, travel claims on retirement and post-retirement medical facility scheme are in the nature of defined benefit plans.

The liability recognized in the balance sheet in respect of these defined benefit plan is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets,if any. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using an appropriate government bond rate that have terms to maturity approximating to the terms of the related liability.

Remeasurements comprising actuarial gains and losses as well as the difference between the return on plan assets and the amounts included in net interest on the net defined benefits liability (asset) are recognized in other comprehensive income (net of income tax).

Other expenses related to defined benefit plans are recognized in statement of profit and loss.

Long Term Leave Liability

The Company measures the expected cost of accumulating compensated absences as the additional amount expected to be paid as a result of the unused entitlement that has accumulated at the end of the reporting period. Expense on non-accumulating compensated absences is recognized in the period in which the absences occur. The Company records a liability for accumulated balance based on actuarial valuation determined using projected unit credit method. Remeasurements and other expenses related to long term benefit plans are recognized in statement of profit and loss.

10. Provisions

(i) Claims for liquidated damages against the Company are recognized in the financial statements based on the management's assessment of the probable outcome with reference to the available information supplemented by experience of similar transactions.

(ii) The Company provides for anticipated costs for warranties when it recognizes revenues on the related products or contracts and maintain the same throughout the warranty period. The provision is based on historical experience / technical assessment.

(iii) When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised immediately.

(iv) Other provisions are recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

However, where the effect of time value of money is material, provisions are determined and maintained by discounting the expected future cash flows, wherever applicable.

11. Government Grants

Government grants are recognized only when there is reasonable assurance that the conditions attached to them shall be complied with, and the grants will be received. Non monetary grants are accounted at Fair Value of assets and are treated as deferred income. Deferred income is recognized in the statement of profit and loss on a systematic and rational basis over the useful life of the asset. Government grants related to revenue are recognized on a systematic basis in the statement of profit and loss over the periods necessary to match them with the related costs which they are intended to compensate.

12. Income Taxes

Income tax expense comprises current tax and deferred tax. Income tax expense is recognized in statement of profit and loss except to the extent that it relates to items recognized in other comprehensive income or directly in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates (tax laws) enacted or substantively enacted by the end of the reporting period and includes adjustment on account of tax in respect of previous years.

Deferred tax is recognized using the balance sheet method, providing for temporary difference between the carrying amount of an asset or liability in the balance sheet and its tax base.

Deferred tax is measured at the tax rates that are expected to apply when the temporary differences are either realised or settled, based on the laws that have been enacted or substantively enacted by the end of reporting period.

A deferred tax asset is recognized to the extent that it is probable that future taxable profit will be available against which the temporary difference can be utilized.

The carrying amount of Deferred tax assets are reviewed at each reporting period and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Additional Income tax that arise from the distribution of dividends are recognized at the same time when the liability to pay the related dividend is recognized.

13. Impairment of Assets

Impairment of Financial Assets

The loss allowance in respect of trade receivables and lease receivables are measured at an amount equal to lifetime expected credit losses.

The loss allowance in respect of all other financial assets, which are required to be impaired, are measured at an amount equal to lifetime expected credit losses if the credit risk on that financial instrument has increased significantly since initial recognition. However, if, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the loss allowance is measured at an amount equal to 12-month expected credit losses.

Impairment of Non-Financial Assets

The carrying amount of cash generating units is reviewed at each reporting date where there is any indication of impairment. An impairment loss is recognized in the statement of profit and loss where the carrying amount exceeds the recoverable amount of the cash generating units. Impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists.

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

14. Segment Reporting

Revenue and expenses are identified to segments on the basis of their relationship to the operating activities of the segment. Revenue, expenses, assets and liabilities which are not allocable to segments on a reasonable basis, are included under "Unallocated revenue/ expenses/ assets/ liabilities".

15. Financial Instruments

i) Non-derivative financial instruments

Non derivative financial instruments are classified as :

– Financial assets, measured at (a) amortized cost and (b) fair value through Profit and Loss ("FVTPL").

– Financial liabilities carried at amortized cost.

Initially, all financial instruments are recognized at their fair value. Transaction costs are included in determining the carrying amount, if the financial instruments are not measured at FVTPL. Financial assets are derecognized when substantial risks and rewards of ownership of the financial asset have been transferred. In cases where substantial risks and rewards of ownership of the financial assets are neither transferred nor retained, financial assets are derecognized only when the Company has not retained control over the financial asset. Financial liabilities are derecognized when contractual obligations are discharged or cancelled or expired.

Non-derivative financial assets are subsequently measured as below:

A. Amortized Cost

"Financial Instruments at amortized cost" are subsequently measured at amortized cost using the effective interest rate (EIR) method. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is recognized in the profit and loss. The losses arising from impairment are recognized in the statement of profit and loss.

B. FVTPL Category

Financial instruments classified in this category are subsequently carried at fair value with changes recorded in the statement of profit and loss. Directly attributable transaction costs are recognised in statement of Profit and Loss as incurred.

Non-derivative financial liabilities are subsequently measured as below:

Subsequent to initial recognition, non – derivative financial liabilities are measured at amortised cost using the effective interest method.

ii) Derivative Financial Instruments

Embedded derivatives, if any, having material impact, are separated from the host contract and accounted for separately if the economic characteristics and risks of the host contract and the embedded derivative are not closely related, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and the combined instrument is not measured at fair value through profit and loss.

Derivatives are recognized and measured initially at fair value. Attributable transaction cost are recognized in statement of profit and loss as cost. Subsequent to initial recognition, derivatives are measured at fair value through profit and loss.

16. Cash and Cash Equivalent

Cash and cash equivalents comprise cash at bank and on hand. It includes term deposits and other short-term money market deposits with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

Note [3a] - Non-current assets
Property, plant and equipment

Refer point 2 of Note [2] for accounting policy on property, plant and equipment (PPE). (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Gross block	**6330.89**	6179.47
Less: Accumulated depreciation	**3994.55**	3750.49
Net block (details refer to note 3.1)	**2336.34**	2428.98

The Net Block includes ₹ 154.83 Cr (Previous Year ₹ 164.19 Cr) in respect of RoU assets.

Company had opted for exemption under IndAS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on IndAS transition date.

Note [3b] - Non current assets
Capital work in progress

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Plant & machinery and other equipments:				
Under Erection/ Fabrication/awaiting erection	**131.43**		171.60	
In transit	**9.37**	**140.80**	0.63	172.23
Construction work-in-progress -Civil		**280.12**		228.77
Construction stores (including in transit)		**1.40**		2.21
Total		**422.32**		403.21

CWIP Ageing schedule - As at March 31, 2022

Particulars	Amount in CWIP for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	**115.39**	**127.88**	**115.41**	**51.31**	**409.99**
Projects temporarily suspended	**0.59**	**0.07**	**2.36**	**9.31**	**12.33**

CWIP Completion Schedule (CWIP which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2022

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
New Building - Noida	**217.38**	**-**	**-**	**-**	**217.38**
Selective Catalyst Reduction Plant - Bengaluru	**62.12**	**-**	**-**	**-**	**62.12**
Other Projects less than Rs. 10 Crore (Total Nos - 25)	**37.83**	**-**	**-**	**-**	**37.83**
Projects temporarily suspended					
Equipment Fabrication Plant - Bhandara	**-**	**-**	**-**	**7.74**	**7.74**
Other Projects less than Rs. 1 Crore (Total Nos - 4)	**0.07**	**-**	**-**	**1.58**	**1.65**

CWIP Ageing schedule - As at March 31, 2021

Particulars	Amount in CWIP for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	174.88	141.71	46.90	27.98	391.47
Projects temporarily suspended	-	2.42	-	9.32	11.74

CWIP Completion Schedule (CWIP which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2021

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
New Building - Noida	173.01	-	-	-	173.01
Selective Catalyst Reduction Plant - Bengaluru	57.62	-	-	-	57.62
Upgradation of UHV Lab Test Plant	22.73	-	-	-	22.73
CNC Horizontal Machine - Hyderabad	18.47	-	-	-	18.47
Other Projects less than Rs. 10 Crore (Total Nos - 12)	16.94	6.78	-	-	23.72
Projects temporarily suspended					
Equipment Fabrication Plant - Bhandara	-	-	-	7.74	7.74
Other Projects less than ₹ 1 Crore (Total Nos - 5)	0.59	-	-	1.65	2.24

Note [4a] - Non-current assets
Intangible assets

Refer point 4 of Note [2] for accounting policy on intangible assets

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Gross block	**308.92**	290.83
Less: Accumulated amortisation	**246.80**	228.67
Net block (details refer to note 4.1)	**62.12**	62.16

Company had opted for exemption under IndAS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on IndAS transition date.

Note [4b] - Non-current assets
Intangible assets under development

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Intangible assets under development	**8.66**	16.35
Total	**8.66**	16.35

Intangible Assets under development ageing schedule - As at March 31, 2022

Particulars	Amount of Intangible Asset under development for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	**1.39**	**-**	**1.18**	**6.09**	**8.66**
Projects temporarily suspended	**-**	**-**	**-**	**-**	**-**

Intangible Assets under development Completion schedule (which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2022

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
SCR Project Know how	**4.71**	**-**	**-**	**-**	**4.71**
Projects temporarily suspended	**-**	**-**	**-**	**-**	**-**

Intangible Assets under development ageing schedule - As at March 31, 2021

Particulars	Amount of Intangible Asset under development for a period of				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress	9.09	1.18	3.54	2.54	16.35
Projects temporarily suspended	-	-	-	-	-

Intangible Assets under development Completion schedule (which are overdue or has exceeded its cost compared to its original plan) - As at March 31, 2021

Particulars	To be completed in				
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years	Total
Projects in progress					
SCR Project Know how	4.71	-	-	-	4.71
Projects temporarily suspended	-	-	-	-	-

Note [3.1] Detail of Property, Plant & Equipment

(₹ in Crore)

Description	Gross Block				Depreciation/Amortisation				Net Block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Land - Freehold land (including development expenses)	28.02	-	(0.31)	**27.71**	-	-	-	**-**	**27.71**	28.02
Buildings - Freehold Buildings	1710.01	37.93	(4.29)	**1743.65**	607.16	63.98	(1.55)	**669.59**	**1074.06**	1102.85
Roads, bridges & culverts	15.85	-	(0.00)	**15.85**	13.56	0.60	-	**14.16**	**1.69**	2.30
Drainage, Sewerage & water supply	31.17	0.32	(0.00)	**31.49**	7.05	1.17	-	**8.21**	**23.28**	24.13
Plant & Equipment	3100.77	117.42	(8.39)	**3209.81**	2269.28	128.90	(7.98)	**2390.20**	**819.61**	831.49
Railway Siding	8.85	-	-	**8.85**	4.87	0.44	-	**5.31**	**3.54**	3.98
Locomotives & Wagons	28.30	-	0.03	**28.33**	15.90	1.66	-	**17.57**	**10.76**	12.40
Furniture & fixtures	61.96	1.33	(1.21)	**62.09**	39.96	5.11	(0.99)	**44.08**	**18.01**	21.99
Vehicles	14.37	-	(0.04)	**14.33**	8.81	1.47	(0.03)	**10.24**	**4.09**	5.56
Office and Other equipments	138.42	4.27	(1.59)	**141.10**	110.37	11.16	(1.42)	**120.11**	**20.99**	28.05
Electronic Data Processing Equipment	133.21	0.62	19.00	**152.83**	97.47	24.70	19.79	**141.97**	**10.86**	35.74
Electrical Installations	241.42	10.93	(0.67)	**251.67**	174.36	6.67	(0.58)	**180.44**	**71.23**	67.06
Construction Equipment	71.12	0.64	0.09	**71.85**	67.48	1.58	0.17	**69.22**	**2.63**	3.64
Fixed Assets costing upto ₹ 10,000/-	21.09	1.55	(0.59)	**22.05**	21.09	1.55	(0.59)	**22.05**	**-**	-
Solar power generation	119.54	-	-	**119.54**	21.97	4.51	-	**26.48**	**93.06**	97.58
Right-of-use Assets	455.37	33.18	(58.80)	**429.75**	291.18	42.35	(58.61)	**274.92**	**154.83**	164.19
Total	**6179.47**	**208.19**	**(56.77)**	**6330.89**	**3750.49**	**295.85**	**(51.79)**	**3994.55**	**2336.34**	**2428.98**
Previous Year	6057.86	139.94	(18.32)	**6179.47**	3319.35	446.45	(15.32)	**3750.49**	**2428.98**	2738.51

Notes:

Gross Block (as per earlier IGAAP) as at 31.03.2022 ₹ 13507.29 Crore and as at 31.03.2021 ₹ 13447.26 Crore

Gross Block as at 31.03.2022 includes assets condemned and retired from active use ₹ 7.03 Crore (Previous year ₹ 14.11 Crore)

Net Block as at 31.03.2022 includes assets condemned and retired from active use ₹ 0.12 Crore (Previous year ₹ 0.12 Crore)

Gross Block excludes cost of assets purchased out of grant received from Govt of India for research as executing agency since the property does not vest with the Company ₹ 259.64 Crore (Previous year ₹ 244.43 Crore)

There is no impairment loss during the year.

Table 3.1(a): Right-of-use assets includes:

(₹ in Crore)

Description	Gross Block				Depreciation/Amortisation				Net Block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Land (including development expenses)	114.78	4.08	-	118.86	10.39	3.74	-	**14.13**	**104.73**	104.39
Buildings	1.63	-	-	1.63	0.31	0.05	-	**0.36**	**1.27**	1.32
Plant & Equipment	22.14	15.67	-	37.81	8.85	14.25	-	**23.10**	**14.71**	13.29
Office & other equipment	16.47	0.76	(0.39)	16.84	14.83	0.55	(0.37)	**15.02**	**1.82**	1.64
EDP Equipment	278.40	0.01	(48.90)	229.51	238.31	19.34	(48.91)	**208.73**	**20.78**	40.10
Vehicle	4.50	2.00	(1.00)	5.50	2.63	1.27	(0.83)	**3.08**	**2.42**	1.87
Others	17.45	10.66	(8.50)	19.61	15.86	3.15	(8.50)	**10.51**	**9.10**	1.59
Total	**455.37**	**33.18**	**(58.80)**	**429.75**	**291.18**	**42.35**	**(58.61)**	274.92	154.83	**164.19**

Additional disclosure of Note [3.1] Details of Property, Plant and Equipment

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
1. Land and buildings includes		
a i) Acres of land for which formal transfer/lease deed have not been executed (in acres)	**8169.53**	8169.53
Net Block	**65.68**	66.40
ii) Number of flats for which formal transfer/lease deed have not been executed (in nos.)	**12**	12
Net Block	**1.06**	1.11
iii) Acres of land for which the cost paid is provisional; (in acres)	**480.04**	480.04
[registration charges and stamp duty, (net of provision) would be accounted for on payment]		
Net Block	**61.98**	62.70
b. Acres of land leased to Ministry of Defence, Govt. of India Departments & others (in acres)	**29.78**	30.37
c. Acres of land is under adverse possession/encroachment. (in acres)	**757.16**	751.49

d. 1297.86 acres (PY 1297.86 acres) of land pending mutation at Haridwar plant for which legal action is in process.It includes land measuring 934 acres (PY 934 acres) which is in BHEL's possession but has been wrongly got mutated in the name of SIDCUL Government of Uttarakhand in the year 2004 & 2007.

e. Further at Haridwar plant, 8 Acres of land is pending transfer to IOCl /State Government under office memorandum dated 01.12.2003 of Uttarakhand Government.

(Cost of land of (b to e) mentioned above is not material)

Particulars	As at March 31, 2022	As at March 31, 2021
2. i) Total Area of Land in acres	**16409.23**	16409.03
ii) Free hold land (Sale Deed) / Possessory Rights/license out of 2(i) in acres	**15735.89**	15735.69
iii) Leasehold land out of 2(i) in acres	**673.34**	673.34

3. The company provides 100% depreciation on an item of PPE having cost / opening net block up to ₹ 10000/- each. The impact of providing 100% depreciation on an item of PPE on profit, without considering the impact of earlier years is as under:

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
100% depreciation on PPE upto ₹ 10,000/- charged off	**6.50**	5.34
Less: Normal depreciation on above.	**(3.53)**	(1.19)
Excess amount charged to depreciation for the year	**2.97**	4.15

4. The impact on depreciation, consequent to revision in the estimated useful life of certain items of PPE, based on review done in F.Y. 2021-22 in line with para 51 of Ind AS 16 is reduction of ₹ 126.36 Cr.

Note 4.1 - Detail of Intangible Assets

(₹ in Crore)

Description	Gross Block				Depreciation/Amortisation				Net Block	
	Opening Balance as at 01.04.2021	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as at 31.03.2022	Accumulated Depreciation as at 01.04.2021	Depreciation/ Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2022	Net Block as at 31.03.2022	Net Block as at 31.03.2021
Internally Developed										
Others	69.78	1.24	-	**71.02**	61.49	5.16	-	**66.66**	**4.37**	8.29
Other than Internally Developed										
Software	50.92	2.28	(0.15)	**53.05**	46.92	3.75	(0.14)	**50.52**	**2.52**	4.00
Technical Know-how	170.13	14.72	-	**184.85**	120.26	9.36	-	**129.62**	**55.23**	49.87
Total	**290.83**	**18.25**	**(0.15)**	**308.92**	**228.67**	**18.27**	**(0.14)**	**246.80**	**62.12**	**62.16**
Previous Year	280.48	10.35	-	290.83	201.87	26.80	-	228.67	62.16	78.61

Gross Block (as per earlier IGAAP) as at 31.03.2022 ₹ 584.11 Crore and as at 31.03.2021 ₹ 575.15 Crore

There is no impairment loss during the year.

Note [5] - Non current assets
Investment (accounted for using equity method)

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
BHEL-GE Gas Turbine Services Private Limited		
Opening net assets	**181.76**	158.97
Profit / (loss) for the year	**50.42**	44.14
Other comprehensive income	**0.03**	0.07
Less: Dividend paid	**30.35**	21.42
Closing net assets	**201.86**	181.76

(i) RPCL (joint venture company) has incurred losses due to which the group has recognised accumulated losses equal to the cost of investment as at March 31, 2019. The group has unrecognised share of losses amounting to ₹ 880 crore as per their unaudited financial statement for the year ended March 31, 2022.

(ii) NBPPL (joint venture company) has incurred losses due to which the group has recognised accumulated losses equal to the cost of investment as at March 31, 2019. The group has unrecognised share of losses amounting to ₹ 100 crore as per their unaudited financial statement for the year ended March 31, 2022.

Note [5a] - Non-current assets
Financial assets - Investment

(₹ in Crore)

Particulars	As at March 31, 2022			As at March 31, 2021		
	No. of Shares (Face value in ₹)	Amount		No. of Shares (Face value in ₹)	Amount	
I Quoted equity instruments			**-**			-
II Unquoted equity instruments (fully paid up shares)						
(a) Investment in joint ventures (at cost)						
(i) Powerplant Performance Improvement Ltd.	**1999999 (10)**	**2.00**		1999999 (10)	2.00	
Less: Provision for impairment		**2.00**	**-**		2.00	-
(b) Investment in equity instruments fully paid up (at FVTPL)						
(i) Neelachal Ispat Nigam Ltd.	**5000000 (10)**	**5.00**		5000000 (10)	5.00	
Add / (less) Fair Value Adjustment		**(5.00)**	**-**		(5.00)	-
(ii) AP Gas Power Corporation Ltd.	**728960 (10)**	**0.91**		728960 (10)	0.91	
Add / (less) Fair Value Adjustment		**2.38**	**3.29**		2.67	3.58
(iii) Engineering Projects (India) Ltd.	**1892 (10)**		*****	1892 (10)		*
Share in Co-operative Societies #						
Total			**3.29**			3.58
*Value of less than ₹ 1 lakh						
Aggregate amount of unquoted investment			**7.91**			7.91
Aggregate amount of impairment in value of investments			**4.62**			4.33

Equity shares held in various employees cooperatives societies, valuing less than ₹ 1 lakh/-

Information about joint ventures

(₹ in Crore)

Particulars	Country of incorporation	As at March 31, 2022	As at March 31, 2021
Name of the joint ventures (JVC)		Proportion (%) of ownership	
BHEL-GE Gas Turbine Services Private Limited (BGGTS)	India	**One share less than 50%**	One share less than 50%
NTPC-BHEL Power Projects Private Limited (NBPPL)		**50%**	50%
Raichur Power Corporation Limited (RPCL)		**22.14%**	27.97%
Power Plant Performance Improvement Limited (PPIL)		**One share less than 50%**	One share less than 50%

(i) The provision for impairment in value of investment in NTPC-BHEL Power Projects Private Limited has been made to the extent of ₹ 50.00 Crore (upto previous year ₹ 50.00 Crore) based on the net financial position. The Board of Directors in its meeting held on February 08, 2018 has accorded in-principle approval for pursuing the winding up of NBPPL. Ministry of Power (MoP) has advised NTPC to consider buying out the stake of BHEL and decide either to continue it as an in-house EPC arm or close it after completion of present work. This advise was noted by NBPPL Board in its meeting held on 29.08.2019.

(ii) Reduction in % of ownership in RPCL is due to subscription of Right issue by the other shareholder M/s KPCL.

(iii) The provision for impairment in value of investment in Powerplant Performance Improvement Limited amounting to ₹ 2.00 Crore (previous year ₹ 2.00 Crore) has been made since the JVC is under liquidation and the amount paid as equity is not recoverable.

Note [6] - Financial assets - Trade receivables

Refer point 13 of Note [2] for accounting policy on impairment of financial assets

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Unsecured, considered good	**3538.39**	**3340.61**	3535.85	4490.18
Credit impaired (included in allowances for B&D debts)	**11599.09**	**277.54**	12598.54	425.72
	15137.48	**3618.15**	16134.39	4915.90
Less: Allowances for bad and doubtful debts	**11933.64**	**593.40**	12954.65	880.83
Total Trade Receivables (net)	**3203.84**	**3024.75**	3179.74	4035.07

Simplified approach is followed for impairment of trade receivables, the classification is done in line with Ind AS 109.

Trade recievable includes:

(a) Due from Directors	-	-	-	-
(b) Due from Officers	-	-	-	-

(₹ in Crore)

Non current Trade receivable ageing schedule - As at March 31, 2022

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	39.02	38.13	172.50	288.06	1063.63	-	-	1601.34
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	0.89	5.28	16.95	66.50	1847.43	-	-	1937.05
iv) Disputed Trade receivables - credit Impaired	95.20	100.67	395.44	630.60	10377.18	-	-	11599.09

Current Trade receivable ageing schedule - As at March 31, 2022

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	2214.21	237.21	337.62	197.02	354.55	-	-	3340.61
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	-	-	-	-	-	-	-	-
iv) Disputed Trade receivables - credit Impaired	11.23	0.88	35.77	35.58	194.08	-	-	277.54

Non current Trade receivable ageing schedule - As at March 31, 2021

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	134.78	114.88	286.89	202.41	307.61	-	-	1046.57
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	12.67	5.91	95.57	138.71	2236.42	-	-	2489.28
iv) Disputed Trade receivables - credit Impaired	279.37	238.81	822.05	688.67	10569.64	-	-	12598.54

Current Trade receivable ageing schedule - As at March 31, 2021

Particulars	Oustanding for following periods from due date of payment					Unbilled	Not Yet due for payment	Total
	Less than 6 months	6 months - 1 year	1-2 Years	2-3 Years	More than 3 years			
i) Undisputed Trade receivables - considered good	2121.42	434.87	613.07	659.49	661.33	-	-	4490.18
ii) Undisputed Trade receivables - credit impaired	-	-	-	-	-	-	-	-
iii) Disputed Trade receivables - considered good	-	-	-	-	-	-	-	-
iv) Disputed Trade receivables - credit Impaired	3.32	0.74	31.61	24.63	365.42	-	-	425.72

Note [7] -Financial assets - Other

Refer point 13 of Note [2] for accounting policy on impairment of financial assets (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Security deposits				
Deposits with SEBs, port trust & others				
Unsecured, considered good	**81.80**	**112.86**	84.64	128.57
Credit impaired	**2.87**	**11.69**	2.92	12.01
	84.67	**124.55**	87.56	140.58
Less: Allowances for bad & doubtful deposits	**2.87**	**11.69**	2.92	12.01
	81.80	**112.86**	84.64	128.57
Bank deposits with more than 12 months maturity	**4.93**	**-**	12.75	-
Interest accured on banks deposits	**-**	**76.62**	-	77.14
Advance to Employees	**-**	**22.19**	-	27.02
Less: Allowance for bad and doubtful advances	**-**	**0.11**	-	0.08
	-	**22.08**	-	26.94
Total	**86.73**	**211.56**	97.39	232.65
Includes:				
Due from Directors	-	-	-	-
Dues from Officers	-	**0.01**	-	0.01

Note [8] - Non current assets
Deferred tax assets (net of liabilities)

Refer point 12 of Note [2] for accounting policy on income taxes. (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Deferred tax assets		
Provisions	**1629.68**	1766.37
Dues allowed on payment basis	**440.00**	487.11
Depreciation (PP&E and Intangible assets)	**46.04**	78.26
On account of taxable loss	**1311.74**	1278.30
Others	**102.62**	61.20
Sub-total	**3530.08**	3671.24
Deferred tax liabilities	**-**	-
Deferred tax assets (net of liabilities)	**3530.08**	3671.24

Note [9] - Others

Refer point 13 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contract assets (including unbilled revenue)				
Unsecured, considered good	**18248.24**	**8691.63**	16584.91	7494.57
Credit impaired	**2768.53**	**663.72**	3545.45	76.46
	21016.77	**9355.35**	20130.36	7571.03
Less: Allowances for bad and doubtful debts	**2768.53**	**663.72**	3545.45	76.46
Sub-total (A)	**18248.24**	**8691.63**	16584.91	7494.57
Security deposits				
Deposits with tax authorities and others				
Unsecured, considered good	**79.96**	**443.32**	106.80	497.11
Unsecured, considered doubtful	**30.45**	**89.74**	12.85	79.41
	110.41	**533.06**	119.65	576.52
Less: Provision for bad & doubtful deposits	**30.45**	**89.74**	12.85	79.41
Sub-total (B)	**79.96**	**443.32**	106.80	497.11
Loans & advances				
Unsecured, considered good				
Advances towards purchases (Vendors & sub - Contractors)	**41.54**	**56.42**	99.58	152.23
Input Tax credit receivable	**-**	**958.31**	-	1031.11
Claims recoverable and others	**139.76**	**642.85**	37.34	601.11
Capital advances	**17.04**	**-**	23.81	-
Unsecured, considered doubtful				
Advances towards purchases (Vendors & sub - Contractors)	**11.50**	**35.69**	11.71	6.93
Input Tax credit receivable	**-**	**5.38**	-	8.61
Claims recoverable and others	**49.67**	**111.92**	28.14	121.16
Capital advances	**4.69**	**-**	-	-
	264.20	**1810.57**	200.58	1921.16
Less: Provision for bad & doubtful loans & advances	**65.86**	**152.99**	39.85	136.70
Sub-total (C)	**198.34**	**1657.58**	160.73	1784.46
Total (A+B+C)	**18526.54**	**10792.53**	16852.44	9776.14

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
i) Undisputed Contract Assets - considered goods	**13874.67**	**8691.63**	12764.34	7494.57
ii) Undisputed Contract Assets - credit impaired	**-**	**-**	-	-
iii) Disputed Contract Assets - considered good	**4373.57**	**-**	3820.57	-
iv) Disputed Contract Assets - credit Impaired	**2768.53**	**663.72**	3545.45	76.46
Total	**21016.77**	**9355.35**	20130.36	7571.03
Loan & advances includes :				
(a) Due from Directors	**-**	**-**	-	-
(b) Due from Officers	**-**	**-**	-	-

Note [10] - Current assets
Inventories

Refer point 6 of Note [2] for accounting policy on valuation of inventories. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Raw material & components	**2799.87**		2811.03	
Material-in-transit	**129.30**	**2929.17**	199.83	3010.86
Work-in-progress (including items with sub-contractors)		**3334.54**		3779.72
Finished goods	**518.09**		629.11	
Inter - division transfers in transit	**89.85**	**607.94**	63.75	692.86
Stores & spare parts				
Production	**151.94**		166.42	
Fuel stores	**5.70**		2.58	
Miscellaneous	**50.32**	**207.96**	51.24	220.24
Other inventory				
Materials with fabricators/contractors	**60.10**		39.80	
Loose tools	**24.32**		23.02	
Scrap (at estimated realisable value)	**143.26**	**227.68**	147.46	210.28
		7307.29		7913.97
Less: Provision for non-moving inventory		**747.08**		719.52
Total		**6560.21**		7194.45
Note :				
Write down of inventories		**76.77**		219.35
Less : reversal thereof		**49.21**		42.27
Net		**27.56**		177.08

Note [11] - Current assets
Financial assets - Cash & cash equivalents

Refer point 16 of Note [2] for accounting policy on cash and cash equivalent.

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Balances with banks				
EEFC a/c	**28.20**		202.69	
Current / cash credit a/c	**687.82**	**716.02**	1324.33	1527.02
Cheques, demand drafts on hand		**13.06**		0.08
Cash & stamps on hand		**0.08**		0.07
Remittances in transit		**3.46**		0.02
Total		**732.62**		1527.19

Note [12] - Current assets
Financial assets - Bank balances

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
Fixed deposits having maturity more than 3 months but not more than 12 months		**6411.12**		5160.01
Fixed deposits against margin money for BG issued		**2.65**		2.54
Balances with banks (earmarked):				
Charging station project	**3.94**		7.88	
Unclaimed dividend a/c	**1.81**		2.11	
Non-repatriable a/c	**1.52**		1.69	
Sale proceeds of fractional shares on bonus issue	**0.03**	**7.30**	0.03	11.71
Total		**6421.07**		5174.26
Total Cash and Bank Balances [11 + 12]		**7153.69**		6701.45

Note [13] - Current assets
Financial assets - Loans

Refer point 13 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Loans		
Loan to PSU (BP&CL)*		
Credit impaired	-	13.32
Less: Allowances for bad & doubtful loans	-	13.32
Total	-	-

*Loan & interest thereon which has been impaired as on March 31, 2021 has been paid by BP&CL during the year

Note [14] - Current assets
Current tax assets / liabilities (net)

Refer point 12 of [Note 2] for accounting policy on income taxes. (₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Advance tax & TDS	**180.71**	1062.15
Less: Provisions for taxation	**61.47**	658.55
Total	**119.24**	403.60

Note [15] - Equity
Equity share capital

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	No.of Shares (Face value in ₹)	Amount	No.of Shares (Face value in ₹)	Amount
A Equity share capital				
Authorised	**10000000000 (2)**	**2000.00**	10000000000 (2)	2000.00
Issued, subscribed and fully paid up	**3482063355 (2)**	**696.41**	3482063355 (2)	696.41
a) The reconciliation of the number of equity shares outstanding				
Balance as at the beginning of the year	**3482063355**	**696.41**	3482063355	696.41
Add/(Less): Changes during the year	**-**	**-**	-	-
Balance as at the end of the year	**3482063355**	**696.41**	3482063355	696.41
b) Details of shares held by shareholders holding more than 5 % of shares at the end of the year				
President of India (Promoter)	**2199650402**	**63.17%**	2199650402	63.17%
Percentage change of Promoter holding during the year		**Nil**		Nil
Life Insurance Corporation of India	**350769757**	**10.07%**	350647914	10.07%
Face value per share in (₹)		**2.00**		2.00

c) Terms / rights attached to the equity shares :

The company has only one class of equity shares having par value of ₹ 2 per share (previous year ₹ 2 per share). Each holder of the equity shares is entitled to one vote per share.

d) Issue of bonus share :

The Company allotted bonus share on October 03, 2017 in the ratio of 1:2 i.e. one equity share for two existing fully paid-up equity shares. Consequently, the paid-up capital was increased from ₹ 489.52 crore in FY 2016-17 to ₹ 734.28 crore in FY 2017-18 by capitalization of reserves.

e) Share buyback

The Company vide its Board approval dated October 25,2018, bought back its 18,93,36,645 fully paid-up equity shares of the face value of ₹ 2 each representing 5.16% of the total issued and paid-up equity share capital from the eligible equity shareholders of the Company for an amount of ₹ 1628,29,51,470 at a price of ₹ 86 per equity share in FY 2018-19. Consequently, the paid-up share capital was reduced from ₹ 734.28 crore in FY 2017-18 to ₹ 696.41 crore in FY 2018-19.

Note [15a] - Other Equity

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Capital reserve	**35.18**	35.18
Capital redemption reserve	**37.87**	37.87
General reserves	**30476.66**	30476.66
Retained earnings	**(4421.45)**	(4867.48)
OCI (Re-measurements of defined benefit plans)	**(318.08)**	(394.98)
Total	**25810.19**	25287.25

For additions and deduction under each of the above specific heads, SOCIE (Statement of Changes in Equity) may be referred.

Nature and purpose of reserves:

(a) **Capital reserve:** It represents mainly the excess of net assets taken, over the cost of consideration paid during amalgamation of the then subsidiary company (HPVP) with the BHEL.

(b) **Capital redemption reserve:** The Company has recognised Capital Redemption Reserve on buy back of equity shares from its general reserve.The amount in capital redemption reserve is equal to nominal amount of equity shares bought back.

(c) **General reserve:** This represents accumulation of profits retained by Company to meet future (known/unknown) obligations.

(d) **Retained earnings:** Retained earnings are profits that Company has earned till date, less transfer to general reserve, dividends or other distributions to shareholders.

(e) **Re-measurement of net defined benefit plans:** Differences between the interest income on plan assets and the return actually achieved, and any changes in the liabilities over the year due to changes in actuarial assumption or experience adjustments within the plans, are recognised in 'Other comprehensive income' and these are subsequently not to be reclassified to the Statement of Profit and Loss.

Note [16] - Financial liabilities - Lease Liabilities

Refer point 3 of Note [2] for accounting policy on lease.

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Lease Liabilities	**35.12**	**49.81**	53.41	48.20
Total	**35.12**	**49.81**	53.41	48.20

Further disclosures available at Note [39] on lease

Note [17] - Financial liabilities -Trade payables

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Trade payables				
(i) Total outstanding dues of micro enterprises and small enterprises	**127.45**	**745.82**	157.92	751.57
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**2004.48**	**6881.11**	1725.85	5815.34
(iii) Acceptances	**-**	**122.66**	-	113.91
Total	**2131.93**	**7749.59**	1883.77	6680.82

Non current Trade Payable Ageing schedule - As at March 31, 2022

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	**-**	**-**	**-**	**-**	**0.03**	**103.96**	**103.99**
ii) Others	**-**	**-**	**-**	**-**	**0.21**	**1368.24**	**1368.45**
iii) Disputed dues - MSME	**-**	**-**	**-**	**-**	**-**	**23.46**	**23.46**
iv) Disputed dues - Others	**-**	**-**	**-**	**-**	**-**	**636.03**	**636.03**

Current Trade Payable Ageing schedule - As at March 31, 2022

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	**-**	**-**	**-**	**-**	**160.27**	**572.45**	**732.72**
ii) Others	**2.41**	**-**	**-**	**-**	**1435.21**	**4861.89**	**6299.51**
iii) Disputed dues - MSME	**-**	**-**	**-**	**-**	**-**	**13.11**	**13.11**
iv) Disputed dues - Others	**-**	**-**	**-**	**-**	**-**	**704.25**	**704.25**

Non current Trade Payable Ageing schedule - As at March 31, 2021

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	-	-	-	-	-	149.39	149.39
ii) Others	-	-	-	-	-	1308.15	1308.15
iii) Disputed dues - MSME	-	-	-	-	-	8.53	8.53
iv) Disputed dues - Others	-	-	-	-	-	417.70	417.70

Current Trade Payable Ageing schedule - As at March 31, 2021

Particulars	Outstanding for following periods from due date of payment				Unbilled Dues	Not Yet due for payment	Total
	Less than 1 Year	1-2 Years	2-3 Years	More than 3 Years			
i) MSME	27.85	-	0.06	0.01	209.19	421.84	658.95
ii) Others	418.01	7.38	9.68	0.15	1414.18	2493.39	4342.79
iii) Disputed dues - MSME	-	-	-	-	-	92.62	92.62
iv) Disputed dues - Others	-	-	-	-	-	1586.46	1586.46

Note [18] - Financial liabilities- Others

(₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Deposits from contractors & others	**206.45**	**431.36**	211.01	447.92
Liabilities :				
- Employee dues	**-**	**214.05**	-	126.88
- Capital Expenditure	**8.65**	**80.83**	5.71	57.49
- Others*	**-**	**386.92**	-	294.20
Unpaid Dividend**	**-**	**1.81**	-	2.11
Interest accured on borrowings	**-**	**9.12**	-	0.97
Total	**215.10**	**1124.09**	216.72	929.58

* Other Includes ₹ 0.03 Cr for sales proceeds of fractional shares arising out of bonus shares.
**No amount is due and outstanding to be transferred to Investor Education & Protection Fund at the year end.

Note [19] - Provisions

Refer point 9 & 10 of Note [2] for accounting policy on employee benefits and provisions. (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contractual obligation	**2620.03**	**1235.45**	2505.89	1486.56
Provision for employee benefits*	**856.82**	**1060.62**	1098.20	831.06
Provision others	**292.69**	**760.14**	319.38	831.72
Corporate social responsibility	**1.67**	**10.49**	2.09	19.18
Total	**3771.21**	**3066.70**	3925.56	3168.52

*[Further disclosure available at note (25) on employee benefits].

Note [20] - Other liabilities

Refer point 11 of Note [2] for accounting policy on Government grants (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021	
	Non Current	Current	Non Current	Current
Contract liabilities (Advances received from customers incl.excess of billing over revenue)	**2193.43**	**3854.33**	2806.50	4057.85
Liabilities towards statutory dues	**-**	**775.55**	-	616.50
Deferred income- Govt. grant #	**19.22**	**6.08**	25.04	6.45
Total	**2212.65**	**4635.96**	2831.54	4680.80

#Govt. grant is received for setting up of solar PV plant and manufacturing of modules

Note [21] - Current Financial liabilities - Borrowings

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Secured		
Cash Credit (by BHEL EML)	-	7.29
Loans from banks	**4745.00**	201.01
Pre shipment packing credit	-	299.36
Buyer's Credit	-	45.71
(secured by hypothecation of raw materials, components, work-in-progress, finished goods & stores)		
Sub-total (A)	**4745.00**	553.37
Unsecured		
Commercial papers	-	4287.70
Loan from companies (by BHEL EML)	-	8.21
Sub-total (B)	-	4295.91
Total borrowings (A+B)	**4745.00**	4849.28

(i) Details of Sanctioned Limits

Description	Sanctioned Limit	Utilization			
		As at March 31, 2022		As at March 31, 2021	
		Value (₹/ Cr)	% Utilisation	Value (₹/ Cr)	% Utilisation
Non Fund Based Limits	**54000**	**33936**	**62.84%**	**41026**	**75.97%**
Bank Guarantees#	51000	31369	61.51%	39343	77.14%
Letter of Credit (inc. Buyer's Credit)	3000	2567	85.57%	1683	56.10%
Fund Based Limits	**6000**	**4745**	**79.08%**	**300**	**5.01%**
WCDL		4745		1.01	
PCFC		NIL		299.36	
Commercial Paper	**5000**	**NIL**		**4287.70**	**85.75%**

Total Consortium limit (fund based + non fund based) of ₹ 60000 Cr secured by first charge by way of hypothecation of raw materials, components, work in progress, finished goods, stores, trade receivables and other current assets both present and future.

Commercial Papers are in the nature of unsecured short term borrowings.

Outstanding Bank Guarantees include ₹ 439 Crores (P.Y. ₹ 630 Cr.) on a/c of BGs already replaced but pending vacation as on March 31, 2022. Excluding this, the outstanding BGs as on 31.03.2022 is ₹ 30930 Cr. (Previous Year 38713 Cr.)

(ii) Loan from Banks in FY 2021-22 represents WCDL (Working Capital Demand Loan) & for Previous Year, ₹ 200 Cr Loans against Fixed Deposit and balance for WCDL.

(iii) The company has not been declared wilful defaulter by any Bank / Financial Institution.

(iv) The quarterly returns or statements of current assets filed by the Company with Banks or Financial Institutions are in agreement with Books of accounts.

(v) Corporate Guarantees given for own obligations outstanding as on 31.03.2022 is ₹ 1165 crore (previous year ₹ 1799 crore).

(vi) Change in Borrowings arising from Financing activities

Particulars	As at March 31, 2022	As at March 31, 2021
Opening Balance (excl cash credit)	**4841.99**	4941.66
Less : Adj of Unsecured loan by BHEL EML consequent to divestment	**8.21**	-
Cash Flow during the year	**(88.78)**	(98.01)
Less : ERV	**-**	(1.66)
Closing Balance (excl. cash credit)	**4745.00**	4841.99

For changes in lease liability arising from financing activities, refer note no [b] of Note 39

Note [22]
Revenue from operations

Refer point 7 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Revenue from contracts with customers		
Revenue from Construction and Project related activity	**14107.10**	10581.40
Sale of Product & other services	**6046.28**	5714.40
Sub-total (A)	**20153.38**	16295.80
Other operational income		
Freight & insurance	**129.35**	93.32
Scrap sales	**273.63**	141.97
Recoveries from suppliers	**113.98**	112.88
Liabilities written back	**239.95**	211.83
Insurance claims	**76.51**	163.48
Export incentives	**50.50**	156.88
Others	**173.79**	132.53
Sub-total (B)	**1057.71**	1012.89
Revenue from operations (A+B)	**21211.09**	17308.69
Revenue from Operations excludes Goods and service tax	**2970.00**	2392.35

Note [23]
Other income

Refer point 7 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Interest income *		
From banks	**246.75**	313.61
Others	**56.04**	7.25
Sub-total (A)	**302.79**	320.86
Other income		
Profit on sale of units of mutual funds	**-**	1.42
Government grants on Solar PV Plant for captive use	**6.20**	6.45
Profit from sale of PPE & capital stores (Net)	**6.90**	1.88
Others	**38.65**	17.81
Sub-total (B)	**51.75**	27.56
Total other income (A+B)	**354.54**	348.42
*Includes TDS	**18.92**	20.99

Note [24]
Changes in inventories of finished goods, work in progress and Scrap

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Work -in -progress				
Closing balance	**3334.54**		3779.72	
Opening balance	**3778.22**	**443.68**	4121.21	341.49
Finished goods				
Closing balance	**518.09**		629.11	
Opening balance	**628.72**	**110.63**	823.33	194.22
Scrap				
Closing balance	**143.26**		147.46	
Opening balance	**147.46**	**4.20**	117.76	(29.70)
Inter-division transfer in transit		**(26.10)**		4.85
(Increase)/Decrease		**532.41**		510.86

Note [25]
Employee benefits expense

Refer point 9 of Note [2] for accounting policy on employee benefits.

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Salaries, wages, bonus, allowances & other benefits	**4713.20**	4699.90
Contribution to provident and other funds	**460.01**	373.16
Staff welfare expenses	**239.89**	195.03
Contribution to gratuity fund	**95.78**	102.02
Group insurance	**10.17**	8.05
Total	**5519.05**	5378.15

Note [26]
Other Expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Power & fuel		**415.08**		319.57
Expenditure on other sub contracts		**243.72**		267.60
Carriage outward		**241.23**		216.71
Payment to security agencies		**148.93**		203.25
Repairs & maintenance:				
Buildings	**27.32**		26.55	
Plant & machinery	**26.44**		29.59	
Others	**74.05**	**127.81**	67.50	123.64
Insurance		**95.88**		128.51
Travelling & conveyance		**84.89**		65.15
Bank charges		**92.17**		92.61
R&D expense		**12.10**		29.48
Hire charges		**48.22**		46.38
Expenditure on collaborations & royalty		**45.21**		34.92
Rates & taxes		**23.04**		25.07
Office expense		**27.32**		31.00
Expenditure on skill development		**12.83**		15.22
Legal, audit & certification expense		**32.45**		34.62
EDP, software & lease line expense		**17.40**		25.57
Corporate social responsibility		**-**		20.18

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Water charges	**20.50**	34.19
Expenditure in connection with exports	**8.01**	11.92
Rent non residential	**12.77**	15.88
Entertainment & courtesy expenses	**2.73**	2.29
Environmental protection	**4.59**	5.72
Seminar, development and training expense	**1.28**	1.16
Unrealised loss in investment of equity share	**0.29**	-
Publicity & public relation expense	**1.94**	1.55
Miscellaneous expense	**50.10**	47.38
Exchange variation [Net (gain) / loss]	**(81.62)**	(65.83)
Provision and Write off (Details at point no vi below)	**(1526.25)**	1467.46
Total	**162.62**	3201.20

Further Details

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
(i) Director's fees	**0.25**	0.21
(ii) Expenditure on departmental repair & maintenance:		
Plant & machinery	**159.08**	175.27
Buildings	**33.06**	29.65
Others	**33.09**	32.88
(iii) Expenditure on research & development	**122.83**	146.01
(iv) Expenditure on foreign travel		
No. of tours	**127**	77
Expenditure	**1.92**	1.28

(v) BHEL from own contribution has spent cumulative ₹ 190 crore (upto previous year ₹ 189 crore) on AUSC project and accounted as R&D expenditure.

(vi) Provisions and write off

Refer Point 10, 13 of Note [2] for accounting policy on provision and impairement of assets. (₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Doubtful debts, liquidated damages and loans, advances & deposits				
Created during the year	**729.55**		2583.68	
Less: withdrawal during the year	**2209.16**	**(1479.61)**	1773.13	810.55
Contractual obligations				
Created during the year	**151.95**		240.96	
Less: withdrawal during the year	**526.44**	**(374.49)**	501.81	(260.85)
Other Provisions				
Created during the year	**367.26**		768.16	
Less: withdrawal during the year	**389.38**	**(22.12)**	128.75	639.41
Investment written off		**5.36**		4.93
Bad debts written off		**98.34**		77.55
Liquidated damages & contractual charges charged off		**233.59**		170.98
Losses written off		**12.68**		24.89
Total		**(1526.25)**		1467.46

Note [27]
Finance costs

Refer point 5 & 10 of Note [2] for accounting policy on borrowing costs and provisions. (₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Discount on commercial papers		**137.41**		164.06
Unwinding of provisions		**156.01**		141.74
Interest cost:				
Banks / Financial Institutions	**47.89**		29.34	
Foreign Financial Instituitions	**0.74**		10.77	
On lease Obligations	**8.50**		12.79	
Others	**4.01**	**61.14**	14.27	67.17
Other expenses on issuance of Commercial paper		**1.40**		0.97
Sub-total		**355.96**		373.95
Less: Borrowing cost capitalised		**-**		-
Total		**355.96**		373.95

Note [28]
Tax expenses

Refer point 12 of Note [2] for accounting policy on income taxes.

(₹ in Crore)

Particulars	For the year ended March 31, 2022		For the year ended March 31, 2021	
Current tax				
For current year	**48.86**		32.83	
For earlier years	**(125.99)**	**(77.13)**	(17.01)	15.82
Deferred tax				
For current year	**108.00**		(909.62)	
For earlier years	**(5.12)**	**102.88**	(2.43)	(912.05)
Total		**25.75**		(896.23)

Note [29]
Other comprehensive income / expenditure

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Income / (expenditure)		
Re measurement of defined employee benefits	**102.72**	26.70
Less: Income tax related to above items*	**25.85**	6.72
Total	**76.87**	19.98
* Includes		
Current tax	**-**	-
Deferred tax	**25.85**	6.72

Reconciliation of Income tax expense and accounting profit (TCI) multiplied by income tax rate

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Total Comprehensive Income / Loss (TCI) before tax (A)	**573.21**	(3569.16)
Statutory income tax rate (B)	**25.168%**	25.168%
Tax expense C = (AXB)	**144.27**	(898.29)
Difference due to: (D)		
Expenses not deductible for tax purposes	**51.90**	39.35
Difference in tax due to income chargeable to tax at special rate	**(0.76)**	-
Tax effect on share of JVs Profit / Loss	**(12.70)**	(11.13)
Change in tax expense - earlier years	**(131.11)**	(19.44)
Sub-total (D)	**(92.67)**	8.78
Net Tax Expense E = (C+D)	**51.60**	(889.51)

Note [30]
Earnings per share

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Profit/(loss) attributable to equity shareholders	446.03	(2697.11)
Weighted average number of equity shares	348.21	348.21
Basic and diluted earnings per share of ₹ 2 each	**1.28**	(7.75)

Basic earnings per equity share is computed by dividing the net profit attributable to the equity shareholders of the Company by the weightage average number of equity shares outstanding during the period. Diluted earnings per share is computed by dividing the net profit attributable to the equity shareholders of the Company by the weightage average number of equity shares considered for deriving basic earnings per equity share and also the weightage average number of equity shares that could have been issued upon conversion of all dilutive potential equity shares.

Note [31]
Dividend per share

(₹ in Crore)

Particulars	For the year ended March 31, 2022	For the year ended March 31, 2021
Proposed dividend on equity shares not recognised as liability		
Proposed final dividend of ₹ 0.40 per share for FY 2021-22 (FY 2020-21 ₹ NIL per share).	**139.28**	-

Proposed dividend on equity shares is subject to the approval of the shareholders of the Company at the Annual General Meeting and not recognised as liability as at the Balance Sheet date.

Note [32]
Notes to Accounts

The Consolidated financial statements relate to Bharat Heavy Electricals Limited (the Company), its subsidiary and its interest in Joint venture entities. The Consolidated financial statements have been prepared on the following basis-

Basis of Accounting

i) The financial Statements of the subsidiary company and interest in joint ventures in the consolidation are drawn upto the date of sale of stake in subsidiary and upto the same reporting date as of the parent company respectively.

ii) The consolidated financial statements have been prepared in accordance with Ind AS 110 on "Consolidated Financial Statements" and Ind AS-28 "Investment in Associates and Joint Ventures".

Basis of Consolidation

1. Subsidiary is entity controlled by the Company. Pursuant to sale of stake in BHEL EML to Govt. of Kerala on 11th August, 2021 the consolidation has been done upto the date of transfer of stake.
2. The Company's interest in equity-accounted investees' comprise interests in joint venture. A joint venture is an arrangement in which the Company has joint control, whereby the Company has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities. Interests in the joint venture are accounted for using the equity method. They are initially recognized at cost, which includes transaction costs. Subsequent to initial recognitions, the consolidated financials include the Company's share of profit or loss and OCI of equity-accounted investees, until the date on which significant influence or joint control ceases.

   When the Group's share of losses of a joint venture exceeds the Group's interest in that joint venture, the Group discontinues recognising its share of further losses. Additional losses are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the joint venture.
3. The consolidated financial statements have been prepared using uniform accounting policies for like transactions and other events in similar circumstances and are presented to the extent possible.
4. Minority interest' share of net loss of consolidated subsidiary for the year is adjusted against the income of the group in order to arrive at the net income attributable to shareholder of the company.
5. Minority interest share of net liabilities of consolidated subsidiary is identified and presented in consolidated financial statement separate from assets/ liabilities & equities of the company shareholder.

The Consolidated Financial statements include the results of the following entities-

Particulars	Principal place of business	Proportion of ownership	
		2021-22	2020-21
Subsidiary Company			
BHEL Electrical Machines Limited (BHEL EML)	India	-	51%
Joint Venture Companies (accounted for using equity method)			
BHEL-GE Gas Turbine Services Private Limited	India	**One share less than 50%**	One share less than 50%
NTPC-BHEL Power Projects Private Limited	India	**50%**	50%
Raichur Power Corporation Limited	India	**22.14%**	27.97%

a) The financial statements of BHEL EML are consolidated upto 11th August 2021 being the date of sale of stake by BHEL EML to Govt. of Kerala.

b) Interest in Joint Ventures in respect of BHEL-GE Gas Turbine Services Ltd. is considered based on unaudited financial statements for the year ended on 31.03.2022.

c) Interest in Joint Ventures in respect of NTPC-BHEL Power Projects Pvt. Ltd, and Raichur Power Corporation Ltd. are considered based on unaudited financial statements for the year ended on 31.03.2022.

d) Interest in joint Ventures in respect of Power Plant Performance Improvement Ltd. (PPIL) have not been considered in preparation of Consolidated Financial Statements as the company is under liquidation. Full amount of equity investment of ₹ 2 crore has been provided for as impairment.

Note [33] - Contingent liabilities and commitments

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
A. Contingent liabilities		
Claims against the company not acknowledged as debt :		
(a) Sales tax matters	**1279.61**	894.74
(b) Service tax matters	**920.46**	696.04
(c) Court & arbitration matters	**592.77**	516.18
(d) Excise duty matters	**162.18**	161.76
(e) Customs duty and others	**880.06**	834.51
(f) Other matters (incl. disputed staff cases)	**48.37**	40.51
(g) Claim towards Liquidated damages (LD)	**2872.25**	2901.75
	6755.70	6045.49

(i) In view of various court cases, litigations and claims disputed by the Company, the outflow of resources is not ascertainable at this stage. Generally,contingent Liability in respect of court & arbitration cases are shown on award/court judgement and also reviewed on a case to case basis for its reporting in contingent liability.

(ii) It is not practicable for the Company to estimate the timing of actual cash outflows in respect of items (a) to (f) , if any, due to pending resolution of the respective proceedings. However, the chances of cash outflow are contingent.

(iii) Liquidated damages represents likely claims or amount withheld by customer on account of delay in execution of projects which will be settled after commissioning and trial operation of project based on delay analysis and is being disclosed in line with Ind AS -37.

(iv) Movement in contingent liabilities

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Balance at the beginning of the year	**6045.49**	8068.47
Less: Reduction out of opening balance	**129.84**	3342.01
Add: Additions (net) during the year	**840.05**	1319.03
Balance at the end of the year	**6755.70**	6045.49

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
B. Commitments		
(a) Estimated amount of contracts, net of advances, remaining to be executed on capital account and not provided for.	**209.20**	229.15
- (The above includes related to acquisition of intangible assets)	**7.56**	8.65
(b) Investment in the Joint Venture entity (NBPPL) for which the company has restrictions for their disposal for five years from the date of incorporation /commercial operation of the project/first unit of the project/completion of first EPC contract, as the case may be. This investment has been fully provided for.	**50.00**	50.00

(c) In view of the nature of business, being long term construction contracts there may be other commitments for purchase of material etc., which has been considered as normal business process.

Note [34]

Current Financial liabilities includes a sum of ₹ 100.51 crore (previous year ₹ 100.51 Crore) towards guarantee fee demanded by the Government of India in respect of foreign currency loans taken by the Company at the instance of the Government upto 1990-91. Since there was no stipulation for payment of such guarantee fee at the time the loans (guaranteed by Government) were taken by the company, the matter is being reviewed for appropriate action.

Note [35]

The Company had taken over Amorphous Silicon Solar Cell Plant (ASSCP), Gurgaon on April 1, 1999 from Ministry of New and Renewable Energy (MNRE) on lease for a period of 30 years. The formal lease agreement with the Ministry of New and Renewable Energy (MNRE) is yet to be finalised.

Note [36]

Balance shown under Trade receivables, Trade payables, contractors' advances, deposits and stock / materials lying with sub-contractors/ fabricators are subject to confirmation, reconciliation & consequential adjustment, if any. The Company is in the business of long term construction contracts, bills are raised on the customers as per contract in line with billing schedule approved by the customer and the reconciliation is carried out on ongoing basis & provisions made, wherever considered necessary. Final reconciliation with customer is done on completion of project (Trial Operation and PG Test completed). Trade receivable of completed projects stand at ₹ **7593** crores (previous year ₹ 7882 crore) . Out of completed contracts, the projects reconciled with customers have outstanding trade receivables of ₹ **6376** crore (previous year ₹ 6299 crore).

Note [37] - Subsidiary

(a) Name of subsidiary	Principal place of business	Proportion of ownership interest held by the Company		Proportion of ownership interest held by the Non Controlling Interest	
		As at		As at	
		March 31, 2022	March 31, 2021	March 31, 2022	March 31, 2021
BHEL Electrical Machines Limited	India	-	51%	-	49%

BHEL has transferred its stake in BHEL EML to Govt. of Kerala on 11th August, 2021.

(b) Summarized financial information of Subsidiary Company is as follows. The amounts disclosed for subsidiary are before inter- company eliminations:-

(₹ in Crore)

Summarized Balance Sheet	As at	
	March 31,2022	March 31,2021
Non-current assets	-	14.3
Current assets	-	10.34
Total Assets	-	24.64
Non-current liabilities	-	5.42
Current liabilities	-	42.94
Total Liabilities	-	48.36
Net Assets	-	(23.72)
Accumulated Non Controlling Interest (NCI)	-	(11.62)

(₹ in Crore)

Summarized statement of profit and loss	For the Year	
	2021-22*	2020-21
Revenue	-	0.25
Profit/ (loss) for the year	**(2.69)**	(5.28)
Other Comprehensive Income/Expenses	-	-
Total Comprehensive Income/Expenses	**(2.69)**	(5.28)
Profit/ (loss) attributable to NCI	**(1.32)**	(2.59)

* upto 11th August, 2021

(₹ in Crore)

Summarized Cash flows	For the Year	
	2021-22*	2020-21
Cash flows from operating activities	**(0.02)**	(6.44)
Cash flows from investing activities	-	-
Cash flows from financing activities	-	(0.84)
Net increase/ (decrease) in cash and cash equivalents	**(0.02)**	(7.28)

BHEL has transferred its stake in BHEL EML to Govt. of Kerala on 11th August, 2021.

Note [38] - Jointly Controlled Entities

A. Summarized financial information of the joint venture, based on its Ind-AS financial statements, and reconciliation with the carrying amount of the investment in financial statements are set out below:

(₹ in Crore)

a) Name of the joint ventures (accounted for at equity method)	Principal place of business	Proportion of ownership		Carrying Amount	
		As at March 31		As at March 31	
		2022	2021	2022	2021
BHEL-GE Gas Turbine Services Private Limited (BGGTS)	India	**50% minus 1 share**	50% minus 1 share	**2.38**	2.38
NTPC-BHEL Power Projects Private Limited (NBPPL)	India	**50.00%**	50.00%	**-**	-
Raichur Power Corporation Limited (RPCL)	India	**22.14%**	27.97%	**664.04**	664.04

(a) BGGTS is a Joint Venture Company of BHEL and GE, USA formed to take up repair & servicing of GE designed Gas Turbines.

(b) BHEL along with NTPC Limited promoted a joint venture company "NTPC- BHEL Power Projects Private Limited" for carrying out EPC contracts for Power Plants and other infrastructure Projects in India and abroad. The Board of Directors in its meeting held on February 08, 2018 has accorded in-principle approval for pursuing the winding up of NBPPL. Ministry of Power (MoP) has advised NTPC to consider buying out the stake of BHEL and decide either to continue it as an in-house EPC arm or close it after completion of present work. This advise was noted by NBPPL Board in its meeting held on 29.08.2019."

(c) Raichur Power Corporation Limited, a joint venture company of BHEL & Karnataka Power Corporation Ltd(KPCL), has been promoted for setting up of a 2x800 MW supercritical thermal power plant at Yeramarus, Raichur, Karnataka and 1x800 MW supercritical thermal power plant at Edlapur, Raichur, Karnataka on build, own and operate basis. COD of Unit I and Unit II of Yeramarus TPP achieved in March 2017 and April 2017 respectively.During the year the change in proportion of ownership is due to subscription of rights issue by M/s KPCL.

(d) The provision for impairment in value of investment in Powerplant Performance Improvement Limited amounting to ₹ 2 crore (previous year ₹ 2 crore) has been made since the Company is under liquidation and the amount paid as equity is not recoverable.

B. Summarized financial information of Joint Ventures companies of Group are as follows-:

The table below summarises financial information of Joint Venture Companies of the group accounted for at equity method. The information is as per the financial statements of the relevant Joint venture Companies and not the group's share of these amounts.

BHEL-GE Gas Turbine Services Pvt. Ltd

(₹ in Crore)

Balance Sheet	As at	
	March 31,2022	March 31,2021
Non-current assets	**394.11**	318.50
Current assets	**358.55**	297.94
Cash and Cash Equivalent (incl.bank balances) included in Current assets	**41.97**	42.66
Non-current liabilities	**19.06**	22.19
Non-Current financial liabilities (excluding Trade Payables)	**7.46**	10.59
Current liabilities	**330.40**	231.27
Current financial liabilities (excluding Trade Payables)	**10.31**	9.58

Statement of Profit and Loss	For the year ended	
	March 31,2022	March 31,2021
Revenue from operations	**801.18**	791.76
Interest Income	**17.54**	13.81
Depreciation and amortization	**9.65**	9.28
Interest expense	**1.08**	1.27
Income tax expense	**34.27**	29.94
Profit / (loss) for the year	**100.84**	88.29
Other comprehensive income/(Expenses)	**(0.06)**	(0.15)
Total Comprehensive Income/(Expenses)	**100.90**	88.44

Raichur Power Corporation Ltd.

(₹ in Crore)

Balance Sheet	As at	
	March 31,2022	March 31,2021
Non-current assets	**9832.21**	10411.71
Current assets	**3020.90**	2240.70
Cash and Cash Equivalent included in Current assets	**(136.93)**	(66.47)
Non-current liabilities	**13859.00**	13033.96
Non-Current financial liabilities (excluding Trade Payables)	**13859.00**	13033.96
Current liabilities	**2969.62**	3654.96
Current financial liabilities (excluding Trade Payables)	**2018.60**	3459.23

Statement of Profit and Loss	For the Year	
	March 31,2022	March 31,2021
Revenue from operations	**3027.00**	2029.79
Depreciation and Amortization	**660.19**	660.19
Interest Expense	**1460.00**	1753.90
Income tax Expense	**-**	-
Profit / (loss) for the year	**(565.00)**	(1431.84)
Total Comprehensive Income/(Expenses)	**(565.00)**	(1431.84)

NTPC-BHEL Power Projects Pvt. Ltd.

(₹ in Crore)

Balance Sheet	As at	
	March 31,2022	March 31,2021
Non-current assets	**205.92**	341.24
Current assets	**364.76**	255.33
Cash and Cash Equivalent [incl. bank balances] included in Current assets	**6.67**	9.96
Non-current liabilities	**197.57**	175.93
Current liabilities	**571.86**	578.87
Current financial liabilities (excluding Trade Payables)	**25.19**	25.31

Statement of Profit and Loss	For the year ended	
	March 31,2022	March 31,2021
Revenue from operations	**24.06**	42.93
Depreciation and Amortization	**5.81**	5.84
Interest Expense	**0.94**	3.00
Income tax Expense	**(13.57)**	(4.57)
Profit / (loss) for the year	**(40.52)**	(12.61)
Total Comprehensive Income/(Expenses)	**(40.52)**	(12.67)

Note [39] - Disclosure on Leases - Ind AS 116

Lease Commitments - Company as Lessee

The company's significant leasing agreements are in respect of land, building and EDP equipments. The company has entered into a rate contract for lease arrangement for computer items, printers, video conferecing equipments and peripherals. Assets taken on lease are capitalised and disclosed separately as Right-of-use assets in the property, plant and equipment. The lease rentals are allocated between interest, maintainence and principal value. The interest and maintenance charges are charged to Statement of Profit and Loss and principal amount is adjusted to lease obligations.

The company has applied the following available practical expedients :

(i) The short-term leases exemptions to leases with lease term less than 12 months

(ii) The low value lease exemption to leases where underlying asset is of low value (assets of less than ₹ 50000 in value).

a. Age-wise analysis of Lease Liabilities are as follows

(₹ in Crore)

Particulars	Future minimum lease payments		Interest		Present value [PV] of minimum lease payments	
	As at March 31,2022	As at March 31,2021	As at March 31,2022	As at March 31,2021	As at March 31,2022	As at March 31,2021
Not later than 1 year #	**54.51**	54.01	**6.60**	8.77	**47.91**	45.24
Later than 1 year and not later than 5 years	**40.52**	60.33	**5.40**	6.92	**35.12**	53.41
Later than 5 years	**-**	-	**-**	-	**-**	-

The amount of future minimim lease payments in respect of leases where remaining lease term as at the end of March 31, 2022 is less than 12 months is ₹ 7.56 cr (Previous year ₹ 9.54cr).

b. Movement in lease liabilities during the FY

(₹ in Crore)

Particulars	For the year	
	2021-22	2020-21
Lease Liabilities As at April 1*	**101.61**	132.04
Add: Additions	**33.18**	30.03
Add: Accretion of interest	**8.50**	12.79
Less : Payments/Adjustment	**58.36**	73.25
Lease Liabilities as at March 31*	**84.93**	101.61

* includes interest accrued of ₹ 1.90 crore (PY ₹ 2.96 crore) & ₹ 2.96 crore (PY ₹ 3.12 crore) as at March 31, 2022 & March 31, 2021 respectively

c. Amounts recognised in profit or loss:

(₹ in Crore)

Particulars	For the Year Ended	
	March 31,2022	March 31,2021
Expense relating to Short-term leases (Refer Note No.34)	**2.27**	2.25
Expense relating to low value assets leases (Refer Note 34)	**1.23**	1.03
Depreciation charge of right-of-use assets	**42.35**	64.26
Interest expense (included in finance cost)	**8.50**	12.79

d. The company has various lease contracts that have not yet commenced . The future lease payments for these non-cancellable lease contracts are as follows:

(₹ in Crore)

Particulars	For the Year Ended	
	March 31,2022	March 31,2021
Not later than 1 year	**-**	0.07
Later than 1 year and not later than 5 years	**-**	0.05
Later than 5 years	**-**	-

Note [40] - Disclosure on 'Employee benefits' - Ind AS 19

A. The Company has following schemes in the nature of Defined Benefits Plans:

i) Gratuity Scheme

ii) Post Retirement Medical Scheme

iii) Provident Fund Scheme

iv) Travel claim on Retirement

(i) Gratuity (Funded Plan)

The Company has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to gratuity at 15 days salary (15/26 X last drawn basic salary plus dearness allowance) for each completed year of service subject to a maximum limit of ₹ 20 Lakhs.The gratuity liability arises on account of future payments, which are required to be made in the event of retirement, death in service or withdrawal. The liability has been assessed using projected unit credit actuarial method.

Movement in net defined benefit (asset)/liability on Gratuity plan (₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March, 31					
	2022	2021	2022	2021	2022	2021
Opening Balance	**2011.42**	2074.13	**1697.44**	1696.77	**313.98**	377.36
Add/(less) Adjustment on sale of stake in subsidiary	**(6.16)**	-	**-**	-	**(6.16)**	-
Included in profit for the year :						
Current service cost	**95.78**	101.79	**-**	-	**95.78**	101.79
Past service cost	**-**	-	**-**	-	**-**	-
Interest cost /(income)	**135.35**	139.84	**135.35**	139.61	**-**	0.23
Total amount recognised in profit for the year	**231.13**	241.63	**135.35**	139.61	**95.78**	102.02

Movement in net defined benefit (asset)/liability on Gratuity plan (₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March, 31					
	2022	2021	2022	2021	2022	2021
Included in other comprehensive income (OCI) :						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Change in Demographic assumptions	-	-	-	-	-	-
Change in Financial Assumption	(47.57)	-			(47.57)	-
Experience Adjustment	(19.22)	(32.61)	(15.35)	(21.21)	(3.87)	(11.40)
Total amount recognised in other comprehensive income	**(66.79)**	(32.61)	**(15.35)**	(21.21)	**(51.44)**	(11.40)
Others						
Contributions paid by the employer	-	-	-	154.00	-	(154.00)
Benefits paid	(236.00)	(271.73)	(236.00)	(271.73)	-	-
Unpaid Benefits paid	-	-			-	-
Closing balance	**1933.60**	2011.42	**1581.44**	1697.44	**352.16**	313.98

Details of Plan assets

Particulars	As at March 31,2022	As at March 31,2021
Funds managed by Insurer*	**76.96%**	70.80%
High quality Corporate bonds (quoted)	**19.55%**	18.23%
State Government securities (quoted)	**2.80%**	2.46%
Equity shares of listed Companies (quoted)	**-**	0.97%
Bank Balance	**0.69%**	7.54%
Total	**100.00%**	100.00%

*Insurer is Life Insurance Corporation of India

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31, 2022	As at March 31, 2021
Economic assumptions		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rate % (All ages)		
Upto 30 years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Gratuity			
	As at March, 31 2022		As at March, 31 2021	
	Increase	Decrease	Increase	Decrease
Change in Discount rate (0.50% movement)	**(91.26)**	**99.51**	(92.13)	100.65
Change in Salary escalation rate (0.50% movement)	**43.70**	**(47.40)**	51.60	(53.83)

Sensitivities due to mortality and withdrawals are not material and hence impact of change due to these are not calculated.

Sensitivities as rate of increase of pensions in payment, rate of increase of pensions before retirement & life expectancy are not applicable.

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Expected maturity analysis of the gratuity plan in future years

(₹ in Crore)

Particulars	Gratuity	
	As at March 31,2022	As at March 31,2021
Less than 1 year	**213.13**	230.44
Between 1-2 years	**149.43**	193.53
Between 2-3 years	**134.26**	141.35
Between 3-4 years	**112.14**	126.36
Between 4-5 years	**98.80**	104.26
Between 5-6 years	**87.74**	91.67
Over 6 years	**1138.10**	1123.81
Total	**1933.60**	2011.42

Expected contributions to gratuity plans for the year ending 31 March 2023 are ₹ 109.78 crore

The weighted average duration of the gratuity defined benefit plan obligation at the end of the reporting period is 14.81 years (31 March 2021: 14.95 years.)

Risk Exposures

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such, company is exposed to various risks such as increase in salary, investment risk, discount rate, mortality, disability and withdrawals.

(ii) Post Retirement Medical Benefits (Funded Plan)

The Company has Post-Retirement Medical benefit (PRMB), under which the retired employees and their spouses are provided medical facilities in the Company hospitals/empanelled hospitals subject to company medical rules.They can also avail treatment as out-patient subject to a ceiling fixed by the Company. The liability for the same is recognised annually on the basis of actuarial valuation.

Movement in net defined benefit (asset)/liability on Post retirement Medical Benefit Plan

(₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March 31,					
	2022	2021	2022	2021	2021	2021
Opening balance	**2255.85**	2285.20	**1948.72**	1933.72	**307.13**	351.48
Add/(less) Adjustment on sale of stake in subsidiary	**-**	-	**(0.38)**	-	**0.38**	-
Included in Profit for the Year :						
Current service cost	**39.26**	39.92	**-**	-	**39.26**	39.92
Past service Cost	**-**	(49.95)	**-**	-	**-**	(49.95)
Interest cost / (income)	**152.27**	154.25	**152.27**	154.25	**-**	-
Total amount recognised in Profit for the Year	**191.53**	144.22	**152.27**	154.25	**39.26**	(10.03)
Included in other comprehensive income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**-**	-	**-**	-	**-**	-
Financial assumptions	**(54.57)**	-	**-**	-	**(54.57)**	-
Experience adjustment	**(16.96)**	(9.57)	**(16.27)**	(17.25)	**(0.69)**	7.68
Total amount recognised in other comprehensive income	**(71.53)**	(9.57)	**(16.27)**	(17.25)	**(55.26)**	7.68
Others						
Contributions paid by the employer	**-**	-	**-**	42.00	**-**	(42.00)
Benefits paid	**(165.00)**	(164.00)	**(165.00)**	(164.00)	**-**	-
Closing balance	**2210.85**	2255.85	**1919.34**	1948.72	**291.51**	307.13

The plan assets of the Company are managed by Life Insurance Corporation of India through a trust managed by the Company in terms of an insurance policy taken to fund obligations of the Company

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Post Retirement Medical Benefit			
	As at March 31, 2022		As at March 31, 2021	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(100.44)**	**101.60**	(100.99)	103.12
Change in cost (0.50% movement)	**101.79**	**(100.97)**	103.96	(101.57)

Sensitivity due to mortality and withdrawls are not material and hence impact of change not calculated.

The sensitivity analysis above has been determined based on a method that extrapolates the impact on defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. This analysis may not be representative of the actual change in the defined benefit obligations as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

Expected maturity analysis of the Post retirement medical Benefit plan in future years

(₹ in Crore)

Particulars	Post Retirement Medical Benefit	
	As at March 31, 2022	As at March 31, 2021
Less than 1 year	**133.39**	147.94
Between 1-2 years	**140.73**	149.62
Between 2-3 years	**149.11**	153.04
Between 3-4 years	**158.65**	158.33
Between 4-5 years	**169.44**	165.65
Between 5-6 years	**181.98**	175.29
Over 6 years	**1277.55**	1305.98
Total	**2210.85**	2255.85

Expected contributions to Post retirement medical benefit plan for the year ending 31 March 2023 are ₹ 38.66 crore.

The weighted average duration of the post retirement medical benefit plan obligation at the end of the reporting period is 12.78 years (31 March 2021: 12.42 years).

Risk Exposure

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such company is exposed to various risks such as increase in medical cost, investment risk, discount rate, mortality, disability and withdrawals.

(iii) Provident Fund

The Company pays fixed contribution to provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The Company has an obligation to ensure minimum rate of return to the members as specified by GOI. Accordingly, the Company has obtained report of the actuary. Wherever as per the actuarial valuation certificate liability for likely interest shortfall arises, the same has been provided in the accounts.

Details of interest shortfall in PF Trust (₹ in Crore)

Particulars	For the year ended	
	2021-22	2020-21
Excess / (shortfall) in PF interest liability based on actuarial valuation for the year	**1.26**	15.68
Accumulated provision for shortfall in PF interest liability based on actuarial valuation	**13.20**	14.46
Remeasurement gain/(loss) recognised through other comprehensive income statement	**(1.39)**	25.16
Interest shortfall / (surplus) accounted through Statement of Profit & Loss	**(2.65)**	9.48

The Company has PF trusts located at various places covering the employees of the Company and managed separately,the details of plan assets and obligations are as follows:

(₹ in Crore)

Location	Defined benefit obligation		Fair value of plan assets		Surplus / (Shortfall)	
	As at March 31					
	2022	2021	2022	2021	2022	2021
BHEL EPF Trust,Ranipur,Hardwar	**1664.32**	1574.05	**1680.03**	1581.86	**15.71**	7.81
BHEL Employee Provident Fund-Trichy	**935.88**	986.73	**929.35**	984.73	**(6.53)**	(2.00)
BHEL Employee Provident Fund Bhopal	**1394.81**	1317.70	**1395.61**	1313.87	**0.80**	(3.83)
BHEL New Delhi Employees Provident Fund Trust	**1375.80**	1291.26	**1386.09**	1297.88	**10.29**	6.62
BHEL Employee Provident Fund-Hyderabad	**823.06**	833.30	**853.42**	853.68	**30.36**	20.38
BHEL PPD EPF Trust,Chennai	**854.23**	786.92	**847.56**	778.29	**(6.67)**	(8.63)
BHEL Employee Provident Fund-Bengaluru	**620.46**	635.51	**627.07**	644.53	**6.61**	9.02
BHEL (BAP Unit) EPF Trust,Ranipet	**357.05**	390.16	**359.84**	390.62	**2.79**	0.46
BHEL Employee Provident Fund Trust Jhansi	**455.36**	437.95	**468.66**	447.68	**13.30**	9.73
Bharat Heavy Plates & Vessels Limited Employee Contributory Provident Fund-Vizag	**145.91**	141.46	**179.46**	172.72	**33.55**	31.26
Total	**8626.88**	8395.04	**8727.09**	8465.86	**100.21**	70.82

Movement in net defined benefit (asset)/liability on Provident Fund

(₹ in Crore)

Particulars	BHEL Employees Provident Fund Trust (Consolidated)			
	Defined benefit obligation		Fair value of plan assets	
	As at March 31, 2022	As at March 31, 2021	As at March 31, 2022	As at March 31, 2021
Opening Balance	**8395.04**	8160.39	**8465.86**	8194.12
Included in Profit for the year :				
Current service cost	**337.15**	327.61	**-**	-
Interest cost / (income)	**657.45**	665.66	**657.45**	665.66
Total amount recognised in profit for the year	**994.60**	993.27	**657.45**	665.66
Included in other comprehensive income (OCI):				
Remeasurement loss (gain):				
Actuarial loss (gain) arising from:				
Demographic assumptions	**-**	-	**-**	-
Financial assumptions	**(1.65)**	-	**-**	-
Experience adjustment	**3.54**	(17.87)	**31.28**	19.22
Total amount recognised in other comprehensive income	**1.89**	(17.87)	**31.28**	19.22
Others				
Contributions paid by the employer	**-**	-	**337.15**	327.61
Employee Contribution	**725.84**	777.25	**725.84**	777.25
Benefits paid	**(1904.95)**	(1804.50)	**(1904.95)**	(1804.50)
Settlements/Transfer-in	**414.46**	286.50	**414.46**	286.50
Closing balance	**8626.88**	8395.04	**8727.09**	8465.86

Note: Interest shortfall in respect of PF trusts having deficit and defaulted investments (₹ 42.10 cr) have been accounted through Statement of profit and loss and other Comprehensive Income Statement.

Details of plan assets

(₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Govt. of India securities (Quoted)	**1026.09**	1153.72
State Government securities [Quoted]	**4061.08**	3694.89
Corporate bonds (Quoted)	**3062.28**	3027.71
Special deposit (Unquoted)	**384.27**	417.43
Liquid fund (Quoted)	**14.25**	2.11
Short term deposit [Unquoted]	**13.07**	10.89
Mutual Fund & Equity shares[Quoted]	**166.05**	159.11
Total	**8727.09**	8465.86

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date. (₹ in Crore)

Particulars	As at March 31,2022	As at March 31,2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Expected statutory interest rate on the ledger balance	**8.10%**	8.50%
Expected short fall in interest earnings on the fund	**0.05%**	0.05%
Demographic assumptions:		
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rate % (All ages)		
Upto 30 years	**3.00%**	3.00%
From 31 to 44 years	**2.00%**	2.00%
Above 44 years	**1.00%**	1.00%

Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

Particulars	BHEL Employees Provident Fund Trust			
	As at March 31, 2022		As at March 31, 2021	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(1.30)**	**1.38**	(1.23)	1.28

Sensitivity due to mortality and withdrawals are not material and hence impact of change not calculated.

Expected maturity analysis in future years

Particulars	Provident Fund	
	As at March 31, 2022	As at March 31, 2021
Within the next 12 months	**916.15**	832.06
Between 2-5 years	**1681.13**	2009.34
Between 5-10 years	**2150.37**	1984.72
Beyond 10 years	**3879.23**	3568.92
Total	**8626.88**	8395.04

Risk Exposure

Valuations are based on certain assumptions, which are dynamic in nature and vary over time. As such company is exposed to various risks such as increase in investment risk, discount rate, mortality, disability and withdrawals.

(iv) Travel claim on retirement - (Settlement Allowance - Unfunded Plan)

The settlement allowance is the expenditure reimbursed to an employee towards travel and shifting of baggage for proceeding to home town or any place in India where he or she intends to settle after retirement or death in service for self (including members of his/her family).

Movement in Settlement Allowance liability

(₹ in Crore)

Particulars	Settlement Allowance	
	As at March 31,2022	As at March 31,2021
Opening balance	**10.30**	9.56
Current service cost	**0.69**	0.63
Interest cost / (income)	**0.69**	0.65
Included in Profit for the Year :	**1.38**	1.28
Actuarial loss (gain)	**2.60**	2.16
Total amount recognised in TCI for the Year	**3.98**	3.44
Others		
Contributions paid by the employer	**-**	-
Benefits paid	**(2.65)**	(2.70)
Closing balance	**11.63**	10.30

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Settlement Allowance	
	As at March 31, 2022	As at March 31, 2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

B. Long Term Leave Liability (Encashable Leave -EL /Half Pay Leave-HPL) - (Unfunded Plan)

The company provides for earned leave benefit and half pay leave to the employees of the company which accrue half yearly at 15 days (maximum) and 10 days respectively. The earned leave is encashable while in service subject to fulfilment of certain conditions. On retirement/superannuation, earned leave & half pay leave put together upto a maximum of 300 days is encashable subject to company policies & leave encashment rules.The leave liability has been treated as other long term benefits and has been assessed using projected unit credit actuarial method.

Movement in long term leave liability

(₹ in Crore)

Particulars	Long Term Leave Liability	
	As at March 31, 2022	As at March 31, 2021
Opening Balance	**1242.08**	1392.73
Add/(less) Adjustment of sale of stake in subsidiary	**(0.34)**	-
Included in profit for the year :		
Current service cost	**142.00**	157.75
Interest cost/(income)	**83.82**	93.98
Actuarial loss/(gain)	**(181.51)**	(130.95)
Total amount recognised in profit for the year	**44.31**	120.78
Benefits paid	**255.33**	271.43
Closing Balance	**1030.72**	1242.08

Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Long Term Leave Liability	
	As at March 31, 2022	As at March 31, 2021
Economic assumptions:		
Discount rate	**7.00%**	6.75%
Salary escalation rate	**6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter**	6.50% p.a. for 1st 4 yrs. & then 6% p.a. thereafter
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2012-14)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

C. Pension Fund

The Company has recognised ₹ 254 cr [PY ₹ 280 cr] as contribution in respect of pension scheme [defined contribution plan] for the FY 2021-22

Note [41] - Disclosure as per Ind AS 24 - Related Parties

A List of related parties

(i)	**Joint venture companies**	BHEL-GE Gas Turbine Services Pvt. Ltd. (BGGTS) NTPC-BHEL Power Projects Pvt. Ltd. (NBPPL) Raichur Power Corporation Ltd. (RPCL) Powerplant Performance Improvement Ltd.
	Post employment benefit plans	Provident fund trusts Gratuity trust PRMB Trust Pension Trust
	Others	Central Government controlled entities

The company is a central Public Sector undertaking under the administrative control of Ministry of Heavy Industries and majority of its stake is held by Government of India. The significant transactions are with other PSUs, State owned utilities, Railways etc. which are also controlled by Govt. of India directly or indirectly. The transactions with such entities are normal, based on market driven rates at arms length price.

(ii) Other related parties

a. Key Management Personnel [KMP]

Particulars	Designation	Position Held [w.e.f /upto]
Functional Directors		
Shri [Dr.] Nalin Shinghal	Chairman & Managing Director	
Shri Subodh Gupta	Director (Finance)	
Shri Kamalesh Das	Director (Engineering, R&D)	upto July 31,2021
Shri Anil Kapoor	Director (Human Resources)	upto January 31, 2022
Ms. Renuka Gera	Director (IS & P)	
Shri Upinder Singh Matharu	Director (Power)	w.e.f March 21, 2022
Shri TS Chakravarthy	Managing Director BHEL-EML	upto August 11, 2021
Company Secretary		
Shri Rajeev Kalra	Company Secretary	

(₹ in Crore)

Particulars	For the year ended	
	March 31,2022	March 31,2022
Compensation to Key management personnel		
-Short term employee benefits	**3.29**	4.16
- Post employment benefits	**0.38**	0.56
- Other long term benefits	**-**	-
- Termination benefits	**-**	-
- Share based payment	**-**	-
Total	**3.67**	4.72

b. Government Director/Independent Director

Name	Government /Independent	Position Held [w.e.f /upto]
Shri Shashank Priya	Government Director	
Shri Amit Mehta	Government Director	upto 18.06.2021
Shri Jeetendra Singh	Government Director	w.e.f. 18.06.2021 & upto 25.03.2022
Shri Vijay Mittal	Government Director	w.e.f. 25.03.2022
Shri Rajesh Sharma	Independent Director	upto 13.02.2022
Shri Raj Kamal Bindal	Independent Director	
Shri Manish Kapoor	Independent Director	
Shri (Dr.) Raj K. Agarwal	Independent Director	w.e.f. 09.11.2021
Shri (Dr.) K. Sivaprasad	Independent Director	w.e.f. 09.11.2021
Smt.(Dr.) Lekhasri Samantsinghar	Independent Director	w.e.f. 09.11.2021
Shri Aditya Prasad Sahu	Independent Director	w.e.f. 29.12.2021

(₹ in Crore)

Particulars	For the year ended	
	March 31, 2022	March 31, 2022
Sitting Fees -- Independent Directors	**0.25**	0.21

B. Transactions with Post Employment Benefit Plans managed through separate trust

(₹ in Crore)

Name of Trust	Post Employment benefit plan	Contribution by employer For the year ended March 31	
		2022	2021
PRMB Trust	Post Retirement medical scheme	**-**	41.62
Gratuity Trust	Gratuity	**-**	154.00
Employees Superannuation Fund	Pension Fund	**115.00**	280.00
BHEL EPF Trust,Ranipur,Hardwar	Provident Fund	**55.13**	52.21
BHEL Employee Provident Fund-Trichy	Provident Fund	**53.43**	52.97
BHEL Employee Provident Fund Bhopal	Provident Fund	**53.03**	50.86
BHEL New Delhi Employees Provident Fund Trust	Provident Fund	**41.46**	39.25
BHEL Employee Provident Fund-Hyderabad	Provident Fund	**40.56**	39.36
BHEL PPD EPF Trust,Chennai	Provident Fund	**28.21**	26.34
BHEL Employee Provident Fund-Bengaluru	Provident Fund	**27.75**	29.16
BHEL (BAP Unit) EPF Trust,Ranipet	Provident Fund	**18.58**	19.24
BHEL Employee Provident Fund Trust Jhansi	Provident Fund	**13.19**	12.77
Bharat Heavy Plates & Vessels Limited Employee Contributory Provident Fund-Vizag	Provident Fund	**5.81**	5.45

iii. Details of Transactions With Joint Ventures and Balances

(₹ in Crore)

Particulars	For the year ended	
	March 31, 2022	March 31, 2021
Sales of Goods and services		
BGGTS	**281.48**	215.85
RPCL	**3.27**	7.80
NBPPL	**3.83**	10.86
Dividend income		
BGGTS	**30.35**	21.42
Royalty income		
BGGTS	**1.80**	1.46
Purchase of Goods and Services		
BGGTS	**1.04**	1.96
NBPPL	**1.52**	0.75
Amounts due to BHEL at the end of the year		
BGGTS	**143.55**	68.79
RPCL	**550.90**	552.00
NBPPL	**263.89**	195.56
Amounts due from BHEL (incl. advances) at the end of the year		
BGGTS	**0.11**	0.15
RPCL	**20.95**	7.67
NBPPL	**67.95**	56.79
Provision for Doubtful debts & advances		
RPCL	**20.17**	20.10
NBPPL	**188.70**	187.98

Note: Refer Note[5a] for provision for dimunition in value of investment

Note [42] - Disclosure [Movement in provisions] - Ind AS - 37

(₹ in Crore)

a. Liquidated Damages	As at March 31,2022	As at March 31,2021
Opening Balance	**9511.80**	8467.67
Add: Additions	**152.07**	1546.68
Less: Usage/ Write off/payment	**111.76**	98.36
Less: Withdrawal/adjustments	**992.91**	404.19
Closing Balance	**8559.20**	9511.80

Liquidated damages are provided in line with the Accounting Policy of the Company and the same is dealt suitably in the accounts on settlement or otherwise. Contingent liability relating to liquidated damages is shown in Para A (g) of Note 33.

(₹ in Crore)

b. Contractual Obligation	As at			
	March 31, 2022		March 31, 2021	
Opening Balance				
As disclosed in Note (19)	**3992.45**		4319.11	
As disclosed in Note (6)	**723.45**		736.93	
As disclosed in Note (9)	**699.86**	**5415.76**	483.12	5539.16
Add: Borrowing Cost		**155.78**		141.68
Add: Additions		**277.50**		447.20
Less: PV Adjustment		**107.45**		194.95
Less: Usage/ Write off/payment		**88.78**		87.56
Less: Withdrawal/adjustments		**438.94**		418.48
Add/(Less): Change in estimate and rates		**(18.11)**		(11.29)
Closing Balance				
As disclosed in Note (19)	**3855.48**		3992.45	
As disclosed in Note (6)	**708.05**		723.45	
As disclosed in Note (9)	**632.23**	**5195.76**	699.86	5415.76

The provision for contractual obligation is made considering the effect of time value of money in line with significant Accounting Policy No. 10 to meet the warranty obligations as per the terms and conditions of the contract. The same is retained till the completion of the warranty obligations of the contract. The actual expenses on warranty obligation may vary from contract to contract and on year to year depending upon the terms and conditions of the respective contract.Contractual obligation, pertaining to dues from projects fully provided for, disclosed in Non Current Allowances for B&D Debts in Note 6 and 9.

Based on the historical experience/technical assessment and in line with Significant accounting policy no. 10 (ii) duly approved by the Board, the Company has reassessed the anticipated cost for warranties. Consequently, the additions to Contractual obligation provision is less by ₹ 293.51 cr. in FY 2021-22.

Note [43] - Disclosure - Revenue from Contracts with Customers - Ind AS-115

a. Movement in impairment provisions

(₹ in Crore)

Particulars	2021-22		2020-21	
	Trade receivables	Contract assets	Trade receivables	Contract assets
Opening balance	**4890.48**	**1142.25**	5431.00	822.98
Add: Additions	**344.18**	**146.78**	677.99	337.37
Less: Write off	**216.42**	**-**	49.34	-
Less: Reversal*	**703.45**	**98.49**	1169.17	18.10
Closing balance	**4314.79**	**1190.54**	4890.48	1142.25

* Incl. adjustment on sale of stake in subsidiary ₹ 3.36 cr.

b. Disaggregation of revenue from contracts with customers

(₹ in Crore)

Particulars	Power		Industry		Total
	Within India	Outside India	Within India	Outside India	
2021-22					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	**2035.30**	**22.46**	**3952.87**	**35.65**	**6046.28**
(b) Over time (Projects)	**11844.60**	**1458.89**	**802.88**	**0.73**	**14107.10**
2020-21					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	1902.18	10.00	3780.92	21.30	5714.40
(b) Over time (Projects)	7650.09	1823.78	1107.53	-	10581.40

(₹ in Crore)

Particulars	2021-22		2020-21	
	Power	Industry	Power	Industry
Revenue from customers				
CPSUs	**3807.92**	**1405.00**	2824.59	1791.55
TSGENCO	**2644.40**	**-**	1664.61	-
TANGEDCO	**1669.85**	**-**	692.45	-
BIFPCL [Bangladesh]	**1381.44**	**-**	1653.65	-

c. Contract Balances (net of provisions)

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Trade Receivables	**6228.59**	7214.81
Contract assets (incl. unbilled revenue)	**26939.87**	24079.48
Contract liabilities	**6047.76**	6864.35

d. Contract revenue recognised

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Revenue recognised against contract liabilities (adjustment of customer advances and valuation adjustment during the year)	**3592.89**	3591.86
Revenue recognised against performance obligation satisfied in previous year(impact due to change in contract revenue)	**94.41**	92.96

Construction of power projects is a long cycle business, where the contracts received by the company are either EPC contracts (Engineering, Procurement & Construction) or BTG Packages (i.e. Boiler, Turbine and Generator packages). Power projects are long gestation period projects with normal execution period of contract ranging between 3 to 5 years. BHEL scope of services includes supply of equipment, erection, commissioning, synchronizing the plant to the grid, completing the trial operation and providing the guaranteed parameters.

Although there are several components to the overall scope, such projects are generally considered one performance obligation. The control transfers simultaneously over the execution period as the entity performs rather than at discrete points in time and hence revenue is recognized over the period of time based on measure of progress (input cost method)

Note [44]

The spread of Covid 19 pandemic globally caused disturbance & slow down of the economic activity. This impacted the Company's operations during the FY 2021-22, which recouped progressively. Based on the internal & external information upto the date of approval of these financial statements,the company expects to recover the carrying amount of its assets,investments,trade receivables,contract assets & inventories. The company will continue to monitor the future economic conditions and assess its impact on its financial statements.

Note [45] - Disclosure pursuant to Ind AS-107 [Financial Instruments - Accounting Classifications and Fair value measurements]

a. The Fair value of cash and cash equivalents, bank balances, loans, trade receivables, trade payables and others reasonably approximates their carrying amount. Trade receivables are evaluated after taking into consideration for Expected Credit Losses. Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique.

Fair value hierarchy

The fair value of financial instruments have been classified in following categories depending on the inputs used in the valuation technique.

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs)

(₹ in Crore)

b. Financial Assets / Liabilities Classification	Carrying Amount	
	As at March 31, 2022	As at March 31, 2021
Financial Assets at amortised cost		
Trade receivables	**6228.59**	7214.81
Cash & cash equivalent	**732.62**	1527.19
Other bank balances	**6421.07**	5174.26
Loans	**-**	-
Other financial assets	**298.29**	330.04
Financial assets at fair value through profit & loss		
Investments (Equity Instruments)	**3.29**	3.58
Financial liabilities at amortised cost		
Trade payables	**9881.52**	8564.59
Other financial liabilities	**1339.19**	1146.31
Finance lease obligation	**84.93**	101.61
Short term borrowings	**4745.00**	4849.28

(₹ in Crore)

Financial assets and liabilities measured at fair value- recurring fair value measurements	Level 3 Hierarchy	
	As at March 31, 2022	As at March 31, 2021
Financial assets:		
Investment in unquoted equity instruments	**3.29**	3.58

c. Valuation Techniques used to determine fair value

Fair value of unquoted equity instruments is determined using Level 3 inputs which include inputs from the financial statements of the investee Company based on Net asset value per share.

Reconciliation of fair value measurement of unquoted equity shares classified as FVTPL assets

(₹ in Crore)

As at March 31,2021	**3.58**
Changes in fair value	(0.29)
As at March 31,2022	**3.29**

Financial Risk Management

Objectives and Policies

The company's activities are exposed to different financial risks arising out of natural business exposures to any company operating in the sector. The management of financial risk has always been an integral part of the company's business strategies and policies. The company reviews and aligns its policies and guidelines from time to time to address the financial risks in line with the needs and expectations of its various stakeholders. Exposure risk from the use of financial instruments can be categorized as under:

a. Credit risk

b. Liquidity risk

c. Market risk

This note presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and processes for measuring and managing risk, and management of Company's capital. Further quantitative disclosures are included throughout these financial statements.

Risk Management Framework

BHEL has in place a Board approved Risk Management Charter & Policy which provides overall framework for Risk Management in the company. The objective of the charter is to ensure that the risks are being properly identified, assessed and effectively managed by adopting suitable risk mitigation measures. The company has 3-layer risk management framework. At the first level, the Board Level Risk Management Committee (BLRMC) of the company is assigned with responsibility of reviewing the company's Risk Governance structure, Risk Assessment & Risk Management framework, Guidelines, Policies and Processes thereof. Risk Management Steering Committee (RMSC) at the second level is responsible for adopting & implementing the risk management framework and leading the risk management initiative across the company. Chief Risk Officer (CRO) being the convener of BLRMC & RMSC is responsible for periodic reporting on risk management to Board/ BLRMC. Key risks being faced by the company are analysed starting from Unit level for their respective areas to prepare risk mitigation plans and to ensure implementation.

a) Management of Credit Risk

Credit risk is considered as an integral part of risk reward balance of doing business. BHEL is involved in setting up of power projects pertaining to Government sector (State utilities, PSU's, Railways and other govt. departments etc.) and private sectors in India and abroad. The projects are generally funded by Financial Institutions/ banks or payments are covered by Letter of Credit (LC). The project duration ranges from 3 to 5 years and payments are generally realised in stages as per the terms of the contract including advance, progress payments, milestone (including intermediate) payments and also retentions which are released on completion of such projects. Since majority customers' profile pertains to Government sector, constituting 79% of total receivables coupled with the fact that the company itself is a CPSE, credit risk is relatively low. In respect of private sector customers , the payment terms are mainly through LC. The company has well established review mechanism for receivables at various levels within organisation to ensure proper attention and focus for realisation in line with the company policies, procedures and guidelines.The company uses expected credit loss model to assess the impairment loss or gain and the disclosure of the same is made elsewhere. Further, adequate provisions are maintained to address any eventuality.

i) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was:

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Cash and cash equivalents	**732.62**	1527.19
Other bank balances	**6421.07**	5174.26
Other financial assets	**298.29**	330.04
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) including impairment loss		
Trade receivables	**6228.59**	7214.81

Concentration of credit risk- Geographical	Percentage of total receivable	
	As at March 31, 2022	As at March 31, 2021
Within India	**93%**	92%
Outside India	**7%**	8%
Total	**100%**	**100%**

The company's exposure to credit risk for trade receivables,contract assets and other receivables by type of counterparty are as follows –

Particulars	Percentage of total trade receivables	
	As at March 31, 2022	As at March 31, 2021
Central Public Sector Undertakings incl Railways and Govt Deptt	**37%**	36%
State Electricity Boards	**42%**	43%
Private Customers and others	**14%**	13%
Exports	**7%**	8%
Total	**100%**	100%

ii) Impairment losses

(a) Financial assets for which loss allowance is measured using 12 month expected credit losses

The company has assets where the counter- parties have sufficient capacity to meet the obligations and where the risk of default is very low.

The movement in the allowance for impairment in respect of loans during the year was as follows:

(₹ in Crore)

Particulars	As at March 31, 2022	As at March 31, 2021
Balance as at April 1	**31.95**	32.38
Impairment loss recognised / write off/ withdrawal	**(17.39)**	(0.43)
Balance as at March 31	**14.56**	31.95

(b) Reconciliation of impairment loss provisions

The movement in the allowance for impairment in respect of trade receivables and contract assets during the year was as follows:

(₹ in Crore)

	As at March 31, 2022	As at March 31, 2021
Balance as at April 1	**6032.73**	6250.62
Impairment loss recognised	**490.97**	1015.36
Amounts written off/ withdrawal (Incl. adj.)	**(1018.37)**	(1233.25)
Balance as at March 31	**5505.33**	6032.73

The company makes investments out of surplus funds as per investment policy of the company duly approved by the Board and in line with the DPE guidelines .Credit risk on cash and cash equivalents and term deposits is very limited as the company generally invests in deposits with banks and financial institutions with high credit ratings assigned by credit rating agencies.

b) Management of Liquidity risk

The Company manages liquidity risk by maintaining sufficient cash and cash equivalents including term deposits and the availability of Funding through an adequate amount of credit facilities to meet obligations as and when due. Robust cash management system and regular monitoring of cash flows enables management to plan and maintain adequate sources to finance its funds requirement throughout the year. Besides adequate cash and bank balances, company enjoys credit facilities. The company is able to meet all its fund requirements from internal resources i.e. the funds generated from operations and also through short-term borrowings for better treasury management operations.

The following are the contractual maturities of non-derivative financial liabilities, based on contractual cash flows:

(₹ in Crore)

Financial Liabilities	As at March 31, 2022		As at March 31, 2021	
Non-derivative financial liabilities	Within 1 year	Exceeding 1 year	Within 1 year	Exceeding 1 year
Trade payables	**7749.59**	**2131.93**	6680.82	1883.77
Deposits from contractors and others	**431.36**	**206.45**	447.92	211.01
Finance lease obligations	**49.81**	**35.12**	48.20	53.41
Other Payables/liabilities				
Employee dues	**214.05**	**-**	126.88	-
Other dues	**397.85**	**-**	297.30	-
Capex dues	**80.83**	**8.65**	57.49	5.71
Short term borrowings	**4745.00**	**-**	4849.28	-
Total	**13668.49**	**2382.15**	12507.89	2153.90

c. Management of Market risk

The Company is exposed to certain currency,commodity, interest rate risks arising from its operations. The company has foreign exchange risk management policy to cover the foreign exchange risks.To insulate the company against major commodity price fluctuation,framework agreements including price pass through claims are being entered regularly with supply chain partners including suppliers and customers. Surplus funds generated from operation are kept invested in short term deposits with PSU Banks or large sized private banks only and in debt based schemes of public sector mutual funds , thereby minimizing any chance of risk.

Foreign currency risk exposure -: The company's exposure to foreign currency risk at the end of reporting period, are as follows:

(i) The derivative instruments that are hedged and outstanding as on 31.03.2022 is NIL (previous year Nil)

(ii) The foreign currency exposures that are not hedged by a derivative instrument or otherwise are as under:

FC ' in Million (₹ in Crore)

Particulars	As at March 31, 2022		As at March 31, 2021		As at March 31, 2022	As at March 31, 2021
Assets	Euro	Equivalent INR	Euro	Equivalent INR	Others (in INR)	Others (in INR)
Trade receivable	**61.72**	**520.18**	101.84	871.66	**3.16**	1.35
Contract assets	**327.57**	**2753.33**	239.80	2056.26	**35.27**	66.87
Other assets	**0.93**	**7.56**	13.68	110.08	**21.98**	144.71
Sub Total (A)	**390.22**	**3281.07**	355.32	3038.00	**60.41**	212.93
Liabilities						
Advances from customer	**36.42**	**242.50**	41.03	281.34	**39.47**	40.97
Trade payables and others	**101.40**	**869.73**	39.42	343.91	**131.99**	107.92
Sub Total (B)	**137.82**	**1112.23**	80.45	625.25	**171.46**	148.89
Assets Net of Liabilities (A-B)	**252.40**	**2168.84**	274.87	2412.75	**(111.05)**	64.04

Particulars	As at March 31, 2022		As at March 31, 2021	
Assets	**USD**	**Equivalent INR**	**USD**	**Equivalent INR**
Trade receivable	**64.88**	**489.70**	79.62	582.87
Contract assets	**333.77**	**2517.59**	316.33	2315.32
Other assets	**6.08**	**45.30**	0.90	6.79
Sub Total (A)	**404.73**	**3052.59**	396.85	2904.99
Liabilities				
Advances from customer	**78.92**	**457.24**	115.93	675.39
Trade payables and others	**161.30**	**1231.18**	144.50	1070.18
Short term borrowings	**-**	**-**	46.68	345.06
Sub Total (B)	**240.22**	**1688.42**	307.11	2090.63
Assets Net of Liabilities (A-B)	**164.51**	**1364.17**	89.74	814.36

The above figures are net of provisions, if any

Sensitivity analysis

The impact of strengthening/weakening of the Indian Rupee vis a vis USD,EURO and others as at year end on profit or loss is as shown below. This analysis is based on foreign currency exchange rate variances that the company considered to be reasonably possible at the end of the reporting period. The analysis is performed on the same basis for previous year, albeit that the reasonably possible foreign exchange rate variances were different, as indicated below.

Particulars	As at			
	March 31, 2022		March 31, 2021	
Effect on Profit / (loss)	**Strengthening**	**Weakening**	**Strengthening**	**Weakening**
1% movement				
Euro	**21.69**	**(21.69)**	24.13	(24.13)
USD	**13.64**	**(13.64)**	8.14	(8.14)
Others	**(1.11)**	**1.11**	0.64	(0.64)

Capital Management

The company's objective, while managing capital is to continue business as a going concern, safeguard,preserve and enhance its capital to provide maximum return to shareholders, benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. The Board of Directors also montiors the level of dividends to equity shareholders. The Company monitors capital, using a medium term view and long term view, on the basis of a number of financial ratios generally used by industry as well as by the rating agencies. The Company is not subject to externally imposed capital requirements. The Company's capital structure is managed against the various financial ratios as required to maintain highest credit ratings.

Note [46] - Consolidated Operating Segment

The Segments have been identified as 'Power' and 'Industry' based on the orders booked by the respective business sectors. The order booked by International operation group is taken to Power or Industry as the case may be.

The Company's Committee of functional Directors has been identified as Chief Operating Decision maker (CODM).

(₹ in Crore)

Particulars		For the year ended March 31, 2022			For the year ended March 31, 2021		
		Power	Industry	Total	Power	Industry	Total
I.	**Segment Revenue**						
	Operating Revenue-External	**15361.25**	**4792.13**	**20153.38**	11386.05	4909.75	16295.80
II.	**Segment Results**						
a.	Segment Results	**1949.24**	**(41.42)**	**1907.82**	(1246.16)	(856.62)	(2102.78)
b.	Unallocated expenses (Net of income)			**1081.40**			1119.20
c.	Profit / (loss) before finance cost & Income tax (a) - (b)			**826.42**			(3221.98)
d.	Finance cost (Including unwinding of Interest)			**355.96**			373.95
e.	Net Profit / (loss) before Income Tax (c) - (d)			**470.46**			(3595.93)
f.	Income Tax			**25.75**			(896.23)
g.	Net Profit /(loss) after Income Tax (e) - (f)			**444.71**			(2699.70)
III	**Assets & Liabilities**						
a.	Segment Assets	**37196.23**	**8194.28**	**45390.51**	35954.72	8441.74	44396.46
b.	Common Assets			**10853.25**			10843.75
c.	Total Assets			**56243.76**			55240.21
d.	Segment Liabilities	**20096.06**	**4754.42**	**24850.48**	19221.65	4492.64	23714.29
e.	Common Liabilities			**4886.68**			5553.92
f.	Total Liabilities			**29737.16**			29268.21
IV	**Other Information**						
a.	Capital Expenditure	**140.56**	**55.40**		112.23	38.05	
b.	Depreciation & Amortization	**209.45**	**71.29**		306.68	118.68	
c.	Non Cash Expenses (other than depreciation & amortization)	**(1241.57)**	**(62.11)**		1302.02	499.07	

Geographical Segments		Within India	Outside India	Total	Within India	Outside India	Total
1	Net Sales / Revenue from Operations	**18635.65**	**1517.73**	**20153.38**	14440.72	1855.08	16295.80
2.	Non- Current Assets (PPE & Intangible Assets)	**2812.21**	**17.23**	**2829.44**	2884.28	26.42	2910.70
3.	Capital Expenditure	**225.32**	**5.77**	**231.09**	253.40	2.45	255.85

Major Customer- Details of Revenue from Single Customer exceeding 10% of total revenue of the BHEL

Particulars	Power	Industry	Total	Power	Industry	Total
CPSUs	**3807.92**	**1405.00**	**5212.92**	2824.59	1791.55	4616.14
TSGENCO	**2644.40**	**-**	**2644.40**	1664.61	-	1664.61

Note [47] - Additional Information

(₹ in Crore)

Name of the entity in the Group	Financial Year	Net Assets, i.e., total assets minus total Liabilities		Share in profit or loss		Share in other Comprehensive Income		Share in total Comprehensive Income	
		As % of Consolidated Net results	Amount	As % of Consolidated Profit or loss	Amount	As % of Total Other Comprehensive Income	Amount	As % of Total Comprehensive Income	Amount
BHEL	**2021-22**	**99.24**	**26304.74**	**89.27**	**396.98**	**99.96**	**76.87**	**90.84**	**473.85**
	2020-21	99.39	25813.96	101.44	(2738.56)	99.65	19.98	101.45	(2718.58)
Subsidiary									
BHEL Electrical Machines Limited (BHEL EML)	**2021-22**	**-**	**-**	**(0.31)**	**(1.37)**	**-**	**-**	**(0.26)**	**(1.37)**
	2020-21	(0.05)	(12.10)	0.10	(2.69)	-	-	0.10	(2.69)
Non-controlling Interests in BHEL EML	**2021-22**	**-**	**-**	**(0.30)**	**(1.32)**	**-**	**-**	**(0.25)**	**(1.32)**
	2020-21	(0.04)	(11.62)	0.10	(2.59)	-	-	0.10	(2.59)
Joint Ventures (investment as per the equity method)-									
BHEL-GE Gas Turbine Services Private Limited	**2021-22**	**0.76**	**201.86**	**11.34**	**50.42**	**0.04**	**0.03**	**9.67**	**50.45**
	2020-21	0.70	181.76	(1.63)	44.14	0.35	0.07	(1.65)	44.21
NTPC-BHEL Power Projects Private Limited	**2021-22**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	2020-21	-	-	-	-	-	-	-	-
Raichur Power Corporation limited	**2021-22**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	2020-21	-	-	-	-	-	-	-	-
Total	**2021-22**	**100.00**	**26506.60**	**100.00**	**444.71**	**100.00**	**76.90**	**100.00**	**521.61**
	2020-21	100.00	25972.00	100.00	(2699.70)	100.00	20.05	100.00	(2679.65)

On 23rd March, 2022, Ministry of Corporate Affairs notified the **Companies (Indian Accounting Standards) Amendment Rules, 2022**, effective from 1st April, 2022. The amendment is not expected to have a material impact on the consolidated financial statements of the Company.

Note [48]

Assets and Liabilities are classified between Current and Non-current considering 12 months period as operating Cycle.

Note [49]

The Company has no transactions with companies struck off under section 248 of the Companies Act, 2013 or section 560 of the Companies Act, 1956.

Note [50]

The Company is complying with the number of layers prescribed under clause(87) of section 2 of the Act read with Companies(restriction on number of layers) Rules, 2017.

Note [51]

No Scheme of Arrangements has been approved by the Competent Authority in terms of sections 230 to 237 of the Companies Act,2013.

Note [52]

The Company has no transactions that has been surrendered or disclosed as income during the year in the tax assessments under the Income Tax Act,1961 which is unrecorded in the books of accounts.

Note [53]

The Company has not traded or invested in Crypto currency or Virtual currency during the financial year.

Note [54]

Prior period errors which are material are corrected retrospectively by restating the comparative amount for the prior periods presented in which such error occurred. For the error occurred before the earliest period presented, the opening balances of assets, liabilities and equity for the earliest period presented are restated.

Note [55]

Figures have been rounded off nearest to ₹ in crore with two decimal.

Note [56]

Previous year's figures have been regrouped/ rearranged wherever considered necessary.

Note [57]

The Board of Directors has authorised to issue the Financial Statements 2021-22 in its meeting held on May 21 , 2022

For and on behalf of Board of Directors



(Rajeev Kalra)
Company Secretary
M.No. 14567



(Subodh Gupta)
Director (Finance)
DIN: 08113460



(Dr. Nalin Shinghal)
Chairman and Managing Director
DIN: 01176857

As per our report of even date

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(Shrey Gupta)
Partner
M.No. 522315

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(Devender Magoo)
Partner
M. No. 085739

For S.L. Chhajed & Co. LLP
Chartered Accountants
FRN - 000709C/C400277



(Vijit Baidmutha)
Partner
M. No. 406044

Place : New Delhi
Date : May 21, 2022



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Additional Information

for Stakeholder

Financial Performance Trend

Sl. No.	Particulars	Units	2021-22	2020-21	2019-20	2018-19	2017-18
	Order Received	₹ in crore	**23693**	13472	23547	23859	40932
	Orders Outstanding	₹ in crore	**102542**	102090	108443	108680	118000
A.	**Operating Results**						
I	**Total Income**						
	Revenue	₹ in crore	**20153**	16296	20491	29423	27850
	Other operational income	₹ in crore	**1058**	1012	968	1000	963
	Revenue from operations (a)	₹ in crore	**21211**	17308	21459	30423	28813
	Other income (b)	₹ in crore	**368**	370	581	678	694
	Total (I= a+b)	₹ in crore	**21579**	17678	22040	31101	29507
II	**Operating expenses**						
	Material consumption, Bought Out items, Erection and engg. expenses	₹ in crore	**13990**	11071	14727	18837	15407
	Consumables Stores & Spares	₹ in crore	**271**	289	353	412	386
	Changes in inventories of FG , WIP & scrap	₹ in crore	**532**	511	(1042)	(991)	736
	Employee benefits expenses	₹ in crore	**5517**	5372	5427	5502	5911
	Power & Fuel	₹ in crore	**415**	319	459	497	463
	Other expenses of Mfg, Admn. & S&D in nature	₹ in crore	**1355**	1480	1970	2263	2059
	Exchange variation (gain) / loss (net)	₹ in crore	**(82)**	(66)	(435)	(67)	(520)
	Provisions	₹ in crore	**(1526)**	1467	233	1837	2438
	Depreciation & amortisation expenses	₹ in crore	**314**	473	503	475	786
	Finance costs	₹ in crore	**355**	373	507	287	255
	Total (II)	₹ in crore	**21142**	21290	22702	29053	27922
III	**Operating Profit/(loss) (a-II)**	₹ in crore	**69**	(3982)	(1243)	1370	891
IV	**Profit / (Loss) before tax (I-II)**	₹ in crore	**437**	(3612)	(662)	2048	1585
	Tax expense (Net)	₹ in crore	**27**	(894)	811	839	778
V	**Profit /(Loss) after tax**	₹ in crore	**410**	(2717)	(1473)	1209	807
	Other Comprehensive Income	₹ in crore	**77**	20	(274)	(120)	83
VI	**Total comprehensive income**	₹ in crore	**487**	(2697)	(1747)	1089	890
	Dividend payout	₹ in crore	**139**	-	-	696	668
	Dividend distribution tax	₹ in crore	**-**	-	-	143	136
	EBIT	₹ in crore	**792**	(3239)	(155)	2335	1840
	EBITDA	₹ in crore	**1106**	(2765)	348	2810	2626
	Cash Flow:						
	From Operating Activities	₹ in crore	**660**	560	(2892)	(3856)	991
	From Investing Activities	₹ in crore	**(1125)**	(43)	1877	1915	964
	From Financing Activities	₹ in crore	**(330)**	(393)	1622	(32)	(671)

Financial Performance Trend

Sl. No.	Particulars	Units	2021-22	2020-21	2019-20	2018-19	2017-18
B.	**Financial Position (Assets, Equity & Liabilities)**						
VII	**Assets**						
	Property, plant & equipment and intangible assets	₹ in crore	**2398**	2488	2814	2967	3069
	Capital WIP and intangible assets under development	₹ in crore	**431**	420	314	235	203
	Non-current investments	₹ in crore	**670**	670	670	669	691
	Other non current assets	₹ in crore	**365**	365	321	362	291
	Trade Receivables (Net)	₹ in crore	**6229**	7213	11641	15796	17303
	Contract Assets (Net)	₹ in crore	**26940**	24079	23794	22819	18491
	Cash & Bank Balances	₹ in crore	**7154**	6701	6419	7503	11176
	Inventory	₹ in crore	**6560**	7191	8905	7797	6025
	Deferred tax assets(Net)	₹ in crore	**3530**	3660	2756	3497	3605
	Other Current assets	₹ in crore	**2432**	2913	2601	2784	2911
	Total Assets	₹ in crore	**56708**	55701	60236	64431	63764
VIII	**Equity**						
	Equity share capital	₹ in crore	**696**	696	696	696	734
	Other equity	₹ in crore	**26275**	25788	28485	30735	31905
	Total Equity	₹ in crore	**26971**	26484	29181	31432	32640
IX	**Liabilities**						
	Borrowings	₹ in crore	**4745**	4834	4933	2432	-
	Trade Payables	₹ in crore	**9882**	8559	9900	12078	11066
	Contract Liablities	₹ in crore	**6048**	6864	6718	6839	7573
	Other Non current liabilities	₹ in crore	**269**	295	266	225	199
	Non current provisions	₹ in crore	**3771**	3913	4212	5463	4923
	Other Current liabilities	₹ in crore	**1956**	1589	1943	3477	3574
	Current provisions	₹ in crore	**3067**	3164	3082	2486	3790
	Total liabilities	₹ in crore	**29737**	29217	31055	32999	31124
X	**Total Equity & Liabilities (VIII+IX)**	₹ in crore	**56708**	55701	60236	64431	63764
	Equity shares (Face Value of ₹ 2 each)	No. in crore	**348**	348	348	348	367
	Market Capitalisation as at year end	₹ in crore	**17184**	16975	7243	26081	29885
	Net worth	₹ in crore	**26971**	26484	29181	31432	32640
	Net worth (excl. OCI)	₹ in crore	**27289**	26879	29596	31573	32662
	Capital employed	₹ in crore	**23010**	22405	26111	27699	28832
XI	**Human Resources**	No.	**30758**	32131	33752	35471	37540
	Executives	No.	**10280**	9742	10075	10400	10943
	Non Executives	No.	**20478**	22389	23677	25071	26597

Financial Performance Trend

Sl. No.	Particulars	Units	2021-22	2020-21	2019-20	2018-19	2017-18
XII	**Finacial Performance Ratios**						
1	Return on Net worth	%	**1.51**	(9.62)	(4.82)	3.76	2.48
2	Return on capital Employed	%	**3.44**	(14.45)	(0.59)	8.43	6.38
3	EBIDTA margin	%	**5.49**	(16.97)	1.70	9.55	9.43
4	Operating Profit margin	%	**0.33**	(23.01)	(5.79)	4.50	3.09
5	Revenue per employee	₹ in lakhs	**66**	51	61	83	74
6	Revenue per rupee of employee benefit expenses	₹	**3.65**	3.03	3.78	5.35	4.71
XIII	**Balance Sheet Ratios**						
1	Current ratio	Ratio	**1.30**	1.39	1.45	1.67	1.92
2	% liquidation of current year net billing	%	**86**	82	73	59	56
3	Trade receivable (no. of days)	Days	**94**	134	175	165	192
4	Inventory (no. of days)	Days	**119**	161	159	97	79
5	Assets Turnover	Times	**0.36**	0.29	0.34	0.46	0.44
XIV	**Contribution to exchequer**	₹ in crore	**3053**	2948	3999	5732	4682
XV	**Per Share data**						
1	Earning per share	(₹)	**1.18**	(7.80)	(4.23)	3.33	2.20
2	Net worth per share	(₹)	**77.46**	76.06	83.80	90.27	88.90
3	Market Price per share (BSE) as at year end	(₹)	**49.35**	48.75	20.80	74.90	81.40
4	Market Price to Book Value	Ratio	**0.64**	0.64	0.25	0.83	0.92
XVI	**Segment Revenue**						
	Power Segment	₹ in crore	**15361**	11386	14960	23474	22881
	Industry Segment	₹ in crore	**4792**	4910	5530	5949	4969
	Total	**₹ in crore**	**20153**	16296	20491	29423	27850
	Segment Share						
	Power Segment	%	**76**	70	73	80	82
	Industry Segment	%	**24**	30	27	20	18

I Previous year's figures have been regrouped / rearranged, wherever considered necessary.
II Revenue from operations excludes Goods & Service Tax.
III Dividend payout is interim dividend and proposed final dividend for the year.
IV Equity share capital at the end of FY 2018-19 is post buyback in January 2019.
V Bonus shares were issued in 2017-18 in the ratio of 1:2.

Notes:
1 EBIT = PBT+Finance cost
2 EBITDA = EBIT+Depreciation & Amortisation
3 Capital employed=Net Worth-capital WIP & Intangible Assets under development -Deferred tax
4 Return on Net worth = (PAT/Average Net Worth excld. OCI)*100
5 Return on capital Employed = EBIT/Capital Employed*100
6 EBIDTA Margin % = EBIDTA/Revenue *100
7 Operating Profit Margin = Operating profit/Revenue from operations *100
8 Current ratio = Current Assets/Current liabilities
9 Trade receivable (no. of days) = Trade receivable *365/Revenue from operations (incl. GST)
10 Inventory (no. of days) = Inventory *365/Revenue
11 Assets Turnover = Revenue/Total Assets

Value Added Statement

(₹ in Crore)

Particulars	2021-22		2020-21	
Revenue (incl GST)	**23123**		18688	
Other revenues	**1426**	**24549**	1383	20071
Less:				
Cost of Material, Erection & Engineering Expenses	**14794**		11871	
Power & fuel	**415**		319	
Other Operational Expenses / Income (net)	**(253)**	**14956**	2882	15072
Total Value Added		**9593**		4999
Distribution:				
To employees:				
Employee benefits expenses		**5517**		5372
To Provider of capital				
Finance Cost	**355**	**355**	373	373
To Government:				
Goods & Service Tax	**2970**		2392	
Income Tax	**(77)**	**2893**	16	2408
Retained in business:				
Depreciation & Amortisation	**314**		473	
Deferred IncomeTax (Assets) / Liabilities	**104**		(910)	
Transfer to Other Equity - (Loss) / Profit	**410**	**828**	(2717)	(3154)
Total		**9593**		4999

BHEL's Product Profile

Thermal Power Plants

- Capability for manufacture and supply of Steam Generators, Steam Turbines, Turbo Generators with auxiliary systems along with regenerative feed cycle upto 1000 MW capacities for fossil-fuel and upto 350 MW for combined-cycle applications
- Air and water cooled Condensers, Condensate Extraction Pumps, Boiler Feed Pumps, Duplex Heaters, Valves and Heat Exchangers meeting above requirement of TG Sets upto 1000 MW
- Energy Efficient Renovation and Modernisation (EE R&M) and Life Extension (LE) of old thermal power plants and Residual Life Assessment (RLA) studies

Nuclear Power Plants

- Reactor side components like Steam generators, Reactor headers, End shields, special purpose Heat Exchangers, Pressure Vessels, Motors etc. for Nuclear Power plants.
- TG island equipment of PHWRs (Pressurised Heavy Water Reactors), FBRs (Fast Breeder Reactors) and AHWRs (Advanced Heavy Water Reactors) covering Steam Turbine, Turbo Generators, MSRs (Moisture Separator Reheaters), other heat exchangers and pumps including 'EPC' solutions.

Gas-Based Power Plants

- Gas turbines and matching generators ranging from 26 MW to 299 MW (ISO) rating with following features:
  - Gas turbine based co-generation and combined-cycle systems for industry and utility applications
  - Capability to burn a variety of fuels (both gaseous and liquids) along with mixed firing in different combinations of fuels
  - Low exhaust emission levels upto 15ppm of NOx with Dry Low NOx (DLN) combustors & noise requirement.

Hydro Power Plants

- Turnkey Contract with custom-built conventional hydro turbines of Kaplan, Francis and Pelton types with matching generators upto 300 MW
- Pump turbines with matching motor-generators upto 250 MW
- Bulb turbine with matching generators upto 10 MW
- High capacity pumps along with matching motors for Lift Irrigation Schemes (upto 150 MW)
- Mini/Micro and small hydro power plants upto 25 MW unit rating
- Microprocessor based Digital Governing system for all types of Hydro Power plants
- Renovation, Modernization and uprating of Hydro power plants
- Spherical (rotary) valves, butterfly valves and auxiliaries for hydro stations
- Balance of Plant & System Integration

Solar Power System

- EPC solutions of Solar PV Power Plants:
  - Grid Interactive systems with & without BESS (Battery Energy Storage System)
  - Standalone systems
  - Roof Top systems
  - Hybrid systems
  - Canal Top Systems
  - Floating Solar power plants
  - Solar PV System feeding to Railway Traction power network
- Solar based water pumping systems

DG Power Plants

- HSD, LDO, FO, LSHS, natural gas based diesel generator power plants, unit rating of upto 20 MW and voltage upto 11 kV, for emergency, peaking as well as base load operations on turnkey basis

Desalination And Water Treatment Plants

- Complete Water Management Solutions for Power Plants, Industrial applications and Municipal applications with different treatment technologies:
  - Pre Treatment Plants (PT)
  - Desalination Plants
  - Demineralization Plants (DM)
  - Electro Deionization plants
  - Effluent Treatment Plants (ETP)
  - Sewage Treatment Plants (STP)
  - Zero Liquid Discharge (ZLD) System
  - Cooling water treatment plants
  - Tertiary Treatment Plants
  - Membrane Based Treatment Systems like Ultrafiltration for Pre-treatment (UF), Reverse Osmosis (RO) & Electro Deionisation (EDI).
  - Electro-dialysis plants for Drinking water.

Systems And Services

- Power Generation Systems
  - Turnkey power stations/ EPC contracts

- Combined-cycle power plants
- Cogeneration systems
- Captive power plants
- Modernization and renovation of power stations and RLA studies.
- Software packages including simulators for utilities
- Erection, commissioning, support services, spares management and consultancy services for all the above systems

- Railway Track Electrification

Industrial Systems

- Coal Handling Plant and Ash Handling Plant including Civil & Structural, Mechanical, Electrical works and Automation systems
- Mine Winder systems
- Electrics, Drives, Controls & Automation Systems for Processing & Compacting of Raw Materials, Iron Making, Primary & Secondary Steel Making, Casters & steel Finishing like Mills & process Lines for both long products & flat products
- Raw Material Handling System including Civil & Structural, Mechanical, Electrical and Automation systems for Steel and other industries
- Electrics & Automation Systems for High Current Rectifiers of Smelters and Processing Mills for Aluminium Plants
- Automated Storage & Retrieval Systems (ASRS)

Boilers

- Steam generators for utilities, ranging from 30 to 800 MW capacity, using coal, lignite, oil, natural gas or a combination of these fuels; capability to manufacture boilers with supercritical parameters upto 1000 MW unit size
- Fuel Flexible boilers capable of all combination of blending / co-firing diverse qualities of imported/ indigenised coals, blending of lignite, petcoke, etc
- Steam Generators for Nuclear Power Plant
- Steam generators for industrial applications of the following types ranging from 40 to 450 T/Hour capacity, using coal, natural gas, industrial gases, biomass, lignite, oil, Bagasse or a combination thereof
  - Pulverized coal / lignite fired boilers
  - Stoker fired boilers
  - Bubbling fluidized bed combustion (BFBC)boilers
  - Circulating fluidized bed combustion (CFBC)boilers
  - Heat-recovery steam generators (HRSG)
  - Chemical recovery boilers for paper industry, ranging from capacity of 100 to 1000 T/Day of dry solids
- Gravimetric feeder/ Volumetric feeder
- Acoustic Tube leak Detection systems

Boiler Auxiliaries

- Fans
  - Axial reaction fans of single stage and double stage for clean air application and dust laden hot gases applications upto 200°C, with capacity ranging from 40 to 1300m3/s and pressure ranging from 225 to 1,500 mmwc
  - Axial impulse fans for both clean air and flue gas applications upto 200°C, with capacity ranging from 25 to 300 m3/s and pressure from 300 to 700 mmwc
  - Single and double-suction radial fans (plate aerofoil bladed) for clean air and dust-laden hot gases applications upto 400°C, with capacity ranging from 4 to 660m3/s and pressure ranging from 200 to 3000 mmwc
- Air Preheaters
  - Tubular Air Preheaters for industrial, utility boilers and CFBC boilers
  - Rotary regenerative Air-Preheaters (different types like Bisector, Tri Sector and Quad Sector) for utilities of capacity upto 1000 MW
  - Air PreHeater for boilers with Selective Catalytic Reduction (SCR) for De-NOx application
- Pulverizers
  - Bowl mills of slow and medium speed (for both pressurized & suction environment) for coal fired thermal stations with capacity from 10 T /Hr to 120 T/ Hr suitable upto 1000 MW thermal power stations.
  - Ball Tube mills for pulverizing low-grade coal with high ash content from 30 T/ Hr to 110 T/ Hr catering to 110 MW to 500 MW thermal power stations
  - Bowl Mills for Blast Furnace Application with capacity from 15 T /Hr to 120 T/ Hr.
  - Bowl Mills for grinding of Pond Ash, Steel Plant Blast Furnace Slag & Clinker
  - Wet Ball Milling System for grinding of Lime stone for FGD Application with Day Silo and its structure.
- Electrostatic Precipitators (ESP)
- Electrostatic precipitators with outlet emission as low as 17 mg/Nm3 (efficiency upto 99.97%) for coal fired utility, captive and industrial applications including Bio mass fired boilers, cement plants, steel plants, soda recovery boilers etc
- Bag Filters for utility and industrial applications
- Mechanical Dust Collector for SCR application
- Ammonia Flue Gas Conditioning System
- Guillotine Gates & Dampers

  - Guillotine gates with electric/ pneumatic actuator. 100% leak proof with seal air width: 7 m & duct height: 14.5 meters
  - Bi-plane dampers with electric/ pneumatic actuator. 100% leak proof with seal air Type -1: width: 7 m & duct height: 14.5, Type -2 : width 12 m & duct height 10.5 m
- Louver dampers (open close/ regulating) with electric/ pneumatic actuator: Type -1: width: 7 m & duct height: 14.5, Type -2 : width 12 m & duct height 10.5 m
- Control dampers (regulating) with electric/ pneumatic actuator Type -1: width: 7 m & duct height: 14.5, Type -2: width 12 m & duct height 10.5 m
- Flue Gas Desulphurization (FGD) systems
  - Wet Limestone & Seawater based FGD systems to Power plants and any other Industrial applications
- Steel Chimney
  - Steel Chimneys for Heat Recovery Steam Generators (HRSG), Industrial Boilers, auxiliary boilers and other flue gas exhaust applications
- Selective Catalytic Reduction (SCR) systems
  - SCR System (Honeycomb & Plate type) with anhydrous Ammonia/ Aqueous Ammonia/ Urea reagent for NOx emission control
- Selective Non- Catalytic Reduction (SNCR) systems
  - Selective Non- Catalytic Reduction (SNCR) systems with Urea & Ammonia handling systems

Soot Blowers

- Long retractable soot blowers (LRSB) for travel upto 12.2m
- Rotary soot Blowers for Furnace widths up to 6m
- Furnace temperature probe (FTP) for travel length 10 m
- Long retractable Non-rotating (LRNR) soot blowers with forward blowing for Air heaters
- Ash discharge valve for CFBC boiler application
- Soot blowers with sequential PLC, control panel and integral starter
  - Rack type Long retractable soot blowers
  - Rotary soot blowers
- Wall blowers

Valves

- High and Low-pressure Turbines Bypass Valves & hydraulic system for utilities and industrial application
- High and medium-pressure Valves, Cast and Forged Steel Valves of Gate, Globe, Non-Return (Swing-Check and Piston Lift-Check) types for steam, oil and gas duties upto 950 mm diameter, maximum pressure class 4500 (791 kg/cm2) and 650 °C temperature
- Hot reheat and cold reheat Isolating Devices upto 900 mm pipe size class 1500 and steam temp upto 650°C
- High capacity Spring Loaded Safety Valves for set pressure upto 372 kg/cm2 and temperature upto 718°C,
- Automatic electrically operated pressure relief valves for set pressure upto 316 kg/cm2 and temperature upto 630°C
- Safety relief valves for applications in power, process and other industries for set pressure upto 421 kg/cm2 and temperature upto 537° C
- Helical compression springs (Chrome alloy steel and Tungsten alloy steel materials) of wire diameters ranging from 18mm to 60mm for safety valves and safety relief valves.
- Reactive cum absorptive type vent Silencers maximum diameter of 2700 mm.
- Direct Water Level Gauges
- Angle Drain Valves - Single & Multi Stage for Turbine Drain Application
- Severe Service Control Valves for RH & SH Spray Lines
- Quick Closing Non return Valves for Extraction lines and Cold Reheat Non Return valves, upto 850 mm diameter, 158 kg/cm2 pressure and 540°C temperature
- Butterfly valves upto 2800 NB for water application
- Spring Loaded Bypass valves for HP heater bypass applications
- Knife Edge Gate Valve 1300NB and 1400NB for limestone slurry application, 3.5 bar and 100°C.

Piping Systems

- Power cycle piping, Constant load Hangers, Variable spring Hangers, Hanger components, Low Pressure piping including circulating water piping for power stations upto 1000 MW capacity including Super Critical sets
- Piping systems for Nuclear Power Stations, Combined Cycle Power Plants & Industrial boilers and process industries
- Prefabricated piping/ duck spools to cater to refinery segment complying with National Association of Corrosion Engineers (NACE) requirements

Seamless Steel Tubes

- Hot-finished and cold-drawn seamless steel tubes with a range varying from outer diameter of 21 to 133 mm and wall thickness of 2 to 12.5 mm, in carbon steel and low-alloy steels to suit ASTM/ASME and other international specifications.
- Rifled tubes (ribbed) with a range varying from tube outer diameter of 38.1 to 63.5 mm and wall thickness of 5.6mm

to 7.1mm, in carbon steel and low-alloy steels to suit ASME and other international specifications.

- Spiral finned Tubes with a range varying from tube outer diameter of 31.8 to 114.3 mm and wall thickness of 2.4mm to 9.5mm and with fin height of 12.5mm to 21mm and fin density ranges from 40 to 240 fins per metre, in carbon steel and alloy steels to suit ASME standards.

Steam Turbines

- Steam Turbines upto 1000 MW rating for thermal sets and upto 700MW ratings for Nuclear Power Plants.

Turbogenerators

- Turbogenerators of higher rating upto 1000 MW for Thermal and Nuclear Power Plants and upto 195 MW for Combined Cycle plant.

Industrial Sets

- Steam Turbine based Captive Power Plants
  - STG/Boilers/BTG/EPC: Unit rating upto 200 MW
  - Non Reheat upto 120 MW unit rating
  - Reheat upto 200 MW unit rating
  - Single Stage Drive Turbines for Pump and other Industrial Drives
  - Marine Turbines for marine propulsion upto 36MW.
- Gas Turbine based Captive Power Plants GTG/HRSG/EPC: Fr-5 (26 MW) to Fr-9E (126 MW)

Castings And Forgings

- Heavy castings and forgings of creep resistant alloy steels, stainless steel and other grades of alloy steels meeting stringent international specifications for components of sub critical, supercritical and Ultra-super critical technology.

CONDENSER AND HEAT EXCHANGERS

- Surface Condenser:
  - For thermal power plants upto 800 MW
  - For Nuclear power plants
  - 12.5 MW Marine applications
  - Industrial Condensers
  - Condensers for defence application
- Feed Water Heaters (HP Heaters, LP Heaters, Drain Coolers, Duplex Heater, De-Super Heaters, etc.)
  - Thermal : 7 to 500 MW (sub-critical) & 300-800 MW (super critical with single stream)
  - Moisture Separator & Reheater (MSR) and other Feed Water Heaters for Nuclear Power Plants (236 MW, 500 MW & 700 MW Nuclear sets).
  - Replacement feed water heaters for Non BHEL sets
- Live Steam Reheater (LSR):
  - 500 MW Fast Breeder Reactor (FBR) Nuclear sets
- Auxiliary Heat Exchangers for Turbo and Hydro Generators :
  - Air Coolers (Frame & Tube Type)
  - Oil Coolers (Shell & Tube Type and Plug in Type)
  - Hydrogen Coolers (Frame & Tube Type)
- Auxiliary Heat Exchangers for Transformers :
  - Oil Coolers (Shell & Tube Type Single Tube or Concentric Double Tube Type) (Frame & Tube Type)
- Auxiliary Heat Exchangers for general application
  - Water - Water Coolers (Shell & Tube Type)
- Gland steam condensers
  - Industrial applications upto 7 MW to 150 MW
  - Thermal Plants upto 500 MW
  - Nuclear Plants upto 700 MW
- Air-cooled heat exchangers for GTG upto Fr-9E, and Compressor applications of all ratings
- Steam jet air ejectors for condensers upto 150 MW
- Deaerators from 7 MW to 800 MW
- Gas coolers for compressor applications
- Oil coolers- STG upto 150 MW, GTG uptoFr-9E
- Generator Air coolers upto 150 MW STG and GTG upto 9 FA
- D2O and Moderator Heat Exchangers for Nuclear primary cycle
- Air cooled Lube oil cooler for refinery application
- Heat exchangers for downstream Oil and Gas application.

Pumps

- Pumps for various utility power plant applications upto a capacity of 1000 MW:
  - Boiler feed pumps (motor or steam turbine driven) and Boiler feed booster pumps.
  - Condensate extraction pumps including Drip Pumps
  - Circulating water pumps (also known as Cooling water Pumps)
  - Concrete Volute Cooling Water Pumps
  - Pumps for Secondary Side of Nuclear Power Plants

Compressors

- Multi stage Centrifugal compressors along with Drives (Steam Turbine, Electric Motor and Gas Turbine) and auxiliary system with capacity upto 300000 m3/hr for various gases (Air, CO2, N2, H2, NH3, Natural Gas, Wet Gas, Propylene etc.) for applications in Refineries, Fertilizers, Petrochemicals, Oil & Gas, Steel, Power & Natural Gas

Transportation sectors and oxidation blowers for FGD applications in power plants.

- Horizontally split type upto 40 bar design pressure
- Vertically split type upto 350 bar design pressure

Solar Photovoltaics

- Mono/ Multi Crystalline Solar cells
- Mono/ Multi Crystalline PV Modules (upto 330 Wp)
- Power Conditioning Unit (upto 1.25 MW)
- Single phase Power Conditioning Unit for Traction Grid application (0.85 MW)
- Outdoor, Dry type 1 MVA/25kV Single Phase Inverter Transformer
- Power Transformers (15 MVA and above)
- Passive Solar Tracking System
- Space grade solar panels

Automation And Control Systems

- Automation and Control Systems for
  - Steam Generator/ Boiler Controls including Boiler Protection
  - Steam Turbine Controls
  - Boiler Feed Pump (BFP) Drive Turbine Control
  - Station Control and Instrumentation/ DCS
  - Offsite/Off base controls/ Balance of Plant Controls
    - » Ash Handling Plant (AHP)
    - » Coal Handling Plant(CHP)
    - » Water System for power plant
    - » Mill Reject System (MRS)
    - » Condensate On-Load Tube Cleaning system (COLTCS)
    - » Gas Booster Compressor (GBC)
    - » Condensate Polishing Unit (CPU)
    - » Heating, Ventilation & Air conditioning (HVAC)
    - » Fuel Oil Unloading System (FOUS)
  - Hydro Power Plant Control System
  - Gas Turbine Control System
  - Nuclear Power Plant Primary Cycle Control Centre Instrumentation Package (CCIP)
  - Nuclear Power Plant Turbine & Secondary Cycle control system
  - Power block of solar thermal power plant
  - Industrial Automation
  - Sub-Station Automation (SAS)
  - Non-FST HVDC control panels
  - Electrical Control System (ECS) for Refineries
  - Energy Management System (EMS) for Power Plant
  - Electrical Interface System for MV/LV Switchgear

Transmission Systems Control

- EHV & UHV Sub-stations/switchyards both AIS & GIS type ranging from 33kV to 765kV.
- HVDC transmission systems.
- Flexible AC Transmission system (FACTS) solutions
  - Fixed Series Compensation(FSC)
  - Static VAR Compensation (SVC)
  - STATCOM
  - Controlled Shunt Reactor (CSR)
  - Phase Shifting Transformer (PST)
- Converter Valves and controls for HVDC & FACTS.

Software System Solution

- Merit Order Rating
- Performance Analysis, Diagnostics & Optimization (PADO) for Thermal Utilities
- Performance Calculation & Optimization system and Real Time Performance Data Monitoring system
- OPC connectivity from DCS to third party systems
- Enterprise Asset Management System (EAMS)
- Operator Training Simulator

Switchgear

Medium Voltage Vacuum Switchgear for indoor and outdoor applications for voltage ratings upto 36 kV and Gas insulated switchgears upto 420kV.

- Indoor switchgears
  - Upto 12 kV, 50 kA, 4000 Amp for thermal, nuclear, hydro and combined cycle Power Plant Projects
  - Upto 36 kV, 31.5 kA, 2500 Amp for Industries, solar power plants and refineries
  - Compact switchgear 12 kV, 25 kA, 2000 Amp for distribution system
- Outdoor Vacuum circuit breakers
  - 12 kV, 25 kA, 1250 Amp for distribution segment
  - 36 kV, 25 kA, 1600 Amp for transmission and distribution segment
  - Upto 25 kV, 20 kA, 2000Amp for track side railway application
  - 36 kV, 31.5 kA, 2500 Amp Outdoor Metalclad switchgear for Solar Power Plants
- Gas insulated switchgears
  - 36 kV, 40kA, 2000 Amp for Refineries, Urban Sector
  - 145 kV, 31.5 kA, 2500 Amp for transmission & distribution network

- 420 kV, 40 kA, 3150 Amp for transmission sector (hydro station / EHV SS).

On Load Tap Changers (OLTC)

- On Load Tap Changer upto 765 kV class Transformer & Off Circuit Tap Switch upto 765 kV class Transformer for various application like Power Transformer, Furnace Transformer, Station Transformer, Rectifier Transformer etc.

LT Switchgear & Bus Ducts

- Bus-ducts with associated equipment to suit generator power output of utilities of upto 800 MW capacity.
- 415 V LT Switchgear for Thermal Power Plant, Hydro, Nuclear, CPP & Steel industry.

Transformers & Reactors

- Power transformers for voltage upto 1200 kV
  - Generator transformers (upto 600 MVA, 420 kV, 3 Ph / 400 MVA, 765 kV, 1 Ph/500 MVA, 420 kV, 1 Ph)
  - Auto transformers (upto 1000 MVA, 400 kV, 3 Ph / 600 MVA, 400 kV, 1 Ph / 500 MVA, 765 kV, 1 Ph / 1000 MVA, 1200 kV, 1 Ph)
- Converter Transformers / Smoothing Reactors (upto 600 MVA, ±800 kV) / (upto 254 MVAr, ± 500 kV) for HVDC transmission.
- Shunt Reactors (upto 150 MVAr, 420 kV, 3 Ph / 110 MVAr, 765 kV, 1 Ph)
- Controlled Shunt Reactors (upto 200 MVAr, 420 kV, 3 Ph/ 200 MVAr, 420 kV, 1 Ph / 200 MVAr, 765 kV, 1 Ph) for Flexible AC Transmission system applications.
- Phase Shifting Transformers (upto 500 MVA, 400 kV, 3 Ph/ Upto 500 MVA 400 kV 1 Ph) for transmission lines
- Instrument transformers
  - Current transformers upto 400 kV
  - Electro-magnetic voltage transformers upto 220 kV
  - Capacitor voltage transformers (33KV to 1200 kV)
  - 24kV PR class Current Transformer for HVDC Projects
- Special Transformers
  - Rectifier transformer (upto 120 kA, 132 kV)
  - Furnace transformer (upto 33 kV, 60 MVA)
- ESP transformers upto 95 kvp, 1600 mA
- Smoothing reactors upto 3.3 mH , 2700 Amp.
- Dry Type reactor upto 300 mH , 120 Amp.
- DC Choke upto 0.5 mH , 4600 Amp.
- Dry type transformers upto 15 MVA 33 kV.
- Composite Monitoring System for Power Transformers & Reactors

Capacitors

- H.T. Capacitors
  - Motors Capacitors for Power factor correction (3.3 to 11 kV delta connected Capacitor banks)
  - Shunt, Series & SVC (Static VAR compensation), Harmonic filter & HVDC applications (3.3 kV to 500 kV, 1 Ph/ 3 Ph capacitor banks)
- Capacitor Divider for CVT
- Coupling Capacitor (33kV to 800 kV, 4400pF to 13200 pF) for transmission lines
- Surge Capacitor for protection of Generators & Transformers (11kV to 40 kV)
- Roof Capacitor for traction locomotive
  - Capacitor Divider for CVT upto 1200 kV
  - Coupling Capacitor for PLCC upto 400kV
  - Fuse-less capacitor

Bushings

- Oil Impregnated Paper (OIP) condenser bushings 52 to 525 kV for transformer applications
- 25 kV Locomotive bushings

Control Gear

- Electronic controllers for ESPs in industries/ power plants
- Digital Static Excitation control system (2000 A, 400 V DC with redundant thyristor stacks & DC field breaker)
- Large current rectifiers with PLC Based digital controls
- Control & Protection Panels (upto 400 kV) For EHV Transmission projects
- SCAP, Thyristor, RAPCON and STATCON Panels.

Insulators

- Porcelain Insulators
  - Hollow insulators upto 765 kV for Transformers & SF6 circuit breakers.
  - Solid core insulators upto 400 kV for Bus Post & Isolators for substation applications.
- Composite Long Rod Insulators
  - Upto ±800kV, 420kN for HVDC application
  - Upto 765kV, 210kN for HVAC application.
  - Traction Insulators Stayarm, Bracket & 9 Tonne Insulators for Indian railways.
- Ceramic Lining (CERALIN) wear resistant material for Thermal Power Plant & Ash Slurry Application.
- Industrial and Special Ceramics
  - EWLI –Electronic Water Level Indicators used in Boiler Drum Water Level Monitoring (BHELVISION system)

- Ceramic and Tungsten Carbide Flow Beans for Christmas tree valves.
- Grinding Media for Pulverizing in Thermal Power Plant.

Electrical Machines

- AC Machines for Safe Area Application
  - Squirrel cage induction motors -150 kW to 22000 kW
  - Slip ring induction motors - 150 kW to 10000 kW
  - Synchronous motors- 1000 kW to 25000 kW
  - Variable speed Motors- 150 kW to 22000 kW (Squirrel cage motors)
  - Variable speed Motors- 1000 kW to 25000 kW (Synchronous motors)
- AC Machines for Hazardous Area Application (Fixed speed or with VFD)
  - Flame-proof squirrel cage Induction motors (Ex 'd') (150 kW to 1500 kW)
  - Non-sparking squirrel cage Induction motors (Ex 'n') (150 kW to 4000 kW (higher ratings on request))
  - Increased safety squirrel cage Induction motors (Ex 'e') (150 kW to 4000 kW (higher ratings on request))
  - Pressurized Squirrel cage induction motors (Ex 'p') (150 kW to 22000 kW)
  - Pressurized Synchronous motors (Ex 'p') (1000 kW to 25000 kW)
- Industrial Alternators (Steam turbine, Gas turbine and Diesel engine driven) (3000 kVA to 25000 kVA)
- Vertical Motors for Primary Coolant Pumps for nuclear power plants
- Induction Generators (300 kVA to 6000 kVA) for mini/ micro hydro plant.
- 2 Pole Air cooled Steam/ Gas Turbine driven Generators (3 MW to 160 MW)
- 4 Pole Air cooled Steam/ Gas Turbine driven Generators (3 MW to 40 MW)
- 2 Pole Hydrogen cooled Steam/ Gas Turbine driven Generators from 36 MW to 270 MW
- Permanent Magnet Based Generators upto 5 MW.
- Gas Turbine generators upto 270MW.
- Alternators for industrial applications with single bearing upto 2 MW.

Rail Transporation

Transportation Systems

- AC electric locomotives (upto 6000 HP, 25 kV AC)
- AC-DC dual voltage electric locomotives
- ACEMU Coaches
- Traction Propulsion Systems for:
  - 9000 HP IGBT based AC Locomotives
  - 6000 HP IGBT based AC Locomotives
  - IGBT based Composite Propulsion Systems for 6000-HP Locomotives
  - 3-phase IGBT based AC Electrical Multiple Units (EMUs)
  - Air-conditioned ACEMU
  - ACEMU electrics for DC drives
  - 1600HP IGBT based DEMU
  - 3-phase IGBT based MEMU
  - 1600HP Multi-Genset Locomotive
- Regeneration system for DC Propulsion system of WAG7 Locomotive
- Diesel Electric Tower Car
- Diesel-Electric Shunting Locomotives (upto 1400 HP)
- Battery powered Locomotive
- OHE recording-cum-test car
- Battery Powered Road Vehicles
- Dynamic track stabilizers
- Rail cum Road vehicle

Transportation Equipment

- Traction Converter & Auxiliary Converter
- Vehicle Control Electronics
- Hotel Load Converter
- Composite Converter comprising Traction Converter and Hotel Load Converter
- Traction Transformer
  - Upto 5400 kVA for conventional locomotives
  - Upto 7775 kVA for 3 phase drive locomotives.
  - Upto 1050 kVA conventional AC EMU/ MEMUs
  - Upto 3400 kVA for 3 phase EMU/ trainsets
- 3- phase AC Traction Motors (upto 1200 kW) for Locomotives & EMUs
- DC Traction Motors (up to 630 kW) for Locomotives & EMUs
- AC Traction Alternators (up to 3860 kW) for Locomotives & EMUs
- DC Blower motors (up to 50kW) for dynamic braking system
- Motor Generator sets (upto 25 kW) for auxiliary requirements
- Traction gears and pinions for Locomotives & EMUs

- Wagon (upto 28 axle, 296 Tonne)

Defence And Aerospace

- Super Rapid Gun Mount (SRGM) 76/62 gun for naval ships
- Integrated Platform Management system (IPMS) for naval ships
- Static Main Motor Generator (SMMG)
- Rotary Main Motor Generator with Controls (RMMG)
- Training Simulator for Vehicles, platforms, radars, weapons, missiles and Computer Based Training (CBT) for all defence and para-military forces
- Turret Casting for T-72 Tanks
- Casting and Forgings for ships
- Compact Heat Exchangers for various aircraft platforms
- Permanent Magnet Frequency converters with drive unit
- Reserve Propulsion motor with drive unit
- Compact Brushless Alternators
- Fuel Tanks and other components for Launch Vehicles and Satellites.
- Space grade Batteries for launch vehicles and Satellites

Energy Storage System & E- Mobility

- Powertrains for Electric Vehicles including motors
- Charging Infrastructure for Electric Vehicles
- Battery Energy Storage System

Oil Field Equipment

- Oil Rigs – On-shore drilling rigs with AC-VFD and AC-SCR technology for drilling upto depths of 9,000 metres, work-over rigs for servicing upto depths of 6,100 metres, mobile rigs for drilling upto depths of 3,000 metres, complete with matching draw-works and hoisting equipment including:
  - Mast and substructure
  - Rotating equipment : Draw works ; Rotary ; Swivels; Travelling Blocks
  - Independent Rotary drive unit
  - Mud storage and handling Systems, Mud agitators
  - Triplex Mud pumps 1700 PT, 5000 PSI Working pressure
  - Air Utility Systems (Utility House), Water system and Fuel systems
  - Dead line anchors
  - Vacuum Degassers, Mud gas separators
  - Desanders
  - Sucker Rod Pump Surface units
  - Refurbishment and up gradation of BHEL and Non BHEL make Oil Rigs
  - 3-phase AC Oil rig motor upto 1150 HP
  - DC Oil rig motors upto 1000 HP (Draw works, mud pump, drilling)
  - Oil rig alternators upto 1750 KVa
  - AC/ DC Power Control Room for E760, E1400, E2000 & E3000 Rig
  - AC Acoustic Power Pack upto 1430 kVA Rating as per applicable CPCB Norms
    - » AC Control Module
    - » DC Control Module
  - Driller's Console upto 3 mud pumps, IRD & draw work control & monitoring, load rating (0-1800 A, 0-1000V)
  - Mobile lightening Tower, Rig Lightening Tower
  - AC- VFD Controls for AC Rigs
  - STATCOM for power Factor improvement in AC SCR Rigs
- Well heads and X-mas Trees upto 10,000 psi, Mud Line Suspension, Choke and Kill manifold, CBM Wellheads, DSPM H- Manifold Assembly, Mud valves.

Fabricated Equipment And Mechanical Packages

- Cryogenic Air Separation Units
- Cryogenic storage tanks, Mounded storage systems and storage spheres
- Pressure Vessels, Columns, Reactors/Separators, Heat Exchangers
- Fired Heaters
- Purge Gas Recovery Unit

Glossary

APGENCO	Andhra Pradesh Power Generation Corporation
ARAI	Automotive Research Association of India
AUSC	Advanced Ultra Super Critical
BESS	Battery Energy Storage System
BPCL	Bharat Petroleum Corporation Limited
BSE	Bombay Stock Exchange
BTG	Boiler Turbine Generator
C&I	Control & Instrumentation
CEA	Central Electricity Authority
CPP	Captive Power Plant
CFBC	Circulating Fluidised Bed Combustion
CPIO	Central Public Information Officer
CMIE	Centre for Monitoring Indian Economy
CPSE	Central Public Sector Enterprise
CSIR	Council of Scientific & Industrial Research
CSPGCL	Chhattisgarh State Power Generation Company
CSR	Corporate Social Responsibility
CVC	Central Vigilance Commission
DEMU	Diesel Electric Multiple Unit
DPE	Department of Public Enterprises
ED	Executive Director
EHV	Extra High Voltage
EMU	Electric Multiple Unit
EPC	Engineering, Procurement & Construction
ESP	Electrostatic Precipitator
EV	Electric Vehicle
FACTS	Flexible Alternating Current Transmission System
FGD	Flue Gas Desulphurization
GeM	Government e-Marketplace
GIS	Gas Insulated Substation
GSECL	Gujarat State Electricity Corporation Limited
HAL	Hindustan Aeronautics Ltd
HP Turbine	High Pressure Turbine
HVDC	High Voltage Direct Current
ICAI	The Institute of Chartered Accountants of India
ICF	Integral Coach Factory
IGBT	Insulated-Gate Bipolar Transistor
IGCAR	Indira Gandhi Centre for Atomic Research
IIT	Indian Institute of Technology
IOCL	Indian Oil Corporation Ltd
IPMS	Integrated Platform Management system
IPR	Intellectual Property Right
IR	Indian Railway
ISMS	Information Security Management System
ISO	International Organization for Standardization
ISRO	Indian Space Research Organisation
KPCL	Karnataka Power Corporation Limited
LCA	Light Combat Aircraft
LIS	Lift Irrigation Scheme
LP Turbine	Low Pressure Turbine
LSTK	Lump sum turnkey
MEIL	Megha Engineering & Infrastructures Limited
MEMU	Mainline Electric Multiple Unit
MHI	Ministry of Heavy Industries
MoU	Memorandum of Understanding
MUs	Manufacturing Units
MSME	Micro, Small and Medium Enterprises
MSR	Molten Salt Reactor
NIT	National Institute of Technology
NPCIL	Nuclear Power Corporation of India Limited
NSE	National Stock Exchange
OEM	Original Equipment Manufacturer
ONGC	Oil and Natural Gas Corporation Limited
PCP	Power Cycle Piping
PGCIL	Power Grid Corporation of India Limited
PLM	Product Lifecycle Management
R&D	Research & Development
R&M	Renovation & Modernisation
RESCO	Renewable Energy Service Company
RPCL	Raichur Power Company Limited
SCOPE	Standing Conference of Public Enterprises
SCR	Selective Catalytic Reduction
SD	Sustainable Development
SEBI	Securities and Exchange Board of India
SG	Steam Generator
SOP	Standard Operating Procedure
SPV	Solar Photo Voltaic
SRGM	Super Rapid Gun Mount
SRU	Sulfur Recovery Unit
STG	Steam Turbine Generator
TANGEDCO	Tamil Nadu Generation and Distribution Corporation
TG	Turbine & Generator
TPD	Tonnes Per Day
TPS	Thermal Power Station
UB	Utility Boiler
UHV	Ultra High Voltage
VFD	Variable Frequency Drive
WAG	W (broad gauge), A (AC traction), G (goods duty)
WBPDCL	West Bengal Power Development Corporation Limited

Glossary (Financial Terms)

Accounting policies: Accounting policies are the specific accounting principles and the method of applying those principles adopted by the company in preparation and presentation of the financial statements.

Accrual: Financial statement is prepared on mercantile system. The effects of transaction and other events are recognised when they occur and they are recorded in the accounting records and reported in the financial statement of that period to which they relate.

Amortization: Amortisation is the systematic allocation of the depreciable amount of an intangible asset over its useful life.

Balance sheet: A balance sheet is a statement of the financial position of an entity which states the assets, liabilities, and owners' equity at a particular point of time

Bonus shares: Bonus shares are additional shares given to the shareholders without any additional cost out of free reserves, based upon the number of shares that a shareholder owns.

Book value: The amount at which an item appears in the books of account or in financial statements.

Buy back of shares: A buyback, also known as a share repurchase, is when a company buys its own outstanding shares to reduce the number of shares available in the open market.

Capital employed is calculated by subtracting Capital WIP, Intangible assets under development and Deferred tax assets from the entity's net worth.

Capital reserve: A reserve of an entity which is not available for distribution as dividend.

Capital redemption reserve: The Company has recognised Capital Redemption Reserve on buy back of equity shares from its general reserve. The amount in capital redemption reserve is equal to nominal amount of equity shares bought back.

Cash & cash equivalent: Cash comprises cash in hand and demand deposits. Cash equivalents are short term, highly liquid investments that are readily convertible to known amount of cash and which are subject to an insignificant risk of change in value.

Contract assets : Contract assets (deferred debts and unbilled revenue) represent the amount not yet due for payment as per contract terms / agreed schedule with customers. The same will be contractually due on completion of related activities / milestones.

Contract liability: An entity's obligation to transfer goods or services to a customer for which the entity has received consideration (or the amount is due) from the customer.

Contingent liability is:

(a) possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non occurrence of one or more uncertain future events not wholly within the control of the entity; or

(b) a present obligation that arises from past events but is not recognised because:

(i) it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation; or

(ii) the amount of the obligation cannot be measured with sufficient reliability.

Consolidated financial statements (CFS): Consolidated financial statements - are the "Financial statements of a group in which the assets, liabilities, equity, income, expenses and cash flows of the parent company and its subsidiaries are presented as those of a single economic entity.

Credit risk: The risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation.

Current ratio: The current ratio is a liquidity ratio that measure ability to pay short term obligation or dues within one year. It is calculated by dividing current assets to current liabilities.

Current asset: An asset shall be classified as current when:

a) it is expected to realise the asset, or intended to sell or consume it, in its normal operating cycle;

b) it is held primarily for the purpose of trading;

c) it is expected to realise the asset within twelve months after the reporting period; or

d) the asset is cash or a cash equivalent unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period

Current liability: A liability shall be classified as current when:

a) it is expected to settle the liability in its normal operating cycle;

b) it is held primarily for the purpose of trading;

c) the liability is due to be settled within twelve months after the reporting period; or

d) it does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period.

Current tax expense: Current tax is the amount of income taxes payable (recoverable) in respect of the taxable profit (tax loss) for a period.

Deferred debts: Deferred debts are those debts which will become payable on completion of identified milestone like trial operation, PG test, etc. in terms of the contract.

Deferred tax: Deferred tax is calculated using the rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax asset: Deferred tax assets are the amounts of income taxes recoverable in future periods in respect of deductible temporary differences, the carry forward of unused tax losses and the carry forward of unused tax credits.

Deferred tax liability: Deferred tax liabilities are the amounts of income taxes payable in future periods in respect of taxable temporary differences.

Defined benefits plans: Defined benefit plans are post-employment benefit plans other than defined contribution plans. Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Dividend per share: It is calculated by dividing the total dividend (excl. dividend distribution tax) for the year to total number of outstanding equity shares.

Depreciation: Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life.

Dividend distribution tax: This is an additional income tax paid by the company on any amount declared, distributed or paid by the company by way of dividends.

EBIDTA means Earnings before interest, taxes, depreciation and amortization. Operational EBIDTA is determined after excluding other income from EBIDTA.

Earnings per share (EPS): It represent profit earned during the year to each share, calculated by dividing profit after tax to total number of outstanding equity shares.

Equity method: The equity method of accounting is used to determine the net income generated from the joint venture in proportion to the size of a company's investment in the venture. The equity method is a method of accounting whereby the investment is initially recognised at cost and adjusted thereafter for the post-acquisition change in the investor's share of the investee's net assets.

Expected credit loss: The difference between all contractual cash flows that are due to an entity in accordance with the contract and all the cash flows that the entity expects to receive, discounted at the original effective interest rate.

Fair value: Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Financial asset: Any asset that is (a) cash, (b) equity instrument of another entity, (c) a contractual right to receive cash or another financial asset from another entity or to exchange financial assets or financial liability with another entity (d) a contract that will or may be settled in the entity's own equity instruments.

Financial liability: Any liability that is (a) contractual obligation to deliver cash or another financial asset to another entity or exchange financial assets or financial liabilities with another entity or (b) a contract that will or may be settled in the entity's own equity instruments.

Financial instrument: Any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financing activities: Activities that result in changes in the size and composition of the contributed equity and borrowings of the entity.

General reserves: General reserves are the retained earnings of a company which are kept aside out of company's profits to meet future (known or unknown) obligations.

Going concern: It means that entity has no intention for discontinuing the operation in foreseeable future.

Holding company: "holding company", in relation to one or more other companies, means a company of which such companies are subsidiary companies.

Impairment loss: An impairment loss is the amount by which the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs of disposal and its value in use.

Indian Accounting Standard (abbreviated as Ind-AS): Ind AS is the applicable accounting standard for preparation of financial statements as notified by Ministry of Corporate Affairs.

Intangible assets: An intangible asset is an identifiable non-monetary asset without physical substance.

Inventory in number of days: It is calculated by dividing inventory to revenue multiplying by number of days in a year.

Investing activities: Investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.

Joint venture: A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

Liquidity risk: The risks that an entity may encounter in meeting obligation associated with financial liabilities as an when due.

Market risk: The risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: currency risk, interest rate risk and other price risk.

Net profit/(loss) margin (%): It represents profit generated as a percentage to revenue from operations, calculated by dividing profit after tax (PAT) to revenue operations.

Net realisable value: Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Net worth: The excess of the book value of total assets of an entity over its liabilities. This is also referred to as shareholders' funds.

Net worth per share: Net worth per share is calculated by dividing net worth with total number of outstanding equity shares.

Non-controlling interest (NCI): is the portion of equity ownership in a subsidiary not attributable to the parent company, who has a controlling interest (greater than 50% but less than 100%) and consolidates the subsidiary's financial results with its own.

Non-current asset: A non-current asset is an asset that is not likely to turn to unrestricted cash within one year of the balance sheet date.

Non-current liability: Non-current liabilities are those obligations not due for settlement within one year.

Other comprehensive income (OCI): Other comprehensive income comprises items of income and expense (including reclassification adjustments) that are not recognised in profit or loss as required or permitted by other Ind ASs.

Operating activities: Operating activities are the principal revenue-producing activities of the entity and other activities that are not investing or financing activities.

Operating profit margin (%): Profitability performance ratio used to calculate the percentage of profit generated by Company from its operations. It is calculated by dividing earnings before tax (PBT) excluding other income to revenue from operations.

Property, plant and equipment (PPE): Property, plant and equipment are tangible items that:

(a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

(b) are expected to be used during more than one period.

Revenue from operations: Gross inflow of economic benefits during the period arising in the course of ordinary activities of an entity when those inflows result in increases in equity, other than increases relating to contributions from equity participants.

Return on net worth (%): Return on net worth is a measure of profitability of a Company, calculated by dividing net profit to average net worth (excl. OCI).

Right of Use Assets: An asset that represents a lessee's right to use an underlying asset for the lease term.

Subsidiary: Subsidiary company is a company that is owned or controlled by another company, which is called the parent company or holding company.

Trade receivables: A receivable is an entity's right to consideration that is unconditional. A right to consideration is unconditional if only the passage of time is required before payment of that consideration is due.

Cautionary Statement

Statement in the Annual Report, describing the Company objective, expectation or estimates are forward looking within the meaning of applicable laws and regulations. Actual results may differ materially from those expressed or implied, depending upon economic development, government policies and other incidental factors.

Bharat Heavy Electricals Limited

(CIN: L74899DL1964GOI004281)

Regd. Office: BHEL House, Siri Fort, New Delhi-110049

Phone: 011-66337000, Fax: 011-66337428

Website: www.bhel.com, E-mail: shareholderquery@bhel.in

Notice

Notice is hereby given that the 58th Annual General Meeting of the Members of BHARAT HEAVY ELECTRICALS LIMITED will be held on Thursday, September 29, 2022 at 10 A.M. IST through Video Conferencing/ Other Audio-Visual Means (VC), to transact the following businesses: -

Ordinary Business

1. To receive, consider and adopt the Audited Standalone and Consolidated Financial Statements of the Company for the Financial Year ended 31st March, 2022 together with the Directors' Report and Auditors' Report thereon.
2. To declare dividend for the financial year 2021-22.
3. To appoint a Director in place of Ms. Renuka Gera (DIN: 08970501), who retires by rotation and being eligible, offers herself for re-appointment.
4. To appoint a Director in place of Shri Subodh Gupta (DIN: 08113460), who retires by rotation and being eligible, offers himself for re-appointment.
5. To authorize the Board of Directors to fix the remuneration of the Auditors for the year 2022-23.

Special Business

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

   "RESOLVED THAT pursuant to the provisions of Section 148 and other applicable provisions of the Companies Act, 2013 read with the Companies (Audit and Auditors) Rules, 2014 (including any statutory modification(s) or re-enactment thereof, for the time being in force), the remuneration of the Cost Auditors appointed by the Board of Directors of the Company to conduct the audit of the cost records of the Company for the Financial Year ending on 31st March, 2023 as set out in the statement annexed to the Notice convening this Meeting, be and is hereby ratified by the shareholders of the Company."

   "RESOLVED FURTHER THAT the Board of Directors of the Company be and is hereby authorized to do all such acts, deeds and things as may be necessary, proper or expedient to give effect to this resolution."

7. To consider and, if thought fit, to pass with or without modification, the following resolution as a **Special Resolution:**

   "RESOLVED THAT Dr. Raj Kumar Agarwal (DIN: 00001415), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company read with Sections 149 and 161 (1) of the Companies Act, 2013 w.e.f. 09.11.2021 to hold 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 160 (1) of the Companies Act, 2013, be and is hereby appointed as an Independent Director of the Company in line with applicable statutory provisions."

8. To consider and, if thought fit, to pass with or without modification, the following resolution as a **Special Resolution:**

   "RESOLVED THAT Dr. Sivaprasad Kodungallur (DIN: 09392812), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company read with Sections 149 and 161 (1) of the Companies Act, 2013 w.e.f. 09.11.2021 to hold 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 160 (1) of the Companies Act, 2013, be and is hereby appointed as an Independent Director of the Company in line with applicable statutory provisions."

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

   "RESOLVED THAT Dr. Lekhasri Samantsinghar (DIN: 09392192), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company read with Sections 149 and 161 (1) of the Companies Act, 2013 w.e.f. 09.11.2021 to hold 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 herself pursuant to the provisions of Section

160 (1) of the Companies Act, 2013, be and is hereby appointed as an Independent Director of the Company in line with applicable statutory provisions."

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

"RESOLVED THAT Shri Jai Prakash Srivastava (DIN: 09703643), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company w.e.f. 12.08.2022 and in respect of whom, the Company has received a notice in writing, from the Director himself pursuant to the provisions of Section 160 (1) of the Companies Act, 2013, be and is hereby appointed as a Director of the Company in line with applicable statutory provisions, liable to retire by rotation."

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 26, 2022

Notes: -

1. The Ministry of Corporate Affairs (MCA) has vide its Circular dated 05.05.2022 read together with Circulars dated 08.04.2020, 13.04.2020 and 05.05.2020 (collectively referred to as "MCA Circulars") allowed convening the Annual General Meeting (AGM) through Video Conferencing or Other Audio-Visual Means (VC), without the physical presence of the Members at a common venue. In accordance with the MCA Circulars, provisions of the Companies Act, 2013 and the Securities and Exchange Board of India (Listing Obligations & Disclosure Requirements) Regulations, 2015 (SEBI Listing Regulations), the AGM of the Company is being held through VC. The deemed venue for the AGM shall be the registered office of the Company.
2. In compliance with the aforementioned MCA Circulars and SEBI Circular dated 13.05.2022, Notice of the AGM along with the Annual Report 2021-22 is being sent only through electronic mode to those Members whose email addresses are registered with the Company/ Depositories. Members may note that the Notice and Annual Report 2021-22 will also be available on the websites of the Company (www.bhel.com), BSE Limited (www.bseindia.com), National Stock Exchange of India Limited (www.nseindia.com) and on the website of the e-voting agency, National Securities Depository Limited (NSDL) at www.evoting.nsdl.com. Physical copy of the AGM Notice alongwith the Annual Report shall be sent to those Members who request/ have requested for the same.
3. For receiving all communication (Notice, Annual Report and the e-voting instructions along with the User ID & Password) from the Company electronically, please refer to the instructions annexed to the Notice.
4. Pursuant to the provisions of the Companies Act, 2013, a Member entitled to attend and vote at the AGM is entitled to appoint a proxy to attend and vote on his/ her behalf and the proxy need not be a Member of the Company. Since this AGM is being held through VC pursuant to the MCA Circulars, physical attendance of Members has been dispensed with. Accordingly, the facility for appointment of proxies by the Members will not be available for the AGM and hence, the Proxy Form and Attendance Slip are not annexed to this Notice.
5. Since the AGM will be held through VC, the route map of the venue of the Meeting is not annexed hereto.
6. Participation of Members through VC will be reckoned for the purpose of quorum for the AGM as per Section 103 of the Companies Act, 2013.
7. Corporate/ Institutional Members (i.e. other than Individuals, HUF, NRI, etc.) are required to send scanned certified true copy (PDF Format) of the Board Resolution/ Authority Letter, etc. together with attested specimen signature(s) of the duly authorized representative(s), to the Scrutinizer at ashugupta.cs@gmail.com with a copy marked to evoting@nsdl.co.in.
8. Members of the Company under the category of Institutional Investors are encouraged to attend and vote at the AGM.
9. Relevant Explanatory Statement pursuant to Section 102(1) of the Companies Act, 2013, in respect of Special Business, as set out above is annexed hereto.
10. Ms. Renuka Gera and Shri Subodh Gupta, Directors, retire by rotation and being eligible, offer themselves for re-appointment. However, as per the terms of their appointment, the tenure of Ms. Renuka Gera as Director of the Company will expire on her superannuation i.e. 31.08.2023 while the tenure of Shri Subodh Gupta will expire on 17.04.2023 (five years from the date of his appointment). Brief resume of each of the Directors proposed for re-appointment is given at Annexure to the Notice.
11. Pursuant to Section 124 read with Section 125 of the Companies Act, 2013, the dividend amounts which remain unpaid/ unclaimed for a period of 7 years, are required to be transferred to the Investor Education and Protection Fund constituted by the Central Government. Accordingly, the final dividend for the financial year 2014-15, which remains unclaimed, is proposed to be transferred to the said account on 22.10.2022.

    Members who have not claimed/ encashed their dividend so far for the financial year ended on 31.03.2015 or any subsequent financial year(s) may approach the Company for obtaining payments thereof before expiry of the stipulated 7 years period
12. The Board of Directors of the Company has recommended a final dividend of 20 % (Rs. 0.40 per share) on the Paid-up Equity Share Capital of the Company for FY 2021-22. This final dividend, if approved by the shareholders at AGM, will be payable within 30 days from the date of declaration of dividend i.e. on or before October 28, 2022 to the Members whose names appear in the Register of Members/ list of Beneficial Owners of the Company as on the Record Date i.e. Friday, September 16, 2022.

    Dividend income is taxable in the hands of the shareholders and the Company is required to deduct tax at source (TDS) from dividend paid to the Members at prescribed rates in the Income Tax Act, 1961 (IT Act). In order to enable compliance with TDS requirements in respect of dividends declared by the Company in future, members are requested to submit Form 15G/ 15H on annual basis and update details about their residential status, PAN, Category as per the IT Act with their Depository Participants or in case of shares held in physical form, with the Company/ Registrar & Transfer Agent, so that tax at source, if any, as per applicable rates may be deducted in respect of dividend payments made by the Company in future.
13. Pursuant to SEBI Listing Regulations, all listed companies shall use any of the electronic modes of payment facility approved by RBI such as ECS/ NECS/ Direct Credit etc., for payment of dividend. Members are advised to submit their National Electronic Clearing Service/ Electronic Clearing Service (NECS/ ECS) mandate in the form (given in the Annual Report) duly filled in and signed, to enable the Company to make remittance by means of NECS/ ECS.

14. Members are requested to notify immediately any change of address and other relevant correspondence including NECS/ ECS details and submission of Permanent Account Number (PAN): -

    i. to their Depository Participants in respect of their demat share accounts; and

    ii. to the Company at its registered office or the Registrar & Transfer Agent, M/s Alankit Assignments Limited (4E/2, Alankit House, Jhandewalan Extension, New Delhi-110055) in respect of their physical shares, in prescribed Form ISR-1 and other forms pursuant to SEBI Circular No. SEBI/HO/MIRSD/MIRSD_RTAMB/P/CIR/2021/655 dated November 3, 2021. The Company has sent letters for furnishing the required details. Format of the forms is also available at www.bhel.com/shareholders-information.

15. Members may avail facility of nomination in terms of Section 72 of the Companies Act, 2013, by nominating any person to whom their shares in the Company shall vest in the event of their death.

16. Pursuant to Section 139 (5) read with Section 142 (1) of the Companies Act, 2013, the Auditors of a Government Company are appointed by the Comptroller and Auditor General of India and their remuneration is fixed by the Company in the Annual General Meeting. The shareholders may authorize the Board to fix up an appropriate remuneration for Auditors for the year 2022-23 as may be deemed fit by the Board.

17. The Register of Directors and Key Managerial Personnel and their shareholding maintained under Section 170 of the Companies Act, 2013, the Register of Contracts or Arrangements in which the directors are interested maintained under Section 189 of the Companies Act, 2013 and the relevant documents referred to in the Notice will be available electronically for inspection by the Members during the AGM.

18. All documents referred to in the Notice will also be available electronically for inspection without any fee by the Members from the date of circulation of this Notice up to the date of AGM. Members seeking to inspect such documents can send an email to shareholderquery@bhel.in.

19. In compliance with Section 108 of the Companies Act, 2013 read with Rule 20 of the Companies (Management & Administration) Rules, 2014 and Regulation 44 of the SEBI Listing Regulations, the Company is providing its Members the facility to exercise their right to vote on resolutions proposed to be passed at the AGM by electronic means (remote e-voting) through NSDL. Members whose names appear in the Register of Members/ list of Beneficial Owners as on Thursday, September 22, 2022 (Cut-off Date) will be eligible to vote for the purpose of e-voting/ AGM and a person who is not a Member as on the cut-off date should treat this notice for information purposes only. The e-voting period will commence from Monday, September 26, 2022 at 9.00 A.M. and will end on Wednesday, September 28, 2022 at 5.00 P.M. The e-voting module will be blocked on September 28, 2022 at 5.00 P.M. Once the vote on a resolution is cast by the shareholder, the shareholder shall not be allowed to change it subsequently. The voting right of shareholders shall be in proportion to their share in the paid up equity share capital of the Company as on the Cut-off Date i.e. September 22, 2022.

20. Members who have cast their vote by remote e-voting prior to the AGM may also attend the meeting by VC but shall not be entitled to cast their vote again.

21. The facility for voting through electronic voting system will also be made available at the AGM and Members attending the AGM who have not cast their vote by remote e-voting will be able to vote at the Meeting through this electronic voting system.

22. The Company has appointed Ms. Ashu Gupta, Company Secretary (FCS no. 4123, Certificate of Practice no. 6646) of M/s Ashu Gupta & Co., Practising Company Secretaries, to act as a Scrutinizer, to scrutinize the process of remote e-voting and electronic voting at the AGM, in a fair and transparent manner. The Scrutinizer shall, immediately after the conclusion of voting at the AGM, scrutinize the votes cast at the Meeting and votes cast through remote e-voting, make a consolidated Scrutinizer's Report of the total votes cast in favour or against, if any, and submit the same to the Chairman. The results along with the Scrutinizer's Report will be declared within two working days of the conclusion of the Meeting and the same shall be available on the Company's website (www.bhel.com) and on the website of the e-voting agency (www.evoting.nsdl.com) immediately after the declaration of result by the Chairman/ person authorized by him in writing. The results shall also be immediately forwarded to the Stock Exchanges.

23. The procedures for joining the AGM through VC, remote e-voting and voting at the AGM alongwith the contact details for addressing the grievances in this regard are provided in the instructions annexed to the Notice.

By order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 26, 2022

Annexure to the Notice

Explanatory Statement pursuant to Section 102(1) of the Companies Act, 2013

The following explanatory statement sets out the material facts relating to the business mentioned in Item Nos. 6 to 10 of the accompanying Notice dated August 26, 2022.

Item No. 6

Section 148 of the Companies Act, 2013 read with the Companies (Audit and Auditors) Rules, 2014 requires remuneration of the cost auditors as approved by the Board to be ratified by the shareholders subsequently.

Based on the recommendation of the Audit Committee, the Board of Directors in its meeting held on August 4, 2022 has approved the names of seven Cost Accountants/ Firms for appointment for a total remuneration of ₹ 15.76 Lakhs as detailed under:

(₹ in Lakhs)

Sl. No.	Name of the Cost Auditors	Unit	Remuneration for FY 2022-23
1	M/s Shome & Banerjee, Delhi (Lead Cost Auditor)	Consolidation Audit Report	1.01
		Jhansi	0.81
		HERP Varanasi	0.40
		Bhopal	2.01
2	M/s Vijender Sharma & Co., Delhi	HEEP Haridwar	2.01
		CFFP Haridwar	0.40
3	M/s KRJ & Associates, Hyderabad	Hyderabad	2.01
4	M/s Subramanian Rajagopal & Associates, Tiruchirapalli	Trichy	2.67
		BAP Ranipet	1.33
5	M/s Murthy & Co. LLP, Bengaluru	SBD Bengaluru	0.53
		EDN Bengaluru	0.67
6	M/s Paliwal and Associates, Lucknow	IVP Goindwal	0.40
		FSIP Jagdishpur	0.61
		CFP Rudrapur	0.40
7	M/s Uppalapati & Associates, Visakhapatnam	HPVP Visakhapatnam	0.53
		Total	**15.76**

The above fees is exclusive of applicable taxes and out of pocket expenses which are payable extra.

Accordingly, Members are requested to ratify the remuneration payable to the Cost Auditors for the Financial Year ending on 31st March, 2023.

None of the Directors or Key Managerial Personnel of the Company or their relatives is in any way, concerned or interested, financially or otherwise, in the resolution set out at item no. 6.

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

Item No. 7

Dr. Raj Kumar Agarwal (DIN: 00001415), aged 60 years, was inducted as an Independent Director on the Board of BHEL w.e.f. November 9, 2021.

Dr. Raj Kumar Agarwal is a Commerce graduate and has done his M. Com from Agra University. He is a Fellow Member of the Institute of Chartered Accountants of India (qualified with All India 27th rank in 1983) and Fellow Member of Institute of Company Secretaries of India (qualified in 1983 with All India 2nd rank). He has also done LLB in 1995 and LLM in 2015. Dr. Raj Kumar Agarwal was awarded Ph.D. on 'Social responsibility in Business' in 2008.

Dr. Agarwal possesses a diverse and wide ranging experience in the areas of Income Tax Survey, Search and Seizure Cases, Tax Planning & Strategic Business Planning for Corporates. He has authored various articles on professional topics published in Professional Magazines (like: CA Journals) and Government official websites (like ITATONLINE.ORG) and has made presentations at various seminars organized by the Institutes and Trade Chambers on Taxation, Tax Audit, Accounting Standards, Strategic Planning and Economic Analysis etc.

Dr. Raj Kumar Agarwal has also been a visiting faculty member at various Institutes of management including National Institute of Financial Management (NIFM), Faridabad, Management Development Institute (MDI) Gurgaon, National Academy of Direct Taxes (NADT), Nagpur and Faridabad Industries Association (FIA). He has also co-authored books along with Dr. Rakesh Gupta, on: - 1) 'Income Tax Search and Seizure' published by Taxmann in 2011 and 2) 'Taxation of Real Estate Developers & Joint Development Arrangements' published by Taxmann in January, 2016.

Dr. Agarwal was President of Faridabad Income Tax Bar Association in 2000. He was Chairman of Northern India Regional Council of 'The Institute of Company Secretaries of India' during 2003 and in 'The Institute of Chartered Accountants of India' he was Member of Expert Advisory Committee during 2003, Accounting Standard Board since 2007 to 2009 and Direct Taxation Committee during 2010. He was also President of Bhartiya Vitta Salahakar Samiti during 2017 & 2018.

Dr. Raj Kumar Agarwal is a Director on the Boards of RRA Mutual Benefit Fund Limited, Corporate Professionals Capital Private Limited, Third Wave Associates Private Limited, RRA Foundation and Agrima Infra Projects Private Limited.

Appointment of Dr. Raj Kumar Agarwal is upto 01.11.2024 or

until further orders. As an Independent Director, he is entitled to sitting fee for Board Meetings and Board Level Committee Meetings attended by him.

Dr. Raj Kumar Agarwal does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Dr. Raj Kumar Agarwal attended four Board Meetings which were held during his tenure in FY 2021-22.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Dr. Raj Kumar Agarwal holds office till the date of ensuing Annual General Meeting and is eligible for appointment. As per requirement of Section 160 of the Companies Act, 2013, the Company has received a Notice in writing, proposing candidature of Dr. Raj Kumar Agarwal for the Office of Independent Director of the Company.

The Company has received a declaration from Dr. Raj Kumar Agarwal that he meets the criteria of independence as prescribed both under Section 149(6) of the Companies Act, 2013 and Regulation 16 of the SEBI Listing Regulations. Keeping in view his vast expertise and knowledge, it will be in the interest of the Company that Dr. Raj Kumar Agarwal is appointed as an Independent Director and he has the skills & capabilities required for the role. In the opinion of the Board, Dr. Raj Kumar Agarwal fulfills the conditions specified in the Companies Act, 2013 and Rules made thereunder for his appointment as an Independent Director of the Company and is independent of the Management.

Except Dr. Raj Kumar Agarwal, being an appointee, none of the Directors or Key Managerial Personnel of the Company or their relatives is in any way, concerned or interested, financially or otherwise, in the resolution set out at item no. 7.

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

Item No. 8

Prof. Dr. Sivaprasad Kodungallur (DIN: 09392812), aged 56 years, was inducted as an Independent Director on the Board of BHEL w.e.f. November 9, 2021.

Dr. K. Sivaprasad is Bachelor of Technology graduate in Naval Architecture and Ship Building from Cochin University of Science and Technology, Kochi. He completed his postgraduate degree, MSc in Ship Production from University of Strathclyde, Glasgow, UK under British Commonwealth Scholarship. Dr. Sivaprasad took his PhD doctoral degree from Cochin University of Science and Technology, Kochi.

Dr. Sivaprasad possesses a diverse and wide-ranging experience in the areas of Naval Architecture and Shipbuilding, Maritime Technology, Engineering for Sustainable Development, Inland Waterway Transport, Green Technology, Teaching and Training in Engineering and Technology and Academic Research.

As Consultant, Dr. K. Sivaprasad has served Department of Ports, Government of Kerala, Maritime Development Board, Kerala, Kerala Tourism Development Corporation, Department of Forest, Government of Kerala and Department of Water Transport, Government of Kerala. He had been a member of Executive Council and Court of Indian Maritime University, Central University as the nominee of the Visitor. Presently Dr. K. Sivaprasad is a member of the Research Board of Indian Maritime University, the Bureau of Indian Standards, the Board of Studies of Abdul Kalam Technological University, Kerala and the National Monitoring Committee for Minority Education, Ministry of Education, Government of India. He is also an Expert Committee Member of Defence Research and Development Organization (DRDO), Government of India. Dr. K. Sivaprasad represents academia in the India Technical Committee of ClassNK, Japanese Ship Classification Society. Presently, he is a Professor in Department of Ship Technology, Cochin University of Science and Technology, Kochi, Kerala.

Appointment of Dr. K. Sivaprasad is upto 01.11.2024 or until further orders. As an Independent Director, he is entitled to sitting fee for Board Meetings and Board Level Committee Meetings attended by him.

Dr. K. Sivaprasad does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Dr. K. Sivaprasad attended four Board Meetings which were held during his tenure in FY 2021-22.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Dr. K. Sivaprasad holds office till the date of ensuing Annual General Meeting and is eligible for appointment. As per requirement of Section 160 of the Companies Act, 2013, the Company has received a Notice in writing, proposing candidature of Dr. K. Sivaprasad for the Office of Independent Director of the Company.

The Company has received a declaration from Dr. K. Sivaprasad that he meets the criteria of independence as prescribed both under Section 149(6) of the Companies Act, 2013 and Regulation 16 of the SEBI Listing Regulations. Keeping in view his vast expertise and knowledge, it will be in the interest of the Company that Dr. K. Sivaprasad is appointed as an Independent Director and he has the skills & capabilities required for the role. In the opinion of the Board, Dr. K. Sivaprasad fulfills the conditions specified in the Companies Act, 2013 and Rules made thereunder for his appointment as an Independent Director of the Company and is independent of the Management.

Except Dr. Sivaprasad Kodungallur, being an appointee, none of the Directors or Key Managerial Personnel of the Company or their relatives is in any way, concerned or interested, financially or otherwise, in the resolution set out at item no. 8.

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

Item No. 9

Dr. Lekhasri Samantsinghar (DIN: 09392192), aged 51 years, was inducted as an Independent Director on the Board of BHEL w.e.f. November 9, 2021.

Dr. Lekhasri is a PhD in Environmental Science from Utkal University, Vani Vihar, Odisha specializing in waste management, sustainable development and environmental pollution issues. A brilliant student throughout, she is a gold medalist in both her undergraduate and post graduate studies.

With a teaching and research career spanning fifteen years, Dr. Lekhasri Samantsinghar had worked in various Government Colleges and Universities until she resigned her post as Asstt. Professor, Revanshaw University, Cuttack to pursue public service.

Dr. Lekhasri has taught Zoology, Environmental Science, Developmental Biology and Waste Management to both undergraduate and post graduate students. She has taken active interest in research with the core focus on environmental pollution, waste to energy and Urban Solid waste management. She has nine publications in national and international peer reviewed journals on the subject to her credit and attended many international conferences. She has guided many Masters, M. Phil and PhD students and had organized many conferences and edited the proceedings. Her environmental activism started during her early professional days when she worked with the WWF. Since then she has been pursuing her passion relentlessly. She was nominated as a Member of Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/ Construction, Industrial Estate and Miscellaneous projects by GOI for the year 2016.

In her post-educator role, Dr. Lekhasri has been deeply involved in societal issues and is working hard for nation building. She has been in the forefront of the movement to prevent crime against women in Odisha and making workplace safe for women. Since last six years, she has toured the length and breadth of Odisha in order to give justice to the victims of crime and police and administrative apathy. She has been able to give justice and compensation to victims and has forced the authorities to act against the criminals in many cases. She has been using all the methods at her disposal such as agitation, petition, legal recourse and negotiations in order to give justice to the victims.

Dr. Lekhasri has been a good organizer and has organized many national level events be it in Music or Science. She has worked in the policy and administrative domain in the field of higher education during her stint in the Ravenshaw University. She is a life member of National Environmentalists Association, Odisha Vigyan Academy and INTACH. She is an accomplished painter and had held many national and international exhibitions.

Appointment of Dr. Lekhasri Samantsinghar is upto 01.11.2024 or until further orders. As an Independent Director, she is entitled to sitting fee for Board Meetings and Board Level Committee Meetings attended by her.

Dr. Lekhasri Samantsinghar does not hold any shares in BHEL and she does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Dr. Lekhasri Samantsinghar attended four Board Meetings which were held during her tenure in FY 2021-22.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Dr. Lekhasri Samantsinghar holds office till the date of ensuing Annual General Meeting and is eligible for appointment. As per requirement of Section 160 of the Companies Act, 2013, the Company has received a Notice in writing, proposing candidature of Dr. Lekhasri Samantsinghar for the Office of Independent Director of the Company.

The Company has received a declaration from Dr. Lekhasri Samantsinghar that she meets the criteria of independence as prescribed both under Section 149(6) of the Companies Act, 2013 and Regulation 16 of the SEBI Listing Regulations. Keeping in view her vast expertise and knowledge, it will be in the interest of the Company that Dr. Lekhasri Samantsinghar is appointed as an Independent Director and she has the skills & capabilities required for the role. In the opinion of the Board, Dr. Lekhasri Samantsinghar fulfills the conditions specified in the Companies Act, 2013 and Rules made thereunder for her appointment as an Independent Director of the Company and is independent of the Management.

Except Dr. Lekhasri Samantsinghar, being an appointee, none of the Directors or Key Managerial Personnel of the Company or their relatives is in any way, concerned or interested, financially or otherwise, in the resolution set out at item no. 9.

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

Item No. 10

Shri Jai Prakash Srivastava (DIN: 09703643), aged 57 years, was inducted as Director (Engineering, Research & Development) on the Board of BHEL w.e.f. August 12, 2022.

Shri Srivastava is a 1985 batch Mechanical Engineering graduate from IIT Roorkee (erstwhile University of Roorkee) with a post graduate degree in Business Administration.

Shri Srivastava joined BHEL in 1985 as Engineer Trainee at Insulator Plant, Jagdishpur. He has over 36 years of diverse and extensive experience across all major functions viz. Marketing & Business Development, Project Management, Manufacturing Operations, Planning & Development, Engineering, R&D, Information Technology, Human Resource Management, Strategic & Stakeholder Management in various capacities across entire BHEL value chain i.e. Manufacturing

Units (IP Jagdishpur, CFP Rudrapur, HPVP Vizag), Business Sector (Industry Sector, International Operations) and Corporate Office including a two-year stint as Head of CMD Secretariat.

Prior to his elevation, he was Head of Unit-Industry Sector, one of the three business sectors of BHEL, responsible for fulfilling BHEL's diversification objectives by driving capability building through Technology collaborations & Business partnerships, time-bound Capital Investments and commercial-oriented R&D projects to enhance the business pie. During his tenure at Industry Sector, Industrial Products (Mechanical), Captive Power Plants, Defence & Aerospace business verticals recorded Highest-ever Order Booking performance while making a maiden entry into Downstream Oil & Gas EPC and Defence & Aerospace Businesses.

Earlier as Head of Manufacturing Unit of CFP Rudrapur, he was instrumental in developing several new products in existing & new growth areas as well as optimizing operations with focus on cost reduction & efficient project execution for improved turnover realisation & profit maximisation, which resulted into achievement of Best-in-Last-5 years' Financial results for the unit.

He is widely known for his dynamism and result-oriented approach by enthusing energy in the team to drive efficiencies at all levels. His wide exposure to various business areas of BHEL viz. Defence & Aerospace, Power (Thermal, Gas, Renewable Energy), Oil & Gas, Industrial Products (Electrical & Mechanical), Transmission Products, International Operations and almost all product lines of BHEL has enriched him with a strong acumen to analyse market trends & develop market-ready capabilities and has enabled him to contribute effectively in formulation & implementation of strategies in the changing business environment & position BHEL to be future ready. He has been responsible for various initiatives resulting into "Many First Achievements" throughout his career history.

Appointment of Shri Jai Prakash Srivastava is upto 31.12.2024 or until further orders, whichever event occurs earlier, in the pay scale of ₹1,80,000 – ₹3,40,000 p.m. on terms and conditions approved by the Government of India.

Shri Srivastava does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Since Shri Jai Prakash Srivastava was appointed as Director on 12.08.2022, he did not attend any Board Meeting during FY 2021-22.

In line with applicable statutory provisions read with Article 67(iv) of the Articles of Association of the Company, Shri Jai Prakash Srivastava holds office till the date of ensuing Annual General Meeting and is eligible for appointment. As per requirement of Section 160 of the Companies Act, 2013, the Company has received a Notice in writing, proposing candidature of Shri Jai Prakash Srivastava for the Office of Director of the Company.

Except Shri Jai Prakash Srivastava, being an appointee, none of the Directors or Key Managerial Personnel of the Company or their relatives is in any way, concerned or interested, financially or otherwise, in the resolution set out at item no. 10.

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

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 26, 2022

Details of Directors proposed for Re-Appointment

Ms. Renuka Gera

Ms. Renuka Gera (DIN: 08970501), aged 59 years, was inducted as Director (Industrial Systems & Products) on the Board of BHEL w.e.f. December 1, 2020. Prior to this, she was heading Industry Sector as Executive Director.

She is an Electronics & Communication engineering graduate from Delhi College of Engineering.

Starting her career with BHEL in 1984 as Engineer Trainee in Transmission Business Group, she has over 36 years of holistic and hands on experience in various verticals of Industry Sector driving business development and diversification initiatives in Energy Storage Systems, Electric Mobility, Railway Electrification, Transportation, Defence, Transmission Systems including High Voltage Direct Current Transmission (HVDC), Renewable Energy & Water Management Systems.

She has headed various functions in BHEL viz. Marketing, Business Development, Engineering, Contract & Project Management, HR, Administration, Planning, Finance and Legal besides serving in Bhopal manufacturing unit for 5 years. During her career span, she had extensive involvement with HVDC projects in the country and was Project Manager for one of the largest HVDC Multi-Terminal projects in India.

Significantly, she is the first women employee of BHEL to reach the level of Director. She had earlier been sponsored by BHEL for International Certification Programme in Business Management conducted under the aegis of Department of Public Enterprises.

Ms. Renuka Gera holds the position of Non-Executive Chairperson on the Board of Raichur Power Corporation Limited. Ms. Renuka Gera is also Chairperson of the Steering Committee for "Study of Wireless Opportunities Charging of Electric Buses using Solar Energy" - constituted by TIFAC - an autonomous body of Deptt. of S&T, GOI, Member of Research Council CSIR-NEERI (National Environmental Engineering Research Institute), Member in Governing Council of NPTI, Member of Board in NABL and Vice President of the Governing Council of 'The Committee for International Council on Large Electric Systems (CIGRE), India'.

Appointment of Ms. Renuka Gera is upto 31.08.2023 or until further orders, whichever event occurs earlier, in the pay scale of ₹ 1,80,000 – ₹ 3,40,000 p.m. on terms and conditions approved by the Government of India.

Ms. Renuka Gera does not hold any shares in BHEL and she does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Ms. Renuka Gera has attended all the Board Meetings (eleven) held in FY 2021-22.

Shri Subodh Gupta

Shri Subodh Gupta (DIN: 08113460), aged 58 years, was appointed as Director (Finance) on the Board of BHEL w.e.f. April 18, 2018.

Shri Gupta is a Fellow member of the Institute of Cost Accountants of India (ICAI) and a Commerce (Honours) Graduate from University of Delhi. Prior to his appointment to the Board of Directors, he was General Manager (Corporate Finance) handling Financial Planning and Strategy, Treasury Management and Taxation. In addition, he was also heading the Finance function of Strategic Business Units under the Company's "Industry Sector" Business Segment.

An accomplished finance professional, Shri Gupta brings with him more than 36 years of diverse experience in the financial operations of BHEL. He started his career with BHEL as Trainee (Finance) in 1985 and during his career progression, equipped himself with all facets of Financial Management to take challenging responsibilities.

Under the dynamic leadership of Shri Gupta, BHEL has been bestowed with the Maiden ICWAI National Award for Excellence in Cost Management 2005 and Maiden prestigious CII-Exim Bank Award for Business Excellence 2006. As a certified TQM assessor from European Foundation for Quality Management, he has significantly contributed in improvement of business processes and conducted several internal and external TQM assessments. He was conferred with CMA Achiever's Award - Certificate of Merit 2016, for his significant contribution to Corporate Management practices, under the category "PSU Manufacturing - Large" by the Institute of Cost Accountants of India. He was also conferred with the 'Top Rankers Excellence Award 2020' for best finance professional of the year.

Shri Subodh Gupta has played a catalytic role in embedding new perspectives in financial strategy in terms of driving excellence in financial reporting, enhancement in quality of assets in Balance Sheet, efficient treasury management and mitigation of financial risks. He has been fostering strategic planning, reinforcing budgetary discipline and aligning the systems and processes to function as an instrument of

addressing the crucial challenges and improving operating efficiency. He has maintained close oversight on cost trajectories of various components and pioneered effective cost optimisation measures in various spheres in the organization, resulting in significant improvement in financial performance and liquidity. He has led various initiatives for putting in place effective internal financial controls and embedded the culture of adopting best financial practices to create a robust framework of internal controls and financial risk management.

Despite the persistent liquidity crunch emanating from skewed payment terms in customers' contracts and increase in outflows to meet the operational requirements, he played a pivotal role in enabling generation of operating cash surplus in FY 2021-22 and achieving lowest level of trade receivables in the last decade by resolute focus on holistic receivables management. His initiatives of adoption of prudent financial policies, cash focused operations for augmenting liquidity, driving efficiency in tax planning and steering sound financial management helped in improving the operating results in the face of prevailing challenges of subdued operations amidst disruptions caused by the spread of pandemic and global geo-political disturbances.

He is a strong proponent of systemic improvements through digitalization of the financial processes and driven development and integration of various digitalized systems enabling insightful analytics and enhanced levels of financial controls.

Under his financial leadership, BHEL, after nearly four decades, has been conferred 'ICAI National Award for Excellence in Financial Reporting' for FY 2019-20 & FY 2020-21, in succession, in the 'Infrastructure and Construction Sector' category in recognition of compliances, comprehensiveness and quality of financial information presented in the financial statements. Shri Subodh Gupta has also been adjudged 'BEST CFO PSU' at the CFO & Financial Strategy Summit & Awards 2021, organized by BW CFO World in association with BW Businessworld.

Shri Subodh Gupta holds the position of Part-time Nominee Director on the Board of Raichur Power Corporation Limited and Non-Executive Chairman on the Board of BHEL-GE Gas Turbine Services Private Limited. He has also been elected as member of the 'SCOPE' Executive Board 2021-23 w.e.f. 1st April, 2021. Apart from it, he is also functioning as Chairman of the 'SCOPE Committee on Financial management' and member of 'SCOPE Policy Advisory Group' and 'SCOPE Committee on Digital Transformation' w.e.f. 22nd June, 2021. He is also driving Project management as Project Coach for Maitree Export Project Group (2x660 MW Maitree TPP), Bangladesh and steering the execution of this Project of national importance enabling strengthening of bilateral relations.

Shri Subodh Gupta's appointment is upto 17.04.2023 or until further orders, whichever event occurs earlier, in the pay scale of ₹ 1,80,000 - ₹ 3,40,000 p.m. on terms and conditions approved by the Government of India.

Shri Subodh Gupta does not hold any shares of BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Subodh Gupta has attended all the Board Meetings (eleven) held in FY 2021-22.

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 26, 2022

Procedures for Joining the AGM Through VC, Remote E-Voting and Voting at the AGM

In compliance with the provisions of Section 108 of the Act, read with Rule 20 of the Companies (Management and Administration) Rules, 2014, as amended from time to time, Regulation 44 of the SEBI Listing Regulations and in terms of SEBI Circular no. SEBI/HO/ CFD/CMD/CIR/P/2020/242 dated December 9, 2020 in relation to e-voting facility provided by listed entities, the Members are provided with the facility to cast their vote electronically, through the e-voting facility provided by NSDL, on all the resolutions set forth in this Notice. The instructions for e-voting are given herein below.

The remote e-voting period will be as under: -

Commencement of remote e-voting:	9:00 A.M. on Monday, September 26, 2022
End of remote e-voting:	5:00 P.M. on Wednesday, September 28, 2022

Members holding shares either in physical form or in dematerialized form, as on Thursday, September 22, 2022 i.e., cut-off date, may cast their vote electronically during the above period. The e-voting module shall be disabled by NSDL for voting thereafter. Members have the option to cast their vote on any of the resolutions using the remote e-voting facility either during the period commencing from September 26, 2022 and ending on September 28, 2022 or e-voting during the AGM. Members who have cast their vote by remote e-voting prior to the AGM may attend/participate in the AGM through VC but shall not be entitled to cast their vote on such resolution again.

The Board of Directors of the Company have appointed Ms. Ashu Gupta of M/s Ashu Gupta & Co., Practicing Company Secretary as Scrutinizer to scrutinize the process of remote e-voting and electronic voting at the AGM in a fair and transparent manner.

The voting rights of Members shall be in proportion to their shares in the paid-up equity share capital of the Company as on the Cut-off date.

The Scrutinizer will, after the conclusion of e-voting at the Meeting, scrutinize the votes cast at the Meeting and votes cast through remote e-voting, make a consolidated Scrutinizer's Report and submit the same to the Chairman. The result of e-voting will be declared within two working days of the conclusion of the Meeting and the same, along with the consolidated Scrutinizer's Report, will be placed on the website of the Company (www.bhel.com) and on the website of the e-voting agency (www.evoting.nsdl.com). The result will simultaneously be communicated to the stock exchanges.

Subject to receipt of requisite number of votes, the Resolutions proposed in the Notice shall be deemed to be passed on the date of the Meeting, i.e., on September 29, 2022.

Instructions for Voting Through Electronic Means and Joining Virtual Meeting

A. Process and manner for remote e-voting, and voting during the AGM are explained below:

Step-1: Access to the NSDL e-voting system and casting vote electronically on NSDL e-voting system

A.1) Login method for Individual shareholders holding securities in demat mode

In terms of the SEBI Circular dated December 9, 2020 on the e-voting facility provided by listed companies and as part of increasing the efficiency of the voting process, e-voting process has been enabled for all individual shareholders holding securities in demat mode to vote through their demat account maintained with depositories / websites of depositories / depository participants. Shareholders are advised to update their mobile number and email-id in their demat accounts in order to access e-voting facility.

Type of shareholders	Login Method
Individual Shareholders holding securities in demat mode with NSDL.	**I. NSDL IDeAS Facility:** • **If you are already registered for the NSDL IDeAS facility:** 1. Please visit the e-services website of NSDL. Open web browser by typing the following URL: https://eservices.nsdl.com/ either on a personal computer or mobile phone. 2. Once the homepage of e-services is launched, click on the **'Beneficial Owner'** icon under **'Login'**, available under the **'IDeAS'** section. 3. A new screen will open. You will have to enter your User ID and password. After successful authentication, you will be able to see e-voting services. 4. Click on **'Access to e-voting'** under e-voting services and you will be able to see the e-voting page. 5. Click on Company name or **e-voting service provider – NSDL** and you will be re-directed to the NSDL e-voting website for casting your vote during the remote e-voting period or voting during the meeting.

	• **If you are not registered for IDeAS e-Services:** 1. The option to register is available at https://eservices.nsdl.com 2. Select **'Register Online for IDeAS' Portal** or click on https://eservices.nsdl.com/SecureWeb/IdeasDirectReg.jsp 3. Upon successful registration, please follow steps given in points 1 - 5 above. **II. E-voting website of NSDL:** 1. Visit the e-voting website of NSDL. Open web browser by typing the following URL: https://www.evoting.nsdl.com/ either on a personal computer or mobile phone. 2. Once the homepage of e-voting system is launched, click on the **'Login'** icon, available under the **'Shareholder / Member' section.** 3. A new screen will open. You will have to enter your User ID (i.e. your 16-digit demat account number held with NSDL), password / OTP and a verification code as shown on the screen. 4. After successful authentication, you will be redirected to the NSDL Depository site wherein you can see the e-voting page. Click on Company name or e-voting service provider – NSDL and you will be redirected to the e-voting website of NSDL for casting your vote during the remote e-voting period or voting during the meeting. III. Shareholders/Members can also download NSDL Mobile App **'NSDL Speed-e'** facility by scanning the QR code mentioned below for seamless voting experience. NSDL Mobile App is available on App Store Google Play

Individual Shareholders holding securities in demat mode with CDSL	1. Existing users who have opted for Easi / Easiest, they can login through their User ID and password. The option to reach e-voting page will be made available without any further authentication. The URL for users to login to Easi / Easiest are https://web.cdslindia.com/myeasi/home/login or www.cdslindia.com and click on **'New System Myeasi'.** 2. After successful login of Easi/Easiest, you will be also able to see the E Voting Menu. The Menu will have links of **e-voting service provider (ESP) i.e. NSDL portal.** Click on NSDL to cast your vote. 3. If you are not registered for Easi/ Easiest, the option to register is available at https://web.cdslindia.com/myeasi/Registration/EasiRegistration 4. Alternatively, you can directly access e-voting page by providing demat Account Number and PAN from a link in www.cdslindia.com home page. The system will authenticate the user by sending OTP on registered Mobile & Email as recorded in the demat Account. After successful authentication, user will be provided links for the respective ESP i.e. **NSDL** where the e-voting is in progress.
Individual Shareholders (holding securities in demat mode) login through their depository participants	1. You can also log in using the login credentials of your demat account through your depository participant registered with NSDL / CDSL for the e-voting facility. 2. Once logged in, you will be able to see the e-voting option. Once you click on the e-voting option, you will be redirected to the NSDL / CDSL depository site after successful authentication, wherein you can see e-voting feature. 3. Click on Company name or e-voting service provider-NSDL and you will be redirected to the e-voting website of NSDL for casting your vote during the remote e-voting period or voting during the meeting.

Important note: Members who are unable to retrieve User ID/ Password are advised to use Forgot User ID and Forgot Password option available at above mentioned website.

Helpdesk for Individual Shareholders holding securities in demat mode for any technical issues related to login through Depository i.e. NSDL and CDSL

Login type	Helpdesk details
Individual Shareholders holding securities in demat mode with NSDL	Members facing any technical issue in login can contact NSDL helpdesk by sending a request at evoting@nsdl.co.in or call at toll free no.: 1800-1020-990 and 1800-22-4430
Individual Shareholders holding securities in demat mode with CDSL	Members facing any technical issue in login can contact CDSL helpdesk by sending a request at helpdesk.evoting@cdslindia.com or contact at 022- 23058738 or 022-23058542/43

A.2) Login Method for shareholders, other than Individual shareholders, holding securities in demat mode and shareholders holding securities in physical mode

1. Visit the e-voting website of NSDL. Open web browser by typing the following URL: https://www.evoting.nsdl.com/ either on a Personal Computer or on a mobile.

2. Once the home page of e-voting system is launched, click on the icon **'Login'** which is available under **'Shareholder/ Member'** section.

3. A new screen will open. You will have to enter your User ID, your Password/OTP and a Verification Code as shown on the screen.

4. Alternatively, if you are registered for NSDL e-Services i.e. IDeAS, you can login at https://eservices.nsdl.com/ with your existing IDeAS login. Once you login to NSDL e-Services after using your login credentials, click on e-voting and you can proceed to Step 2 i.e. Cast your vote electronically on NSDL e-voting system.

5. Your User ID details are given below :

Manner of holding shares i.e. Demat (NSDL or CDSL) or Physical	**Your User ID is:**
a) For Members who hold shares in demat account with NSDL.	8-Character DP ID followed by 8- Digit Client ID For example if your DP ID is IN300*** and Client ID is 12****** then your user ID is IN300***12******.
b) For Members who hold shares in demat account with CDSL.	16- Digit Beneficiary ID For example if your Beneficiary ID is 12********** then your user ID is 12**********
c) For Members holding shares in Physical Form.	EVEN Number followed by Folio Number registered with the Company For example if folio number is 001*** and EVEN is 120855 then user ID is 120855001***

6. Password details for shareholders other than Individual shareholders are given below:

   a) If you are already registered for e-voting, then you can use your existing password to login and cast your vote.

   b) If you are using NSDL e-voting system for the first time, you will need to retrieve the **'initial password'** which was communicated to you. Once you retrieve your **'initial password'**, you need to enter the **'initial password'** and the system will prompt you to change your password.

   c) How to retrieve your 'initial password'?

      (i) If your email ID is registered in your demat account or with the Company, your 'initial password' is communicated to you on your email ID. Trace the email sent to you from NSDL from your mailbox. Open the email and open the attachment i.e. a .pdf file. Open the .pdf file. The password to open the .pdf file is your 8 digit client ID for NSDL account, last 8 digits of client ID for CDSL account or folio number for shares held in physical form. The .pdf file contains your **'User ID'** and your **'initial password'**.

      (ii) If your email ID is not registered, please follow steps mentioned below in **'General Guidelines for shareholders'**.

7. If you are unable to retrieve or have not received the **'initial password'** or have forgotten your password:

   a) Click on **'Forgot User Details/Password**?' (If you are holding shares in your demat account with NSDL or CDSL) option available on www.evoting.nsdl.com .

   b) Click on **'Physical User Reset Password**?' (If you are holding shares in physical mode) option available on www.evoting.nsdl.com.

   c) If you are still unable to get the password by aforesaid two options, you can send a request at evoting@nsdl.co.in mentioning your demat account number/folio number, your PAN, your name and your registered address etc.

d) Members can also use the OTP (One Time Password) based login for casting the votes on the e-voting system of NSDL.

8. After entering your password, tick on **'Agree to Terms and Conditions'** by selecting on the check box.

9. Now, you will have to click on **'Login'** button.

10. After you click on the **'Login'** button, Home page of e-voting will open.

Step 2: Cast your vote electronically and join General Meeting on NSDL e-voting system

1. After successful login at Step 1, you will be able to see all the companies **'EVEN'** in which you are holding shares and whose voting cycle is in active status.

2. Select **'EVEN 120855'** of Company to cast your vote during the remote e-voting period and casting your vote during the General Meeting. For joining virtual meeting, you need to click on **'VC/OAVM'** link placed under **'Join Meeting'**.

3. Now you are ready for e-voting as the Voting page opens.

4. Cast your vote by selecting appropriate options i.e. assent or dissent, verify/modify the number of shares for which you wish to cast your vote and click on **'Submit'** and also **'Confirm'** when prompted.

5. Upon confirmation, the message **'Vote cast successfully'** will be displayed.

6. You can also take the printout of the votes cast by you by clicking on the print option on the confirmation page.

7. Once you confirm your vote on the resolution, you will not be allowed to modify your vote.

B. Instructions for Members for attending the AGM through VC & Voting on the day of AGM:

1. Members will be provided with the facility to attend the AGM through VC through the NSDL e-voting system. Members may access the same by following the steps mentioned above for **'Access to NSDL e-voting system'**. After successful login, Members should click **'VC/ OAVM link'** placed under **'Join meeting'** menu against Company name. The link for VC/OAVM will be available in Shareholder/Member login where the EVEN of Company will be displayed.

2. The members who do not have the User ID and Password for e-voting or have forgotten the User ID and Password may retrieve the same by following the remote e-voting instructions mentioned elsewhere in the Notice.

3. Members are encouraged to join the Meeting through Laptops for better experience. Further, Members will be required to allow Camera and use Internet with a good speed to avoid any disturbance during the meeting.

4. Please note that participants connecting from Mobile Devices or Tablets or through Laptop connecting via Mobile Hotspot may experience Audio/Video loss due to fluctuation in their respective network. It is therefore recommended to use Stable Wi-Fi or LAN Connection to mitigate any kind of aforesaid glitches.

5. Members who need assistance before or during the AGM, can contact NSDL on evoting@nsdl.co.in / 1800-102-0990 and 1800-22-4430 or contact Ms. Soni Singh- NSDL at sonis@nsdl.co.in.

6. Members who would like to express their views or ask questions during the AGM may register themselves as a speaker by sending their request from their registered e-mail address mentioning their name, DP ID and Client ID / folio number, PAN, mobile number & prospective questions (if any) at shareholderquery@bhel.in from September 21, 2022 (9:00 a.m. IST) to September 24, 2022 (5:00 p.m. IST). Those Members who have registered themselves as a speaker will only be allowed to express their views / ask questions during the AGM. The Company reserves the right to restrict the number of questions and number of speakers, subject to availability of sufficient time for smooth conduct of the AGM.

7. Members may also ask questions in writing by sending mail in advance at shareholderquery@bhel.in , mentioning their name, demat account number/folio number, email id, mobile number and the requisite views/ questions. The same will be replied by the Company suitably.

8. Facility to join the meeting shall be opened 15 minutes before the scheduled time of the AGM and shall be kept open throughout the proceedings of the AGM.

9. The procedure for e-voting on the day of the AGM is same as the instructions mentioned above for remote e-voting.

10. Only those Members/ shareholders, who will be present in the AGM through VC facility and have not cast their vote on the Resolutions through remote e-voting and are otherwise not barred from doing so, shall be eligible to vote through e-voting system in the AGM.

11. Members who have voted through remote e-voting will be eligible to attend the AGM. However, they will not be eligible to vote at the AGM.

C. General Guidelines for shareholders

1. Institutional Members (i.e. other than Individuals, HUF, NRI, etc.) are required to send scanned certified true copy (PDF Format) of the Board Resolution/ Authority Letter, etc. together with attested specimen signature(s) of the duly authorized representative(s), to the Scrutinizer at ashugupta.cs@gmail.com with a copy marked to evoting@nsdl.co.in. Institutional shareholders (i.e. other than individuals, HUF, NRI etc.) can also upload their Board Resolution / Power of Attorney / Authority Letter etc. by clicking on "Upload Board Resolution / Authority Letter"

displayed under "e-Voting" tab in their login.

2. It is strongly recommended not to share your password with any other person and take utmost care to keep your password confidential. Login to the e-voting website will be disabled upon five unsuccessful attempts to key in the correct password. In such an event, you will need to go through the **'Forgot User Details/Password?'** or **'Physical User Reset Password?'** option available on www.evoting.nsdl.com to reset the password.

3. Any person holding shares in physical form and non-individual shareholders, who acquires shares of the Company and becomes a Member of the Company after sending of the Notice and holding shares as on the Cut-off date, may obtain the login ID and password by sending a request at evoting@nsdl.co.in. However, if he / she is already registered with NSDL for remote e-voting then he /she can use his / her existing User ID and password for casting the vote. In case of Individual Shareholders holding securities in demat mode and who acquires shares of the Company and becomes a Member of the Company after sending of the Notice and holding shares as on the Cut-off date may follow steps mentioned above under **'Login method for Individual shareholders holding securities in demat mode'.**

4. In case of any queries, you may refer the Frequently Asked Questions (FAQs) for Shareholders and e-voting user manual for Shareholders available at the download section of www.evoting.nsdl.com or call on toll free no.: 1800-1020-990 and 1800-22-4430 or send a request to Ms. Soni Singh at evoting@nsdl.co.in.

5. Members whose email IDs are not registered with the depositories / Company may send a request to evoting@nsdl.co. in for procuring user id and password for e-voting:

   i) In case shares are held in physical mode please provide Folio No., Name of shareholder, scanned copy of the share certificate (front and back), PAN (Self-attested Scanned copy of PAN card), AADHAR (Self-attested Scanned copy of Aadhar Card).

   ii) In case shares are held in demat mode, please provide DPID-CLID (16 digit DPID + CLID or 16 digit beneficiary ID), Name, client master or copy of Consolidated Account statement, PAN (self-attested scanned copy of PAN card), AADHAR (self-attested scanned copy of Aadhar Card).

   iii) If you are an Individual shareholder holding securities in demat mode, you are requested to refer to the login method explained at (point no. A.1) i.e., Login method for Individual shareholders holding securities in demat mode.

   iv) In terms of SEBI circular dated December 9, 2020 on e-voting facility provided by Listed Companies, Individual shareholders holding securities in demat mode are allowed to vote through their demat account maintained with Depositories and Depository Participants. Shareholders are required to update their mobile number and email ID correctly in their demat account in order to access e-Voting facility.

6. To register/ update your email address with the Company permanently and to keep receiving all communication (Notice, Annual Report and the e-voting instructions along with the User ID & Password) electronically in future, please follow the below process:

   a) Members holding shares in physical mode may send an e-mail request addressed to shareholderquery@bhel.in or to M/s Alankit Assignments Limited, Registrar & Share Transfer Agent of the company at rta@alankit.com alongwith scanned copy of the request letter duly signed by the first shareholder, providing the email address, Mobile No., self-attested copy of PAN and a copy of the share certificate to enable RTA to register their e-mail address.

   b) Members holding shares in dematerialized mode are requested to register/ update their email addresses with their respective Depository Participant.

   c) In case of queries in the matter, members are requested to write to rta@alankit.com or call at 011-42541234.

BHARAT HEAVY ELECTRICALS LIMITED
(CIN: L74899DL1964GOI004281)
Regd. Office: BHEL House, Siri Fort, New Delhi-110049
Phone: 011-66337000, Fax: 011-66337428
Website: www.bhel.com, Email: shareholderquery@bhel.in

Dear Shareholder(s),

Re: Payment of dividend through National Electronic Clearing Services (NECS)/ Electronic Clearing Services (ECS)

Pursuant to SEBI (Listing Obligations & Disclosure Requirements) Regulations, 2015, all listed companies shall use any of the electronic modes of payment facility approved by RBI such as ECS/ NECS/Direct Credit etc. for payment of dividend.

In case you have not already sent the NECS/ ECS/ Bank Account particulars to our Registrar, viz. M/s Alankit Assignments Limited or to your Depository Participant (DP) (in case of demat holding), we would request you to provide the said particulars in the format given below to facilitate prompt, safe & correct payment of dividend as and when declared by the Company.

Please ensure that the details submitted by you to the Registrars/ Depository Participant are correct as any error therein could result in the dividend amount being credited to wrong account.

Kindly help us in this endeavour to serve you better.

Yours faithfully



(Rajeev Kalra)

Company Secretary

P.S. In case you are holding shares in demat form, kindly advice your Depository Participant to take note of your Bank account particulars/ NECS/ ECS/ Direct Credit mandate.

FORM FOR NECS/ ECS MANDATE/ BANK ACCOUNT PARTICULARS

I / We..... do hereby authorise BHEL/ my Depository Participant to

☐ Print the following details on my/ our dividend warrant

☐ Credit my dividend amount to my Bank account by NECS/ ECS/ Direct Credit

(Strike out whichever is not applicable)

My/ our Folio No ..... or DP ID No ..... Client A/c No .....

Particulars of Bank Account:

A. Bank Name : .....

B. Branch Name : .....

(Address for Mandate only) .....

C. 9 digit code number of the bank & branch as appearing on the MICR cheque : .....

: .....

D. IFSC Code : .....

E. Account Type (Saving/ Current) : .....

F. Account No as appearing on the cheque book : .....

G. STD code & Telephone No. of Shareholder : .....

I / we shall not hold the Company responsible if the NECS/ ECS could not be implemented or the Bank discontinues the NECS/ ECS, for any reason.

Mail to

M/s Alankit Assignments Limited
UNIT: BHEL
4E/2, Alankit House, Jhandewalan Extension,
New Delhi-110055

.....
Signature of the Shareholder

Please attach (i) photocopy of a cheque or a blank cancelled cheque issued by your bank relating to your above account for verifying the accuracy of the 9 digit code number AND (ii) a copy of your PAN card with this form.

Bankers, Auditors & Share Transfer Agent

Bankers	Auditors
Axis Bank	Raj Har Gopal & Co, New Delhi
Bank of Baroda	Tiwari & Associates, New Delhi
Canara Bank	S.L. Chhajed & Co, LLP, Bhopal
Export-Import Bank of India	Ponraj & Co, Trichy
HDFC Bank Limited	Chandran & Raman, Bengaluru
ICICI Bank Limited	M. Anandam & Co, Hyderabad
IDBI Bank	Gopalaiyer and Subramanian, Chennai
Indian Bank	
Indian Overseas Bank	**Cost Auditors**
Indusind Bank	Shome & Banerjee, Delhi
Kotak Mahindra Bank	R. J. Goel & Co, Delhi
Punjab National Bank	KRJ & Associates, Hyderabad
RBL Bank Ltd.	M. Krishnaswamy & Associates, Chennai
Standard Chartered Bank	J. H & Associates, Bengaluru
State Bank of India	K. B Saxena & Associates, Lucknow
The Federal Bank Limited	Uppalapati & Associates, Visakhapatnam
The Hongkong and Shanghai Banking Corporation Limited	
Union Bank of India	
Yes Bank Limited	
	Share Transfer Agent
	Alankit Assignments Limited Alankit House, 4E/2, Jhandewalan Extension, New Delhi-110055 Tel : 011-4254 1234 Fax : 011-2355 2001

Registered Office
BHEL House, Siri Fort, New Delhi-110049 (India)
CIN: L74899DL1964GOI004281
Phone: 011-66337000, Fax: 011-66337428
Website : www.bhel.com E-mail: shareholderquery@bhel.in

NOTES

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Long Term Focus - Emerging Technologies

Coal to Chemical



01 Coal → 02 Syngas → 03 Various Chemicals

- Indigenously developed Fluidized Bed Gasification Technology (Coal —› Syngas)
  - suitable for high ash Indian coals
  - demonstrated through 168 TPD (tonnes/day) gasification plant at BHEL Tiruchirappalli

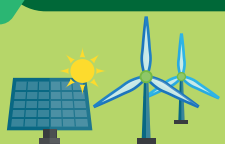


- Indigenously designed, installed and demonstrated India's first 0.25 TPD coal to methanol pilot plant using 1.2 TPD Fluidized bed gasifier pilot plant at Hyderabad (98-99.5% purity)
- Working on commercial scale gasifier based on Pressurised Fluidised Bed (PFB) technology
- Developing some critical processes such as catalytic conversion of syngas to methanol

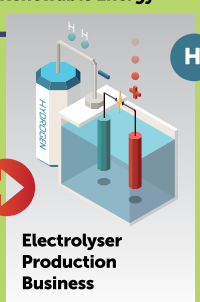
Dedicated to the nation by Hon'ble Minister for Heavy Industries on 15th Jan 2022

Hydrogen Economy

1 PRODUCTION



Renewable Energy



Electrolyser Production Business

2 TRANSFORMATION

H_2 NO TRANSFORMATION

H_2

TRANSFORMATION

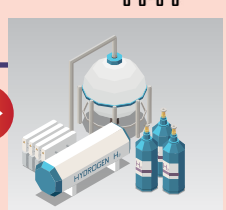
N_2 + H_2 → NH_3 Green Ammonia

H_2 + CO_2 → Synthetic Fuels

Sustainable CO_2 capture

3 TRANSPORT

- Shipping
- Trucks
- Pipeline
- Storage

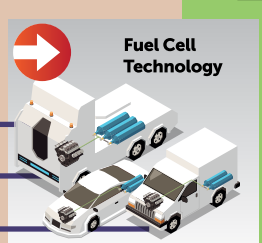


Cryogenic Equipment

4 END-USE

H_2 INDUSTRY
- Steel
- Chemical
- Refineries

H_2 NH_3 TRANSPORT
- Shipping
- Aviation
- Rail
- Trucks
- Cars
- Buses



Fuel Cell Technology

H_2 HEATING

H_2 POWER GENERATION

ACTION



- Pilot Project in Green Hydrogen Production
- Technology Partnership for electrolyser, cryogenic storage equipment and Fuel cell
- Participation in fuel cell tenders

BHEL is proud to be associated with the first **'Made in India' aircraft carrier INS VIKRANT** - the largest & the most complex Indian warship designed & built by Indian Navy & Cochin Shipyard

BHEL - Contributing to the Nation's self-reliance in the Defence Sector

INS Vikrant is equipped with BHEL-GE Avio supplied **Integrated Platform Management Systems** (IPMS)



Bharat Heavy Electricals Limited

Registered Office : BHEL House, Siri Fort, New Delhi - 110049, India

Corporate Identity Number : L74899DL1964GOI004281

www.bhel.com

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