ANNUAL Report 2019-20



EVOLVING

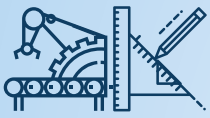
TRANSFORMING

RESURGING

BHARAT HEAVY ELECTRICALS LIMITED

BHEL- Making the Nation self-reliant in Power & Industry

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



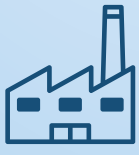
Transmission



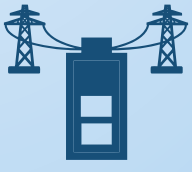
Defence & Aerospace



Oil & Gas



Industry

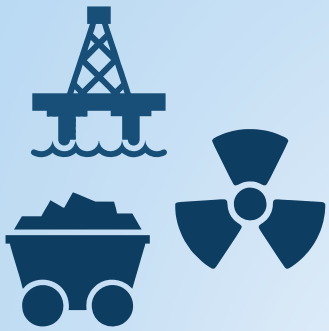


Energy Storage



Water

PRESENCE



Executed **452 coal, 420 Hydro, 102 Gas, 12 Nuclear & 45 MW scale Grid-connected Solar PV** plants across all states and 6 union territories of the country



References in 84 countries in all **6 inhabited continents**

Single source of multiple solutions for energy, industry and infrastructure segments

Undisputed leader amongst Indian power plant equipment manufacturers, backed by a talented and skilled workforce

World class technology and state-of-the-art assets

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

Focusing on transformation for creating a new BHEL



Combating the Corona Challenge

Contributing to the nation's fight against COVID-19 pandemic, BHEL's units developed many innovative disinfection solutions- an important step in controlling the spread of the coronavirus.

BAP Ranipet developed BHELMister, a spray assembly for mass sanitisation of towns and cities, which has been extensively used by Ranipet administration. It has been adopted by other manufacturing units for similar purpose in their respective locations. More than 130 sets have been supplied to different parts of the country till date.

HEEP Haridwar developed an electrostatic disinfectant spray machine in association with CSIR for sanitisation of indoor areas.

To support the fight against Covid-19 at the national level, BHEL and its employees made a humble contribution of ₹15.72 crore to the PM-CARES Fund.

BHEL is taking all measures to contain spread of Novel Coronavirus and to ensure the health and safety of employees, associates and other stakeholders.











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LETTER TO SHAREHOLDERS



Dear Shareholders,

It is an honor and a privilege to present the 56th Annual Report to our valued shareholders. I am writing to you at a time when the entire world is combating with the Covid-19 pandemic, which has far reaching consequences on societies, economies and businesses across the globe. The pandemic has added yet another layer of complexity to an already challenging business environment with falling global GDP growth rates and decline in ordering of thermal power projects. Now that the world is slowly coming to terms with this unprecedented crisis, it is time for us to adjust to the 'new normal' and reorient ourselves accordingly.

Covid response & contribution

Your company has undertaken various steps to deal with COVID-19 situation and responded with agility to minimize the impact on its stakeholders. Business continuity & preparedness has been ensured during the lockdown through the 'work-from-home' mode, especially in areas such as design and engineering, training, knowledge sharing and other HR related activities, finance related activities, etc. During the lockdown, work continued at critical sites with the support of local authorities, which resulted in recommissioning of 1x800 MW Kothagudem thermal project and commissioning of Bhadradri Unit-1 in Telangana.

Your company has also risen to the occasion to support the national efforts on COVID-19 through monetary contribution of ₹ 15.72 crore to PMCARES fund as well as through development of multiple products for in-house use and by various govt. departments/ municipalities and has also provided support to local communities in every possible way.

Key performance highlights

Even though the lockdown was imposed in the country from 25th March 2020, the impact on your company's operations was being felt much earlier, on account of disruptions in material supplies from China, Italy, etc., which started

from January 2020 itself and significantly affected the performance during the entire quarter.

- Despite the sharp decline of nearly 14% in the IIP of capital goods, your company matched the order inflows to that of FY19, with total worth of orders booked at ₹ 23,547 crores.
- The company recorded a turnover of ₹ 20,491 crores as against ₹ 29,423 crores in the previous year.
- Focus on budgetary control and cost optimization measures by the organization resulted in containment of the loss at ₹ 662 crores.
- With strenuous focus on cash collections, the company achieved a cash collection to billing ratio of 114%, which is the highest in the last ten years.
- BHEL firmly established itself as the leader in the domestic emission control equipment market with the largest market share.
- A number of initiatives were taken by the company in new business areas like transportation, defence & aerospace, energy storage business, among others, which are expected to improve the performance in years to come.

Economic & Business Environment

Global economic growth, which has been subdued for the past three years, is expected to contract further in FY 2020-21. High frequency indicators of Indian economy also indicate a decline in industrial production activity and consumption demand. The Government has taken a number of steps to revive the economy and these are expected to provide traction in the coming quarters. Our Hon'ble Prime Minister's call for 'AatmaNirbhar Bharat' will provide further momentum to the Make in India initiative and spur domestic manufacturing.

National Infrastructure Pipeline 2019 envisages an investment of about ₹ 111 lakh Crore till 2024-25, which is expected to provide opportunities to engineering and manufacturing companies like BHEL. Power sector specific reforms such as liquidity infusion to DISCOMS, proposed amendment to Electricity Act 2003, etc., will provide the much needed impetus for the long term growth of the sector. Although ordering for new coal-based power generation equipment remains weak, demand for emission control business is strong and growing.

Indian Railways continues to move ahead with initiatives to decarbonize its operations, and upgrade & modernize infrastructure. Thrust on indigenization in defence & aerospace sectors will also continue to present new opportunities.

Moving ahead resolutely

Your company is on the transformational path from being a primarily Power Sector player to a Global Engineering Enterprise with focus on improving operational and execution efficiencies along with strict financial and quality control. The immediate focus is to improve the pace of execution through a project centric approach and to take-up diversification activities in parallel for laying the foundations of a strong and growing BHEL.

For this, a slew of transformation initiatives have been undertaken across the company along with declaration of 2020 as the Year of transformation. Focused and all-out efforts are being made in the areas of:

1) ***Business Expansion & Diversification***: Your company is maintaining leadership in its core businesses by focusing on expanding the offerings through renewed thrust on spares & services segment, increasing the value proposition through digital enablers, strengthening of emission control business, and development of energy-efficient and environment friendly power plants using AUSC technology.

   In addition, growing non-power business such as railways transportation, defence & aerospace, EPC in downstream oil & gas, industry 4.0 solutions and contract manufacturing in high technology areas, is the focus area of the management. In line with the vision of 'AatmaNirbhar Bharat', the recent initiative of Government of India to progressively ban import of certain defence weapons and platforms is very encouraging.

   Your company believes in creating opportunities in adversity and had floated an Expression of Interest (EOI) inviting global manufacturing companies to leverage on BHEL facilities & capabilities to set up manufacturing base in India. This EOI has received an excellent response and dedicated teams are working towards finalising the same quickly.

2) ***Execution***: Timely and cost-efficient project completion is a priority for your company. Material supply suiting project requirements, implementation of a real-time Integrated Project Management System (IPMS), improvement in integrated project engineering, advance engineering and procurement activities, empanelment of EPC civil agencies for pre-bid tie ups, real-time site data capture, among others are major steps taken in this direction.

3) ***Cost Optimisation***: Keeping in mind the impact on profitability, a two pronged approach has been adopted for cost optimization—review & improvement of

designs and bulking of & improvement in procurement requirement/ processes. Additional steps adopted for improved inventory management and focused vendor development will further add to the bottom line of the organization.

4) ***Quality***: BHEL has been at the forefront of the Quality movement in the country since the 1980s. To help revive and revitalize this quality tradition, a company-wide 'Quality first' initiative has been launched to keep our products and solutions aligned with the stringent quality requirements in the global market. A strong quality culture is being nurtured through 'Empowerment, Education, Engagement and Encouragement'.

5) ***Receivables Management***: In order to improve the liquidity position, multiple steps have been taken for— quick realization of outstanding dues in ongoing projects through timely and quality execution, prioritizing pending works in old commissioned projects to enable release of payments and vacation of bank guarantees, and quick conversion of contract assets to collectibles by achieving various project milestones.

6) ***People***: In line with the philosophy that a dedicated and motivated workforce is the foundation of any organization, a number of initiatives have been taken towards leadership development, reform of performance management system, strengthening of internal communication, training/ retraining for continued learning through e-based platforms, simplifying policies for making them employee centric, etc.

7) ***Technology development***: BHEL has traditionally been a leader in technology through focused R&D and has been the highest spender in capital goods sector in India (>2.5% of its annual turnover). A number of initiatives have been launched for indigenization of items and development of core technical competencies, e.g., Flue Gas Desuphurization sub-systems, Air cooled condensers, higher capacity pumps, propulsion systems and various imported high-value Bought out items. Your company has also taken-up projects of national importance such as installation of India's highest efficiency thermal power plant based on Advanced Ultra Supercritical Technology (AUSC) in collaboration with NTPC (MoU signed in FY 2019-20), pilot plant for conversion of high ash coal to methanol and high efficiency PERC cells amongst others.

We are confident that with multiple initiatives presently in progress as well as envisaged, the stage is set for sustained growth for years to come.

Acknowledgement

I would like to express my deep gratitude and appreciation for the continued faith and support of our esteemed shareholders, customers, business associates, as well as other partners in our journey. Engagement and support from each member of the BHEL family, and my fellow Directors on the Board remains our source of strength. I would like to thank various Ministries of the Government of India, particularly the Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises for their continuous guidance and support in our efforts.

I am confident, that with your continued support, a transformed BHEL will continue to be at the core of self-reliance in engineering and manufacturing in the country.

With best wishes,



(Dr. Nalin Shinghal)

Chairman & Managing Director

Place : New Delhi

Dated: September 1, 2020



New Technologies for Modern Transportation !

Adding to the many firsts among its offerings to the Indian Railways in the recent years, the first air-conditioned local train of Central Railway manufactured by BHEL and ICF was put in passenger service from Thane to Panvel, Mumbai, in January 2020. BHEL has so far successfully commissioned nine Air-Conditioned ACEMU local trains for Western Railway & Central Railway to provide metro like comfort for local commuters of Mumbai.

Continuing to be a long standing partner of the Indian Railways, BHEL supplied and commissioned Diesel Electric Tower Cars, IGBT based Composite Converter on 3-Phase Passenger Locomotive, among others, during the year.



Leadership at BHEL

Board of Directors (As on 17.07.2020)



Dr. Nalin Shinghal
Chairman & Managing Director

Functional Directors



Shri Subodh Gupta
Director (Finance)



Shri S Balakrishnan
Director (Industrial Systems & Products)



Shri Manoj Kumar Varma
Director (Power)



Shri Kamalesh Das
Director (Engineering, R&D)



Shri Anil Kapoor
Director (Human Resources)

Government Directors/ Part-time Official Directors



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



Shri Amit Varadan
Joint Secretary Deptt. of Heavy Industry,
Ministry of Heavy Industries &
Public Enterprises

Independent Directors



Shri Desh Deepak Goel
Independent Director



Shri Ranjit Rae
Independent Director



Shri Rajesh Sharma
Independent Director



Shri Raj Kamal Bindal
Independent Director



Shri Manish Kapoor
Independent Director

Company Secretary



Shri Rajeev Kalra

Leadership at BHEL

Management Team (As on 17.07.2020)



Dr. Nalin Shinghal
Chairman & Managing Director



Subodh Gupta
Director (Finance)



S Balakrishnan
Director (IS&P)



Manoj Kumar Varma
Director (Power)



Kamalesh Das
Director (Engineering, R&D)



Anil Kapoor
Director (Human Resources)



C Murthy
ED (BAP), Ranipet



Sanjay Gulati
ED (HEEP), Haridwar



C Ananda
ED (HEP), Bhopal



Sunil Parwani
ED (OSD), PS-Mktg. - HBG, Noida



Surinder Singh
Project Director (Maitree), Bangladesh



Gautam Chaklader
ED (FSIP), Jagdishpur



R Padmanabhan
ED (HPBP-Tiruchirappali, PPPU-Thirumayam & PC-Chennai)



P Nagamanickam
ED (PS-SSBG), Noida



P P Yadav
ED (NBG), Noida



P Jagadiswara Reddy
ED (PE&SD), Hyderabad
Addl. Charge (HPVP)



Jai Prakash Singh
ED (CFFP), Haridwar



Manoj Kumar Shah
ED (IO), New Delhi



A K Jain
ED (EDN), Bengaluru
Addl. Charge (EPD)



Shakil Kumar Manocha
ED (PSER), Kolkata



Renuka Gera
ED (ESS & WB), New Delhi



Anil Joshi
ED (PS-PEM), Noida



Rajiv Bhatnagar
GM&Head (CSM), New Delhi
Secretary, Management Committee



Tarsem Lal
GM&Head (PSSR), Chennai



S M Patil
GM&Head (IS-CPP & PMG), New Delhi



Rajiv Sharma
GM&Head (ROD), New Delhi



A B Gupta
GM&Head (COM), New Delhi



Koushik Acharya
GM & Head (PSNR), Noida



Santosh Nair
GM&Head (PS-HQ), New Delhi



Alka Tuteja
GM&Head (CTM), New Delhi
Addl. Charge (CDT)



G Murali
GM&Head (PS-Mktg. T&G), New Delhi



Upinder Singh Matharu
GM&Head (PS-PMG), New Delhi



Amit Kerketta
GM&Head (HPEP), Hyderabad



Jai Prakash Srivastava
GM&Head (RE, IPE & IPM)
Addl. Charge (CFP)



B R Dinesh
GM&Head (ISG), Bengaluru



Subhas Chakraborty
GM&Head (PSWR), Nagpur



Animesh K Sarkar
GM&Head (CQ&BE), New Delhi



Ratnanav Acharya
GM&Head (Corporate R&D), Hyderabad



Pulak Mukhopadhyay
GM&Head (PS-TS), Noida



Dr. Balvir Talwar
GM&Head (HR&CC), New Delhi



M G Koppikar
GM&Head (PCSG), Noida



S V Srinivasan
GM&Head (TBSG), New Delhi



T K Bagchi
GM&Head (TP), Jhansi



Pankaj Gupta
GM&Head (DABG), New Delhi



Rajeev Singh
GM&Head (TBG), Noida



Mukesh Arora
GM (CLD & PSG), Noida



Pankaj Jain
GM (Finance-RM), New Delhi

Bharat Heavy Electricals Limited

Leadership at BHEL

BOARD OF DIRECTORS

CHAIRMAN & MANAGING DIRECTOR

COMMITTEE OF FUNCTIONAL DIRECTORS

Director Engineering, R&D

- **Corporate Research & Development**
  - Corp R&D, Hyderabad
  - Ceramic Tech. Institute, Bengaluru
  - ASSCP,Gurugram
- **Corporate Technology Management**
  - Innovation Strategy & Execution
  - Technology Licensing
  - Knowledge Management
  - Advanced Manufacturing Processes & Technologies
  - Joint Ventures, Mergers & Acquisitions
- **Corporate Operations Management**
  - Operations Management
  - Sourcing Strategy & Policy
  - Operations Improvement Initiatives & Reward Programs
- **Corporate Digital Transformation**
  - Digital Strategy & Governance
  - Products and Services Digitalization
  - IT Systems & Application Development
  - IT Service, Security & Support
  - IT Infrastructure Management
- **Corporate Quality & Business Excellence**
  - New Quality Initiatives
  - Total Quality Management
  - Quality Certification
  - Field Quality Assurance
- Advanced Ultra Supercritical (AUSC) Project

Director Finance

- **Corporate Finance**
  - Budgeting & Budgetary Control
  - Project & General Insurance
  - Corporate Books & Accounts
  - Financial Planning & Strategies
  - Foreign Trade Policy
- **Funds Management & Banking**
  - Receivables Management
  - Treasury & Cash Management
  - Banking Operations
  - Forex Management
  - Project Finance
- **Taxation**
  - Direct Tax Management
  - Indirect Tax Management
- **Audit & Compliance**
  - Statutory & Cost Audit
  - Internal Audit
  - C&AG Audit

  } BHEL and its units, regions and business sectors

Director Human Resources

- **Corporate HR & CC**
  - HR – Policy
  - HR Analytics
  - Medical Services
  - Alternative Dispute Resolution & Corp. Law
  - Industrial Relations
  - Corporate Communication
  - Corp. Social Responsibility
  - Health Safety & Environment
  - Administration & Security
  - Central Public Information Office
- **People Strategy Group**
  - Manpower Planning & Acquisition
  - Manpower Auditing
  - Talent Management
  - Succession Planning
  - Employee Engagement
  - Performance Management
- **Corporate Learning & Development**
  - L&D Strategy: formulation, alignment & reporting
  - Tech., Behavioral, Managerial, Skill Training

Chief Vigilance Officer

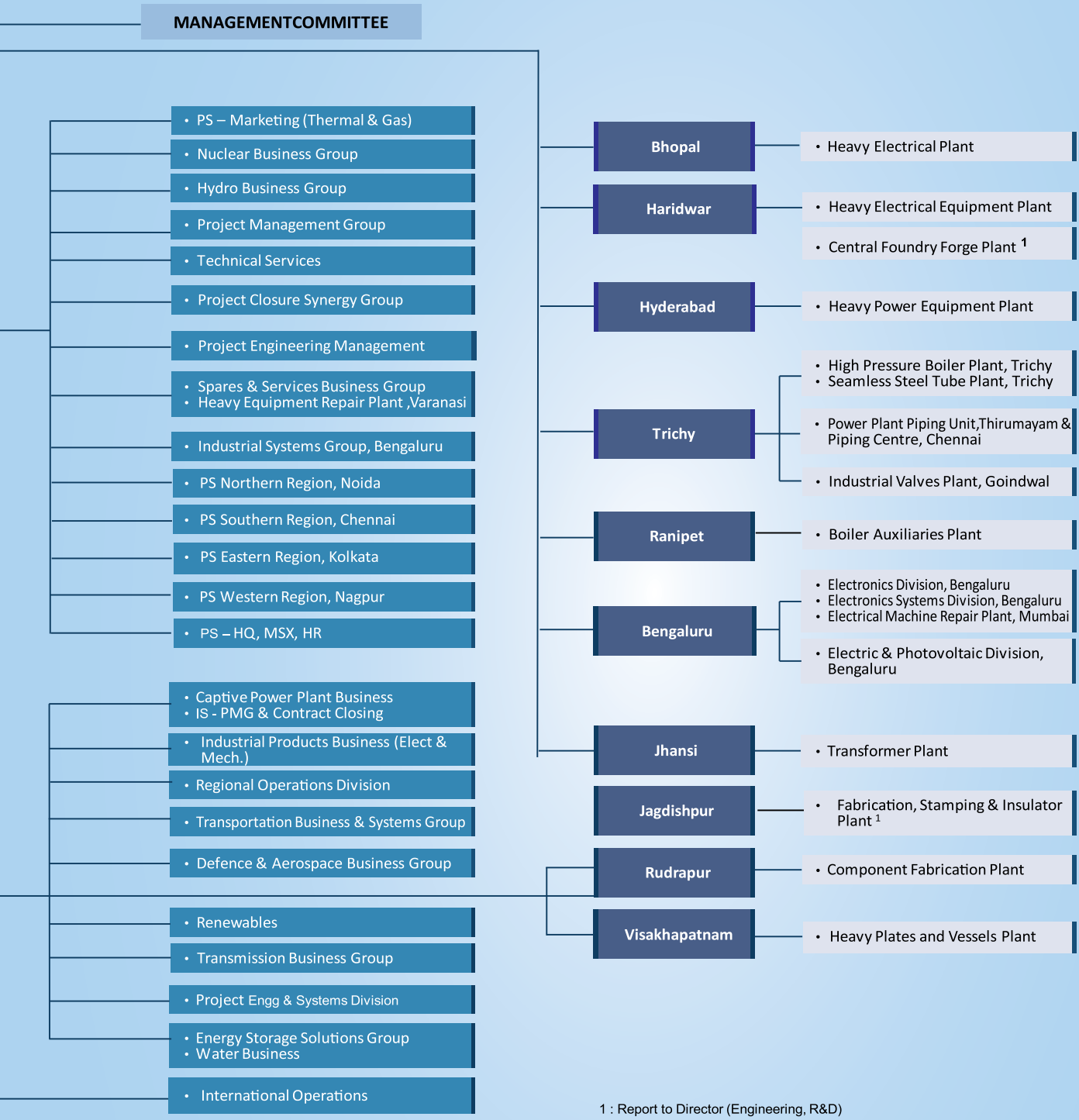
- Vigilance

- **Corporate Strategic Management**
  - Strategic Planning & Execution
  - Risk Identification & Management
  - External Engagement
  - Transformation
  - New Growth Areas
  - Collaborative Management
- **Company Secretary**
  - Secretarial Compliances & Investor Services
  - Companies Act & Listing Agreement
  - AGM, Board & Board Level Committees Meetings

Director Power

Director Industrial Systems & Products

CORPORATE ORGANISATIONAL STRUCTURE
(As on 17.07.2020)

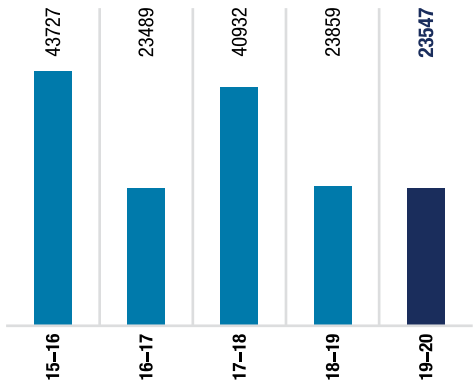


1 : Report to Director (Engineering, R&D)

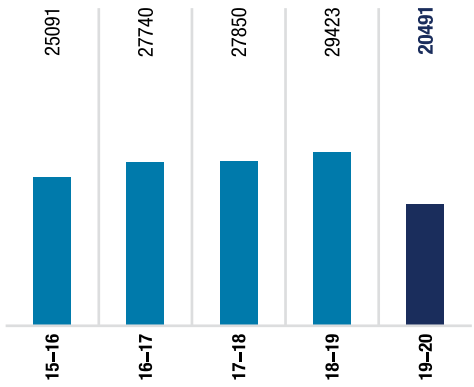
YEAR AT A GLANCE 2019-20

(Figures are in ₹ crore unless otherwise stated)

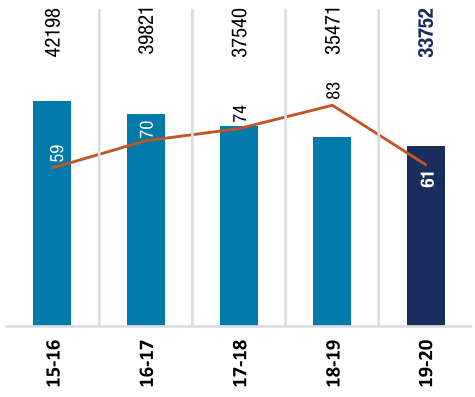
Orders Received



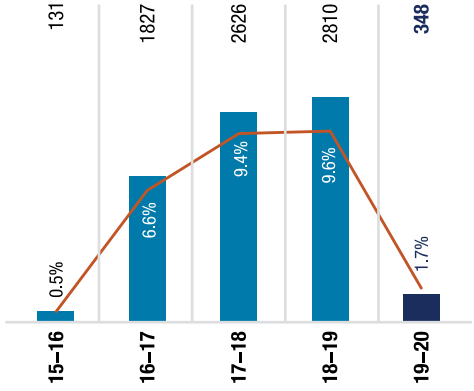
Revenue (Turnover)



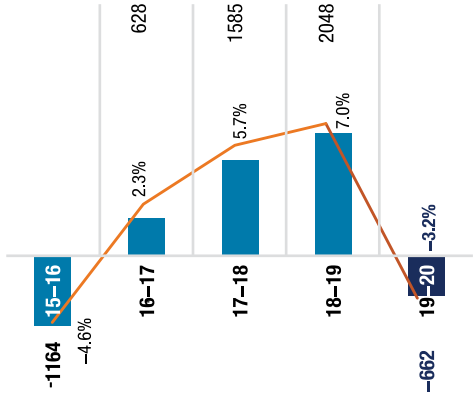
Manpower (in numbers) (Turnover per employee) ₹ lakhs



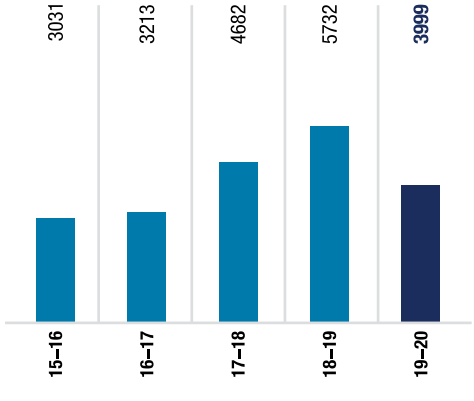
EBIDTA (% to turnover)



Profit before Tax (PBT) (% to turnover)



Contribution to Exchequer



Figures are as per Ind AS

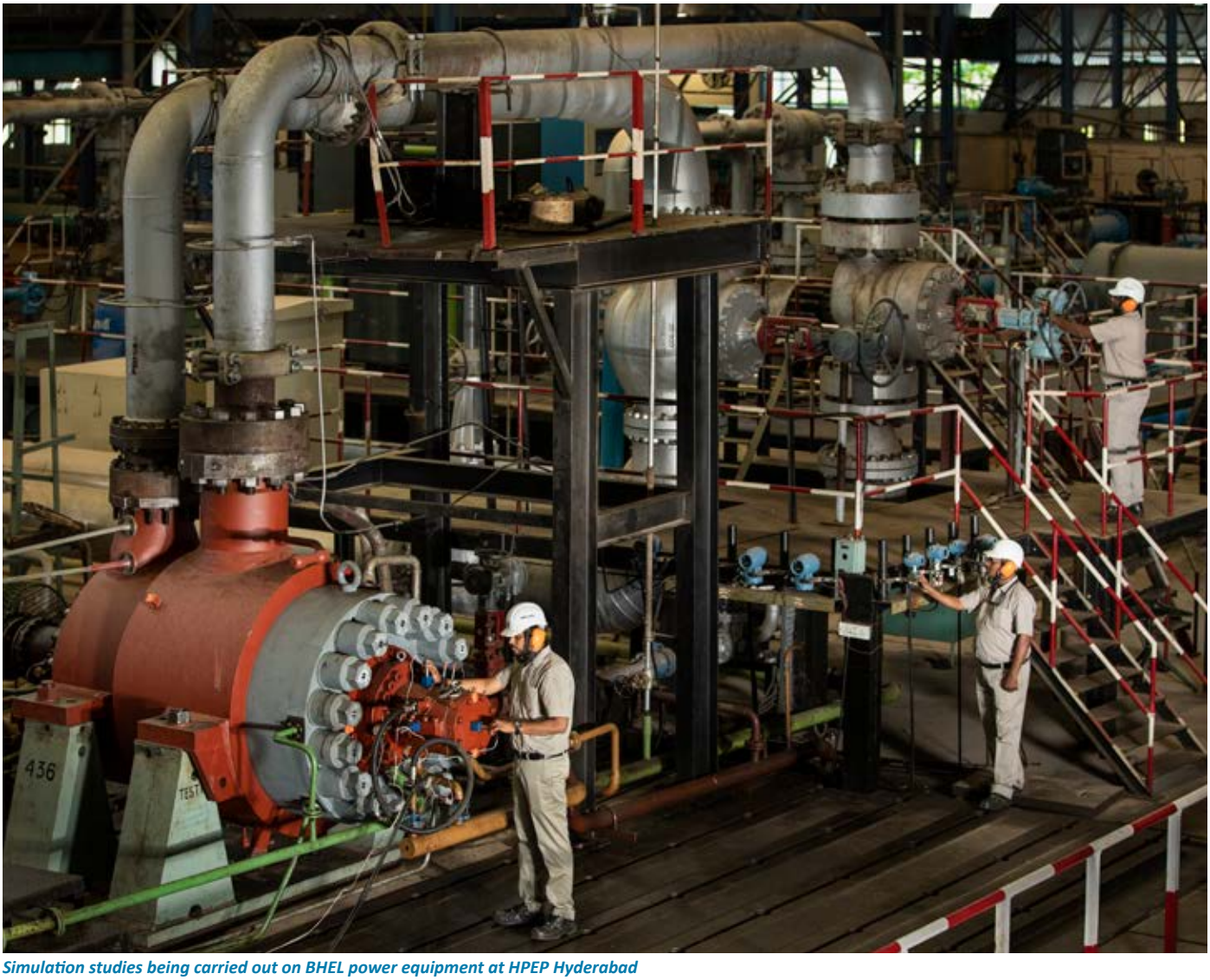

Year at a Glance
2019-20
01
Total order book
₹1,09,000 Cr.
02
Focus on developing non-coal business - highest ever orders booked in transmission, solar, aerospace & defence businesses
03
190 GW+
power generating capacity installed in India and abroad till date
04
Single largest market share in emission control equipment business in the country
05
AUSC development on track;
High spin rotor test rig commissioned;
Mfng. technology for boiler tubes for high temperature application & alloy 617 blades established
06
1.2 GW+
Solar PV portfolio;
biggest EPC player in floating solar PV market in the country
07
First-of-its -kind 1.7 MW SPV plant
supplying power directly to traction grid of Indian Railways commissioned at Bina, MP
08
32.43 Million units
of power generated through 28 MWp in-house renewable energy systems
09
₹330 Cr.+
invested in company's assets for capability building, productivity enhancement and indigenization
10
₹750 Cr.+
invested in R&D and innovation;
549 patents and copyrights filed;
4,849 Total Intellectual Capital
11
Human capital base:
33,752;
9000+
engineers
12
20 Vishwakarma awards
won by
88
BHEL employees

About BHEL

Established in 1964, BHEL has been one of the earliest and strongest contributors towards a strong and Aatmanirbhar India. BHEL is India's largest engineering and manufacturing enterprise in the energy and infrastructure sectors and a leading power equipment manufacturer globally. 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 water.

BHEL's commitment to attaining the vision of a self-reliant India manifests in many ways- in its contribution to the country's installed power generation capacity; bringing the latest state-of-the-art technology to the country; consistent highest expenditure of more than 2.5% of its turnover on R&D and innovation in the Indian engineering segment; pan-India presence; establishment of world-class assets, and creating sustainable business solutions and contribution to the society at large through initiatives in skilling youth, health & hygiene, education, cleanliness and environment protection, among others.

The force behind driving the outcomes at BHEL and ensuring success is BHEL's resilient workforce, supported ably by efficient processes and innovative enablers. A team of more than 33,500 empowered employees stands strong, focused on driving the businesses of today as well as the future.



Simulation studies being carried out on BHEL power equipment at HPEP Hyderabad

Power Sector

BHEL is one of the few companies in the world having the capability to manufacture the entire range of power plant equipment, with proven capabilities for executing thermal, gas, hydro and nuclear power 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
- 220/235/500/540/700MWe nuclear turbine generator sets
- Plant performance improvement through renovation, modernization, uprating, residual life assessment, health diagnostics and life extension of plants.

The company's pan-India presence includes a network of 16 manufacturing facilities, 2 repair units, 4 regional offices, 8 service centres, 1 subsidiary, 3 active joint ventures, 15 regional marketing centres, 4 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 190 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, BHEL is now building strong foundations for cleaner and greener energy usage in future.

BHEL has a widespread footprint in all the inhabited continents of the world with references in 84 countries including the neighbouring countries of Bangladesh, Afghanistan, Bhutan, and Nepal, Indonesia, Oman, Iraq, Sudan, Afghanistan, United States and New Zealand. Till date, BHEL has installed around 11 GW power generating capacity 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 is also a name to reckon with in various sectors of the industry. More than half of the traction equipment in locomotives & EMUs of Indian Railways has been supplied by BHEL. BHEL has commissioned 200+ electric substations and 5 major HVDC projects in the country. BHEL's solar portfolio of more than 1.2 GW, spread across the country includes ground mounted, rooftop, canal top and floating PV plants. BHEL is also one of the largest manufacturers and suppliers of power transformers and electrical AC machines in the country. BHEL has been a major reliable supplier of critical equipment and services in defence & aerospace sector for over three decades. Most of the satellites launched by ISRO are powered by BHEL manufactured solar panels and lithium ion batteries. BHEL is a trusted supplier of naval guns to Indian navy for their warships.

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 9000 HP and diesel electric locos upto 3000 HP, EPC solutions for railway track electrification
- Renewables: EPC solutions from concept to commissioning for grid connected and standalone solar PV applications ranging from KW to MW sized plants



A typical supercritical power plant under erection. BHEL currently has over 150 ongoing projects all over the country.

- E-mobility: Electric vehicle chargers, electric power train, lithium ion battery packs, electric vehicles, power conditioning system, energy management system, containerized solutions for energy storage systems
- 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
- Transmission: EHV & UHV substations ranging from 132 KV to 765 KV & HVDC converter stations up to ±800KV, power transformers, shunt reactors, vacuum & SF6 switchgear, gas insulated switchgears, ceramic insulators, Flexible AC Transmission system devices etc.
- Water: Complete water management solutions for power plants, industries and municipal applications including Pre Treatment plants, Seawater Reverse Osmosis plants, Demineralization plants, Effluent Treatment plants, Sewage Treatment plants, Tertiary Treatment Plants and Zero Liquid Discharge systems
- Industrial products: Oil rigs, wellheads & Xmas tree valves, mechanical packages, fabricated equipment & boiler feed pumps, compressors & AC machines
- Captive Power projects- steam and gas turbine based



BHEL provides complete solutions for all solar power needs, with proven expertise of over three decades

BHEL is leveraging on its technology capabilities and committed workforce to transform itself. Asserting leadership in core business, diversifying the business mix, efficiency optimisation & innovative technological solutions are the major enablers driving company's competitiveness in its businesses. Resolute focus and persistent efforts are directed towards building a new future.



WAG9 locomotive supplied to Indian Railways under testing run at TP Jhansi

Pumping Power to World's Largest Lift Irrigation Project !

BHEL has supplied and commissioned India's largest pump motor sets for Kaleshwaram lift irrigation project- world's largest multi stage LIS project located on the Godavari river in Kaleshwaram, Telangana.

22 pump motor sets totalling to 2747 MW have been supplied by BHEL over 13 months from April 2019 onwards, accounting for 59% of the project's power requirement for four packages of the LIS, namely Package 6 (7 x 116 MW), Package 8 (7 x 139 MW), Package 10 (4 x 106 MW) and Package 11 (4 x 134.4 MW). BHEL's scope includes complete electrical & mechanical works for the vertical pump-motor sets along with associated auxiliaries.

Continuing its strong relationship with the state of Telangana, BHEL is the largest supplier of pump motor sets (MW terms) for LIS in the state, having so far commissioned 47 pump-motor sets of various ratings aggregating to nearly 3.3 GW for various Lift Irrigation Schemes.



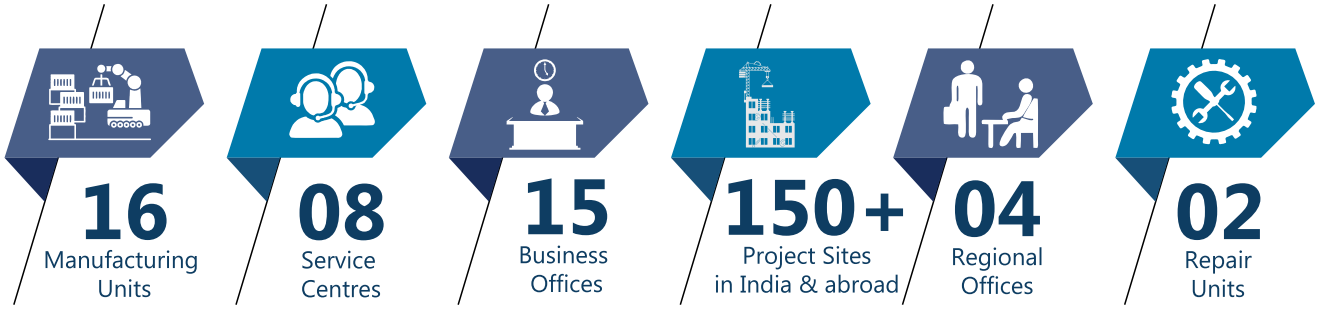


PAN INDIA PRESENCE



- CORPORATE OFFICE
- CORPORATE R&D
- MANUFACTURING UNITS
- SERVICE CENTRES
- BUSINESS OFFICES
- REGIONAL OFFICES (Power Sector)

The graphical representation does not purport to be the political map of India



Manufacturing Plants / Unit Locations

BHEL Manufacturing Units	Bengaluru	1. Electronics Division (EDN) 2. Electronics Systems Division (ESD) 3. Electric & Photovoltaic Division (EPD)
	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)
BHEL Subsidiary	Kasaragod	1. BHEL Electrical Machines Ltd. (BHEL-EML)



The 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

- 190+ GW power generating equipment installed in India and abroad
- 18,000+ MW Captive Power Plants commissioned
- 1.2+ GW total solar portfolio
- BHEL manufactured equipment constitutes 55% of thermal power generation capacity, 47% of nuclear power generation capacity (secondary side) and 45% of hydro power generation capacity in the country

Global Footprints

- Footprints in 84 countries
- 11 GW power generation capacity built outside India; 6 GW under execution
- 4x180 MW Mangdechhu HEP, Bhutan has the highest rating vertical Pelton turbine supplied by BHEL outside India

Did you know?

- BHEL indigenously manufactured world's heaviest IP Turbine casing (20 T, lower part) of alloy 625 for AUSC application
- BHEL commissioned first-of-its -kind 1.7 MW SPV plant supplying power directly to traction grid of Indian Railways at Bina, Madhya Pradesh
- BHEL supplied the largest pump-motor sets in India (ranging from 106 MW to 139 MW) totalling to 2,747 MW for Kaleshwaram project- world's largest multi-stage lift irrigation scheme
- First air-conditioned local train of Central Railway put in passenger service from Thane to Panvel on in Jan 2020 has been manufactured by BHEL and ICF
- BHEL commissioned country's highest rating lignite based 500 MW Neyveli TPP in 2019-20
- Francis turbine manufactured by BHEL for Kameng 1 & 2, largest rating hydro power projects in Arunachal Pradesh operates at rated head of 501 meters- highest in the country
- BHEL has commissioned 200+ electric Substations across the country till date

Unparalleled contribution in core sectors

- 6,40,000+ MVA transmission equipment supplied
- 32,000+ AC machines supplied
- 730+ Locos supplied to Indian Railways
- 400+ Compressors supplied and 90 Oil drilling Rigs- Supplied
- 12000+ Well Heads & Christmas Tree valves supplied
- 40+ Super Rapid Gun Mount supplied for Indian Navy ships



Powering Progress...
Brightening Lives



Technology for a sustainable future

- In house development of Advanced Ultra Supercritical (AUSC) and Coal to Methanol technologies progressing
- Spearheading the development, installation and indigenisation of emission control equipment for coal based power plants in India
- Carbon footprint avoidance of nearly 31,130 MT of CO2-equivalent through in-house 28MWp solar power installations
- 12 townships of BHEL units declared as “Single Use Plastic Free”
- Developed efficient EHV Transmission systems and products (including ±800KV HVDC)

Innovation

- R&D Expenditure consistently >2.5% of Turnover- highest in Indian engineering field
- 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

Growing with society

- Committed to Principles of UN Global Compact
- Signatory to Integrity Pact of Transparency International
- Active contributor to Healthy India, Educated India, Green India and Clean India
- BHEL Trichy, home to over one million native trees, is creating one-of-its-kind BHEL Vann, to preserve native trees and increase the green cover further by planting half a million trees by 2022
- Certificate of Appreciation for exemplary work in Skill Development from the Govt. of India, 2019-20.

Valuing people

- Committed workforce, more than 33,500 strong
- ~2000 Female employees
- 9000+ Engineers
- Participative management culture since 1973



Making in India since 1964

Recognition of Excellence



20 Vishwakarma Rashtriya Puraskars received by 88 BHEL employees. BHEL employees have received more than 71% of total Vishwakarma Rashtriya Puraskars awarded during the year to various PSUs and private sector organisations











9 National Safety Awards for outstanding achievements in terms of the longest accident-free period and lowest accident frequency rate



Dun & Bradstreet PSU Award 2019 in manufacturing, processing & generation- Heavy & Medium Engineering category for its contribution to the country's development.

Safety Innovation Award 2019 by The Institution of Engineers.

Asia Pacific Entrepreneurship Award 2019 under corporate excellence in the field of Engineering Industry.

Golden Globe Tigers Award 2019 for excellence in HR Leadership under the category- Dream Company to Work for Golden Peacock Award 2019 for corporate social responsibility.

Golden Peacock Award 2019 for corporate social responsibility.



Dr. Nalin Shinghal, CMD, BHEL, felicitated by the Indian Chamber of Commerce for **Outstanding Contribution to the Nation.**



Mr. Subodh Gupta, Director (Finance) awarded the **'Top Rankers Excellence Award 2020'** for Finance Leadership.



Dr. Nalin Shinghal, CMD, BHEL, awarded **'CEO with HR Orientation'** by World HRD Congress

BHEL Hyderabad Provident Fund Trust has been conferred with the **'Best Performing Exempted PF Trust Award'** by Employees' Provident Fund Organizations (EPFO) at its 67th Foundation Day celebration.

National Best Employer Brand Award 2019 for initiatives in talent development, succession planning, retention & talent attraction by World HRD Congress



PSE Excellence Award 2018 for Corporate Governance in the Navratna and Maharatna CPSEs Category by the Indian Chamber of Commerce



Indian Green Energy Award 2019 for 'Outstanding Renewable Energy Generation Projects' (Solar) for its 7.5 MWp Solar PV Plant at Trichy



Governance Now PSU Awards 2020 in three categories, HR Excellence & Reskilling of Employees; Research and Innovation, and Geo-Strategic Reach, among all State and Central Public Sector Enterprises



Golden Peacock Environment Management Award 2019 in engineering sector for exemplary contribution to environment management



BOARD'S REPORT

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Report of the Board of Directors

Dear Members,

The Board of Directors have pleasure in presenting the 56th Annual Report on the business and operations of your Company and the Audited Financial Statements for the year ended March 31, 2020.

Financial Results

(₹ Crore)

	For the year ended	
	March 31, 2020	**March 31, 2019**
Revenue (Turnover)	**20491**	29423
Revenue from operations	**21486**	30423
EBIDTA	**348**	2810
Operational EBIDTA	**(233)**	2132
Profit before tax	**(662)**	2048
Profit after tax	**(1473)**	1209
Total comprehensive income	**(1747)**	1089
EPS (in ₹)	**(4.23)**	3.33

Note: Figures in () represent negative values.

State of Company Affairs

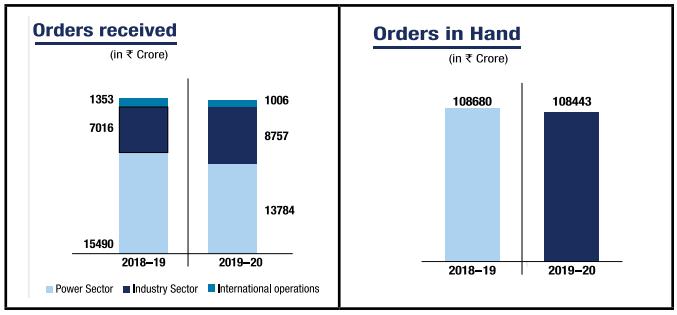
The revenue for the year was mainly impacted due to Covid-19 pandemic in the last quarter of FY 2019-20, which led to a nationwide lockdown from 25th March 2020 disrupting the operations in manufacturing facilities and project execution activities at sites. Even though the lockdown was imposed in the country from 25th March 2020, the impact on company's operations was being felt much earlier, on account of disruptions in material supplies from China, Italy, etc., which started from January 2020 itself and significantly affected the performance during the entire quarter.

For FY 2019-20, the company has incurred a loss of ₹ 662 Crore as against a profit of ₹ 2048 Crore in FY 2018-19, mainly due to lower revenue and higher material cost. However, stringent budgetary control measures and prudent provisioning has helped in restricting the loss.

Loss after tax for the FY 2019-20 is ₹ 1473 crore as against profit of ₹ 1209 cr in 2018-19. The loss after tax for FY 2019-20 is significantly higher due to restatement of deferred tax asset at the rate of 25.168% as against 34.944%, having an impact of ₹ 957 Crore.

The Company secured orders worth ₹ 23547 crore in FY 2019-20. This comprises orders worth ₹ 13784 crore in the Power segment, ₹ 8757 crore in the Industry segment and ₹ 1006 crore in International operations. The order book outstanding at the end of March 31, 2020 was around ₹ 108443 crore (executable order of ₹88284 crore) against ₹ 108680 crore (executable order of ₹ 86953 crore) as on March 31, 2019. The order book figures are inclusive of applicable taxes.

(₹ Crore)



Transfer to Reserve

The Company has not transferred any amount to Reserves during 2019-20.

Dividend

Due to COVID 19 pandemic and extra ordinary circumstances, the Board decided not to give any dividend for the year 2019-20 in its meeting held on June 13, 2020.

The Company has in place a dividend distribution policy in pursuance to 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 www.bhel.com and is also provided separately in the Annual Report.

Deposits

The Company has not accepted deposits from the public falling within the ambit of Section 73 of the Companies Act, 2013 during FY 2019-20.

MoU Rating

Your Company has been rated as 'Excellent' on MoU performance for FY 2018-19 by Government of India.

Credit Rating

The credit ratings of your Company are as follows:

Rating Agency	Date of Rating	Long Term Rating	Outlook	Short Term Rating
CRISIL	22-08-2019	CRISIL AA+	Negative	CRISIL A1+
	21-11-2019	CRISIL AA	Stable	CRISIL A1+
	24-07-2020	CRISIL AA	Negative	CRISIL A1+
INDIA RATINGS	21-08-2019	Ind AA+	Negative	Ind A1+
	06-07-2020	Ind AA	Negative	Ind A1+
CARE	03-09-2019	CARE AA+	Stable	CARE A1+
	24-06-2020	CARE AA	Stable	CARE A1+

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 financial year and the date of this report of FY 2019-20.

Directors' Responsibility Statement

Pursuant to section 134(5) of the Companies Act, 2013, the Board of Directors confirms 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 and 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

Economic growth continues to be subdued, both globally as well as domestically. With a GDP growth of 4.2% in 2019-20 against 6.1% during the previous year, the Indian economy witnessed decline in industrial production, and power and consumption demand. The protracted impact of the outbreak of COVID-19 pandemic internationally, and geopolitical developments in many parts of the world have further deepened the crisis. Government of India has launched many initiatives intended to improve financial liquidity, increase industrial activity by promoting self-reliance in manufacturing, and support agricultural sector, for bringing economic growth back on track.

Amidst this, uncertainty in business environment continues to throw up short term as well as long term challenges. BHEL is transforming itself into a Global Engineering Enterprise, with strict quality and cost controls, and focusing on various transformation initiatives - building and maintaining profitable growth by maintaining leadership in the core business in the short term and diversifying by harnessing emerging opportunities in the long term. Identification and implementation of strategies in new growth areas is one of company's topmost priorities. Our efforts are focused towards a successful transformation, while continuing to be at the core of self-reliance in engineering and manufacturing in India. For further details, please refer **Annexure-I to the Board's Report.**

Corporate Governance

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

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

(ii) Auditors certificate on Corporate Governance under Listing Regulations & DPE guidelines on Corporate Governance.

(iii) Secretarial Audit Report under section 204(1) of the Companies Act, 2013 and Management Reply thereon.

(iv) Extract of Annual Return pursuant to rule 12(1) of the Companies (Management and Administration) Rules, 2014.

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.

In the opinion of the Board, the Independent Directors appointed during the year possess integrity and necessary expertise & experience. All the Independent Directors have registered themselves in the online database of Indian Institute of Corporate Affairs (IICA). As on date, the Independent Directors (except Shri Manish Kapoor) have yet to undergo the online proficiency self-assessment test conducted by IICA (notified under Section 150).

Links under Company Website:

1. Familiarization Programme of Independent Directors: http://www.bhel.com/index.php/ind_dir
2. Policy Determining Material Subsidiaries and Policy Dealing with Related Party Transactions: http://www.bhel.com/pdf/Policy_with_regard_to_Related_Party_Transactions_010419.pdf
3. Annual Return: http://www.bhel.com/index.php/notice_announce

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 at Point 2.3 of the Corporate Governance Report. Further, there has been no instance where the Board of Directors have not accepted the recommendation of Audit Committee.

Compliance with Secretarial Standards

The Company has complied with applicable Secretarial Standards.

Changes in Directors & Key Managerial Personnel

Appointment

Shri Shashank Priya, Additional Secretary & Financial Adviser, Ministry of Commerce & Industry has been appointed as Part-time Official Director w.e.f. October 4, 2019.

Shri Anil Kapoor has been appointed as Whole Time (Functional) Director w.e.f. October 15, 2019 to take charge of the office of Director (HR).

Shri Raj Kamal Bindal and Shri Manish Kapoor have been appointed as Part-time Non-official (Independent) Directors w.e.f. January 31, 2020.

In accordance with Section 161 of the Companies Act, 2013 and Article 67(iv) of the Articles of Association of the Company, S/ Shri Shashank Priya, Anil Kapoor, Raj Kamal Bindal and Manish Kapoor, having been appointed as additional directors, shall hold directorship up to the 56th Annual General Meeting of the Company and are eligible for appointment as Directors at the Meeting.

Cessation

Shri D. Bandyopadhyay, who was appointed as Director (HR) on August 1, 2015, ceased to be a Director of the Company on attaining the age of superannuation on August 31, 2019.

Shri R. Swaminathan, who was re-appointed as Part-time Non-official (Independent) Director on December 1, 2018, ceased to be a Director of the Company on completion of his tenure on November 30, 2019.

The Board of Directors place on record their deep appreciation for the valuable services rendered as well as advice and guidance provided by Shri D. Bandyopadhyay and Shri R. Swaminathan during their tenure.

Further, pursuant to Section 152 of the Companies Act, 2013 and Article 67(i) of the Articles of Association of the Company, Shri Manoj Kumar Varma and Shri Kamalesh Das will retire by rotation at the Annual General Meeting and being eligible, offer themselves for re-appointment.

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 also 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.**

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 was given during FY 2015-16 to M/s BHEL EML, BHEL's subsidiary Company, and has been already provided for impairment.

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

The mission statement of BHEL – "Providing Sustainable business solutions in the fields of Energy, Industry & Infrastructure" underscores that the tenets of sustainable development are deeply ingrained into our business processes.

BHEL continuously focuses on products and technologies having a lower environmental footprint for its customers. In its internal processes, the company strives for conservation of natural resources including water, through deployment of 3-R principle (Reduce-recycle-Reuse), increasing the share of renewable energy generated through in-house solar systems installed at our premises, conserving energy through energy efficiency improvement projects, reducing carbon footprint in operations, and protecting the biodiversity by enhancing and maintaining the green cover through tree plantation, among others.

As a responsible corporate citizen working towards promotion of inclusive growth in the society, BHEL's structured CSR Programme aims at creating a social infrastructure for the community. The details of these initiatives taken during the year 2019-20 are given in **Annexure-IV to the Board's report.**

Business Responsibility Report

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

Achievements of R & D and Technological Development

Innovation and R&D framework established in BHEL is fully equipped to meet the technological challenges posed by the current and future business requirements. In the year 2019-20, the R&D expenditure is ₹766 cr which is approx. 3.74% of the revenue. This includes expenditure incurred on R&D efforts made at manufacturing units for modifications/ improvements in products and designs against customer requirements, apart from R&D projects. The company filed 549 patents and copyright applications during the year, enhancing the company's intellectual capital to 4849. Approx. 23.4% of the company's revenue, amounting to ₹4792 Crore has been achieved from its in-house developed products. Further details have been provided in **Annexure-VI to the Board's Report.**

Implementation of Official Language

Continuous efforts are made for effective implementation of Official Language Act 1963 and Official Language Rules 1976 in all units of the company and the progress is reviewed and monitored continuously.

Committee of Parliament on Official Language appreciated the efforts being made in this area during their inspection of various Units. Inspection of certain units was also carried out by Department of Heavy Industries, who expressed their satisfaction towards Rajbhasha implementation in BHEL. Further details have been provided in **Annexure-VII A** to the Board's Report.

Vigil Mechanism

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 set-up headed by a senior officer reporting to the CVO.

To reduce the chances of corruption, preventive vigilance has been the focus area in BHEL. The main objective is to progressively reduce ambiguity and discretion in processes by plugging the loopholes in the system, thereby making decision-making process more objective & transparent, and also reducing the scope for malpractices. One of the key thrust areas for preventive vigilance is surveillance. During the year, multiple manufacturing units/ regions of BHEL were inspected by the Corporate Vigilance team to study the various processes being adopted in the units and to identify areas which require improvement. The audit reports (internal, statutory and CAG reports) relating to BHEL have also been scrutinized so as to determine whether there is any vigilance angle involved in respect of the irregularities brought out in such reports. In line with the extant guidelines, Annual Property returns of about 4200 employees were scrutinized during the year. 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, improvements

were suggested on various provisions of BHEL Policies, Guidelines and Manuals so as to minimize discretionary powers and to bring clarity in provisions where there may be scope for misinterpretation. Accordingly, revised Reverse Auction (RA) Guidelines, 2020, amendment to Guidelines for Suspension of Business Dealings with Suppliers/ Contractors and Guidelines for Quality cum Cost Based Selection (QCBS) based ordering have been issued. Further details have been provided in **Annexure-VII A to the Board's Report.**

Health, Safety & Environment (HSE)

Occupation Health, Safety & Environment is a key focus area for the organization. Company-wide HSE safety management objectives and processes have been established for improving operational discipline and evolving inherent safety measures.

Systems are continuously standardized and upgraded to reach the target of zero injuries and incidents. BHEL is having a three-tier HSE monitoring system in place. HSE related issues are reviewed in various forums like plant level apex committee, joint committee, central safety committee, shop level committee, risk management committee etc.

ISO 14001 and OHSAS 18001 / 45001 certification of our units is enabling us to manage HSE related risk and achieve excellence in our HSE performance. Many new initiatives were taken this year to enhance the effectiveness of HSE training, including training on fire safety, awareness programme on ISO 14001 & ISO 45001, "Training of Trainers" on Safety, e-module development for ISO 14001 & ISO 45001, fire safety stewards training, etc. Further details have been provided in **Annexure-VII A to the Board's Report.**

Data and Cyber Security

Endpoint security has been deployed across BHEL's IT assets, comprising of PCs, laptops and servers, and integrated with its Cyber Security Operations Centre. This approach enables implementation of advanced anti-malware techniques, ensuring data security for every connected device. The whole process is managed through a single console. This successful integration provides BHEL significantly enhanced protection for the company's geographically distributed endpoints and servers under a single umbrella.

Cyber Threat Intelligence (CTI) generation is an initiative of Ministry of Electronics & Information Technology (MeitY), Govt. of India to gather cyber threat intelligence and utilize the same to secure the cyber ecosystem of the country. Indian Computer Emergency Response Team (CERT-In), the national nodal agency for Cyber Security under MeitY, is the apex implementation agency. BHEL is also a part of this initiative and is contributing to the same.

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's 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-VIII 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 2019-20 are given separately in the Annual Report.

Auditors' Report on the Accounts

The Auditors' Report and comments of the Comptroller & Auditor General of India on Standalone and Consolidated Financial Statements for FY 2019-20 of the Company are given at **Annexure- IX to the Board's Report**. There is no qualification in the Auditors report on the Financial Statements of the Company. The Comptroller & Auditor General of India has also given 'NIL' comment on the Financial Statements of the company after conducting supplementary audit under Section 143(6) (a) read with Section 129 (4) of the Companies Act, 2013.

Secretarial Audit

In terms of section 204(1) of the Companies Act, 2013, the Company engaged M/s K.K. Sachdeva & Associates, Company Secretaries in whole-time practice, as Secretarial Auditors for conducting Secretarial Audit for FY 2019-20 and their report is forming part of Corporate Governance section.

The observations made by Secretarial Auditor in his Audit report is as under:

The composition of the Board of Directors is not in compliance with Regulation 17(1) 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 Guidelines as the Company did not have requisite number of independent directors including at least one independent woman director on its Board.

The Managements' reply on the above observation is as under:

BHEL, being a Government Company, the Independent Directors are selected by the Administrative Ministry viz., Department of Heavy Industry in consultation with the Search Committee of the Department of Public Enterprises. The Company is in constant communication with the Department of Heavy Industry (DHI) for the appointment of requisite number of Independent Directors including at least one independent woman director on its Board in order to comply with the provisions of the SEBI Listing Regulations and DPE Guidelines.

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 2019-20. 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 2019-20 are given separately in the Annual Report. The Cost Audit Report for FY 2018-19 has been filed under XBRL mode on August 23, 2019, well within the due date of filling and there was no qualification in the cost audit report.

Appreciation and Acknowledgement

Your Directors gratefully acknowledge all the support and guidance extended by Ministry of Heavy Industries & Public Enterprises and all other departments and agencies of the Government of India in the Company's operations and developmental plans. The Directors also express their gratitude to the Comptroller and Auditor General of India, Chairman and Members of Audit Board, Statutory Auditors, Branch Auditors, Secretarial Auditor and Cost Auditors for constructive suggestions and continuous cooperation.

The Directors place on record their sincere appreciation towards the Company's valued customers in India and abroad and esteemed shareholders for the support and confidence reposed by them in the management of the Company and look forward to the continuance of the same in future.

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

Your Directors also wish to place on record their sincere appreciation for the diligent efforts, hard work and commitment put in by all BHEL employees.

For and on behalf of the Board of Directors of

BHARAT HEAVY ELECTRICALS LTD.



Dr. Nalin Shinghal

Chairman & Managing Director

Place: New Delhi

Dated: 28.08.2020

Annexure-I to the Board's Report
Management Discussion and Analysis

1.1 Economic & Business Overview

World economic growth slowed to 2.9% in 2019 against 3.6% in 2018 as per IMF. World economic activity has suffered severely due to the onset of the COVID-19 pandemic, with widespread disruptions in supply chain, production and trade. Even with the anticipation of a gradual recovery in the second half of 2020, world economic growth in 2020 is projected to contract. High frequency indicators like industrial production point to synchronized, deep supply side downturn. Consumption and service output has dropped due to lockdowns, unemployment, income losses, and weaker consumer confidence.

The Indian economy clocked a GDP growth of 4.2% in 2019-20 against 6.1% during the previous year. High frequency indicators indicate a decline in industrial production activity and also consumption demand beginning Mar'20 across both urban and rural segments. Electricity consumption fell during lockdown period to recover later as lockdown was eased, and production of capital goods, consumer durables and non-durables contracted.

In the domestic power sector, the push to reform distribution and retail side of electricity value chain continued with recent draft amendments in Electricity Act, and the ₹ 90000 cr financial package extended to discoms. In thermal power business, although ordering for new coal-based power generation equipment continued to be weak, demand for emission control business remained strong. The year also saw business activity from nuclear power sector.

Indian Railways continued to move ahead with initiatives to decarbonize its operations, upgrade & modernize infrastructure, and enhance quality of service. In addition, metro rolling stock demand from tier-II and tier-III cities is showing traction. In the e-mobility space, after the launch of GoI's FAME-II scheme, market is gearing up to meet the demand for both private electric vehicles and public transport segment.

1.2 Opportunities & Threats

The outbreak of COVID-19 pandemic, and geopolitical developments have unleashed unprecedented economic, political and social turmoil across the world. The magnitude and extent of the impact of these events are yet to manifest themselves fully. However, like most such events in the past, these tumultuous times present threats as well as windows of opportunities to build a more prominent place in the new order of things to come. While dealing with the immediate effects of the continuously evolving situation on its operations, BHEL is also looking at the possibilities emanating from the results of these developments.

Indian economy had already witnessed five straight quarters of reduced growth before the outbreak of COVID-19. To boost the continuously subdued consumption sentiment, the government and the Reserve Bank of India had taken various measures to infuse liquidity in to the system. Underlining the fact that infrastructure is a key enabler of growth, a National Infrastructure Pipeline report was released by the government in December 2019, which envisaged an investment of ₹ 111 Lakh Crore on infrastructure till 2024-25. However, with the pandemic and the ensuing slowdown across all sectors of economy, BHEL too has been facing operational challenges due to disruptions in international as well as domestic supply chains, labour shortages at project sites, and cash constraints.

Despite various operational and business challenges posed by COVID-19 pandemic, a significant opportunity is being seen in respect of the manufacturing space supply chains which are expected to find geographical alternatives, keeping in mind the economic and political risks emanating from their existing concentration in a few countries. The company is targeting to capitalise on such upcoming opportunities in the manufacturing domain, given its sizeable asset base, engineering capabilities and diversity of manufacturing capacity.

With COVID-19 and the recent geopolitical developments having delivered a setback to globalisation, self-reliance has gained strategic importance. Government of India's initiatives like "Aatmanirbhar Bharat" and "Make in India" have the potential to re-shape the Indian industrial scenario. BHEL also is making efforts to be a part of this resurgence by adopting substantive, sustainable and profitable business areas, which, while bridging the gaps in the domestic engineering and manufacturing capabilities, will provide new avenues of growth. The company is also exploring various opportunities with global OEMs for leveraging BHEL facilities and capabilities to set up manufacturing base in India.

1.3 Moving ahead resolutely

Factors like energy transition, disruptive technology developments, changing business models, and stringent customer requirements have accentuated the need for change as never before. To overcome the short term as well as long term challenges thrown up by the ever-changing business environment, the company is taking some very robust steps by building and maintaining profitable growth and sustaining our leadership in the core business in the short term, and by harnessing emerging opportunities in the long term.

A transformation process has already been launched across the company, with various initiatives aiming at revamping processes, improving project execution, redesigning business models, expanding into new businesses and engaging the people.

Defending core business

The company is determined to protect and assert its leadership in its core business. BHEL is focusing on improving execution by targeting timely project delivery, a renewed thrust on spares & services segment, strengthening of emission control business and development of energy efficient and environment friendly power plants using AUSC technology.

With the order for TG package of 2x660 MW THDCIL Khurja project, BHEL has taken its total order tally of supercritical sets in the country to 56 sets of Steam Generators (SGs) and 51 sets of Turbine Generators (TGs), the highest by any single power plant equipment supplier in the country. Building up on its prominence as the largest contributor to the domestic power generation capacity, the company is the leader in the domestic emission control business, with an existing portfolio of 63 flue gas desulphurisation sets, 11 selective catalytic reductions sets and a significant number of orders where it is favourably placed. Dedicated efforts are on to increase the value proposition in power

plant spares and services business by identifying new growth areas including digitalization for new business opportunities. BHEL is also expanding its offerings in transmission and captive power businesses.

Reaffirming its dominant presence in India's neighbourhood, BHEL has secured an order for the electro-mechanical package of 2x20 MW Rahughat Hydroelectric Project, the second successive hydro power project order from Nepal, after Arun-3 Hydroelectric Project in 2018-19.

New growth areas

Identification of substantive and profitable new growth areas, and planning and implementing business execution strategies in these areas is one of the topmost priorities. Railway transportation, defence & aerospace, EPC projects in downstream oil & gas, Industry 4.0 solutions business for power plants, and contract manufacturing are some opportunities where BHEL is working on a range of new products and systems to build new drivers of growth. The diversification initiatives instituted in the past have resulted in the achievement of the highest ever order booking in the industry segment, including highest ever orders in transmission, solar and defence & aerospace in 2019-20. Major achievements include maiden order from Railway Board for manufacture and supply of WAG-7 electric locomotives with regenerative braking, order for one of the largest single location floating solar power plant (100 MW) at Ramagundam from NTPC, and first-of-its kind development of Solar PV plant feeding solar power directly to Traction Sub-Station at Bina, in partnership with Indian Railways, among others.

Revamping Project Execution

The company has been taking numerous steps to ensure timely execution/ completion of projects. Material dispatch suiting project requirements, implementation of an real-time Integrated Project Management System (IPMS), advance engineering & procurement activities, improvement in integrated project engineering, empanelment of EPC civil agencies for pre-bid tie ups, etc. are some of the major initiatives.

Cost Optimization

Efforts are being made to optimise costs at all levels through optimization of design and procurement processes. Further design and engineering standardization, indigenisation, centralized procurement of bulk items, improved inventory management and focused vendor development are in progress to achieve optimum cost levels.

Quality First

A company-wide quality first initiative has been launched to further strengthen quality as a hallmark of company's products and services. A strong quality culture is being nurtured through Empowerment, Education, Engagement and Encouragement. New quality maturity model "Quality360" has been developed and launched to assess Quality Management effectiveness of all BHEL divisions. Quality Health Index of all divisions (Manufacturing Units, Power Sector Regions, Engineering Centers) are being evaluated for continual improvement.

Receivables Management

Improvement in cash position of the company continues to be a focus area for the company. Timely execution of projects, sequential supplies, billing & verification, and targeted efforts to close contracts are being strictly implemented for collection of receivables and conversion of contract assets into collectibles. In 2019-20, cash collection to billing ratio achieved was 114%, which is the highest in the last 10 years. Collectible debtors underwent a 22% reduction.

Employee Development & Engagement

The company continues to invest in development of its employees, with a fresh impetus on policy and structural changes. Many progressive schemes have been implemented to improve alignment between individuals and the organisation. Revamping Performance Management System, enhancing employee engagement, strengthening internal communication, use of e-platform based interventions for learning and development, and leadership development are some specific initiatives underway.

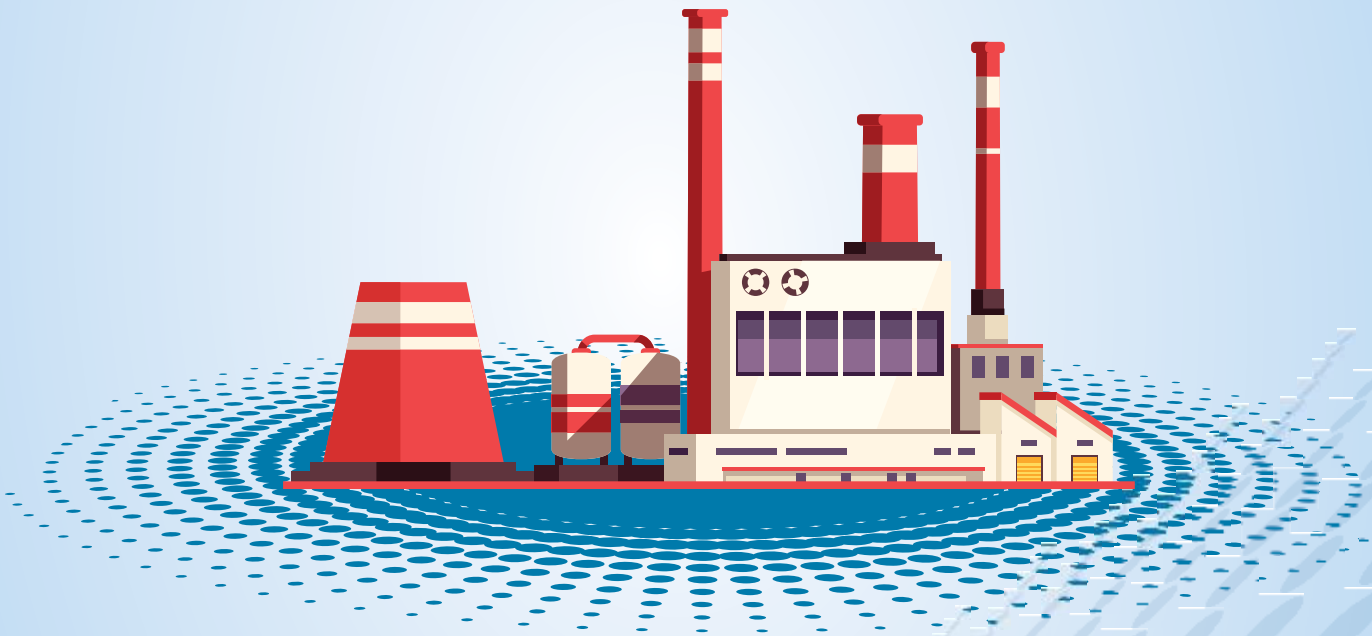
Operational efficiency

Digital enablement of processes for improved speed and operational efficiencies, e.g. implementation of e-Office and an updated reverse auction guideline are some of the initiatives in place. Change in practice relating to project revenue recognition will also enhance operational efficiency and capacity utilisation.

In this journey of transformation, the steps that we have already taken, and the initiatives that are on the anvil will enable us to set the stage for sustained growth in the years to come.

Profile and Performance of Business Segments

POWER SECTOR

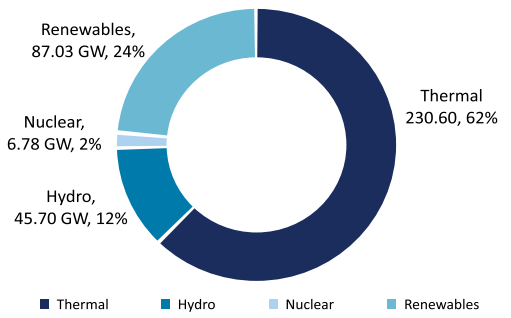


1.4 Profile and Performance of Business Segments

Overview

A nation's economic growth bears strong correlation with the growth in the energy sector. Availability of reliable and quality energy at affordable rates is vital for sustained economic growth. India currently has an installed capacity base of over 370 GW with annual electricity generation of over 1,389 Billion Units as on 31st March 2020. The power sector witnessed a capacity addition of approximately ~7 GW from conventional sources in the year, mainly from thermal power plants. On the other hand, the capacity addition from Renewable Energy Sources (RES) was ~9.4 GW in the year, with solar power capacity addition contributing ~6.4 GW to it.

Installed Generation Capacity



As on March 31, 2020 Source: Central Electricity Authority (CEA), Ministry of Power

1.4.1 Power Sector

Current Business Environment

In 2019-20, after years of average annual electricity generation growth rate of 5-6%, the electricity generation almost stagnated, with an annual growth rate of ~1%. Notably, the generation from thermal power projects declined by 2.75%. However, the government has provided impetus to restart the growth cycle of the infrastructure sector including the power sector. To achieve the goal of GDP of $5 trillion by 2024-25, India needs to spend about $1.5 trillion (₹ 111 lakh crore) on infrastructure. To achieve this objective, the National Infrastructure Pipeline (NIP) report for FY 2020-25 was prepared, with Energy Sector (i.e. Power, RES, Atomic Energy and Petroleum & Natural Gas) being allocated 24% of the total investment plan.

The government aims to provide 24x7 clean and low cost power available to all households, industry, commercial businesses and agriculture. The nation is on the verge of achieving 100% household electrification. Further, Government initiatives like 'Make in India', 'Smart Cities', '24x7 Power for All', etc. are expected to enhance power requirement in the country in the coming years. The thrust on electrification of railways and development of e-mobility solutions is expected to further boost the demand for power.

With a policy environment focused on infrastructure development, and efforts for improvement in the outlook for the domestic manufacturing sector, demand for power is expected to improve in the medium term, which will necessitate capacity addition in power systems. The National Electricity Plan of CEA envisages a demand for power of ~2,050 BU by 2027 and CEA's Optimal Generation Mix report projects an installed capacity of ~267 GW from coal-based projects by 2030 (from current levels of ~205 GW). This underlines the need for substantial augmentation of power generation, transmission and distribution capabilities from the current levels.

The revised emission norms for existing and upcoming thermal power plants notified in December 2015, have necessitated setting up of emission control equipment in thermal power plants. Significant opportunities are also expected to arise in Renovation & Modernization (R&M) Business, as new environmental norms for utilities are enforced in the country for Suspended Particulate Matter (SPM), NOx & SOx in coming years. Ordering for emission control equipment by utilities gained further steam in 2019-20, and many tenders are in pipeline, both for central and state sector projects for retrofitting of emission control equipment in existing power plants. Recent thermal power plant tenders have included emission control equipment as part of scope along with main plant equipment, a trend expected to continue in upcoming projects.

Over the past few years, the Power Sector has been dealing with various issues like fuel supply, delays in clearances and issues related to land acquisition, tying up of funds, and securing power off-take agreements with DISCOMs. The Government has undertaken a slew of reforms to resolve these issues, one of which is a new plan to lend ₹ 90,000 Crore to the DISCOMs, in a phased and performance-linked manner, to further improve their financial health. The stress faced



BHEL has commissioned over 1000 Utility sets in the country

by coal-based power projects has eased with improvement in coal availability. However, delayed payments by distribution companies, gas supply constraints, level of stressed assets in the sector, etc. continue to pose challenges for power producers. Ordering for new capacity has been mainly from the government utilities, with the private sector still grappling with existing capacities issues.

In the recent past, RES based capacity addition has outpaced the capacity addition for conventional sources of power. However, the RES power segment has witnessed a slowdown in growth rate in the past couple of years, due to factors like price escalation for solar modules, issues in land acquisition, re-negotiation and cancellation of Power Purchase Agreements (PPAs) between RES developers and Discoms, slower growth in demand for power, etc. Coal based power plants are expected to remain the mainstay of India's power generation in the coming years, in view of their suitability for continuous, round-the-year operation and the large domestic reserves of coal in our country. Also, significant improvements in efficiency and emission levels through technology advancements enable coal-based power plants to generate cleaner and greener power. Higher contribution of RES based power generation also calls for enhancement of hydro-electric capacity, especially of pumped storage plants, and gas based power plants, to meet the grid balancing and stabilization requirements necessitated by the inherent variability of RES based power systems.

Growth in hydro-power generation capacity appears to be a possible solution, with only around 38% of India's hydropower potential of 149 GW being harnessed so far. Interestingly, more than 30% of India's hydropower plants have completed 30-35 years of operation, providing potential for Renovation & Modernization (R&M) for life extension, and performance & efficiency upgrades.

Nuclear power continues to remain an integral part of India's mission for self-reliance and long term sustainability. As part of the installation of 10 reactors of 700 MWe rating in 'Fleet Mode' in a phased manner, procurement activities for 10x700 MWe PHWRs (in addition to 2x700MWe GHAVP project) are under various stages of implementation by Nuclear Power Corporation of India Limited. This is expected to fructify as a substantial business opportunity.

Offerings

BHEL is one of the few companies in the world manufacturing the entire range of power plant equipment, with proven capabilities for executing thermal, gas, hydro and nuclear power projects.

With the capability for concept to commissioning project execution for thermal power plants encompassing steam turbines, generators, boilers and matching auxiliaries up to 1000 MW ratings, BHEL has experience of executing numerous projects with supercritical thermal sets of 660/700/800 MW ratings on Engineering, Procurement and Construction (EPC) basis.

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

In nuclear power sector, BHEL is amongst few organizations that are associated in all the three stages of Indigenous Nuclear Power Programme of the country, on both the primary and secondary sides. BHEL supplied 220/235/500/540 MWe Nuclear Turbine Generator sets are already under operation, and presently BHEL is executing 700 MWe sets.

BHEL has the capability for engineering and manufacturing custom-made conventional hydro turbines of Kaplan types (up to 100 MW), Francis and Pelton types (up to 400 MW), Bulb turbine up to 10 MW. In addition, BHEL has capability for engineering and manufacturing of reversible pump turbines (up to 250 MW), high capacity pumps for lift irrigation schemes (up to 150 MW) and turbines for small hydro power plants. Other hydro products in BHEL's manufacturing range includes custom-made salient pole vertical synchronous hydro generator and Lift irrigation scheme(LIS) motor up to 400 MW, and horizontal generator up to 20 MW along with matching static/ brushless excitation system.

In respect of equipment required to meet the revised emission norms from thermal power plants, BHEL offers customized as well as retrofit solutions of Electrostatic Precipitators (ESP), Flue Gas Desulphurisation (FGD), NOx control equipment through in-furnace modification solutions. BHEL has supplied ESP's for control of particulate matter not only for BHEL boilers, but also for boilers of non-BHEL supplies.

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, health diagnostics and life extension of plants. Retrofit packages for efficieny improvement, ESP and C&I with state-of-the-art technologies are also being offered by BHEL.

Achievements during the Year

Order Booking

In the year 2019-20, the Indian Power sector witnessed intense competition in a limited market and delays in finalization of orders. In spite of the challenging business environment, the organization has secured an order inflow of ₹ 13,784 Crore in Power sector. This includes orders worth ₹. 9,257 Crore in thermal segment, ₹ 463 Crore in hydro segment, ₹ 966 Crore in nuclear segment and ₹ 3,098 Crore in spares and services and R&M business segment.

Significant utility orders received in the year are:

Thermal

- 2x660 MW THDCIL / Khurja (TG Pkg)
- 3x660 MW NPGCL / Nabinagar STPP (FGD Pkg)
- 4x250 MW BRBCL / Nabinagar (FGD Pkg)
- 3x200 + 3x500 + 1x500 MW NTPC / Korba STPS Stg I, II &III (FGD Pkg)
- 3x200 + 3x500 MW NTPC / Ramagundam STPS Stg I & II (FGD Pkg)
- 2x250 MW NSPCL / Bhilai Expn (FGD Pkg)
- 4x210+3x500 MW NTPC / Kahalgaon Stg I & II (FGD Pkg)

Hydro

- 3x27.5 MW KSEB / Kuttiyadi HEP (RMU Works)
- 6x33 + 1x8 MW PSPCL / Shahpurkandi HEP (Addl. Order)
- 1x70 MW TANGEDCO / Kodayar HEP (RMU)
- 4x39 MW UJVNL / Chilla HEP (RMU)

Nuclear

- 2x1000 MW NPCIL / Kudankulam 3&4 (Secondary Side Erection package)
- 2x1000 MW NPCIL / Kudankulam 3&4 (Primary Side Erection package incl. primary piping)

Spares and Services

- 3x210 MW GSECL Wanakbori (ESP Retrofit)
- 3x500 MW NTPC Ramagundem (ESP Retrofit)
- 4x330 TPH RINL Vizag (ESP Retrofit)

In the thermal sector, the TG package of 2x660 MW THDCIL/ Khurja project is the first order where BHEL qualified on its own, with no dependence on its collaborator. With this order, BHEL has taken its total order tally of supercritical sets in the country to 56 sets of Steam Generators (SGs) and 51 sets of Turbine Generators (TGs), the highest by any single power plant equipment supplier in the country. Out of these, 23 SGs and 19 TGs have been commissioned till March 31, 2020.

Building on its past performance in the emission control equipment business, BHEL garnered orders for 29 sets of FGDs during 2019-20, including orders from NTPC & its JVs for projects totaling ~10.5 GW. Having secured orders for 63 sets of FGDs and 11 sets of SCRs in India & abroad, BHEL has maintained its status as the manufacturer with the single largest market share in this domain.

In addition, BHEL has secured change orders for 2x800 MW NTPC Telangana SG Pkg and 3x250 MW NTPC Bongaigaon FGD Pkg.

Expanding the offerings in nuclear segment, the company has been successful in securing prestigious orders for Kudankulam nuclear power plant (being set up with Russian cooperation):

- Erection of Turbine Generator (TG) island for 2x1000 MWe Units 3&4.
- Erection of Reactor side equipment for 2x1000 MWe Unit 3&4: *This is first-of-its-kind order wherein BHEL is lending its capabilities for erection of reactor side equipment manufactured by another supplier.*

In the Spares and Services business, BHEL entered into 2 nos. of Long-Term Spares Supply Agreements (LTSSAs):

- With DVC for up-grading of Max DNA of Mejia, Chandrapura, Andal and Koderma projects.
- With Singareni Collieries for Mill spares

Projects Execution

BHEL achieved a capacity addition of 3,580 MW in 2019-20, the largest capacity addition achieved by any single equipment manufacturer in this year. The projects are:

- 2 Units of 2x660 MW OPGCL / IB Valley TPS
- 1 Unit of 1x800 MW GSECL / Wanakbori TPS
- 1 Unit of 2x500 MW NLC/ New Neyveli TPS
- 1 Unit of 2x660 MW RVUNL / Suratgarh TPS
- 2 Units of 4x150 MW NEEPCO / Kameng HEP

BHEL has also commissioned SG packages for projects aggregating to 1,460 MW and ESP package for projects aggregating to 2,260 MW in the year. In addition, this year, BHEL has synchronized 1,206.15 MW from utility power projects and 2,103 MW from Lift Irrigation Scheme.

Utility power projects synchronised

- 1 Unit of 4x270 MW TSGENCO / Bhadradri (Manuguru) TPS
- 1 Unit of 2x500 MW NLC / New Neyveli TPS
- STG (36.15 MW) of 98.4 MW (GT-62.5 MW, STG-36.15 MW) APGCL/Namrup CCP
- 2 Units of 4x200 MW NHPC / Parbati stage-II HEP



Contract signing for TG package of 2x660 MW Khurja Power Project by BHEL and THDCIL officials



4x150 MW Kameng HEP commissioned by BHEL in Arunchal Pradesh, the highest rating hydroelectric set in the state



BHEL has commissioned the pumping units of Kaleshwaram Lift Irrigation Scheme (LIS) in Telangana - world's largest LIS Project

SG/ESP Projects

- 1 Unit of 2x800 MW NTPC/ Darlipali (SG & ESP PKG) TPS
- 1 Unit of 3x660 MW NPGCL / Nabinagar (SG PKG) TPS
- 1 Unit of 2x660 MW NTPC / Tanda (ESP PKG) TPS
- 1 Unit of 2x800 MW NTPC / Lara (ESP PKG) TPS

Lift Irrigation Schemes (2,103 MW):

- 7 units of 7x139 MW I&CAD, Telangana / Kaleshwaram Lift Irrigation Scheme (LIS) Pkg-8
- 7 units of 7x116 MW I&CAD, Telangana / Kaleshwaram Lift Irrigation Scheme (LIS) Pkg-6
- 3 units of 4x106 MW I&CAD, Telangana / Kaleshwaram Lift Irrigation Scheme (LIS) Pkg-10

Major project execution milestones for the year include:

- Commissioning of one set of 500 MW Neyveli new thermal power project in Tamil Nadu, the country's highest rating



2x660 MW IB Valley Thermal Power Station commissioned by BHEL in Odisha



BHEL has successfully commissioned all four units of the 4X130 MW Parbati HEP in Himachal Pradesh

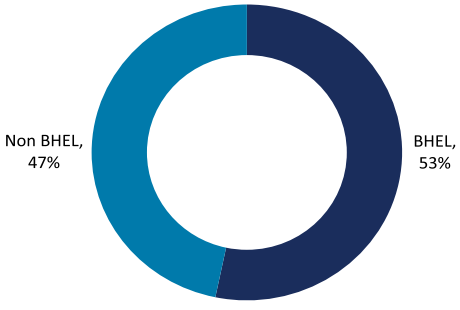
lignite based thermal unit. The plant employs once-through tower type boiler design, which is adopted for the first time in the country for a lignite based thermal unit.

- Capacity addition for Kameng HEP Units 1 & 2. The project has the largest unit rating (150 MW) for any hydropower project in the state of Arunachal Pradesh. The Francis turbine commissioned in the project is designed to operate at rated head of 501 meters, which is the highest head Francis type hydro turbine in the country.
- First unit of 3x60MW Baira Siul R&M project put back into operation after R&M.

Since its inception in 1964, BHEL has added 452 coal-based sets, 420 hydro utility sets, 102 gas based utility sets and 12 nuclear based utility sets in India up to 2019-20. Installed capacity of BHEL supplied utility sets in India stands at ~160 GW, including ~128 GW coal based and ~21 GW hydro based equipment. With this, BHEL has a majority share of 53% in the country's total installed conventional capacity.

Installed capacity - Utility*

3,01,670 MW (March 31, 2020)



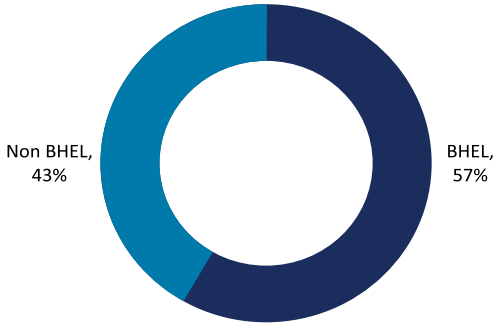
*Includes Coal, Gas & CCP, Diesel, Nuclear & Hydro; Excludes Renewables; Based on the rating at the time of installation

Equipment Performance

57% of the country's total generation of 994 BUs from thermal utility sets (coal based) was contributed by BHEL supplied sets, testifying to the superior performance of BHEL sets.

Generation - Utility (Coal & Lignite)

994 BU (2019-20)



BHEL's first supercritical unit 660 MW Barh-4 has clocked around 42,630 hours of operation, with uninterrupted operation for 265 days from 6th March 2019 to 26th Nov 2019 (PLF 62%, OA 74.1%).

In nuclear segment, BHEL nuclear power equipment continues to exhibit excellent performance. Nuclear sets registered OA of 85.3%. 4 sets clocked uninterrupted operation for more than 300 days. Also, NPCIL's Kaiga Atomic Power Plant, equipped with BHEL supplied units 1&2 of 220 MWe each, achieved more than 90% plant load factor (PLF).



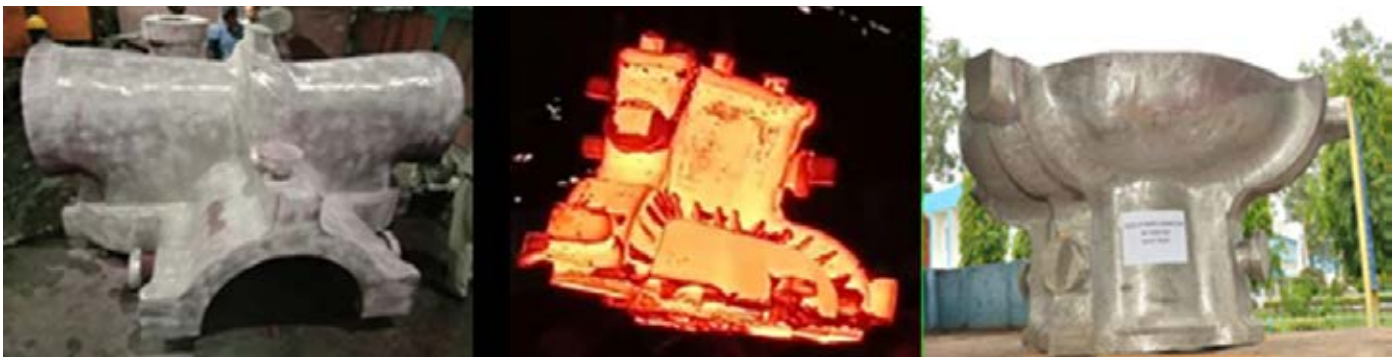
Kaiga Nuclear Power Plant in Karnataka is equipped with BHEL manufactured Turbine-Generator sets

Performance Guarantee (PG) Tests for complete main plant package (Turbine, Boiler, ESP & Mills as applicable) were completed for 31 Units. Also, PG Tests were completed for 18 Units in R&M projects.

Among these, PG test of highest rating CCPP Project (2 GTG + 2 HRSG + 1 STG - combination) at Pragati Bawana Module-I & II was completed successfully. Also, Nabinagar-3 TG & Boiler PG Tests were completed before trial run.

Power plants with BHEL supplied equipment continue to exhibit above par performance in respect of Operating Availability (OA), Plant Load Factor (PLF), and outages. Major achievements of performance of BHEL sets include:

- Thermal sets registered OA of 84.9 % and generated 5,65,983 MUs in 2019-20



World's heaviest and largest casting in Alloy 625 grade (IP Inner Casing LH – 21 MT & UH – 9MT) for AUSC mission project manufactured at CFFP Haridwar

- Generation from sets of 195 MW and above (which form the backbone of country's power generation) went up to 5,53,278 MUs with OA of 85.3%.
- 110 thermal sets achieved PLF above 70%; 12 thermal sets achieved PLF above 90%; 35 thermal sets achieved PLF between 80% and 90%; 63 thermal sets achieved PLF between 70% and 80%.
- 192 thermal sets registered OA above 90%.

Units under low system demand, coal shortage & reserve shut down are considered as available while calculating Operational Availability. For PLF & OA calculation, only stabilized period i.e. after COD is considered.

Renovation & Modernization (R&M)

During the year, BHEL carried out successfully Renovation & Modernization of five numbers of Electro Static Precipitators for various customers, combustion modification of APCPL Jhajjar Unit # 1 & 3 R&M, and Condenser R&M of TANGEDCO Tuticorin Unit 1. Flexible operations studies for Adani Dahanu Unit # 1 were also completed.

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:

- Completing APH-B module erection in a record period of 25 days -NSPCL
- Overhauling job of Unit-3 of CESC
- Completing silent steam blowing at Jamshedpur site - TATA STEEL
- Trial Operation & Hydraulic Gagging of Hydro Electric Safety Valve, resulting in successful in-time completion of Hydro Test for Boiler Unit-1 at Barh STPP
- Capital overhaul at Bhusawal TPS Unit-5 - MAHAGENCO
- Condenser Retrofitting in U#1 - TANGEDCO Tuticorin
- Replacement of 1000 MW Generator - NPCIL, Kudankulam

Moving ahead resolutely

Utilizing its rich experience of over five decades, BHEL has been spearheading the development of power sector equipment segment of the nation. The organization has not only been indigenizing technology from world leaders in various domains but has also built up state-of-the-art in-house manufacturing infrastructure and capabilities to maintain its techno-commercial leadership and address opportunities and challenges of power sector.

In the emission control equipment business, to address the developers' requirement of meeting the revised emission norms requirements, BHEL offers customized emission control solutions for new projects as well as for sets which are already in operation. Through continuous improvements in its processes and technologies, BHEL is poised to extend its market leadership in the FGD domain to the entire spectrum of emission control equipment business.

Replacement of old subcritical capacity with new supercritical capacity having higher efficiencies may entail requirements of solutions for dismantling of older plants. BHEL is offering customized & optimum techno-economic solutions to developers to meet such requirements.

With the large-scale influx of RES based power systems in the grid, flexibilization solutions for thermal power plants will be needed, which may have to work in consonance with the gas and hydro based projects. Also, a requirement for lower rating supercritical projects may also come up in future, given the space constraints in upcoming expansion projects and the requirement for flexible and two-shift operation of projects. BHEL has developed solutions to meet these requirements and is working towards further optimization of such solutions to provide more value to the customers.

BHEL is already at the forefront of the indigenous development of nation's first Advanced Ultra Supercritical Technology based plant, which is a pioneer R&D project undertaken jointly with NTPC and Indira Gandhi Centre for Atomic Research (IGCAR). The R&D phase for the project is on course and BHEL has signed an MOU with NTPC for setting up a JV for installation of the Technology Demonstration Plant. Development of this technology shall not only help in achieving a quantum jump in efficiencies but also reduce the coal consumption as well as CO_2 emission levels.

BHEL offers its experience in Renovation & Modernization and Life Extension to utilities looking to improve the performance of their existing sets. BHEL is also harnessing digital technologies to enhance its value propositions to customers, including in the spares and services business.

The Company is also enlarging its scope of offer with inclusion of new products viz. water management systems, air cooled condenser, BoP systems, emission control equipment like selective non-catalytic reduction, etc. in its power sector portfolio.

Given their faster start-up and ramping capabilities, hydro and gas can also a play crucial role in maintaining grid stability, with the growing share of variable RES in the energy mix. In the hydropower segment, the organization has enhanced its capabilities to manufacture hydro sets up to 400 MW rating. BHEL has also emerged as a leading player in large size pump-motors required in Lift Irrigation Scheme projects and is also developing capabilities to cater to the upcoming demand for pumped storage projects.

In order to address EPC business opportunity in hydro sector, BHEL has entered into a Memorandum of Understanding (MoU) with NHPC for consultancy services for civil & hydro mechanical works and also for joint bidding in EPC hydro projects.

In nuclear segment, BHEL is fully geared up to address the 700 MWe TG Island business on EPC basis for the upcoming PHWRs which are being procured by NPCIL under fleet mode. For primary side equipment, BHEL, with its unmatched engineering and technical strength, has fully supported NPCIL and stands committed in further consolidation of its manufacturing capabilities at its flagship manufacturing plant at Trichy. BHEL is also expanding its offerings in nuclear projects which are being set up under foreign co-operation (Russia) at Kudankulam 2x100 MW Unit 3&4.

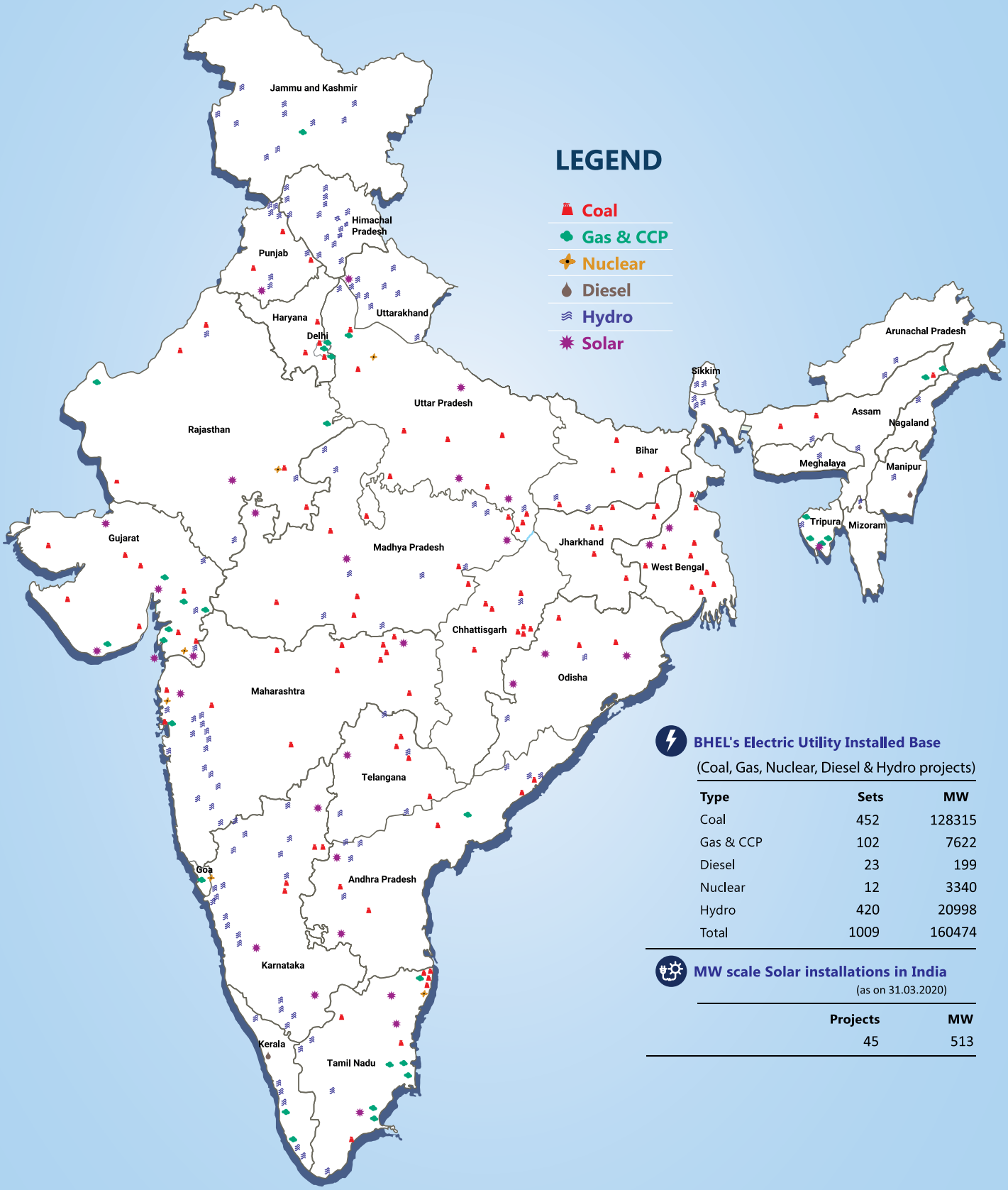
Helping the nation to usher in the third stage of the Nuclear Power Programme, BHEL has developed the secondary turbine cycle of 300 MWe Advanced Heavy Water Reactor (AHWR) nuclear power plant in association with Bhabha Atomic Research Centre (BARC). To harness other emerging opportunities in nuclear power, the company is further strengthening its capabilities. With its strong manufacturing prowess, BHEL is well positioned to enhance its contribution in the nuclear projects.

BHEL aims to provide higher value propositions to its customers to successfully address the transitions in the sector.



State-of-the-art Turbine Blade Shop at HPEP Hyderabad

BHEL
Make Electric Utiity Installations
Commissioned as on 31.03.2020



BHEL's Electric Utility Installed Base

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

Type	Sets	MW
Coal	452	128315
Gas & CCP	102	7622
Diesel	23	199
Nuclear	12	3340
Hydro	420	20998
Total	1009	160474

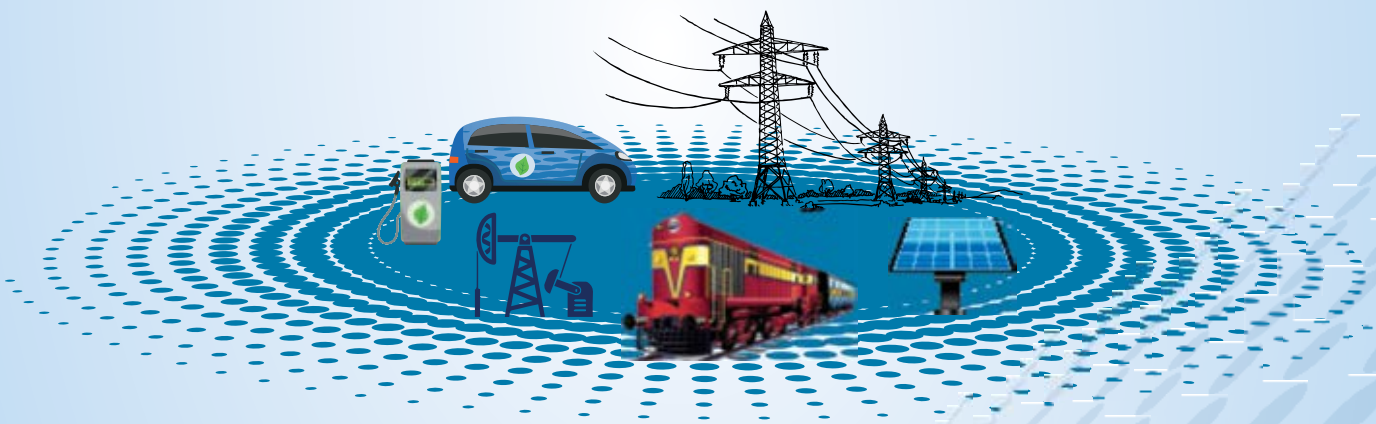
MW scale Solar installations in India

(as on 31.03.2020)

Projects	MW
45	513

Profile and Performance of Business Segments

INDUSTRY SECTOR





1.4.2 Industry Sector

Overview

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 business of the company, Industry Sector comprising of market-focused groups, offers comprehensive solutions for Transportation, Transmission, Renewables, Energy Storage Systems and e-mobility, Water Management, Defence & Aerospace, Captive Power Generation and Mechanical & Electrical Industrial Products.

During 2019-20, Industry Sector secured orders worth ₹ 8,757 crore, which includes highest ever order booking in Solar, Defence & Aerospace and Transmission products segments. Order booking is the highest in the last nine years, despite high level of competition, and continued to be more than ₹ 7000 crore for the 3rd consecutive year.



Captive plant generator winding insertion in progress at HPEP Hyderabad

1.4.2.1 Transportation

Business Environment & Opportunities

Domestic transportation sector is embracing faster, safer and more reliable technologies. With the Indian Railways upgrading its systems, growth in the capital investment outlay of the Indian Railways has provided a thrust towards electrification, upgradation of tracks, signalling, station development, etc. There is requirement of new types of rolling stock such as Trainsets, High Horse Power (HHP) Locos, Air Conditioned Electrical Multiple Units (EMU's) and Mainline EMU's. Average annual demand of approx. 300-400 EMU/MEMU coaches is expected in the next few years. After rolling out the in-house developed semi-high speed Vande Bharat Express in FY 2018-19, the Indian Railways are planning to induct additional 44 such trainsets.

With state authorities pursuing mass rapid transit projects in cities having a population of over two million, and light rail/ monorail being explored in small cities, the urban transportation segment is also poised to grow. Metro projects have already been announced in more than 50 cities.



WAG9 locomotives under manufacture for Indian Railways at TP Jhansi

BHEL Offerings

- **Rolling Stock**
  - Electric locomotives up to 9000 HP
  - Diesel-Electric locomotives up to 3000 HP
  - Diesel Electric Tower Cars

- **Traction Machines**
  - Traction Motors and Alternators
- **Traction Drive System & Controls**
  - IGBT based propulsion system for rolling stock comprising of traction & auxiliary converter.
  - 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 for Electric Locos and ACEMUs/ MEMUs**
- **Conventional Traction Electrics for Rolling Stock**

Order Receipts:

Transportation sector recorded remarkable achievement in order booking during FY 2019-20. Significant orders received include:

- **Maiden developmental orders secured from:**
  - Indian Railways for manufacture and supply of 25 WAG-7 electric locomotives with regenerative braking.
  - CLW, Chittaranjan for supply of 2 sets of Aluminum Tank for 7775 KVA and 3 sets of aluminum tank for 6531 KVA rating transformers.
  - Western Railway for 10 sets of traction engine and underslung type electrics for Diesel Electric Tower Car.
  - JSW, Dolvi for 3 nos. 1400 HP DESL with environment compliant US EPA TIER II, which shall be manufactured for the first time in India.
- Prestigious order from Indian Railways for manufacture and supply of 75 WAG-9H electric locomotives along with comprehensive AMC of IGBT based propulsion system of locomotives.
- 818 3-Phase traction motor type 6FRA-6068 - Largest traction motors order from DLW, Varanasi
- First regular order for 30 sets of IGBT based composite converter from CLW, Chittaranjan.



BHEL make 5000 HP WAG 7 electric locomotive with retrofitted regenerative system supplied to Indian Railways

Other achievements:

- Central Railway's first air-conditioned local train made by ICF and BHEL put in passenger service from Thane to Panvel on 31.01.2020.
- Nine air-conditioned ACEMU local trains for Western Railway & Central Railway successfully commissioned.
- 53 Diesel Electric Tower Cars for various zonal railways commissioned and dispatched.
- BHEL make IGBT based composite converter (combining traction converter and hotel load converter) on 3-Phase passenger locomotive developed and commissioned
- AIMA Innovation Practitioner's Case Study Award conferred on BHEL under the category Innovation in Product development for development of prototype IGBT based regeneration system for conventional WAG-7 type Electric Locomotives at HEP Bhopal.

Moving ahead resolutely

- **Technology self sufficiency**
  - Complete in-house capability for designing & manufacturing of IGBT based propulsion system for all types of rolling stock. IGBT based propulsion system including train control management system for air-conditioned AC EMUs has been developed. Development of IGBT based propulsion equipment for DE locomotives, DEMU's and MEMU's, and IGBT based composite converter for 3-phase electric locomotives has also been undertaken by BHEL.
  - Developed improved technologies for existing products
  - Regenerative braking system for WAG-7 locomotives
  - Composite converter for 3 phase electric locomotives
  - Upgradation kit for 9000 HP locos

New Opportunities

- Business possibilities in the areas of Metro & High Speed Rail.
- Expansion of product offerings in following emerging opportunities:
  - Locomotives for high speed operation.
  - IGBT based 3000 HP DE Locos for Shunting application for Indian & Overseas Markets.
  - Conversion of DE Locomotives to Electric Locomotives.
  - Track Machines

1.4.2.2 Transmission

Business Environment & Opportunities

- With GOI's target to set up 175 GW of renewables by 2022, transmission systems will require significant expansion and strengthening and will provide opportunities for evacuation of power, along with energy storage system integration at grid level.
- The five-year roadmap for investments in infrastructure projects as per the National Infrastructure Pipeline report presents a huge opportunity for transmission business.
- There is an increased trend of execution of transmission projects (substations, transmission lines) under the TBCB (Tariff Based Competitive Bidding) route, which is expected to continue in the future as well.

- Gas Insulated Substation (GIS) projects will continue to dominate the T&D segment due to improved and reliable technologies, falling GIS prices, optimized land requirement and reduced O&M expenditures.

Offerings

- Turnkey transmission project execution from concept to commissioning, including EHV & UHV Substations and HVDC converter stations on EPC basis.
- Transformers and shunt reactors up to 765 kV, 1200 kV CVT and 1200 kV auto transformer, instrument transformers (CT, PT), traction power transformers, dry type transformers, vacuum and SF6 switchgear, capacitor banks, circuit breakers, control & protection equipment, thyristor valves, etc.
- Gas Insulated Switchgear (GIS) up to 420 kV
- Ceramic and composite insulators. BHEL has a range of disc insulators for EHV and UHV AC/ DC applications up to 1200 kV AC, ±800 kV DC, solid core insulators up to 400 kV and hollow porcelain insulators up to 765 kV AC.
- Flexible AC Transmission System [FACTS] devices like Fixed Series Compensation for 400 kV lines, Controlled Shunt Reactor (CSR) and Phase Shifting Transformer (PST) for controlling and balancing power flow up to 765 kV applications.



295.1 MVA, 800 KV, HVDC CONVERTER TRFR for 800 kV Class Single phase HVDC Converter Transformer being despatched from HEP Bhopal

Major Orders received

- Highest ever order booking of transformers totaling to 48570 MVA [247 nos.]
- First time orders from Powergrid through competitive bidding for 765 kV transformers and reactors of all standard ratings in the 765 kV transmission system totalling up to 15720 MVA.
- Two orders of 33 kV Gas Insulated Switchgear of 26 panels each received from M/s AIL (Angelique International Limited) and M/s TBEA for HVPNL.
- POWERGRID's substation extension package – 765 kV substations at Solapur, Aurangabad and Wardha, 400 kV substations at Rajgarh, Khandwa, Champa, Itarsi and Jabalpur.
- POWERGRID's substation extension package – 765 kV substations at Fatehgarh and Bhadla through TBCB route
- IOCL – Panipat refinery 220KV GIS EPC Project.
- Developmental category order of eight 42 MVA 220 kV traction transformers from Indian Railways.

Achievements during the year

- Major success in securing first order from PGCIL for 765 kV Transformers and Reactors
- Taking Over Certificates after substation commissioning received for
  - POWERGRID Tumkur-Mysore
  - POWERGRID Yelahanka
  - NPGCL Nabinagar
- Re-entry into 400 kV ICT in Powergrid through competitive bidding after a gap of almost 9 years.

Moving ahead resolutely

UHVAC & UHVDC Systems:

BHEL has successfully designed, manufactured, supplied and commissioned 765 kV class transformers and reactors, and possesses manufacturing facilities for UHVDC equipment such as converter transformers, thyristor valves, filter capacitors etc. For UHV AC & DC applications, 1200 kV transformers, capacitive voltage transformers, and 420 kN & 530 kN disc insulators have also been successfully commissioned and are under operation.

BHEL has successfully commissioned both Bipole-1 & Bipole-2 for the world's largest +/-800 kV multi-terminal HVDC project (North-East to Agra), which is under commercial operation since September, 2017. BHEL has also successfully completed all major supplies including converter transformers & thyristor valves for +/- 800 kV Raigarh Pugalur HVDC project with open line testing for pole-1 and pole-2 completed in December, 2019. BHEL is now fully geared up to address future market requirements in UHVAC and UHVDC segments.

With the IOCL order for ISBL Work of 220 kV Grid Power Import at Panipat refinery covering 220 kV GIS switchyard and associated systems, BHEL has successfully entered the power system augmentation business with a first-of-its-kind order which includes systems like load management system, fault current limiters etc.

A memorandum of agreement has been signed with POWERGRID for a collaborative project on BHEL make digital substation solutions, under which BHEL-make 400 kV Fibre Optic Current Transformer (FOCT), Merging Unit (MU), Switchgear Controller (SGC) & Bay Control Unit (BCU) shall be put on field trial at POWERGRID's Bhiwadi substation. After implementation, BHEL will be in a position to offer indigenous technologies supporting GOI's Make in India drive.

Gas Insulated Switchgear(GIS):

BHEL's first indigenous 145 kV GIS commissioned at TSTRANSCO's Vittalwadi substation has successfully completed two year of successful field trial operation (including Operation & Maintenance support to TSTRANSCO) in Dec-2019.

1.4.2.3 Renewable Energy

Business Environment & Opportunities

Out of the 100 GW capacity of Solar Photovoltaic Power Plants planned till 2022, 35,605 MW has already been installed in the country as on March 31, 2020. Despite Govt. of India's impetus on



BHEL's solar PV portfolio is more than 1.2 GW comprising ground mounted, roof top, canal top and floating solar power plants

boosting domestic manufacturing through CPSE Scheme Phase-II and manufacturing linked-developer tender, imports continue to be cheaper compared to indigenously manufactured solar PV value chain components. There is also an increased focus on integration of Battery Energy Storage System (BESS) with the solar PV plants. The growth of solar is driven by new technology developments in higher output from the available area, ensuring continuous round the clock power supply by solar-wind and energy storage hybrid solutions. However, volatile tender & auction activity due to falling tariffs, land acquisition & power evacuation constraints, PPA renegotiations, policy uncertainty around Anti-Dumping Duty, and GST, among others are some constraints faced by the sector.



Battery Energy Storage System (BESS) integration at 65 MW SPV plant at Neyveli, Tamil Nadu, commissioned by BHEL

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-based irrigation and drinking water pumps
- Solar Inverters for utility as well as traction applications
- Loose Solar PV Cells and Modules meeting Domestic Content Requirement (DCR) of MNRE

Achievements during the year

- Highest ever order booking for Renewable Energy (RE) Projects: 502 MW - an increase of 202% over Order Book of FY18-19, comprising of three 100 MW large scale utility solar power plants
- EPC order for one of the largest single location floating solar power plant in India - NTPC Ramagundam 100 MW. Floating Solar portfolio reached 152 MW with a DC capacity of more than 220 MWp, making BHEL the biggest EPC player in floating solar market in India.
- 275 MW of orders from GSECL which comprises two large scale utility EPC orders for 100 MW each at Raghanesda Ultra Mega Solar Park and 75 MW at Dhuvaran, in Gujarat
- Solar portfolio of commissioned and under commissioning projects crossed 1.2 GW
- First-of-its-kind development of Solar PV plant feeding solar power directly to 25kV bus of Traction Sub-Station at Bina, in partnership with Indian Railways.
- Acceptance of supply of single phase, 850kVA Inverter (In-house Developed at EDN) & BHEL Jhansi make 1000 KVA 400V/25 KV Cast Resin Single Phase Dry Type Inverter Transformer for Indian Railways for 1.7 MW Bina Project, developed for the first time for solar application.
- Acceptance of BHEL make PCUs at 20 MW GACL Charanka, 5 MW WBPDCL Sagardighi, 30 MW SCCL Manuguru and 10 MW SCCL STPP sites
- MoU signed for Strategic Partnership with SJVN and GAIL for "Collaboration in development of solar power plants".
- Memorandum of Association (MoA) entered into with CSIR-NEERI for technology tie-up to develop Large-scale Outdoor Air Purifiers, for manufacturing 4m height prototype.
- Received prestigious National award from Indian Federation of Green Energy (IFGE) in category of "Outstanding RE generation Project in Public/Private Sector".

Projects commissioned

97.1 MW SPV (95 MW ground mounted and 2.11 RTS SPV plants) commissioned during FY 19-20 including,

- GIPCL, Charanka, Gujarat 50 MW
- GSFC, Charanka, Gujarat 10 MW
- GACL, Charanka, Gujarat 20 MW
- WBSEDCL Santaldih, Gujarat, 5 MW
- SCCL, STPP, Telangana, 10 MW

Moving ahead resolutely

- Focussed R&D efforts towards increased Mono–PERC cell efficiency, development of 1500V modules, higher rating 2.5 MW PCU etc.
- Exploring new business opportunities in developer mode through strategic tie-ups with SJVNL and GAIL in CPSU Scheme Ph-II
- Focusing on securing floating solar jobs by leveraging BHEL's technical capability in execution of largest floating solar EPC portfolio in the country

1.4.2.4 Water Business

Business Environment & Opportunities

According to the Composite Water Management Index (CWMI)



Phytorid based Sewage Treatment technology successfully implemented by BHEL at Telibandha Lake, Raipur

report released by the NITI Aayog, 21 major cities including Delhi, Bengaluru, Chennai, and Hyderabad may face zero groundwater levels by 2020. Nearly 70% of sewage generated in urban areas, and more than half of industrial effluents go untreated, polluting rivers, lakes and other water bodies. Industries are opting for recycling and reuse of wastewater to meet their growing water requirements in the face of higher industrial tariff and enforcement of water discharge regulations. The newly constituted Jal Shakti Mantralaya has launched Jal Jeevan Mission to ensure 'Har Ghar Jal' to all rural households by 2024 by focusing on integrated demand and supply side management at local level, creation of local infrastructure for rainwater harvesting, groundwater recharge and household waste water management. ₹ 3.6 lakh crore will be spent in the next five years under Jal Jeevan Mission.

Offerings

Complete water management solutions for power plants, industries and municipal applications with comprehensive solutions for

- Pre Treatment Plants (PT)
- Sea Water Reverse Osmosis (SWRO) and Demineralization (DM) Plants
- Effluent Treatment Plants (ETP)
- Sewage Treatment Plant (STP) and Tertiary Treatment Plants (TTP)
- Zero Liquid Discharge (ZLD) Systems
- Eco Friendly solutions for water bodies purification

Achievements during the year

- Phytorid based Sewage Treatment Project (STP) project implemented by BHEL at Telibandha Lake, Raipur, in partnership with National Environmental Engineering Research Institute (NEERI) has been consistently performing with parameters in line with contractual requirements. This technology is developed by NEERI and is being used by BHEL under an MoU. M/s Raipur Smart City Limited (RSCL) has bagged the 'National Excellence Award' at National Urban Development Summit in Aug'19 for this project.

Moving ahead resolutely

BHEL is actively pursuing complete water management business opportunities in power, industry and municipal segments.

- BHEL & Council of Scientific and Industrial Research (CSIR) have signed a MoU in December 2019 to cooperate in industrial application oriented research programmes and their large scale commercialization. Indigenously developed technologies by CSIR shall be commercialized and implemented jointly by CSIR and BHEL in the country.
- The first joint project under this collaboration shall be commercialization by BHEL of various water purification/sewage disposal related technologies developed by CSIR.
- BHEL along with CSIR is exploring the opportunity to associate with Ministry of Jal Shakti (MoJS) for the rejuvenation of rivers, lake, other water bodies, project management in 'Har Ghar Jal' Scheme and water supply in various regions across India. An EOI has been floated for strategic partnership to address municipal water business comprehensively.



500 kW Main Motor Generator (MMG) (assembly of AC & DC machine) set for defence application designed & manufactured by BHEL

1.4.2.5 Defence & Aerospace

Business Environment & Opportunities

The rapidly evolving security scenario along some parts of India's neighborhood has made it critical for India to invest in the modernization, upgradation as well as indigenization of India's defence equipment. Defence spending and investment are expected to increase as India fast-tracks its military modernization. India is expected to spend more than $130 billion in the next decade on buying new weapons. Defence sector is included in the government's 'Make in India' plans with the objective of promoting domestic defence production.

Some highlights of the sector are as under

- Draft Defence Procurement Procedure (DPP) 2020 released in Mar'2020 focuses on hastening the procurement process by removing procedural bottlenecks and promoting Make in India in defence. The draft has revised the existing procurement categories, increased the requirement of indigenous content (IC) under various categories, and incorporated some new concepts of defence procurement. Besides, it has also revised the existing offset guidelines and made changes in the contract template and other provisions of the document. These changes are intended to promote the Make in India initiative in defence, with the new category providing an opportunity to the foreign vendors to manufacture in India through their subsidiaries.

- Under the **Aatmanirbhar Bharat Abhiyaan**, government has announced the following measures for defence & aerospace sector:
  - » Foreign direct investment limit in defence manufacturing increased from 49% to 74% under the automatic route
  - » Creating a negative list for imported weapons for indigenous production
  - » Corporatisation of the Ordnance Factory Board (OFB)
  - » To make India global hub for Aircraft MRO (Maintenance Repair & Overhaul)
  - » Opening up the space sector for private enterprises and allowing use of ISRO facilities by private entities to help the sector fulfil rising domestic and global demands for satellites and space launchers.

Offerings

- SRGM, its spares & services including training & health audit
- IPMS (Integrated Platform Management System)
- Compact Heat Exchangers for defence & aerospace applications
- Proven capability for indigenous manufacture of complicated and advanced defence equipment/ systems based on Transfer of Technology from OEMs.
- In-house capability for hot forming of Cryogenic Tanks, Titanium Shell/Domes, welding & machining of Titanium sheet and tubes.
- Supply of various customised requirements of Indian Navy.
- For space applications,
  - » State-of-the-art facility for assembly and testing of Space Grade Solar Panels & Batteries of various capacities
  - » Dedicated manufacturing facility for space grade Lithium ion cells.
  - » State-of-the-art facility for manufacturing of Aluminium alloy tankages for launch vehicles of ISRO being established.

Achievements during the year

Order Book

- Secured order for end-to-end realization of aluminium alloy propellant tanks, water tanks and feedlines for ISRO's launch vehicles.
- Secured development order for air cycle machine based liquid cooling system from DRDO.

Other achievements

- Reserve Propulsion Motor for strategic application has been successfully developed & delivered.
- An MoU with Joint Stock Company "Rosoboronexport", Russia has been signed on 06th February 2020 during the 5th India Russia Military Industrial conference held at DEFEXPO, Lucknow, to cooperate and undertake joint projects and operations for defence systems. This will help in leveraging BHEL's strength/ capabilities in Defence Sector in association with Russian OEMs under Make in India initiative and offer indigenous solutions to the Indian Defence Forces.
- An MoU with Bharat Electronics Limited (BEL), a Navratna Defence PSU, has been signed during DEFEXPO, Lucknow on 6th Feb'2020 for leveraging the complementary strengths and capabilities of BHEL and BEL to develop and market products and systems for defence and non-defence applications. The MoU will also enable BHEL and BEL to make joint efforts to explore markets for products developed individually or jointly by both companies.



1x120 MW Grasim Harihar Captive Plant in Karnataka commissioned by BHEL

1.4.2.6 Captive Power Plants

Business Environment & Opportunities

Expansion in various sectors of economy is expected to push the demand for captive power and steam.

Refinery Sector:

Refining capacity of India stood at 249 MTPA as in Mar'2020, which is planned to be expanded to 440 MTPA by 2030 and 667 MTPA by 2040, leading to power and steam requirement in the sector. Though majority of power requirement shall be fulfilled by grid power, some demand for captive power plants is expected.

Power requirement is gradually shifting from GTG based cogen to CFBC based power plants with petcoke as primary fuel. Some of the major expansion in pipeline are:

- » IOCL plan to double its refinery capacity by 2030 to 150 MTPA
- » Numaligarh Refinery (3 MTPA to 9 MTPA)
- » CPCL Nagapattinum (9 MTPA greenfield)
- » IOCL Barauni (3 MTPA to 9 MTPA)

Metal and Mining Sector:

Steel Policy 2017 envisages expansion of steel manufacturing capacity from 130 MT to 300 MT by 2030. Aluminium sector is set to grow from 3.6 MTPA to 7.2 MTPA in next 5 years. Secondary steel Industries are seeking expansion, which will call for power requirement of STG based CPP in sub 50 MW range. NALCO plans to invest ₹ 45,000 Crore for capacity expansion from 0.44 MTPA to 1MTPA, which will generate demand for BTG package for CPP.

Cement Sector:

Cement manufacturing capacity of India stood at 505 MTPA, to be expanded to 550 MTPA by 2025. STG demand in sub 50 MW range continues to grow in this segment. Many major cement industries are undergoing expansion.



RFCL Ramagundam CPP with 32.5 MW rating Gas Turbine along with Utility Boiler and Heat Recovery Steam Generator - under commissioning by BHEL in Telangana

Offerings

- Steam Turbine based Captive Power Plants
- Gas Turbine based Open, Cogeneration and Combined Cycle Captive Power Plants

Achievements during the year

Synchronization of 385.75 MW CPP projects

- 150 MW MEIL (For Nagai Power Ltd.)
- 60 MW Kutch Chemical Industries Ltd.
- 45 MW OMPL Unit-1
- 30 MW Shyam Metallics and Energy Ltd.
- 30 MW Shyam Group of Industries, Jamuria
- 27 MW Shree Cement Ltd, Ras Cement Project
- 27 MW Shree Cement Ltd, Raipur
- 16.75 MW RSPL, Unit-3

Major orders received

- 9 STGs with 4 STGs in sub 40 MW range.
- Maiden order for energy efficiency turbine from GNFC.
- Repeat Orders from OMPL, Grasim, Shyam Group.
- New Customer - Gallantt Ispat Limited & Ankur Udyog Limited
- Orders for Coal Mills from Thermax and standalone heaters from Siemens in allied areas

Moving ahead resolutely

Technology capability for CFBC boiler is being built up to meet the growing demand of the boiler segment.

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

Business Environment & Opportunities

Opportunities for equipment supply are expected due to planned capacity expansion in refinery & petrochemicals segments.



Mud pump used in oil rig system ready for dispatch at HPEP Hyderabad

Materialization of these plans will provide good business opportunity for Compressors, Fired Heaters, Cryogenic Nitrogen Plants, High Tonnage Columns & Vessels.

The anticipated growth in the steel sector and National Steel Policy 2017 provide an opportunity to BHEL for establishing itself in as an indigenous steel making equipment manufacturer.

Offerings

- **Oil Rigs** - A variety of on-shore drilling rigs with AC-VFD and AC-SCR technology for drilling up to depths of 9,000 metres, work-over rigs for servicing up to depths of 6,100 metres, mobile rigs for drilling up to depths of 3,000 metres. Beside complete rig



Sour water stripper Stage – N column at Vishakhapatnam, under commissioning by BHEL

package, BHEL also supplies on-shore drilling rig mechanical and electrical equipment such as draw works, mast & substructure, AC & DC PCR, motors, etc. BHEL also undertakes refurbishment and up gradation of oil rigs.

- **Well heads and X-mas Trees** - Up to 10,000 psi, Mud Line Suspension, Choke and Kill manifold, CBM Wellheads, DSPM H- Manifold Assembly, Mud valves, ESP hangers, Block type X-mas Trees & Landing Bases for Casing Heads.
- **Compressors** - Various types of Multi-stage Centrifugal Compressors as per API 617 for application in Fertilizers, Refineries, Petro-chemicals, Pipelines, Gas processing, Steel industries etc. BHEL has the capability to execute contracts for Centrifugal Compressor Stations on EPC/LSTK basis also.
- **Mechanical Packages** - Equipment like Cryogenic Air separation units, 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 and special purpose machines.

Achievements during the year

- New compact size 2 RN series (3500kW, 11kV 10 pole Booster Fan Motor with reduced size) developed and tested successfully for NTPC Vindhyachal.
- Appreciation letter from M/s Neuman Esser for support from BHEL for IOCL Haldia project.

Orders Received

- First ever order for Ethylene Gas Compressor for Petrochemical complex at IOCL Panipat Refinery
- First ever order for Recycle Gas Compressor for HRRL from M/s Toyo Engg. Pvt. Ltd.
- Order for Recycle Gas Compressor for parallel operation with existing compressor from BPCL Mumbai
- First ever bulk order of 23 high-tonnage Pressure Vessels for HPCL Vizag Package from M/s L&T Hydrocarbon Engineering
- Order for 2Work-Over Rigs (125MT) from M/s OIL
- First ever order for up-gradation of drilling rig capacity (760 HP Rig to 1400 HP) from ONGC, Jorhat
- Order for Well Heads and X-mas Trees from various assets of ONGC, OIL and private drillers
- Order of 71 Ex 'd' motors for refineries, petrochemicals and pipelines projects from various pump OEMs.
- Order for 30 motors for HURL Sindari, Barauni & Gorakhpur from various OEMs.
- Order for 400 KW Compressor motor from M/s Neuman & Esser for ISRO Project.
- Order for 24 motors from RCCPL for their cement plants.
- Order for 20 motors from Ramco Cement.

Moving ahead resolutely

BHEL is gearing up to enter into LSTK business of Downstream Oil & Gas Sector.

1.4.2.8 Energy Storage Solutions Group

To tap the upcoming opportunities in the areas of energy storage and E-mobility by building capabilities through in-house developments and strategic tie-ups, currently multiple opportunities in the area of electric mobility, Battery Energy Storage System (BESS) requirements and railway track electrification are being addressed.

Electric Mobility

Business Environment & Opportunities

- National Electric Mobility Mission Plan (NEMMP) 2020 was launched in 2013 by Government of India with an ambitious target to achieve sales of 6-7 million hybrid and electric vehicles in the country year on year from 2020 onwards.
- Under the FAME-1 scheme launched by DHI under NEMMP, some State Transport Undertakings procured and deployed electric buses and chargers. EV charging stations with DC001 & AC001 chargers were also setup by various nodal agencies.
- Guidelines and standards have been issued for charging infrastructure of EVs with at least one charging station to be

installed in a grid of 3km x 3km. For highways it is envisaged to have a charging station on every 25Km on both sides of highways.

- DHI has also issued Phased Manufacturing Program (PMP) on 6th Mar'19 to promote indigenous manufacturing of Electric Vehicles, and their assemblies/sub-assemblies/parts through graded duty structure over a period of time.
- FAME-2 scheme has been notified w.e.f. 01st April 2019 for 3 years with an outlay of ₹ 10,000 Crores to incentivize EVs and develop charging infrastructure. DHI has so far allocated 5595 electric buses to various STUs on Gross Cost Basis (GCC) model, and shall be allocating 2000 electric buses to various STUs.
- In Jan'20 DHI sanctioned 2636 EV charging stations to 62 cities out of which 1633 are Fast Charging stations and 1003 are slow charging stations. NTPC, EESL, REIL and PGCIL have participated in the EOI for installing and operating these charging stations. Tendering process for EPC of these EV charging stations, which had started, has been delayed due to COVID 19.
- DHI is expected to come up with EOI to build and operate 1000 Public EV charging stations across various highways and expressways connecting 9 mega cities and state capitals.

Offerings

- EV Charging Stations
- E-Buses
- EV Components – Power train, Battery Packs

Achievements during the year

- Delhi-Chandigarh Highway has been made e-mobility friendly with the successful commissioning by BHEL of 6 Solar based EV Charging Stations at HTCL Resorts and 5 HPCL retail outlets.
- 12m AC electric bus prototype developed and certified from ICAT Manesar.
- In-house developed 50 KW EV charger with type-2 AC under certification testing at ARAI.
- Further development on EV power train, EV chargers and E-bus in progress.

Major Orders Received

- Repeat order from EESL for setting up 20 DC001 EV chargers across India.
- Breakthrough order for supply of two numbers 12m Low Floor AC electric buses in CAPEX mode for Gorakhpur city from Urban Transport Directorate through competitive bidding.

Moving ahead resolutely

With its commitment to the nation's e-mobility mission, BHEL has taken up several in-house developments and also entered into strategic partnerships with renowned companies. BHEL is also seeking partnership from various global companies for setting up Li-Ion cell manufacturing facility in India to address E-mobility and Energy Storage segment.

Battery Energy Storage System

Business Environment

With increase in the share of renewable energy in the electric grid, energy storage is set to become an integral part of the power system to ensure grid stability and power quality. The market potential for the energy storage market is expected to reach 2-3.5 GWh by 2022 as per Indian Energy Storage Alliance (IESA) estimates. Companies such as NTPC, SECI, NLC have floated tenders for energy storage systems to support Solar plants.

As part of the National Mission on Transformative Mobility and Battery Storage, government is considering to facilitate establishment of battery-making capacity of 40 gigawatts (GW) in India to give a boost to the EV and RES initiatives, with an expected investment of $40 billion.

Offerings

- PCS (Power Conditioning System)
- EMS (Energy Management System)
- Complete Containerized EPC solution for BESS

Major Orders Received during the year

BHEL received its maiden BESS order from M/s The Energy and Resources Institute (TERI) through competitive bidding. The project, located at three different sites in the NCT of Delhi, has a cumulative



1MW Battery Energy Storage System (BESS) for in-house usage, developed & commissioned at Corporate R&D, Hyderabad



Highest rating 150 MW IP turbine for captive plant applications at under testing at HPEP Hyderabad

rating of 410 KWh.

Moving ahead resolutely

BHEL envisages to offer customers tailor-made EPC solutions for both standalone and grid-interactive BESS requirements.

Railway Electrification

Business Environment & opportunities

Indian Railways has a target of electrifying approximately 30,000 RKMs (Route KMs) by 2022 and is releasing tenders in EPC mode. Through Central Organization for Railway Electrification (CORE) tenders were floated for 7 sections totaling around 6266 RKMs on Two Stage Bidding Process (RFQ & RFP). BHEL was short-listed as one of the applicants based on RFQ to participate in the Bid Stage (RFP). Out of the 7 sections, tenders for 4 sections were annulled and reissued with New EPC Model (single-stage, two packet systems through IREPS). Finalization of these tenders is underway.

Offerings

Complete EPC solution for Railway Electrification

Achievements during the year

BHEL is presently executing Birla Nagar - Etawah Project (440TKM) section and the execution of Gr 239, 240, 241 has progressed substantially.

Moving ahead resolutely

- BHEL has leveraged its rich project execution experience to execute railway electrification projects by actively participating in all opportunities of railway electrification.
- Participating in new tenders of M/s CORE totaling to 2571 RKM/3241 TKM



2x150 MW Sintex-Dhule Captive Power project commissioned by BHEL in Maharashtra

Making the Sun count !

BHEL is one of the few companies in India which provides end-to-end solutions for all solar power needs. BHEL's solar portfolio of 1200 MW+ with plants commissioned across the country ranges from ground mounted, roof top, canal top to floating solar PV plants.

BHEL has successfully commissioned a first-of-its-kind 1.7 MW Solar PV plant at Bina, Madhya Pradesh for Indian Railways. This landmark development ensures that solar power is evacuated at 25kV single phase and directly fed into traction substation. Single-phase 850 kW solar inverters and 400V/25 kV dry type transformers for outdoor duty were specifically developed in-house for this project. This development is expected to pave the way in using the huge land bank of Indian Railway's for captive green energy generation, reducing the dependence on grid power.



1.7 MW Solar PV plant at Bina, Madhya Pradesh for Indian Railways

Profile and Performance of Business Segments

INTERNATIONAL OPERATIONS



1.4.3 International Operations

Overview

World economies have been in synchronized slowdown due to US-China trade dispute, geopolitical tensions in the Middle East and increasing protectionist tendencies. Increased uncertainty about the future of the global trading system and fragile international cooperation has taken a heavy toll on business confidence and investment decisions.

Manufacturing activity is growing at slowest pace since 2008 global financial crisis. Commodity prices in international market are showing signs of weakening amidst slowdown. Gradual shift towards renewable generation source for electricity and weak economic growth is leading to lower coal demand.

Compounding the challenges faced already by world economy, Covid-19 outbreak has become one of the biggest threats to the global economy in recent times. Globally, production lines have been disrupted and movement of men as well as goods has been hampered. In this backdrop, a major shift from globalization to regionalization is being projected.

Global economy is projected to contract in 2020 much worse than during the 2008–09 financial crisis. In a baseline scenario, which assumes that the pandemic fades in the second half of 2020 and containment efforts can be gradually unwound, there may still be extreme uncertainty around the global growth forecast because the economic fallout depends on uncertain factors that interact in ways hard to predict. These include, for example, the pathway of the pandemic, the extent of supply disruptions and productivity losses, the repercussions of the tightening of global financial markets, shifts in spending patterns, and volatile commodity prices.

Our Experience in Exports

Starting its journey with the first ever export in the early seventies, the company has covered a long distance reaching out to 84 countries, in all the six inhabited continents of the world including Bangladesh, Bhutan, Nepal, Indonesia, Oman, Iraq, Sudan, Afghanistan, United States and New Zealand. BHEL has installed more than 11 GW of power generating capacity overseas. Currently, the company is executing several major projects, including 2x660 MW Maitree thermal power project in Bangladesh and 900 MW Arun-3 hydro project in Nepal, among orders totalling up to 6 GW. The company has also been providing after sales support to its overseas customers in the form of spares and services.

Orders Received

During the year, BHEL secured the following overseas orders:

- Electro-mechanical package of 2 x 20 MW Rahughat Hydroelectric Project, which is the second successive order for hydro power project from Nepal. The order has been placed by the Raghuganga Hydropower Limited (RGHPL), a company 100% owned by Nepal Electricity Authority (NEA), the sole public power utility in Nepal, owned by the Govt. of Nepal.
- After a long hold of nearly 7 years, 2 x 200 MW Tishreen Thermal Power Project was revived. The contract was re-negotiated and BHEL secured a significant enhancement order.
- Maiden order from Chad for Pyranometer & Anemometer for 32 MW Solar PV project from Djermaya CDEN Energy SARL, Chad.

Focused effort on after sales support enabled orders for spares,



2x660 MW Maitree Supercritical Power Project being executed by BHEL in Bangladesh

services & products from various countries including Australia, Bangladesh, Bhutan, Egypt, Indonesia, Iraq, Italy, Kazakhstan, Kenya, Malawi, Mozambique, Nepal, New Caledonia, Oman & UAE.

- **Products & After Sales Assistance**
  - » Two orders for supply of Frame 9E generator rotor as well as stator from JBA International FZC, UAE
  - » Order for power plant advisory services (Plant Audit) for 9 MW Coal Fired Power Plant from PT Tereos FKS, Indonesia
  - » Order for repair of generator rotor for Frame 9E Gas Turbines from JBA International FZC, UAE
  - » Order for restoration of generator of Unit-1 of 4 x 84 MW Chhukha Hydropower Plant, Bhutan
- **Several orders for motors, e.g.**
  - » 1300 kW Motor from TCI Sanmar Chemicals S.A.E, Egypt
  - » 1300 kW SRIM from Cimentos de Mozambique, Mozambique
  - » 3050, 1400, 950, 550 & 370 kW SRIM Motors for Shayona Cement Corporation, Malawi
  - » 3800 kW SRIM from Lafarge Holcim Bangladesh Ltd, Bangladesh
  - » 3000 kW SRIM from Star Cement Company LLC, Ras Al Khaimah, UAE
  - » 950 kW (4 nos.) SRIM from Humboldt Wedag India Pvt Ltd., Nepal

Overseas Project Execution

- **Hydro Power Project commissioned in Bhutan**

  BHEL successfully commissioned the 4 x 180 MW Mangdechhu Hydro Electric Power Plant, Bhutan. The project was inaugurated by Hon'ble Prime Minister of India and Hon'ble Prime Minister of Bhutan.



Turbine hall of 4x180 MW Mangdechhu HEP project in Bhutan

- **Contract Closure**
  - BHEL has successfully closed the contract of 3 x 18 MW PT CKP, Indonesia project and customer has issued an appreciation letter to BHEL for successful completion of the project.



Hon'ble Prime Minister of India, Sh. Narendra Modi inaugurated the BHEL-installed 4x180 MW Mangdechhu Hydroelectric Project at Thimpu, Bhutan in the presence of the Hon'ble Prime Minister of Bhutan, Dr. Lotay Tshering

  - Contract closure for 62.5 MW Bihai Hydroelectric project, Taiwan has been achieved. Appreciation letter also received from customer for successful execution of the project.

Awards & Appreciations

- EEPC National Award for Export Excellence for the Category 'Special Trophy for Excellence in Export of Engineering services - Large Enterprise' at the 50th EEPC INDIA National Award for Export Excellence
- EEPC India Northern Region Award for Engineering Export Excellence in the category of Top Exporter for the year 2016-17 "Silver Trophy: Large Enterprise".
- "Governance Now" PSU Awards 2020 for Geo-Strategic Reach
- Appreciation letter from PT CKP, Indonesia for successful completion of 3 x 18 MW coal fired power plant at Sangatta, East Kalimantan, Indonesia.
- Appreciation letter from DGPC, Bhutan for successful completion of R&M Phase-III of 4 x 84 MW Chukkha Hydropower plant, Bhutan.
- Appreciation letter from Grodnoenergo for successful completion of major overhaul of 126 MW Grodno CHP-2, Belarus.

Moving ahead resolutely

Despite the various challenges present in the global power sector, BHEL remains committed to extending its reach and offerings. Our major initiatives include focus on opportunities in renewables, improved project execution, faster adoption & assimilation of technology and leveraging Government of India support. BHEL is actively pursuing for diversification of its revenue by targeting hydro projects in South Asia, thermal projects in Africa, South Asia & South East Asia, gas projects in South Asia, Africa & Middle East, and sale of motors in Africa, Europe & Asia Pacific and compressors & oil-field equipment in Middle East.

BHEL's Global Footprints

with presence in

84 countries

in all six inhabited continents



NORTH AMERICA

- Canada
- United States of America

EUROPE

- Belarus
- Belgium
- Bulgaria
- Cyprus
- Estonia
- Finland
- France
- Georgia
- Germany
- Greece
- Ireland
- Italy
- Malta
- Poland
- Romania
- Russia
- Sweden
- Switzerland
- Turkey
- Ukraine
- U.K.

SOUTH AMERICA

- Chile
- Suriname
- Trinidad & Tobago

AFRICA

- Algeria
- Benin
- Chad
- Comoros
- D.R. Congo
- Egypt
- Eswatini
- Ethiopia
- Ghana
- Kenya
- Libya
- Malawi
- Mauritius
- Mozambique
- Nigeria
- Rwanda
- Senegal
- South Africa
- Sudan
- Tanzania
- Togo
- Uganda
- Zambia
- Zimbabwe



ASIA

- Afghanistan
- Azerbaijan
- Bangladesh
- Bhutan
- 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

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

1.5 Analysis of Financial Performance

1.5.1 BHEL Standalone

Financial Results

1. Revenue from operations

(₹ Crore)

Particulars	2019-20	2018-19
Sales less returns	**15057**	22476
Income from external erection & other service	**5434**	6947
Turnover	**20491**	29423

The revenue for the year was mainly impacted due to Covid-19 pandemic in the last quarter of FY 2019-20, which led to a nationwide lockdown disrupting the operations in manufacturing facilities and project execution activities at sites. Disruptions in international supply chains due to global impact of the COVID also impacted receipt of material in manufacturing units.

Other operational income

(₹ Crore)

Particulars	2019-20	2018-19
Other operational income	**995**	1000

Recoveries from suppliers and write-back of liabilities, no longer required to be maintained, resulted in stable operational income. For details of other operational income Note 29 to standalone financial statements may be referred.

2. Other income

(₹ Crore)

Particulars	2019-20	2018-19
Interest income	**509**	512
Profit on sale of units of mutual funds	**6**	17
Dividend on investment in joint venture - BGGTS	**16**	16
Interest on income tax refund	**-**	87
Profit on sale of items of PPE, Govt. grants & others	**50**	46
Total	**581**	678

3. Expenses

a) Material consumption, erection and engineering expenses

(₹ Crore)

Particulars	2019-20	2018-19
Consumption of raw material & components	**11780**	14971
Civil, erection & engineering exp.	**2947**	3866
Sub total	**14727**	18837
Changes in inventories of finished goods and work in progress	**(1016)**	(991)
Total	**13711**	**17846**

During the year 2019-20, the company had a substantially higher material cost as a percentage of revenues, at 66.9% as against 60.7% recorded last year. The above is largely due to change in composition of turnover, higher content of imported bought outs due to conditions stipulated under DJU (deed of Joint Undertaking) and falling realizations in the market.

b) Employee benefits expenses

(₹ Crore)

Particulars	2019-20	2018-19
Employee benefits expenses	**5403**	5502
No. of Employees	**33752**	35471

The overall employee benefit expenses are lower due to stringent control on variable components of pay.

c) Manufacture, administration, selling & distribution expenses

(₹ Crore)

Particulars	2019-20	2018-19
Manufacture, administration, selling & distribution expenses	**2430**	2761
Exchange rate variation loss / (gain)	**(435)**	(67)
Total	**1995**	2694

Stringent budgetary control on all items of manufacture, administration, selling and distribution expenses resulted in reduction in FY 2019-20.

Exchange rate variation gain was mainly due to (a) depreciation in INR v/s EURO by 7.1% in FY 2019-20 against appreciation by 3.5% in FY 2018-19 (b) depreciation in INR v/s USD by 8.8% in FY 2019-20 as against depreciation by 6.1% in FY 2018-19.

d) Provisions (Net)

(₹ Crore)

Particulars	2019-20	2018-19
Doubtful debts, liquidated damages and others	**845**	1640
Bad debts, LD & losses written off	**223**	93
Provision for expected credit loss (Time value)	**(676)**	150
Contractual obligations	**(137)**	(50)
Impairment of investment in JVs	**0**	4
Total	**255**	1837

Provisions have been made in line with accounting guidelines and policies of the Company. Decline in provisions during the year were due to: a) vacation of provisions consequent to settlement of contractual issues in certain projects; and b) Withdrawal of provision

for expected credit loss (ECL) as a result of improved collection during the year, and lower incremental borrowing rate.

4. Finance costs

(₹ Crore)

Particulars	2019-20	2018-19
Borrowing cost	**196**	191
Interest expense	**105**	87
Discount on commercial papers	**206**	9
Total	**507**	287

Borrowing cost represents unwinding of interest impact on long term provisions. Finance cost increased mainly due to higher short term borrowings made in FY 2019-20 to meet short term operational cash requirements. The company has managed its treasury operations effectively, minimised the interest outgo, and earned higher returns on intermittent cash surpluses. PCFC loan has also provided natural hedging benefit to the company.

5. Depreciation & amortization expenses

(₹ Crore)

Particulars	2019-20	2018-19
Depreciation & amortization expenses	**503**	475

6. Tax expenses

(₹ Crore)

Particulars	2019-20	2018-19
Current tax - Current year	**64**	719
-Earlier years	**(62)**	16
Deferred tax - Current year	**(162)**	3
-Earlier years	**971**	101
Total	**811**	839

In the current year, the company has opted for new section 115BAA of the Income Tax Act 1961. Accordingly, (a) the provision for current and deferred tax has been determined at the rate of 25.168%; and (b) the deferred tax assets as on April 1, 2019 have been restated at the rate of 25.168% which resulted in the reversal of deferred tax asset by ₹ 974 Crore.

7. Profitability

For FY 2019-20, there is a loss of ₹ 662 Crore as against a profit of ₹ 2048 Crore in FY 2018-19, mainly due to lower revenue and higher material cost. However, stringent budgetary control measures and prudent provisioning helped in restricting the loss to ₹ 662 Crore

Loss after tax for the FY 2019-20 is ₹ 1473 Crore as against profit of ₹ 1209 Crore in 2018-19. The loss after tax for FY 2019-20 is significantly higher due to restatement of deferred tax asset at the rate of 25.168% as against 34.944%, having an impact of ₹ 957 Crore.

8. Other comprehensive income

(₹ Crore)

Particulars	2019-20	2018-19
Re-measurement of defined employee benefits (gain)/loss	**342**	183
Income tax related to above item	**(68)**	(64)
Total	**274**	119

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

Fund Position

9. Fund flow position and liquidity

(₹ Crore)

Particulars	2019-20	2018-19
Cash generated from Operations before working capital changes	**51**	4154
Net cash inflow / (outflow) from operating activities after working capital changes	**(2891)**	(3856)
Net cash inflow / (outflow) from investing activities	**1837**	1915
Net cash inflow / (outflow) from financing activities	**1661**	(32)
Total net cash inflow (outflow) for the year	**607**	(1973)

Net cash outflow from operating activities could be restricted to ₹2891 crore against cash outflow of ₹ 3856 crore in FY 2018-19 due to various initiatives having bearing on cash flow.

Financial position

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

(₹ Crore)

Particulars	As at					
	March 31,2020			March 31,2019		
	PPE	Intangible	Total	PPE	Intangible	Total
Gross carrying value	6051	280	6331	5746	250	5996
Less: Accumulated dep./amortisation	3315	202	3517	2862	167	3029
Net carrying value (net block)	2736	78	2814	2884	83	2967
CWIP & intangible assets under development	307	7	314	223	12	235
Total			**3128**			**3202**

The net carrying value of PPE and intangible assets is after adjustment of depreciation /amortization and capitalization during the year. Brief on capital investments are given separately under para on "Capital Investment".

The company had opted for exemption under Ind AS 101 and accordingly carrying value as on March 31,2015 was considered as deemed cost on Ind AS transition.

11. Equity investments

(₹ Crore)

Particulars	As at March 31,2020			As at March 31,2019		
	Investment	Impairment	Net	Investment	Impairment	Net
Investment in joint ventures	**723**	**57**	**666**	723	57	666
Investment in subsidiary Company	**5**	**5**	**-**	5	5	-
Investment in other equity instruments	**6**	**3**	**3**	6	3	3
Total	**734**	**65**	**669**	**734**	**65**	**669**

Investment in joint ventures (JV) and subsidiary Company were accounted at cost after considering impairment loss, if any, in line with Ind AS. Investment in other equity instruments are accounted at fair value through profit and loss and changes in carrying value has been made based on fair value on the reporting date. Investment in Other equity instruments includes investment in Neelanchal Ispat Nigam Limited (NINL). The Board has given its approval for strategic disinvestment of the same.

12. Trade receivables (Net)

(₹ Crore)

Particulars	As at March 31,2020			As at March 31,2019		
	Non-current	Current	Total	Non-current	Current	Total
Trade receivables	**5270**	**7108**	**12378**	3935	11861	15796

As per the requirement of Ind AS 115, the amount billed to customers and contractually due for payment is booked as Trade receivables. These figures are net of provisions created as per the policy/guidelines of the company. There is reduction in current trade receivables as the customer collections as a percentage of net billing during the year were 114% as against 97% in the previous year. Non-current trade receivables constitute collectible debts where debts are realizable, but realization may take longer time due to contractual issues (like settlement of time extension, etc.) or where legal action has been initiated for realization of debts. Based on the past experience of realization of opening dues and considering the impact of COVID 19 on paying capacity of various customers, greater proportion of Trade Receivables is likely to be liquidated beyond 12-months and therefore there is increase in non-current trade Receivable. Though total trade receivables reduced by ₹ 3418 Crore over the opening, but in terms of number of days of RFO, there is increase of 21 days (186 days as against 165 in FY 2018-19) due to lower volume of operations.

13. Cash & cash equivalents and bank balances

(₹ Crore)

Particulars	As at March 31,2020	As at March 31,2019
Cash & cash equivalents	**1403**	796
Deposits having maturity more than 3 months but not more than 12 months	**5000**	6700
Earmarked bank balances & FD against margin money	**16**	7
Total	**6419**	7503

Cash & Bank Balance (Net of Short-term Borrowings) is ₹ 1485 crore as against ₹ 5072 cr in 2018-19. This is mainly due to higher need for cash outflows on payment to vendors / sub-contractors (many of whom are MSMEs). On the inflow side, challenges are emanating from stringent payment terms with customers, longer time cycle of bills processing at state utilities, slow realization out of deferred debts / major payments linked with completion of milestones at an advance stage of commissioning at project sites.

To meet the significant level of ongoing deficits, the company has to resort to borrowings, which are being made in the most cost-effective manner, primarily in the form of Commercial Papers, PCFC, Buyers credit etc.

14. Deferred tax assets (net)

(₹ Crore)

Particulars	As at March 31,2020	As at March 31,2019
Deferred tax assets (net)	**2756**	3497

The deferred tax assets (net) represent the tax impact on item of expenses which are in the nature of temporary differences, to be adjusted against the taxable profit of future periods. The deferred tax assets as on April 1, 2019 have been restated at the rate of 25.168% which resulted in the reversal of deferred tax asset by ₹ 974.41 Crore.

15. Other assets

(₹ Crore)

Particulars	As at March 31,2020			As at March 31,2019		
	Non-current	current	Total	Non-current	current	Total
Contract assets	**16422**	**7670**	**24092**	14392	8427	22819
Input tax credit receivable	**-**	**927**	**927**	-	1188	1188
Claim recoverable	**-**	**688**	**688**	-	710	710
Deposit with tax authorities & others	**135**	**460**	**595**	160	496	656
Advances & others	**170**	**232**	**402**	171	258	429
Less: Provision	**67**	**193**	**260**	51	188	239
Total	**16660**	**9784**	**26444**	14672	10891	25563

Contract assets (deferred debtors 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.

16. Inventories

(₹ Crore)

Particulars	As at March 31,2020	As at March 31,2019
Raw material & components	**3967**	3931
WIP	**4120**	3220
FG	**892**	776
Stores & spare parts	**254**	238
Other inventory	**215**	188
Sub total	**9448**	8353
Less: Provision for non-moving inventory	**542**	555
Inventories	**8906**	7798

The Inventory as no. of days of turnover in FY 2019-20 was 159 days as against 97 days in FY 2018-19. The increase in inventory level (primarily WIP) is due to impact of COVID on company's operations as a result of which substantial in-process material could not be converted into final products/ dispatched owing to non-receipt of matching material from vendors, non-inspection by customers and subsequent disruption in manufacturing activities due to nationwide lockdown.

17. Current tax assets / liabilities (Net)

(₹ Crore)

Particulars	As at March 31,2020	As at March 31,2019
Current tax assets / (liabilities) (net of provisions)	**229**	(91)

This represents tax deducted at source and advance tax net of provision for tax.

18. Share Capital

(₹ Crore)

Particulars	As at March 31,2020	As at March 31,2019
Authorised share capital	**2000**	2000
Issued, subscribed & paid up share capital	**696**	696

19. Other equity

(₹ Crore)

Particulars	As at March 31	
	2020	2019
Opening balance	**30735**	31906
Total comprehensive income for the year	**(1747)**	1089
Add: Ind AS 115 - transition adjustment	**-**	126
Less: Buyback of shares	**-**	1599
Less: Dividend (incl. interim dividend) paid during the year	**418**	653
Less: Corporate Dividend Tax	**86**	134
Closing balance	**28484**	30735

20. Borrowings

(₹ Crore)

Particulars	As at March 31,2020			As at March 31,2019		
	Non-current	current	Total	Non-current	current	Total
Borrowings	**-**	**4933**	**4933**	-	2432	2432
Maturities of lease obligation	**75**	**54**	**129**	95	58	153
Total	**75**	**4987**	**5062**	95	2490	2585

Short term borrowings in the form of PCFC loan, Buyer's credit and commercial paper were availed to meet short term operational

requirements of working capital at the lowest possible interest rate due to mismatches in cash inflows and outflows. For repayment schedule of borrowings, Note 24 to financial statements may be referred to.

21. Financial liabilities

(₹ Crore)

	As at March 31,2020			As at March 31,2019		
	Non-current	current	Total	Non-current	current	Total
Trade payables	**1008**	**8892**	**9900**	703	11375	12078
Other financial liabilities	**159**	**1429**	**1588**	92	2010	2102
Total	**1167**	**10321**	**11488**	795	13385	14180

The decrease in trade payables is mainly on account of timely payments to Vendors /subcontractors (majority being MSMEs). Other financial liabilities include liability towards employee's dues, other dues, deposits from contractors and others.

22. Provisions

(₹ Crore)

Particulars	As at March 31,2020			As at March 31,2019		
	Non-current	current	Total	Non-current	current	Total
Provision for contractual obligation	**3791**	**1564**	**5355**	3852	1443	5295
Provision for employee benefits	**1170**	**1121**	**2291**	1303	781	2084
Other provisions	**278**	**390**	**668**	306	242	548
Provision for CSR	**9**	**7**	**16**	2	19	21
Total	**5248**	**3082**	**8330**	5463	2485	7948

23. Other liabilities

(₹ Crore)

	As at March 31,2020			As at March 31,2019		
	Non-current	Current	Total	Non-current	Current	Total
Advances from customers (incl. valuation adjustments)	**2921**	**3797**	**6718**	3578	3261	6839
Statutory dues	**-**	**454**	**454**	-	1311	1311
Govt. grants	**32**	**6**	**38**	38	6	44
Total	**2953**	**4257**	**7210**	3616	4578	8194

Advances from customers get adjusted progressively during execution of the project. Statutory dues mainly comprise GST liabilities to be discharged on due dates. Corresponding input credit available is also shown under other assets under item serial number 15 above.

24. Segment performance

The Company has two operating segments, power and industry. The performance of segments was as below:

(₹ Crore)

Particulars	2019-20		2018-19	
	Power	Industry	Power	Industry
Segment revenue	**14960**	**5530**	23474	5949
Segment results	**804**	**(206)**	2802	437
Segment capital employed	**20279**	**4681**	20409	4122
Segment results as % of segment revenue	**5%**	**-4%**	12%	7%

Lower volume of operations coupled with higher material cost has resulted in reduction in segment result as a % to segment revenue.

1.5.2 Financial Review of Subsidiary Company

BHEL Electrical Machines Ltd.

A subsidiary company was incorporated on January 19, 2011 as "BHEL Electrical Machines Ltd", with BHEL holding majority stake of 51% with an equity investment of ₹ 5.36 Crore. Government of Kerala retained 49% stake.

Board of Directors has approved on May 29, 2018 the transfer of BHEL's 51% stake in BHEL Electrical Machines Limited to Government of Kerala (GoK) which is subject to approval of Department of Heavy Industry, Government of India. The finalised agreement duly accepted by GoK has been submitted by BHEL to DHI/GOI for its approval.

The brief financials of BHEL –EML are tabulated below:

(₹ Crore)

Particulars	2019-20*	2018-19
BHEL Share (%)	**51%**	51%
BHEL's Investment in Equity	**5.36**	5.36
Revenue from Operations	**3.95**	18.65
Loss for the year	**4.79**	5.46

* based on provisional unaudited figures

1.5.3 Financial Review of Joint Ventures 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 brief financials are tabulated below:

(₹ Crore)

Particulars	2019-20	2018-19
BHEL share (%)	**One share less than 50%**	One share less than 50%
BHEL's investment in equity	**2.38**	2.38
Revenue from operations	**685.84**	675.07
Profit after tax	**58.14**	60.73
Net worth	**317.40**	298.83

For FY 2019-20, BGGTS has paid interim dividend at 490% and proposed final dividend at 200% 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	2019-20*	2018-19
BHEL share (%)	**50%**	50%
BHEL's investment in equity	**50.00**	50.00
Revenue from operations	**60.90**	75.33
Loss for the year	**26.15**	114.33

* based on provisional unaudited figures

The provision for impairment in value of investment in NTPC-BHEL Power Projects Private Limited has been made fully based on the net financial position. In principle approval for pursuing the winding up of NBPPL has been accorded by the Board of Directors in its meeting held on February 8, 2018. Ministry of Power (MoP) has advised NTPC 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, Karnataka Power Corporation Limited (KPCL) and IFCI Limited 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, 2020 was ₹2373.76 crore with contribution of ₹1709.72 crore from KPCL and ₹664.04 crore from BHEL. The financial highlights of the Company are as under:

(₹ Crore)

Particulars	2019-20*	2018-19
BHEL share (%)	**27.97%**	27.97%
BHEL's investment in equity	**664.04**	664.04
Revenue from operations	**247.87**	1047.53
Loss for the year	**2205.73**	1251.30

* based on provisional unaudited figures

d. Dada Dhuniwale Khandwa Power Limited (DDKPL):

Dada Dhuniwale Khandwa Power Limited (DDKPL) is a Joint Venture Company of BHEL and Madhya Pradesh Power Generating Company Limited (MPPGCL) promoted for setting up of 2x800 MW supercritical thermal power plant at Khandwa, Madhya Pradesh on build, own and operate basis.

Due to non-availability of coal linkage and problems being faced in land acquisition, both the promoters approved for voluntary winding up of the JVC. An amount of ₹ 17.57 crore has been received (₹ 17.30 crore in FY 2018-19 and ₹ 0.27 cr in FY 2019-20) against investment in JVC of ₹ 22.50 crore. The provision for impairment in value of investment has been retained to the extent of ₹ 4.93 crore (previous year ₹ 5.20 crore) based on the net financial position. The JVC is under liquidation.

e. 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 plant 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 have been closed and the process of winding up has been initiated. The JVC is under liquidation.

1.5.4 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. DDKPL and M/s PPPIL were not considered for CFS as they are under liquidation

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

Financial performance

(₹ Crore)

Particulars	For the year ended	
	March 31, 2020	March 31, 2019
Revenue from operations	**21490**	30441
Profit before tax	**(659)**	1840
Profit after tax	**(1468)**	1002
Other comprehensive income/ (expenses)	**(274)**	(119)
Total comprehensive income	**(1742)**	883

The share of profit in respect of joint ventures was ₹25.72 crore in FY 2019-20 as against loss of ₹ 185.60 crore in FY 2018-19.

The joint venture companies (NBPPL and RPCL) have incurred losses in 2019-20. The group has already recognised accumulated losses equal to the cost of investment in consolidated financial statements 2018-19.

Financial position

(₹ Crore)

Particulars	As at	
	March 31, 2020	March 31, 2019
Assets		
Property, plant and equipment, intangible assets and CWIP (net carrying value)	**3131**	3206
Investment accounted for using equity method	**159**	149
Non-current financial assets	**5357**	4021
Deferred tax assets (net)	**2766**	3505
Noncurrent other assets	**16660**	14672
Current assets	**32711**	38381
Total	**60784**	63934
Equity and Liabilities		
Equity share capital	**696**	696
Other equity	**27964**	30208
Non-controlling interest	**(9)**	(7)
Non-current liabilities	**9456**	9982
Current liabilities	**22677**	23055
Total	**60784**	63934

1.6 Capital Investment

During FY 2019-20, BHEL has invested a sum of ₹336 crores (approx.) on modernization of company's assets, debottlenecking of production process, quality improvement, and building enabling infrastructure for execution of projects.

BHEL is setting up facilities at EPD Bengaluru for manufacturing of catalyst for NOx reduction in flue gases with Selective Catalytic Reduction (SCR) technology, to address the emission control market in thermal sector. Further, to increase the share of green energy in Company's energy-mix, several in-house developed rooftop Solar PV plants were installed across the company.

1.7 Quality Performance

BHEL has well established Quality Management systems to realize the objective of Quality Policy. Quality Policy of BHEL was revised with an objective of building companywide culture of 'Quality First' and same was approved by CMD and released on 1st Nov'19.

As part of its efforts to transform the company into a future-ready global engineering organisation, BHEL has launched a companywide 'Quality First' initiative to put in place state-of-the-art processes, for making quality a hallmark of the company's products and services.

Mission 'Quality First' focuses on four objectives — Empower, Educate, Engage and Encourage employees and putting in place the latest quality processes and systems to further strengthen the quality mind-set within the company.



Various Initiatives for continual improvement in process & product quality and enhancement of Quality Management System effectiveness have been taken up. To strengthen the existing quality systems in Manufacturing Units, Engineering Centres & Power Sector project sites, periodic Quality Audits, Quality Management Effectiveness Review (as per **Quality 360 model**), Total Quality

Management (TQM) assessment as per EFQM- "European Foundation of Quality Management" Business Excellence Model are being conducted by CQ & BE under guidance of CII

During 2019-20, twenty-three BHEL divisions were subjected to Quality360 review and TQM assessment as per EFQM 2013 model.

Around 50 Product/ Process Quality Audits were carried out at fifteen manufacturing units and 30 quality audits were carried out at different project sites with an objective to enhance product & service quality.

Integrated Quality Health Index (QHI) has been formulated to assess the organisational health of 23 divisions w.r.t quality considering

a. Improvement in Quality Performance Indicators,
b. improvement in Quality Management System maturity & overall Business Excellence
c. Quality Image

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. During 2019-20, 550+ executives were trained in Quality Management subjects conducted by Corporate Quality & Business Excellence function over 1650 man-days.

Digitalization initiatives

Welding Performance Monitoring System (WPMS)

Online WPMS has been developed internally and implemented at six power sector project sites for monitoring performance of welders, welding process and weld joint data analysis for quality improvement. Also, automated Erection Welding Schedule (EWS) is directly populated in WPMS system, which helps in reducing weld joints planning time cycle at site.

Quick Response Notification System (QRN)

With the objective of reporting of major product failures at sites and at manufacturing units within 24 hrs of incidence, centralised online system along with a mobile app has been developed.

The system enables quick reporting of major quality issues/ failure of equipment/ product during manufacturing/ testing as well as during erection, commissioning and post commissioning activities to top Management.



Director (E,R&D) along with other MC members sharing inputs over recent technological developments at Annual Quality Circle Summit 2019, HEEP Haridwar

Quality Circles

Quality Circle (QC) movement in BHEL, which is being driven by workers & supervisors is the role model in the country. Every year inter-unit annual QC summit is held in BHEL where Quality Circles showcase their case studies. 29th BAQCS (BHEL Annual Quality Circle Summit: 2018-19) was held at HEEP Haridwar on 26th Apr 2019. 48 Quality Circles from 15 units participated in the summit. Quality Circle no. 582 of HPBP Trichy was awarded the Shri S R Udpa trophy for best Quality Circle for the case study "Automation of high thickness hydro end cover plate welding".

RCA

Major thrust is given to Root Cause Analysis (RCA) of quality issues faced at manufacturing shops and erection sites. Intra-unit standing RCA committees and Inter-Unit Special RCA committees analyse the quality issues and recommend corrective actions. RCA findings are shared with customers as well as in the Management Committee Meetings (MCM). RCA initiative has been institutionalized in the organization.

Other Initiatives

A one-day Knowledge sharing Programme on Quality Management & Business Excellence among CPSUs was held at BHEL in May 2019 where representatives from SAIL, NTPC, BEL, IOCL, BPCL, THDC, IGL, ONGC, GAIL, Power Grid & NHPC participated and shared their best practices.

As part of standardization initiatives, Field Quality Plans (FQPs) for Flue Gas Desulphurization (FGD) were formulated to ensure erection checks and implemented at NTPC Dadri site. Welding, Heat Treatment and NDE manuals were also reviewed, modified & released for Power Sector.

For focus given improvement in aesthetics (painting & packing) of export supplies from manufacturing units, pre-dispatch inspection was done by CQ&BE at different manufacturing units.

Quality Certifications and Business Excellence Awards

HPEP Hyderabad unit was conferred the **"Best Organisation for pioneering Quality Circle movement in India and contributing to its growth"** award by Quality Circle Forum of India (QCFI), Hyderabad Chapter in its 33rd Chapter Convention on Quality Concepts (CCQC-2019) held in August 2019.



Ultra High Voltage (UHV) Lab at BHEL Bhopal

Certification/ Accreditation by external agencies

- All BHEL Manufacturing Units, Power Sector Regions and Engineering Centers are ISO 9001-2015 Certified.
- HPEP Hyderabad recertified by American Society of Mechanical Engineers (ASME) for "U" "U2" certification valid up to 24th Aug 2022.
- HEP Bhopal received ASME 'U' stamp certificate by ASME with validity from 10th Jan 2020 to 20th Oct 2022.
- All testing laboratories of Technical Services Division (Mechanical & Metallurgy, Chemical & Electrical) of HEP Bhopal were accredited by NABL as per latest IS/IEC -17025: 2017 version, for two years from 14th Aug 2019. NABL certificate of accreditation for UHV lab in accordance with standard ISO/IEC 17025:2017 was also received for a period of two years.
- HPVP Vizag was certified for Design, Development and Manufacturing of cooling systems for ECS (Environmental Control System) and SPS (Secondary Power System) – Manufacturing of Fuel Storage Systems for Rockets as per AS 9100:2016. The certificate is valid up to 18th Feb 2023.

1. 8 Internal Financial Control System

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

The source of implementation and maintenance of IFC are manuals, guidelines, Delegation of Powers, IT system & controls and are effected through well-defined organizational structure i.e. people working in various parts of 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, 12 internal audit cells are set up across the company to cover internal audit activities at all locations. 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 at respective locations.

Audit assignments are conducted as per annual audit programme approved by Board Level Audit Committee (BLAC). Highlights of internal audit activities are presented to senior executives at various forums and shared with 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 operates.

BHEL has a process in place to continuously monitor the action to be taken towards improvement of the systems and processes and strengthening of the governance mechanism. The company continues its efforts to align all its processes and controls with the best global and national practices.

Internal financial controls in BHEL has been evaluated at all locations by 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.

1.9 Human Resource

1.9.1 Learning and Development

During 2019-20, average 3.70 training man days per employee were achieved across the organization. 5500 non-BHEL employees such as apprentices, trainees, customers, vendors etc. were also provided training across BHEL units. 115 training programs [42 technical and 68 non-technical] were conducted at Corporate Learning & Development [CLD] Noida/ units/ IIM covering about 2650 employees.

Seven programmes for about 251 executives including middle and senior management executives were conducted. Advanced Management Programs (AMPs) were conducted for senior management executives focusing on developing leadership capabilities through fostering innovation & implementing change for competitive advantage. Leadership Management Programs (LMPs) were also conducted for focus on acquiring new leadership skills to influence and inspire. Excellence Management Programs (EMPs) for middle management executives were conducted, focusing on their transformation into exceptional cross-functional leaders who can integrate different disciplines.



Design Thinking Workshop held in March 2020 at CLD, Noida

A Design Thinking workshop was held in March 2020 in revenue generation mode for the first time in which executives from various organizations like GE, GAIL, Balmer Lawrie, Voltas, KEI, MMTC, etc. participated.

For development of employees through core programs, six Senior Management Programmes, six General Management Programmes and two Young Managers programmes were conducted in 2019-20 covering 124, 145 and 58 participants respectively.

To augment technical strength in existing business areas, various technical trainings covering existing business were conducted. In addition, training in new business area like e- mobility & battery energy storage system, railway electrification, water business, data analytics, design of Hydro & Solar projects, FGD & SCR etc. were also conducted. 16 technical programs were organized during the year at CLD in addition to the programmes conducted at Human Resource Development Centres of units.

A 24 X7 online learning system (LMS) for employees with the objective of Learn, Share & Develop, called UNNAYAN (http://unnayan.bhel.in/), was developed by CLD. Through the year, sixteen web-learning programs were launched over UNNAYAN on various technical, functional, and developmental topics, covering approximately 8000 training man-hours. During the lockdown period,

UNNAYAN helped to overcome geographical barriers and gave every employee an opportunity to continue with learning and development process - anytime, anywhere.

PRISM (Project Improvement & Site Management) workshops were held for Panki, Bhusawal and Patratu projects. Employees from site, region headquarters and PMG as well as PS-Marketing participated with enthusiasm in the team building exercises as well as discussion on contractual terms and conditions and other aspects of projects. Customer representatives from the respective projects also joined in the interaction. Director Power and Director E, R&D also joined in a combined interaction with the participants in PRISM- Bhusawal.

Awards/Recognition

- Governance Now PSU Awards 2020 in three categories- Best PSE in HR Excellence & Reskilling of Employees, Research and Innovation, and Geo-Strategic Reach.
- Certificate of Appreciation for exemplary work in Skill Development from the Govt. of India in 2019-20.
- Special Commendation Prize for the 29th National Award for Innovative Training Practices instituted by ISTD under Public Sector category.

1.9.2 Performance and Career Development

In order to bring about objectivity, enhance responsibility and accountability, eliminate perception of bias in evaluation, and encourage a high-performance culture, BHEL's Performance Management System, eMAP underwent modifications for final review of 2019-20 and also performance planning for 2020-21.

Availability of Job Descriptions (JDs) fosters role clarity and rational work distribution. To standardise the process of creating Job descriptions, a module has been developed in SAP to capture job description & competency profile, through which critical key & ongoing responsibilities and technical & behavioural competencies of all the key positions can be created and maintained. Standardizing the Job Description and Competency Profile of Key Positions can be utilised for identification of successors, career progression assessment and development of technical & behavioural competencies.

Employee Satisfaction Survey is conducted at the company level every alternate year for identification of opportunities for improvement (OFIs) at company and unit level, bringing about improvements in identified areas in a time bound manner, and internal benchmarking amongst various units, to facilitate adoption of best practices from amongst units of BHEL. ESES 2019-20 was conducted online for all categories/ cadres of BHEL employees across all units through a centrally administered online platform, including in regional languages. With more than 17000 respondents, ESES 2019-20 gathered response from more than 50% employees. The responses were analysed and presentation was made to the Top Management, with action plans to maintain and further enhance the engagement and satisfaction levels.

To implement employee related best practices and continually improve the capability of our human resources, People-Capability Maturity Model (CMM) has been deployed in BHEL w.e.f. 2018-19. Accordingly, assessments were carried out across the organization during 2018-19, under the guidance of M/s QAI India Ltd. BHEL was found to largely align with the P-CMM level 2 with a few improvement areas. BHEL has started its journey towards P-CMM Level 3 which envisages excellence in efforts towards competency based process areas.

To prepare a pool of aligned executives ready to take up senior roles, an in-house BHEL Online Development Centre (BODC) exercise was designed and developed based on past experience, and tested as a pilot to assess, identify gaps, initiate and develop levels of behavioural competencies at individual and organisation level. BODC involves multiple evaluation techniques including job-related simulations, psychological tests viz. Individual Learning Pattern, SHL Quicksift, Situational Judgement Test etc. These tests assess a variety of competencies to provide a comprehensive view of respondents. During the year, 124 senior officials were covered in the exercise. All middle and senior level executives are planned to be covered.

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 performance parameters, and initiatives that the Company is required to undertake during that financial year. After evaluation of the MOU at the end of the year by the Govt. a performance rating is assigned to each CPSE based on its performance on the spelt-out parameters. There is a well laid down procedure for performance evaluation of CMD and Functional Directors, for whcih Department of Public Enterprises (DPE) has designed a format and laid down a procedure. 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. In respect of Independent Directors, their appointment and tenure (normally a period of three years) is decided by the Government of India. 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.

DPE, through BHEL's Administrative Ministry (DHI), has started the exercise of performance evaluation/ assessment of non-official (Independent) Directors on the Board of the Company.

1.9.3 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 in our Industrial Relations journey. The impetus given to participatory culture has been instrumental in maintaining and building a congenial harmonious climate with proper nurturing by the management in close collaboration with various employee groups.

Industrial Relations in various manufacturing units, divisions and offices of the Company remained harmonious and peaceful during FY 2019-20. Owing to the participatory ecosystem prevalent in the Company, 'NIL' man-days were lost during the year on account of

strike against Company policies, which bears testimony to the joint efforts undertaken by the Management as well as the employee groups.

Two meetings of the apex level bipartite forum, "Joint Committee" were held in the year. 45 Plant Council meetings and 501 Shop Council meetings were held at various units. Meetings were also held with representatives of executives and supervisors on business prospects & challenges, company level issues, etc.

Discussions in 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.

To strengthen the national fight against COVID-19 pandemic, employees of BHEL contributed one day's salary amounting to ₹ 8.72 Crores to PM CARES Fund.

1.9.4 Manpower Strength

BHEL's greatest strength is its highly skilled and committed workforce of 33,752 employees, as on 31st March, 2020.

1.9.5 Status on Presidential Directives

1.9.5.1 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 on the subject are being strictly complied with and reservation percentages are ensured through maintenance of Post Based Roster system as prescribed by Govt. There is no direct impact of these guidelines on the financial position of the company.

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 31/12/2019 was 20.56%, 7.27% and 34.25% for SCs, STs and OBCs respectively. The percentages in direct recruitment during the year 2019 were 14.47%, 7.24% and 25.00% for SCs, STs and OBCs respectively.

In 2019, 10% reservation was introduced for Economically Weaker Sections (EWS) not covered under existing reservation for Scheduled Castes, Scheduled Tribes and Socially and Educationally Backward Classes. During the calendar year 2019, the percentage of EWS in direct recruitment was 8.55%.

The Annual Statement in the prescribed format showing the representation of SCs, STs and OBCs as on 31/12/2019 and number of appointments made during the preceding calendar year, as furnished to the Government, is given at **Annexure - A.**

ii. Manpower strength of PwD employees as on December 31,2019

Total number of PwD employees as on 31/12/2019 was 896. In the year 2019, 06 Persons were appointed under PwD Category. The group wise manpower strength of PwD employees in the Company as on 31/12/2019 is given at **Annexure - B**.

1.9.5.2 Safeguard of Women at Workplace

An Act to provide protection against sexual harassment of women at workplace and for the prevention and redressal of complaints of sexual harassment and for matters connected therewith or incidental thereto called "The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013", is in force from 9th December 2013 with notification of rules by Government of India, Ministry of Women and Child Development called "The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Rules, 2013".

The provisions of the Act and the rules thereon are being strictly complied with. In accordance with the Act, Internal Complaints Committees have been constituted in all units of BHEL, and their constitution and contact details have been 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, 37 Workshops / awareness programmes were conducted on Sexual Harassment Act, Gender Sensitization, Crime against women and cyber-crime.

The Annual Report showing details on number of complaints of sexual harassment received during the year 2019-20 and status thereof as on 31.03.2020 is given at **Annexure - C.**

Annexure 'A'

Groups	Representation of SCs/STs/OBCs/EWS (As on December 31,2019)					No. of appointments made during the calendar year 2019											
						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	11028	1953	899	2690	13	143	22	11	36	13	N/A			1	1	0	0
Group B	7270	1437	639	1811	0	1	0	0	0	0				0	0	0	0
Group C	15479	3524	937	7059	0	8	0	0	2	0				0	0	0	0
Group D (Excl. SW)	316	65	5	132	0	0	0	0	0	0				0	0	0	0
Group D (SW)	41	38	1	0	0	0	0	0	0	0				0	0	0	0
Total	34134	7017	2481	11692	13	152	22	11	38	13	0	0	0	1	1	0	0

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

Annexure 'B'

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	11028	6	17	241	2	2	2	143	1	0	4	----------NA----------						
Group B	7270	1	16	185	0	0	0	1	0	0	0							
Group C	15479	16	29	373	0	0	1	8	0	0	1							
Group D	357	2	5	5	0	0	0	0	0	0	0							
Total	34134	25	67	804	2	2	3	152	1	0	5							

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

Annexure- C

Annual Report on Safeguard of Women at Workplace

1	No. of complaints received during the year 2019-2020 (incl. complaints C/F from previous year)	3*
2	Number of complaints disposed of during the year 2019-20 (incl. complaints C/F from previous year)	3
3	Number of cases pending for more than ninety days	1#
4	Number of workshops or awareness programme against sexual harassment carried out	37
5	**Nature of action taken by the employer on recommendations of ICC.**	
-	A complaint was given by an apprentice wherein she mentioned that she went into the cabin of a senior official for some official work, the officer made some remarks on her which she found inappropriate. The committee called both the parties and heard their views. The complainant urged for a formal apology for which the respondent agreed. The ICC conciliated the matter between the parties as per the provisions of the act and the case was closed.	Case closed
-	A woman employee complained about sexual harassment against a male employee at workplace, the ICC conducted the proceedings as per rule. A warning letter was issued to the male employee.	Case closed
-	A complaint was received by the ICC from a woman employee against a male employee who approached her at workplace and made sexually coloured remarks. He also stalked her in the canteen and other places of work. Charge sheet was issued to the male employee and on completion of enquiry by ICC, the charges levelled against him were partially proved. The penalty of "Censure" was imposed on the male employee.	Case closed

* *Includes 01 carry forward case*

Due to absence of respondent who was on prolonged leave and was attending duty intermittently.

1.10 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 CPIOs at each of the major administrative units are functioning in the company. 25 First Appellate Authorities are also functioning in the company to dispose off first appeals filed 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 this online RTI portal are replied through the 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 sensitised 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 organised by SCOPE. Quarterly RTI Returns for all the four quarters have been submitted to the Central Information Commission. During 2019-20, 1333 applications and 255 appeals were received, and 1321 applications and 214 appeals were disposed of.

1. 11 Risks and Concerns

BHEL has in place a Board approved Risk Management Charter & Policy to implement a structured and comprehensive enterprise risk management system. This 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 'Board level Risk Management Committee' (BLRMC) is assigned with the responsibility of reviewing the company's Risk Governance structure, Risk Assessment & Risk Management framework, Guidelines, Policies and Processes. The Board/ BLRMC regularly review top risk areas.

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

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

Some key risks the company faces and corresponding strategies for mitigation are mentioned below:

Risk Statement	Mitigation Strategies
Online data & information security breach leading to loss and critical information infrastructure breakdown	All Internet gateways are integrated into Cyber SOC (Security Operations Center) which enables monitoring of all internet traffic. • Integration of Trend Micro Control Manager (TMCM) into Cyber SOC has provided centralized, user-based security management, which created a holistic view of the company's security posture. • Consolidation of Internet Gateways to minimize chances of data leakage points. • Integration of ISMS, for improved compliance & cyber security, enforcement of common policies, procedures & formats.
Excess domestic manufacturing capacities, changes in business mix due to policy changes and increasing competition leading to lower Order Book	• Invitation to Global OEMs to Leverage BHEL's Facilities and Capabilities to 'Make in India'. • Focus on development of non-coal based business. • Strategic tie-ups for venturing into new areas.
Technology readiness to meet current/ future market requirements	• In house development of new products/ Technologies. • Technology collaboration agreement with suitable partners.
Rising debtors	• Constitution of Cross Functional Teams for improved cash realization from every element of debts against ongoing as well as commissioned projects. • Constant review of debtors and provisions by the management. • Swift closure of punch points with customers. • Flagging issues with government in case of state utilities.

For and on behalf of the Board of Directors of

BHARAT HEAVY ELECTRICALS LTD.



Dr. Nalin Shinghal

Chairman & Managing Director

Place: New Delhi

Dated: 28.08.2020

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 behaviour 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 complying 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 the independence of the Board and to separate the Board functions of management and control.

The composition of the Board of Directors as on March 31,2020 is as follows:

Category of Directors	Board Structure	Actual Strength as on March 31, 2020
Chairman & Managing Director	1	1
Whole-time Executive (Functional) Directors	5	5
Part-time Official Directors (Government Nominees) representing the Ministry of Heavy Industries & Public Enterprises, Government of India	2	2
Part-time Non-official (Independent) Directors	8	5
Total	**16**	**13**

As on March 31, 2020, there exist three vacancies of Part-time Non-official (Independent) Directors (including at least one Independent Woman Director) on the Board of BHEL. The matter of filling up of these vacancies is under consideration of Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, Government of India.

ii. Attendance of each Director at the Board Meetings held during 2019-20 and the last AGM

Director's Name S/ Shri	No. of Board Meetings		Last AGM (held on 19.09.2019)
	Held	Attended	
Executive Directors			
Dr. Nalin Shinghal, Chairman & Managing Director# (w.e.f. July 8, 2019)	6	6	Yes
Atul Sobti, Chairman & Managing Director (upto June 30, 2019)	2	2	*
D. Bandyopadhyay, Director (HR)@ (upto August 31, 2019)	6	6	*
Subodh Gupta, Director (Finance)	9	9	Yes
S. Balakrishnan, Director (IS&P)	9	8	Yes
Manoj Kumar Varma, Director (Power)	9	8	Yes
Kamalesh Das, Director (E, R&D)	9	9	Yes
Anil Kapoor, Director (HR) (w.e.f. October 15, 2019)	2	2	*

Part-Time Official Directors – Govt. Nominees			
Dr. Subhash Chandra Pandey, Special Secretary & Financial Adviser, Department of Industrial Policy and Promotion, Ministry of Commerce & Industry (upto June 30, 2019)	2	2	*
Shashank Priya, Additional Secretary & Financial Adviser, Ministry of Commerce & Industry, (w.e.f. October 4, 2019)	3	2	*
Amit Varadan, Joint Secretary (JS), Department of Heavy Industry (DHI), Ministry of Heavy Industries & Public Enterprises	9	8	Yes
Part-Time Non-Official (Independent) Directors			
R. Swaminathan (upto November 30, 2019)	8	6	Yes
Desh Deepak Goel	9	9	No
Ranjit Rae	9	9	Yes
Rajesh Sharma	9	7	No
Raj Kamal Bindal (w.e.f. January 31, 2020)	1	1	*
Manish Kapoor (w.e.f. January 31, 2020)	1	1	*

Held additional charge of Director (HR) from September 1, 2019 to October 15, 2019.

@ Held additional charge of Chairman & Managing Director from July 2, 2019 to July 7, 2019 and chaired a Board Meeting on July 3, 2019.

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

iii. A. Details of Directorships, Committee Memberships and Committee Chairmanship in other companies as on March 31, 2020

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 Ltd.	-NIL-
Subodh Gupta, Director (Finance)	Raichur Power Corporation Ltd.	-NIL-
S. Balakrishnan, Director (IS & P)	-NIL-	-NIL-
Manoj Kumar Varma, Director (Power)	Raichur Power Corporation Ltd.	-NIL-
Kamalesh Das, Director (E,R&D)	1. BHEL Electrical Machines Ltd. 2. BHEL-GE Gas Turbine Services Pvt. Ltd.	-NIL-
Anil Kapoor, Director (HR)	-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. HMT Ltd. 6. Invest India	**Audit Committee:** 1. The State Trading Corporation of India Ltd. (Member) 2. MMTC Ltd. (Member) 3. India Trade Promotion Organization (Member)
Amit Varadan, Part-time Official Director	1. Andrew Yule & Co. Ltd. 2. Tide Water Oil Co India Ltd.	-NIL-
Desh Deepak Goel, Independent Director	-NIL-	-NIL-
Ranjit Rae, Independent Director	-NIL-	-NIL-
Rajesh Sharma, Independent Director	Burnpur Cement Ltd.	**Audit Committee:** Burnpur Cement Ltd. (Chairperson) **Stakeholders' Relationship Committee:** Burnpur Cement 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-

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

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 companies in which he 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, 2020, 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	• The State Trading Corporation of India Ltd. • MMTC Ltd. • HMT Ltd.	Government Nominee Director Government Nominee Director Government Nominee Director
Amit Varadan, Part-time Official Director	1. Andrew Yule & Co. Ltd. 2. Tide Water Oil Co India Ltd.	Government Nominee Director Government Nominee Director
Rajesh Sharma, Independent Director	Burnpur Cement Ltd.	Independent Director

iv. 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. In case of need, 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. The Board meets at least once in a quarter to review the quarterly results and other items on the agenda. Additional meetings are held, when necessary.

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

(i) April 30, 2019	(ii) May 27, 2019	(iii) July 3, 2019
(iv) July 26, 2019	(v) August 9, 2019	(vi) August 30, 2019
(vii) October 15, 2019	(viii) November 13, 2019	(ix) February 11, 2020

v. 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 required 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.

vi. 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.

vii. Independent Directors

The 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 'http://www.bhel.com/index.php/ind_dir' under the heading 'Familiarisation Programme for Independent Directors' {under Independent Director Related Information}.

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

viii. Information placed before the Board of Directors

The agenda placed before the Board *inter-alia* includes the following:

- Annual operating plans and budgets and any updates.
- Capital budgets and any updates.
- Quarterly results for the company and its operating divisions or business segments.
- Minutes of meetings of Audit Committee and other Committees of the Board.
- Minutes of Board Meetings of unlisted subsidiary companies.
- Statement of all significant transactions and arrangements entered into by unlisted subsidiary companies.
- 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.

- Sale of subsidiaries.
- Purchase and Sale of material tangible/ intangible assets not in the ordinary course of business.
- Quarterly details of foreign exchange exposures and the steps taken by management to limit the issues of adverse exchange rate movement, if material.
- Action Taken Report on matters desired by the Board.
- Disclosure of Interest by Directors about directorships and Committee positions occupied by them in other companies.
- Quarterly report on compliance of various laws.
- Information relating to major legal disputes.
- Status of Arbitration cases.
- Short term investment of surplus funds.
- Any contract(s) in which Director(s) are deemed to be interested.
- Status of shareholders' grievances on quarterly basis.
- Significant Capital Investment proposals.
- Changes in significant accounting policies & practices and reasons for the same.
- Performance of various units/ functions.
- Any other information as required under Listing Regulations, DPE guidelines and SS-1 etc., to be presented to the Board either for information or approval.

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.

ix. Selection of New Directors

As per Articles of Association of BHEL, the President of India through Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, 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 Department of Heavy Industry 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.

x. Membership term & Retirement policy

The appointment of Chairman & Managing Director and Functional Directors shall be 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.

xi. Code of Conduct

As part of BHEL's persisting endeavour to set a high standard of conduct for its employees, BHEL Board in 2005 laid down a 'Code of Business Conduct and Ethics for Board Members and Senior Management personnel' in line with clause 49 of the erstwhile Listing Agreement. The Code has been subsequently revised from time to time in line with changes in the regulatory framework including changes in the Listing Agreement & changing business dynamics and to incorporate other relevant provisions to strengthen the Code. The extant Code was also in compliance with the Listing Regulations. However, in line with the amendment to the definition of 'Senior Management' in the Listing Regulations, the Board of Directors of BHEL approved the revised 'Code of Business Conduct & Ethics for Board Members and Senior Management Personnel' which came into force w.e.f. April 1, 2019.

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'.

xii. 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.

xiii. 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.

xiv. 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. April 1, 2019 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 seek professional advice from external sources in appropriate cases, wherever required;
23. 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;
24. 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 Audit Committee comprises of at least 2/3rd members as Independent Directors as mandated by the Listing Regulations. Further, the 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. December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position	No. of meetings	
		Held during their tenure	Attended
R. Swaminathan, Independent Director (upto November 30, 2019)	Chairperson	7	7

Desh Deepak Goel, Independent Director	Chairperson (w.e.f. December 1, 2019)	1	1
	Member (upto November 30, 2019)	7	6
Amit Varadan, JS, DHI, Part-time Official Director	Member	8	6
Ranjit Rae, Independent Director	Member (w.e.f. April 30, 2019)	8	8
Rajesh Sharma, Independent Director	Member (w.e.f. October 15, 2019)	2	2

Director (Finance) is permanent invitee. 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 eight times on May 20, 2019, May 27, 2019, July 11, 2019, July 26, 2019, August 9, 2019, September 19, 2019, November 13, 2019 and February 11, 2020 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 like leased accommodation, payment of HRA, furnished accommodation, productivity linked incentive etc., 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. In line with the amendment to the terms of reference of NRC in the Listing Regulations, the terms of reference of the Committee were revised by the Board w.e.f. April 1, 2019 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 to carry out evaluation of every director's performance;
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 DHI;
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-unionised 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) 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. December 1, 2019. The Committee comprises of the following Directors (on next page):

Name of the Director S/Shri	Position	No. of meetings	
		Held during their tenure	Attended
R. Swaminathan, Independent Director (upto November 30, 2019)	Chairperson	1	1
Rajesh Sharma, Independent Director	Chairperson (w.e.f. December 1, 2019)	1	1
	Member (upto November 30, 2019)	1	1
Dr. Subhash Chandra Pandey, SS & FA, DIPP, Part-time Official Director (upto June 30, 2019)	Member	1	1
Shashank Priya, AS & FA, M/o Commerce & Industry, Part-time Official Director	Member (w.e.f. October 15, 2019)	1	1
Amit Varadan, JS, DHI, Part-time Official Director	Member	2	1
Ranjit Rae, Independent Director	Member	2	2

Director (HR) is permanent invitee. Company Secretary acts as Secretary to the Committee.

iv. Meetings and Attendance

The Nomination & Remuneration Committee met two times on May 27, 2019 and March 17, 2020 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 2019-20 are given below

(in ₹)

Sl. No.	Name of the Director S/ Shri	Salary	Retirement Benefits	Other Benefits	Total	Service Contract/ Notice Period Severance Fee
1.	Dr. Nalin Shinghal (w.e.f. July 8, 2019)	34,21,301	6,91,207	28,848	41,41,356	----
2.	Atul Sobti (upto June 30, 2019)	39,97,812	2,27,769	9,900	42,35,481	----
3.	D. Bandyopadhyay (upto August 31, 2019)	30,83,864	3,52,537	5,80,701	40,17,102	----
4.	Subodh Gupta	40,84,533	8,58,242	3,04,817	52,47,592	Liable to retire by rotation
5.	S. Balakrishnan	44,76,233	8,56,037	5,25,887	58,58,157	Liable to retire by rotation
6.	Manoj Kumar Varma	45,68,365	8,66,955	5,89,754	60,25,074	Liable to retire by rotation
7.	Kamalesh Das	36,04,006	8,37,170	2,71,434	47,12,610	Liable to retire by rotation
8.	Anil Kapoor (w.e.f. October 15, 2019)	17,42,902	4,17,744	2,56,101	24,16,747	Liable to retire by rotation

Note: Salary includes leave encashment.

vi. Details of payments made to Independent Directors during the year 2019-20 are given below

(in ₹)

Name of the Independent Directors	Sitting Fees		Total
	Board Meeting	Committee Meeting	
Shri R. Swaminathan	1,80,000	3,00,000	4,80,000
Shri Desh Deepak Goel	2,70,000	3,60,000	6,30,000
Shri Ranjit Rae	2,70,000	4,20,000	6,90,000
Shri Rajesh Sharma	2,10,000	2,40,000	4,50,000
Shri Raj Kamal Bindal	30,000	-	30,000
Shri Manish Kapoor	30,000	-	30,000

During FY 2019-20 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, 2020):

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 2019-20.

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 Committee looked into the redressal of grievances of shareholders including complaints related to transfer of shares, non-receipt of balance sheet, non-receipt of declared dividends etc. In line with the amendment to the terms of reference of SRC in the Listing Regulations, the terms of reference of the Committee were

revised by the Board w.e.f. April 1, 2019 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. December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
R. Swaminathan, Independent Director (upto November 30, 2019)	Chairperson	3	3
Ranjit Rae, Independent Director	Chairperson (w.e.f. December 1, 2019)	1	1
	Member (w.e.f. April 30, 2019 upto November 30, 2019)	3	3
Amit Varadan, JS, DHI, Part-time Official Director	Member	4	3
Director (Finance)	Member	4	4
Director (HR)	Member	4	4

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 May 20, 2019, July 25, 2019, November 13, 2019 and February 10, 2020 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 KFin Technologies Private Limited (RTA) to SEBI, 949 complaints were received from the shareholders during the year under review and all complaints were redressed up to March 31, 2020. No complaint was pending at the end of the period under report.

2.5.2 Share Transfer Committee

The Board constituted a Share Transfer Committee on March 25, 1992. 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 on September 1, 2017 and comprises Director (HR) as Chairperson, Director (E, R&D) and Director (Finance) as Members.

Meetings during 2019-20

The Share Transfer Committee met nine 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. The Board of Directors in its meeting held on May 12, 2014 reconstituted the Committee in line with requirements of Companies Act, 2013. In line with the amendment to Section 135 of the Companies Act, 2013 pertaining to CSR Committee, 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. December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Ranjit Rae, Independent Director	Chairperson	3	3

Amit Varadan, JS, DHI, Part-time Official Director	Member	3	2
R. Swaminathan, Independent Director (upto November 30, 2019)	Member (w.e.f. April 30, 2019)	2	2
Rajesh Sharma, Independent Director	Member	3	3
Director (Finance)	Member	3	3
Director (HR)	Member	3	3

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

iii. Meetings and Attendance

The Committee met three times on July 25, 2019, November 13, 2019 and February 10, 2020 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 comprises of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Desh Deepak Goel, Independent Director	Chairperson	1	1
Ranjit Rae, Independent Director	Member	1	1
Director (Finance)	Member	1	1
Director (HR)	Member	1	1

Head (HR)-ED/ GM In-charge, Corporate Office is Permanent Invitee. Company Secretary acts as Secretary to the Committee.

iii. Meetings and Attendance

The Committee met one time on May 20, 2019 during the year under review. The details of attendance of each member is given in the above table.

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 Committee comprises of the following Independent Directors:

Name of the Director S/Shri	Position	No. of Meetings	
		Held during their tenure	Attended
R. Swaminathan (upto November 30, 2019)	Chairperson & Lead Independent Director	1	1
Desh Deepak Goel	Chairperson & Lead Independent Director (w.e.f. December 1, 2019)	0	0
	Member (upto November 30, 2019)	1	1
Ranjit Rae	Member	1	1
Rajesh Sharma	Member	1	1
Raj Kamal Bindal (w.e.f. January 31, 2020)	Member	0	0
Manish Kapoor (w.e.f. January 31, 2020)	Member	0	0

iii. Meetings and Attendance

The Committee met one time on November 13, 2019 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 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. April 1, 2019 as under:

1. Reviewing the Company's risk governance structure, risk assessment and risk management framework, guidelines, policies and processes for risk assessment and risk management;
2. Reviewing the Company's risk mitigation strategies relating to identified key risks as well as the processes for monitoring and mitigating such risks;
3. Reviewing risk pertaining to Cyber Security and its mitigation;
4. Report to the Board on the Committee's activities for information and recommend proposed changes, if any, to the Board for approval.
5. 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 October 15, 2019. The Committee comprises of the following members:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
SS & FA, DIPP,* Part-time Official Director	Chairperson	0	0
Shashank Priya, AS & FA, M/o Commerce & Industry, Part-time Official Director	Chairperson (w.e.f. October 15, 2019)	2	1
Desh Deepak Goel, Independent Director	Member #	3	3
Director (Finance)	Member	3	3
Director (IS&P)	Member	3	2
Director (Power)	Member	3	3
Chairman, Risk Management Steering Committee	Member	3	3
Chief Risk Officer	Member & Convener	3	3

*Dr. Subhash Chandra Pandey, Special Secretary & Financial Adviser, DIPP was Chairperson of the Committee upto June 30, 2019.

Due to vacancy/ absence of Chairperson in 2 Meetings (July 26, 2019 and February 10, 2020), Shri Desh Deepak Goel was elected Chairperson of these Meetings.

iii. Meetings and Attendance

The Committee met three times on July 26, 2019, November 13, 2019 and February 10, 2020 during the year under review. The details of attendance of each member is given in the above table.

2.10 Committee on Arbitration & Major Legal Disputes

i. Terms of Reference

The Board of Directors in its meeting held on May 26, 2015 constituted the Committee on Arbitration & Major Legal Disputes for detailed review of arbitration cases as well as major legal disputes and thereafter apprising the Board accordingly.

ii. Composition of Committee, name of Members & Chairperson

The Committee was last reconstituted w.e.f. December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position	No. of Meetings	
		Held during their tenure	Attended
Desh Deepak Goel, Independent Director	Chairperson (w.e.f. April 30, 2019)	4	4
	Member (upto April 29, 2019)	0	0
Amit Varadan, JS, DHI, Part-time Official Director	Member	4	2
Rajesh Sharma, Independent Director	Member (w.e.f. April 30, 2019)	4	4
Director (Power)	Member (w.e.f. December 1, 2019)	1	1
Director (HR)	Member	4	4

Head-Law is convener of the Committee and furnishes the required information for review by the Committee.

iii. Meetings and Attendance

The Committee met four times during the year on May 27, 2019, July 25, 2019, November 13, 2019 and February 10, 2020. The details of attendance of each member is given in the above table.

2.11 Board Level Committee on Mergers & Acquisitions

i. Terms of Reference, Composition of Committee, Name of Members & Chairperson

The Committee was formed to examine the feasibility of the proposals relating to mergers, acquisitions and takeover of entities and was last reconstituted on March 27, 2019. In view that no meeting of the Committee had taken place since May, 2016, the Board of Directors vide circulation approved the dissolution of the Board Level Committee on Mergers & Acquisitions w.e.f. December 1, 2019. The Committee comprised the following Directors prior to dissolution:

Name of the Director S/ Shri	Position
Amit Varadan, JS, DHI, Part-time Official Director	Chairperson
Desh Deepak Goel, Independent Director	Member
Director (Finance)	Member
Director (IS&P)	Member
Director (Power)	Member
Director (E, R&D)	Member
Director (HR)	Member

Head of M&A Department is permanent invitee. Company Secretary provides secretarial support to the Committee.

ii. Meetings and Attendance

No Meeting of the Board Level Committee on Mergers & Acquisitions took place during the year till its dissolution.

2.12 Board Level Committee on Alternative Dispute Resolution

i. Terms of Reference, Composition of Committee, Name of Members & Chairperson

The Board of Directors in its Meeting held on May 29, 2018 constituted the Board Level Committee on Alternative Dispute Resolution to act as the Competent Authority for accepting/ rejecting the draft settlement agreement under the BHEL Conciliation Scheme, 2018. The Committee was last reconstituted w.e.f. December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position
R. Swaminathan, Independent Director (upto November 30, 2019)	Chairperson (w.e.f. April 30, 2019)
Rajesh Sharma, Independent Director	Chairperson (w.e.f. December 1, 2019)
	Member (upto November 30, 2019)
Director (Finance)	Member
Director (E, R&D)	Member
Director (HR)	Member (w.e.f. December 1, 2019)

The Committee shall Co-opt the concerned Functional Director as an additional member, whenever required.

ii. Meetings and Attendance

No Meeting of the Board Level Committee on Alternative Dispute Resolution took place during the year under review.

2.13 Buyback Committee

i. Terms of Reference, Composition of Committee, Name of Members & Chairperson

The Board of Directors in its Meeting held on October 25, 2018 constituted the Buyback Committee and delegated the powers of the Board in respect of Buyback of shares to the Committee. The Committee was also authorized to do all such acts, deeds, matters and things as it may, in its absolute discretion deem necessary, expedient, usual or proper, as the Buyback Committee may consider to be in the best interests of the shareholders for the implementation of the Buyback. The Committee comprises of the following Directors:

Name of the Director S/ Shri	Position
Director (HR)	Chairperson
Director (Finance)	Member
Director (E,R&D)	Member

Company Secretary/Dy. Company Secretary acts as the Secretary to the Buyback committee.

ii. Meetings and Attendance

No Meeting of the Buyback Committee took place during the year under review.

2.14 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 Crores and above;

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

(iii) The quorum for the meetings shall be three Members;

(iv) The Committee shall meet at least four times a year.

(v) 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 December 1, 2019. The Committee comprises of the following Directors:

Name of the Director S/ shri	Position	No. of Meetings	
		Held during their tenure	Attended
R. Swaminathan, Independent Director (upto November 30, 2019)	Chairperson	1	1
Ranjit Rae, Independent Director	Chairperson (w.e.f. December 1, 2019)	1	1
	Member (upto November 30, 2019)	1	1
Amit Varadan, JS, DHI, Part-time Official Director	Member	2	1
Desh Deepak Goel, Independent Director	Member	2	2
Director (Finance)	Member	2	2
Director (IS&P)	Member	2	2
Director (Power)	Member	2	2

Head (PS-PMG) & GM (Receivable Management) are Convener of the Committee for the respective agenda and furnish the required information for review by the Committee. Heads of respective Business Sectors shall be permanent invitees and shall make a

separate presentation on status of debtors. Company Secretary acts as Secretary to the Committee.

iii. Meetings and Attendance

The Committee met two times on October 14, 2019 and February 10, 2020 during the year under review. The details of attendance of each member is given in the above table.

2.15 General Meetings

i. Location and time of last three AGMs:

Year	Location	Date	Time
FY 2016- 17 (53rd AGM)	Manekshaw Centre, Parade Road, Khyber Lines, Delhi Cantt., Delhi-110010	September 22, 2017	10.00 a.m.
FY 2017- 18 (54th AGM)	Manekshaw Centre, Parade Road, Khyber Lines, Delhi Cantt., Delhi-110010	September 19, 2018	10.00 a.m.
FY 2018- 19 (55th AGM)	Manekshaw Centre, Parade Road, Khyber Lines, Delhi Cantt., Delhi-110010	September 19, 2019	10.00 a.m.

ii. Details of Special resolutions passed in previous three AGMs

In line with the provisions of Section 14 of the Company Act, 2013, a Special Resolution was passed in the 54th Annual General Meeting held on September 19, 2018, for amendment in the Articles of Association by insertion of Article 5A regarding Buy-Back of shares. Further, in line with the provisions of Section 149 of the Company 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. No such resolution is proposed to be conducted through postal ballot.

2.16 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 47 to financial statements 2019-20 in the Annual Report.

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. 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. In view thereof, the Company has requested the Exchanges to waive-off the fine under their carve-out policies. The matter of appointment of Independent Directors (including at least one Independent Woman Director) is under process with administrative ministry.

iii. 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. Details of 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 except those relating to composition of the Board of Directors. 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.

v. Presidential Directives

During the last three years i.e. 2017-18, 2018-19 & 2019-20, one Presidential Directive was received, vide letter bearing reference No. 3(06)/2016-PE.XI dated December 27, 2017 regarding revision of scales of pay w.e.f. January 1, 2017 for Board level, Below Board Level Executives and Non-unionised Supervisors. The same has been implemented.

vi. Risk Management

Complying with SEBI Regulations 2015 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. A Board Level Risk Management Committee (BLRMC) is in place with the assigned responsibility of reviewing the company's risk governance structure, risk assessment & risk management framework, guidelines, and policies and processes at Board level.

The Risk Management Steering Committee (RMSC) leads the risk management initiative across the company. The RMSC, comprising of Functional Heads from Corporate Functions and Business Sectors are responsible for adopting & implementing the risk management framework. Risk Management Committees (RMCs) at Business Sectors/ Regions/ Units level are responsible for review of risk profiles & risk mitigation plans and their implementation for the respective Units/ Regions.

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. Details of 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 Note 34 to the financial statements FY 2019-20. 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.

2.17 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 after they are taken on record/ approved, to the Stock Exchanges. These approved financial results are published within 48 hours of conclusion of the Board or Committee 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 2019-20, while BHEL has not made any presentation on financial results to analysts or investors, conference calls were held quarterly post financial result declaration, with prior intimation to the stock exchanges and posting the same on their websites. 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 inter-alia 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.

2.18 General Shareholder Information

	AGM Date	Time	Venue
i	September 28, 2020	10:00 AM	The Company is conducting meeting through VC / OAVM pursuant to the 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 01, 2019 to March 31, 2020	

iii. 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
2012-2013 **(Final)**	164.50%	805.26	20.09.2013
2013-2014 **(Interim)**	65.50%	320.64	05.02.2014*
2013-2014**(Final)**	76%	372.04	19.09.2014
2014-2015**(Interim)**	27%	132.17	12.02.2015*
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	05.02.2018*
2018-2019 (**Final**)	60%	417.85	19.09.2019

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

Note:

(1) During 2017-18, the Company has 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 have been increased from 244.76 Crore to 367.14 Crore.

(2) During 2018-19, the Company has 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 2011-12 (Interim), 2011-12 (Final) and 2012-13 (Interim) has already been transferred to Investor Education & Protection Fund (IEPF) during the year 2019-20. Further, unclaimed dividend for the year 2012-13 (Final) & 2013-14 (Interim) are due for transfer to IEPF on 21.10.2020 & 11.03.2021 respectively.

(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).

iv. a) Listing on Stock Exchanges and Stock Code

BHEL's shares are listed on the following Stock Exchanges for which listing fees for 2019-20 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

b) Payment of Annual Custodian Fee to Depositories

The Annual Custodian fee has been paid to NSDL and CDSL for the financial year 2019-20.

v. The High, Low, Close & Volume of BHEL shares and market index during each month in the financial year 2019-20 at BSE & NSE are indicated below:

Market Price Data: High, Low, Close during each month in the financial year 2019-20										
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-19	78.75	69.45	70.75	3.68	78.85	69.40	70.80	29.16	39031.55	11748.15
May-19	73.95	59.25	70.10	4.75	73.70	59.20	70.20	30.55	39714.20	11922.80
Jun-19	75.50	65.70	73.10	2.79	75.50	66.40	73.15	23.66	39394.64	11788.85
Jul-19	74.30	57.10	58.90	1.68	74.25	57.05	58.90	20.52	37481.12	11118.00
Aug-19	59.10	46.65	50.55	2.19	59.10	46.65	50.55	30.16	37332.79	11023.25
Sep-19	53.15	46.65	48.40	2.21	53.20	46.60	48.40	25.42	38667.33	11474.45
Oct-19	61.30	41.35	56.55	6.01	61.10	41.30	56.55	64.38	40129.05	11877.45
Nov-19	58.00	52.50	53.30	3.13	58.00	52.50	53.30	34.28	40793.81	12056.05
Dec-19	53.75	42.40	43.45	2.36	53.80	42.40	43.45	32.52	41253.74	12168.45
Jan-20	47.75	42.05	42.70	2.04	47.75	42.05	42.75	33.87	40723.49	11962.10
Feb-20	43.55	30.35	30.60	2.09	43.55	30.30	30.60	41.27	38297.29	11201.75
Mar-20	31.70	19.20	20.80	7.43	31.70	18.40	20.80	49.67	29468.49	8597.75

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

vi. 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.

vii. Registrar & Share Transfer Agent (RTA)

Delhi Address	Hyderabad Address
KFin Technologies Private Limited (Formerly known as Karvy Fintech Private Limited) **UNIT: BHEL** 305, New Delhi House, 27, Barakhamba Road, New Delhi – 110001 Tel.: 011-43681700 Fax: 011-43681710	KFin Technologies Private Limited (Formerly known as Karvy Fintech Private Limited) **UNIT: BHEL** Selenium Tower B, Plot 31-32, Gachibowli, Financial District, Nanakramguda, Hyderabad – 500032 Tel.: 040-67162222 Fax: 040-23001153 Email: madhusudhan.ms@kfintech.com / 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.

viii. 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. KFin Technologies Private 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.

ix. Distribution of Shareholding

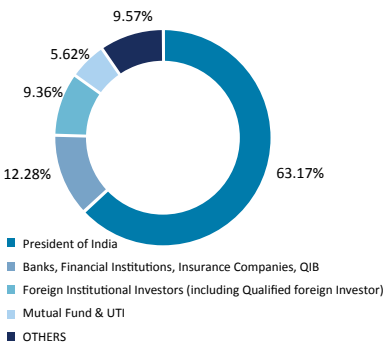
i. Distribution of shares according to size of holding as on March 31, 2020

No. of equity share(s) held	No. of Shareholders	% of Shareholders	No. of Shares	% of Shareholding
1 - 500	498564	82.88	64340647	1.85
501 - 1000	51164	8.50	39718082	1.14
1001 - 2000	28053	4.66	41367265	1.19
2001 - 3000	9312	1.55	24047545	0.69
3001 - 4000	3770	0.63	13506710	0.39
4001 - 5000	2935	0.49	13724631	0.39
5001 - 10000	4503	0.75	32816041	0.94
10001 and above	3231	0.54	3252542434	93.41
Total	**601532**	**100**	**3482063355**	**100**

ii. Shareholding Pattern as on March 31, 2020

Category	2020		2019	
	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	12.28	427674203	15.47	538614388
Foreign Institutional Investors (including Qualified Foreign Investor)	9.36	325989415	11.68	406746839
Mutual Funds and UTI	5.62	195826511	3.07	106944845
Others				
Individuals	8.00	278542017	4.66	161941594
Bodies Corporate	0.80	27825151	0.80	27954095
NRIs	0.41	14205495	0.25	8714644
Trust	0.11	3680869	0.10	3616635
Clearing Members	0.24	8337813	0.79	27641632
IEPF	0.01	331267	0.01	236031
Directors & Relatives	0	212	0	2250
Total Non-promoter holding	**36.83**	**1282412953**	**36.83**	**1282412953**
Grand Total	**100.00**	**3482063355**	**100.00**	**3482063355**

Shareholding Pattern as on March 31, 2020



iii. List of shareholders who are holding more than 1% of the shares of the Company as on March 31, 2020

Category & Shareholder's Name	March 31, 2020	
	Voting strength	No. of shares held
Promoters		
1. PRESIDENT OF INDIA	63.17	2199650402
Non-promoters		
1. LIFE INSURANCE CORPORATION OF INDIA	10.07	350647914
2. AMUNDI FUNDS SBI FM INDIA EQUITY	1.86	64928000
3. SBI EQUITY HYBRID FUND	1.41	49160455
4. SBI FOCUSED EQUITY FUND	1.23	43000000

x. 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, 2020, 99.96% (NSDL: 96.41%, CDSL: 3.55%) 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 0.04%. 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.

xi. Outstanding GDRs /ADRs / Warrants or any convertible instruments, conversion date and likely impact on equity

Nil

xii. Foreign Exchange risk or Commodity price risk and hedging activities

Hedging activities/transactions during the financial year 2019-20 has been undertaken by the Company 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 exposurel of the listed entity to commodities in INR: ₹ 2165 Crore. (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	1770	383709	-				
Copper	350	6856					
Aluminium	35	1946	-				
Nickel	10	105	-				

Major Industrial commodities like Steel, Copper, Aluminum 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.

xiii. Plant locations

BHEL Manufacturing Units	
Bengaluru	1. Electronics Division (EDN)
	2. Electronics Systems Division (ESD)
	3. Electric & Photovoltaic Division (EPD)
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)
BHEL Subsidiary	
Kasaragod	1. BHEL Electrical Machines Ltd. (BHEL-EML)

xiv. Address for correspondence

Shareholders can send their queries regarding transfer of shares, non-receipt of dividend, revalidation of dividend warrants and any other correspondence relating to the shares of the Company either to:

KFIN TECHNOLOGIES PVT. LTD
(Formerly known as Karvy Fintech Private Limited)

UNIT: BHEL

Delhi:
305, New Delhi House
27, Barakhamba Road
New Delhi – 110 001

Phone: 011-43681700
Fax: 011-43681710

Hyderabad:
Selenium Tower B,
Plot 31-32, Gachibowli,
Financial District,
Nanakramguda,
Hyderabad – 500 032

Phone: 040-67162222
Fax : 040-23001153
Email:
madhusudhan.ms@kfintech.com
einward.ris@kfintech.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 Board members and Senior Management personnel have affirmed compliance with BHEL's "Code of Business Conduct and Ethics" for the financial year 2019-20.

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Dated: 28.08.2020

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}

To
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 Sub 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, 2020 have been debarred or disqualified from being appointed or continuing as Directors of companies by the Securities and 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	Amit Varadan	08401348	27.03.2019
4	Desh Goel Deepak	07739221	23.09.2017
5	Ranjit Rae	07942234	23.09.2017
6	Rajesh Sharma	01586332	20.02.2019
7	Raj Kamal Bindal	07423392	31.01.2020
8	Manish Kapoor	02405818	31.01.2020
9	Subodh Gupta	08113460	18.04.2018
10	Subramanian Balakrishnan	07804784	01.06.2018
11	Manoj Kumar Varma	08308714	19.12.2018
12	Kamalesh Das	08376769	01.03.2019
13	Anil Kapoor	08587329	15.10.2019

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.

CS P. N. GUPTA
Practicing Company Secretary
FCS-4430, COP-6778
UDIN: F004430B000242052

Place: New Delhi
Date: 15.05.2020

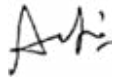
CERTIFICATE ON COMPLIANCE WITH THE CONDITIONS OF CORPORATE GOVERNANCE

The Members,

Bharat Heavy Electricals Limited

1. We have examined the compliance conditions of Corporate Governance by Bharat Heavy Electricals Limited (CIN: L74899DL1964GOI004281) for the year ending 31st March 2020 as stipulated in the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 and in the guidelines on Corporate Governance for Central Public Sector Enterprises (CPSEs) issued by the Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises, Government of India in 2010.
2. The compliance of the conditions of Corporate Governance is the responsibility of the Management. Our examination was limited to procedures and implementations thereof, adopted by the Company, for ensuring the compliance with the conditions of the Corporate Governance. 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 and assurance given to us, we certify that the Company has complied with all applicable conditions of Corporate Governance as stipulated in Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations 2015 and Guidelines on Corporate Governance for CPSEs issued by DPE, except *Regulation 17 (1) of SEBI (LoDR) Regulations, 2015 and Clause 3.1.4 of DPE Guidelines, as the Company did not have requisite number of Independent Directors on the Board including atleast one Independent woman Director.*
4. We further state that such compliance is neither an assurance as to the future viability of the Company nor the efficiency or the effectiveness with which the management has conducted the affairs of the Company.

For **Ashu Gupta & Co.**
Company Secretaries



Ashu Gupta
(Prop.)
CP No. : 6646
FCS No.: 4123
UDIN: F004123B000305336

Place: New Delhi
Date: 31.05.2020

Form No. MR-3
SECRETARIAL AUDIT REPORT
FOR THE FINANCIAL YEAR ENDED MARCH 31, 2020

[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 the compliance of applicable statutory provisions and the adherence to good corporate practices by **Bharat Heavy Electricals Limited, CIN: L74899DL1964GOI004281** (hereinafter called "the Company"). 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 Company'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, 2020 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 the Company for the financial year ended on 31st March, 2020 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) The 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 (Share Based Employee Benefits) Regulations, 2014 (Not Applicable to the Company during the audit period);

   e) The Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008 (Not Applicable to the Company during the Audit period);

   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, 2009 (Not Applicable to the Company during the Audit period);

   h) The Securities and Exchange Board of India (Buyback of Securities) Regulations, 2018; and

   i) The Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015.

vi) We further report that having regard to the compliance system prevailing in the Company and on examination of the relevant documents and records in pursuance thereof, on test-check basis, the Company has complied with all the specific applicable Laws to the Company. Some of the important laws complied with are as follows:

   a) The Factories Act, 1948;

   b) The Indian Boilers Act, 1923;

   c) The Manufacturing, Storage and Import of Hazardous Chemical Rules, 1989;

d) The Atomic Energy (Radiation Protection) Rules, 2004; and

e) Batteries (Management and Handling) Rules, 2001.

We have also examined compliance with the applicable clauses of the following:

i) Secretarial Standards with regard to Meetings of the Board of Directors (SS-1) and General Meetings (SS-2) issued by the Institute of Company Secretaries of India; and

ii) Corporate Governance Guidelines issued by the Department of Public Enterprises vide their OM No. 18(8)/2005-GM dated 14th May, 2010.

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 is not in compliance with Regulation 17(1) 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 Guidelines 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 BHEL, being a Government Company, the nomination/ appointment of the Independent Directors is made by the Govt. of India. The Company has already requested the Department of Heavy Industry in the Ministry of Heavy Industries, Govt. of India for nomination of requisite number of Independent Directors including at least one independent woman director on the Board.

We further report that the changes in the Board of Directors that took place during the period were carried out in due compliance with the provisions of the Act.

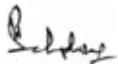
Generally adequate notice is given to all Directors to schedule the Board Meetings, agenda and detailed notes on agenda were sent at least seven days in advance, and a system exists for seeking and obtaining further information and clarifications on the agenda items before the meeting and for meaningful participation at the meeting.

As per the minutes of the meetings duly recorded and signed by the Chairman, the decisions of the Board were unanimous in all cases and no dissenting views have been recorded.

We further report that based on the review of compliance mechanism established by the Company and on the basis of Certificates of Legal Compliance taken on record by the Board of Directors at their meetings. We are of the opinion 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, there were no specific events/ actions having a material bearing on the Company's affairs in pursuance of the above referred laws.

for **K K Sachdeva & Associates**
Company Secretaries



K.K.Sachdeva
Proprietor
FCS No. 7153, CP No. 4721
UDIN: F007153B000354601

Place: New Delhi
Date: 19.06.2020

Form No. MGT-9
EXTRACT OF ANNUAL RETURN
as on the financial year ended on March 31, 2020

[Pursuant to rule 12(1) of the Companies (Management and Administration) Rules, 2014]

I. REGISTRATION AND OTHER DETAILS

i) CIN	:	L74899DL1964GOI004281
ii) Registration Date	:	13th November, 1964
iii) Name of the Company	:	Bharat Heavy Electricals Limited
iv) Category/ Sub-Category of the Company	:	Public Company/ Government Company/ Limited by shares
v) Address of the Registered office and contact details	:	BHEL House, Siri Fort, New Delhi-110049 Tel: 011-66337000 Fax: 011-66337428 Email: shareholderquery@bhel.in
vi) Whether listed Company (Yes / No)	:	YES
vii) Name, Address and Contact details of Registrar and Transfer Agent, if any	:	KFin Technologies Private Limited (formerly known as Karvy Fintech Private Limited) Selenium Tower B, Plot 31-32, Gachibowli, Financial District, Nanakramguda, Hyderabad-500032 Tel: 040-67162222 Fax: 040-23001153 Website: www.kfintech.com Email: madhusudhan.ms@kfintech.com; einward.ris@kfintech.com

II. PRINCIPAL BUSINESS ACTIVITIES OF THE COMPANY

All the business activities contributing 10% or more of the total turnover of the Company shall be stated:-

Sl. No.	Name and Description of main products/ services	NIC Code of the Product/ service	% to total turnover of the Company
1	Manufacture of Steam Generators including auxiliary plant for use with steam generators	2513	32%
2.	Construction of Power Plant	4220	23%
3.	Manufacture of electric motors, transformers and electricity distribution and control apparatus etc.	2710	18%
4.	Manufacture of Turbine, Generator sets including auxiliaries	2811	17%

III. PARTICULARS OF HOLDING, SUBSIDIARY AND ASSOCIATE COMPANIES

Sl. No.	Name and address of the Company	CIN/ GLN	Subsidiary/ Associate	% of shares held	Applicable Section
1.	**BHEL-GE Gas Turbine Services Private Limited** Module A1, A2 & A3, Quadrant 1 7th Floor, Cyber Towers, HITEC City, Madhapur, Hyderabad, Telangana – 500081	U51505TG1997PTC040657	Associate	50% less one share	2(6) of Companies Act, 2013

Sl. No.	Name and address of the Company	CIN/ GLN	Subsidiary/ Associate	% of shares held	Applicable Section
2.	**Powerplant Performance Improvement Private Limited** Liquidator's Address: B-4/702, Krishna Apra Gardens, Plot No 7, Vaibhav Khand, Indirapuram, Ghaziabad	U28991DL2003PTC120915	Associate	50% less one share (JV under liquidation)	2(6) of Companies Act, 2013
3.	**NTPC BHEL Power Projects Private Limited** NTPC Bhawan, SCOPE Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003	U40102DL2008PTC177307	Associate	50%	2(6) of Companies Act, 2013
4.	**Raichur Power Corporation Limited** KPCL New Office Complex, No 3, Palace Road, Bengaluru, Karnataka - 560001	U40101KA2009PLC049582	Associate	27.97%	2(6) of Companies Act, 2013
5.	**Dada Dhuniwale Khandwa Power Limited** Shed No. 7, MPSEB Complex, Rampur, Jabalpur, Madhya Pradesh – 482008	U40100MP2010PLC023131	Associate	50% (JV under liquidation)	2(6) of Companies Act, 2013
6.	**BHEL Electrical Machines Limited** 283/1&2, Village Puttur, Post Bedradka, Kasargod, Kerala- 671124	U31909KL2011GOI027440	Subsidiary	51%	2(87) of Companies Act, 2013

IV. SHAREHOLDING PATTERN (Equity Share Capital Breakup as percentage of Total Equity)

(i) Category-wise Shareholding

Category of Shareholders	No. of Shares held at the beginning of the year (as on 01.04.2019)				No. of Shares held at the end of the year (as on 31.03.2020)				% Change during the year*
	Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
A. Promoters									
(1) Indian									
a) Individual/ HUF	0	0	0	0.00					0.00
b) Central Govt	2199650402	0	2199650402	63.17	2199650402	0	2199650402	63.17	0.00
c) State Govt (s)	0	0	0	0.00	0	0	0	0.00	0.00
d) Bodies Corp.	0	0	0	0.00	0	0	0	0.00	0.00
e) Banks / FI	0	0	0	0.00	0	0	0	0.00	0.00
f) Any Other....	0	0	0	0.00	0	0	0	0.00	0.00
Sub-total (A)(1):-	**2199650402**	**0**	**2199650402**	**63.17**	**2199650402**	**0**	**2199650402**	**63.17**	**0.00**
(2) Foreign									
a) NRIs –Individuals	0	0	0	0.00	0	0	0	0.00	0.00
b) Other – Individuals	0	0	0	0.00	0	0	0	0.00	0.00
c) Bodies Corp.	0	0	0	0.00	0	0	0	0.00	0.00
d) Banks / FI	0	0	0	0.00	0	0	0	0.00	0.00
e) Any Other....	0	0	0	0.00	0	0	0	0.00	0.00
Sub-total (A)(2):-	0	0	0	0.00	0	0	0	0.00	0.00
Total shareholding of Promoter (A) = (A)(1)+(A)(2)	**2199650402**	**0**	**2199650402**	**63.17**	**2199650402**	**0**	**2199650402**	**63.17**	**0.00**

Category of Shareholders	No. of Shares held at the beginning of the year (as on 01.04.2019)				No. of Shares held at the end of the year (as on 31.03.2020)				% Change during the year*
	Demat	Physical	Total	% of Total Shares	Demat	Physical	Total	% of Total Shares	
B. Public Shareholding									
(1) Institutions									
a) Mutual Funds/ UTI	106921845	23000	106944845	3.07	195803511	23000	195826511	5.62	2.55
b) Banks/ FI	157185871	5000	157190871	4.51	44570969	2000	44572969	1.28	-3.23
c) Central Govt	0	0	0	0.00	0	0	0	0.00	0
d) State Govt(s)	0	0	0	0.00	0	0	0	0.00	0
e) Venture Capital Funds	0	0	0	0.00	0	0	0	0.00	0
f) Insurance Companies	381421517	2000	381423517	10.96	379821517	2000	379823517	10.91	-0.05
g) FIIs	406742339	4500	406746839	11.68	325984915	4500	325989415	9.36	-2.32
h) Foreign Venture Capital Funds	0	0	0	0.00	0	0	0	0.00	0.00
i) Others (specify)									
Qualified Foreign Investors	0	0	0	0.00	0	0	0	0.00	0.00
Qualified Institutional Buyers #	0	0	0	0.00	3277717	0	3277717	0.09	0.09
Sub-total (B)(1):-	**1052271572**	**34500**	**1052306072**	**30.22**	**949458629**	**31500**	**949490129**	**27.27**	**-2.95**
(2) Non-Institutions									
a) Bodies Corp.									
i) Indian	27862206	2500	27864706	0.80	27808297	2500	27810797	0.80	0.00
ii) Overseas	0	0	0	0.00	0	0	0	0.00	0.00
b) Individuals									
i) Individual shareholders holding nominal share capital upto ₹ 1 lakh	154214412	1309890	155524302	4.47	257932861	1177069	259109930	7.44	2.97
ii) Individual shareholders holding nominal share capital in excess of ₹ 1 lakh	6417292	0	6417292	0.18	19432199	0	19432199	0.56	0.37
c) Others (specify)									
Clearing Members	27636677	4955	27641632	0.79	8332858	4955	8337813	0.24	-0.55
Directors	2250	0	2250	0.00	100	0	100	0.00	0.00
IEPF	236031	0	236031	0.01	331267	0	331267	0.01	0.00
NBFC	89389	0	89389	0.00	14354	0	14354	0.00	0.00
Non Resident Indians	8695894	18750	8714644	0.25	14186745	18750	14205495	0.41	0.16
Trusts	3616635	0	3616635	0.11	3680869	0	3680869	0.11	0.00
Sub-total (B)(2):-	**228770786**	**1336095**	**230106881**	**6.61**	**331719550**	**1203274**	**332922824**	**9.56**	**2.95**
Total Public Shareholding (B)=(B)(1)+(B)(2)	**1281042358**	**1370595**	**1282412953**	**36.83**	**1281178179**	**1234774**	**1282412953**	**36.83**	**0.00**
C. Shares held by Custodian for GDRs & ADRs	0	0	0	0.00	0	0	0	0.00	0.00
Grand Total (A+B+C)	**3480692760**	**1370595**	**3482063355**	**100.00**	**3480828581**	**1234774**	**3482063355**	**100.00**	**0.00**

*With regard to percentage shareholding in the total shares of the Company.

New sub-category of 'Qualified Institutional Buyers' as on 31.03.2020 has been made due to reclassification of certain Institutions mentioned under category B(I).

(ii) Shareholding of Promoters

Sl. No.	Shareholder's Name	Shareholding at the beginning of the year(as on 01.04.2019)			Shareholding at the end of the year(as on 31.03.2020)			% change in Share holding during the year*
		No. of shares	% of total shares of the Company	%of shares pledged/ encumbered to total shares	No. of shares	% of total shares of the Company	%of shares pledged/ encumbered to total shares	
1	President of India	2199650402	63.17	0.00	2199650402	63.17	0.00	0.00
	TOTAL	**2199650402**	**63.17**	**0.00**	**2199650402**	**63.17**	**0.00**	**0.00**

*With regard to percentage shareholding in the total shares of the Company.

(iii) Change in Promoters' Shareholding

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
1	President of India	2199650402	63.17		No change			
		2199650402	63.17	31.03.2020			2199650402	63.17

(iv) Shareholding Pattern of top ten Shareholders (other than Directors, Promoters and Holders of GDRs and ADRs)

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
1	Life Insurance Corporation of India	350647914	10.07		No Change			
		350647914	10.07	31.03.2020			350647914	10.07
2	LIC of India Market Plus 1 Growth Fund	35024598	1.01					
				05.04.2019	-2105000	Sale	32919598	0.95
				12.04.2019	-1972343	Sale	30947255	0.89
				19.04.2019	-490000	Sale	30457255	0.87
				14.06.2019	-1471633	Sale	28985622	0.83
				21.06.2019	-727000	Sale	28258622	0.81
				28.06.2019	-945000	Sale	27313622	0.78
				02.08.2019	-1866349	Sale	25447273	0.73
				09.08.2019	-1436000	Sale	24011273	0.69
				16.08.2019	-509615	Sale	23501658	0.67
				11.10.2019	-3612500	Sale	19889158	0.57
				18.10.2019	-14231756	Sale	5657402	0.16
				25.10.2019	-3530000	Sale	2127402	0.06
				01.11.2019	-495000	Sale	1632402	0.05
				20.12.2019	-500000	Sale	1132402	0.03
				27.12.2019	-1132402	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
3	Pinebridge Investments GF Mauritius Limited $	34329648	0.99					
				06.03.2020	-34329648	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
4	Pinebridge Global Funds - Pinebridge India Equity $	33612473	0.97					
				05.04.2019	-554987	Sale	33057486	0.95
				12.04.2019	-2807917	Sale	30249569	0.87
				19.04.2019	-1000000	Sale	29249569	0.84
				26.04.2019	-846410	Sale	28403159	0.82
				03.05.2019	-1000000	Sale	27403159	0.79
				24.05.2019	-1000000	Sale	26403159	0.76
				31.05.2019	-2086588	Sale	24316571	0.70
				26.07.2019	-1500000	Sale	22816571	0.66
				02.08.2019	-662177	Sale	22154394	0.64
				13.09.2019	-2179669	Sale	19974725	0.57
				20.09.2019	-610000	Sale	19364725	0.56
				27.09.2019	-5683163	Sale	13681562	0.39
				07.02.2020	-1312975	Sale	12368587	0.36
				21.02.2020	-7996353	Sale	4372234	0.13
				28.02.2020	-1372319	Sale	2999915	0.09
				06.03.2020	31329733	Purchase	34329648	0.99
				20.03.2020	-564668	Sale	33764980	0.97
		32607950	0.94	31.03.2020	-1157030	Sale	32607950	0.94
5	Amundi Funds SBI FM Equity India	30745415	0.88					
				05.04.2019	825212	Purchase	31570627	0.91
				19.04.2019	516070	Purchase	32086697	0.92
				26.04.2019	367940	Purchase	32454637	0.93
				03.05.2019	3995114	Purchase	36449751	1.05
				17.05.2019	3948527	Purchase	40398278	1.16
				07.06.2019	786000	Purchase	41184278	1.18
				23.08.2019	790102	Purchase	41974380	1.21
				30.08.2019	5296620	Purchase	47271000	1.36
				27.09.2019	7415852	Purchase	54686852	1.57
				22.11.2019	2248087	Purchase	56934939	1.64
				29.11.2019	7993061	Purchase	64928000	1.86
		64928000	1.86	31.03.2020			64928000	1.86

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
6	Life Insurance Corporation of India P & GS Fund	28354485	0.81		No Change			
		28354485	0.81	31.03.2020			28354485	0.81
7	Invesco Perpetual Asian Fund	26752424	0.77					
				19.04.2019	3543545	Purchase	30295969	0.87
				25.10.2019	-1010324	Sale	29285645	0.84
				22.11.2019	-620491	Sale	28665154	0.82
				20.03.2020	-1211932	Sale	27453222	0.79
				27.03.2020	-281950	Sale	27171272	0.78
		27171272	0.78	31.03.2020			27171272	0.78
8	LIC of India Money Plus Growth Fund	23683737	0.68					
				05.04.2019	-9924061	Sale	13759676	0.40
				12.04.2019	-4483409	Sale	9276267	0.27
				19.04.2019	-2371000	Sale	6905267	0.20
				03.05.2019	-72531	Sale	6832736	0.20
				10.05.2019	-2922271	Sale	3910465	0.11
				17.05.2019	-3790346	Sale	120119	0.00
				24.05.2019	-120119	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
9	LIC of India Profit Plus Growth Fund	23085882	0.66					
				05.04.2019	-1943000	Sale	21142882	0.61
				12.04.2019	-1608000	Sale	19534882	0.56
				19.04.2019	-400000	Sale	19134882	0.55
				03.05.2019	-1075000	Sale	18059882	0.52
				10.05.2019	-2389172	Sale	15670710	0.45
				17.05.2019	-4326221	Sale	11344489	0.33
				24.05.2019	-1958036	Sale	9386453	0.27
				07.06.2019	-5312152	Sale	4074301	0.12
				14.06.2019	-4074301	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
10	LIC of India Market Plus Growth Fund	21944849	0.63					
				05.04.2019	-4986652	Sale	16958197	0.49
				12.04.2019	-3270000	Sale	13688197	0.39
				03.05.2019	-575000	Sale	13113197	0.38
				10.05.2019	-2470819	Sale	10642378	0.31
				17.05.2019	-3495058	Sale	7147320	0.21
				24.05.2019	-4814671	Sale	2332649	0.07
				07.06.2019	-685000	Sale	1647649	0.05
				14.06.2019	-1647649	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
11	Reliance Capital Trustee Co. Ltd. - A/C Reliance Tax Saver (ELSS) Fund	23760000	0.68	05.04.2019#				
				19.04.2019	2340000	Purchase	26100000	0.75
				25.10.2019	-1800000	Sale	24300000	0.70
				24.01.2020	-17441146	Sale	6858854	0.20
				31.01.2020	-6858854	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
12	SBI Focused Equity Fund	19000000	0.55	05.04.2019#				
				17.05.2019	502343	Purchase	19502343	0.56
				16.08.2019	4904011	Purchase	24406354	0.70
				23.08.2019	5593646	Purchase	30000000	0.86
				30.08.2019	3000000	Purchase	33000000	0.95
				18.10.2019	5732500	Purchase	38732500	1.11
				08.11.2019	4267500	Purchase	43000000	1.23
		43000000	1.23	31.03.2020			43000000	1.23

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
13	BNP Paribas Arbitrage	18045390	0.52	10.05.2019#				
				24.05.2019	133029	Purchase	18178419	0.52
				31.05.2019	-3097272	Sale	15081147	0.43
				14.06.2019	270400	Purchase	15351547	0.44
				21.06.2019	-774823	Sale	14576724	0.42
				28.06.2019	-4327500	Sale	10249224	0.29
				05.07.2019	550000	Purchase	10799224	0.31
				12.07.2019	-1185000	Sale	9614224	0.28
				26.07.2019	-3810000	Sale	5804224	0.17
				02.08.2019	-175600	Sale	5628624	0.16
				09.08.2019	-4232838	Sale	1395786	0.04
				16.08.2019	-495000	Sale	900786	0.03
				23.08.2019	-616500	Sale	284286	0.01
				20.09.2019	-245050	Sale	39236	0.00
				27.09.2019	-32450	Sale	6786	0.00
				25.10.2019	1367000	Purchase	1373786	0.04
				01.11.2019	911243	Purchase	2285029	0.07
				29.11.2019	-2047500	Sale	237529	0.01
				31.12.2019	450000	Purchase	687529	0.02
				31.01.2020	2321277	Purchase	3008806	0.09
				07.02.2020	5489123	Purchase	8497929	0.24
		8497929	0.24	31.03.2020			8497929	0.24

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
14	HDFC Trustee Company Limited-HDFC Equity Fund	20102000	0.58	17.05.2019#				
				24.05.2019	1500000	Purchase	21602000	0.62
				31.05.2019	6652000	Purchase	28254000	0.81
				28.06.2019	1075000	Purchase	29329000	0.84
				16.08.2019	-4500000	Sale	24829000	0.71
				23.08.2019	-10962000	Sale	13867000	0.40
				30.08.2019	-7495693	Sale	6371307	0.18
				06.09.2019	-2491307	Sale	3880000	0.11
				27.09.2019	-1210000	Sale	2670000	0.08
				04.10.2019	-548000	Sale	2122000	0.06
				11.10.2019	-1246000	Sale	876000	0.03
				18.10.2019	-876000	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
15	MFS Emerging Markets Equity Fund	20766422	0.60	28.06.2019#				
				05.07.2019	1552960	Purchase	22319382	0.64
				19.07.2019	206458	Purchase	22525840	0.65
				09.08.2019	325838	Purchase	22851678	0.66
				16.08.2019	748081	Purchase	23599759	0.68
				23.08.2019	349847	Purchase	23949606	0.69
				30.08.2019	188948	Purchase	24138554	0.69
				06.09.2019	236438	Purchase	24374992	0.70
				13.09.2019	121471	Purchase	24496463	0.70
				04.10.2019	182949	Purchase	24679412	0.71
				11.10.2019	227730	Purchase	24907142	0.72
				18.10.2019	98044	Purchase	25005186	0.72
				08.11.2019	134998	Purchase	25140184	0.72
				22.11.2019	311916	Purchase	25452100	0.73
				29.11.2019	123113	Purchase	25575213	0.73
				06.12.2019	181982	Purchase	25757195	0.74
				13.12.2019	165912	Purchase	25923107	0.74
				27.12.2019	133478	Purchase	26056585	0.75
				03.01.2020	-475911	Sale	25580674	0.73
				10.01.2020	121535	Purchase	25702209	0.74
				17.01.2020	148762	Purchase	25850971	0.74
				31.01.2020	798698	Purchase	26649669	0.77
				07.02.2020	787046	Purchase	27436715	0.79
				21.02.2020	260408	Purchase	27697123	0.80
				28.02.2020	334637	Purchase	28031760	0.81
				06.03.2020	-61508	Sale	27970252	0.80
		27970252	0.80	31.03.2020			27970252	0.80

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
16	ICICI Prudential Value Discovery Fund	19630919	0.56	20.09.2019#				
				25.10.2019	500000	Purchase	20130919	0.58
				24.01.2020	2500000	Purchase	22630919	0.65
				07.02.2020	849790	Purchase	23480709	0.67
				14.02.2020	1073958	Purchase	24554667	0.71
				21.02.2020	1800000	Purchase	26354667	0.76
				28.02.2020	1145355	Purchase	27500022	0.79
				06.03.2020	3000000	Purchase	30500022	0.88
				13.03.2020	1500000	Purchase	32000022	0.92
		32000022	0.92	31.03.2020			32000022	0.92
17	HDFC Trustee Company Limited - HDFC Top 100 Fund	15486000	0.44	18.10.2019#				
				25.10.2019	-6850000	Sale	8636000	0.25
				27.12.2019	-6100000	Sale	2536000	0.07
				31.12.2019	-1090000	Sale	1446000	0.04
				03.01.2020	-1446000	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
18	JP Morgan Indian Investment Company (Mauritius) Ltd.	15473040	0.44	25.10.2019#				
				06.12.2019	-5932271	Sale	9540769	0.27
				13.12.2019	-3843614	Sale	5697155	0.16
				20.12.2019	-2956133	Sale	2741022	0.08
				27.12.2019	-2572042	Sale	168980	0.00
				31.12.2019	-168980	Sale	0	0.00
		0	0.00	31.03.2020			0	0.00
19	SBI Equity Hybrid Fund	26798184	0.77	08.11.2019#				
				15.11.2019	8647642	Purchase	35445826	1.02
				22.11.2019	3717129	Purchase	39162955	1.12
				06.12.2019	9997500	Purchase	49160455	1.41
		49160455	1.41	31.03.2020			49160455	1.41
20	Pinebridge Global Funds - Pinebridge Asia Ex Japan	14790158	0.42	24.01.2020#	No Change			
		14790158	0.42	31.03.2020			14790158	0.42

Sl. No.	Name	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Shareholding	Reason	No. of shares	% of total shares of the Company
21	Vanguard Total International Stock Index Fund	15288086	0.44	13.03.2020#				
				27.03.2020	1059260	Purchase	16347346	0.47
		16347346	0.47	31.03.2020			16347346	0.47

$ There was change in the demat accounts of Pinebridge Investments GF Mauritius Limited and Pinebridge Global Funds - Pinebridge India Equity which was reflected as a transfer of shares from their previous demat accounts to their new Demat accounts on 29.06.2019.

#Details of Reliance Capital Trustee Co. Ltd. - A/C Reliance Tax Saver (ELSS) Fund, SBI Focused Equity Fund, BNP Paribas Arbitrage, HDFC Trustee Company Limited-HDFC Equity Fund, MFS Emerging Markets Equity Fund, ICICI Prudential Value Discovery Fund, HDFC Trustee Company Limited - HDFC Top 100 Fund, JP Morgan Indian Investment Company (Mauritius) Ltd., SBI Equity Hybrid Fund, Pinebridge Global Funds - Pinebridge Asia Ex Japan and Vanguard Total International Stock Index Fund have been shown only from the date of entering into list of top ten shareholders.

(v) Shareholding of Directors and Key Managerial Personnel

Sl. No.	Name S/shri	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020/ till cessation)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Share holding	Reason	No. of shares	% of total shares of the Company
1	Atul Sobti, Chairman & Managing Director (upto 30.06.2019)	2250	0.00		No Change			
		2250	0.00	30.06.2019			2250	0.00
2	Dr. Nalin Shinghal, Chairman & Managing Director (w.e.f. 08.07.2019)	100	0.00		No Change			
		100	0.00	31.03.2020			100	0.00
3	Dr. Subhash Chandra Pandey, Part-time Official Director (upto 30.06.2019)	0	0.00		No Change			
		0	0.00	30.06.2019			0	0.00
4	Shashank Priya, Part-time Official Director (w.e.f. 04.10.2019)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
5	Amit Varadan, Part-time Official Director	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
6	R. Swaminathan, Independent Director (upto 30.11.2019)	0	0.00		No Change			
		0	0.00	30.11.2019			0	0.00
7	Desh Deepak Goel, Independent Director	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00

Sl. No.	Name S/shri	Shareholding at the beginning of the year (01.04.2019)/ end of the year (31.03.2020)		Date wise Increase/ Decrease in Shareholding during the year specifying the reasons for Increase/ Decrease			Cumulative Shareholding during the year (01.04.2019 to 31.03.2020/ till cessation)	
		No. of shares	% of total shares of the Company	Date	Increase/ Decrease in Share holding	Reason	No. of shares	% of total shares of the Company
8	Ranjit Rae, Independent Director	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
9	Rajesh Sharma, Independent Director	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
10	Raj Kamal Bindal, Independent Director (w.e.f. 31.01.2020)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
11	Manish Kapoor, Independent Director (w.e.f. 31.01.2020)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
12	D. Bandyopadhyay, Director (HR) (upto 31.08.2019)	0	0.00		No Change			
		0	0.00	31.08.2019			0	0.00
13	Subodh Gupta, Director (Finance)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
14	S. Balakrishnan, Director (IS&P)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
15	Manoj Kumar Varma, Director (Power)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
16	Kamalesh Das, Director (E, R&D)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
17	Anil Kapoor, Director (HR) (w.e.f. 15.10.2019)	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00
18	Rajeev Kalra, Company Secretary	0	0.00		No Change			
		0	0.00	31.03.2020			0	0.00

V. INDEBTEDNESS

Indebtedness of the Company including interest outstanding/ accrued but not due for payment

(₹ in crore)

	Secured Loans excluding deposits	Unsecured Loans	Deposits	Total Indebtedness
Indebtedness at the beginning of the financial year				
i) Principal Amount	957.27	1628.37	-	2585.64
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	-	5.18	-	5.18
Total (i+ii+iii)	**957.27**	**1633.55**	**-**	**2590.82**

Change in Indebtedness during the financial year				
• Addition	544.66	1933.67	-	2478.33
Reduction	-	-	-	-
Net Change	**544.66**	**1933.67**	**-**	**2478.33**
Indebtedness at the end of the financial year				
i) Principal Amount	1500.80	3561.51	-	5062.31
ii) Interest due but not paid	-	-	-	-
iii) Interest accrued but not due	1.13	5.71	-	6.84
Total (i+ii+iii)	**1501.93**	**3567.22**	**-**	**5069.15**

VI. REMUNERATION OF DIRECTORS AND KEY MANAGERIAL PERSONNEL

A. Remuneration to Managing Director, Whole-time Directors and/or Manager

(in ₹)

Sl. No.	Particulars of Remuneration	Name of MD/ WTD/ Manager (S/ shri)				Total Amount
		Atul Sobti CMD *upto 30.06.19	Dr. Nalin Shinghal CMD *w.e.f. 08.07.19	D. Bandyopadhyay Director (HR) *upto 31.08.19	Subodh Gupta Director (Finance)	
1.	Gross salary					
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	4225581	4112508	3436401	4942774	16717265
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961	9900	28848	580701	304817	924267
	(c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961	-	-	-	-	-
2.	Stock Option	-	-	-	-	-
3.	Sweat Equity	-	-	-	-	-
4.	Commission - as % of profit - others, specify…	-	-	-	-	-
5.	Others	-	-	-	-	-
	Total	**4235481**	**4141356**	**4017102**	**5247591**	**17641532**

Note: Salary includes leave encashment.

A. Remuneration to Managing Director, Whole-time Directors and/or Manager

(in ₹)

Sl. No.	Particulars of Remuneration	Name of MD/ WTD/ Manager (S/shri)				
		S. Balakrishnan Director (IS&P)	Manoj Kumar Varma Director (Power)	Kamalesh Das Director (E,R&D)	Anil Kapoor Director (HR) *w.e.f. 15.10.19	Total Amount
1.	Gross salary					
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961	5332270	5435320	4441176	2160646	17369412
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961	525887	589754	271434	256101	1643176
	(c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961					
2.	Stock Option					
3.	Sweat Equity					
4.	Commission - as % of profit - others					
5.	Others					
	Total	**5858157**	**6025074**	**4712610**	**2416747**	**19012588**

Note: Salary includes leave encashment.

B. Remuneration to other Directors

(in ₹)

Sl. No.	Particulars of Remuneration	Name of Directors (S/shri)						Total Amount
1.	Independent Directors	R. Swaminathan *upto 30.11.19	Desh Deepak Goel	Ranjit Rae	Rajesh Sharma	Raj Kamal Bindal *w.e.f. 31.01.20	Manish Kapoor *w.e.f. 31.01.20	
	• Fee for attending board/ committee meetings	480000	630000	690000	450000	30000	30000	2310000
	• Commission	-	-	-	-	-	-	
	• Others, please specify	-	-	-	-	-	-	
	Total (1)	**480000**	**630000**	**690000**	**450000**	**30000**	**30000**	**2310000**
2.	Other Non-Executive Directors	Dr. Subhash Chandra Pandey *upto 30.06.19	Shashank Priya *w.e.f. 04.10.19	Amit Varadan	-	-	-	-
	• Fee for attending board. committee meetings	-	-	-	-	-	-	-
	• Commission	-	-	-	-	-	-	-
	• Others, please specify	-	-	-	-	-	-	-
	Total (2)	-	-	-	-	-	-	-
	Total (B)=(1+2)	**480000**	**630000**	**690000**	**450000**	**30000**	**30000**	**2310000**
	Total Managerial Remuneration (A+B)							**38964120**
	Overall Ceiling as per the Act	Section 197 of the Companies Act, 2013 pertaining to ceiling on Managerial Remuneration including sitting fees paid to Directors is not applicable on BHEL, being a Government Company.						

C. Remuneration to Key Managerial Personnel other than MD/ Manager/ WTD

(In ₹)

Sl. No.	Particulars of Remuneration	Key Managerial Personnel (S/ shri)			
		CEO	Rajeev Kalra Company Secretary	CFO	Total Amount
1.	Gross salary	As per table VI (A)		As per table VI (A)	
	(a) Salary as per provisions contained in section 17(1) of the Income-tax Act, 1961		3952433		3952433
	(b) Value of perquisites u/s 17(2) Income-tax Act, 1961		1249		1249
	(c) Profits in lieu of salary under section 17(3) Income-tax Act, 1961				
2	Stock Option				
3	Sweat Equity				
4	Commission - as % of profit - others, specify…				
5	Others, please specify				
	Total		**3953682**		**3953682**

Note: Salary includes leave encashment

VII. PENALTIES/ PUNISHMENT/ COMPOUNDING OF OFFENCES

Type	Section of The Companies Act	Brief Description	Details of Penalty/ Punishment/ Compounding fees imposed	Authority [RD/ NCLT/ COURT]	Appeal made, if any (give Details)
Penalty					
Punishment					
Compounding					
Other Officers in Default			NIL		
Penalty					
Punishment					
Compounding					

Cleaning & Greening
Coal based Generation !

Offering customized solutions for controlling emissions from thermal power plants, BHEL is the single largest player in the emission control equipment in the country offering flue gas desulphurization systems (FGD) for SOx emission control, high efficiency electrostatic precipitators (ESP) for particulate control, and boiler modification and selective catalytic reduction systems (SCR) for NOx emission control.

Building on its accomplishments in the emission control equipment business, BHEL received orders for 29 sets of FGDs during 2019-20.

This includes FGD orders from NTPC & its JVs for projects totaling ~10.5 GW. With this, BHEL has secured orders for 63 sets of FGDs and 11 sets of SCRs, maintaining its leadership.

Collaborations with global technology majors and strong in-house engineering and manufacturing capabilities provide BHEL the competitive edge in this business.



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 Limited for the year ended 31st March, 2020 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 2019-20 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 2019-20;

(ii) Significant changes, if any, in the accounting policies during the year 2019-20 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: June 13, 2020

Sustainable Development





Annexure-IV to the Board's Report

4.1 Sustainability Performance –Environmental

For BHEL, sustainability is a continuous journey which helps us in reaching newer summits of corporate excellence through implementing sound corporate governance framework, enhancing stakeholder value, reducing environmental footprint of our products & services as well as internal processes, promoting inclusive growth in the society, and enhancing brand equity. As an organization, we believe in engaging with all our stakeholders in a structured manner and take them along towards the path of sustainability.

In the following sections, glimpses of activities carried out under the ambit of sustainable development is presented for the year 2019-20.

4.1.1 Responsible Material & Natural Resource Consumption

Being a major player in capital goods business bestows upon us responsibility towards managing our resource consumption in a sustainable manner. The principles of reduce-recycle-reuse (3-R) is meticulously followed in our units for conservation of natural resources. Activites like reuse of scrap in shops of manufacturing units like 2100 MT of Mild Steel scrap and 42 MT of copper scrap in foundry shop of Bhopal, despatch of scrap to CFFP Haridwar for making large castings and forgings, reuse of packing wood for packaging of products & making cupboards for storage, reuse of waste oil and recycling of hydraulic oil in machines like recycling of 22.8 KL of coolant in Bhopal, use of electrostatic oil filtration machine in FSIP Jagdishpur for reusing 10 kL of hydraulic oil in machine, reclamation of 1800 MT of sand in foundary shop of Bhopal, making use of site returned cables for in-house electrical works were some of the specific activities carried out at our premises during 2019-20.

4.1.2 Energy Management

Energy management in a sustainable manner has always been considered an important element in our management decisions. Some of our units are energy intensive and to harness the potential of energy optimization, these units have undergone ISO 50001 certification which has helped them in managing their energy requirements in a systematic manner. Energy conservation/efficiency activities like reduction in lighting load through switching to energy efficient lighting fixure in office/street lights in HEEP Haridwar, HPEP Hyderabad, CFP Rudrapur, BAP Ranipet, HEP Bhopal, FSIP Jagdishpur, Trichy etc., switching to 5 star rating AC equipment at HEEP Haridwar, optimization of air compressor operations through capacity reduction/ intermittent operation at HEEP Haridwar and BAP Ranipet, use of transparent roof sheeting at HEEP Haridwar & Trichy, installation of variable frequency drive for 2 EOT cranes at BAP Ranipet, cycle time reduction in SR furnace at FSIP Jagdishpur, etc. are some of the specific activities carried out during 2019-20.

In recent years, generation of renewable energy through solar systems for inhouse consumption has gained much traction. It has led to lesser dependency on DG sets and achieving sustainable energy mix in operations. Due to these ground based and rooftop solar systems, during the year 2019-20 nearly 32.43 Million Units of electricity was generated as compared to 27.6 Million Units during 2018-19 which in turn translates into enhancement in green energy generation to the tune of 17.5% during 2019-20.

4.1.3 Water and Biodiversity Management

Managing water and wastewater sustainably and enhancing the green cover across our premises is an important part of our business activities. 12 Sewage Treatment Plants and 12 Effluent Treatment Plants installed across our premises help us in meeting the discharge norms and making most of our units Zero Liquid Discharge (ZLD) based. 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. Reduction in water supply hours at HEEP Haridwar and FSIP Jagdishpur, storage of treated wastewater in factory in four big aquifers of 50MX50MX1M for ground water recharge and creating 28 rain water harvesting ponds with total capacity of 16.23 million litres in Trichy complex, development of 2 dams - one masonry and other earthen near Dhanvantri park,

Habibganj and having approximate capacity of 30,000 cubic mtr of rain water harvesting in Bhopal, installation of roof top rain water harvesting system in 4 buildings in EDN & ESD, Bengaluru, etc. are specific activites carried out for water conservation during 2019-20.

Trees are planted across all BHEL units to commemorate important occassions. During 2019-20, more than 36,000 trees were planted across the premises of HEP Bhopal unit and overall more than 55,000 tress were planted across BHEL premises to add to its green cover. Biodiversity parks have been established in many of our townships like Noida, Trichy etc. Green belts help us to maintain water table around our presence as well.



More than 36,000 trees were planted across the premises of HEP Bhopal During 2019-20

This year, BHEL Trichy unit has started a special initiative to create BHEL Vann as a part of its plan to increase the green cover by half a million native trees by 2022, which will add to its existing inventory of 1 million native trees planted since the 1960s. This initiative was inaugurated on 5th June 2019 with the planting of 4500 saplings.

4.1.4 Carbon Management

Concerted efforts in the field of energy management through energy conservation / efficiency, use of cleaner fuels in operations, and enhanced share of renewable energy in total energy mix have helped us reduce our overall carbon footprint. Due to renewable energy generated through in house solar systems, a carbon footprint avoidance of nearly 31130 MT of CO2-equivalent has been achieved in 2019-20 which is 17.5% more as compared to 2018-19.



5 MW solar power plant including ground mounted, fixed, motor tracking & passive tracking enabled modules of BHEL make at Haridwar plant premises

Replacement of LPG by PNG for canteens and enhancing natural light in civil stores by providing polycarbonate sheet at roof at HEEP Haridwar & Trichy, installation of 20KVA online UPS for plant lighting load at night during power supply failure for saving of Diesel consumed in DG set at CFP Rudrapur, etc. are some of the additional activities carried out during 2019-20.

Planting of 5 lakh native saplings in Trichy complex will also help in enhancing the capacity of carbon sink.

4.1.5 Waste Management

With the understanding that waste is a resource in the wrong place, all efforts are made to minimise waste. Unavoidably generated scrap is recycled or reused in the units to the extent feasible, or otherwise either sold to authorised recycler, or sent to CFFP Haridwar for making heavy castings and forgings. Hazardous waste are disposed as per the regulatory requirement and records maintained for scrutiny by authorities.



2.0 MLD capacity Sewage Treatment Plant (STP) at BHEL Tiruchirappalli

Specific activities related to responsible waste management during 2019-20 include placement of nearly 450 scrap bins & 12 chemical storage bins at various project sites of PSER, installation of 200kW rooftop solar power plant using lower wattage PV modules (from our production line), and site returned cable accessories and inhouse hardware at EDN & ESD Bengaluru, vermi composting of kitchen waste at Trichy complex and HERP Varanasi. 12 out of 14 townships of BHEL viz Noida, ISG Bengaluru, EDN Bengaluru, EPD Bengaluru, HERP Varanasi, TP Jhansi, Haridwar, Trichy, HEP Bhopal, RC Puram Hyderabad, HPVP Vizag, and FSIP Jagdishpur have been declared as “Single Use Plastic Free Township” based on 3rd party certification audit.

A new initiative was taken by Trichy unit in using plastic waste for laying about 50 mtr road in township on a trial basis. This practice is planned to be continued.

4.2 Sustainability Performance – Social

AWARDS Won during the year:

BHEL was conferred with “Golden Peacock Award for CSR” by The Institute of Directors for BHEL’s CSR initiatives, called “Heal-A-Soul”,

which is a CSR program aimed towards providing medical aids to patients of Hemophilia across the country.

CSR activities undertaken in 2019-20

BHEL has identified seven thrust areas for its CSR initiatives, which are elaborated in BHEL's CSR policy. All activities in these areas are in line with activities and areas mentioned in Schedule VII of The Companies Act,2013. Brief description of some key CSR interventions during the year, in these thrust areas, are given below:



Toilets in schools constructed by BHEL under Swachh Bharat Abhiyan initiative

Clean India

- For conservation of rain water and recharging the ground water, desilting of ponds in vicinity of Village Navapattu in Tiruchirappalli District, Tamil Nadu was taken.
- BHEL continued with its program for constructing Bio-digester toilets in Haridwar & Rishikesh. Twenty clusters of these Bio-digester toilets have been completed.
- Under Swachh Bharat Abhiyan, BHEL's manufacturing units and projects sites took up many projects for construction/renovation of toilets in schools/colleges and at public places.

Educated India

- Scholarship program for 48 students from adopted villages in Bhopal, mainly widows' wards/ orphans / Divyangjan pursuing courses such as ITI, B.Sc. (Nursing) etc.



- Distribution of school kits to 50,000 flood affected poor students in Western Maharashtra.
- Construction of mid-day meal shed in Jagriti Govt. Upper Primary School, Kunda Basti, Jhalana Mahal, Jhalana, Jaipur.
- Providing furniture in a number of Zilla Parishad Schools in Sangareddy, Rangareddy, Asifabad & Medak districts in Telangana.
- Construction of boys & girls hostel building at Govt. Polytechnic, Nizamabad

Healthy India

- Providing Anti Haemophilic Factors (AHF) to 100 poor haemophilic patients in various Aspirational Districts across India under our CSR initiative "Heal-A-Soul III".



- Running Mobile Medical Units in Raigad and Ratnagiri districts in Maharashtra, benefiting more than 32000 rural population.
- Eye Screening camps and cataract surgery of poor cataract patients through I-CARE Hospital (Noida) at Rudrapur in Uttarakhand, Alwar in Rajasthan, Nuh and Gurugram in Haryana. 2834 poor patients were screened out of which 345 underwent successful cataract surgery.



- Eye Screening and Cataract Surgery Camp in villages in Thiruvallur and in villages near Uppur TPS Site, Ramanathapuram, Tamil Nadu
- Four medical camps were organised in villages in vicinity of BHEL Bhopal and 781 villagers were provided treatment for various ailments and common diseases.

Green India

- Providing solar water heaters at Vikarabad and Gaulidoddi social welfare residential schools for girls, Telangana.
- Providing Solar Street Lights in Donkeshwar Village, Nizamabad district, Telangana.

- Financial support to district administration, Thiruvallur (TN) for installation of Pyrolator Unit for solid waste management.

Responsible India

- Two Community Centres at Siddharthnagar (U.P.) were completed during the year.
- Construction of Dining Hall in the hostel of Divya Prem Sewa Mission Nyas for leprosy patients and their wards at Haridwar, Uttarakhand.
- Replacing solar panels at Old Age Home at Kattur, Tiruchirappalli district, Tamil Nadu in which 101 deserted men & women live.
- Relief work in Gaja cyclone affected area near Tanjore & Pudukottai Districts, Tamil Nadu.

Inclusive India

- Support to Latika Roy Memorial Foundation, Dehradun for their program "Latika Vihar–Come One: Come All", which is a holistic development & inclusion program for children and young adults with intellectual impairment.
- Installation of LED streets lights and related infrastructure at the confluence of Alaknanda and Mandakini rivers at Rudraprayag, Uttarakhand for promotion of tourism in the area.
- Skill development training to women in various trades like embroidery, beautician, tailoring, music & dance etc. at Haridwar, Uttarakhand through BHEL Ladies Club.





4.3 Annual Report for CSR Activities

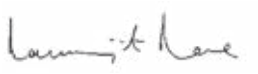
[As per the requirement of The Companies (CSR Policy) Rules, 2014]

S.No.	Particulars		
1.	Period for which CSR is being reported:	**From** 01.04.2019	**To** 31.03.2020
2.	Information does not include any CSR data / information regarding any BHEL's subsidiary or Joint Venture.		
3.	No information is included about any other entity pertaining to CSR activities.		
4.	A brief outline of the company's CSR policy, including overview of projects or programs undertaken and a reference to the web-link to the CSR policy and projects or programs is attached as ***Annexure-A*** to this report.		
5.	**The composition of CSR committee at BHEL**: CSR Committee at BHEL is called Board Level Committee (BLC) for CSR and consists of Director (HR), Director (Finance), one Part-time Official Director and at least one Independent Director (Part-time Non-Official Director). Chairman of the Committee is an Independent Director. Decision with regard to change in composition or re-constitution of CSR Committee is done with approval of the Board. The constitution of the BLC for CSR during Financial Year 2019-20 is given below.		
	Name (S/Sri)	**Designation**	**Position in CSR Committee**
	Ranjit Rae	Independent Director	Chairperson
	Amit Varadan, JS, DHI	Part-time Official Director	Member
	R. Swaminathan	Independent Director	Member (w.e.f. April 30, 2019 and upto November 30, 2019)
	Rajesh Sharma	Independent Director	Member
	Subodh Gupta	Director (Finance)	Member
	D. Bandyopadhyay	Director (HR)	Member (upto 31.08.2019)
	Anil Kapoor	Director (HR)	Member (w.e.f. 15.10.2019)
	Note: CMD held additional charge of post of Director (HR) from 01-09-2019 to 15-10-2019.		
6.	Average net profit of the company for last three financial years (2016-17, 2017-18 & 2018-19), calculated in accordance with Section 198 of the Companies Act, 2013.	₹ 1439.99 crore	
7.	Prescribed CSR Expenditure (2% of the amount as in pt. 6 above).	₹ 28.80 crore	
8.	CSR Budget approved by the Board for FY 2019-20.	₹ 28.80 crore	
9.	**Details of CSR spent during the year**		
	a. CSR Budget approved for FY 2019-20		₹ 28.80 crore
	b. Total committed but unspent amount carried forward from previous years.		₹ 21.83 crore
	c. Total amount available for expenditure during FY 2019-20 [a+b]		₹ 50.63 crore
	d. Total CSR expenditure during FY 2019-20		₹ 35.12 crore
	e. Total committed but unspent amount carried forward to next FY [c-d]		₹ 15.51 crore
	Manner in which the amount spent in 2019-20 is detailed at ***Annexure-B.***		

10.	Reason for not spending the amount a. Many projects taken during the year and others continued from previous years stretch beyond 2019-20. Fund required for completing these projects shall be met from the fund already allocated to them from the CSR budget. b. In line with CSR Policy of BHEL the unspent amount will not lapse and the same will be carried forward to FY 2020-21 and beyond for CSR projects only.
11.	We, hereby, declare that the implementation and monitoring of CSR Policy, is in compliance with CSR objectives and Policy of the company.



Chairman & Managing Director
BHEL



Chairperson
CSR Committee

New Delhi
Dated: 28.08.2020

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 ₹ 2 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 http://www.bhel.com/CSR/pdf/BHEL_CSR_Policy_July%202017.pdf

Annexure-B

(In ₹ Lakh)

S. No.	CSR project or activity identified	Sector in which the project is covered (Item No. of Schedule VII) & BHEL Thrust Area	Project or Program (1) Local are or other (2) State and district where projects or programs were undertaken	Amount outlay (budget) project wise	Amount spent on the project or programs (in 2019-20)	Cumulative-expenditure upto the reporting period	Amount spent directly or through implementing agency	Name of Implementing Agency
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Skill Development Expenses	2 Inclusive India	Local , Delhi, Delhi	17.94	17.94	17.94	Directly	BHEL
2	Financial support for school uniform to underprivileged students in schools run by Shirdi Sai Baba Temple Society	2 Educated India	Local , Haryana & Uttar Pradesh, Faridabad & Niswara	9.45	4.73	4.73	Implementing Agency	Shirdi Sai Baba Temple Society, Faridabad
3	Contribution to PM CARES Fund	12 Responsible India	Other, Delhi, Delhi	700.00	700.00	700.00	Implementing Agency	PM CARES Fund
4	School Expenditure	2 Educated India	Local , Tamil Nadu, Vellore	37.76	37.76	37.76	Directly	BHEL
5	Scholarship to Orphans, Widow wards & differently abled students.	2 Educated India	Local , Madhya Pradesh, Bhopal	2.40	1.44	1.44	Directly	BHEL
6	Scholarship to B.Sc. Nursing students in institutes in Bhopal & adjoining Districts	2 Inclusive India	Local , Madhya Pradesh, Bhopal	3.60	3.60	3.60	Directly	BHEL
7	Scholarship to Physically Challenged students of ITI & Polytechnic	2 Inclusive India	Local , Madhya Pradesh, Bhopal	4.50	2.25	2.25	Directly	BHEL
8	Medical Camps in 06 villages	1 Healthy India	Local , Madhya Pradesh, Bhopal	1.80	0.54	0.54	Directly	BHEL
9	Conducting Yoga Classes	1 Healthy India	Local , Madhya Pradesh, Bhopal	1.37	1.31	1.31	Implementing Agency	Yogamrut Research & Welfare Society, Bhopal
10	Support to Tribal Children at Vivekananda Vidyapeeth, Awadhpuri, Bhopal	2 Educated India	Local , Madhya Pradesh, Bhopal	1.50	1.50	1.50	Implementing Agency	R K Mission, Bhopal
11	Skill Development Programs through BHEL Ladies Club: Beautician, Painting, Dance Class, Mehandi / Rangoli, Computer Class, etc.	2 Inclusive India	Local , Madhya Pradesh, Bhopal	2.90	1.76	1.76	Implementing Agency	BHEL Ladies Club, Bhopal

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12	Financial support for School & Rehabilitation Centre run by BHE Viklang Kalyan Samiti	2 Educated India	Local , Madhya Pradesh, Bhopal	1.00	1.00	1.00	Implementing Agency	BHE Viklang Kalyan Samiti, Bhopal
13	Repair work and Infrastructure development at Primary School Azad Nagar	2 Educated India	Local , Uttarakhand, Udham Singh Nagar	2.21	1.48	2.21	Directly	BHEL
14	Repair work and Infrastructure development at Primary School Dhaulpur	2 Educated India	Local , Uttarakhand, Udham Singh Nagar	1.49	1.00	1.49	Directly	BHEL
15	Repair work and Infrastructure development at Primary School Khanpur	2 Educated India	Local , Uttarakhand, Udham Singh Nagar	2.30	1.54	2.30	Directly	BHEL
16	Pratibha Puraskar & other facilities for adopted vilage DG Hatti & Bairag Colony School	2 Educated India	Local , Karnataka, Bangalore	2.00	0.44	0.44	Directly	BHEL
17	Installation of 25 sets of Community Bio-digester Toilets Cluster (₹ 465 Lakh) along with drinking water facility (₹ 100 Lakh) - FICCI & DRDO	1 Clean India	Local , Uttarakhand, Haridwar	565.00	19.35	432.41	Implementing Agency	FICCI & DRDO
18	Latika Vihar-Everybody's Welcome	3 Inclusive India	Local , Uttarakhand, Dehradun	19.00	6.56	18.94	Implementing Agency	Latika Roy Memorial Foundation
19	Installation of LT lines and LED street lights at the confluence of Alaknanda and Mandakini rivers in Rudraprayag, Uttarakhand	2 Inclusive India	Local , Uttarakhand, Rudraprayag	19.98	6.41	6.41	Implementing Agency	DM, Rudraprayag
20	Financial support to Latika Roy Memorial Foundation, Dehradun for "Latika Vihar – Come one: Come All."	2 Inclusive India	Local , Uttarakhand, Dehradun	19.00	4.20	4.20	Implementing Agency	Latika Roy Memorial Foundation
21	School Expenditure	2 Educated India	Local , Uttarakhand, Haridwar	1229.96	1229.96	1229.96	Directly	BHEL
22	Skill Development Expenses	2 Inclusive India	Local , Uttarakhand, Haridwar	16.54	5.33	5.33	Directly	BHEL
23	Expenses on Security of Working Women Hostel Sec-3 Payment to UNPL, Home Guards etc. for their personnel deployed WWH	3 Responsible India	Local , Uttarakhand, Haridwar	10.00	8.58	8.58	Directly	BHEL

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24	Skill Development in Various Traits Like Embroidery, Beautician, Tailoring, English Speaking, Music & Dance etc.	2 Inclusive India	Local , Uttarakhand, Haridwar	2.80	1.50	1.50	Implementing Agency	BHEL Ladies Club
25	Conducting Free Plastic Surgery Camp through Rotary Club, Ranipur, Haridwar	1 Healthy India	Local , Uttarakhand, Haridwar	5.00	5.00	5.00	Implementing Agency	Rotary Club
26	Financial Assistance for the Construction of the Dining Hall in the Hostel of Divya Prem Sewa Mission Nyas (Reg) for the Leprosy patients And their wards	3 Responsible India	Local , Uttarakhand, Haridwar	6.00	4.50	4.50	Directly	BHEL
27	Providing Furniture (Table, Chair etc. for students)in Rajkiya Balika Inter College, Rishikesh, Dehradun	2 Educated India	Local , Uttarakhand, Dehradun	3.00	3.00	3.00	Directly	BHEL
28	Running of Ambulance for the benefit of poor by IRCS, Deoghar	1 Healthy India	Local , Jharkhand, Deoghar	50.74	5.08	5.08	Implementing Agency	IRCS, Deoghar
29	School Expenditure	2 Educated India	Local , Andhra Pradesh, Vizag	112.82	112.82	112.82	Directly	BHEL
30	Providing Furniture including transportation to ZPH Schools	2 Educated India	Local , Andhra Pradesh, Vizag	5.50	5.33	5.33	Implementing Agency	Central Prison, Visakhapatnam
31	Providing infrastructural facilities to Primary Health Centres,	1 Healthy India	Local , Andhra Pradesh, Vizag	2.50	2.47	2.47	Implementing Agency	Primary Health Centre, Vizag
32	Skill development of children in Manovikas Rehabilitation centre	2 Inclusive India	Local , Andhra Pradesh, Vizag	0.40	0.40	0.40	Implementing Agency	Manovikas Rehabilitation centre, Vizag
33	Providing nutritional kits to Desire Relief Society for HIV Children	1 Healthy India	Local , Andhra Pradesh, Vizag	0.50	0.50	0.50	Implementing Agency	Desire Relief Society, Vizag
34	Conducting medical camps and health talk in villages	1 Healthy India	Local , Andhra Pradesh, Vizag	0.50	0.50	0.50	Directly	BHEL
35	Education Scholarship to meritorious students belonging to BPL and disabled category. Project duration (5 years+3 Yrs Extn.). - FAEA	2 Educated India	Local , Uttar Pradesh, Gautam Budhh Nagar	600.00	15.72	579.16	Implementing Agency	FAEA

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36	Supply of Furniture to Zilla Parishad High School, Ramachandrapuram (Sangareddy Disrict) Telangana including Transport	2 Educated India	Local , Telangana, Sangareddy	8.00	8.00	8.00	Directly	BHEL
37	Supply of Furniture to Zilla Parishad High School, BHEL Ramachandrapuram (Sangareddy Disrict) Telangana including Transport	2 Educated India	Local , Telangana, Sangareddy	2.00	1.98	1.98	Directly	BHEL
38	Supply of Furniture to Zilla Parishad High School Ananthasagar Village (Sangareddy District) Telangana including Transport	2 Educated India	Local , Telangana, Sangareddy	2.00	1.98	1.98	Directly	BHEL
39	Furntiure for Zilla Parishad High School Turkala Khanapur (Medak Dist) Telangana including Transport	2 Educated India	Local , Telangana, Medak	2.00	1.93	1.93	Directly	BHEL
40	Solar Water Heating Sysgtem. One set (2 Nos. of 500 LPD Solar Modules + Tank + Installation) at Telangana Social Welfare Residential School / Junior College (Girls), Kothagadi, Vikarabad District Telangana State	2 Educated India	Local , Telangana, Vikarabad	2.00	1.32	1.32	Directly	BHEL
41	2 No. Water Coolers at TSWR (Telangana Social Welfare Residential) COE (Center of Excellance) for Girls at Gowlidoddi, Rangareddy District, Telangana	2 Educated India	Local , Telangana, Rangareddy	0.60	0.60	0.60	Directly	BHEL
42	Mantainance of Toy Train at Nehru Zoological Park	3 Responsible India	Local , Telangana, Hyderabad	2.00	1.98	1.98	Directly	BHEL
43	Supply of Furniture to Madharam (Madhavaram) Primary and ZPH School (Sangareddy District) Science Lab and Library	2 Educated India	Local , Telangana, Sangareddy	2.00	1.91	1.91	Directly	BHEL
44	Supply of Furniture to Lemoor Zilla Parishad High School (Rangareddy District)	2 Educated India	Local , Telangana, Rangareddy	2.00	1.78	1.78	Directly	BHEL

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45	Supply of Tricycle, Wheel Chair Child, Wheel chair Adult, Elbow Crutches Size-II, Axillary Crutches large, Walking Stick, Braille Cane, MSIED Kit, BTE Digital Hearing Aid, 6 Pack of 13 Zinc air Battery and other Items for Beneficiaries of Telangana	3 Responsible India	Local , Telangana, Sangareddy	5.00	4.93	4.93	Implementing Agency	ALIMCO
46	Solar Water Heating 2 Nos (500LPD+tank+etc) System at Govt Girls Hostel and Junior College, Gowlidoddi and 2 Nos Water Coolers	2 Educated India	Local , Telangana, Rangareddy	3.00	2.21	2.21	Directly	BHEL
47	School Expenditure	2 Educated India	Local , Telangana, Sangareddy	9.09	9.09	9.09	Directly	BHEL
48	Skill Development Expenses	2 Inclusive India	Local , Delhi, Delhi	3.53	3.53	3.53	Directly	BHEL
49	Construction of Toilets in Saraswati Shishu Mandir, Fattepur	2 Educated India	Local , Uttar Pradesh, Amethi	1.50	1.50	1.50	Directly	BHEL
50	School Expenditure	2 Educated India	Local , Uttar Pradesh, Amethi	192.40	192.40	192.40	Directly	BHEL
51	Providing Assisting devices to the Differently abled Persons in association with Artificial Limbs Manufacturing Corporation of India (ALIMCO, a Govt. of India Undertaking) – Around 30 beneficiaries	3 Responsible India	Local , Karnataka, Bangalore	3.00	3.00	3.00	Implementing Agency	ALIMCO
52	Supporting Books and Stationary to Govt. Elementary Schools	2 Educated India	Local , Punjab, Tarn Taran	0.37	0.36	0.36	Directly	BHEL
53	Projector & Screen to Govt. Sr. Secendary School, Goindwal	2 Educated India	Local , Punjab, Tarn Taran	0.45	0.45	0.45	Directly	BHEL
54	School Benches in Govt. Elementary School,Vein Puin	2 Educated India	Local , Punjab, Tarn Taran	1.34	1.34	1.34	Directly	BHEL
55	School Benches in Govt. Elementary School, Kotli Saru Khan	2 Educated India	Local , Punjab, Tarn Taran	0.46	0.46	0.46	Directly	BHEL
56	School Benches in Govt. Elementary School, Jawandpur	2 Educated India	Local , Punjab, Tarn Taran	1.38	1.38	1.38	Directly	BHEL

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57	School Expenditure	2 Educated India	Local , Uttar Pradesh, Jhansi	309.00	309.00	309.00	Directly	BHEL
58	Providing PCs (Those have been leased off from BHEL)	2 Educated India	Local , Uttar Pradesh , Jhansi	0.65	0.62	0.62	Directly	BHEL
59	General study Books G. Boxes for Library (Gen /Moral education)	2 Educated India	Local , Uttar Pradesh , Jhansi	1.15	1.09	1.09	Directly	BHEL
60	Providing Study Benches with attached desk	2 Educated India	Local , Uttar Pradesh , Jhansi	4.15	2.98	2.98	Directly	BHEL
61	Distribution of Cycles for meritorious girls students	2 Educated India	Local , Uttar Pradesh , Jhansi	1.40	1.25	1.25	Directly	BHEL
62	Providing Drinking Water facilities	1 Clean India	Local , Uttar Pradesh , Jhansi	1.15	0.93	0.93	Directly	BHEL
63	Providing First Aid Boxes in schools	1 Healthy India	Local , Uttar Pradesh , Jhansi	0.35	0.18	0.18	Directly	BHEL
64	Providing desks & benches, Office Table, Computers and Almirahs for Sai Shiksha Sansthan	2 Educated India	Local , Uttar Pradesh, Gautam Budhh Nagar	2.12	1.06	2.12	Implementing Agency	Saikripa
65	Providing Desktop PC, Printer, UPS & Tables and Chairs for the Centre for Vocational courses for underprivileged children run by Mar Thoma Social Action.	2 Inclusive India	Local , Delhi, Delhi	2.37	2.37	2.37	Implementing Agency	Mar Thoma Social Action
66	Eye Check-up Camp and cataract surgeries	1 Healthy India	Local , Uttarakhand, Udham Singh Nagar	9.26	8.66	8.66	Implementing Agency	Ishwar Charitable Trust (M/s I Care Hospital Noida)
67	Installation of 01 no female toilet at Bairasul Power Station, Chamba	1 Clean India	Local , Himachal Pradesh, Chamba	1.09	1.09	1.09	Directly	BHEL
68	Installation of 02 nos. portable toilets at Panki Site.	1 Clean India	Local , Uttar pradesh, Kanpur	0.43	0.43	0.43	Directly	BHEL
69	Providing Desk-cum Bench for Saraswati Shishu Vidya Mandir	2 Educated India	Local , Odisha, Malkangiri	2.00	2.00	2.00	Directly	BHEL
70	Eye Check-up Camp at different places and cataract surgeries for identified cases at I Care Hospital Noida	1 Healthy India	Local , Uttar Pradesh, Gautam Budhh Nagar	5.20	5.20	5.20	Implementing Agency	I Care Hospital, Noida

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71	Construction of a Compound wall for Girraj Govt. Degree College	2 Educated India	Local , Telangana, Nizamabad	100.00	40.96	61.03	Implementing Agency	Dist. Panchayat Raj Engineer, PIU, Nizamabad
72	Construction of Boys & Girls Hostel buildings at Govt. Polytechnic	2 Educated India	Local , Telangana, Nizamabad	300.00	122.89	175.37	Implementing Agency	Dist. Panchayat Raj Engineer, PIU, Nizamabad
73	Eye screening and Cataract Surgery Camp for the Villagers, Thiruvallur	1 Healthy India	Local , Tamil Nadu, Thiruvallur	3.00	2.44	2.44	Implementing Agency	Sankara Nethralaya, Chennai
74	Eye screening and Cataract Surgery Camp for the Villagers around Uppur Site	1 Healthy India	Local , Tamil Nadu, Ramanathapuram	3.00	1.06	1.06	Implementing Agency	Aravind Eye Hospital, Madurai
75	"Gram Vikalang Punarjanman"- Camp for Physically Challenged and Donation of Prosthetics / mobility Equipment for poor Villagers	1 Healthy India	Local , Tamil Nadu, Tuticorin	6.00	6.00	6.00	Implementing Agency	Freedom Trust, Chennai
76	Providing Educational infrastructure (Wooden Table and Benches) to Local Government School	2 Educated India	Local , Tamil Nadu, Cuddalore	2.00	1.69	1.69	Directly	BHEL
77	Furniture to Govt. ITI, Khamam	2 Inclusive India	Local , Telangana, khammam	4.00	4.00	4.00	Directly	BHEL
78	Providing Desktop Computers to remote schools	2 Educated India	Local , Maharashtra, Nagpur	2.09	2.09	2.09	Directly	BHEL
79	Providing Medicines for Paediatric Surgery Camp for underpriviliged children at GMC Nagpur	1 Healthy India	Local , Maharashtra, Nagpur	3.91	3.91	3.91	Directly	BHEL
80	Construction of Boundary Wall in School	2 Educated India	Local , Jharkhand, Ramgarh	6.48	6.48	6.48	Directly	BHEL
81	Construction of Girls & Boys Toilet in School	2 Educated India	Local , Jharkhand, Ramgarh	4.66	4.66	4.66	Directly	BHEL
82	Overhead water tank with pump & motor for drinking and sanitation, installation of ceiling and pedestrian fan in class room and distribution of School Stationary	2 Educated India	Local , Jharkhand, Ramgarh	0.87	0.86	0.86	Directly	BHEL

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83	Aid for carrying out teaching activity at Community Centre, Chandanayak Nagar	2 Educated India	Local , Telangana, Hyderabad	2.00	1.76	1.76	Directly	BHEL
84	Part funding student fees and funding of special educator salary to Autism effected children of the poor and deprived sections.	2 Educated India	Local , Telangana, Hyderabad	2.93	2.03	2.03	Directly	BHEL
85	Running of Mobile Medicare Unit in rural areas of Raigarh for 1 Year- Wockhardt	1 Healthy India	Local , Maharashtra, Raigad	33.00	28.54	28.54	Implementing Agency	Wockhardt
86	Financial support to Rambhau Mhalgi Prabodhini (RMP) for capacity building of ASHA workers of Kalyan Block, Thane District	1 Healthy India	Local , Maharashtra, Thane	18.00	6.00	12.00	Implementing Agency	Rambhau Mhalgi Prabodhini (RMP)
87	Financial support to Connecting Dreams Foundation for the project – Connect & Change Program for developing change makers through entrepreneurship & ideation for Inclusive Growth & Societal Development in Palghar, Rajgarh, Thane & Mumbai	2 Inclusive India	Local , Maharashtra, Palghar, Rajgarh, Thane & Mumbai	18.00	12.00	17.00	Implementing Agency	Connecting Dreams Foundation (CDF)
88	Cost of providing school kit to 50000 students affected by flood in Western Maharashtra	2 Educated India	Local , Maharashtra, Sangli , Kolhapur & Satara	129.22	125.35	125.35	Implementing Agency	PROBODHAN Goregoan
89	Providing Financial Assistance in construction of Students hostel for poor students by Kunabi Samajonnati Sangh	2 Educated India	Local , Maharashtra, Mumbai	10.00	10.00	10.00	Implementing Agency	Kunabi Samajonnati Sangh
90	Construction of mid-day meal shed in Jagriti Govt. Upper Primary School, Kunda Basti, Jhalana Mahal, Jhalana, Jaipur	2 Educated India	Local , Rajasthan, Jaipur	18.50	18.50	18.50	Implementing Agency	Jagriti
91	Extending support to NGO SETU School by providing Inverters (5KVA, 2nos.)	2 Educated India	Local , Uttar Pradesh, Gautam Budhh Nagar	1.60	1.60	1.60	Implementing Agency	Foundation for Spastic & Mentally Handicapped Person(FSMHP)
92	Extending support to NGO by providing Geyser (25 ltrs) and Washing machine (12kg) in Sai Kripa Bal kutir, orphanage home	3 Responsible India	Local , Uttar Pradesh, Gautam Budhh Nagar	0.39	0.38	0.38	Implementing Agency	Sai Kripa Bal Kutir Orphanage

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93	Financial support to Hemophilia Federation (India) for providing medical assistance to poor patients suffering from Hemophilia.	1 Healthy India	Local , Pan India, Pan India	59.55	59.55	59.55	Implementing Agency	Hemophilia Federation (India)
94	Skill Development Expenses	2 Inclusive India	Local , Uttar Pradesh, Gautam Budhh Nagar	7.36	7.36	7.36	Directly	BHEL
95	Construction of toilet complex in Saraswati Shishu Vidya Mandir	2 Educated India	Local , Jharkhand, Ramgarh	2.50	2.50	2.50	Implementing Agency	Citizen Foundation, Ranchi
96	Provision of physiothearapy equipments to Paradise Children Care Centre	1 Healthy India	Local , Himachal Pradesh, Chamba	2.50	2.50	2.50	Implementing Agency	Paradise Children Care Centre, Chamba
97	Provision of Soalr Plant, RO + Chiller in Aruna Madhyamik and Uccha Madhyamik Vidyalaya, Kotra	2 Educated India	Local , Maharashtra, Gadchiroli	2.50	2.50	2.50	Implementing Agency	Bahujan Shaikshanik Sanstha, Gadchiroli
98	Provision of RO plant in ZP Secondary School, Meenavolu	2 Educated India	Local , Telangana, khammam	2.50	2.50	2.50	Implementing Agency	Centre for Hman Activity in rural, Khammam
99	School Expenditure	2 Educated India	Local , Tamil Nadu, Tiruchirappalli	38.02	38.02	38.02	Directly	BHEL
100	Skill Development Expenses	2 Inclusive India	Local , Tamil Nadu, Tiruchirappalli	93.09	20.55	20.55	Directly	BHEL
101	Providing Play items like See saw, Slide, Swing and Merry go round at ADW high school, Perur/ Musiri	2 Educated India	Local , Tamil Nadu, Tiruchirappalli	0.80	0.80	0.80	Directly	BHEL
102	Providing 200 litres RO plant at District Sports-Hostel at Anna stadium	1 Clean India	Local , Tamil Nadu, Tiruchirappalli	1.25	1.25	1.25	Directly	BHEL
103	Providing Science lab equipment's to Sarada Middle school, Kamarajapuram	2 Educated India	Local , Tamil Nadu, Tiruchirappalli	0.25	0.25	0.25	Directly	BHEL
104	Providing Steel cup-boards/ book shelves to PU Middle School, Kamaraj Nagar	2 Educated India	Local , Tamil Nadu, Tiruchirappalli	0.50	0.50	0.50	Directly	BHEL
105	Capacity Building / Administrative overheads	Capacity Building /Administrative overheads		175.58	175.58	175.58	Directly	BHEL
				5101.93	**3511.53**	**4587.00**		

Annexure-V to the Board's Report

Business Responsibility Report 2019-20

Section A: General Information about the Company

1	**Corporate Identity Number (CIN) of the Company:**	L74899DL1964GOI004281
2	**Name of the Company:**	BHARAT HEAVY ELECTRICALS LIMITED
3	**Registered address:**	BHEL House, Siri Fort, New Delhi – 110 049
4	**Website:**	www.bhel.com
5	**E-mail id:**	shareholderquery@bhel.in
6	**Financial Year reported:**	2019-20
7	**Sectors that the Company is engaged in:**	Refer to 'Corporate Profile', Annual Report 2019-20
8	**List three key products/services that the Company manufactures/provides:**	(a) Construction of Power Plant (NIC Code: 4220)
		(b) Manufacture of Steam Generators including auxiliary plant for use with steam generators (NIC Code: 2513)
		(c) Manufacture of Turbine, Generator sets including auxiliaries (NIC Code: 2811)
		(d) Manufacture of electric motors, transformers and electricity distribution and control apparatus etc. (NIC Code: 2710)
9	**Total number of locations where business activity is undertaken by the Company:**	(a) Number of International Locations (Provide details of major 5) Major locations from where business activity is undertaken by BHEL are Dubai (UAE), Dhaka (Bangladesh), Kathmandu (Nepal), Damascus (Syria).
		(b) Number of National Locations The company has 16 manufacturing units, 2 repair units, 4 regional offices, 8 service centres, and 15 regional marketing centres.
10	Markets served by the Company:	BHEL serves domestic as well as international markets.

Section B: Financial Details of the Company (2019-20)

1	**Paid up capital**	:	₹ 696 crores
2	**Total Turnover**	:	₹ 20491 crores
3	**Total Profit after Tax**	:	₹ (-) 1473 crores
4	**Total expenses incurred on CSR &SD**	:	₹ 35.12 crores
5	List of activities in which expenditure on CSR has been incurred: Refer Annexure IV on 'Sustainable Development' under Directors Report, BHEL Annual Report 2019-20.		

Section C: Other Details

1 Does the Company have any Subsidiary Company/ Companies?

Yes, BHEL has one subsidiary company - BHEL Electrical Machines Ltd. (BHEL-EML), Kasargod as on 31-03-2020

2 Do the Subsidiary Company/Companies participate in the BR Initiatives of the parent company? If yes, then indicate the number of such subsidiary company(s)

BHEL-EML, Kasargod does not participate in the BR initiatives of BHEL. However, BHEL-EML is a Schedule 'C' Central Public Sector Enterprise which adheres to the guidelines issued by Government of India from time to time.

3. Do any other entity/entities (e.g. suppliers, distributors etc.) that the Company does business with, participate in the BR initiatives of the Company? If yes, then indicate the percentage of such entity/entities? [Less than 30%, 30-60%, More than 60%]

In most of the cases, BR initiatives are carried out by BHEL only.

Section D: BR Information

1. Details of Director/Directors responsible for BR

a) Details of the Director / BR Head responsible for implementation of the BR policy/policies

SN	Particulars	Details
i	DIN Number (if applicable)	08587329
ii	Name	Anil Kapoor
iii	Designation	Director (HR)
iv	Telephone number	011 26001003
v	e-mail id	akapoor@bhel.in

2. Principle-wise (as per NVGs) BR Policy/policies (Reply in Y/N)

The National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business (NVGs) released by the Ministry of Corporate Affairs has adopted nine areas of Business Responsibility. These briefly are as under:

P1: Businesses should conduct and govern themselves with ethics, transparency and accountability.

P2: Businesses should provide goods and services that are safe and contribute to sustainability throughout life cycle.

P3: Businesses should promote the well-being of all employees.

P4: Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.

P5: Businesses should respect and promote human rights.

P6: Businesses should respect, protect and make efforts to restore the environment.

P7: Businesses, when engaged in influencing public and regulatory policy, should do so in responsible manner.

P8: Businesses should support inclusive growth and equitable development.

P9: Businesses should engage with and provide value to their customers and consumers in a responsive manner

SN	Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
1	Do you have policy/policies for ...	Y	Y	Y	Y	Y	Y	N	Y	Y
2	Has the policy being formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	-	Y	Y
3	Does the policy conform to any national /international standards? If yes, specify? (50 words)	Y	Y	Y	Y	Y	Y	-	Y	Y
4	Has the policy being approved by the Board? If yes, has it been signed by MD/owner/CEO/appropriate Board Director?	Y	Y	Y	Y	Y	Y	-	Y	Y
5	Does the company have a specified committee of the Board/ Director/Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	-	Y	Y
6	Indicate the link for the policy to be viewed online?	Weblinks have been provided wherever applicable								
7	Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y	Y	Y	Y	-	Y	Y
8	Does the company have in-house structure to implement the policy/policies?	Y	Y	Y	Y	Y	Y	-	Y	Y
9	Does the Company have a grievance redressal mechanism related to the policy/policies to address stakeholders' grievances related to the policy/policies?	Y	Y	Y	Y	Y	Y	-	Y	Y
10	Has the company carried out independent audit/evaluation of the working of this policy by an internal or external agency	Y	Y	Y	Y	Y	Y	-	Y	Y

Notes

1. We have various established practices 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, CAG, Parliamentary

Committees, Board of Directors, Committee of Functional Directors, Board Level Committees and/or Management Committee etc.

2a. If answer to S.No. 1 against any principle, is 'No', please explain why: (Tick up to 2 options)

In respect of Principle 7 referring to Policy Advocacy, we have established practices based on 'Policy advocacy in responsible manner'.

3. Governance related to BR

- Indicate the frequency with which the Board of Directors, Committee of the Board or CEO assess the BR performance of the Company. (Within 3 months, 3-6 months, Annually, More than 1 year)

  In 2019-20, the Board Level Committee for CSR met three times, while assessment and review of CSR activities in BHEL was done in three Board meetings.

- Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?

  BHEL publishes its Sustainability Report annually. Last 3 years' reports can be accessed on Corporate Webpage through the following link:

http://www.bhel.com/index.php/sustain_report

Section E: Principle-wise performance

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.

http://www.bhel.com/investor_relations/pdf/BHEL-Code-of-Business-Conduct-and-Ethics-w-e-f-01-04-2019.pdf

The Board has a laid down Charter of the Board of Directors which clearly defines the roles and responsibilities of the Board and individual Directors. Further, the company endeavours to preserve the confidentiality of unpublished price sensitive information and prevent abuse of such information. Towards this a Board approved policy 'Code of Conduct for Regulating & Reporting Trading by Insiders 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.

http://www.bhel.com/investor_relations/pdf/Insider%20Trading%20Code%202019-w-e-f01-04-2019.pdf

In line with the requirements of DPE Guidelines on Corporate Governance and the Listing Regulations, BHEL provides progress reports on quarterly basis to DHI and stock exchanges. Further, with a view to ensure effective implementation of the Insider Trading Code, the Company has also in place Internal Operating Guidelines wherein the concerned Heads of functions/ manufacturing units are required to ensure timely dissemination of information with regard to the Code to Connected Persons pertaining to their area. In line 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 an 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 endeavour 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.

http://www.bhel.com/pdf/BHEL%20Fraud%20Prevention%20Policy.pdf

http://www.bhel.com/pdf/Whistle%20Blower%20Policy.pdf

http://www.bhel.com//assets/downloads/5c35d305718eaWhistle_Blower.Pdf

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. Eight representations received from suppliers during 2019-20 under Integrity Pact have been resolved by the IEMs.

The Company has a Stakeholders Relationship Committee specifically to look into matters related to redressal of shareholders and investors complaints. As reported by KFin Technologies Private Limited (Registrar & Share Transfer Agent of the company), 949 complaints were received from the shareholders during the year under review and all complaints were redressed by 31st March, 2020.

In addition, a total of 258 public grievance complaints were received from the general public under the Centralized Public Grievance Redressal and Monitoring Scheme during the year 2019-20. All the grievances were satisfactorily resolved.

Principle 2: Products Life Cycle 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.

Four major product sets which address environmental concerns in their design are power plants operating with steam at supercritical parameters, Flue-gas Desulfurization (FGD) systems, Solar Photovoltaic plants and Electrostatic Precipitators (ESP). 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.



Addressing environmental concerns, BHEL has been manufacturing Electrostatic Precipitators for decades and is also now manufacturing FGD systems

BHEL has been supporting Micro and Small Enterprises (MSEs) and local suppliers in and around manufacturing units from various fronts. They are part of BHEL's supply chain. Also, as mandated in Public Procurement Policy for Micro and Small Enterprises (MSEs) Amendment Order, 2018 for MSEs (issued by Ministry of MSME-GoI), 25% of BHEL's total procurement is from MSEs during 2019-20. Regular vendor meets and supplier development programs are 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.

Company's manufacturing processes generate some amount of metal scrap, some of which 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.

Principle 3: Employee's Well-being

BHEL has been a frontrunner in the area of human resource management. The guiding principle for company's HRM 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 mission. 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 rich pool of trained technical manpower comprising over 33,500 employees

BHEL's Health, Safety & Environment (HSE) policy underscores the commitment of the organization to provide safe and healthy work environment to all its employees. The policy conforms to the requirements of ISO 14001 & OHSAS 18001/ ISO 45001 management system certification and can be accessed through the link **http://www.bhel.com/healthsafety/HSE%20POLICY.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 workers 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 OHSAS 18001 management systems implemented at workplaces which includes the working of the policy and its critical elements.

1. Total number of regular employee as on 31-03-2020: 33,752
2. Total number of employees hired on temporary/ contractual basis: BHEL does not hire employees on temporary/ casual basis. However, BHEL awards job/works contracts to contractors at its various Units/ Divisions/ Departments as per organizational needs. The number of workers with contractors varies from time to time.
3. Number of permanent women employees as on 31-03-2020: 1987
4. Number of permanent employees with disabilities as on 31-03-2020: 890
5. BHEL has twenty-nine participative trade unions represented in the apex level bipartite body, namely the Joint Committee for BHEL for discussing workers' and Company's interest related issues with the worker representatives, based on the principle of participative management. Besides the above, there are two

employee associations, one each for executives and supervisors in BHEL.

6. All three categories of employees viz. Executives, Supervisors and Workers are represented by their respective association/ trade unions. However, since there is no check-off facility to ascertain the exact membership of executive/supervisory associations and workers' unions, a firm number in respect of the three classes of employees is not available.
7. In 2019-20, the company received a total of three complaints on sexual harassment and all have been resolved satisfactorily. No complaint of child labour/ forced labour/ involuntary labour/ discriminatory employment has been received.



Notable number of employees are engaged in R&D at BHEL

8. During 2019-20, number of average training man-days per employee is 3.70. Company provides training in technical as well as behavioral skills to its employees. Training on Health Safety & Environment (HSE) aspect is one of the essential element of our induction training programme. In addition, separate programmes are also regularly conducted at all BHEL's manufacturing units and project sites to train employees on HSE by both internal and external faculty members. Training on safety is also provided to casual/ temporary/ contractual workers coming through job/ work contracts with contractors. Percentage of employees who were given safety and skill (both technical and behavioural) upgradation training in 2019-20:

   a. Permanent Employees- 40%

   b. Permanent Woman Employees- 60%

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. Investor community is engaged through meetings, conferences 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. **http://www.bhel.com/index.php/csr_policy**

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 an active participant in its initiatives. 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 is web-hosted on UNGC website and can be accessed through the **webpage: https://www.unglobalcompact.org/participation/report/cop/create-and-submit/active/430394**

The same CoP can be accessed through:

http://www.bhel.com/index.php/ungc_program

Principle 6: Environment

BHEL's well-established Environmental Management System (EMS) is accredited to ISO 14001: 2015 Environmental Management System' standard, based on which all manufacturing units and regions have derived their HSE systems. 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: **http://www.bhel.com/healthsafety/HSE%20POLICY.pdf.**



295 kW_p in-house developed Solar Rooftop SPV panel at BHEL Bhopal

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 28 MWp of Solar Photo Voltaic (SPV) plants at various BHEL locations which has helped company in making its energy mix more sustainable. Company's inventory of renewable energy generation sources also include kilowatt scale rooftop & ground based SPV system, solar water heaters, solar street lighting etc. As a result of such initiatives, BHEL achieved carbon footprint avoidance of 31,130 MT CO_2-e during 2019-20 which is 18% higher as compared to 2018-19 through various renewable energy based systems. Total energy generated through various renewable energy systems stood at 32.43 million units during 2019-20 as compared to 27.60 million units during 2018-19. The Company has also undertaken a number of projects related to water and energy conservation, tree plantation, waste management, resource conservation, etc.

Having already introduced supercritical technology in India, the company is working further towards reducing the carbon footprint of BHEL made products during their operational lifecycle. In association with IGCAR and NTPC, BHEL is developing 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. As a result, coal consumption and CO_2 emission will further reduce by about 11% as compared to supercritical power plants and by about 20% as compared to subcritical power plants for single unit of power generation.

BHEL is already offering solutions required to meet the stipulated emission norms in force for generation utilities. The company is executing boiler design modifications, installation of FGD systems for reduction of SOx emissions and improvement in particulate collection efficiency of ESPs. BHEL has indigenously developed SCR technology exclusively for high ash coal fired Indian thermal power plants through its dedicated R&D efforts and the same has been demonstrated at NTPC Simhadri. BHEL has also entered into Technology Collaboration Agreement (TCA) with NANO Co. Ltd., Republic of Korea for design & manufacture of SCR Catalysts and with Babcock Power Environmental Inc., USA for SCR system catering to De-NOx business in Coal fired power plants.



BHEL developed coal gasification facility at Hyderabad

BHEL is working on development of technology for the conversion of high ash Indian coal to methanol. Successful implementation of this technology will help generating methanol at industrial scale for its use in blending with petrol which can significantly curb the rising crude oil import bill of the country and improve the energy security of India. Erection & Commissioning of the pilot project is under progress.



Prototype high efficiency solar cell using PERC technology under development at BHEL ASSCP, Gurugram

BHEL has also undertaken development of high efficiency solar cells using Passivated Emitter Rear Contact (PERC) technology at pilot scale. The project includes development of mono and multi-Si solar cells and shall be commercially deployed for production of higher efficiency solar cells. BHEL has also undertaken development of Passivated Silicon Heterojunction (PIHJ) Solar Cells with 21 % efficiency.



BHEL has commissioned nine air-conditioned ACEMU local trains for Western Railways & Central Railways in 2019-20

In transportation sector, to address the transition towards Electric Vehicle mobility as the future mode of transportation, BHEL has already developed e-Bus, permanent magnet motors, induction motors, IGBT controller for e-Buses including electric charging

stations for e-mobility infrastructure.

No show cause / legal notice received from Central Pollution Control Board (CPCB) / State Pollution Control Board (SPCB) which are pending as on 31.03.2020.

Principle 7: Policy Advocacy

BHEL is a member of many industry and trade bodies such as Confederation of Indian Industry (CII), Federation of Indian Chambers of Commerce and Industry (FICCI), Associated Chambers of Commerce and Industry of India (ASSOCHAM), Indian Electrical and Electronics Manufacturers Association (IEEMA) and Standing Conference of Public Enterprises (SCOPE). Company is also member of World Energy Council (WEC) which enables promoting policies that balance Energy Security, Energy Equity and Environmental Sustainability aspects. 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 in the domains of fiscal budget, foreign trade, Company Law, Industrial Policy, Capital Goods Policy, Export Promotion, etc. The company's views are 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 DHI, DPE, DIPP, NITI Aayog and participates in policy formulation like National Electricity Policy, challenges of employment generation, growth and skill development, Make in India, promotion of in-house R & D, Human Resource Management, roadmap for development of CPSEs etc.

Company has actively contributed in a responsible manner towards development of policies meant for strengthening of technology base in country, skill development, development of Indian power sector, development of capital goods sector and Indian manufacturing industry, exports, growth of Public Sector Enterprises through better governance, etc.

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. These activities have been categorized under seven headings namely Clean India, Green India, Healthy India, Heritage India, Inclusive India, Educated India and Responsible India. The policy is hosted on website link **http://www.bhel.com/index.php/csr_policy** 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, Board level committee on CSR and Level-1 committee) 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. CSR projects are closely monitored and supervised with an objective to provide maximum benefits to the society and to ensure fruitfulness of the initiatives undertaken.

During 2019-20, the CSR activities carried out are listed in Annexure IV of Annual Report. Further, project details are listed on the link **http://www.bhel.com/index.php/projects**

Apart from inclusive growth through CSR, the company takes affirmative action in recruitment and promotion for representation of employees from socio-economically backward sections of society as well representation of minorities 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.

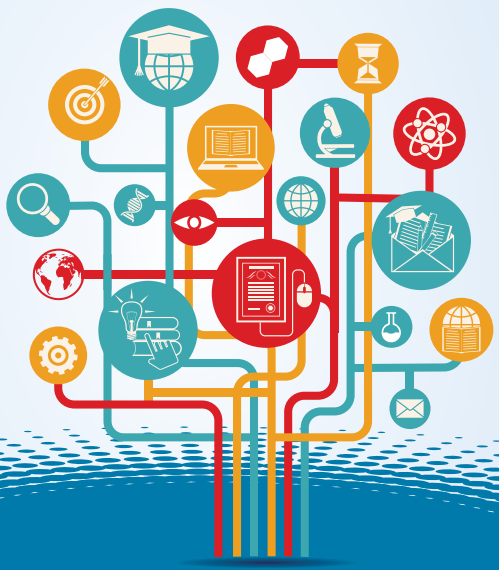
Principle 9: Customer Value

Customer value is an integral part of BHEL's culture which is also been 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 and provided with test certificates as per the requirement and terms of contracts with customers besides the mandatory requirement of the applicable law.

Given BHEL's diverse and large scale nature of operations, customer complaints get registered and resolved through multiple ways. Two dedicated centralized online complaint systems, i.e., Customer Care Management System (CCMS) and Site Action Request (SAR)/ Commissioning Action Request (CAR) resolution system (SCRS) are in operation. In 2019-20, major quality issues reported were taken up for Root Cause Analysis (RCA) and twenty-eight cases were resolved. Apart from complaints, customer feedback is taken through customer satisfaction surveys, customers' meets, face-to-face interactions, video-conferencing and appreciation letters.

There is no case filed by any stakeholder against the company regarding unfair trade practices, irresponsible advertising and/or anti-competitive behavior during the last five years and pending as on end of financial year i.e., 31-03-2020.

Research & Development and Technological Achievements



Annexure-VI to the Board's Report

Research & Development and Technological Achievements

6.1 Innovation

Innovation ecosystem in BHEL is geared to bring new products and systems with improved technical features to address business requirements. To achieve robust growth, BHEL has aligned its innovation ecosystem to provide reliable products which are not only cost-competitive but also have an edge in performance and efficiency.

BHEL has a strong engineering and R&D base for in-house development of technologies to address the market requirements. BHEL is also focusing on flow of knowledge and information throughout the innovation ecosystem for growth of its workforce.

BHEL has entered into technology collaboration agreement with leading global manufacturing and engineering companies. The company has successfully indigenized the technologies to meet the requirements of Indian customers and established manufacturing facilities at its own works.

Ongoing Technology Collaboration Agreements

Technology Collaboration with foreign companies

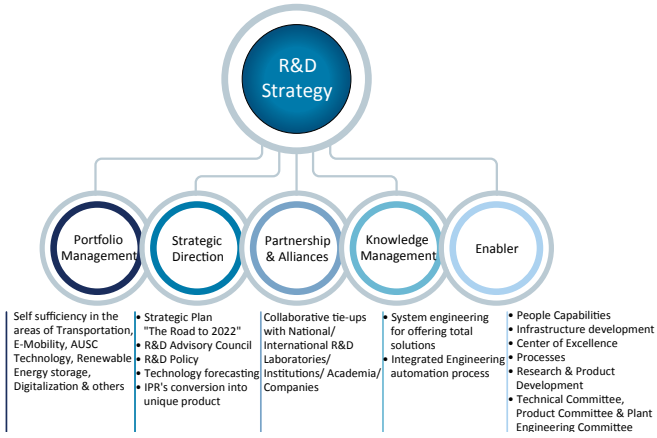
Sl.	Name of Collaborator	Product
1	General Electric Technology GmbH, Switzerland	Once Through Boilers and Coal Pulverisers
2	Mitsubishi Heavy Industries Ltd, Japan	Pumps
3	Siemens AG, Germany	Steam Turbines, Generators and Lateral/Axial Condensers
4	Nuovo Pignone S.R.L, Italy	Centrifugal Compressors
5	TLT- Turbo GmbH, Germany	Fans
6	Mitsubishi Hitachi Power Systems Ltd, Japan	Flue Gas Desulphurization
7	Oto Melara, Italy ** (** Merged with Finmeccanica S.p.A, Italy)	76/62 Super Rapid Gun Mount
8	Vogt Power International Inc., USA	Heat Recovery Steam Generators
9	Kawasaki Heavy Industries Limited, Japan	Stainless steel coaches and bogies for metros
10	HLB Power Co. Ltd., Korea	Gates and Dampers
11	NANO Co. Ltd., Korea	SCR Catalyst for De-NOx applications
12	Babcock Power Environmental Inc., USA	SCR System De-NOx applications
13	General Electric Technology GmbH, Switzerland	700 MWe Steam Turbine for Nuclear Power Plants

Technology Collaboration with Indian Entity

1.	Indian Space Research Organisation (ISRO), India	Space Grade Lithium Ion Cells

6.2 R&D Strategy

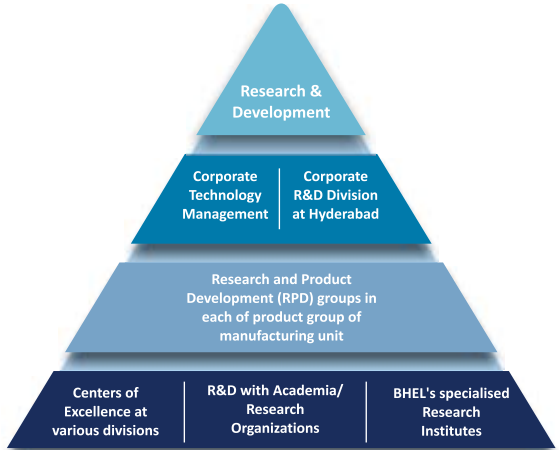
BHEL has aligned its innovation ecosystem in a structured and focused manner through five-pronged approach, consisting of Strategic Direction, Portfolio Management, Partnerships & Alliances, Knowledge Management and Enablers to address the strategic diversified growth.



6.3 R&D Structure

R&D organizational structure of the Company is headed by Director (E, R&D), supported by Corporate Technology Management (CTM) at corporate level. CTM is responsible for strengthening engineering and R&D capabilities of the company in an integrated and focused manner so as to build strong capabilities in product development & engineering guided primarily by responsiveness to the ever-evolving market demands. Each product group in the Units has dedicated Research & Product Development (RPD) group, well complemented by a centralized Corporate Research & Development Division at Hyderabad.

Innovation ecosystem of the company is backed by well-equipped state-of-the-art R&D infrastructure and is benchmarked with the best in the world. The company's R&D infrastructure consists laboratories at Corporate R&D and manufacturing Units, Centres of Excellence, Specialized Research Institutes, etc.





Aerial view of the lab complex of Corporate R&D, Hyderabad

BHEL has 14 Centres of Excellence.

At Corp R&D Hyderabad

- Intelligent Machines and Robotics
- Machine Dynamics
- Compressors & Pumps
- Nano-technology
- UHV Laboratory
- Simulators
- Computational Fluid Dynamics
- Surface Engineering
- Permanent Magnet Machines
- Advanced Transmission

At Bengaluru

- Power Electronics, IGBT & Controller Technology
- Centre of Excellence for Control and Instrumentation



BHEL is working on critical technologies like Indian coal to methanol conversion

At Tiruchirappalli

- Coal Research Centre
- Advanced Fabrication Technology

In addition to this, BHEL has 05 Specialized Research Institutes

BHEL's Specialized Research Institutes

- Pollution Control & Research Institute (PCRI), Haridwar
- Welding Research Institute (WRI), Trichy
- Ceramic Technological Institute (CTI), Bengaluru
- Centre for Electric Transportation (CET), Bhopal
- Amorphous Silicon Solar Cell Plant (ASSCP), Gurugram



Axial fan speed and flow test facility at Corporate R&D, Hyderabad

Innovation in engineering processes is identified as a target area for design optimization and reducing cycle time in all its products, ultimately leading to reduction in cost. Continuing its focus on Knowledge Based Engineering (KBE), BHEL has initiated a number of KBE projects to build expertise and facilitate KBE/PLM activities.

In order to leverage the knowledge available with the academia and

R&D Institutes, BHEL has Memorandums of Understanding (MoU) with leading academic and R&D institutes for basic as well as applied research.

Collaborative R&D with Academia/ Research Organizations

- Indian Institute of Science, Bengaluru
- Indian Institute of Technology, Chennai
- Indian Institute of Technology, Kharagpur
- Indian Institute of Technology, Bombay
- Indian Institute of Technology, Roorkee
- Indian Institute of Technology, Guwahati
- Indian Institute of Technology, Hyderabad
- Council of Scientific & Industrial Research (CSIR), New Delhi
- Indian Institute Engineering Science and of Technology, Shibpur
- International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad
- Mishra Dhatu Nigam Ltd (MIDHANI), Hyderabad
- Indian Institute of Technology, Bhubaneswar
- National Institute of Technology, Warangal
- National Institute of Technology, Tiruchirappalli
- National Institute of Ocean Technology (NIOT), Chennai
- Automotive Research Association of India (ARAI), Pune
- Power Grid Corporation of India



Facility for testing and rating of pumps and compressors at Corporate R&D, Hyderabad

6.4 Achievements during the year

Dedicated R&D Efforts of the company has resulted in development of new / improved products, processes and systems in various business areas. Major R&D developments during the year are:

- Prototype of 12 m electric bus which successfully completed the CMVR compliance homologation tests and obtained the TAC-Type Approval Certification from ICAT-Manesar. On the basis of successful development, an order for supply of 02 nos. Electric buses was received from The Directorate of Urban Transport of Uttar Pradesh State.
- Establishment of state-of-the-art facility for manufacturing space grade Lithium-ion cells for the first time in India where space grade 5 Ah cells have already been manufactured.
- As part of indigenization program, design & manufacturing of 500kW Main Motor Generator (MMG) assembly of AC & DC machine for strategic application.
- Successful completion of design, assembly and erection of large size dis-mantling type biplane damper at NTPC Barh Stage-II and completion of open/close trial operation of dis-mantling type Guillotine gate of size 13400mm (H) x 6500mm (W) for NTPC Telangana in FGD system.
- Manufacturing and testing of new design 490kW alternator which has been supplied for naval application meeting stringent inspection & quality norms.
- In-house development of on-line shaft & bearing vibration monitoring and diagnostics system that continuously tracks and captures the possible causes of any health deterioration of rotating machines, suitable up to 12,000 rpm. Vibration diagnostics for turbine, generator, motors are built into the system.
- Establishment of Casing Vibration Measurement System (CVMS), a simpler and economical technique for blade condition monitoring which uses the LP turbine casing vibration analysis to assess the health of the turbine blades. The system was successfully tested at Singareni TPS.
- Development of ceramic composite based high chrome balls and bowl mill rolls using highly abrasive grains. Ceramic Nano-Composite Metal Matrix based grinding rolls were manufactured with minimum expected operational life of approx. 9000 hours. The developed grinding rolls are under long term field trial at TSGENCO Bhoopalpally site.
- Establishment of 18 kWp grid connected Solar EV charging station supported by a 1000 Ah Battery Bank. Two chargers with 230V, 15A rating, designed to cater to the power requirement of six cars have been commissioned at Scooters India Ltd., Lucknow.
- Development of 5 kW Low Temperature Proton Electrolyte Exchange (LTPEM) fuel cell and various components of the system such as liquid cooled bipolar plates, air and fuel supply, humidification, power conditioning and control system. This can be used in back up power applications, forklifts in material handling and stationary power generation.
- Successful completion of aeromechanical design of multi-stage compressor required to meet high flow for M/s. RINL, Vizag achieving state of the art efficiency levels (88%) with surge and choke margins suitable for steel industry.
- Development and successful dynamic short circuit testing of
  - » Highest rating 315 MVA, 24/420 kV, 1-Phase Generator transformer at NHPTL, Bina for 2x800 MW NTPC Telangana Super TPP Phase-I.
  - » 315MVA, 400/220/33kV, 3-PHASE Interconnecting transformer at NHPTL, Bina for 2 x 315 MVA POWER GRID Bhimal.
  - » 100 MVA, 400 kV, 3-PHASE Station Transformer at CPRI Bangalore for M/s DOOSAN.
- Development of compact and efficient motors for different applications
  - » Largest rating 11.8MW ID Fan motor in CACW construction for TSGENCO, Yadadri project.
  - » 850 kW 3-phase AC motor with low vibration frameless structure for oil-rig (mud pump) application.
  - » Largest rating 10.58MW, 6.6 kV, 4 pole pressurized cage motor in CACW construction for zone-1/2, Gas group: IIC, T# hazardous environment.
- Under the AUSC project, the following developments have been completed
  - » Commissioning of High Spin Rotor Test Rig (DST Project) to

simulate low cycle fatigue & creep.

» Commissioning of High Temperature Furnace (12T) for piping bends of IN617M & Inconel 740.

» Establishment of manufacturing technology (bending and welding) of boiler tubes (Alloy 617 & Alloy 740) materials for high temperature applications.

» Establishment of new NDT method for Alloy 617 (i.e. Phased Array Ultrasonic Testing (PAUT)) & Alloy 625 (Radiography Testing).

» Establishment of bimetallic welding technology for IP Rotor (10 Cr-Alloy 617M) and IP Turbine Casing (12 Cr-Alloy 617M).

» Commissioning of five axis turbine blade machining and established manufacturing technology for Alloy 617 blades.

- Successful design and in-house testing of 82.5MVA, 66MW, 11kV, 50Hz, 3000 RPM air-cooled Turbo Generator with compact overhang brushless exciter, supplied to Siemens-DCM Shriram, Kota.
- Design and manufacturing of a compact BCL 407/B Hydrogen recycle gas compressor for HPCL Vizag project.
- Indigenous design and manufacturing of Axial Fan, Size SAF 40/20-1 for NTPC North Karanpura (3x660MW) FGD booster fan.

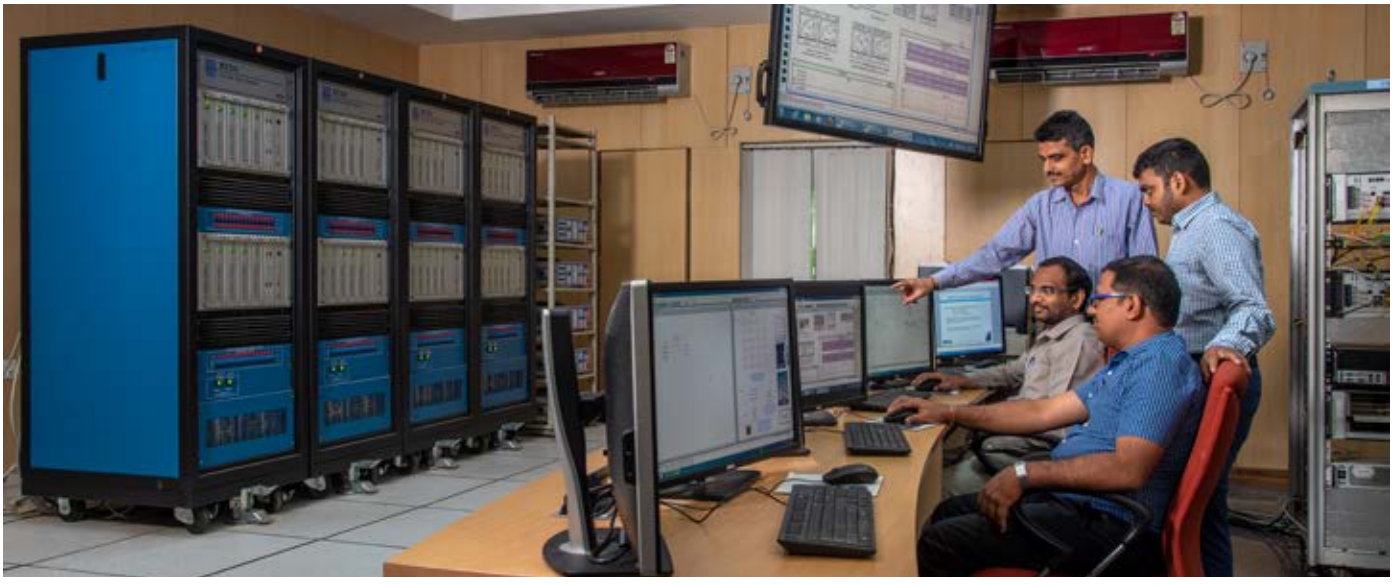
6.5 Focus areas for R&D & technology development

BHEL is focusing on to build and consolidate capabilities in the following emerging and existing areas:

- Development of Advanced Ultra Super Critical (AUSC) Technology for Thermal Power Plants of future in consortium with NTPC and IGCAR.
- Development of solutions for E-mobility ecosystem including E-Bus, Power Train, Charging stations, Energy storage systems, etc.
- Indigenization of technology of Flue Gas Desulphurization (FGD) systems
- Power plant flexible operation & Residual life assessment studies
- Total solutions for rail transportation in areas of three-phase AC drive system for electric locos, MEMU, Coach manufacturing for Metro & High speed train-sets
- Products & systems for Hydrogen economy and fuel cells applications
- Large size hydro power plants with higher efficiency and longer plant life
- Products and systems for Lift Irrigation schemes
- Development of indigenous technology to generate green fuels (Methanol, Hydrogen, etc.) from high ash Indian coal.
- Products and systems for digital substation and advanced power transmission like ±800kV HVDC, 765 kV, 1200 kV Transmission systems
- Development of high efficiency solar cells, grid connected renewable energy Solar PV applications
- Products and systems for strategic applications
- Surface coatings including ceramic and Nano-technology applications
- Application of Industry 4.0 with deployment of new technologies including Intelligent machines & robotics and Advanced Manufacturing Technologies
- Knowledge Management and total engineering solutions including EPC with focus on design automation/ KBE/ PLM.



BHEL has facilities for development and protyping of nanocomposites at Centre of Excellence for Nanotechnology, Corporate R&D, Hyderabad



Analytical and simulation studies for power system applications Centre of Excellence for Advanced Transmission Systems at Corp. R&D, Hyderbad

Annexure –VII to the Board's Report

7.1 Conservation of Energy

The Company has continued to give major emphasis on conservation of energy, and measures taken during past years were continued. Energy conservation initiatives in manufacturing units are monitored to achieve higher efficiency of power & fuels inputs. Some energy conservation measures taken during the year include:

a) Replacement of old inefficient lights with Energy Efficient Lighting systems like LED of various types/ capacities.

b) Structural revamping of reheating furnace at CFFP-Haridwar.

c) Installation of centralized control system for switching of overhead lights at FSIP-Jagdishpur.

d) Awareness generation amongst employees about the necessity of energy conservation.

During the year, energy audits were conducted by the Inter-Unit Energy Audit Teams at HPEP-Hyderabad and HEP-Bhopal Units.

Units are getting ISO 50001 (Energy Management System) certified in a phased manner. CFFP-Haridwar, HEEP-Haridwar, HEP-Bhopal, HPEP-Hyderabad, EPD-Bangalore, HPBP-Trichy Unit#1, HPBP-Trichy Unit#2, PPPU-Thirumayam and BAP-Ranipet Units have already received ISO 50001 certification earlier. During 2019-20, HERP-Varanasi Unit also received ISO 50001 certification.

Clean Energy is being harnessed over the years through 29 solar installations across BHEL with installed capacity of 28 MW.

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	..	₹ 766.52 crore
a) Recurring	..	₹ 763.23 crore
b) Capital		₹ 3.29 crore
Expenditure as a percentage of total turnover	..	3.74 %

7.3 Technology Absorption

Details of technology acquired 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	
Space Grade Lithium Ion Cells	2018	

7.4 Foreign Exchange Earnings and Outgoings (₹ Crore)

Particulars	2019-20	2018-19
Foreign Exchange Used	4031	2482
Foreign Exchange Earned	3880	3787

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place : New Delhi
Dated: 28.08.2020

Annexure –VII A to the Board's Report

7.1A Implementation of Official Language

Three units of the Company were bestowed a shield by the Chairman and Managing Director in the MCM held on April 19, 2019 for excellent Rajbhasha implementation. Hindi Diwas / Week / fortnight / Month was celebrated in all the units/ divisions including Corporate Office, during which various competitions, seminars, cultural programs and Kavi-sammelans were organized. Rajbhasha Ullas Parva was organized in the offices based in Delhi / NCR. In Corporate Office, Hindi Diwas function was organized under the chairmanship of CMD, (BHEL) on 13.09.2019. Advocate Smt. Monika Arora, practicing in Supreme Court was invited as chief guest.

Your company is playing an active role in Town Official Language Implementation Committees located in different cities. Many interesting competitions, seminars, conferences and programs are organized under the auspices of these committees. Our employees enthusiastically participated in all the competitions and won many prizes in various competitions. BHEL was awarded 2nd prize for Rajbhasha implementation and our Hindi patrika Arunima was awarded 1st prize by TOLIC, Delhi.

17 Hindi magazines are published across the company. During the year, 30 employees were awarded cash prizes for their excellent articles published in Corporate office's Hindi magazine Arunima. For celebrating Vishva Hindi Diwas, various competitions were organized in all the units/ divisions of the company. Sansmaran lekhan, Hindi Shabdkosh gyan, and Online quiz competitions were organized.

A total of 17 Hindi magazines are published across the company. During the year, 50 employees from various Units/Divisions were awarded Cash prize for their excellent articles published in these magazines.

1000 employees from various Units/Divisions were imparted Rajbhasha Training during the year.



BHEL's Arunima magazine receives TOLIC award

7.2A Vigil Mechanism

Vigilance surprise checks & investigations have brought out cases where the experience certificates issued to vendors by BHEL unit(s) were being forged and submitted to other BHEL Unit(s)/ PSUs/ Govt. departments for participating in their tenders. As a preventive vigilance initiative, and in order to eliminate such instances, an online repository of QR incorporated Performance/ Experience Certificates issued to suppliers/ contractors, developed in-house by BHEL at the instance of Vigilance Department, was inaugurated by Secretary, CVC on 18th February, 2020. The online, centralized, pan BHEL system enables any of the Units to log in and issue experience/ performance certificates to suppliers/ contractors. The certificate so issued through this system has a QR code which can be scanned using a mobile camera/ QR code scanner app and compared and authenticated with the certificate available in the central repository of BHEL 24x7, thus reducing time taken for verification.

It was felt necessary that executives at the decision taking level should be provided with a ready reckoner to help them take well-reasoned decisions in line with company's policies and guidelines in letter and spirit. Accordingly, the Do's & Don'ts for following areas of operation have been finalized with the concerned departments and notified:

- Procurement (with Corporate Sourcing Strategy & Policy Department)
- Vendor Registration (with Corporate Sourcing Strategy & Policy Department)
- Finance & Execution of Works and Purchase (with Corporate Finance Department)
- Quality and Third-Party Inspection (with Corporate Quality Department)



Interactive Session on Integrity delivered by CVO BHEL during Vigilance Awareness Week 2019

In order to sensitize employees about various vigilance issues involved with decision making, 93 training programmes/ workshops on preventive vigilance were organized for employees associated with decision making process across the Units/Regions. Further, a session on preventive vigilance has been added in all the General Management Programmes/ Strategic Management Programmes/ Young Managers Programmes organized by Corporate Learning & Development (CLD).

A two-day workshop for Material Management (MM) and Vigilance Heads on 'Public Procurement' was also organized at BHEL, Bhopal from 10th to 11th February, 2020 to bring uniformity in the working among the BHEL Units with the CVC guidelines & share the best practices of different PSUs. The sessions were taken by the Secretary, CVC, Chief Technical Examiner (CTE), IEMs, senior & experienced

serving / retired officers from CVC, Vigilance and MM departments of BHEL, having extensive expertise in high value public procurement.

During the year, 19 cases were taken up for detailed investigation by the Vigilance department. Wherever lapses/ irregularities were established, suitable disciplinary proceedings and systemic improvements were recommended. During the year, vigilance cases finalized resulted in award of 57 penalties (23 minor and 34 major) to delinquent employees. Further, **19** warning/advisory letters were also issued. Out of 228 complaints (202 received during the year), 213 complaints were disposed off and the rest are under different stages of disposal. Recoveries of ₹ 5.78 cr (approx.) have been made from various agencies, employees, vendors and contractors, on the advice of Vigilance.

As per the directions of Central Vigilance Commission, Vigilance Awareness Week (VAW) was observed from 28th October to 2nd November, 2019 in Corporate Office, manufacturing units, Power Sector Regions and project sites of BHEL on the theme **"Integrity - a way of life"**. During the week, various programmes were organized to spread awareness among all stake holders viz. employees, vendors, students of schools & colleges and general public. A pan BHEL online quiz was organized on the theme of VAW. The quiz was conducted for 5 days and each day a team of top three employees was selected. A total of **1320 employees** participated in the online quiz.

Various programmes i.e. quizzes, debates, essay writing competition, elocution, panel discussions, lectures, training programmes, poster competition, slogan competition, walkathon, marathon, cycle rallies, human chain formation etc. were also organized for employees of the organization, students of various schools (9804 students of 43 schools in 16 States), colleges (3910 students of 25 colleges in 11 States) and general public (480 citizens from 6 gramsabhas). 10 grievance redressal camps were organized for vendors/ sub-contractors across units.

As a part of Capacity Building, BHEL Vigilance Officers were nominated in the special vigilance training programmes organized by CBI, ISTM and other agencies. Further, a two-day workshop for about **40** vigilance officers from different units / regions of BHEL was organized at BHEL, Bhopal from Jan 21, 2020 to Jan 22, 2020 and one-day workshop was also organized at BHEL Hyderabad on Aug 30, 2019 wherein the method/ technique of conducting effective inspections, verifications and investigations was imparted.

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. Twenty-seven issues have so far been published since 2013, and this year also, four issues were published. 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.

7.3A Health, Safety & Environment (HSE)

With a view to enhance the involvement of employees and other stakeholders and generate awareness about HSE related issues and cleanliness, several campaigns were held including Swachhata Pakhwada, Fire Safety Awareness fortnight, Safety Day/week/ fortnight, Environment Awareness fortnight and Road safety awareness week.

Fire safety audits were conducted for all Delhi/ NCR based offices. With all-out efforts, 12 out of 14 BHEL Townships were declared as "Single Use Plastic Free" after the 3rd party audit.

BHEL's effort in enhancing safety performance and environmental enrichment has been well appreciated and many awards as a recognition of these efforts have been received. The awards received during the year included:

- 9 National Safety Awards (NSA) from Ministry of Labour & Employment, Government of India for performance year 2017 which is the maximum number of NSA won by any organization.
- Safety Innovation Award 2019 from The Institution of Engineers (India),
- SKOCH Order-of-Merit award 2019 for the project titled '360 Degree Solarisation Across Value Chain',
- 'Golden Peacock Environment Management Award' 2019 from Institute of Directors, New Delhi,
- Silver award from APEX India Foundation for outstanding achievement in Occupational Safety, Health and Environment Management,
- "6th EXCEED OHS award for Achieving Excellence in HSE" by Sustainable Development foundation, New Delhi,
- 5 State Safety awards from Govt of Tamil Nadu, "Award of Honour'' from NSC Tamil Nadu Chapter for BHEL Trichy.
- One of the employees of HPBP Trichy was conferred with the prestigious Jeevan Rakshak Padak 2018 by Govt. of India.
- One of the Safety Officers of HEEP Haridwar unit has received Best Safety Officer (Uttarakhand) award.

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



Dr. Nalin Shinghal
Chairman & Managing Director

Place: New Delhi
Date: 28.08.2020

Annexure – VIII to the Board 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	10.50
7. Reserves & surplus	(29.01)
8. Total assets	21.31
9. Total Liabilities	39.82
10. Investments	NIL
11. Turnover	3.95
12. Profit before taxation	(6.37)
13. Provision for taxation	(1.58)
14. Profit after taxation	(4.79)
15. Proposed Dividend	NIL
16. % of shareholdings	51%

Figures given in brackets are negative

Notes: The following information shall be furnished at the end of the statement:

1. Names of subsidiaries which are yet to commence operations	NIL
2. Names of subsidiaries which have been liquidated or sold during the year.	NIL

Board of directors in its meeting held on May 29,2018 has approved (subject to approval of Department of Heavy Industry, Govt of India) the transfer of Company's 51% stake to Govt. of Kerala (GoK). The finalised agreement duly accepted by GoK has been submitted by BHEL to DHI/ GOI for its approval.

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	31.03.2020	31.03.2019	31.03.2019
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	664039700
Amount of investment	2.38	50.00	664.04
Extent of Holding %	50% minus one share	50%	27.97%
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	158.70	NIL	NIL
7. Profit/ Loss for the year	As per equity method		
i. Considered in consolidation	25.72	NIL	NIL
ii. Not considered in Consolidation	-	(13.08)	(616.94)

Figures given in ( ) are negative. In RPCL, 300 shares are also held by BHEL in the name of its Nominee.

M/s Dada Dhuniwale Khandwa Power Ltd., and M/s Power Plant Performance Improvement Ltd. are under liquidation and hence both these JVs are not considered in consolidation. The investment in these JV's amounting to ₹ 4.93 crore and ₹ 2.00 crore respectively has been fully provided for.

For and on behalf of Board of Director

(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

(CA Gopal Krishan)
Partner
M.No.081085

For Tiwari & Associates
Chartered Accountants
FRN- 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN- 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

FORM 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 arrangement 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: 28.08.2020

Annexure - IX 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, 2020, 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, 2020, the loss 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.

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 49** 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.
Accounting Practice Change in revenue Recognition for items manufactured and ready for dispatch Ind AS 115 The Company has retrospectively adopted the following guidelines in respect of revenue recognition for items manufactured and ready for dispatch: The Cost of Manufactured items ready for dispatch for projects will also be considered as cost incurred for measuring the progress under input method for recognizing revenue over time. **Refer Note 50** to the standalone financial statements.	**Principal Audit Procedures** We assessed the Company's internal process to identify the impact of adoption of the new accounting procedure. Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Verified the approval by Audit Committee of the board vide minutes of the BLAC dated 11.02.2020. • Verified the opinion dated 10.02.2020 taken by the company from Expert Advisory Committee of ICAI • Evaluated the design of internal controls relating to implementation of the new revenue accounting procedure. • Selected the identified items considered for inclusion in input method , and tested the operating effectiveness of the internal control, relating to identification of the items and determination of price. • Performed analytical procedures and test of details for reasonableness and other related material items.

Assessment and recoverability of Trade Receivables and Contract Assets	Principal Audit Procedures
The Company has trade receivables outstanding (net) of ₹ 12378.05 crore and contract assets of ₹ 24093.05 crore at the end of March 31, 2020. 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 and high level of management judgment. **Refer Notes 6,9,11,17,49** to the standalone financial statements.	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.

Emphasis of Matter

We draw attention to Note 51 to the Standalone Financial Results in which the Company describes the impact arising from the COVID 19 pandemic .

Our report is not modified in respect of this matter.

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 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 ₹ **36782 crore** as at 31st March, 2020 and total revenue of ₹ **11651 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, 2016 ("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 41** 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 48** 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.

(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

(CA. Gopal Krishan)
Partner
M. No. 081085
UDIN:20081085AAAAFS7960

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415
UDIN:20085415AAAAAI1679

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C

(CA. Deepesh Shah)
Partner
M. No. 404990
UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

"Annexure A" to Independent Auditors' Report

(Referred to in Paragraph 1 under the heading "Report on Other Legal and Regulatory Requirements" of our report of even date on the standalone financial statements of Bharat Heavy Electricals Limited ("the Company"), for the year ended March 31, 2020]

i) (a) The Company has maintained proper records showing full particulars including quantitative details and situation of its fixed assets.

(b) According to the information and explanations given to us, physical verification of fixed assets is being conducted in a phased manner by the management under a programme designed to cover all the property, plant and equipment including intangible assets 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 and no material discrepancies were noticed on such verification to the extent verification was made during the year.

(c) The details of title deeds of immovable properties not held in the name of the Company are given in note no. 3.1 (a to f) to the Financial Statements.

ii) As explained to us physical verification of inventory has been conducted by the management under Perpetual Inventory Programme at regular intervals during the year except for stock of work in progress and finished goods in few units where these are verified at the year end with reference to the inspection reports and production reports of the Production Planning Department of such units. In regard to stocks lying with contractors/fabricators and other parties, confirmations were received in few cases only. In our opinion the frequency of verification is reasonable .No material discrepancies has been reported.

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), (iii) (b) and (iii) (c) 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) Based on our examination of the Company's records and according to the information and explanations given to us, the Company has not accepted any deposits from public during the year within the meaning of sections 73 to 76 or any other relevant provisions of the Companies Act, 2013 and the Companies (Acceptance of Deposits) 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 Provident Fund, Employees' State Insurance, Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value Added Tax, Goods and Service Tax, Cess and any other statutory dues as applicable to it.

(b) According to the information and explanations given to us, no undisputed amounts payable in respect of Provident Fund, Employees State Insurance, Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value Added Tax, Goods and Service Tax, Cess and any other statutory dues were outstanding as at March 31, 2020 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 Income Tax, Sales Tax, Service Tax, duty of Customs, duty of Excise, Value Added Tax, Goods and Service 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	11.39	5.70	Assessing Officer
			497.09	60.39	Dy. Commissioner / Jt. Commissioner / Commissioner (Appeals)
			335.44	137.91	Appellate Tribunal
			35.37	20.90	High Court
			4.84	4.84	Supreme Court
			325.40	1.78	Various Appellate Authorities
2	Central Excise Act, 1944	Excise Duty	43.79	-	Assessing Officer
			32.53	0.02	Commissioner (Appeals)
			55.85	4.39	Appellate Tribunal
			29.04	1.00	High Court
			0.55	0.55	Supreme Court

(₹ in crore)

Sl. No.	Name of the Statute	Nature of the Dues	Pending Amount	Amount paid under protest	Forum where dispute is pending
3	Service Tax under the Finance Act, 1994	Service Tax	1.18	-	Assessing Officer
			18.51	0.57	Commissioner (Appeals)
			769.08	12.86	Appellate Tribunal
			4.86	-	Various Appellate Authorities
4	Customs Act,1962	Custom Duty	5.80	5.80	High Court

viii) According to the records of the Company examined by us and the information and explanations given to us, the Company has not defaulted in repayment of loans or borrowings to financial institutions, banks or Government. The Company has not issued any debentures.

ix) According to the records of the Company examined by us and the information and explanations given to us, the Company has not raised any monies by way of initial public offer or further public offer (including debt instruments) and term loans. Hence, the same is not applicable to the Company.

x) 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.

xi) In terms of Notification no. G.S.R. 463(E) dt. 05-06-2015 issued by the Ministry of Corporate Affairs, the provisions of section 197 of the Companies Act, 2013 relating to managerial remuneration are not applicable to the Company.

xii) Since the Company is not a nidhi Company, provisions of clause no. 3(xii) do not apply to the Company;

xiii) According to the records of the Company examined by us and the information and explanations given to us, the related party transactions are in compliance with section 177 and 188 of the Companies Act, 2013 and have been disclosed in the Financial Statements.

xiv) Based on our examination and the information and explanations given to us, the Company has not made any preferential allotment or private placement of shares or debentures during the year under review. Therefore, provision of clause no. (xiv) is not applicable to the Company.

xv) Based on our examination and the information and explanations given to us, the Company has not entered into any non-cash transactions with directors or persons connected with them.

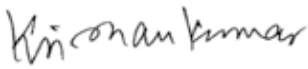
xvi) Based on our examination and the information and explanations given to us, the Company is not required to be registered under section 45-IA of the Reserve Bank of India. Act, 1934.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(CA. Gopal Krishan)
Partner
M. No. 081085
UDIN:20081085AAAAFS7960

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(CA. Krishan Kumar)
Partner
M. No. 085415
UDIN:20085415AAAAAI1679

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C



(CA. Deepesh Shah)
Partner
M. No. 404990
UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

"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, 2020 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

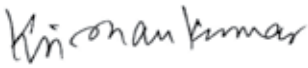
In our opinion, the Company has, in all material respects, an adequate internal financial controls system over financial reporting and such internal financial controls over financial reporting were operating effectively as at March 31, 2020, based on the internal control over financial reporting criteria 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



(CA. Gopal Krishan)
Partner
M. No. 081085
UDIN:20081085AAAAFS7960

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(CA. Krishan Kumar)
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For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C



(CA. Deepesh Shah)
Partner
M. No. 404990
UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

"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 2019-20

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.	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 fund received / receivable for specific schemes from Central / State 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

(CA. Gopal Krishan)
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(CA. Krishan Kumar)
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For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C

(CA. Deepesh Shah)
Partner
M. No. 404990
UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

गोपनीय

संख्या.:DGA (Energy)/Rep/Aes/BHEL/2020-21/ 92

सत्यमेव जयते

INDIAN AUDIT & ACCOUNTS DEPARTMENT
OFFICE OF THE
DIRECTOR GENERAL OF AUDIT (ENERGY)
DELHI

दिनांक/Dated: 11.08.2020

सेवा में,

अध्यक्ष एवं प्रबंध-निदेशक,
भारत हैवी इलेक्ट्रिकल्स लिमिटेड
नई दिल्ली

महोदय,

विषय:-31 मार्च 2020 को समाप्त वर्ष के लिए भारत हैवी इलेक्ट्रिकल्स लिमिटेड , नई दिल्ली के लेखाओं पर कम्पनी अधिनियम 2013 की धारा 143(6)(b) के अंतर्गत भारत के नियंत्रक एवं महालेखापरीक्षक की टिप्पणियाँ।

मैं, भारत हैवी इलेक्ट्रिकल्स लिमिटेड , नई दिल्ली के 31 मार्च 2020 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।

डी. के. शेखर

(डी. के. शेखर)
महानिदेशक

छठा एवं सातवाँ तल, ऐनेक्सी बिल्डिंग, 10, बहादुरशाह ज़फर मार्ग, नई दिल्ली - 110002
6th & 7th floor, Annexe Building, 10 Bahadur Shah Zafar Marg, New Delhi - 110002
Tel: 011-23239227, Fax: 011-23239211, E-mail: pdaenergydl@cag.gov.in

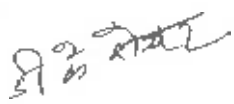
COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 143(6)(b) OF THE COMPANIES ACT, 2013 ON THE FINANCIAL STATEMENTS OF BHARAT HEAVY ELECTRICALS LIMITED FOR THE YEAR ENDED 31 MARCH 2020

The preparation of financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2020 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 13 June 2020.

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 2020 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



(D.K. Sekar)
Director General of Audit (Energy),
Delhi

Place: New Delhi
Dated: 11 August 2020



FINANCIAL STATEMENTS

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Balance Sheet as at March 31, 2020

(₹ in Crore)

Particulars	Note	As at March 31, 2020		As at March 31, 2019	
A. ASSETS					
(1) Non-current assets					
(a) Property, plant and equipment	**3a**		**2735.47**		2883.92
(b) Capital work-in-progress	**3b**		**306.74**		223.21
(c) Intangible assets	**4a**		**78.61**		83.07
(d) Intangible assets under development	**4b**		**7.26**		12.23
(e) Financial assets					
(i) Investments	**5**	**669.51**		669.36	
(ii) Trade receivables	**6**	**5270.43**		3935.20	
(iii) Loans	**7**	**83.17**	**6023.11**	82.82	4687.38
(f) Deferred tax assets (net of liabilities)	**8**		**2756.21**		3497.37
(g) Other non-current assets	**9**		**16660.49**		14671.78
Total non-current assets			**28567.89**		26058.96
(2) Current assets					
(a) Inventories	**10**		**8905.46**		7797.29
(b) Financial assets					
(i) Trade receivables	**11**	**7107.62**		11860.80	
(ii) Cash and cash equivalents	**12**	**1402.86**		795.60	
(iii) Bank balances other than cash and cash equivalents	**13**	**5015.70**		6707.74	
(iv) Loans	**14**	**134.99**		157.45	
(v) Other financial assets	**15**	**123.85**	**13785.02**	162.19	19683.78
(c) Current tax assets (net)	**16**		**229.02**		-
(d) Other current assets	**17**		**9784.03**		10891.02
Total current assets			**32703.53**		38372.09
TOTAL ASSETS			**61271.42**		64431.05
B. EQUITY AND LIABILITIES					
(3) Equity					
(a) Equity share capital	**18**		**696.41**		696.41
(b) Other equity	**18a**		**28484.80**		30735.39
Total equity			**29181.21**		31431.80

Balance Sheet as at March 31, 2020

(₹ in Crore)

Particulars	Note	As at March 31, 2020		As at March 31, 2019	
Liabilities					
(4) Non-current liabilities					
(a) Financial liabilities					
(i) Borrowings	**19**	**75.37**		95.45	
(ii) Trade payables	**20**				
(i) Total outstanding dues of micro enterprises and small enterprises		**8.25**		-	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises		**999.62**		702.98	
(iii) Other financial liabilities	**21**	**159.02**	**1242.26**	91.53	889.96
(b) Provisions	**22**		**5247.89**		5463.14
(c) Other non-current liabilities	**23**		**2952.65**		3615.88
Total non-current liabilities			**9442.80**		9968.98
(5) Current liabilities					
(a) Financial liabilities					
(i) Borrowings	**24**	**4933.39**		2431.74	
(ii) Trade payables	**25**				
(i) Total outstanding dues of micro enterprises and small enterprises		**492.12**		764.91	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises		**8399.86**		10610.20	
(iii) Other financial liabilities	**26**	**1482.72**	**15308.09**	2068.14	15874.99
(b) Provisions	**27**		**3081.78**		2485.51
(c) Current tax liabilities (net)	**16**		**-**		91.40
(d) Other current liabilities	**28**		**4257.54**		4578.37
Total current liabilities			**22647.41**		23030.27
Total liabilities			**32090.21**		32999.25
TOTAL EQUITY AND LIABILITIES			**61271.42**		64431.05
Basis of preparation, measurement & significant accounting policies	**2**				

The accompanying notes are an integral part of these financial statements

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 attached

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For Mahesh C. Solanki & Co.**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN- 006228C**
(CA Gopal Krishan)	**(CA. Krishan Kumar)**	**(CA.Deepesh Shah)**
Partner	Partner	Partner
M.No. 081085	**M. No. 085415**	**M. No. 404990**

Place : New Delhi
Date : June 13, 2020

Statement of Profit and Loss

For the year ended March 31, 2020

(₹ in crore)

Particulars	Note	For the year ended March 31, 2020		For the year ended March 31, 2019	
INCOME					
Revenue from operations	**29**		**21486.06**		30422.68
Other income	**30**		**580.58**		677.64
TOTAL INCOME			**22066.64**		31100.32
EXPENSES					
Material consumption, erection and engineering expenses	**31**		**15079.94**		19248.97
Changes in inventories of finished goods and work in progress	**32**		**(1015.53)**		(990.80)
Employee benefits expenses	**33**		**5403.47**		5501.60
Manufacture, administration, selling and distribution expenses	**34**		**1995.60**		2693.57
Provisions	**35**		**255.46**		1837.38
Finance costs	**36**		**506.95**		287.29
Depreciation & amortisation expenses	**3.1/4.1**		**502.86**		474.81
TOTAL EXPENSES			**22728.75**		29052.82
Profit before tax			**(662.11)**		2047.50
Tax expenses	**37**				
a) Current tax		**1.52**		735.07	
b) Deferred tax		**809.34**	**810.86**	103.78	838.85
PROFIT FOR THE YEAR (A)			**(1472.97)**		1208.65

Statement of Profit and Loss

For the year ended March 31, 2020

(₹ in crore)

Particulars	Note	For the year ended March 31, 2020	For the year ended March 31, 2019
OTHER COMPREHENSIVE INCOME	**38**		
Items that will not be reclassified to profit or loss (net of tax)			
Re measurement of defined employee benefits		(273.88)	(119.18)
OTHER COMPREHENSIVE INCOME FOR THE YEAR (B)		(273.88)	(119.18)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR (A+B)		(1746.85)	1089.47
Earnings per equity share	**39**		
(1) Basic [Face value of ₹ 2 each]		(4.23)	3.33
(2) Diluted [Face value of ₹ 2 each]		(4.23)	3.33
Basis of preparation, measurement and significant accounting policies	**2**		
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 attached

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N

(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN- 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

Statement of changes in Equity

For the year ended March 31, 2020

A. Equity Share Capital

(₹ in Crore)

Equity shares of INR 2 each issued, subscribed and fully paid	Number of shares		Amount	
	2019-20	2018-19	2019-20	2018-19
Balance at the beginning of the period	3482063355	3671400000	696.41	734.28
Less: Shares bought back		189336645		37.87
Balance at the end of the period	3482063355	3482063355	696.41	696.41

B. Other Equity

For the year ended March 31, 2020

(₹ 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, 2019	**35.18**	**37.87**	**30,476.66**	**326.91**	**(141.23)**	**30,735.39**
Add: Total comprehensive income for the year	-	-	-	**(1472.97)**	**(273.88)**	**(1746.85)**
Less: Final dividend for FY 2018-19 [Note 40]	-	-	-	**417.85**	-	**417.85**
Less: Dividend distribution tax [Note 40]	-	-	-	**85.89**	-	**85.89**
Balance as at March 31, 2020	**35.18**	**37.87**	**30,476.66**	**(1649.80)**	**(415.11)**	**28,484.80**

Statement of changes in Equity

For the year ended March 31, 2020

For the year ended March 31, 2019 (₹ 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, 2018	**35.18**	**-**	**32,104.96**	**(212.61)**	**(22.05)**	**31,905.48**
Add: Ind AS-115 transition adjustment	-	-	-	126.49	-	126.49
Add: Total Comprehensive Income for the year	-	-	-	1,208.65	(119.18)	1,089.47
Add/(Less): Transferred to capital redemption reserve	-	37.87	(37.87)	-	-	-
Less: Transaction cost related to buyback [Note 18]	-	-	-	8.32	-	8.32
Less: Amount paid upon buyback [Note 18]	-	-	1590.43	-	-	1590.43
Less: Final dividend for FY 2017-18 [Note 40]	-	-	-	374.49	-	374.49
Less: Interim dividend for FY 2018-19 [Note 40]	-	-	-	278.57	-	278.57
Less: Dividend distribution tax [Note 40]	-	-	-	134.24	-	134.24
Balance as at March 31, 2019	**35.18**	**37.87**	**30,476.66**	**326.91**	**(141.23)**	**30,735.39**

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

(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN- 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

Statement of Cash flow

for the year ended March 31, 2020

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
A. Cash flow from operating activities		
Profit before tax	**(662.11)**	2047.50
Adjustments for:		
Provision and write off	**244.44**	1975.43
Depreciation and amortisation	**502.86**	474.81
Finance cost (including unwinding of interest)	**506.95**	287.29
Interest & dividend income	**(525.48)**	(615.56)
Others	**(16.15)**	(15.13)
Cash generated from operations before working capital changes	**50.51**	4154.34
Adjustment for changes in working capital:		
Trade Receivables	**3370.09**	264.35
Contract Assets	**(1618.53)**	(4966.07)
Inventories	**(1095.10)**	(1861.45)
Loans, advances & other assets	**391.79**	(76.11)
Sub total	**1048.25**	(6639.28)
Trade payable	**(2178.24)**	980.97
Advances from customers, deposits and others	**(1842.82)**	(1114.36)
Provisions	**353.28**	(816.52)
Sub total	**(3667.78)**	(949.91)
Net cash (used in) / from working capital	**(2619.53)**	(7589.19)
Cash generated from operations	**(2569.02)**	(3434.85)
Refund of income taxes	**0.00**	408.68
Income taxes paid	**(321.94)**	(829.41)
Net cash inflow from operating activities	**(2890.96)**	(3855.58)
B. Cash flow from investing activities		
Redemption / maturity of bank deposits (having original maturity of more than 3 months)	**1700.00**	1700.00
Interest received	**538.74**	588.42
Proceeds from joint ventures	**0.27**	17.30
Income received from mutual funds	**6.43**	17.00
Dividend received from joint ventures	**16.30**	16.18
Sale of property, plant and equipment	**9.30**	1.04
Purchase of property, plant and equipment	**(434.50)**	(425.04)
Net cash (used in) / from investing activities	**1836.54**	1914.91

Statement of Cash flow

for the year ended March 31, 2020

(₹ in Crore)

Particulars	For the year ended March 31, 2019	For the year ended March 31, 2018
C. Cash flow from financing activities		
Proceeds from short term borrowings	**2501.65**	2,431.74
Proceeds / (repayment) of lease obligation (Principal)	**(7.66)**	68.20
Proceeds / (repayment) of lease obligation (Interest)	**(17.32)**	(13.75)
Buy back of equity shares (including premium and expense)	**-**	(1636.62)
Dividend paid (Incl. dividend distribution tax)	**(504.56)**	(786.99)
Interest paid	**(310.43)**	(94.99)
Net cash (used in) / from financing activities (refer point 3)	**1661.68**	(32.41)
D. Net increase/(decrease) in cash and cash equivalents	**607.26**	(1973.08)
Opening balance of cash and cash equivalents	**795.60**	2768.68
Closing balance of cash and cash equivalents [Refer Note 12]	**1402.86**	795.60

(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) In cash flow from financing activities there is no non cash item during the year.

(4) Closing balance of cash & cash equivalents includes exchange variation translation gain of ₹ **1.15** crore as on March 31, 2020 (previous year ₹ 0.02 crore).

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

(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
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FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN- 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

Notes to the financial statements for the year ended March 31, 2020

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] Basis of Preparation, Measurement and 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 and amended thereof.

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 judgements

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 (PPE) 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)
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 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.

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) For construction contracts the company provides warranty cost at 2.5% of the revenue progressively as and when it recognises the revenue and maintain the same throughout the warranty period. For other contracts, provision for contractual obligations in respect of contracts under warranty at the year end is maintained at 2.5% of the value of contract. In the case of contracts for supply of more than a single product 2.5% of the value of each completed product is provided.

(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, 2020	As at March 31, 2019
Gross block	**6050.80**	5746.15
Less: Accumulated depreciation	**3315.33**	2862.23
Net block (details refer to note 3.1)	**2735.47**	2883.92

Company had opted for exemption under Ind AS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on Ind AS transition date.

Note [3b] - Non-current assets
Capital work in progress

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Plant & machinery and other equipments:				
Under Erection/ Fabrication/awaiting erection	**166.34**		102.72	
In transit	**0.54**	**166.88**	30.29	133.01
Construction work-in-progress -Civil		**137.98**		88.63
Construction stores (including in transit)		**1.88**		1.57
		306.74		223.21

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, 2020	As at March 31, 2019
Gross block	**280.48**	250.00
Less: Accumulated amortisation	**201.87**	166.93
Net block (details refer to note 4.1)	**78.61**	83.07

Company had opted for exemption under Ind AS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on Ind AS transition date.

Note [4b] - Non-current assets
Intangible assets under development

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Intangible assets under development	**7.26**	12.23
	7.26	12.23

NOTE 3.1 - Detail of property, plant & equipment

(₹ in Crore)

Description	Gross Block				Depreciation / Amortisation				Net Block	
	Opening Balance as on 01.04.2019	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2020	As at 31.03.2020	As at 31.03.2019
LAND - Freehold land (including development expenses)	27.67	0.04	0.00	**27.71**	0.00	0.00	0.00	**0.00**	**27.71**	27.67
Buildings - Freehold Buildings	1585.78	92.43	(7.03)	**1671.18**	421.66	99.54	(5.94)	**514.86**	**1155.87**	1164.12
Roads, bridges & culverts	15.14	0.10	0.00	**15.24**	12.00	0.88	(0.06)	**12.82**	**2.41**	3.14
Drainage, Sewerage & water supply	28.09	0.57	0.00	**28.66**	4.80	1.16	0.00	**5.96**	**22.70**	23.29
Plant & Machinary	3073.43	85.27	(1.22)	**3157.48**	1859.21	216.59	(0.83)	**2074.57**	**1082.51**	1214.22
Railway Siding	8.85	0.00	0.00	**8.85**	3.49	0.69	0.02	**4.20**	**4.65**	5.36
Locomotives & Wagons	28.34	(0.01)	0.03	**28.36**	11.57	2.16	0.00	**13.74**	**15.90**	16.77
Furniture & fixtures	60.22	2.79	(1.83)	**61.18**	29.31	6.77	(1.44)	**34.64**	**26.54**	30.91
Vehicles	11.40	2.57	(0.01)	**13.97**	5.79	1.43	(0.01)	**7.21**	**6.76**	5.61
Office and Other equipments	122.97	10.72	(1.43)	**132.26**	83.31	14.78	(0.72)	**97.17**	**34.89**	39.66
Electronic Data Processing Equipment	32.76	71.37	4.96	**109.10**	28.26	17.70	4.88	**50.84**	**58.26**	4.50
Electrical Installations	241.91	7.95	(0.93)	**248.93**	125.53	29.76	(0.31)	**154.71**	**93.96**	116.38
Construction Equipment	71.90	0.52	(0.19)	**72.23**	61.86	4.91	(0.16)	**66.62**	**5.61**	10.04
Fixed Assets costing upto ₹ 10,000/-	14.35	4.86	(0.83)	**18.38**	14.35	4.90	(0.88)	**18.37**	**(0.00)**	(0.00)
Right-of-use Assets	443.44*	20.38	(6.54)	**457.27**	201.23*	66.63	(8.23)	**259.62**	**197.65**	242.21*
TOTAL	**5766.25**	**299.56**	**(15.02)**	**6050.80**	**2862.23**	**467.96**	**(13.69)**	**3315.33**	**2735.47**	**2904.02**
Previous Year	5404.27	349.59	(7.72)	**5746.15**	2426.74	437.53	(2.04)	**2862.23**	**2883.92**	2977.53

* Includes effect of adoption of Ind AS 116 and reclassification of assets under finance leases to Right of use assets; (Refer Note 45).

Further itemwise details of ROU assets available in Table 3.1 (a):

(₹ in crore)

Particulars	Gross Block	Acc Dep	Net Block
Assets recognised as Finance lease in accordance with Ind AS 17 reclassified to ROU Asset	423.34	201.23	222.11
Effect of adoption of Ind AS 116	20.10	0.00	20.10
Total	**443.44**	**201.23**	**242.21**

Notes:

Gross Block (as per earlier IGAAP) as at 31.03.2019 ₹ 13033.88 crore and as at 31.03.2020 ₹ **12763.61** crore.

Gross Block as at 31.03.2020 includes assets condemned and retired from active use ₹ 14.98 crore (Previous year ₹ 0.12 crore).

Net Block as at 31.03.2020 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 ₹ 242.10 crore (Previous year ₹ 180.32 crore).

There is no impairment loss during the year.

Table 3.1(a): Right-of-use of assets includes:

Description	Gross Block				Depreciation / Amortization				Net Block	
	Opening Balance as on 01.04.2019	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2020	Net Block as at 31.03.2020	Net Block as at 31.03.2019
Land (including development expenses)	110.85	0.00	0.00	**110.85**	5.02	1.40	(0.02)	**6.40**	**104.46**	105.83
Buildings	1.63	0.00	0.00	**1.63**	0.21	0.05	(0.00)	**0.26**	**1.37**	1.42
Plant & Machinery	0.00	4.07	0.00	**4.07**	0.00	0.00	1.69	**1.83**	**2.24**	0.00
Office & other equipment	16.19	0.09	0.00	**16.29**	10.43	2.84	0.00	**13.27**	**3.02**	5.77
EDP Equipment	294.56	13.62	(6.54)	**301.64**	185.33	50.28	(9.90)	**225.70**	**75.93**	109.23
Vehicle	3.99	1.31	0.00	**5.30**	0.00	1.69	0.00	**1.69**	**3.61**	3.99
Others	16.21	1.29	0.00	**17.50**	0.10	10.38	0.00	**10.48**	**7.03**	16.11
Total	**443.44**	**20.38**	**(6.54)**	**457.27**	**201.23**	**66.63**	**(8.23)**	**259.62**	**197.65**	**242.21**

Additional disclosure of Note [3.1] details of Property, Plant and Equipment

(₹ in crore)

Particulars	As at March 31, 2020	As at March 31, 2019
1. Land and buildings includes		
a i) Acres of land for which formal transfer/lease deed have not been executed (in acres)	**8196.93**	8196.93
Net Block	**71.49**	68.45
ii) Number of flats for which formal transfer/lease deed have not been executed (in nos.)	**12**	12
Net Block	**1.15**	1.19
iii) Acres of land for which the cost paid is provisional; (in acres)	**506.46**	506.46
[registration charges and stamp duty, (net of provision) would be accounted for on payment].		
Net Block	**64.07**	64.79
b. Acres of land leased to Ministry of Defence, Govt. of India Departments & others (in acres)	**30.37**	30.37
c. Acres of land being used by Ministry of Defence(BEG) for which licensing agreement is valid upto 30.11.2018 (in acres)	**-**	180
d. Acres of land is under adverse possession/ encroachment. (in acres)	**757.47**	701.86

e. 1297.86 acres (PY 1242.71 acres) of land pending mutation at Haridwar plant for which legal action is in process. It includes land measuring 934 acres (PY 878.85 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.

f. 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 f) mentioned above is not material)

	As at March 31, 2020	As at March 31, 2019
2. i) Total Area of Land in acres	**16409.03**	16409.03
ii) Free hold land (Sale Deed) / Possessory Rights/license out of 2(i) in acres	**15735.69**	15735.69
iii) Leasehod 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 :

	As at March 31, 2020	As at March 31, 2019
100% depreciation on PPE upto ₹10,000/- charged off	**6.14**	8.08
Less: Normal depreciation on above.	**1.11**	2.07
Excess amount charged to depreciation for the year	**5.03**	6.01

NOTE 4.1 - Detail of intangible assets

(₹ in Crore)

Description	Gross block				Depreciation				Net block	
	Opening Balance as on 01.04.2019	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2020	Net Block As at 31.03.2020	Net Block As at 31.03.2019
Internally Developed										
Others	61.69	4.86	0.00	**66.55**	45.26	8.60	0.00	**53.86**	**12.69**	16.43
Others										
Software	45.13	5.58	0.00	**50.71**	37.40	4.74	0.06	**42.21**	**8.50**	7.75
Technical Know-how	143.17	20.06	0.00	**163.23**	84.28	21.56	(0.03)	**105.80**	**57.43**	58.88
Total	**250.00**	**30.50**	**0.00**	**280.48**	**166.93**	**34.90**	**0.03**	**201.87**	**78.61**	**83.07**
Previous year	221.87	27.99	0.14	**250.00**	130.56	36.22	0.15	**166.93**	**83.07**	91.31

Gross Block (as per earlier IGAAP) as at 31.03.2019 ₹ 534.48 crore and as at 31.03.2020 ₹ **521.48** 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, 2020			As at March 31, 2019		
	No. of Shares (Face value in INR)	Amount		No. of Shares (Face value in INR)	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	-
(v) Dada Dhuniwale Khandwa Power Ltd.	**22500000 (10)**	**5.20**		22500000 (10)	22.50	
Less: Amount received		**0.27**			17.30	
Less: Provision for impairment		**4.93**	-		5.20	-
			666.42			666.42
(b) Investment in subsidiary company (at cost)						
BHEL- Electrical Machine Limited	**5355000 (10)**	**5.36**		5355000 (10)	5.36	
Less: Provision for impairment		**5.36**	-		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	
(ii) AP Gas Power Corporation Ltd.	**728960 (10)**	**0.91**		728960 (10)	0.91	
(iii) Engineering Projects (India) Ltd.	**1892 (10)**	*		1892 (10)	*	
		5.91			5.91	
Less: Fair value adjustment		**2.82**	**3.09**		2.97	2.94
Share in Co-operative Societies #			-			-
			669.51			669.36
*Value of less than INR 1 lakh						
Aggregate amount of unquoted investment			**734.62**			734.89
Aggregate amount of impairment in value of investments			**65.11**			65.53

Equity shares held in various employees cooperatives societies, valuing less than INR 1 lakh/-

Information about joint ventures and subsidiary

(₹ in Crore)

Particulars		As at March 31, 2020	As at March 31, 2019
(A) Name of the joint ventures (JVC)	**Country of incorporation**	**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)		**27.97%**	27.97%
Dada Dhuniwale Khandwa Power Limited (DDKPL)		**50%**	50%
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 NBBPL Board in its meeting held on 29.08.2019"

(ii) An amount of ₹ 17.57 crore has been received (₹ 17.30 crore in FY 2018 19 and ₹ 0.27 crore in FY 2019-20) against investment in Dada Dhuniwale Khandwa Power Project Ltd. The provision for impairment in value of investment has been retained to the extent of ₹ **4.93** crore (previous year ₹ 5.20 crore) based on the net financial position. The JVC is under liquidation.

(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		As at March 31, 2020	As at March 31, 2019
(B) Name of the subsidiary company	**Country of incorporation**	**Proportion (%) of ownership**	
BHEL Electrical Machines Limited (BHEL EML)	**India**	**51%**	51%

Board of directors in its meeting held on May 29, 2018 has approved (subject to approval of Department of Heavy Industry, Govt. of India) the transfer of Company's 51% stake to Govt. of Kerala. The finalised Agreement duly accepted by GoK has been submitted by BHEL to DHI/GoI for its approval.

Note [6] - Non-current assets
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, 2020		As at March 31, 2019	
Secured, considered good		-		-
Unsecured, considered good		**5903.88**		4529.16
Credit impaired		**10833.90**		10424.80
		16737.78		14953.96
Less: Allowances for bad and doubtful debts	**10969.86**		10445.38	
Less: Automatic price reduction adjustment	**497.49**	**11467.35**	573.38	11018.76
		5270.43		3935.20
Includes:				
(a) Due from Directors		-		-
(b) Due from Officers		-		-

Simplified approach is followed for impairment of trade receivables, the classification is done in line with Ind AS 109.

Note [7] - Non-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, 2020		As at March 31, 2019	
Security deposits				
Secured, considered good		-		-
Unsecured, considered good				
Deposits with SEBs, port trust & others		**83.17**		82.81
Significant increase in credit risk		-		-
Credit impaired				
Deposits others		**1.93**		1.77
		85.10		84.58
Less: Allowances for bad & doubtful deposits		**1.93**		1.77
		83.17		82.81
Loans				
Secured, considered good		-		-
Unsecured, considered good				
Interest accrued and due on loans		-		0.01
Significant increase in credit risk		-		-
Credit impaired		-		-
		-		0.01
Less: Allowances for bad & doubtful loans		-		-
		-		0.01
		83.17		82.82
Includes:				
Due from Directors		-		-
Dues from Officers		-		-

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, 2020	As at March 31, 2019
Deferred tax assets		
Provisions	**1724.36**	2623.08
Dues allowed on payment basis	**576.14**	744.01
Depreciation (PP&E and Intangible assets)	**75.31**	118.20
On account of taxable loss	**345.61**	-
Others	**34.79**	12.08
	2756.21	3497.37
Deferred tax liabilities	**-**	-
Deferred tax assets (net of liabilities)	**2756.21**	**3497.37**

Movement of deferred tax balances

(₹ in Crore)

Particulars	Balance as at April 01, 2019	Recognized in retained earnings	Recognized in statement of profit & loss a/c	Recognized in OCI	Balance as at March 31, 2020
Deferred tax assets					
Provisions	2623.08	**-**	(898.72)	**-**	**1724.36**
Dues allowed on payment basis	744.01	**-**	(236.05)	68.18	**576.14**
Depreciation (PP&E and Intangible assets)	118.20	**-**	(42.89)	**-**	**75.31**
On account of taxable loss	**-**	**-**	345.61	**-**	**345.61**
Others	12.08	-	22.71	-	**34.79**
Subtotal	**3497.37**	**-**	**(809.34)**	**68.18**	**2756.21**
Less: Deferred tax liabilities	-	**-**	-	**-**	**-**
Deferred tax assets (net of liabilities)	**3497.37**	**-**	**(809.34)**	**68.18**	**2756.21**

Note [9] - Non-current assets
Other non-current assets

Refer point 14 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Contract assets (including unbilled revenue)				
Secured, considered good	-		-	
Unsecured, considered good	16422.59		14392.34	
Credit impaired	2272.04		1779.61	
	18694.63		16171.95	
Less: Allowances for bad and doubtful debts	2272.04	16422.59	1,779.61	14392.34
Security deposits				
Secured, considered good	-		-	
Unsecured, considered good				
Deposits with tax authorities and others	105.97		135.08	
Significant increase in credit risk	-		-	
Credit impaired	29.17		25.09	
	135.14		160.17	
Less: Allowances for bad & doubtful deposits	29.17	105.97	25.09	135.08
Loans & advances				
Secured, considered good	-		-	
Unsecured, considered good				
Advances towards purchases	66.88		73.54	
Claims recoverable and others	79.01		74.88	
Capital advances	23.81		22.17	
	169.70		170.59	
Significant increase in credit risk	-		-	
Less: Allowances for bad & doubtful loans & advances	37.77	131.93	26.23	144.36
		16660.49		14671.78
(a) Contract assets (net of provisions) includes:				
Deferred debts		14748.13		13058.01
(b) 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, 2020		As at March 31, 2019	
Raw material & components	**3319.22**		3479.58	
Material-in-transit	**647.83**	**3967.05**	451.01	3930.59
Work-in-progress		**4119.71**		3219.82
(including items with sub-contractors)				
Finished goods	**822.94**		661.01	
Inter - division transfers in transit	**68.59**	**891.53**	114.93	775.94
Stores & spare parts				
Production	**197.59**		176.99	
Fuel stores	**3.40**		6.97	
Miscellaneous	**53.38**	**254.37**	54.13	238.09
Other inventory				
Materials with fabricators/contractors	**59.55**		63.02	
Loose tools	**37.88**		34.40	
Scrap (at estimated realisable value)	**117.76**	**215.19**	90.89	188.31
		9447.85		8352.75
Less: Provision for non-moving inventory		**542.39**		555.46
		8905.46		7797.29
Note :				
Write down of inventories		**100.80**		115.90
Less : reversal thereof		**113.87**		26.83
Net		**(13.07)**		89.07

Note [11] - Current assets
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, 2020		As at March 31, 2019	
Secured, considered good		-		-
Unsecured, considered good		7972.67		13440.93
Credit impaired		572.94		481.39
		8545.61		13922.32
Less: Allowances for bad and doubtful debts	1266.17		2005.21	
Less: Automatic price reduction adjustment	171.82	1437.99	56.31	2061.52
		7107.62		11860.80
Includes:				
(a) Due from Directors		-		-
(b) Due from Officers		-		-

Note [12] - 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, 2020		As at March 31, 2019	
Balances with banks :				
EEFC a/c	82.93		102.22	
Current / cash credit a/c	1285.45	1368.38	623.01	725.23
Cheques, demand drafts on hand		29.90		69.43
Deposits with banks having maturity 3 month or less		0.29		-
Cash & stamps on hand		0.21		0.12
Remittances in transit		4.08		0.82
		1402.86		795.60

Note [13] - Current assets
Financial assets - Bank balances

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Fixed deposits having maturity more than 3 months but not more than 12 months		5000.00		6700.00
Fixed deposits against margin money for BG issued		2.41		2.28
Balances with banks (earmarked):				
Charging station project	10.17		-	
Unclaimed dividend a/c	2.79		3.61	
Non-repatriable a/c	0.30		1.82	
Sale proceeds of fractional shares on bonus issue	0.03	13.29	0.03	5.46
		5015.70		6707.74
Total Cash and Bank Balances [12 + 13]		6418.56		7503.34

Note [14] - 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, 2020		As at March 31, 2019	
Security deposits				
Secured, considered good		-		-
Unsecured, considered good				
EMD and other deposits		**134.99**		157.45
Significant increase in credit risk		-		-
Credit impaired		**13.42**		3.54
		148.41		160.99
Less: Allowances for bad & doubtful deposits		**13.42**		3.54
		134.99		157.45
Loans				
Loans to subsidiary company$	**3.00**		3.00	
Loans to PSUs *	**12.00**		12.00	
Interest accrued and due on loans	**2.03**	**17.03**	2.03	17.03
Less: Allowances for bad & doubtful loans		**17.03**		17.03
		-		-
Out of above:				
Secured, considered good	-		-	
Unsecured, considered good	-		-	
Significant increase in credit risk	-		-	
Credit impaired	*17.03*		*17.03*	
		134.99		157.45

$ Loan given to subsidiary (₹ 3 cr) and interest accrued and due thereon (₹ 0.70 cr) are subject to waiver on transfer of BHEL's stake to GoK.
* Loan given to Bharat Pumps and Compressors Ltd. has been fully provided

Includes :				
(a) Due from Directors		**-**		-
(b) Due from Officers		**-**		0.01

Note [15] - Current assets
Other financial assets

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Interest accrued on banks deposits	**99.39**		128.94	
Advance to employees	**24.53**		33.27	
Rent receivable on finance lease	**-**		0.03	
	123.92		162.24	
Less: Allowances for bad & doubtful advances	**0.07**	**123.85**	0.05	162.19
		123.85		162.19
Includes:				
(a) Due from Directors		**-**		-
(b) Due from Officers		**0.05**		0.01

Note [16] - 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, 2020	As at March 31, 2019
Advance tax & TDS	**2528.11**	2888.12
Less: Provisions for taxation	**2299.09**	2979.52
	229.02	(91.40)

Note [17] - Current assets
Other current assets

Refer point 14 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Contract assets (including unbilled revenue)				
Secured, considered good	**-**		-	
Unsecured, considered good	**7670.46**		8426.90	
Credit impaired	**54.69**		202.40	
	7725.15		8629.30	
Less: Allowances for bad and doubtful debts	**54.69**	**7670.46**	202.40	8426.90
Claim recoverable				
Input tax credit receivable	**927.07**		1187.73	
Claim recoverable and others	**688.43**		710.00	
Advances				
Subsidiary company	**0.24**		0.24	
Vendors / subcontractors	**231.60**		257.72	
	1847.34		2155.69	
Less: Allowances for bad & doubtful advances and claims	**135.03**	**1712.31**	126.45	2029.24
Out of above:				
Secured, considered good	-		-	
Unsecured, considered good	*1712.31*		*2029.24*	
Significant increase in credit risk	-		-	
Credit impaired	*135.03*		*126.45*	
Security deposits				
Deposits with tax authorities and others	**460.01**		495.75	
Less: Allowances for bad & doubtful deposit	**58.75**	**401.26**	60.87	434.88
Out of above:				
Secured, considered good	-		-	
Unsecured, considered good	*401.26*		*434.88*	
Significant increase in credit risk	-		-	
Credit impaired	*58.75*		*60.87*	
		9784.03		10891.02
Contract assets (net of provision) includes:				
Deferred debts		**4366.26**		5625.80

Note [18] - Equity
Equity share capital

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
	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**	3671400000	734.28
Less: Shares bought back during the year	-	-	189336645	37.87
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	**2199650402**	**63.17%**	2199650402	63.17%
Life Insurance Corporation of India	**350647914**	**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 [18a] - Other Equity

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Summary of other equity balances:		
Capital reserve	**35.18**	35.18
Capital redemption reserve	**37.87**	37.87
General reserves	**30476.66**	30476.66
Retained earnings*	**(1649.80)**	326.91
Re-measurements of defined benefit plans	**(415.11)**	(141.23)
	28484.80	30735.39

*For change in opening retained earning, refer note [50]

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 paid 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 [19] - Non-current liabilities
Financial liabilities- Borrowings

Refer point 3 of Note [2] for accounting policy on lease.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Unsecured		
Long term maturities of lease obligations (Disclosure as per Note [45] on lease)	**75.37**	95.45
	75.37	95.45

Note [20] - Non current liabilities
Financial liabilities -Trade payables

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Trade payables				
(i) Total outstanding dues of micro enterprises and small enterprises	**8.25**		-	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**999.62**	**1007.87**	702.98	702.98
		1007.87		702.98

Note [21] - Non current liabilities
Other financial liabilities

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Deposits from contractors & others	**150.99**	85.17
Liability for capital expenditure	**8.03**	6.36
	159.02	91.53

Note [22] - Non current liabilities
Provisions

Refer point 10 & 11 of Note [2] for accounting policy on employee benefits and provisions.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contractual obligation	**3791.01**	3852.31
Provision for employee benefits	**1170.42**	1303.01
Provision others	**277.53**	305.42
Corporate social responsibility *	**8.93**	2.40
	5247.89	5463.14

*(Disclosure as per point (vii) of Note [34] on CSR expense)

Note [23] - Non current liabilities
Other non - current liabilities

Refer point 12 of Note [2] for accounting policy on Government grants (₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contract liabilities (Advances received from customers incl. excess of billing over revenue)	**2921.16**	3577.93
Deferred income- Govt. grant #	**31.49**	37.95
	2952.65	3615.88
#Govt. grant is received for setting up of solar PV plant and manufacturing of modules		

Note [24] - Current liabilities
Financial liabilities - Borrowings

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Secured		
Loans from banks	**600.00**	600.00
Pre shipment packing credit	**759.22**	357.27
Buyer's Credit (secured by hypothecation of raw materials, components, work-in-progress, finished goods & stores)	**141.58**	-
	1500.80	957.27
Unsecured		
Commercial papers	**3432.59**	1,474.47
	3432.59	1,474.47
Total borrowings	**4933.39**	2,431.74

(i) The Company has a cash credit limit from banks aggregating to ₹ 6000 crore (previous year ₹ 6000 crore) and Company's counter guarantee / indemnity obligations in regard to bank guarantee / letters of credit limit aggregating to ₹ 54000 crore (previous year ₹ 54000 crore) sanctioned by the consortium banks. These are 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. The outstanding bank guarantees as at 31.03.2020 is ₹ 40520 crore (previous year ₹ 43136 crore). It does not include BG of ₹ 970.87 crore issued as replacement and pending as on 31st March 2020.

(ii) Loan from Banks represents WCDL (previous year against FD)

(iii) Packing Credit in Foreign Currency (PCFC) has been availed by the Company. The outstanding amount of USD 100.03 million is repayable in parts during the months August to December 2020.

(iv) Details of Commercial papers outstanding as on 31st March 2020 is as follows:

(₹ in Crore)

Issue Date	Maturity Date	Discount Rate	Face Value	Amortised cost
05-11-2019	04-11-2020	5.88%	600.00	580.19
13-11-2019	30-10-2020	5.99%	400.00	386.84
29-11-2019	27-11-2020	5.90%	150.00	144.50
12-12-2019	11-12-2020	6.35%	500.00	479.22
10-01-2020	09-04-2020	5.55%	450.00	449.46
20-01-2020	20-04-2020	5.62%	250.00	249.28
29-01-2020	29-04-2020	5.67%	250.00	248.93
29-01-2020	29-04-2020	5.69%	400.00	398.28
09-03-2020	29-05-2020	5.24%	500.00	495.88
		Total	**3,500.00**	**3432.59**

(v) Buyer's credit has been availed by the Company. The outstanding amount of USD 18.65 million is repayable partly in Sept 20 and partly in Dec 20.

(vi) Corporate Guarantees given for own obligations outstanding as on 31.03.2020 is ₹ **1422** crore (previous year ₹ 1433 crore).

Note [25] - Current liabilities
Financial liabilities - Trade Payables

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Trade payables:				
(i) Total outstanding dues of micro enterprises and small enterprises		**492.12**		764.91
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**8383.22**		10557.92	
(iii) Acceptances	**16.64**	**8399.86**	52.28	10610.20
		8891.98		11375.11
A. Micro and small enterprises disclosure				
(i) The principal amount remaining unpaid to supplier as at the end of the accounting year*		**500.37**		764.91
(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 to Micro and Small enterprises is not due for payment contractually as on March 31, 2020.

Note [26] - Current liabilities
Other financial liabilities

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Liabilities:				
Employees dues	**285.65**		510.32	
Other dues	**559.23**		879.74	
Capital expenditure	**82.73**	**927.61**	88.75	1478.81
Deposits from contractors & others		**491.93**		522.09
Current maturities of lease obligation #		**53.55**		58.45
Unpaid dividend *		**2.79**		3.61
Interest accrued & due on loans:				
From Banks		**1.96**		-
From Foreign Financial Institutions		**0.75**		-
Lease obligations		**3.12**		4.41
Interest accrued but not due		**1.01**		0.77
		1482.72		2068.14

(i) * No amount is due and outstanding to be transferred to Investor Education & Protection Fund at the year end.
(ii) # Disclosure as per Note [45] on lease
(iii) Other dues includes ₹ 0.03 crore for sale proceeds of fractional shares arising out of issuance of bonus shares.

Note [27] - Current liabilities
Provisions

Refer point 10 & 11 of Note [2] for accounting policy on employee benefits and provisions.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contractual obligation	**1563.86**	1443.13
Provision for employee benefits	**1120.75**	781.03
Corporate social responsibility ##	**6.58**	19.43
Provision others	**390.59**	241.92
	3081.78	2485.51

##(Disclosure as per point (vii) of Note [34] on CSR expense)

Note [28] - Current liabilities
Other current liabilities

Refer point 12 of Note [2] for accounting policy on Government grants

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contract liabilities (Advances received from customers incl. excess of billing over revenue)	**3797.27**	3261.05
Liabilities towards statutory dues	**453.82**	1310.87
Deferred income - Govt. grant	**6.45**	6.45
	4257.54	4578.37

Note [29]
Revenue from operations

Refer point 8 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Revenue from contracts with customers		
Sales	**15057.11**	22475.84
Income from external erection & other services	**5433.53**	6947.10
Turnover (A)	**20490.64**	29422.94
Other operational income		
Freight & insurance	**143.43**	263.62
Scrap income	**168.99**	205.58
Recoveries from suppliers	**219.79**	186.97
Liabilities written back	**312.27**	181.05
Insurance claims	**16.42**	41.08
Export incentives	**14.99**	3.64
Others	**119.53**	117.80
Other operational income (B)	**995.42**	999.74
Revenue from operations (C=A+B)	**21486.06**	30422.68
Revenue from operations excludes :		
Goods and service tax	**2837.28**	4491.81

The spread of COVID 19 impacted the business from Mid March 20, which culminated into scaling down of operations because of the nationwide lockdown. (refer note [51]

Note [30]
Other income

Refer point 8 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Interest income *		
From banks	**502.21**	498.65
Others	**6.97**	100.73
	509.18	599.38
Dividend income		
Dividend on investment in joint ventures (long term trade)	**16.30**	16.18
	16.30	16.18
Other income		
Profit on sale of units of mutual funds	**6.43**	17.00
Government grants	**6.45**	6.50
Profit from sale of PPE & capital stores (Net)	**9.30**	2.25
Others	**32.92**	36.33
	55.10	62.08
Total other income	**580.58**	677.64
*Includes TDS	**50.05**	49.95

Note [31]
Material consumption, erection and engineering expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Consumption of raw material & components	**11780.11**	14971.20
Civil, erection and engineering expenses	**2946.98**	3866.10
Consumption of stores & spares	**352.85**	411.67
	15079.94	19248.97

Note [32]
Changes in inventories of finished goods and work in progress

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Work -in -progress				
Closing balance	**4119.71**		3219.82	
Opening balance	**3219.82**	**(899.89)**	2283.83	(935.99)
Finished goods				
Closing balance	**822.94**		661.01	
Opening balance	**661.01**	**(161.93)**	629.95	(31.06)
Inter-division transfer in transit		**46.29**		(23.75)
		(1015.53)		(990.80)

Note [33]
Employee benefits expenses

Refer point 10 of Note [2] for accounting policy on employee benefits.

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Salaries, wages, bonus, allowances & other benefits	**4625.09**	4683.50
Contribution to provident and other funds	**382.27**	426.39
Staff welfare expenses	**279.49**	275.47
Contribution to gratuity fund	**105.03**	107.14
Group insurance	**11.59**	9.10
	5403.47	5501.60

Note [34]
Manufacture, administration, selling & distribution expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Power & fuel		**459.14**		496.63
Expenditure on other sub contracts		**334.60**		351.04
Carriage outward		**287.38**		377.52
Payment to security agencies		**222.79**		225.32
Repairs & maintenance:				
Buildings	**45.03**		60.45	
Plant & machinery	**32.28**		38.56	
Others	**88.12**	**165.43**	107.14	206.15
Insurance		**147.02**		124.18
Travelling & conveyance		**124.48**		125.03
Bank charges		**104.22**		89.76
R&D expense		**74.97**		123.12
Hire charges		**62.34**		74.20
Expenditure on collaborations & royalty		**57.72**		138.31
Rates & taxes		**43.65**		50.05
Office expense		**40.29**		45.06
Expenditure on skill development		**39.38**		51.84
Legal, audit & certification expense		**35.04**		31.55
EDP, software & lease line expense		**29.73**		35.58
Corporate social responsibility		**28.80**		26.54
Water charges		**26.94**		40.38
Expenditure in connection with exports		**24.39**		10.06
Rent non residential		**20.23**		22.05
Entertainment & courtesy expenses		**9.89**		10.77
Environmental protection		**7.17**		7.82
Seminar, development and training expense		**6.02**		7.27
Publicity & public relation expense		**5.43**		19.90
Miscellaneous expense		**73.28**		69.98
		2430.33		2760.11
Net exchange variation (gain) / loss		**(434.73)**		(66.54)
		1995.60		2693.57

Note [34]
Disclosure-Manufacture, administration, selling & distribution expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
(i) Legal, audit & certification expense includes :		
Payment to Statutory Auditors:		
Audit fees	**0.86**	0.82
Tax audit	**0.18**	0.20
Quarterly limited review & others	**0.55**	0.57
Audit expense	**0.11**	0.20
	1.70	1.79
Payment to Cost Auditors:		
Audit fees	**0.15**	0.15
(ii) Director's fees	**0.23**	0.16
(iii) Expenditure on departmental repair & maintenance:		
Plant & machinery	**205.73**	238.08
Buildings	**42.38**	47.64
Others	**34.96**	40.47
(iv) Expenditure on research & development	**179.57**	267.59
(v) Expenditure on foreign travel		
No. of tours	**323**	332
Expenditure	**6.52**	6.33

(vi) BHEL from own contribution has spent cumulative ₹ 170.31 crore (upto previous year ₹ 117.50 crore) on AUSC project and accounted as R&D expenditure.

(vii) **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, 2020	As at March 31, 2019
A. Amount required to be spent during the year	**28.80**	6.70
B. Amount available from previous year	**21.83**	31.14
C. Total (A+B)	**50.63**	37.84
D. Amount spent during the year on-		
(i) Construction/ acquisition of any asset	**-**	-
(ii) On purposes other than (i) above	**35.12**	16.01
Total	**35.12**	16.01
Amount carried forward:	**15.51**	21.83
Current	**6.58**	19.43
Non-current	**8.93**	2.40

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
	In cash	Yet to be paid in cash	In cash	Yet to be paid in cash
(i) Construction / acquisition of any asset	**-**	**-**	-	-
(ii) On purposes other than (i) above	**23.42**	**5.38**	4.16	2.54
	23.42	**5.38**	4.16	2.54

Note [35]
Provisions

Refer point 10, 11 & 14 of Note [2] for accounting policy on employee benefits, provisions and impairment of assets.

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Doubtful debts, liquidated damages and loans, advances & deposits				
Created during the year	**2335.46**		3024.98	
Less: withdrawal during the year	**2300.75**	**34.71**	1231.80	1793.18
Contractual obligations				
Created during the year	**436.35**		746.42	
Less: withdrawal during the year	**573.11**	**(136.76)**	795.92	(49.50)
Others				
Created during the year	**315.42**		240.65	
Less: withdrawal during the year	**180.44**	**134.98**	244.23	(3.58)
		32.93		1740.10
Impairment of investment in JVs		**(0.27)**		4.10
Losses written off		**-**		2.12
Bad debts written off		**57.60**		26.03
Liquidated damages & contractual charges charged off		**165.20**		65.03
		255.46		1837.38

Note [36]
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, 2020		For the year ended March 31, 2019	
Discount on commercial papers		**204.12**		9.32
Unwinding of provisions and deferred liabilities		**195.61**		190.93
Interest cost:				
Banks / Financial Institutions	**45.27**		59.56	
Foreign Financial Institutions	**26.32**		9.89	
On lease obligation	**16.03**		14.73	
Others	**17.24**	**104.86**	2.50	86.68
Other expenses on issuance of Commercial paper		**2.36**		0.36
		506.95		287.29
Less: Borrowing cost capitalised		**-**		-
		506.95		287.29

Note [37]
Tax expenses

Refer point 13 of Note [2] for accounting policy on income taxes. (₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Current tax				
For current year	**63.44**		719.06	
For earlier years	**(61.92)**	**1.52**	16.01	735.07
Deferred tax				
For current year	**(161.53)**		3.14	
For earlier years*	**970.87**	**809.34**	100.64	103.78
		810.86		838.85

* It includes reversal of DTA of ₹ 956.50 crore on account of change in effective tax rate (ETR) from 34.944% to 25.168% in the current year..

Reconciliation of Income tax expense and accounting profit (TCI) multiplied by income tax rate

(₹ in Crore)

Particulars		For the year ended March 31, 2020	For the year ended March 31, 2019
Total Comprehensive Income / Loss (TCI) before tax	A	**(1004.17)**	1864.30
Statutory income tax rate	B	**25.168%**	34.944%
Tax expense	**C = (AXB)**	**(252.73)**	651.46
Difference due to:			
Expenses not deductible for tax purposes		**72.65**	60.24
Income exempt from income tax		**(4.10)**	(5.65)
Income tax incentives			(47.87)
Change in tax rate		**974.41**	-
Change in tax expense - earlier years		**(47.55)**	116.65
Subtotal	D	**995.41**	123.37
Net Tax Expense	**E = (C+D)**	**742.68**	774.83

Note [38]

Other comprehensive income / expenditure

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Income / (expenditure)		
Re measurement of defined employee benefits	**(342.06)**	(183.20)
Less: Income tax related to above items*	**(68.18)**	(64.02)
	(273.88)	(119.18)
* Includes		
Current tax	**-**	--
Deferred tax$	**(68.18)**	(64.02)

$ It includes reversal of DTA of ₹ 17.91 crore on account of change in effective tax rate (ETR) from 34.944% to 25.168% in the current year.

Note : The Company has opted for new section 115BAA of the Income Tax Act 1961 in the current year and accordingly

(a) the provision for current and deferred tax has been determined at the rate of 25.168% ,

(b) the deferred tax assets as on April 1, 2019 have been restated at the rate of 25.168% which resulted in the reversal of deferred tax assets of ₹ 974.41 Crs, as a result decreasing the PAT by ₹ 956.50 Crore & OCI by ₹ 17.91 Crore.

Note [39]
Earnings per share

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Profit / (Loss) attributable to equity shareholders	**(1472.97)**	1208.65
Weighted average number of equity shares	**348.21**	362.94
Basic and diluted earnings per share of INR 2 each	**(4.23)**	3.33

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. The weightage average number of equity share for 2018-19 have been worked out considering buy back of shares completed on January 10, 2019. The basic and diluted EPS are same.

Note [40]
Dividend per share

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
A Dividend on equity shares declared and paid during the year		
Final dividend of ₹ **1.20** (previous year ₹ 1.02) per qualifying equity share	**417.85**	374.49
Dividend distribution tax on final dividend	**85.89**	76.97
Interim dividend of ₹ **Nil** (previous year ₹ 0.80) per qualifying equity share	-	278.57
Dividend distribution tax on interim dividend	-	57.27
	503.74	787.30
B Proposed dividend on equity shares not recognised as liability		
Proposed final dividend of ₹ **Nil** per share for FY 2019-20 (FY 2018-19 ₹ 1.20 per share)	-	417.85
Dividend distribution tax on final dividend	-	85.89
	-	503.74

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 [41] - Contingent liabilities and commitments

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
A. Contingent liabilities		
Claims against the company not acknowledged as debt :		
(a) Sales tax matters	**1147.53**	1194.96
(b) Service tax matters	**793.64**	960.78
(c) Court & arbitration matters	**690.01**	583.81
(d) Excise duty matters	**161.76**	229.82
(e) Customs duty and others	**5.80**	5.80
(f) Other matters (incl. disputed staff cases)	**38.16**	48.79
(g) Claim towards Liquidated damages (LD)	**5231.57**	4410.68
	8068.47	7434.64

(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 are remote and 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.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
(iv) Movement in contingent liabilities		
Balance at the beginning of the year	**7434.64**	8455.91
Less: Reduction out of opening balance	**1443.71**	2720.04
Add: Additions (net) during the year	**2077.54**	1698.77
Balance at the end of the year	**8068.47**	7434.64

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
B. Commitments		
(a) Estimated amount of contracts, net of advances, remaining to be executed on capital account and not provided for.	**325.72**	274.79
(The above includes related to acquisition of intangible assets)	**(12.30)**	(3.23)
(b) Investment in the Joint Venture entities 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.	**50.00**	50.00
(c) Commitments towards additional investment in the Joint Venture in case of inability of other JV partner to take up additional equity stake	**-**	-

(d) 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 [42]

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. The matter for its waiver has been taken up with the Government since there was no stipulation for payment of such guarantee fee at the time the loans (guaranteed by Government) were taken by the Company.

Note [43]

The Company had taken over Amorphous Silicon Solar Cell Plant (ASSCP), Gurugram 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 [44]

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). Out of the Trade receivables of ₹**25283** crore (Previous Year ₹28876 crore), ₹**8098** crore (previous year ₹7388 crore) are outstanding in completed projects. Out of completed contracts, the projects reconciled with customers have outstanding trade receivables of ₹**6676** crore (previous year ₹6622 crore).

Note [45]

Disclosure on Leases - Ind AS 116

The Company has adopted Ind AS 116 'Leases' effective 1st April 2019. Transitional adjustment is done retrospectively with cummulative effect on 1st April 2019, the date of initial application of this Ind AS, as prescribed in para C5(b) with alternate given in para C8(ii) for right-of-use asset and this has no impact on opening retained earnings.

The effect of adoption of Ind AS 116 as at April 1 2019 (increase/(decrease)) is as follows:

(₹ in Crore)

	Amount
Assets	
Right-of-use assets	**443.44**
Property, plant and equipment	**(423.34)**
Total assets	**20.10**
Liabilities	
Lease liabilities	**20.10**
Total liabilities	**20.10**

i. 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 conferencing equipments and peripherals. The period of lease agreement is generally for five years . 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, maintenance and principal value. The interest and maintenance charges are charged to Statement of Profit and Loss and principal amount is adjusted to lease obligations.

Leases previously classified as finance leases

The company did not change the initial carrying amounts of recognised assets at the date of initial application for leases previously classified as finance leases (i.e., the right-of-use assets equal the lease assets recognised under Ind AS 17).

Leases previously accounted for as operating leases

The company recognized right-of-use assets and lease liabilities for those leases previously classified as operating leases, except for short-term leases & low value underlying leased assets . The company recognizes a lease liability measured at the present value of the remaining lease

payments, discounted using the company's incremental borrowing rate at the date of initial application and correspondingly measured the right-of-use asset at an amount equal to the lease liability.

The company applied the following available practical expedients :

(i) The short-term leases exemptions to leases with lease term that ends within 12 months of the date of initial application and the total lease term is 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 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019
Not later than 1 year #	**65.04**	72.42	**11.49**	13.97	**53.55**	58.45
Later than 1 year and not later than 5 years	**87.62**	112.07	**12.25**	16.62	**75.37**	95.45
Later than 5 years	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00

The amount of future minimum lease payments in respect of leases where remaining lease term as at the end of March 31,2020 is less than 12 months is ₹ **5.97** cr.

b. Reconciliation of operating lease commitments as at March 31, 2019 with the lease liabilities recognized in the Balance Sheet as at April 1, 2019 and movement in lease liabilities during the year ended March 31, 2020.

(₹ in Crore)

	Amount
Operating lease commitments [MLP] as at March 31, 2019	**40.49**
Less:	
Commitments relating to short-term leases	**4.01**
Commitments relating to low value assets	**0.39**
Operating lease commitments [MLP] as at April 1, 2019	**36.09**
Discounted operating lease commitments as at 1 April 2019	**20.10**
Add: Finance lease obligations reclassified to lease liabilities*	**158.31**
Lease Liabilities as at April 1,2019	**178.41**
Add: Additions	**20.38**
Add: Accretion of interest	**16.03**
Less : Payments	**82.78**
Lease Liabilities as at March 31,2020*	**132.04**

* includes interest accrued of ₹ 3.12 crore & ₹ 4.41 crore as at March 31,2020 & March 31,2019 respectively.

c. Amounts recognised in profit or loss:

(₹ in Crore)

Particulars	For the Year Ended March 31,2020
Expense relating to Short-term leases (Refer Note No.34)	5.95
Expense relating to low value assets leases (Refer Note No.34)	1.21
Depreciation charge of right-of-use assets	66.63
Interest expense (included in finance cost)	16.03

d. The company has various lease contracts that have not yet commenced as at March 31 2020. The future lease payments for these non-cancellable lease contracts are as follows:

(₹ in Crore)

Particulars	Amounts
Not later than 1 year	0.07
Later than 1 year and not later than 5 years	0.08
Later than 5 years	-

ii. Finance Lease Commitments - Company as Lessor

The Company has given locomotives under finance lease. The components of finance lease receivables are as follows:

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Gross investment in lease:		
Not later than 1 year	-	0.03
Later than 1 year and not later than 5 years	-	-
Later than 5 years	-	-

Net Investment in Finance Receivables

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Unearned finance income	-	-
Net investment in finance receivables	-	0.03
Contingent rent recognised as Income	-	-
Unguaranteed residual values accruing	-	-

Present value of Minimum Lease Receivables are as follows

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Present value of minimum lease :		
Less than one year	-	0.03
Between one and five years	-	-
More than five years	-	-

Note [46] - Disclosure on 'Employee benefits' - Ind AS 19

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

A. 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.

I. 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 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
Opening balance	**2034.82**	2052.77	**1862.77**	1814.02	**172.05**	238.75
Included in Profit for the Year :						
Current Service Cost	**105.03**	107.14	**-**	-	**105.03**	107.14
Past Service Cost					**-**	-
Interest cost /(income)	**157.70**	162.17	**157.70**	162.17	**-**	-
Total amount recognised in Profit for the Year	**262.73**	269.31	**157.70**	162.17	**105.03**	107.14
Included in Other Comprehensive income (OCI) :						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Change in Demographic Assumption	**(0.62)**	-	**-**	-	**(0.62)**	-
Change in Financial Assumption	**151.51**	(22.37)	**-**	-	**151.51**	(22.37)
Experience Adjustment	**(29.11)**	85.11	**(20.70)**	(2.17)	**(8.41)**	87.28
Total amount recognised in other comprehensive income	**121.78**	62.74	**(20.70)**	(2.17)	**142.48**	64.91
Others						
Contributions paid by the Employer	**-**	-	**172.06**	238.75	**(172.06)**	(238.75)
Benefits paid	**(351.00)**	(350.00)	**(351.00)**	(350.00)	**-**	-
Unpaid Benefits paid	**-**	-			**-**	-
Closing balance	**2068.33**	2034.82	**1820.83**	1862.77	**247.50**	172.05

II. Details of Plan assets

Particulars	As at March 31,2020	As at March 31,2019
Funds managed by insurer	**56.59%**	62.47%
High quality corporate bonds (quoted)	**33.88%**	34.30%
State Government securities (quoted)	**2.74%**	2.32%
Equity shares of listed companies (quoted)	**0.84%**	0.90%
Bank balance	**5.95%**	0.01%
Total	**100.00%**	100.00%

III. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rate % (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

IV. Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is :

(₹ in Crore)

Particulars	Gratuity (Funded)			
	As at March, 31 2020		As at March, 31 2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(85.66)**	**93.53**	(73.71)	79.98
Change in salary escalation rate (0.50% movement)	**53.64**	**(54.04)**	80.86	(75.13)

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.

V. Expected maturity analysis of the gratuity plan in future years

(₹ in Crore)

Particulars	Gratuity (Funded)	
	As at March 31,2020	As at March 31,2019
Less than 1 year	**313.22**	318.18
Between 1-2 years	**206.70**	216.76
Between 2-3 years	**178.18**	176.35
Between 3-4 years	**129.93**	155.27
Between 4-5 years	**114.23**	112.98
Between 5-6 years	**93.70**	112.98
Over 6 years	**1032.37**	942.30
Total	**2068.33**	2034.82

Expected contributions to gratuity plans for the year ending 31 March 2021 are ₹ **137.11** crore

The weighted average duration of the gratuity defined benefit plan obligation at the end of the reporting period is **14.91** years (31 March 2019: 14.89 years.)

VI. 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.

B. 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.

I. 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 31,200	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
Opening balance	**2080.78**	1925.72	**1935.72**	1881.03	**145.06**	44.69
Included in profit for the year :						
Current service cost	**40.15**	39.48	**-**	-	**40.15**	39.48
Interest cost / (income)	**161.26**	152.13	**161.26**	152.13	**-**	-
Total amount recognised in profit for the year	**201.41**	191.61	**161.26**	152.13	**40.15**	39.48
Included in Other comprehensive income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**(0.91)**	-	**-**	-	**(0.91)**	-
Financial assumptions	**193.77**	31.71	**-**	-	**193.77**	31.71
Experience adjustment	**(31.85)**	76.74	**(5.26)**	2.87	**(26.59)**	73.87
Total amount recognised in other comprehensive income	**161.01**	108.45	**(5.26)**	2.87	**166.27**	105.58
Others						
Contributions paid by the employer	**-**	-	**145.06**	44.69	**(145.06)**	(44.69)
Benefits paid	**(158.00)**	(145.00)	**(158.00)**	(145.00)	**-**	-
Closing balance	**2285.20**	2080.78	**2078.78**	1935.72	**206.42**	145.06

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.

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

III. 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 31,2020		As at March 31,2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(101.67)**	**104.64**	(102.71)	104.19
Change in cost (0.50% movement)	**105.37**	**(102.38)**	105.27	(103.71)

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.

IV. Expected maturity analysis of the Post retirement medical Benefit plan in future years

(₹ in Crore)

Particulars	Post Retirement Medical Benefit	
	As at March 31,2020	As at March 31,2019
Less than 1 year	**155.27**	139.44
Between 1-2 years	**172.35**	150.01
Between 2-3 years	**189.58**	163.18
Between 3-4 years	**209.49**	178.49
Between 4-5 years	**232.53**	194.36
Between 5-6 years	**259.27**	211.85
Over 6 years	**1066.71**	1043.45
Total	**2285.20**	2080.78

Expected contributions to Post retirement medical benefit plan for the year ending 31 March 2021 are ₹ **53.10** crore.

The weighted average duration of the post retirement medical benefit plan obligation at the end of the reporting period is **11.44** years (31 March 2019: 11.97 years).

V. 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.

C. 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.

I. Details of interest shortfall in PF Trust

(₹ in Crore)

Particulars	For the year	
	2019-20	2018-19
Excess / (shortfall) in PF interest liability based on actuarial valuation for the year	**(23.18)**	(5.15)
Accumulated provision for shortfall in PF interest liability based on actuarial valuation	**30.14**	6.96
Remeasurement gain/(loss) recognised through other comprehensive income statement	**(31.46)**	(12.53)
Interest shortfall / (surplus) accounted through statement of profit & loss	**(8.28)**	(7.38)

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 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
BHEL EPF Trust, Ranipur, Hardwar	**1470.95**	1379.70	**1472.38**	1,387.17	**1.43**	7.47
BHEL Employee Provident Fund, Trichy	**1029.10**	1119.51	**1025.27**	1119.83	**(3.83)**	0.32
BHEL Employee Provident Fund, Bhopal	**1239.54**	1176.79	**1232.47**	1175.50	**(7.07)**	(1.29)
BHEL New Delhi Employees Provident Fund Trust	**1169.96**	1008.05	**1176.53**	1018.78	**6.57**	10.73
BHEL Employee Provident Fund, Hyderabad	**835.64**	811.28	**853.11**	835.87	**17.47**	24.59
BHEL PPD EPF Trust, Chennai	**741.03**	656.18	**726.19**	651.53	**(14.84)**	(4.65)
BHEL Employee Provident Fund, Bengaluru	**723.36**	613.12	**721.87**	616.44	**(1.49)**	3.32
BHEL (BAP Unit) EPF Trust, Ranipet	**416.21**	392.94	**413.30**	391.92	**(2.91)**	(1.02)
BHEL Employee Provident Fund Trust, Jhansi	**407.02**	365.26	**414.19**	371.89	**7.17**	6.63
Bharat Heavy Plates & Vesseles Limited Employee Contributory Provident Fund, Vizag	**127.58**	118.79	**158.81**	165.08	**31.23**	46.29
Total	**8160.39**	7641.62	**8194.12**	7734.01	**33.73**	92.39

II. 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, 2020	March 31, 2019	March 31, 2020	March 31, 2019
Opening balance	**7641.62**	7188.67	**7734.01**	7302.12
Included in profit for the year :				
Current service cost	**327.33**	341.66	**-**	-
Interest cost / (income)	**636.48**	567.91	**656.50**	567.91
Total amount recognised in profit for the year #	**963.81**	909.57	**656.50**	567.91
Included in Other Comprehensive Income (OCI):				
Remeasurement loss (gain):				
Actuarial loss (gain) arising from:				
Demographic assumptions	**-**	-	**-**	-
Financial assumptions	**2.30**	0.36	**-**	-
Experience adjustment	**30.75**	43.77	**(45.63)**	23.07
Total amount recognised in other comprehensive income#	**33.05**	44.13	**(45.63)**	23.07
Others				
Contributions paid by the employer	**722.01**	698.53	**327.33**	341.66
Employee Contribution	**-**	-	**722.01**	698.53
Benefits paid	**(1497.98)**	(1363.08)	**(1497.98)**	(1363.08)
Settlements/Transfer-in	**297.88**	163.80	**297.88**	163.80
Closing balance	**8160.39**	7641.62	**8194.12**	7734.01

Note: Interest shortfall in respect of PF trust having deficit only have been accounted through statement of profit and loss and other comprehensive income statement as shown under point (I) above.

III. Details of Plan assets

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Govt. of India securities (Quoted)	**1252.00**	1499.90
State Government securities (Quoted)	**3305.75**	2698.48
Corporate bonds (Quoted)	**2920.68**	2840.74
Equity shares of listed companies (Quoted)	**7.75**	18.40
Special deposit (Unquoted)	**468.86**	495.33
Liquid fund (Quoted)	**18.69**	25.13
Short term deposit (Unquoted)	**48.04**	1.82
Mutual fund (Quoted)	**172.36**	154.21
Total	**8194.12**	7734.01

IV. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Expected statutory interest rate on the ledger balance	**8.50%**	8.65%
Expected short fall in interest earnings on the fund	**0.05%**	0.05%
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2006-08)
Withdrawal rate % (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

V. 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 31,2020		As at March 31,2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(1.35)**	**1.43**	(1.25)	1.29

VI. Expected maturity analysis in future years

Particulars	Provident Fund	
	As at March 31,2020	As at March 31,2019
Within the next 12 months	**836.14**	798.36
Between 2-5 years	**1984.26**	1450.20
Between 5-10 years	**1502.75**	1095.62
Beyond 10 years	**3837.24**	4297.44
Total	**8160.39**	7641.62

D. 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).

I. Movement in net defined benefit (asset)/liability

(₹ in Crore)

Particulars	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at					
	March 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
Opening balance	**8.53**	8.44	**-**	-	**8.53**	8.44
Included in profit for the year :						
Current service cost	**0.58**	0.49	**-**	-	**0.58**	0.49
Interest cost / income	**0.64**	0.67	**-**	-	**0.64**	0.67
Total amount recognised in profit for the year	**1.22**	1.16	**-**	-	**1.22**	1.16
Included in other comprehensive income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**-**	-	**-**	-	**-**	-
Financial assumptions	**1.21**	0.20	**-**	-	**1.21**	0.20
Experience adjustment	**0.65**	(0.03)	**-**	-	**0.65**	(0.03)
Total amount recognised in other comprehensive income	**1.86**	0.17	**-**	-	**1.86**	0.17
Others						
Contributions paid by the employer	**-**	-	**-**	-	**-**	-
Benefits paid	**(2.05)**	(1.24)	**-**	-	**(2.05)**	(1.24)
Closing balance	**9.56**	8.53	**-**	-	**9.56**	8.53

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Settlement Allowance	
	As at March 31,2020	As at March 31, 2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)**
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

III. Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Settlement Allowance			
	As at March, 31 2020		As at March 31, 2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(0.67)**	**0.69**	(0.32)	0.32

IV. Expected maturity analysis of the settlement allowance in future years

(₹ in Crore)

Particulars	Settlement Allowance	
	As at March 31,2020	As at March 31, 2019
Less than 1 year	**1.10**	1.14
Between 1-2 years	**0.77**	0.89
Between 2-3 years	**0.68**	0.67
Between 3-4 years	**0.51**	0.59
Between 4-5 years	**0.45**	0.43
Between 5-6 years	**0.37**	0.39
Over 6 years	**5.68**	4.42
Total	**9.56**	8.53

E. 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. 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.

I. Movement in net defined benefit (asset)/liability

(₹ in Crore)

Particulars	Long Term Leave Liability	
	As at March 31,2020	As at March 31,2019
Opening balance	**1492.06**	1525.65
Included in profit for the year :		
Current service cost	**155.96**	174.81
Interest cost (income)	**115.63**	120.53
Actuarial loss (gain)	**(138.64)**	(23.38)
Total amount recognised in profit for the year	**132.95**	271.96
Others		
Contributions paid by the employer	**-**	-
Benefits paid	**232.64**	305.55
Closing balance	**1392.37**	1492.06

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	Long Term Leave Liability	
	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)**
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

Note [47] - Related Parties Transactions

(i)

Subsidiary company:	Joint ventures:	Others :
BHEL Electrical Machines Limited	BHEL-GE Gas Turbine Services Pvt. Ltd. (BGGTS)	Central Government controlled entities
	NTPC-BHEL Power Projects Pvt. Ltd. (NBPPL)	Provident fund trusts
	Raichur Power Corporation Ltd. (RPCL)	Gratuity trusts, PRMB trust, Pension trust
	Dada Dhuniwale Khandwa Power Ltd.	
	Powerplant Performance Improvement Ltd.	

(ii) **Other related parties (Key Management Personnel- Functional Directors: existing and retired and Company Secretary):**

Name of the Related Parties	Nature of Relationship
Shri [Dr.] Nalin Shinghal	Chairman & Managing Director (w.e.f. July 8, 2019) Additional Charge Director (HR) (September 1, 2019 to October 15, 2019)
Shri Atul Sobti	Chairman & Managing Director (upto June 30,2019)
Shri D. Bandyopadhyay	Director (Human Resources) (upto August 31,2019) Additional Charge CMD (July 2, 2019 to July 7,2019)
Shri Subodh Gupta	Director (Finance)
Shri S. Balakrishnan	Director (IS & P)
Shri Manoj Kumar Varma	Director (Power)
Shri Kamalesh Das	Director (Engineering, R&D)
Shri Anil Kapoor	Director (Human Resources) (w.e.f. October 15, 2019)
Shri Rajeev Kalra	Company Secretary
Shri S. Basu	Managing Director - BHEL EML (upto September 14,2019). After cessation continued as OSD till March 12, 2020)
	Board resolution for appointing Mr. T. S. Chakravarthy as MD has been passed in its meeting on 5th May, 2020.

(₹ in Crore)

Key Management Personnel (KMP)	For the year ended	
	March 31, 2020	March 31, 2019
Payment of Salaries	**4.06**	4.70
Relatives of KMP		
Amounts due to BHEL at the end of the year	**0.00**	0.01
Details of transactions		
Short-term employee benefits	**3.48**	4.10
Post-employment benefits	**0.58**	0.60
Total remuneration paid	**4.06**	4.70

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.

(iii) Details of Transactions with Joint Ventures and Balances

(₹ in Crore)

Particulars	For the Year ended							
	March 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
	BGGTS		RPCL		NBPPL		Total	
Sales of Goods and services	**169.61**	278.33	**17.28**	34.94	**2.80**	6.08	**189.69**	319.35
Dividend income	**16.30**	16.18					**16.30**	16.18
Royalty income	**1.10**	1.17					**1.10**	1.17
Purchase of Goods and Services	**0.86**	0.98	**21.61**		**3.05**	4.83	**25.52**	5.81
Amounts due to BHEL at the end of the year	**29.45**	76.98	**541.93**	510.71	**262.51**	280.93	**833.89**	868.62
Amounts due from BHEL (incl. advances) at the end of the year	**0.24**	0.35	**9.30**	11.00	**79.16**	82.52	**88.70**	93.87
Provision for doubtful debts & advances	-	0.70	-	-	-	1.64	-	2.34

iv) Details of Transactions with Subsidiary Company and Balances

(₹ in Crore)

Subsidiary Company	For the year ended	
	March 31,2020	March 31,2019
Purchase of Goods and Services	-	-
Interest income	-	-
Amounts due to BHEL at the end of the year	**3.94**	3.94
Amounts due from BHEL (incl. advances) at the end of the year	**0.77**	1.07
Provision for doubtful advances	**3.70**	3.70

Note [48] - Disclosure [Movement in provisions] - Ind AS - 37

(a) Liquidated Damages (₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Opening balance	**7549.65**	5846.50
Add: Additions	**1706.20**	1967.45
Less: Usage/ Write off/payment	**3.88**	12.67
Less: Withdrawal/adjustments	**784.30**	251.63
Closing Balance	**8467.67**	7549.65

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 (i)(g) of Note [41].

(b) Contractual Obligation (₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Opening balance	**5295.44**	5338.19
Add: Borrowing cost	**195.61**	190.93
Add: Additions	**567.75**	893.91
Less: PV adjustment	**119.83**	156.71
Less: Usage/ write off/payment	**63.11**	128.65
Less: Withdrawal/adjustments	**509.42**	851.48
Add/(Less): Change in estimate and rates	**(11.57)**	9.25
Closing Balance	**5354.87**	5295.44

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.

Note [49] - Disclosure 'Revenue from Contracts with Customers' - Ind AS-115

a. Movement in impairment provisions

(₹ in Crore)

Particulars	2019-20		2018-19	
	Trade receivables	Contract assets	Trade receivables	Contract assets
Opening balance	**6398.57**	**654.73**	6104.51	719.38
Add: Additions	**463.41**	**192.17**	931.51	101.96
Less: Write off	**57.60**	**-**	25.92	0.11
Less: Reversal	**1358.81**	**41.85**	611.53	166.50
Closing balance	**5445.57**	**805.05**	6398.57	654.73

b. Disaggregation of revenue from contracts with customers

(₹ in Crore)

Particulars	Power		Industry		Total
	Within India	Outside India	Within India	Outside India	
2019-20					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	**1946.05**	**34.48**	**3603.97**	**1.88**	**5586.38**
(b) Over time	**9197.31**	**3782.60**	**1922.28**	**2.07**	**14904.26**
2018-19					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	2830.48	22.30	3740.30	28.41	6621.49
(b) Over time	17393.14	3227.98	2177.01	3.32	22801.45

(₹ in Crore)

Particulars	2019-20		2018-19	
	Power	Industry	Power	Industry
Revenue from customers				
CPSU	**3007.04**	**2324.72**	5323.43	2320.06
Railways	**-**	**1434.87**	-	1595.98
TANGEDCO	**2054.92**	**-**	5331.04	-
TSGENCO	**2178.63**	**-**	4544.66	-

c. Contract Balances (net of provisions)

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Trade Receivables	**12378.05**	15796.00
Contract assets (incl. unbilled revenue)	**24093.05**	22819.24
Contract liabilities	**6718.43**	6838.98

d. Contract revenue recognised

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Revenue recognised against contract liabilities (adjustment of customer advances and valuation adjustment during the year)	**3140.51**	2573.84
Revenue recognised against performance obligation satisfied in previous year (impact due to change in contract revenue)	**727.34**	210.44

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 [50] - Change in the practice - Ind AS-115

During the year ended 31 March 2020, the company has changed its accounting practice, with respect to measure of cost for recognising revenue for projects covered under input method , by including cost of 'manufactured items- ready for dispatch' in the incurred cost in relation to the total estimated cost. This change in practice better reflects the measure of progress made under the terms of contract with the customers, and therefore provides more relevant information to users of financial statements.

This change in accounting practice has been applied retrospectively and has impacted the financial statements as follows:

(₹ in Crore)

BALANCE SHEET	As at March 31, 2020			As at March 31, 2019			As at April 1, 2018		
	Without impact	Impact	With Impact	Without impact	Impact	With Impact	Without impact	Impact	With Impact
Inventory	**10004.34**	**(1098.88)**	**8905.46**	8113.49	(316.20)	7797.29	6258.76	(233.85)	6024.91
Contract Assets	**22855.48**	**1237.57**	**24093.05**	22445.31	373.93	22819.24	17992.17	300.20	18292.37
Deferred Tax Asset (Net of Liab)	**2788.45**	**(32.24)**	**2756.21**	3514.53	(17.16)	3497.37	3625.88	(20.78)	3605.10
Total Assets	**61164.97**	**106.45**	**61271.42**	64390.48	40.57	64431.05	63718.08	45.57	63763.65
Other Equity	**28408.02**	**76.78**	**28484.80**	30703.45	31.94	30735.39	31866.80	38.68	31905.48
Total Equity	**29104.43**	**76.78**	**29181.21**	31399.86	31.94	31431.80	32601.08	38.68	32639.76
Provisions	**8300.00**	**29.67**	**8329.67**	7940.02	8.63	7948.65	8705.88	6.89	8712.77
Total Liabilities	**32060.54**	**29.67**	**32090.21**	32990.62	8.63	32999.25	31117.00	6.89	31123.89
Total Equity & Liabilities	**61164.97**	**106.45**	**61271.42**	64390.48	40.57	64431.05	63718.08	45.57	63763.65

P& L Statement	For the year ended March 31, 2020			For the year ended March 31, 2019		
	Without impact	Impact	With Impact	Without impact	Impact	With Impact
Revenue from Operations	**20622.48**	**863.58**	**21486.06**	30348.95	73.73	30422.68
Acc/(Dec) to FG	**944.54**	**(782.61)**	**161.93**	113.42	(82.36)	31.06
Provision	**234.41**	**21.05**	**255.46**	1835.65	1.73	1837.38
Profit Before Tax	**(722.03)**	**59.92**	**(662.11)**	2057.86	(10.36)	2047.50

Earnings per share (basic as well as diluted) for the current year increased by ₹ 0.13 per share and the preceding year decreased by ₹ 0.02 per share consequent to the change in accounting practice.

Note [51]

Nationwide lockdown , consequent to spread of Covid-19 pandemic had temporarily disrupted the operations of the company. The manufacturing facilities and site executions during this period [March 23rd to March 31st, 2020] were inoperative, which alongwith the COVID impact globally (before the lockdown in India) impacted the revenues for the year. Broadly, the impact on revenue for the year is assessed at ~ ₹ 4000 cr. 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 [52] - 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)

b. Financial Assets / Liabilities Classification

(₹ in Crore)

	Carrying Amount	
	As at March 31,2020	As at March 31,2019
Financial Assets at amortised cost		
Trade receivables	**12378.05**	15796.00
Cash & cash equivalent	**1402.86**	795.60
Other bank balances	**5015.70**	6707.74
Loans	**218.16**	240.27
Other financial assets	**123.85**	162.19
Financial assets at fair value through profit & loss		
Investments (Equity Instruments)	**3.09**	2.94
Financial liabilities at amortised cost		
Trade payables	**9899.85**	12078.09
Other financial liabilities	**1585.07**	2096.81
Lease obligation	**132.04**	158.31
Short term borrowings	**4933.39**	2431.74

(₹ in Crore)

Financial assets and liabilities measured at fair value- recurring fair value measurements	Level 3 Hierarchy	
	As at March 31,2020	As at March 31,2019
Financial assets:		
Investment in unquoted equity instruments	**3.09**	2.94

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 31,2019	2.94
Changes in fair value	0.15
As at March 31,2020	3.09

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:

- **Credit risk**
- **Liquidity risk**
- **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 payments and also retentions which are released on completion of such projects. Since majority customers profile pertains to Government sector, constituting 81% of total receivables coupled with the fact that the company itself is a CPSE, credit risk is relatively low. In respect of private sectors 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 31,2020	As at March 31,2019
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Cash and cash equivalents	**1402.86**	795.60
Other bank balances	**5015.70**	6707.74
Loans	**218.16**	240.27
Other financial assets	**123.85**	162.19
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) including impairment loss		
Trade receivables	**12378.05**	15796.00

Concentration of credit risk- Geographical	Percentage of total revenue	
	As at March 31,2020	As at March 31,2019
Within India	**92.07%**	94.30%
Outside India	**7.93%**	5.70%

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 31,2020	As at March 31,2019
Central Public Sector Undertakings incl Railways and Govt Deptt	**33.54%**	32.85%
State Electricity Boards	**47.29%**	49.65%
Private Customers and others	**11.24%**	11.80%
Exports	**7.93%**	5.70%
	100.00%	100.00%

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)

	As at March 31,2020	As at March 31,2019
Balance as at April 1	**22.34**	22.29
Impairment loss recognised / write off/ withdrawal	**10.04**	0.05
Balance as at March 31	**32.38**	22.34

(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 31,2020	As at March 31,2019
Balance as at April 1	**7053.30**	6823.89
Impairment loss recognised	**655.58**	1033.47
Amounts written off/ (withdrawal)	**(1458.26)**	(804.06)
Balance as at March 31	**6250.62**	7053.30

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 used for better treasury management operations to optimise the returns on investments.

The following are the contractual maturities of non-derivative financial liabilities, based on contractual cash flows:

Particulars	As at March 31,2020		As at March 31,2019	
	Within 1 year	Exceeding 1 year	Within 1 year	Exceeding 1 year
Trade payables	**8891.98**	**1007.87**	11375.11	702.98
Deposits from contractors and others	**491.93**	**150.99**	522.09	85.17
Lease obligations	**56.67**	**75.37**	62.86	95.45
Other Payables/liabilities				
Employee dues	**285.65**	**-**	510.32	-
Other dues	**565.74**	**-**	884.12	-
Capex dues	**82.73**	**8.03**	88.75	6.36
Short term borrowings	**4933.39**	**-**	2431.74	-
TOTAL	**15308.09**	**1242.26**	**15874.99**	**889.96**

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 31.03.2020 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 31,2020		As at March 31,2019		As at March 31, 2020	As at March 31, 2019
	Euro	Equivalent INR	Euro	Equivalent INR	Others INR	Others INR
Assets						
Trade receivable	**148.34**	**1217.60**	187.45	1441.89	**6.34**	52.22
Contract assets	**252.85**	**2075.37**	270.26	2080.95	**70.83**	72.17
Other assets	**15.40**	**122.58**	14.74	114.21	**245.63**	195.45
Sub Total (A)	**416.59**	**3415.55**	472.45	3637.05	**322.80**	319.84
Liabilities						
Advances from customer	**42.30**	**294.89**	45.96	316.67	**37.56**	38.69
Trade payables and others	**60.20**	**507.94**	62.42	494.44	**209.13**	288.55
Sub Total (B)	**102.50**	**802.83**	108.38	811.11	**246.69**	327.24
Assets (Net of Liabilities)	**314.09**	**2,612.72**	364.07	2,825.94	**76.11**	(7.40)

	USD	Equivalent INR	USD	Equivalent INR
Assets				
Trade receivable	**130.45**	**978.26**	226.08	1555.43
Contract assets	**335.04**	**2512.53**	282.37	1936.04
Other assets	**8.20**	**60.41**	2.87	18.82
Sub Total (A)	**473.69**	**3551.20**	511.32	3510.29
Liabilities				
Advances from customer	**164.40**	**1037.62**	155.49	957.72
Trade payables and others	**196.70**	**1496.11**	124.91	871.61
Short term borrowings	**118.67**	**900.79**	51.31	357.27
Sub Total (B)	**479.77**	**3434.52**	331.71	2,186.60
Assets (Net of Liabilities)	**(6.08)**	**116.68**	179.61	1,323.69

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, 2020		March 31, 2019	
Effect on Profit/(loss)	**Strengthening**	**Weakening**	**Strengthening**	**Weakening**
1% movement				
Euro	**26.13**	**(26.13)**	28.26	(28.26)
USD	**1.17**	**(1.17)**	13.24	(13.24)
Others	**0.76**	**(0.76)**	(0.07)	0.07

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 [53] 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 31.3.2020			For the year ended 31.3.2019		
		Power	Industry	Total	Power	Industry	Total
I.	**Segment Revenue**						
	Operating Revenue-External	**14960.44**	**5530.20**	**20490.64**	23473.90	5949.04	29422.94
II.	**Segment Results**						
a.	Segment Results	**804.30**	**(205.84)**	**598.46**	2802.29	436.86	3239.15
b.	Unallocated expenses (Net of income)			**753.62**			904.36
c.	Profit before finance cost & Income tax (a) - (b)			**(155.16)**			2334.79
d.	Finance cost (Including unwinding of Interest)			**506.95**			287.29
e.	Net Profit before Income Tax (c) - (d)			**(662.11)**			2047.50
f.	Income Tax			**810.86**			838.85
g.	Net Profit after Income Tax (e) - (f)			**(1472.97)**			1208.65
III	**Assets & Liabilities**						
a.	Segment Assets	**42665.07**	**9441.21**	**52106.28**	45240.99	9373.96	54614.95
b.	Common Assets			**9165.14**			9816.10
c.	Total Assets			**61271.42**			64431.05
d.	Segment Liabilities	**22386.05**	**4759.98**	**27146.03**	24832.31	5251.81	30084.12
e.	Common Liabilities			**4944.18**			2915.13
f.	Total Liabilities			**32090.21**			32999.25
IV	**Other Information**						
a.	Capital Expenditure	**243.40**	**107.83**		255.08	81.88	
b.	Depreciation & Amortization	**320.44**	**135.73**		343.34	87.49	
c.	Non Cash Expenses (other than depreciation & amortization)	**820.48**	**73.99**		1161.82	30.09	

	Geographical Segments	Within India	Outside India	Total	Within India	Outside India	Total
1	Net Sales / Revenue from Operations	**16669.61**	**3821.03**	20490.64	26140.93	3282.01	29422.94
2.	Non- Current Assets (PPE & Intangible Assets)	**3085.96**	**42.12**	3128.08	3188.48	13.95	3202.43
3.	Capital Expenditure	**402.62**	**12.71**	415.33	378.65	24.23	402.88

Major Customer- Details of Revenue from Single Customer exceeding 10% of total revenue of BHEL.

Particulars	Power	Industry	Total	Power	Industry	Total
CPSUs	**3007.04**	**2324.72**	**5331.76**	5323.43	2320.06	7643.49
Railways	**-**	**1434.87**	**1434.87**	-	1595.98	1595.98
TANGEDCO	**2054.92**	**-**	**2054.92**	5331.04	-	5331.04
TSGENCO	**2178.63**	**-**	**2178.63**	4544.66	-	4544.66

Note [54] - Additional Disclosures

(₹ in Crore)

A.

Value of imports	For the year	
	2019-20	2018-19
CIF basis		
Raw materials	**2239.70**	2192.44
Components and spare parts	**1629.04**	2473.37
Capital goods	**65.15**	52.73
Total	**3,933.89**	4,718.54

(₹ in Crore)

B.

Expenditure in foreign currency	For the year	
	2019-20	2018-19
i) Royalty	**53.11**	132.08
ii) Know-how	**8.90**	11.57
iii) Professional consultation fee	**6.35**	2.79
iv) Interest and others (incl. on foreign sites)	**29.23**	14.85

(₹ in Crore)

C.

Value of consumption of raw materials,components, stores & spare parts.	For the year	
	2019-20	2018-19
i) Imported (including custom duty) #	**3617.70**	4603.07
ii) Indigenous	**8515.26**	10779.80
iii) **Percentage of total consumption**		
Imported	**29.82**	29.92
Indigenous	**70.18**	70.08

Includes canalised items wherever ascertained

(₹ in Crore)

D.

Earnings in foreign exchange	For the year	
	2019-20	2018-19
Export of goods (FOB basis)	**2717.61**	2231.92
Erection & other services	**688.67**	762.22
Foreign exchange on deemed exports (incl. domestic contracts and SEZ export)	**473.45**	793.06
Total	**3,879.73**	3,787.20

(₹ in Crore)

E. Statement for raw materials and components consumed	For the year	
	2019-20	2018-19
Group of materials		
i) Ferrous materials	**3054.31**	3461.21
ii) Non-ferrous materials	**217.01**	313.91
iii) Insulating materials	**177.14**	168.39
iv) Insulated cables and Magnet wires	**29.67**	20.46
v) Components	**6122.30**	6447.46
vi) Others	**2179.68**	4559.77
Total	**11780.11**	14971.20

Note [55]

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 31,2020	March 31,2019
BHEL Electrical Machines Ltd.		
Loans and advances in the nature of loans outstanding	**3.00**	3.00
Maximum amount of loans and advances in the nature of loans outstanding during the year	**3.00**	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 [56]

Assets and liabilities are classified between current and non-current considering 12 months period as operating cycle.

Note [57]

Weighted average cost of borrowing at 7.07% (previous year @ 8.14%) as at the year end has been considered for working out present value of long term provisions and expected credit loss.

Note [58]

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 [59]

Figures have been rounded off nearest to ₹ in crore with two decimal.

Note [60]

Previous year's figures have been regrouped/ rearranged wherever considered necessary.

Note [61]

The Board of Directors has authorised to issue the Financial Statements 2019-20 in its meeting held on June 13, 2020

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 attached

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For Mahesh C. Solanki & Co.**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN- 006228C**
(CA Gopal Krishan)	**(CA. Krishan Kumar)**	**(CA.Deepesh Shah)**
Partner	Partner	Partner
M.No. 081085	**M. No. 085415**	**M. No. 404990**

Place : New Delhi
Date : June 13, 2020



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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, 2020, 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, 2020, the consolidated loss 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 52** 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.
Accounting Practice Change in revenue Recognition for items manufactured and ready for dispatch Ind AS 115. The Company has retrospectively adopted the following guidelines in respect of revenue recognition for items manufactured and ready for dispatch: The Cost of Manufactured items ready for dispatch for projects will also be considered as cost incurred for measuring the progress under input method for recognizing revenue over time. **Refer Note 53** to the consolidated financial statements.	**Principal Audit Procedures** We assessed the Company's internal process to identify the impact of adoption of the new accounting procedure. Our audit approach consisted testing of the design and operating effectiveness of internal controls and procedures as follows: • Verified the approval by Audit Committee of the Board vide minutes of the BLAC dated 11.02.2020. • Verified the opinion dated 10.02.2020 taken by the company from Expert Advisory Committee of ICAI • Evaluated the design of internal controls relating to implementation of the new revenue accounting procedure. • Selected the identified items considered for inclusion in input method , and tested the operating effectiveness of the internal control, relating to identification of the items and determination of price. • Performed analytical procedures and test of details for reasonableness and other related material items.

Assessment and recoverability of Trade Receivables and Contract Assets	Principal Audit Procedures
The Company has trade receivables outstanding (net) of ₹ 12379.03 crore and contract assets of ₹ 24093.05 crore at the end of March 31, 2020 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 and high level of management judgment **Refer Notes 6,9,11,17,51** to the consolidated financial statements.	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.

Emphasis of Matter

We draw attention to Note No. 54 to the consolidated financial statements in which company describes the impact arising from the COVID 19 pandemic.

Our report is not modified in this matter.

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 of business activities 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.

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. The accompanying statements include the audited financial results/statements of an Associate whose financial statements/ results reflect the group's share of net profit of ₹ 25.72 crore and other comprehensive income of ₹ 0.13 crore for the year ended 31st March, 2020 as considered in the consolidated financial statements in respect of one jointly controlled entity. These financial statements have been audited by other auditors whose reports 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 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 the report of the other auditor.
2. We did not audit the financial statements of two 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. We did not audit the financial statements of one subsidiary. The consolidated financial statements include the unaudited financial results/statements of an Subsidiary whose financial statements/ results reflect total assets of ₹ 21.31 crore and net assets of minus ₹ 18.51 crore as at 31st March, 2020, total revenues of ₹ 3.97 crore and net cash flows amounting to ₹ 0.11 crore for the year ended on that date as considered in the consolidated financial statements. 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 these 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 Powerplant 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. The accounts of Dada Dhuniwale Khandwa Power Limited also have not been consolidated as the said company is under liquidation and 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 work done and the reports of the other auditor and 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 audit report 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 the reports of the other auditors;

   (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 report of other auditors on separate financial statements as also 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 42 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 51 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 companies and jointly controlled companies incorporated in India.

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For Mahesh C. Solanki & Co.**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN - 006228C**
(CA. Gopal Krishan)	**(CA. Krishan Kumar)**	**(CA. Deepesh Shah)**
Partner	Partner	Partner
M. No. 081085	**M. No. 085415**	**M. No. 404990**
UDIN:20081085AAAAFS7960	UDIN:20085415AAAAAI1679	UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

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, 2020, 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 one Jointly Control Entity has been audited by the other Auditor and two Jointly Control Entities and one subsidiary 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 and the audit evidence obtained by the other auditors in terms of their reports referred to in the Other Matters paragraph below, 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 report of the auditor of one jointly controlled entity incorporated in India and management certificate of other two jointly controlled entities and one subsidiary company incorporated in India.

Opinion

In our opinion, the Holding Company, its one subsidiary company 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

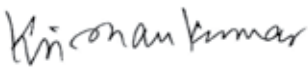
controls over financial reporting were operating effectively as at March 31, 2020, based on the internal control over financial reporting criteria established by the Company considering the essential components of internal control stated in the Guidance Note on Audit of Internal Financial Controls Over Financial Reporting issued by the Institute of Chartered Accountants of India.

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(CA. Gopal Krishan)
Partner
M. No. 081085
UDIN:20081085AAAAFS7960

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(CA. Krishan Kumar)
Partner
M. No. 085415
UDIN:20085415AAAAAI1679

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C



(CA. Deepesh Shah)
Partner
M. No. 404990
UDIN:20404990AAAAAA7876

Place : New Delhi / Indore
Date : June 13, 2020

गोपनीय

संख्या.:DGA (Energy)/Rep/Aes/CFS-BHEL/2020-21/96

सत्यमेव जयते

INDIAN AUDIT & ACCOUNTS DEPARTMENT
OFFICE OF THE
DIRECTOR GENERAL OF AUDIT (ENERGY)
DELHI

दिनांक/Dated: 11.08.2020

सेवा में,

अध्यक्ष एवं प्रबंध-निदेशक,
भारत हैवी इलेक्ट्रिकल्स लिमिटेड
नई दिल्ली

महोदय,

विषय: 31 मार्च 2020 को समाप्त वर्ष के लिए भारत हैवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के समेकित वित्तीय विवरण (Consolidated Financial Statements) पर कम्पनी अधिनियम, 2013 की धारा 143(6)(b) एवं धारा 129(4) के अन्तर्गत भारत के नियंत्रक-महालेखापरीक्षक की टिप्पणियाँ।

मैं, भारत हैवी इलेक्ट्रिकल्स लिमिटेड, नई दिल्ली के 31 मार्च 2020 को समाप्त वर्ष के समेकित वित्तीय विवरण (Consolidated Financial Statements) पर कंपनी 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।

(डी. के. शेखर)
महानिदेशक

छठा एवं सातवाँ तल, ऐनेक्सी बिल्डिंग, 10, बहादुरशाह जफर मार्ग, नई दिल्ली 110002
6th & 7th Floor, Annexe Building, 10 Bahadur Shah Zafar Marg, New Delhi-110002
Tel: 011-23239227, Fax: 011-23239211, E-mail: mabnewdelhi3@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 2020

The preparation of consolidated financial statements of Bharat Heavy Electricals Limited for the year ended 31 March 2020 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 13.06.2020.

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 2020 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 companies mentioned in Annexure-I 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 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

(D. K. Sekar)
Director General of Audit (Energy),
Delhi

Place: New Delhi
Dated: 11 August 2020

ANNEXURE I

List of subsidiaries, associate companies and jointly controlled entities whose financial statements were not audited by the Comptroller and Auditor General of India

Subsidiaries Companies

1. BHEL Electrical Machines Limited

Joint Venture Companies

1. NTPC-BHEL Power Projects Private Limited
2. Raichur Power Corporation Limited

Consolidated Balance Sheet as at March 31, 2020

(₹ in Crore)

Particulars	Note	As at March 31, 2020		As at March 31, 2019	
A. ASSETS					
(1) Non-current assets					
(a) Property, plant and equipment	**3a**		**2738.51**		2887.39
(b) Capital work-in-progress	**3b**		**306.74**		223.21
(c) Intangible assets	**4a**		**78.61**		83.07
(d) Intangible assets under development	**4b**		**7.26**		12.23
(e) Investment accounted for using equity method	**5**		**158.97**		149.42
(f) Financial assets					
(i) Investments	**5a**	**3.09**		2.94	
(ii) Trade receivables	**6**	**5270.43**		3935.09	
(iii) Loans	**7**	**83.17**	**5356.69**	82.82	4020.85
(g) Deferred tax assets (net of liabilities)	**8**		**2765.87**		3505.45
(h) Other non-current assets	**9**		**16660.49**		14671.78
Total non-current assets			**28073.14**		25553.40
(2) Current assets					
(a) Inventories	**10**		**8908.23**		7800.04
(b) Financial assets					
(i) Trade receivables	**11**	**7108.60**		11863.14	
(ii) Cash and cash equivalents	**12**	**1402.86**		795.74	
(iii) Bank balances other than cash and cash equivalents	**13**	**5015.73**		6707.80	
(iv) Loans	**14**	**135.24**		157.71	
(v) Other financial assets	**15**	**127.50**	**13789.93**	165.40	19689.79
(c) Current tax assets (net)	**16**		**229.07**		
(d) Other current assets	**17**		**9783.95**		10891.08
Total current assets			**32711.18**		38380.91
TOTAL ASSETS			**60784.32**		63934.31
B. EQUITY AND LIABILITIES					
(1) Equity					
(a) Equity share capital	**18**		**696.41**		696.41
(b) Other equity	**18a**		**27964.31**		30207.93
			28660.72		30904.34
Non-controlling interests			**(9.07)**		(6.73)
Total equity			**28651.65**		30897.60

Consolidated Balance Sheet as at March 31, 2019

(₹ in Crore)

Particulars	Note	As at March 31, 2020		As at March 31, 2019	
Liabilities					
(2) Non-current liabilities					
(a) Financial liabilities					
(i) Borrowings	**19**	**75.37**		95.45	
(ii) Trade payables	**20**				
(i) Total outstanding dues of micro enterprises and small enterprises		**8.25**		-	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises		**999.62**		702.87	
(iii) Other financial liabilities	**21**	**159.02**	**1242.26**	91.29	889.61
(b) Provisions	**22**		**5260.92**		5476.03
(c) Other non-current liabilities	**23**		**2952.65**		3615.88
Total non-current liabilities			**9455.83**		9981.52
(3) Current liabilities					
(a) Financial liabilities					
(i) Borrowings	**24**	**4947.92**		2444.57	
(ii) Trade payables	**25**				
(i) Total outstanding dues of micro enterprises and small enterprises		**492.12**		764.91	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises		**8405.40**		10616.07	
(iii) Other financial liabilities	**26**	**1487.29**	**15332.73**	2070.24	15895.79
(b) Provisions	**27**		**3085.76**		2488.97
(c) Current tax liabilities (net)	**16**		**-**		91.34
(d) Other current liabilities	**28**		**4258.35**		4579.08
Total current liabilities			**22676.84**		23055.19
Total liabilities			**32132.67**		33036.71
TOTAL EQUITY AND LIABILITIES			**60784.32**		63934.31
Basis of preparation, measurement and significant accounting policies	2				
The accompanying notes are an integral part of these financial statements					

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 attached

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For Mahesh C. Solanki & Co.**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN - 006228C**
(CA Gopal Krishan)	**(CA. Krishan Kumar)**	**(CA.Deepesh Shah)**
Partner	Partner	Partner
M.No. 081085	**M. No. 085415**	**M. No. 404990**

Place : New Delhi
Date : June 13, 2020

Consolidated Statement of Profit and Loss

For the year ended March 31, 2020

(₹ in Crore)

Particulars	Note	For the year ended March 31, 2020		For the year ended March 31, 2019	
INCOME					
Revenue from operations	**29**		**21490.01**		30441.38
Other income	**30**		**564.30**		661.52
Total Income			**22054.31**		31102.90
EXPENSES					
Material consumption, erection and engineering expenses	**31**		**15081.72**		19261.32
Changes in inventories of finished goods and work in progress	**32**		**(1015.56)**		(989.31)
Employee benefits expenses	**33**		**5408.71**		5509.25
Manufacture, administration, selling and distribution expenses	**34**		**1996.53**		2698.13
Provisions	**35**		**255.98**		1834.06
Finance costs	**36**		**508.45**		288.37
Depreciation & amortisation expenses	**3.1/4.1**		**503.27**		475.74
Total Expenses			**22739.10**		29077.56
Profit / (loss) before share of net profits / loss of investments accounted for using equity method and tax			**(684.79)**		2025.34
Share of net profit/ (loss) of joint ventures accounted for using equity method			**25.72**		(185.60)
Profit / (loss) before tax			**(659.07)**		1839.74
Tax expenses	**37**				
a) Current tax		**1.52**		735.07	
b) Deferred tax		**807.76**	**809.28**	102.25	837.32
Profit for the year (A)			**(1468.35)**		1002.42
Other comprehensive income	**38**				
Items that will not be reclassified to profit or loss (net of tax)					
Re measurement of defined employee benefits			**(273.87)**		(119.17)
Share of OCI of JV accounted using equity method			**0.13**		0.02
Other comprehensive income for the year (B)			**(273.74)**		(119.15)
Total comprehensive income for the year (A+B)			**(1742.09)**		883.27
Attributable to:					
Equity holders of the parent			**(1739.75)**		885.95
Non-controlling interest			**(2.34)**		(2.68)
			(1742.09)		883.27

Consolidated Statement of Profit and Loss

For the year ended March 31, 2020

(₹ in Crore)

Particulars	Note	For the year ended March 31, 2020	For the year ended March 31, 2019
Total other comprehensive income for the year			
Attributable to:			
Equity holders of the parent		**(273.74)**	(119.15)
Non-controlling interest		**-**	-
		(273.74)	(119.15)
Total profit for the year			
Equity holders of the parent		**(1466.01)**	1005.10
Non-controlling interest		**(2.34)**	(2.68)
		(1468.35)	1002.42
Earnings per equity share	**39**		
(1) Basic [Face value of ₹ 2 each]		**(4.22)**	2.76
(2) Diluted [Face value of ₹ 2 each]		**(4.22)**	2.76
Basis of preparation, measurement and significant accounting policies	**2**		
The accompanying notes are an integral part of these financial statements			

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 attached

For Raj Har Gopal & Co.	**For Tiwari & Associates**	**For Mahesh C. Solanki & Co.**
Chartered Accountants	Chartered Accountants	Chartered Accountants
FRN - 002074N	**FRN - 002870N**	**FRN - 006228C**
(CA Gopal Krishan)	**(CA. Krishan Kumar)**	**(CA.Deepesh Shah)**
Partner	Partner	Partner
M.No. 081085	**M. No. 085415**	**M. No. 404990**

Place : New Delhi
Date : June 13, 2020

Consolidated statement of changes in Equity (SOCIE)

For the year ended March 31, 2020

A. Equity Share Capital

(₹ in Crore)

Equity shares of INR 2 each issued, subscribed and fully paid	Number of shares		Amount	
	2019-20	2018-19	2019-20	2018-19
Balance at the beginning of the period	**3482063355**	3671400000	**696.41**	734.28
Less: Shares bought back	**-**	189336645	**-**	37.87
Balance at the end of the period	**3482063355**	3482063355	**696.41**	696.41

B. Other Equity

For the year ended March 31, 2020

(₹ 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, 2019	**35.18**	**37.87**	**30476.66**	**(200.62)**	**(141.16)**	**30207.93**	**(6.73)**
Add: Total comprehensive income for the year	**-**	**-**	**-**	**(1466.01)**	**(273.87)**	**(1739.88)**	**(2.34)**
Less: Final dividend for FY 2018-19 [Note 40]	**-**	**-**	**-**	**417.85**	**-**	**417.85**	**-**
Less: Dividend distribution tax [Note 40]	**-**	**-**	**-**	**85.89**	**-**	**85.89**	**-**
Balance as at March 31, 2020	**35.18**	**37.87**	**30476.66**	**(2170.37)**	**(415.03)**	**27964.31**	**(9.07)**

Consolidated statement of changes in Equity (SOCIE)

For the year ended March 31, 2020

For the year ended March 31, 2019

(₹ 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, 2018	**35.18**	**-**	**32104.96**	**(478.72)**	**(21.98)**	**31639.44**	**(4.05)**
Add: Ind AS-115 transition adjustment	-	-	-	126.49	-	126.49	-
Less: Adj. (audited v/s unaduited loss for FY 2017-18)	-	-	-	57.87	-	57.87	-
Add: Total Comprehensive Income for the year	-	-	-	1005.10	(119.18)	885.92	(2.68)
Add/(Less): Transferred to capital redemption reserve	-	37.87	(37.87)	-	-	-	-
Less: Transaction cost related to buyback [Note 18]	-	-	-	8.32	-	8.32	-
Less: Amount paid upon buyback [Note 18]	-	-	1590.43	-	-	1590.43	-
Less: Final dividend for FY 2017-18 [Note 40]	-	-	-	374.49	-	374.49	-
Less: Interim dividend for FY 2018-19 [Note 40]	-	-	-	278.57	-	278.57	-
Less: Dividend distribution tax [Note 40]	-	-	-	134.24	-	134.24	-
Balance as at March 31, 2019	**35.18**	**37.87**	**30476.66**	**(200.62)**	**(141.16)**	**30207.93**	**(6.73)**

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

(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

Consolidated cash flow statement

For the year ended March 31, 2020

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
A. Cash flow from operating activities:		
Profit before tax	**(659.07)**	1839.74
Adjustments for		
Provision and write off	**244.44**	1978.98
Depreciation and amortisation	**503.27**	475.74
Finance cost (including unwinding of interest)	**508.45**	288.37
Interest income	**(509.19)**	(599.44)
Share of loss/ (profit) in joint ventures and investments	**(25.72)**	185.60
Others	**(15.73)**	(19.25)
Cash generated from operations before working capital changes	**46.45**	4149.74
Adjustment for changes in working capital		
Trade Receivables	**3371.34**	264.78
Contract Assets	**(1618.29)**	(4966.31)
Inventories	**(1095.12)**	(1868.65)
Loans, advances & other assets	**391.93**	(79.41)
Sub total	**1049.86**	(6649.59)
Trade payable	**(2178.46)**	981.65
Advances from customers, deposits and others	**(1841.48)**	(1112.41)
Provisions	**354.04**	(808.74)
Sub total	**(3665.91)**	(939.50)
Net cash (used in) / from working capital	**(2616.04)**	(7589.09)
Cash generated from operations	**(2569.59)**	(3439.36)
Refund of income taxes	**-**	408.68
Income taxes paid	**(321.93)**	(829.47)
Net cash inflow from operating activities	**(2891.52)**	(3860.15)
B. Cash flow from investing activities:		
Redemption / maturity of bank deposits (having original maturity of more than 3 months)	**1700.03**	1700.22
Interest received	**538.77**	592.00
Proceeds from joint ventures	**0.27**	17.30
Income received from mutual funds	**6.43**	17.00
Dividend received from joint ventures	**16.30**	16.18
Sale of property,plant and equipment	**9.30**	2.25
Purchase of property, plant and equipment	**(434.50)**	(426.11)
Net cash (used in) / from investing activities	**1836.60**	1918.85

Consolidated cash flow statement

For the year ended March 31, 2020

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
C. Cash flow from financing activities:		
Proceeds from short term borrowings	**2503.35**	2,434.29
Proceeds / (repayment) of lease obligation (Principal)	**(8.95)**	68.20
Proceeds / (repayment) of lease obligation (Interest)	**(17.32)**	(13.75)
Buy back of equity shares (including premium and expense)	**-**	(1636.62)
Dividend paid (Incl. dividend distribution tax)	**(504.56)**	(786.99)
Interest paid	**(310.48)**	(96.77)
Net cash (used in) / from financing activities (refer point 3)	**1662.04**	(31.63)
D. Net increase/(decrease) in cash and cash equivalents	**607.12**	(1972.94)
Opening balance of cash and cash equivalents	**795.74**	2768.68
Closing balance of cash and cash equivalents [Refer Note 12]	**1402.86**	795.74

(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) In cash flow from financing activities there is no non cash item during the year.

(4) Closing balance of cash & cash equivalents includes exchange variation translation gain of ₹ **1.15** crore as on March 31, 2020 (previous year ₹ 0.02 crore).

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

(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
Chartered Accountants
FRN - 002870N

(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C

(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020

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.

The Company has one subsidiary in the name of BHEL-Electrical Machine Ltd. and Joint Venture Companies namely, BHEL-GE Gas Turbine Services Ltd., NTPC-BHEL Power Projects Pvt. Ltd., Raichur Power Corporation Ltd, Power Plant Performance Improvement Ltd. and Dada Dhuniwale Khandwa Power Ltd..

Note [2] Basis of preparation, measurement and 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 and amended thereof.

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 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
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. Freehold land is not depreciated.

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	2-15
Electrical installations	3-10
Furniture and fixtures	1-8
Computers	3
Office equipment	3-5

Assets under finance lease are amortised over the lease term or the useful life, whichever is shorter.

In the case of Raichur Power Corporation Limited

Depreciation is provided on straight line method at the rates specified in the CERC Regulation 2009. In respect of assets for which rates are not specified in the CERC regulations, at the rates specified under Schedule II of the Companies Act, 2013.

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 for the full year irrespective of the date of addition. Depreciation is not charged on assets sold/dismantled in the year of sale/discard/dismantling. 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 sales tax 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.
- Income 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 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) For construction contracts the company provides warranty cost at 2.5% of the revenue progressively as and when it recognises the revenue and maintain the same throughout the warranty period. For other contracts, provision for contractual obligations in respect of contracts under warranty at the year end is maintained at 2.5% of the value of contract. In the case of contracts for supply of more than a single product 2.5% of the value of each completed product is provided.

(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, 2020	As at March 31, 2019
Gross block	**6057.86**	5753.22
Less: Accumulated depreciation	**3319.35**	2865.83
Net block (details refer to note 3.1)	**2738.51**	2887.39

Company had opted for exemption under Ind AS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on Ind AS transition date.

Note [3b] - Non-current assets
Capital work in progress

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Plant & machinery and other equipments:				
Under Erection/ Fabrication/awaiting erection	**166.34**		102.72	
In transit	**0.54**	**166.88**	30.29	133.01
Construction work-in-progress -Civil		**137.98**		88.63
Construction stores (including in transit)		**1.88**		1.57
		306.74		223.21

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, 2020	As at March 31, 2019
Gross block	**280.48**	250.00
Less: Accumulated amortisation	**201.87**	166.93
Net block (details refer to note 4.1)	**78.61**	83.07

Company had opted for exemption under Ind AS 101, and accordingly carrying value as on 31.03.2015 was considered as deemed cost on Ind AS transition date.

Note [4b] - Non-current assets
Intangible assets under development

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Intangible assets under development	**7.26**	12.23
	7.26	12.23

Note [3.1] Detail of property, plant and equipment

(₹ in Crore)

Description	Gross Block				Depreciation				Net Block	
	Opening Balance as on 01.04.2019	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2020	As at 31.03.2020	As at 31.03.2019
LAND - Freehold land (including development expenses)	27.98	0.04	0.00	**28.02**	0.00	0.00	0.00	**0.00**	**28.02**	27.98
Buildings - Freehold Buildings	1588.71	92.43	(7.03)	**1674.11**	422.06	99.64	(5.94)	**515.36**	**1158.30**	1166.65
Roads, bridges & culverts	15.14	0.10	0.00	**15.24**	12.00	0.88	(0.06)	**12.82**	**2.41**	3.14
Drainage, Sewerage & water supply	28.09	0.57	0.00	**28.66**	4.80	1.16	0.00	**5.96**	**22.70**	23.29
Plant & Machinary	3076.99	85.27	(1.22)	**3161.04**	1862.21	216.87	(0.83)	**2077.85**	**1082.79**	1214.78
Railway Siding	8.85	0.00	0.00	**8.85**	3.49	0.69	0.02	**4.20**	**4.65**	5.36
Locomotives & Wagons	28.34	(0.01)	0.03	**28.36**	11.57	2.16	0.00	**13.74**	**15.90**	16.77
Furniture & fixtures	60.22	2.79	(1.83)	**61.18**	29.31	6.77	(1.44)	**34.64**	**26.54**	30.91
Vehicles	11.40	2.57	(0.01)	**13.97**	5.79	1.43	(0.01)	**7.21**	**6.76**	5.61
Office and Other equipments	123.02	10.72	(1.43)	**132.31**	83.36	14.78	(0.72)	**97.22**	**34.89**	39.66
Electronic Data Processing Equipment	32.77	71.37	4.96	**109.11**	28.27	17.70	4.88	**50.85**	**58.26**	4.50
Electrical Installations	242.13	7.95	(0.93)	**249.15**	125.67	29.78	(0.31)	**154.87**	**94.02**	116.46
Construction Equipment	71.90	0.52	(0.19)	**72.23**	61.86	4.91	(0.16)	**66.62**	**5.61**	10.02
Fixed Assets costing upto ₹ 10,000/-	14.36	4.86	(0.83)	**18.39**	14.35	4.90	(0.88)	**18.37**	**0.01**	0.01
Right-of-use Assets	443.44*	20.38	(6.54)	**457.27**	201.23*	66.63	(8.23)	**259.62**	**197.65**	242.11*
TOTAL	**5773.34**	**299.56**	**(15.02)**	**6057.86**	**2865.83**	**468.36**	**(13.69)**	**3319.35**	**2738.51**	**2907.51**
Previous Year	5411.36	349.59	(7.74)	**5753.22**	2429.46	438.46	(2.09)	**2865.83**	**2887.39**	2981.90

* Includes effect of adoption of Ind AS 116 and reclassification of assets under finance leases to Right of use assets; (Refer Note 48).

Further itemwise details of Right of Use assets availble in Table 3.1 (a):

(₹ in Crore)

Particulars	Gross Block	Acc Dep	Net Block
Assets recognised as Finance lease in accordance with Ind AS 17 reclassified to ROU Asset	423.34	201.23	222.11
Effect of adoption of Ind AS 116	20.10	0.00	20.10
Total	443.44	201.23	242.21

Notes:

Gross Block (as per earlier IGAAP) as at 31.03.2019 ₹ 13033.88 crores and as at 31.03.2020 ₹ 12763.61 crores

Gross Block as at 31.03.2020 includes assets condemned and retired from active use ₹ **14.98** crore (Previous year ₹ 0.12 crore)

Net Block as at 31.03.2020 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 ₹ 242.10 crore (Previous year ₹ 180.32 crore).

There is no impairment loss during the year.

Table 3.1(a): Right-of-use of assets includes:

(₹ in crore)

Description	Gross Block				Depreciation				Net Block	
	Opening Balance as on 01.04.2019	"Additions/ Adjustments"	"Deductions/ Adjustments"	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	"Depreciation Adjustments"	Accumulated Depreciation as at 31.03.2020	as at 31.03.2020	as at 31.03.2019
Land (including development expenses)	110.85	0.00	0.00	110.85	5.02	1.40	(0.02)	**6.40**	**104.46**	105.83
Buildings	1.63	0.00	0.00	1.63	0.21	0.05	(0.00)	**0.26**	**1.37**	1.42
Plant & Machinery	0.00	4.07	0.00	4.07	0.00	0.00	1.69	**1.83**	**2.24**	0.00
Office & other equipment	16.19	0.09	0.00	16.29	10.43	2.84	0.00	**13.27**	**3.02**	5.77
EDP Equipment	294.56	13.62	(6.54)	301.64	185.33	50.28	(9.90)	**225.70**	**75.93**	109.23
Vehicle	3.99	1.31	0.00	5.30	0.00	1.69	0.00	**1.69**	**3.61**	3.99
Others	16.21	1.29	0.00	17.50	0.10	10.38	0.00	**10.48**	**7.03**	16.11
Total	**443.44**	**20.38**	**(6.54)**	**457.27**	**201.23**	**66.63**	**(8.23)**	**259.62**	**197.65**	**242.11**

Additional disclosure of Note [3.1] details of Property, Plant and Equipment

(₹ in crore)

Particulars			As at March 31, 2020	As at March 31, 2019
1. Land and buildings includes				
a	i)	Acres of land for which formal transfer/lease deed have not been executed (in acres)	**8196.93**	8196.93
		Net Block	**71.49**	68.45
	ii)	Number of flats for which formal transfer/lease deed have not been executed (in nos.)	**12**	12
		Net Block	**1.15**	1.19
	iii)	Acres of land for which the cost paid is provisional; (in acres)	**506.46**	506.46
		[registration charges and stamp duty, (net of provision) would be] accounted for on payment.		
		Net Block	**64.07**	64.79
b.		Acres of land leased to Ministry of Defence, Govt. of India Departments & others (in acres)	**30.37**	30.37
c.		i) Acres of land	**-**	180
		being used by Ministry of Defence(BEG) for which licensing agreement is valid upto 30.11.2018 (in acres)		
d.		Acres of land is under adverse possession/ encroachment. (in acres)	**757.47**	701.86

e. 1297.86 acres (PY 1242.71 acres) of land pending mutation at Haridwar plant for which legal action is in process. It includes land measuring 934 acres (PY 878.85 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.

f. 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 f) mentioned above is not material)

	As at March 31, 2020	As at March 31, 2019
2. i) Total Area of Land in acres	**16409.03**	16409.03
ii) Free hold land (Sale Deed) / Possessory Rights/license out of 2(i) in acres	**15735.69**	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)

	As at March 31, 2020	As at March 31, 2019
100% depreciation on PPE upto ₹10,000/- charged off	**6.14**	8.08
Less: Normal depreciation on above.	**1.11**	2.07
Excess amount charged to depreciation for the year	**5.03**	6.01

Note 4.1 - Detail of Intangible Assets

(₹ in crore)

Description	Gross Block				Depreciation				Net Block	
	Opening Balance as on 01.04.2019	Additions/ Adjustments	Deductions/ Adjustments	Closing Balance as on 31.03.2020	Accumulated Depreciation as at 01.04.2019	Depreciation / Amortisation for the year	Depreciation Adjustments	Accumulated Depreciation as at 31.03.2020	Net Block as at 31.03.2020	Net Block as at 31.03.2019
Internally Developed										
Others	61.69	4.86	0.00	**66.55**	45.26	8.60	-	**53.86**	**12.69**	16.43
Others										
Software	45.13	5.58	0.00	**50.71**	37.40	4.74	0.06	**42.21**	**8.50**	7.75
Technical Know-how	143.17	20.06	0.00	**163.23**	84.28	21.56	(0.03)	**105.80**	**57.43**	58.88
TOTAL	**250.00**	**30.50**	**0.00**	**280.48**	**166.93**	**34.90**	**0.03**	**201.87**	**78.61**	**83.07**
Previous Year	221.87	27.99	0.14	**250.00**	130.56	36.22	0.15	**166.93**	**83.07**	91.31

Gross Block (as per earlier IGAAP) as at 31.03.2019 ₹ 534.48 crore and as at 31.03.2020 ₹ **521.48** 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, 2020	As at March 31, 2019
BHEL-GE Gas Turbine Services Private Limited		
Opening net assets	**149.42**	138.55
Profit / (loss) for the year	**25.72**	27.03
Other comprehensive income	**0.13**	0.02
Less: Dividend paid	**16.30**	16.18
Closing net assets	**158.97**	149.42
Raichur Power Corporation Limited		
Opening net assets	**-**	266.10
Adjustment (audited v/s unaudited profit / (loss) of previous year)	**-**	(60.85)
Profit / (loss) for the year	**-**	(205.25)
Other comprehensive income	**-**	-
Dividends paid	**-**	-
Closing net assets	**-**	-
NTPC-BHEL Power Projects Private Limited		
Opening net assets	**-**	4.40
Adjustment (audited v/s unaudited profit / (loss) of previous year)	**-**	2.98
Profit / (loss) for the year	**-**	(7.38)
Other comprehensive income	**-**	-
Dividend paid	**-**	-
Closing net assets		-
Total of investment accounted for using equity method		
Opening net assets	**149.42**	409.05
Adjustment (audited v/s unaudited profit / (loss) of previous year)	**-**	(57.87)
Profit / (loss) for the year	**25.72**	(185.60)
Other comprehensive income	**0.13**	0.02
Less: Dividend paid	**16.30**	16.18
Closing net assets	**158.97**	149.42

(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 ₹ 762 crores as per their unaudited financial statement for the year ended March 31, 2020

(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 ₹ 63 crores as per their unaudited financial statement for the year ended March 31, 2020"

Note [5a] - Non-current assets
Financial assets - Investments

(₹ in Crore)

Particulars	As at March 31, 2020			As at March 31, 2019		
	No of Shares (Face value in INR)	Amount		No of Shares (Face value in INR)	Amount	
I Quoted equity instruments			**-**		-	
II Unquoted equity instruments (fully paid up shares)						
Investment in equity instruments fully paid up(at FVTPL)						
Neelachal Ispat Nigam Ltd	**5000000 (10)**	**5.00**		5000000 (10)	5.00	
AP Gas Power Corporation Ltd.	**728960 (10)**	**0.91**		728960 (10)	0.91	
Engineering Projects (India) Ltd.	**1892 (10)**	*		1892 (10)	*	
		5.91			5.91	
Less: Fair value adjustment		**2.82**	**3.09**		2.97	2.94
Dada Dhuniwale Khandwa Power Ltd.	**22500000 (10)**	**5.20**		22500000 (10)	22.50	
Less: Amount received		**0.27**			17.30	
Less: Provision for impairment		**4.93**	**-**		5.50	--
Powerplant Performance Improvement Ltd.	**1999999 (10)**	**2.00**		1999999 (10)	2.00	
Less: Provision for impairment		**2.00**	**-**		2.00	-
Share in Co-operative Societies#						
			3.09			2.94
*Value of less than INR 1 lakh						
Aggregate amount of unquoted investment			**12.84**			13.11
Aggregate amount of impairment in value of investments			**(9.75)**			(10.17)

Equity shares held in various employees cooperatives societies, valuing less than INR 1 lakh/-

Information about joint ventures and subsidiary

(₹ in Crore)

Particulars	Country of incorporation	As at March 31, 2020	As at March 31, 2019
(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)		**27.97%**	27.97%
Dada Dhuniwale Khandwa Power Limited (DDKPL)		**50%**	50%
Powerplant 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 NBBPL Board in its meeting held on 29.08.2019.

(ii) An amount of ₹ 17.57 crore has been received (₹ 17.30 crore in FY 2018 19 and ₹ 0.27 crore in FY 2019-20) against investment in Dada Dhuniwale Khandwa Power Project Ltd. The provision for impairment in value of investment has been retained to the extent of ₹ 4.93 crore (previous year ₹ 5.20 crore) based on the net financial position. The JVC is under liquidation.

(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, 2020	As at March 31, 2019
(B) Name of the subsidiary company		Proportion (%) of ownership	
BHEL Electrical Machines Limited (BHEL EML)	India	**51%**	51%

Board of directors in its meeting held on May 29, 2018 has approved (subject to approval of Department of Heavy Industry, Govt. of India) the transfer of Company's 51% stake to Govt. of Kerala. The finalised agreement duly accepted by GoK has been submitted by BHEL to DHI/GoI for its approval.

Note [6] - Non-current assets
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, 2020		As at March 31, 2019	
Secured, considered good		**-**		-
Unsecured, considered good		**5903.88**		4529.05
Credit impaired		**10833.90**		10424.80
		16737.78		14953.85
Less: Allowances for bad and doubtful debts	**10969.86**		10445.38	
Less: Automatic price reduction adjustment	**497.49**	**11467.35**	573.38	11018.76
		5270.43		3935.09
Simplified approach is followed for impairment of trade receivables, the classification is done in line with Ind AS 109.				
(a) Due from Directors		**-**		-
(b) Due from Officers		**-**		-

Note [7] - Non-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, 2020	As at March 31, 2019
Security deposits		
Secured, considered good	-	-
Unsecured, considered good		
Deposits with SEBs, port trust & others	**83.17**	82.81
Significant increase in credit risk	-	-
Credit impaired		
Deposits others	**1.93**	1.77
	85.10	84.58
Less: Allowances for bad & doubtful deposits	**1.93**	1.77
	83.17	82.81
Loans		
Secured, considered good	-	-
Unsecured, considered good		
Interest accrued and due on loans	-	0.01
Significant increase in credit risk	-	-
Credit impaired	-	-
		0.01
Less: Allowances for bad & doubtful loans	-	-
	-	0.01
	83.17	82.82
Includes:		
Due from Directors	-	-
Dues from Officers	-	-

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, 2020	As at March 31, 2019
Deferred tax assets		
Provisions	**1734.02**	2631.16
Dues allowed on payment basis	**576.14**	744.01
Depreciation (PP&E and Intangible assets)	**75.31**	118.20
On account of taxable loss	**345.61**	-
Others	**34.79**	12.08
	2765.87	3505.45
Deferred tax liabilities	**-**	-
Deferred tax assets (net of liabilities)	**2765.87**	3505.45

Note [9] - Non-current assets
Other non-current assets

Refer point 13 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Contract assets (including unbilled revenue)				
Secured, considered good	**-**		-	
Unsecured, considered good	**16422.59**		14392.34	
Credit impaired	**2272.04**		1779.61	
	18694.63		16171.95	
Less: Allowances for bad and doubtful debts	**2272.04**	**16422.59**	1,779.61	14392.34
Security deposits				
Secured, considered good	**-**		-	
Unsecured, considered good				
Deposits with tax authorities and others	**105.97**		135.08	
Significant increase in credit risk	**-**		-	
Credit impaired	**29.17**		25.09	
	135.14		160.17	
Less: Allowances for bad & doubtful deposits	**29.17**	**105.97**	25.09	135.08
Loans & advances				
Secured, considered good	**-**		-	
Unsecured, considered good				
Advances towards purchases	**66.88**		73.54	
Claims recoverable and others	**79.01**		74.88	
Capital advances	**23.81**		22.17	
	169.70		170.59	
Less : Significant increase in credit risk	**-**		-	
Allowances for bad & doubtful loans and advances	**37.77**	**131.93**	26.23	144.36
		16660.49		14671.78
(a) Contract assets (net of provisions) includes:				
Deferred debts		**14748.13**		13058.01
(b) 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, 2020		As at March 31, 2019	
Raw material & components	**3320.56**		3480.94	
Material-in-transit	**647.83**	**3968.39**	451.01	3931.95
Work-in-progress		**4120.78**		3220.71
(including items with sub-contractors)				
Finished goods	**823.32**		661.54	
Inter - division transfers in transit	**68.59**	**891.91**	114.93	776.47
Stores & spare parts				
Production	**197.63**		177.02	
Fuel stores	**3.40**		6.97	
Miscellaneous	**53.38**	**254.41**	54.13	238.12
Other inventory				
Materials with fabricators/contractors	**59.55**		63.02	
Loose tools	**37.88**		34.40	
Scrap (at estimated realisable value)	**117.76**	**215.19**	90.89	188.31
		9450.68		8355.56
Less: Provision for non-moving inventory		**542.45**		555.52
		8908.23		7800.04
Note :				
Write down of inventories		**100.80**		115.90
Less : reversal thereof		**113.87**		26.83
Net		**(13.07)**		89.07

Note [11] - Current assets
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, 2020		As at March 31, 2019	
Secured, considered good		-		-
Unsecured, considered good		7973.65		13443.27
Credit impaired		576.29		484.74
		8549.94		13928.01
Less: Allowances for bad and doubtful debts	1269.52		2008.56	
Less: Automatic price reduction adjustment	171.82	1441.34	56.31	2064.87
		7108.60		11863.14
Includes:				
(a) Due from Directors		-		-
(b) Due from Officers		-		-

Note [12] - 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, 2020		As at March 31, 2019	
Balances with banks				
EEFC a/c	82.93		102.22	
Current / cash credit a/c	1285.45	1368.38	623.14	725.36
Cheques, demand drafts on hand		29.90		69.43
Deposits with banks having maturity 3 month or less		0.29		-
Cash & stamps on hand		0.21		0.13
Remittances in transit		4.08		0.82
		1402.86		795.74

Note [13] - Current assets
Financial assets - Bank balances

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Fixed deposits having maturity more than 3 months but not more than 12 months		**5000.03**		6700.06
Fixed deposits against margin money for BG issued		**2.41**		2.28
Balances with banks (earmarked):				
Charging station project	**10.17**		-	
Unclaimed dividend a/c	**2.79**		3.61	
Non-repatriable a/c	**0.30**		1.82	
Sale proceeds of fractional shares on bonus issue	**0.03**	**13.29**	0.03	5.46
		5015.73		6707.80
Total Cash and Bank Balances [12 + 13]		**6418.59**		7503.54

Note [14] - 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, 2020		As at March 31, 2019	
Security deposits				
Secured, considered good		-		-
Unsecured, considered good				
EMD and other deposits		**135.24**		157.71
Significant increase in credit risk		-		-
Credit impaired		**13.42**		3.54
		148.66		161.25
Less: Allowances for bad & doubtful deposits		**13.42**		3.54
		135.24		157.71
Loans				
Loans to PSUs *	**12.00**		12.00	
Interest accrued and due on loans	**1.33**	**13.33**	1.33	13.33
Less: Allowances for bad & doubtful loans		**13.33**		13.33
		-		-
Out of above:				
Secured, considered good	**-**		-	
Unsecured, considered good	**-**		-	
Significant increase in credit risk	**-**		-	
Credit impaired	***13.33***		*13.33*	
		135.24		157.71

* Loan given to Bharat Pumps and Compressors Ltd. has been fully provided

Includes :				
(a) Due from Directors		**-**		-
(b) Due from Officers		**-**		0.01

Note [15] - Current assets
Other financial assets

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Interest accrued on banks deposits	**99.39**		128.96	
Advance to employees	**28.18**		36.46	
Rent receivable on finance lease	**-**		0.03	
	127.57		165.45	
Less: Allowances for bad & doubtful advances	**0.07**	**127.50**	0.05	165.40
		127.50		165.40
Includes:				
(a) Due from Directors		**-**		-
(b) Due from Officers		**0.05**		0.01

Note [16] - 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, 2020	As at March 31, 2019
Advance tax & TDS	**2528.16**	2888.18
Less: Provisions for taxation	**2299.09**	2979.52
	229.07	(91.34)

Note [17] - Current assets

Others current assets

Refer point 13 of Note [2] for accounting policy on impairment of financial assets. (₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Contract assets (including unbilled revenue)				
Secured, considered good	**-**		-	
Unsecured, considered good	**7670.46**		8427.14	
Credit impaired	**54.69**		202.40	
	7725.15		8629.54	
Less: Allowances for bad and doubtful debts	**54.69**	**7670.46**	202.40	8427.14
Claim recoverable				
Input tax credit receivable	**927.07**		1187.74	
Claim recoverable and others	**688.43**		710.04	
Advances				
Vendors / subcontractors	**231.76**		257.73	
	1847.26		2155.51	
Less: Allowances for bad & doubtful advances and claims	**135.03**	**1712.23**	126.45	2029.06
Out of above:				
Secured, considered good	**-**		-	
Unsecured, considered good :	***1712.23***		*2029.06*	
Significant increase in credit risk	**-**		-	
Credit impaired	***135.03***		*126.45*	
Security deposits				
Deposits with tax authorities and others	**460.01**		495.75	
Less: Allowances for bad & doubtful deposit	**58.75**	**401.26**	60.87	434.88
Out of above:				
Secured, considered good	**-**		-	
Unsecured, considered good	***401.26***		*434.88*	
Significant increase in credit risk	**-**		-	
Credit impaired	***58.75***		*60.87*	
		9783.95		10891.08
Contract assets (net of provision) includes:				
Deferred debts		**4366.26**		5625.80

Note [18] - Equity
Equity share capital

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
	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**	3671400000	734.28
Less: Shares bought back during the year	-	-	189336645	37.87
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	**2199650402**	**63.17%**	2199650402	63.17%
Life Insurance Corporation of India	**350647914**	**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 [18a] - Other Equity

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Summary of other equity balances:		
Capital reserve	**35.18**	35.18
Capital redemption reserve	**37.87**	37.87
General reserves	**30476.66**	30476.66
Retained earnings*	**(2170.37)**	(200.62)
Re-measurements of defined benefit plans	**(415.03)**	(141.16)
	27964.31	30207.93

* For change in opening retained earning, refer note [53]

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 paid 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 [19] - Non-current liabilities
Financial liabilities- Borrowings

Refer point 3 of Note [2] for accounting policy on lease.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Unsecured		
Long term maturities of lease obligations	**75.37**	95.45
	75.37	95.45
(Disclosure as per Note [48] on lease)		

Note [20] - Non-current liabilities
Financial liabilities -Trade payables

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Trade payables				
(i) Total outstanding dues of micro enterprises and small enterprises	**8.25**		-	
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**999.62**	**1007.87**	702.87	702.87
		1007.87		702.87

Note [21] - Non-current liabilities
Other financial liabilities

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Deposits from contractors & others	**150.99**	84.93
Liability for capital expenditure	**8.03**	6.36
	159.02	91.29

Note [22] - Non-current liabilities
Provisions

Refer point 9 & 10 of Note [2] for accounting policy on employee benefits and provisions.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contractual obligation	**3791.01**	3852.31
Provision for employee benefits	**1176.11**	1308.70
Provision others	**284.87**	312.62
Corporate social responsibility	**8.93**	2.40
	5260.92	5476.03

Note [23] - Non-current liabilities
Other non - current liabilities

Refer point 11 of Note [2] for accounting policy on Government grants (₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contract liabilities (Advances received from customers incl. excess of billing over revenue)	**2921.16**	3577.93
Deferred income- Govt. grant #	**31.49**	37.95
	2952.65	3615.88

#Govt. grant is received for setting up of solar PV plant and manufacturing of modules.

Note [24] - Current liabilities
Financial liabilities - Borrowings

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Secured		
Loans from banks	**600.00**	600.00
Pre shipment packing credit	**759.22**	357.27
Buyer's Credit (secured by hypothecation of raw materials, components, work-in-progress, finished goods & stores & demand bills)	**141.58**	-
Cash credit (by BHEL EML)	**6.26**	6.69
	1507.06	963.96
Unsecured		
Commercial papers	**3432.59**	1,474.47
Loan from companies (by BHEL EML)	**8.27**	6.15
	3440.86	1,480.62
Total borrowings	**4947.92**	2,444.57

(i) The Company has a cash credit limit from banks aggregating to ₹ **6000 crore** (previous year ₹ 6000 crore) and Company's counter guarantee / indemnity obligations in regard to bank guarantee / letters of credit limit aggregating to ₹ **54000 crore** (previous year ₹ 54000 crore) sanctioned by the consortium banks. These are 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. The outstanding bank guarantees as at 31.03.2020 is ₹ **40520** crore (previous year ₹ 43136 crore). It does not include BG of ₹ **970.87 crore** issued as replacement and pending as on 31st March 2020.

(ii) Loan from Banks represents WCDL (previous year against FD)

(iii) Packing Credit in Foreign Currency (PCFC) has been availed by the Company. The outstanding amount of USD 100.03 million is repayable in parts during the months August to December 2020.

(iv) Details of Commercial papers outstanding as on 31st March 2020 is as follows:

(₹ in Crore)

Issue Date	Maturity Date	Discount Rate	Face Value	Amortised cost
05-11-2019	04-11-2020	5.88%	600.00	580.19
13-11-2019	30-10-2020	5.99%	400.00	386.84
29-11-2019	27-11-2020	5.90%	150.00	144.50
12-12-2019	11-12-2020	6.35%	500.00	479.22
10-01-2020	09-04-2020	5.55%	450.00	449.46
20-01-2020	20-04-2020	5.62%	250.00	249.28
29-01-2020	29-04-2020	5.67%	250.00	248.93
29-01-2020	29-04-2020	5.69%	400.00	398.28
09-03-2020	29-05-2020	5.24%	500.00	495.88
		Total	**3,500.00**	**3432.59**

(v) Buyer's credit has been availed by the Company. The outstanding amount of USD 18.65 million is repayable partly in Sept 20 and partly in Dec 20.

(vi) Corporate Guarantees given for own obligations outstanding as on 31.03.2020 is ₹ 1422 crore (previous year ₹ 1433 crore).

Note [25] - Current liabilities
Financial liabilities - Trade Payables

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Trade payables:				
(i) Total outstanding dues of micro enterprises and small enterprises		**492.12**		764.91
(ii) Total outstanding dues of creditors other than micro enterprises and small enterprises	**8388.76**		10563.79	
Acceptances	**16.64**	**8405.40**	52.28	10616.07
		8897.52		11380.98

Note [26] - Current liabilities
Other financial liabilities

(₹ in Crore)

Particulars	As at March 31, 2020		As at March 31, 2019	
Liabilities:				
Employees dues	**289.10**		512.14	
Other dues	**560.18**		880.55	
Capital expenditure	**82.73**	**932.01**	88.75	1481.44
Deposits from contractors & others		**492.10**		522.27
Current maturities of lease obligation #		**53.55**		58.45
Unpaid dividend *		**2.79**		3.61
Interest accrued & due on loans:				
From Banks		**1.96**		-
Lease obligations		**3.12**		4.41
From Foreign Financial Institutions		**0.75**		-
Interest accrued but not due		**1.01**		0.07
		1487.29		2070.24

(i) * No amount is due and outstanding to be transferred to Investor Education & Protection Fund at the year end.

(ii) # Disclosure as per Note [48] on lease

(iii) Other dues includes ₹ 0.03 crore for sale proceeds of fractional shares arising out of issuance of bonus shares.

Note [27] - Current liabilities
Provisions

Refer note 9 & 10 for accounting policy on employee benefits and provisions.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contractual obligation	**1563.86**	1443.13
Provision for employee benefits	**1124.73**	784.49
Corporate social responsibility	**6.58**	19.43
Provision others	**390.59**	241.92
	3085.76	2488.97

Note [28] - Current liabilities
Other current liabilities

Refer point 11 of Note [2] for accounting policy on Government grants (₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
Contract liabilities (Advances received from customers incl. excess of billing over revenue)	**3798.08**	3261.68
Liabilities towards statutory dues	**453.82**	1310.95
Deferred income - Govt. grant	**6.45**	6.45
	4258.35	4579.08

Note [29]
Revenue from operations

Refer point 7 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Revenue from contracts with customers		
Sales	**15060.87**	22493.28
Income from external erection & other services	**5433.72**	6948.31
Turnover (A)	**20494.59**	29441.58
Other operational income		
Freight & insurance	**143.43**	263.62
Scrap income	**168.99**	205.64
Recoveries from suppliers	**219.79**	186.97
Liabilities written back	**312.27**	181.05
Insurance claims	**16.42**	41.08
Export incentives	**14.99**	3.64
Others	**119.53**	117.80
Other operational income (B)	**995.42**	999.80
Revenue from operations (C=A+B)	**21490.01**	30441.38
Revenue from operations excludes :		
Goods and service tax	**2837.28**	4491.81

The spread of COVID 19 impacted the business from Mid March 20, which culminated into scaling down of operations because of the nationwide lockdown. (refer note [54]

Note [30]
Other income

Refer point 7 of Note [2] for accounting policy on revenue recognition. (₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Interest income *		
From banks	**502.22**	498.71
Others	**6.97**	100.73
	509.19	599.44
Other income		
Profit on sale of units of mutual funds	**6.43**	17.00
Government grants	**6.45**	6.50
Profit from sale of PPE & capital stores (Net)	**9.30**	2.25
Others	**32.93**	36.33
	55.11	62.08
Total other income	**564.30**	661.52
*Includes TDS	**50.05**	49.95

Note [31]
Material consumption, erection and engineering expenses

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Consumption of raw material & components	**11781.64**	14982.73
Civil, erection and engineering expenses	**2947.17**	3866.88
Consumption of stores & spares	**352.91**	411.71
	15081.72	19261.32

Note [32]
Changes in inventories of finished goods and work in progress

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Work -in -progress				
Closing balance	**4120.77**		3220.71	
Opening balance	**3220.71**	**(900.06)**	2285.51	(935.20)
Finished goods $				
Closing balance	**823.32**		661.53	
Opening balance	**661.53**	**(161.79)**	631.16	(30.37)
Inter-division transfer in transit		**46.29**		(23.74)
		(1015.56)		(989.31)

Note [33]
Employee benefits expenses

Refer point 9 of Note [2] for accounting policy on employee benefits.

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Salaries, wages, bonus, allowances & other benefits	**4628.86**	4688.81
Contribution to provident and other funds	**382.74**	427.04
Staff welfare expenses	**280.07**	276.55
Contribution to gratuity fund	**105.45**	107.75
Group insurance	**11.59**	9.10
	5408.71	5509.25

Note [34]
Manufacture, administration, selling & distribution expense

(₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Power & fuel		**459.41**		496.94
Carriage outward		**334.60**		351.34
Expenditure on other sub contracts		**287.38**		377.52
Payment to security agencies		**222.79**		225.32
Repairs & maintenance:				
Buildings	**45.03**		60.45	
Plant & machinery	**32.32**		38.60	
Others	**88.12**	**165.47**	107.14	206.19
Insurance		**147.02**		124.20
Travelling & conveyance		**124.51**		125.11
Bank charges		**104.22**		89.92
R&D expense		**74.97**		123.12
Hire charges		**62.34**		74.20
Expenditure on collaborations & royalty		**57.72**		138.31
Rates & taxes		**43.70**		50.06
Office expense		**40.29**		45.10
Expenditure on skill development		**39.38**		51.86
Legal, audit & certification expense		**35.04**		31.57
EDP, software & lease line expense		**29.73**		35.58
Corporate social responsibility		**28.80**		26.54
Water charges		**26.94**		40.38
Expenditure in connection with exports		**24.39**		10.06
Rent non residential		**20.23**		22.05
Entertainment & courtesy expenses		**9.89**		10.78
Environmental protection		**7.17**		7.82
Seminar, development and training expense		**6.02**		7.27
Publicity & public relation expense		**5.43**		19.90
Miscellaneous expense		**73.82**		73.53
		2431.26		2764.67
Net exchange variation (gain) / loss		**(434.73)**		(66.54)
		1996.53		2698.13

Note [34]
Discloure - Manufacture, administration, selling and distribution expenses

(₹ in Crore)

	For the year ended March 31, 2020	For the year ended March 31, 2019
(i) Director's fees	**0.23**	0.16
(ii) Expenditure on departmental repair & maintenance:		
Plant & machinery	**205.73**	238.08
Buildings	**42.38**	47.64
Others	**34.96**	40.47
(iii) Expenditure on research & development	**179.57**	267.59
(iv) Expenditure on foreign travel		
No. of tours	**323**	332
Expenditure	**6.52**	6.33

(v) BHEL from own contribution has spent cumulative ₹ 170.31 crore (upto previous year ₹ 117.50 crore) on AUSC project and accounted as R&D expenditure.

Note [35]
Provisions

Refer point 9, 10 & 13 of Note [2] for accounting policy on employee benefits, provisions and impairment of assets. (₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Doubtful debts, liquidated damages and loans, advances & deposits				
Created during the year	**2335.46**		3025.49	
Less: withdrawal during the year	**2300.75**	**34.71**	1231.80	1793.69
Contractual obligations				
Created during the year	**436.35**		746.42	
Less: withdrawal during the year	**573.11**	**(136.76)**	795.92	(49.50)
Others				
Created during the year	**315.94**		240.92	
Less: withdrawal during the year	**180.71**	**135.23**	244.23	(3.31)
		33.18		1740.88
Losses written off		**-**		2.12
Bad debts written off		**57.60**		26.03
Liquidated damages & contractual charges charged off		**165.20**		65.03
		255.98		1834.06

Note [36]
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, 2020		For the year ended March 31, 2019	
Discount on commercial papers		**204.12**		9.92
Unwinding of provisions and deferred liabilities		**195.61**		190.93
Interest cost:				
Banks / Financial Institutions	**46.30**		59.56	
Foreign Financial Instituitions	**26.32**		9.89	
On lease obligation	**16.03**		14.73	
Others	**17.71**	**106.36**	2.97	87.15
Other expenses on issuance of Commercial paper		**2.36**		0.36
		508.45		288.37
Less: Borrowing cost capitalised		**-**		-
		508.45		288.37

Note [37]
Tax expenses

Refer point 12 of Note [2] for accounting policy on income taxes. (₹ in Crore)

Particulars	For the year ended March 31, 2020		For the year ended March 31, 2019	
Current tax				
for current year	**63.44**		719.06	
for earlier years	**(61.92)**	**1.52**	16.01	735.07
Deferred tax				
For current year	**(163.11)**		1.61	
For earlier years*	**970.87**	**807.76**	100.64	102.25
		809.28		837.32

* It includes reversal of DTA of ₹ 956.50 crore on account of change in effective tax rate (ETR) from 34.944% to 25.168 % in the current year.

Reconciliation of Income tax expense and accounting profit (TCI) multiplied by income tax rate

(₹ in Crore)

Particulars		For the year ended March 31, 2020	For the year ended March 31, 2019
Total Comprehensive Income / (loss) before tax	**A**	**(1,000.99)**	1656.57
Statutory income tax rate	**B**	**25.168%**	34.944%
Tax expense	**C=AxB**	**(251.93)**	578.87
Difference due to:			
Expenses not deductible for tax purposes		**72.73**	60.18
Income exempt from income tax			
Income tax incentives			(47.87)
Change in tax rate		**974.36**	0.62
Change in tax expense - earlier years		**(47.55)**	116.65
Tax effect on share of JVs profit / (loss)		**(6.51)**	64.85
Subtotal	**D**	**993.03**	194.43
Net Tax Expense	**E = (C+D)**	**741.10**	773.30

Note [38]
Other comprehensive income / expenditure

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Income / (expenditure)		
Re measurement of defined employee benefits	**(342.05)**	(183.19)
Less: Income tax related to above items*	**(68.18)**	(64.02)
	(273.87)	(119.17)
* Includes		
Current tax	**-**	
Deferred tax$	**(68.18)**	(64.02)

$ It includes reversal of DTA of ₹ 17.91 crore on account of change in effective tax rate (ETR) from 34.944% to 25.168 % in the current year.

Note : BHEL has opted for new section 115BAA of the Income Tax Act 1961 in the current year and accordingly

(a) the provision for current and deferred tax has been determined at the rate of 25.168% ,

(b) the deferred tax assets as on April 1, 2019 have been restated at the rate of 25.168% which resulted in the reversal of deferred tax assets by ₹ 974.41 crore, as a result decreasing the PAT by ₹ 956.50 crore & OCI by ₹ 17.91 crores.

Note [39]
Earnings per share

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
Profit attributable to equity shareholders	(1,468.35)	1002.42
Weighted average number of equity shares	348.21	362.94
Basic and diluted earnings per share of INR 2 each	**(4.22)**	**2.76**

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. The weightage average number of equity share for 2018-19 have been worked out considering buy back of shares completed on January 10, 2019. The basic and diluted EPS are same.

Note [40]
Dividend per share

(₹ in Crore)

Particulars	For the year ended March 31, 2020	For the year ended March 31, 2019
A. Dividend on equity shares declared and paid during the year		
Final dividend of ₹**1.20** (previous year ₹ 1.02) per qualifying equity share	**417.85**	374.49
Dividend distribution tax on final dividend	**85.89**	76.97
Interim dividend of ₹ **nil** (previous year ₹ 0.80) per qualifying equity share	-	278.57
Dividend distribution tax on interim dividend	-	57.27
	503.74	787.30
B. Proposed dividend on equity shares not recognised as liability		
Proposed final dividend of ₹ **Nil** per share for FY 2018-19 (FY 2017-18 ₹ 1.02 per share)	-	417.85
Dividend distribution tax on final dividend	-	85.89
	-	503.74

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 [41]
Notes to Accounts

The Consolidated financial statements relates 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 same reporting date as of the parent company

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. The financial statements of subsidiary is combined on a line-by-line basis by adding together the book value of like items of assets, liabilities, income and expenses after fully eliminating the intra group balances and intra-group transactions and unrealized profits or losses in accordance with Ind AS 110 on "Consolidated Financial Statements".
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	
		2019-20	2018-19
Subsidiary Company			
BHEL Electrical Machines Limited (BHEL EML)	India	**51%**	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	**27.97%**	27.97%

a) The financial statements of BHEL EML are consolidated based on the unaudited financial statement for the year ended on 31.03.2020.

b) Interest in Joint Ventures in respect of BHEL-GE Gas Turbine Services Pvt. Ltd. is considered based on audited financial statements for the year ended on 31.03.2020.

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 31.03.2020.

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.

e) Interest in joint venture in respect of Dada Dhuniwale Khandwa Power Ltd. have not been considered in preparation of consolidated financial statements as the company is under liquidation. Full amount of outstanding of ₹ 4.93 crore has been provided for as impairment.

Note [42] - Contingent liabilities and commitments

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
A. Contingent liabilities		
Claims against the company not acknowledged as debt :		
(a) Sales tax matters	**1147.53**	1194.96
(b) Court & arbitration matters	**690.01**	583.81
(c) Service tax matters	**793.64**	960.78
(d) Excise duty matters	**161.76**	229.82
(e) Customs duty and others	**5.80**	5.80
(f) Other matters (incl. disputed staff cases)	**38.16**	48.79
(g) Claim towards liquidated damages (LD)	**5231.57**	4410.68
	8068.47	7434.64

(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 are remote and 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.

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
(iv) Movement in contingent liabilities		
Balance at the beginning of the year	**7434.64**	8455.91
Less: Reduction out of opening balance	**1443.71**	2720.04
Add: Additions (net) during the year	**2077.54**	1698.77
Balance at the end of the year	**8068.47**	7434.64

(₹ in Crore)

Particulars	As at March 31, 2020	As at March 31, 2019
B. Commitments		
(a) Estimated amount of contracts, net of advances, remaining to be executed on capital account and not provided for.	**325.72**	274.79
- (The above includes related to acquisition of intangible assets)	**(12.30)**	(3.23)
(b) Investment in the Joint Venture entities 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.	**50.00**	50.00
(c) Commitments towards additional investment in the Joint Venture in case of inability of other JV partner to take up additional equity stake	**-**	-

(d) 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 [43]

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. The matter for its waiver has been taken up with the Government since there was no stipulation for payment of such guarantee fee at the time the loans (guaranteed by Government) were taken by the company.

Note [44]

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 [45]

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). Out of the Trade receivables of ₹**25283 crore** (Previous Year ₹28876 crore), ₹**8098 crore** (previous year ₹7388 crore) are outstanding in completed projects. Out of completed contracts, the projects reconciled with customers have outstanding trade receivables of ₹**6676** crore (previous year ₹6622 crore)

Note [46] - 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, 2020	March 31, 2019	March 31, 2020	March 31, 2019
BHEL Electrical Machines Limited	India	**51%**	51%	**49%**	49%

BHEL EML (subsidiary company) is engaged in manufacturing of rotating electrical machines and is located at Kasargod, Kerala.

(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 31,2020	March 31,2019
Non-current assets	**12.76**	11.60
Current assets	**8.55**	9.44
Total Assets	**21.31**	21.04
Non-current liabilities	**5.69**	5.69
Current liabilities	**34.13**	29.08
Total Liabilities	**39.82**	34.77
Net Assets	**(18.51)**	(13.73)
Accumulated Non Controlling Interest (NCI)	**(9.07)**	(6.73)

(₹ in Crore)

Summarized statement of profit and loss	For the Year	
	2019-20	2018-19
Revenue	**3.97**	18.76
Profit/ (loss) for the year	**(4.79)**	(5.46)
Other Comprehensive Income	**0.01**	0.01
Total Comprehensive Income	**(4.78)**	(5.45)
Profit/ (loss) attributable to NCI	**(2.34)**	(2.68)

Summarized Cash flows	For the Year	
	2019-20	2018-19
Cash flows from operating activities	**(1.12)**	(2.78)
Cash flows from investing activities	**-**	-
Cash flows from financing activities	**1.23**	2.55
Net increase/ (decrease) in cash and cash equivalents	**0.11**	**(0.23)**

The working capital position of the subsidiary company is under stress. Hence, there is an uncertainity regarding the going concern status of the company

Note [47] - 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:

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	
		2020	2019	2020	2019
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	**27.97%**	27.97%	**664.04**	664.04
Dada Dhuniwale Khandwa Power Limited	India	**50.00%**	50.00%	**-**	-

BGGTS is a Joint Venture Company of BHEL and GE, USA formed to take up repair & servicing of GE designed Gas Turbines.

BHEL along with NTPC Limited has 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.

Raichur Power Corporation Limited 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.

(i) The provision for impairment in value of investment in NTPC-BHEL Power Projects Private Limited has been made to the extent of ₹**50 crore** (previous year Rs 50.00 crore) based on the net financial position. The Board of Directors in its meeting held on 8th Feb 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 NBBPL Board in its meeting held on 29.08.2019

(ii) The provision for impairment in value of investment in Powerplant Performance Improvement Limited amounting to ₹ **2 crore** (previous year Rs 2 crore) has been made since the Company is under liquidation and the amount paid as equity is not recoverable.

(iii) The provision for impairment in value of investment in Dada Dhuniwale Khandwa Power Limited has been retained to the extent of ₹**4.93** crore (previous year ₹ 5.20 crore) based on the net financial position. The winding of the company is in process. An amount of ₹ **17.57 crore** has been received (₹ 17.30 crore in FY 2018-19 and ₹ 0.27 crore in FY 2019-20) against investment in Dada Dhuniwale Khandwa Power Project Ltd.

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. 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 31,2020	March 31,2019
BHEL Share	**50%**	50%
Non-current assets	**62.36**	43.94
Current assets	**462.88**	460.03
Cash and cash equivalent (incl. bank balances) included in current assets	**187.58**	112.69
Non-current liabilities	**18.70**	9.27
Non-current financial liabilities (excluding trade payables)	**13.53**	0.24
Current liabilities	**189.13**	195.87
Current financial liabilities (excluding trade payables)	**12.53**	7.28

Statement of Profit and Loss	For the year ended	
	March 31,2020	March 31,2019
Revenue	**702.09**	688.80
Interest income	**10.56**	13.46
Depreciation and amortization	**9.59**	5.21
Interest expense	**1.46**	0.16
Income tax expense	**23.22**	31.56
Profit / loss for the year	**58.14**	60.73
Other comprehensive income	**0.26**	0.04
Total comprehensive income	**57.88**	**60.77**

Raichur Power Corporation Ltd. (₹ in Crore)

Balance Sheet	As at	
	March 31,2020	March 31,2019
BHEL Share	**27.97%**	27.97%
Non-current assets	**11040.94**	11678.96
Current assets	**1262.92**	1425.09
Cash and cash equivalent included in current assets	**(85.80)**	(98.73)
Non-current liabilities	**8302.34**	9070.34
Non-current financial liabilities (excluding trade payables)	**8302.34**	9070.34
Current liabilities	**6726.96**	4553.42
Current financial liabilities (excluding trade payables)	**6335.77**	4353.05

Statement of Profit and Loss	For the Year	
	March 31,2020	March 31,2019
Revenue	**254.67**	1146.76
Depreciation and amortization	**668.00**	648.22
Interest expense	**1437.14**	1317.68
Income tax expense	**-**	-
Profit / (loss) for the year	**(2205.73)**	(1251.30)
Total comprehensive income	**(2205.73)**	(1251.30)

NTPC-BHEL Power Projects Pvt. Ltd. (₹ in Crore)

Balance Sheet	As at	
	March 31,2020	March 31,2019
BHEL Share	**50%**	50%
Non-current assets	**387.26**	382.65
Current assets	**218.04**	239.98
Cash and cash equivalent included in current assets	**5.09**	5.76
Non-current liabilities	**258.71**	257.64
Current liabilities	**466.73**	458.99
Current financial liabilities (excluding trade payables)	**79.25**	82.91

Statement of Profit and Loss	For the year ended	
	March 31,2020	March 31,2019
Revenue	**61.06**	75.93
Depreciation and amortization	**6.73**	7.27
Interest expense	**1.66**	2.14
Income tax expense	**(9.19)**	(27.38)
Profit / (loss) for the year	**(26.15)**	(114.33)
Total comprehensive income	**(26.15)**	(114.33)

Note [48] - Disclosure on Leases - Ind AS 116

The Company has adopted Ind AS 116 'Leases' effective 1 April 2019. Transitional adjustment is done retrospectively with cummulative effect on 1st April 2019, the date of initial application of this Ind AS, as prescribed in para C5(b) with alternate given in para C8(ii) for right-of-use asset and this has no impact on opening retained earnings :

The effect of adoption Ind AS 116 as at April 1 2019 (increase/(decrease)) is as follows:

(₹ in Crore)

Particulars	Amount
Assets	
Right-of-use assets	**443.44**
Property, plant and equipment	**(423.34)**
Total assets	**20.10**
Liabilities	
Lease liabilities	**20.10**
Total liabilities	**20.10**

i) 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. The period of lease agreement is generally for five years . 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.

Leases previously classified as finance leases

The company did not change the initial carrying amounts of recognised assets at the date of initial application for leases previously classified as finance leases (i.e., the right-of-use assets equal the lease assets recognised under Ind AS 17).

Leases previously accounted for as operating leases

The company recognized right-of-use assets and lease liabilities for those leases previously classified as operating leases, except for short-term leases & low value underlying leased assets . The company recognizes a lease liability measured at the present value of the remaining lease payments, discounted using the company's incremental borrowing rate at the date of initial application and correspondingy measured the right-of-use asset at an amount equal to the lease liability.

The company applied the following available practical expedients :

(i) The short-term leases exemptions to leases with lease term that ends within 12 months of the date of initial application and the total lease term is 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 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019
Not later than 1 year #	**65.04**	72.42	**11.49**	13.97	**53.55**	58.45
Later than 1 year and not later than 5 years	**87.62**	112.07	**12.25**	16.62	**75.37**	95.45
Later than 5 years	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00

The amount of future minimim lease payments in resepct of leases where remaining lease term as at the end of March 31,2020 is less than 12 months is Rs **5.97** cr.

b. Reconciliation of operating lease commitments as at March 31, 2019 with the lease liabilities recognized in the Balance Sheet as at April 1, 2019 and movement in lease liabilities during the year ended March 31, 2020.

(₹ in Crore)

Operating lease commitments [MLP] as at March 31, 2019	**40.49**
Less:	
Commitments relating to short-term leases	**4.01**
Commitments relating to low value assets	**0.39**
Operating lease commitments [MLP] as at April 1, 2019	**36.09**
Discounted operating lease commitments as at 1 April 2019	**20.10**
Add: Finance lease obligations reclassified to lease liabilities*	**158.31**
Lease Liabilities as at April 1,2019	**178.41**
Add: Additions	**20.38**
Add: Accretion of interest	**16.03**
Less : Payments	**82.78**
Lease Liabilities as at March 31,2020*	**132.04**

* includes interest accrued of ₹ **3.12 crore** & ₹ **4.41 crore** as at March 31,2020 & March 31,2019 respectively.

c. Amounts recognised in profit or loss:

(₹ in Crore)

Particulars	For the Year Ended March 31,2020
Expense relating to Short-term leases (Refer Note No.34)	**5.95**
Expense relating to low value assets leases (Refer Note No.34)	**1.21**
Depreciation charge of right-of-use assets	**66.63**
Interest expense (included in finance cost)	**16.03**

d. The company has various lease contracts that have not yet commenced as at March 31 2020. The future lease payments for these non-cancellable lease contracts are as follows:

(₹ in Crore)

Particulars	Amounts
Not later than 1 year	**0.07**
Later than 1 year and not later than 5 years	**0.08**
Later than 5 years	**-**

ii) Finance Lease Commitments - Company as Lessor

The Company has given locomotives under finance lease. The components of finance lease receivables are as follows:

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Gross investment in lease:		
Not later than 1 year	**-**	0.03
Later than 1 year and not later than 5 years	**-**	-
Later than 5 years	**-**	-

Net Investment in Finance Receivables (₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Unearned finance income		
Net investment in finance receivables	-	0.03
Contingent rent recognised as Income	-	-
Unguaranteed residual values accruing	-	-

Present value of Minimum Lease Receivables are as follows:

Particulars	As at March 31,2020	As at March 31,2019
Present value of minimum lease payments receivables:		
Less than one year	-	0.03
Between one and five years	-	-
More than five years	-	-

Note [49] - Disclosure on 'Employee benefits' - Ind AS 19

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

A. 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.

I. 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					
	2020	2019	2020	2019	2020	2019
Opening Balance	**2040.40**	2058.05	**1862.76**	1814.01	**177.64**	244.04
Included in profit for the year :						
Current service cost	**105.45**	107.36	**-**	-	**105.45**	107.36
Past service cost	**-**	-	**-**	-	**-**	-
Interest cost /(income)	**157.70**	162.56	**157.70**	162.17	**-**	0.39
Total amount recognised in profit for the year	**263.15**	269.92	**157.70**	162.17	**105.45**	107.75
Included in other comprehensive income (OCI) :						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Change in Demographic assumptions	**(0.62)**	-	**-**	-	**(0.62)**	-
Change in Financial Assumption	**151.51**	(22.37)	**-**	-	**151.51**	(22.37)
Experience Adjustment	**(29.11)**	85.10	**(20.70)**	(2.17)	**(8.41)**	87.27
Total amount recognised in other comprehensive income	**121.78**	62.73	**(20.70)**	(2.17)	**142.48**	64.90
Others						
Contributions paid by the employer	**-**	-	**172.06**	238.75	**(172.06)**	(238.75)
Benefits paid	**(351.00)**	(350.30)	**(351.00)**	(350.00)	**-**	(0.30)
Unpaid Benefits paid	**-**	-	**-**	-	**-**	-
Closing balance	**2074.33**	2040.40	**1820.82**	1862.76	**253.51**	177.64

II. Details of Plan assets

Particulars	As at March 31,2020	As at March 31,2019
Funds managed by Insurer	**56.59%**	62.47%
High quality Corporate bonds (quoted)	**33.88%**	34.30%
State Government securities (quoted)	**2.74%**	2.32%
Equity shares of listed Companies (quoted)	**0.84%**	0.90%
Bank Balance	**5.95%**	0.01%
Total	**100.00%**	100.00%

III. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

Particulars	As at March 31, 2020	As at March 3 1, 2019
Economic assumptions		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.60% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rate % (All ages)		
Upto 30 years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

IV. Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

Particulars	Gratuity (Funded)			
	As at March, 31 2020		As at March, 31 2019	
	Increase	Decrease	Increase	Decrease
Change in Discount rate (0.50% movement)	**(85.87)**	**93.75**	75.88	80.16
Change in Salary escalation rate (0.50% movement)	**53.77**	**(54.17)**	(81.03)	75.30

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.

V. Expected maturity analysis of the gratuity plan in future years

(₹ in Crore)

	Gratuity (Funded)	
	As at March 31,2020	As at March 31,2019
Less than 1 year	**313.31**	318.43
Between 1-2 years	**207.02**	216.85
Between 2-3 years	**178.64**	176.67
Between 3-4 years	**130.38**	155.73
Between 4-5 years	**114.73**	113.43
Between 5-6 years	**93.70**	113.48
Over 6 years	**1036.55**	945.81
Total	**2074.33**	2040.40

Expected contributions to gratuity plans for the year ending 31 March 2021 are ₹ **137.11** crore

The weighted average duration of the gratuity defined benefit plan obligation at the end of the reporting period is 14.91 years (31 March 2019: 14.89 years.)

VI. 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.

B. 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.

I. Movement in net defined benefit (asset)/liability on Post retirement Medical Benefit Plan

(₹ in Crore)

	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March 31,					
	2020	2019	2020	2019	2020	2019
Opening balance	**2080.78**	1925.72	**1935.72**	1881.03	**145.06**	44.69
Included in profit for the year :						
Current service cost	**40.15**	39.48	**-**	-	**40.15**	39.48
Interest cost / (income)	**161.26**	152.13	**161.26**	152.13	**-**	-
Total amount recognised in profit for the year	**201.41**	191.61	**161.26**	152.13	**40.15**	39.48
Included in other comprehensive income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	**(0.91)**	-	**-**	-	**(0.91)**	-
Financial assumptions	**193.77**	31.71	**-**	-	**193.77**	31.71
Experience adjustment	**(31.85)**	76.74	**(5.26)**	2.87	**(26.59)**	73.87
Total amount recognised in other comprehensive income	**161.01**	108.45	**(5.26)**	2.87	**166.27**	105.58

(₹ in Crore)

	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March 31,					
	2020	2019	2020	2019	2020	2019
Others						
Contributions paid by the employer		-	**145.06**	44.69	**(145.06)**	(44.69)
Benefits paid	**(158.00)**	(145.00)	**(158.00)**	(145.00)	**-**	-
Closing balance	**2285.20**	2080.78	**2078.78**	1935.72	**206.42**	145.06

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

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

III.Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

(₹ in Crore)

	Post Retirement Medical Benefit			
	As at March, 31 2020		As at March, 31 2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(101.67)**	**104.64**	(102.71)	104.19
Change in cost (0.50% movement)	**105.37**	**(102.38)**	105.27	(103.71)

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.

IV. Expected maturity analysis of the Post Retirement Medical Benefit plan in future years

(₹ in Crore)

	Post Retirement Medical Benefit	
	As at March 31,2020	As at March 31,2019
Less than 1 year	**155.27**	139.44
Between 1-2 years	**172.35**	150.01
Between 2-3 years	**189.58**	163.18
Between 3-4 years	**209.49**	178.49
Between 4-5 years	**232.53**	194.36
Between 5-6 years	**259.27**	211.85
Over 6 years	**1066.71**	1043.45
Total	**2285.20**	2080.78

Expected contributions to Post retirement medical benefit plan for the year ending 31 March 2021 are ₹ **53.10 crore**.

The weighted average duration of the post retirement medical benefit plan obligation at the end of the reporting period is **11.44** years (31 March 2019: 11.97 years).

V. 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.

C. 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.

I. Details of interest shortfall in PF Trust

(₹ in Crore)

	For the year ended	
	2019-20	2018-19
Excess / (shortfall) in PF interest liability based on actuarial valuation for the year	**(23.18)**	(5.15)
Accumulated provision for shortfall in PF interest liability based on actuarial valuation	**30.14**	6.96
Remeasurement gain/(loss) recognised through other comprehensive income statement	**(31.46)**	(12.53)
Interest shortfall / (surplus) accounted through Statement of Profit & Loss	**(8.28)**	(7.38)

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 31,2020	March 31,2019	March 31,2020	March 31,2019	March 31,2020	March 31,2019
BHEL EPF Trust, Ranipur, Hardwar	**1470.95**	1379.70	**1472.38**	1,387.17	**1.43**	7.47
BHEL Employee Provident Fund, Trichy	**1029.10**	1119.51	**1025.27**	1,119.83	**(3.83)**	0.32
BHEL Employee Provident Fund, Bhopal	**1239.54**	1176.79	**1232.47**	1,175.50	**(7.07)**	(1.29)
BHEL New Delhi Employees Provident Fund Trust	**1169.96**	1,008.05	**1176.53**	1,018.78	**6.57**	10.73
BHEL Employee Provident Fund, Hyderabad	**835.64**	811.28	**853.11**	835.87	**17.47**	24.59
BHEL PPD EPF Trust, Chennai	**741.03**	656.18	**726.19**	651.53	**(14.84)**	(4.65)
BHEL Employee Provident Fund, Bengaluru	**723.36**	613.12	**721.87**	616.44	**(1.49)**	3.32
BHEL (BAP Unit) EPF Trust, Ranipet	**416.21**	392.94	**413.30**	391.92	**(2.91)**	(1.02)
BHEL Employee Provident Fund Trust, Jhansi	**407.02**	365.26	**414.19**	371.89	**7.17**	6.63
Bharat Heavy Plates & Vesseles Limited Employee Contributory Provident Fund, Vizag	**127.58**	118.79	**158.81**	165.08	**31.23**	46.29
Total	**8160.39**	7641.62	**8194.12**	7734.01	**33.73**	92.39

II. Movement in net defined benefit (asset)/liability on Provident Fund

(₹ in Crore)

	BHEL Employees Provident Fund Trust (Consolidated)			
	Defined benefit obligation		Fair value of plan assets	
	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019
Opening Balance	**7641.62**	7188.67	**7734.01**	7302.12
Included in Profit for the year :				
Current service cost	**327.33**	341.66	**-**	-
Interest cost / (income)	**636.48**	567.91	**656.50**	567.91
Total amount recognised in profit for the year #	**963.81**	909.57	**656.50**	567.91
Included in other comprehensive income (OCI):				
Remeasurement loss (gain):				
Actuarial loss (gain) arising from:				
Demographic assumptions			**-**	-
Financial assumptions	**2.30**	0.36	**-**	-
Experience adjustment	**30.75**	43.77	**(45.63)**	23.07
Total amount recognised in other comprehensive income#	**33.05**	44.13	**(45.63)**	23.07

(₹ in Crore)

	BHEL Employees Provident Fund Trust (Consolidated)			
	Defined benefit obligation		Fair value of plan assets	
	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019
Others				
Contributions paid by the employer	**722.01**	698.53	**327.33**	341.66
Employee Contribution	**-**	-	**722.01**	698.53
Benefits paid	**(1497.98)**	**(1363.08)**	**(1497.98)**	(1363.08)
Settlements/Transfer-in	**297.88**	**163.80**	**297.88**	163.80
Closing balance	**8160.39**	**7641.62**	**8194.12**	7734.01

Note: Interest shortfall in respect of PF trust having deficit only have been accounted through statement of profit and loss and other comprehensive income statement as shown under point (I) above.

III. Details of plan assets

(₹ in Crore)

	As at March 31,2020	As at March 31,2019
Govt. of India securities (Quoted)	**1252.00**	1499.90
State Government securities (Quoted)	**3305.75**	2698.48
Corporate bonds (Quoted)	**2920.68**	2840.74
Equity shares of listed companies (Quoted)	**7.75**	18.40
Special deposit (Unquoted)	**468.86**	495.33
Liquid fund (Quoted)	**18.69**	25.13
Short term deposit (Unquoted)	**48.04**	1.82
Mutual fund (Quoted)	**172.36**	154.21
Total	**8194.12**	7734.01

IV. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date. (₹ in Crore)

	As at March 31,2020	As at March 31,2019
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Expected statutory interest rate on the ledger balance	**8.50%**	8.65%
Expected short fall in interest earnings on the fund	**0.05%**	0.05%
Demographic assumptions:		
Retirement age	**60**	60
Mortality table	**100% of IALM (2012-14)**	100% of IALM (2006-08)
Withdrawal rate % (All ages)		
Upto 30 years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

V. Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is:

	BHEL Employees Provident Fund Trust			
	As at March, 31 2020		As at March, 31 2019	
	Increase	Decrease	Increase	Decrease
Change in discount rate (0.50% movement)	**(1.35)**	**1.43**	(1.25)	1.29

VI. Expected maturity analysis in future years

	Provident Fund	
	As at March 31,2020	As at March 31,2019
Within the next 12 months	**836.14**	798.36
Between 2-5 years	**1,984.26**	1,450.20
Between 5-10 years	**1,502.75**	1,095.62
Beyond 10 years	**3,837.24**	4,297.44
Total	**8,160.39**	**7,641.62**

D. 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).

I. Movement in net defined benefit (asset)/liability

(₹ in Crore)

	Defined benefit obligation		Fair value of plan assets		Net defined benefit (asset) liability	
	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019	As at March 31,2020	As at March 31,2019
Opening balance	**8.53**	8.44	**-**		**8.53**	8.44
Included in Profit for the Year :						
Current service cost	**0.58**	0.49			**0.58**	0.49
Interest cost / income	**0.64**	0.67			**0.64**	0.67
Total amount recognised in profit for the year	**1.22**	**1.16**	**-**	**-**	**1.22**	**1.16**
Included in other comprehensive income (OCI):						
Remeasurement loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions			**-**	-	**-**	-
Financial assumptions	**1.21**	0.20			**1.21**	0.20
Experience adjustment	**0.65**	(0.03)		-	**0.65**	(0.03)
Total amount recognised in other comprehensive income	**1.86**	**0.17**	**-**	**-**	**1.86**	**0.17**
Others						
Contributions paid by the employer		-			**-**	-
Benefits paid	**(2.05)**	(1.24)			**(2.05)**	(1.24)
Closing balance	**9.56**	**8.53**	**-**	**-**	**9.56**	**8.53**

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

	Settlement Allowance	
	As at March 31,2020	**As at March 31,2019**
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.50% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

III. Sensitivity analysis

The sensitivity of the defined benefit obligation to changes in the significant principal assumptions is

(₹ in Crore)

	Settlement Allowance			
	As at March, 31 2020		**As at March, 31 2019**	
	Increase	**Decrease**	**Increase**	**Decrease**
Change in discount rate (0.50% movement)	**(0.67)**	**0.69**	(0.32)	0.32

IV. Expected maturity analysis of the Settlement allowance in future years

(₹ in Crore)

	Settlement Allowance	
	As at March 31,2020	**As at March 31,2019**
Less than 1 year	**1.10**	1.14
Between 1-2 years	**0.77**	0.89
Between 2-3 years	**0.68**	0.67
Between 3-4 years	**0.51**	0.59
Between 4-5 years	**0.45**	0.43
Between 5-6 years	**0.37**	0.39
Over 6 years	**5.68**	4.42
Total	**9.56**	**8.53**

E. 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. 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.

I. Movement in net defined benefit (asset)/liability

(₹ in Crore)

	Long Term Leave Liability	
	As at March 31,2020	**As at March 31,2019**
Opening Balance	**1492.06**	1525.65
Included in profit for the year :		
Current service cost	**155.96**	174.81
Interest cost (income)	**115.63**	120.53
Actuarial loss (gain)	**(138.64)**	(23.38)
Total amount recognised in profit for the year	**132.95**	271.96
Others		
Contributions paid by the employer		
Benefits paid	**232.64**	305.55
Closing Balance	**1392.37**	1492.06

II. Actuarial assumptions

The following were the principal actuarial assumptions at the reporting date.

	Long Term Leave Liability	
	As at March 31,2020	**As at March 31,2019**
Economic assumptions:		
Discount rate	**6.75%**	7.75%
Salary escalation rate	**6.60% P.A. for 1st 4 yrs. & then 6% P.A. thereafter**	6.60% 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 (2006-08)
Withdrawal rates (All ages)		
Upto 30 Years	**3%**	3%
From 31 to 44 years	**2%**	2%
Above 44 years	**1%**	1%

Note [50] - Related Parties Transactions

Joint Ventures:	Others :
BHEL-GE Gas Turbine Services Pvt. Ltd. (BGGTS)	Central Government controlled entities
NTPC-BHEL Power Projects Pvt. Ltd. (NBPPL)	Provident fund trusts
Raichur Power Corporation Ltd. (RPCL)	Gratuity trusts, PRMB Trust, Pension Trust
Dada Dhuniwale Khandwa Power Ltd.	
Powerplant Performance Improvement Ltd.	

ii) Other related parties (Key Management Personnel- Functional Directors: existing and retired and Company Secretary):

Name of the Related Parties	Nature of Relationship
Shri [Dr.] Nalin Shinghal	Chairman & Managing Director (w.e.f. July 8, 2019) Additional Charge Director (HR) (September 1, 2019 to October 15, 2019)
Shri Atul Sobti	Chairman & Managing Director (upto June 30,2019)
Shri D. Bandyopadhyay	Director (Human Resources) (upto August 31,2019) Additional Charge CMD (July 2, 2019 to July 7,2019)
Shri Subodh Gupta	Director (Finance)
Shri S. Balakrishnan	Director (IS & P)
Shri Manoj Kumar Varma	Director (Power)
Shri Kamalesh Das	Director (Engineering, R&D)
Shri Anil Kapoor	Director (Human Resources) (w.e.f. October 15, 2019)
Shri Rajeev Kalra	Company Secretary
Shri S. Basu	Managing Director - BHEL EML (upto September 14,2019). After cessation continued as OSD till March 12, 2020). Board resolution for appointing Shri T.S. Chakravarthy as Managing Director has been passed in its meeting on May 05, 2020.

(₹ in Crore)

Key Management Personnel (KMP)	For the year ended	
	March 31, 2020	March 31, 2019
Payment of Salaries	**4.06**	4.70
Relatives of KMP		
Amounts due to BHEL at the end of the year	**-**	0.01
Details of transactions		
Short-term employee benefits	**3.48**	4.10
Post-employment benefits	**0.58**	0.60
Total remuneration paid	**4.06**	4.70

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.

iii) Details of Transactions With Joint Ventures and Balances

(₹ in Crore)

Particulars	For the year ended							
	March 31, 2020	March 31, 2019	March 31, 2020	March 31,2019	March 31, 2020	March 31, 2019	March 31, 2020	March 31, 2019
	BGGTS		RPCL		NBPPL		Total	
Sales of goods and services	**169.61**	278.33	**17.28**	34.94	**2.80**	6.08	**189.69**	319.35
Dividend income	**16.30**	16.18					**16.30**	16.18
Royalty income	**1.10**	1.17					**1.10**	1.17
Purchase of goods and services	**0.86**	0.98	**21.61**		**3.05**	4.83	**25.52**	5.81
Amounts due to BHEL at the end of the year	**29.45**	76.98	**541.93**	510.71	**262.51**	280.93	**833.89**	868.62
Amounts due from BHEL (incl. advances) at the end of the year	**0.24**	0.35	**9.30**	11.00	**79.16**	82.52	**88.70**	93.87
Provision for doubtful debts & advances	**-**	0.70	**-**	-	**-**	1.64	**0.00**	2.34

Note [51] - Disclosure [Movement in provisions] - Ind AS - 37

a Liquidated Damages

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Opening balance	**7549.65**	5848.50
Add: Additions	**1706.20**	1967.45
Less: Usage/ Write off/payment	**3.88**	12.67
Less: Withdrawal/adjustments	**784.30**	253.63
Closing Balance	**8467.67**	7549.65

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 (i)(g) of Note 42.

b Contractual Obligation

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Opening balance	**5295.44**	5338.19
Add: Borrowing cost	**195.61**	190.93
Add: Additions	**567.75**	893.91
Less: PV adjustment	**119.83**	156.71
Less: Usage/ Write off/payment	**63.11**	128.65
Less: Withdrawal/adjustments	**509.42**	851.48
Add/(Less): Change in estimate and rates	**(11.57)**	9.25
Closing Balance	**5354.87**	5295.44

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.

Note [52] - Disclosure - Revenue from Contracts with Customers - Ind AS-115

a. Movement in impairment provisions

(₹ in Crore)

	2019-20		2018-19	
	Trade receivables	Contract assets	Trade receivables	Contract assets
Opening balance	**6401.93**	**654.73**	6105.35	719.38
Add: Additions	**463.41**	**192.17**	934.03	101.96
Less: Write off	**57.60**		25.92	0.11
Less: Reversal	**1358.81**	**41.85**	611.53	166.50
Closing balance	**5448.93**	**805.05**	6401.93	654.73

b. Disaggregation of revenue from contracts with customers

(₹ in Crore)

Particulars	Power		Industry		Total
	Within India	Outside India	Within India	Outside India	
2019-20					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	**1946.05**	**34.48**	**3607.92**	**1.88**	**5590.33**
(b) Over time	**9197.31**	**3782.60**	**1922.28**	**2.07**	**14904.26**
2018-19					
Revenue from customers					
Timing of revenue recognition					
(a) At a point in time (product/services)	2830.48	22.3	3758.94	28.41	6640.13
(b) Over time	17393.14	3227.98	2177.01	3.32	22801.45

(₹ in Crore)

Particulars	2019-20		2018-19	
	Power	Industry	Power	Industry
Revenue from customers				
CPSU	**3007.04**	**2324.72**	5323.43	2320.06
Railways	**-**	**1434.87**	-	1595.98
TANGEDCO	**2054.92**	**-**	5331.04	-
TSGENCO	**2178.63**	**-**	4544.66	-

c. Contract balances (net of provisions)

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Trade receivables	**12379.03**	15798.23
Contract assets (incl. unbilled revenue)	**24093.05**	22819.48
Contract liabilities	**6719.24**	6839.61

d. Contract revenue recognised

(₹ in Crore)

Particulars	As at March 31,2020	As at March 31,2019
Revenue recognised against contract liabilities (adjustment of customer advances and valuation adjustment during the year)	**3140.51**	2573.84
Revenue recognised against performance obligation satisfied in previous year(impact due to change in contract revenue)	**727.34**	210.44

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 [53] - Change in the practice - Ind AS-115

During the year ended 31 March 2020, the company has changed its accounting practice, with respect to measure of cost for recognising revenue for projects covered under input method , by including cost of 'manufactured items- ready for dispatch' in the incurred cost in relation to the total estimate cost. This change in practice better reflects the measure of progress made under the terms of contract with the customers, and therefore provides more relevant information to users of financial statements.

This change in accounting practice has been applied retrospectively and has impacted the financial statements as follows:

(₹ in Crore)

Balance Sheet	As at March 31, 2020			As at March 31, 2019			As at April 1, 2018		
	Without impact	Impact	With Impact	Without impact	Impact	With Impact	Without impact	Impact	With Impact
Inventory	**10007.11**	**(1098.88)**	**8908.23**	8116.24	(316.20)	7800.04	6263.15	(233.85)	6029.30
Contract Assets	**22855.48**	**1237.57**	**24093.05**	22445.55	373.93	22819.48	17992.17	300.20	18292.37
Deferred Tax Asset (Net of Liabilities)	**2798.11**	**(32.24)**	**2765.87**	3522.61	(17.16)	3505.45	3632.43	(20.78)	3611.65
Total Assets	**60677.81**	**106.45**	**60784.26**	63893.74	40.57	63934.31	63473.61	45.57	63519.18
Other Equity	**27887.53**	**76.78**	**27964.31**	30175.99	31.94	30207.93	31600.71	38.68	31639.39
Total Equity	**28574.87**	**76.78**	**28651.65**	30865.66	31.94	30897.60	32330.94	38.68	32369.62
Provisions	**8317.01**	**29.67**	**8346.68**	7956.37	8.63	7965.00	8714.19	6.89	8721.08
Total Liabilities	**32103.00**	**29.67**	**32132.67**	33028.08	8.63	33036.71	31142.67	6.89	31149.56
Total Equity & Liabilities	**60677.87**	**106.45**	**60784.32**	63893.75	40.57	63934.32	63473.61	45.57	63519.18

P & L Statement	For the year ended March 31, 2020			For the year ended March 31, 2019		
	Without impact	Impact	With Impact	Without impact	Impact	With Impact
Revenue from Operations	**20626.43**	**863.58**	**21490.01**	30367.65	73.73	30441.38
Acc/(Dec) to FG	**944.40**	**(782.61)**	**161.79**	112.73	(82.36)	30.37
Provision	**234.93**	**21.05**	**255.98**	1832.33	1.73	1834.06
Profit Before Tax	**(718.99)**	**59.92**	**(659.07)**	1850.10	(10.36)	1839.74

Earnings per share (basic as well as diluted) for the current year increased by ₹ 0.13 per share and the preceding year decreased by ₹ 0.02 per share consequent to the change in accounting practice.

Note [54] - Impact of Covid-19

Nationwide lockdown , consequent to spread of Covid-19 pandemic had temporarily disrupted the operations of the company. The manufacturing facilities and site executions during this period [March 23rd to March 31st, 2020] were inoperative, which alongwith the COVID impact globally (before the lockdown in India) impacted the revenues for the year. Broadly,the impact on revenue for the year is assessed at ~ ₹ **4000 crore** 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 [55] - 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)

b. Financial Assets / Liabilities Classification

(₹ in Crore)

Particulars	Carrying Amount	
	As at March 31,2020	As at March 31,2019
Financial Assets at amortised cost		
Trade receivables	**12379.03**	15798.23
Cash & cash equivalent	**1402.86**	795.74
Other bank balances	**5015.73**	6707.80
Loans	**218.41**	240.53
Other financial assets	**127.50**	165.40
Financial assets at fair value through profit & loss		
Investments (Equity Instruments)	**3.09**	2.94
Financial liabilities at amortised cost		
Trade payables	**9905.39**	12083.85
Other financial liabilities	**1589.64**	2098.67
Lease obligation	**132.04**	158.31
Short term borrowings	**4947.92**	2444.57

(₹ in Crore)

Financial assets and liabilities measured at fair value- recurring fair value measurements	Level 3 Hierarchy	
	As at March 31,2020	As at March 31,2019
Financial assets:		
Investment in unquoted equity instruments	**3.09**	2.94

(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 31,2019	2.94
Changes in fair value	0.15
As at March 31,2020	**3.09**

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:

- **Credit risk**
- **Liquidity risk**
- **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 payments and also retentions which are released on completion of such projects. Since majority customers profile pertains to Government sector, constituting 81% of total receivables coupled with the fact that the company itself is a CPSE, credit risk is relatively low. In respect of private sectors 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 31,2020	As at March 31,2019
Financial assets for which loss allowance is measured using 12 months Expected Credit Losses (ECL)		
Cash and cash equivalents	**1402.86**	795.74
Other bank balances	**5015.73**	6707.80
Loans	**218.41**	240.53
Other financial assets	**127.50**	165.40
Financial assets for which loss allowance is measured using Life time Expected Credit Losses (ECL) including impairment loss		
Trade receivables	**12379.03**	15798.23

Concentration of credit risk- Geographical	Percentage of total revenue	
	As at March 31,2020	As at March 31,2019
Within India	**92.07%**	94.30%
Outside India	**7.93%**	5.70%

The company's exposure to credit risk for trade receivables,contract assets and other receivables by type of counterpart are as follows –

Particulars	Percentage of total trade receivables	
	As at March 31,2020	As at March 31,2019
Central Public Sector Undertakings incl Railways and Govt Deptt	**33.54%**	32.85%
State Electricity Boards	**47.29%**	49.65%
Private Customers and others	**11.24%**	11.80%
Exports	**7.93%**	**5.70%**
	100.00%	100.00%

(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 31,2020	As at March 31,2019
Balance as at April 1	**22.34**	22.29
Impairment loss recognised / write off/ withdrawal	**10.04**	0.05
Balance as at March 31	**32.38**	22.34

(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 31,2020	As at March 31,2019
Balance as at April 1	**7056.66**	6824.73
Impairment loss recognised	**655.58**	1035.99
Amounts written off/ (withdrawal)	**(1458.26)**	(804.06)
Balance as at March 31	**6253.98**	7056.66

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 used for better treasury management operations to optimise the returns on investments.

The following are the contractual maturities of non-derivative financial liabilities, based on contractual cash flows: (₹ in Crore)

Financial Liabilities Non-derivative financial liabilities	As at March 31,2020		As at March 31,2019	
	Within 1 year	Exceeding 1 year	Within 1 year	Exceeding 1 year
Trade payables	**8897.52**	**1007.87**	11380.98	702.87
Deposits from contractors and others	**492.10**	**150.99**	522.27	84.93
Lease obligations	**56.67**	**75.37**	62.86	95.45
Other Payables/liabilities				
Employee dues	**289.10**	**-**	512.14	-
Other dues	**566.69**	**-**	884.22	-
Capex dues	**82.73**	**8.03**	88.75	6.36
Short term borrowings	**4947.92**	**-**	2444.57	-
TOTAL	**15332.73**	**1242.26**	15895.79	889.61

(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 31.03.2019 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 31,2020		As at March 31,2019		As at	
					March 31, 2020	March 31, 2019
	Euro	Equivalent INR	Euro	Equivalent INR	Others INR	Others INR
Assets						
Trade receivable	**148.34**	**1217.60**	187.45	1441.89	**6.34**	52.22
Contract assets	**252.85**	**2075.37**	270.26	2080.95	**70.83**	72.17
Other assets	**15.40**	**122.58**	14.74	114.21	**245.63**	195.45
Sub Total (A)	**416.59**	**3415.55**	472.45	3637.05	**322.80**	319.84
Liabilities						
Advances from customer	**42.30**	**294.89**	45.96	316.67	**37.56**	38.69
Trade payables and others	**60.20**	**507.94**	62.42	494.44	**209.13**	288.55
Sub Total (B)	**102.50**	**802.83**	108.38	811.11	**246.69**	327.24
Assets (Net of Liabilities)	**314.09**	**2612.72**	364.07	2825.94	**76.11**	(7.40)

FC ' in Million

(₹ in Crore)

Particulars	As at March 31,2020		As at March 31,2019	
	USD	Equivalent INR	USD	Equivalent INR
Assets				
Trade receivable	**130.45**	**978.26**	226.08	1555.43
Contract assets	**335.04**	**2512.53**	282.37	1936.04
Other assets	**8.20**	**60.41**	2.87	18.82
Sub Total (A)	**473.69**	**3551.20**	511.32	3510.29
Liabilities				
Advances from customer	**164.40**	**1037.62**	155.49	957.72
Trade payables and others	**196.70**	**1496.11**	124.91	871.61
Short term borrowings	**118.67**	**900.79**	51.31	357.27
Sub Total (B)	**479.77**	**3434.52**	331.71	2186.60
Assets (Net of Liabilities)	**(6.08)**	**116.68**	179.61	1323.69

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, 2020		March 31, 2019	
Effect on Profit/(loss)	**Strengthening**	**Weakening**	Strengthening	Weakening
1% movement				
Euro	**26.13**	**(26.13)**	28.26	(28.26)
USD	**1.17**	**(1.17)**	13.24	(13.24)
Others	**0.76**	**(0.76)**	(0.07)	0.07

(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[56] 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

	For the year ended 31.3.2020			For the year ended 31.3.2019		
	Power	**Industry**	**Total**	**Power**	**Industry**	**Total**
I. **SEGMENT REVENUE**						
a. Segment Revenue	**14960.44**	**5534.15**	**20494.59**	23473.90	5967.68	29441.58
II. **SEGMENT RESULTS**						
a. Segment Results	**804.30**	**(210.71)**	**593.59**	2802.29	430.94	3233.23
b. Unallocated expenses (Net of income and share of joint ventures)			**744.21**			1105.12
c. Profit /(Loss) before finance cost & Income tax (a)-(b)			**(150.62)**			2128.11
d. Finance cost (Includes unwinding of Interest)			**508.45**			288.37
e. Net Profit /(Loss) before Income Tax (c) - (d)			**(659.07)**			1839.74
f. Income Tax			**809.28**			837.32
g. Net Profit /(Loss) after Income Tax			**(1468.35)**			1002.42
III **ASSETS & LIABILITIES**						
a. Segment Assets	**42665.07**	**9462.52**	**52127.59**	45240.99	9395.00	54635.99
b. Common Assets			**8656.73**			9298.32
c. Total Assets			**60784.32**			63934.31
d. Segment Liabilities	**22386.05**	**4799.80**	**27185.85**	24832.31	5286.58	30118.89
e. Common Liabilities			**4946.82**			2917.82
f. Total Liabilities			**32132.67**			33036.71
IV **OTHER INFORMATION**						
a. Capital Expenditure	**243.40**	**107.83**		255.08	81.88	
b. Depreciation & Amortization	**320.44**	**136.14**		343.34	88.41	
c. Non Cash Expenses (other than depreciation & amortization)	**820.48**	**74.51**		1161.82	31.17	

GEOGRAPHICAL SEGMENTS

		Within India	Outside India	Total	Within India	Outside India	Total
1	Net Sales / Revenue from Operations	16673.56	3821.03	20494.59	26159.57	3282.01	29441.58
2	Non- Current Assets (PPE & Intangible Assets)	3089.00	42.12	3131.12	3191.95	13.95	3205.90
3	Capital Expenditure	402.62	12.71	415.33	378.65	24.23	402.88

Major Customer- Details of Revenue from Single Customer exceeding 10% of total revenue of BHEL

	Power	Industry	Total	Power	Industry	Total
CPSUs	**3007.04**	**2324.72**	**5331.76**	5323.43	2320.06	7643.49
Railways	**-**	**1434.87**	**1434.87**	-	1595.98	1595.98
TANGEDCO	**2054.92**	**-**	**2054.92**	5331.04	-	5331.04
TSGENCO	**2178.63**	**-**	**2178.63**	4544.66	-	4544.66

Note [57] - 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	**2019-20**	**99.51**	**28511.19**	**101.43**	**(1489.28)**	**100.05**	**(273.88)**	**101.21**	**(1763.16)**
	2018-19	99.56	30761.92	119.06	1193.47	100.03	(119.18)	121.63	**1074.29**
Subsidiary-									
BHEL Electrical Machines Limited (BHEL EML)	**2019-20**	**(0.03)**	**(9.44)**	**0.17**	**(2.44)**	**(0.00)**	**0.01**	**0.14**	**(2.43)**
	2018-19	(0.02)	(7.00)	(0.28)	(2.78)	(0.01)	0.01	(0.31)	**(2.77)**
Non-controlling Interests in BHEL EML	**2019-20**	**(0.03)**	**(9.07)**	**0.16**	**(2.35)**	**-**	**-**	**0.13**	**(2.35)**
	2018-19	(0.02)	(6.73)	(0.27)	(2.67)	-	-	(0.30)	**(2.67)**
Joint Ventures (investment as per the equity method)									
BHEL-GE Gas Turbine Services Private Limited	**2019-20**	**0.55**	**158.97**	**(1.75)**	**25.72**	**(0.05)**	**0.13**	**(1.48)**	**25.85**
	2018-19	0.48	149.42	2.70	27.03	(0.02)	0.02	3.06	**27.05**
NTPC-BHEL Power Projects Private Limited	**2019-20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.00**
	2018-19	-	-	(0.74)	(7.38)	-	-	(0.84)	**(7.38)**
Raichur Power Corporation limited	**2019-20**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	2018-19	-	-	(20.48)	(205.25)	-	-	(23.24)	**(205.25)**
Total	**2019-20**	**100.00**	**28,651.65**	**100.00**	**(1,468.35)**	**100.00**	**(273.74)**	**100.00**	**(1742.09)**
	2018-19	100.00	30897.60	100.00	1002.42	100.00	(119.15)	100.00	**883.27**

Note [58]

Assets and Liabilities are classified between Current and Non-current considering 12 months period as operating Cycle.

Note [59]

Weighted average cost of borrowing at **7.07%** (previous year @ 8.14%) as at the year end has been considered for working out present value of long term provisions and expected credit loss.

Note [60]

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 [61]

Figures have been rounded off nearest to ₹ in Crore with two decimal.

Note [62]

Previous year's figures have been regrouped/ rearranged wherever considered necessary.

Note [63]

The Board of Directors has authorised to issue the Financial Statements 2019-20 in its meeting held on June 13, 2020.

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

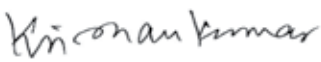
As per our report of even date attached

For Raj Har Gopal & Co.
Chartered Accountants
FRN - 002074N



(CA Gopal Krishan)
Partner
M.No. 081085

For Tiwari & Associates
Chartered Accountants
FRN - 002870N



(CA. Krishan Kumar)
Partner
M. No. 085415

For Mahesh C. Solanki & Co.
Chartered Accountants
FRN - 006228C



(CA.Deepesh Shah)
Partner
M. No. 404990

Place : New Delhi
Date : June 13, 2020



ADDITIONAL INFORMATION
FOR STAKEHOLDERS

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Financial Performance Trend

(₹ in Crore)

Particulars	2019-20	2018-19	2017-18	2016-17	2015-16
A. Financial Results					
I. Income					
Turnover	**20491**	29423	27850	27740	25091
Other operational income	**995**	1000	963	859	711
Revenue from operations	**21486**	30423	28813	28599	25803
II. Expenses					
Material consumption, erection and engineering expenses	**15080**	19249	15793	16542	16330
Changes in inventories of FG and WIP	**(1016)**	(991)	736	994	210
Employee benefits expenses	**5403**	5502	5911	6360	5435
Manufacture, administration, selling and distribution expenses	**2430**	2760	2635	2692	2800
Excise duty (net)	**-**	-	(113)	152	197
Exchange variation (gain) / loss (net)	**(435)**	(67)	(520)	270	(403)
Provisions	**255**	1837	2438	528	2075
Depreciation & amortisation expenses	**503**	475	786	849	936
Finance costs	**507**	287	255	351	359
Total operating expenses	**22729**	29053	27922	28737	27939
Opearting Profit/(loss) [as per MoU]	**(1243)**	1370	891	(138)	(2136)
Add:Other Income	**581**	678	694	766	972
Profit / (Loss) before tax	**(662)**	2048	1585	628	(1164)
Tax expense (Net)	**(146)**	839	778	132	(454)
Profit /(Loss) after tax	**(516)**	1209	807	496	(710)
One time impact on DTA (due to change in the rate opted u/s 115BAA of IT Act 1961)	**(957)**	-	-	-	-
Profit /(Loss) after tax (including the above impact)	**(1473)**	1209	807	496	(710)
Total comprehensive income	**(1747)**	1089	890	467	(786)
Dividend payout	**-**	696	668	387	98
Dividend distribution tax	**-**	143	136	79	20
EBIDTA	**348**	2810	2626	1827	131
B. Financial Position					
III. What company owns (Assets)					
Property, plant & equipment and intangible assets	**2814**	2967	3069	3596	3962
Capital WIP and intangible assets under development	**314**	235	203	169	318
Non-current investments	**670**	669	691	661	664
Other non current assets	**22014**	18690	13991	10069	11435
Deferred tax assets(Net)	**2756**	3497	3606	3841	3659
Current assets	**32704**	38372	42204	42894	45125
Total assets	**61271**	64431	63763	61230	65163

Financial performance trend

(₹ in Crore)

Particulars	2019-20	2018-19	2017-18	2016-17	2015-16
IV. What Company owes (Liabilities)					
Non current liabilities	**4195**	4506	4287	3809	4634
Non current provisions	**5248**	5463	4923	5001	7625
Current liabilities	**19566**	20545	18124	15934	17388
Current provisions	**3082**	2486	3790	4192	3336
Total liabilities	**32090**	32999	31124	28936	32982
Equity share capital	**696**	696	734	490	490
Other equity	**28485**	30735	31905	31804	31691
V. Net worth	**29181**	31432	32639	32294	32181
Net worth (excl. OCI)	**28766**	31573	32662	32399	32257
VI. Capital employed	**26111**	27699	28831	28284	28204
VII. Financial performance ratios					
Operating profit margin (%)	**(5.78)**	4.50	3.09	(0.48)	(8.28)
EBIDTA margin (%)	**1.70**	9.55	9.43	6.59	0.52
Profit margin (%)	**(3.23)**	6.96	5.69	2.26	(4.64)
Return on net worth (%)	**(4.82)**	3.76	2.48	1.53	(2.14)
Turnover per employee (₹ lakh)	**61**	83	74	70	59
VIII. Liquidity ratios					
Current ratio	**1.44**	1.67	1.93	2.13	2.18
Trade receivable - (no. of days)	**186**	165	194	156	183
Inventory (no. of days)	**159**	97	79	97	140
IX. Per share data					
Earning per share (₹)	**(4.23)**	3.33	2.20	1.35	(1.93)
Dividend per share (₹)	**0.00**	2.00	1.82	1.05	0.27
Net worth per share (₹)	**83.80**	90.27	88.90	87.96	87.65

Note:

1. Turnover and Revenue from operations excludes excise duty & taxes.
2. Dividend payout is interim dividend and proposed final dividend for the year.
3. Per share data restated on bonus issue of 1:2 in 2017-18.
4. Equity share capital at the end of FY 2018-19 is post buyback in January 2019.
5. Previous year's figures have been regrouped / rearranged, wherever considered necessary.

Year-wise Capital Expenditure

(₹ in Crore)

Category of Investment	2018-19	2017-18	2016-17	2015-16	2014-15
Schemes	**137**	112	19	210	80
Modernisation and Rationalisation, others	**136**	61	164	51	141
Customer Project Related Capital Investment	**63**	99	66	33	90
Total	**336**	272	249	294	311

Dividend Distribution Policy

1. Scope & Objective

1.1 This policy has been formulated in line with Regulation 43A notified vide SEBI (Listing Obligations and Disclosure Requirements) (Second Amendment) Regulations, 2016 on July 8, 2016. The said notification requires top five hundred listed companies (based on market capitalization of every financial year) to formulate a Dividend Distribution Policy, which shall be disclosed in its Annual Report and on its website.

1.2 Accordingly, the Company has approved and adopted this Dividend Distribution Policy (the "Policy") at its meeting held April 6, 2017, being the effective date of the Policy.

1.3 The intent of the Policy is to broadly specify the parameters (external and internal factors) that shall be considered while declaring dividend and the circumstances under which shareholders of the Company may / may not expect dividend and how the retained earnings shall be utilized, etc.

The Company strives for maximisation of shareholders' value and believes that this can be attained by driving growth. The policy endeavours to strike an optimum balance between rewarding shareholders through dividend and ensuring that sufficient profits are retained for growth of the Company and other needs.

The Policy is not an alternative to the decision of the Board for recommending dividend, which is made every year after taking into consideration the interest of the Company and all the relevant circumstances enumerated in the policy or other factors as may be decided as relevant by the Board.

2. Definitions

2.1 "Board" shall mean Board of Directors of the Company.

2.2 "Companies Act" shall mean the Companies Act, 2013 and Rules thereunder, notified by the Ministry of Corporate Affairs, Government of India, as amended from time to time.

2.3 "Dividend" includes interim dividend.

2.4 "Company" shall mean Bharat Heavy Electricals Limited.

2.5 "Policy" means Dividend Distribution Policy.

2.6 "Regulations" shall mean the Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 as notified by The Securities and Exchange Board of India, as amended, from time to time.

2.7 "Stock Exchange" shall mean a recognised Stock Exchange as defined under clause (f) of Section 2 of the Securities Contracts (regulation) Act, 1956, where shares of the company are listed.

3. Factors including financial parameters that shall be considered while declaring and pay-out decision on dividend of the Company:

3.1 External Factors

3.1.1 Economic and Business Environment: Macro Economic conditions including present and likely business scenario will be considered while declaration of dividend in any year.

3.1.2 Status of Industry: Prevailing conditions in the Industry in which the Company operates will also be considered while taking decisions regarding declaration of dividend.

3.1.3 Statutory Provisions and Guidelines: The Company shall ensure compliance to the provisions of Companies Act & regulations of SEBI and other Statutory Authorities with regard to declaration of dividend. Further, being a Government Company, the Company shall also consider applicable guidelines in force in respect of dividend declaration, as issued from time to time by the Govt. of India.

3.1.4 Applicable taxes including tax on dividend: The taxes applicable on the company including taxes on dividends that effect overall cash outflow.

3.2 Internal Factors

The Board while considering declaration of dividend for a financial year may, inter-alia, consider the following factors taking into account the nature and scale of company's operations: -

3.2.1 Profits upto the Quarter/for the financial year

3.2.2 Available balance in Free Reserves of the Company

3.2.3 Dividend payout trend of the Company and the industry

3.2.4 Future business projections and operational requirements

3.2.5 Stability of earnings and projections of future profits

3.2.6 Operating cash flows, treasury positions and cash flow projections for near future

3.2.7 Borrowing levels and the capacity to borrow

3.2.8 Present and future capital expenditure plans of the Company including organic/ inorganic growth avenues

3.2.9 Additional investment requirements in subsidiaries / JVs and associates of the company

3.2.10 Providing for unforeseen events and contingencies which has financial implications

3.2.11 Any other factor as may be deemed fit by the Board

3.3 The profits for a year may be adjusted at the discretion of the Board, for the purpose, to exclude exceptional or one-off items or non-cash items resulting from change in law, accounting policies, accounting standards or otherwise.

3.4 The Board may consider payment of interim dividend as and when it feels appropriate. Final dividend shall be recommended by the Board for approval of shareholders of the Company as per prevalent applicable rules and regulations.

4. Circumstances under which the shareholders may or may not expect dividend

Distribution of profits in the form of dividends and retaining some proportion of it for use in business for other objectives is a fundamental decision for every company. This decision requires adequate balancing between suitably rewarding shareholders through dividends and retaining profits to fund the operational requirements and growth plans of business. Although the Company has been consistently paying out dividends to its shareholders and they can reasonably expect it in future also unless the Company is constrained not to declare dividends under following circumstances:

(a) Absence or Inadequacy of profits – If during any financial year, there are no profits or it is determined that the profits of the Company are not sufficient, the Board may decide not to declare dividends for that financial year.

(b) Other constraints – Crucial factors like limited / non availability of cash resources, limitations due to future cash flow projections, emergent needs requiring significant resources, unstable business and profit projections etc and any other statutory factors as considered by the Board while arriving at the decision not to declare dividends for that financial year.

5. Utilization of Retained Earnings

The retained earnings of the company, after distribution of dividend, shall primarily be utilized towards requirements for growth plans and for meeting operational requirements of the company as the company is committed towards continuous growth and safeguarding of stakeholders' interest.

6. Parameters to be adopted with regard to various classes of shares

Company has presently only one class of shares i.e. equity shares. As and when it proposes to issue any other class of shares, the policy shall be modified accordingly.

7. Modifications to the policy

The Company reserves its right to amend any or all of the provisions of the policy as it may deem fit or in accordance with the guidelines as may be issued by SEBI, Government of India or any other regulatory authority. The change in the policy shall, however, be disclosed along with the justification thereof on the Company's Website and in the ensuing Annual Report in accordance with the extant regulatory provisions.

8. GENERAL:

8.1 Declaration of dividend on the basis of parameters in addition to the elements of this Policy or resulting in amendment of any element of the Policy, will be disclosed in the Annual Report as well as on the website of the Company.

8.2 In the event of the policy being inconsistent with any regulatory provision, such regulatory provision shall prevail upon the corresponding provision of this policy and the policy shall be construed to be amended accordingly from the effective date of such provision.

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 capacity for fossil-fuel and upto 350 MW capacity 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 SG, TG Sets upto 1000 MW capacity.
- Energy Efficient Renovation and Modernisation (EE R&M), Residual Life Assessment (RLA) and Life Extension (LE) studies of old thermal power plants.

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 25 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

- EPC & Turnkey Contract (including Civil works) 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 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 firing all combination of blending / co-firing diverse qualities of imported/ indigenised coals, blending of lignite, pet coke, etc
- Steam Generators for Nuclear Power Plant.
- Steam Generators for industrial applications of the following types ranging from 40 to 450 T/Hour capacity firing 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 firing dry solids
- Gravimetric feeder/ Volumetric feeder
- Acoustic Steam Leakage 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 1300m^3/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 m^3/s and pressure ranging 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 660 m^3/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 (of different types 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 low and medium speed (both pressurized & suction type) 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 with capacity 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 Mill 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 upto size, width: 7 m & height: 14.5 meters
  - Bi-plane dampers with electric/ pneumatic actuator. 100% leak proof with seal air Type-1: width: 7 m & height: 14.5, Type-2: width 12 m & height 10.5 m
  - Louver dampers (open close/ regulating) with electric/ pneumatic actuator: Type -1: width: 7 m & height: 14.5, Type -2 : width 12 m & height 10.5 m

  - Control dampers (regulating) with electric/ pneumatic actuator Type-1: width: 7 m & height: 14.5, Type-2: width 12 m & height 10.5 m
- Flue Gas Desulphurization (FGD) systems
  - Wet Limestone & Seawater based FGD systems to Power plants and Industrial applications
- Steel Chimneys
  - 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.
- Furnace temperature probe (FTP) for travel length 10m.
- 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 utility 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/cm^2) and 650 °C temperature.
- Hot reheat and Cold reheat Isolating Devices upto 900 mm pipe size class 1500 and steam temperature upto 650°C.
- High capacity Spring Loaded Safety Valves for set pressure upto 372 kg/cm^2 and temperature upto 630°C.
- Automatic electrically operated pressure relief valves for set pressure upto 210 kg/cm^2 and temperature upto 593°C.
- Safety relief valves for applications in power, process and other industries for set pressure upto 421 kg/cm^2 and temperature upto 537°C.
- Reactive cum absorptive type vent Silencers of maximum diameter 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 800mm diameter, 158 kg/cm^2 pressure and 540°C temperature.
- Butterfly valves upto 2800 NB for water application.

PIPING SYSTEMS

- Power cycle piping, Constant Load Hangers, Variable load Hangers, Low Pressure piping including Cooling 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 63.5mm 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.
- 15000 HP Marine Turbines for marine propulsion.

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 type SG upto 120 MW unit rating.
  - Reheat type SG upto 200 MW unit rating
- 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 upto 700 MW
  - 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 upto Fr-9E
- Generator Air coolers upto 150 MW STG and GTG upto 9 FA
- D_2O and Moderator Heat Exchangers for Nuclear primary cycle
- Air cooled Heat exchangers for refinery application
- Heat exchangers for refinery 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 m^3/hr for various gases (Air, CO_2, N_2, H_2, NH_3, Natural Gas, Wet Gas, Propylene etc.) for applications in Refineries, Fertilizers, Petrochemicals, Oil & Gas, Steel, Power and Natural Gas Transportation sectors..
  - 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
- Remote Monitoring and Diagnostic Services (RMDS)
- 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, 1250 Amp for distribution system
- Outdoor Vacuum circuit breakers
  - 12 kV, 25 kA, 1250 Amp for distribution segment
  - 36 kV, 25 kA, 2000 Amp for transmission and distribution segment
  - 25 kV, 25 kA, 1600 Amp for track side railway application
- Outdoor pole mounted capacitor switch (Autorecloser / Sectionaliser) for 12 kV rural segment
- Gas insulated switchgears
  - 36 kV, 40kA, 1600 Amp for Refineries, Urban Sector
  - 145 kV, 31.5 kA, 2500 Amp for transmission & distribution network
  - 420kV, 40kA, 3150 Amp for transmission sector (hydro station / metro).
- SF_6 circuit breakers ((145kV, 40 kA, 3150A), (420 kV, 50kA, 4000A))

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 (33 kV to 1200 kV)
  - 24 kV 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

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 (33 kV to 800 kV, 4400pF to 13200 pF) for transmission lines
- Surge Capacitor for protection of Generators & Transformers (11 kV to 40 kV)
- Roof Capacitor for traction locomotive
  - Capacitor Divider for CVT upto 1200 kV
  - Coupling Capacitor for PLCC upto 400 kV
  - 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
  - High-tension Porcelain Disc insulators for AC/DC applications, ranging from 70kN to 420 kN electro-mechanical strength, for clean and polluted atmospheres, Suitable for application upto 1200kV AC & ±800kV HVDC transmission line & Sub-stations.
  - Hollow insulators upto 765 kV for Transformers & SF_6 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
- Metro 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 1578 kVA for 3 phase EMU
- 3- phase AC Traction Motors (upto 1200 kW) for Locomotives & EMUs
- DC Traction Motors (upto 630 kW) for Locomotives & EMUs
- AC Traction Alternators (upto 3860 kW) for Locomotives & EMUs
- DC Traction Generators upto 2000 kW
- DC Blower motors (upto 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
- Integrated Bridge System (IBS)
- 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

- Electric Bus
- Powertrains for Electric Vehicles including motors
- Charging Infrastructure for Electric Vehicles
- Battery Energy Storage System including Power conditioning unit (PCU) and SCADA

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 System including pumps
  - Refurbishment and up gradation of BHEL and Non BHEL make Oil Rigs
  - 3-phase 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 Power Pack upto 1430 kVA for DG sets
    - 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
- Purge Gas Recovery Unit

Glossary & Abbreviation

ACS	Auxiliary Control System
APGENCO	Andhra Pradesh Power Generation Corporation
APPDCL	Andhra Pradesh Power Development Company Limited
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BPCL	Bharat Petroleum Corporation Limited
BSE	Bombay Stock Exchange
C&I	Control & Instrumentation
CEA	Central Electricity Authority
CFBC	Circulating Fluidised Bed Combustion
CLW	Chittaranjan Locomotive Works
CPSE	Central Public Sector Enterprise
CSR	Corporate Social Responsibility
CVC	Central Vigilance Commission
CVT	Capacitive voltage transformer
DDUGJY	Deen Dayal Upadhyaya Gram Jyoti Yojana
DEMU	Diesel Electric Multiple Unit
DETC	Diesel Electric Tower Car
DHDT	Diesel Hydrotreating
DLW	Diesel Locomotive Works
DMW	Diesel-Loco Modernisation Works
DPE	Department of Public Enterprises
DSIR	Department of Scientific and Industrial Research
ED	Executive Director
EEPC	Engineering Export Promotion Council
EE R&M	Energy Efficient Renovation and Modernisation
EHV	Extra High Voltage
EMU	Electric Multiple Unit
EPC	Engineering, Procurement & Construction
ESP	Electrostatic Precipitator
FACTS	Flexible Alternating Current Transmission System
FAME	Faster Adoption and Manufacturing of (Hybrid) and Electric Vehicles
FGD	Flue Gas Desulphurization
GIS	Gas Insulated Substation
GTG	Gas Turbine Generator
GTO	Gate turn-off Thyristor
GVA	Gross Value Added
HEP	Hydro Electric Plant
HFCL	Hindustan Fertilizer Corporation Limited
HP Turbine	High Pressure Turbine
HRSG	Heat Recovery Steam Generator
HVDC	High Voltage Direct Current
HVOF	High Velocity Oxygen Fuel
ICF	Integral Coach Factory
ID Fan	Induced Draft Fan
IGBT	Insulated-Gate Bipolar Transistor
IGCAR	Indira Gandhi Centre for Atomic Research
IOCL	Indian Oil Corporation Ltd
IPDS	Integrated Power Development Scheme
IPMS	Integrated Platform Management system
IPR	Intellectual Property Right
IR	Indian Railway
IREPS	Indian Railway E-Procurement 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
M&A	Merger & Acquisitions
MEIL	Megha Engineering & Infrastructures Limited
MEMU	Mainline Electric Multiple Unit
MHI&PE	Ministry of Heavy Industries & Public Enterprises
MoU	Memorandum of Understanding
MRO	Maintenance, Repair & Overhaul
MUs	Million Units
NDT	Non Destructive Testing
NEMMP	National Electric Mobility Mission Plan
NPCIL	Nuclear Power Corporation of India Limited
NSE	National Stock Exchange
NSPCL	NTPC-SAIL Power Company Private Limited
OEM	Original Equipment Manufacturer
OHPC	Odisha Hydro Power Corporation
ONGC	Oil and Natural Gas Corporation Limited
OTC	Over-the-counter
PCFC	Packing Credit Loan in Foreign Currency
PCU	Power Conditioning Unit
PGCIL	Power Grid Corporation of India Limited
PLF	Plant Load Factor
PLM	Product Lifecycle Management
PPA	Power Purchase Agreement
PPGCL	Prayagraj Power Generation Co. Ltd
PSEs	Public Sector Enterprises
R&D	Research & Development
R&M	Renovation & Modernisation
RDSO	Research Designs & Standards Organisation
RFQ	Request for Quotation
RFP	Request for Proposal
RH	Re-heater
RPCL	Raichur Power Company Limited
RUPPL	Reliance Utilities & Power Private Limited
SCOPE	Standing Conference of Public Enterprises
SCR	Selective Catalytic Reduction
SD	Sustainable Development
SEBI	Securities and Exchange Board of India
SG	Steam Generator
SH	Super Heater
SNCR	Selective Non-Catalytic Reduction
SPDP	Screen Protected Drip Proof
SPV	Solar Photo Voltaic
SRGM	Super Rapid Gun Mount
STATCOM	Static Synchronous Compensator
STPP	Super Thermal Power Plant
TANGEDCO	Tamil Nadu Generation and Distribution Corporation
TBCB	Tariff Based Competitive Bidding
TCMS	Train Control & Management system
TETV	Totally Enclosed Tube Ventilated
TEFC	Totally Enclosed Fan Cooled
TG	Turbine & Generator
THDCIL	Tehri Hydro Development Corporation India Limited
TPS	Thermal Power Station
TSGENCO	Telangana State Power Generation Corporation Limited
UHV	Ultra High Voltage
UHVAC	Ultra High Voltage AC
UPRVUNL	Uttar Pradesh Rajya Vidyut Utpadan Nigam
VCU	Vehicle Control Unit
VFD	Variable Frequency Drive
VGO	Vacuum Gas Oil
WAG	W (broad gauge), A (AC traction), G (goods duty)

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 CWIP 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 on 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 debtors 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.

EBITDA margin (%): Profitability performance ratio, calculated by dividing earnings before interest, depreciation and tax to turnover.

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.

Finance lease: A finance lease is a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. Title may or may not eventually be transferred.

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 turnover 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 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.

Operating lease: An operating lease is a contract that allows for the use of an asset but does not convey rights of ownership of the asset. An operating lease represents an off-balance sheet financing of assets, where a leased asset and associated liabilities of future rent payments are not included on the balance sheet of a company.

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 interest, tax and other income (as per MoU) 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.

Profit margin (%): It represents profit generated as a percentage to turnover, calculated by dividing profit before tax (PBT) to turnover.

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).

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.

Trade receivable days: It is calculated by dividing trade

receivables to revenue from operations (incl. GST) multiplying by number of days in a year.

Turnover per employee: It represents turnover achieved during the year per employee, calculated by dividing turnover to number of employees.

Valuation adjustment: In long term construction contracts, revenue is recognized on % of completion method however billing is done as per agreed BBU (Billing breakup) with customer. The difference between the turnover and billing is recognized as valuation adjustment.

Working capital: The funds available for conducting day-to-day operations of an entity. Also it is represented by the excess of current assets over current liabilities.

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 56th Annual General Meeting of the Members of BHARAT HEAVY ELECTRICALS LIMITED will be held on Monday, September 28, 2020 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, 2020 together with the Directors' Report and Auditors' Report thereon.

2. To appoint a Director in place of Shri Manoj Kumar Varma (DIN: 08308714), who retires by rotation and being eligible, offers himself for re-appointment.

3. To appoint a Director in place of Shri Kamalesh Das (DIN: 08376769), who retires by rotation and being eligible, offers himself for re-appointment.

4. To authorize the Board of Directors to fix the remuneration of the Auditors for the year 2020-21.

SPECIAL BUSINESS

5. 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, 2021 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."

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

   "RESOLVED THAT Shri Shashank Priya (DIN: 08538400), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company read with Section 161 (1) of the Companies Act, 2013 w.e.f. 04.10.2019 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 a Director of the Company, liable to retire by rotation."

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

   "RESOLVED THAT Shri Anil Kapoor (DIN: 08587329), who was appointed as an Additional Director pursuant to Article 67(iv) of the Articles of Association of the Company read with Section 161 (1) of the Companies Act, 2013 w.e.f. 15.10.2019 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 a Director of the Company, liable to retire by rotation.''

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

   "RESOLVED THAT Shri Raj Kamal Bindal (DIN: 07423392), 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. 31.01.2020 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."

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

"RESOLVED THAT Shri Manish Kapoor (DIN: 02405818), 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. 31.01.2020 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."

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 28, 2020

NOTES: -

1. Considering the present COVID-19 pandemic, the Ministry of Corporate Affairs (MCA) has vide its circular dated 05.05.2020 read with circulars dated 08.04.2020 and 13.04.2020 (collectively referred to as "MCA Circulars") permitted convening the Annual General Meeting (AGM) through Video Conferencing (VC) or Other Audio Visual Means, 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 MCA Circulars and SEBI Circular dated 12.05.2020, Notice of the AGM along with the Annual Report 2019-20 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 2019-20 will also be available on 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 Company's Registrar & Transfer Agent, KFin Technologies Private Limited (KFinTech) at https://evoting.karvy.com.
3. For receiving all communication (Notice, Annual Report and the e-voting instructions along with the User ID & Password) from the Company electronically:

i. For temporary registration of email address for receipt of Notice, Annual Report and e-voting instructions:

a. Visit the link https://ris.kfintech.com/email_registration/.

b. Select the company name i.e. Bharat Heavy Electricals Limited.

c. Enter DPID-CLIENT ID (in case shares are held in electronic form)/ Physical Folio No. (in case shares are held in physical form) and PAN.

d. If PAN details are not available in the system, the system will prompt to upload a self-attested copy of the PAN card for updating the records.

e. In case shares are held in physical form and PAN is not available in the records, please enter any one of the Share Certificate No. in respect of the shares held.

f. Enter the email address and Mobile No. System will check the authenticity of DPID-CLIENT ID/ Physical Folio No. and PAN/ Certificate No., as the case may be, and will send the OTPs at the registered Mobile No. as well as email address for validation.

g. Enter the OTPs received by SMS and email to complete the validation process. Please note that the OTPs will be valid for 5 minutes only.

h. The Company through its Registrar & Transfer Agent, KFinTech will send the Notice, Annual Report and the e-voting instructions along with the User ID and Password to the email address given.

ii. For registering/updating your email address with the Company permanently and to keep receiving all communication electronically:

a. Members holding shares in physical mode may send an e-mail request addressed to shareholderquery@bhel.in or to KFinTech at madhusudhan.ms@kfintech.com/ einward.ris@kintech.com along with scanned copy of the request letter duly signed by the first shareholder (mentioning the email address & Mobile No.), self-attested copy of PAN and a copy of the share certificate to enable KFinTech 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.

iii. In case of queries, Members are requested to write to madhusudhan.ms@kfintech.com/ einward.ris@kfintech.com or call at the toll free number 1800-345-4001.

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 sachin@companylawworld.com with a copy marked to evoting@karvy.com.
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. S/shri Manoj Kumar Varma and Kamalesh Das, Directors, retire by rotation and being eligible, offer themselves for re-appointment. However, as per the terms of their appointment, the tenure of S/Shri Manoj Kumar Varma and Kamalesh Das as Directors of the Company will expire on their superannuation i.e. on 31.01.2021 and 31.07.2021 respectively. Brief resume of each of the Directors proposed for re-appointment is given at Annexure to the Notice.
11. Due to COVID-19 & extraordinary circumstances, the Board of Directors did not recommend final dividend for FY 2019-20.
12. 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 2012-13 and interim dividend for financial year 2013-14, which remains unclaimed, are proposed to be transferred to the said

account on 21.10.2020 and 11.03.2021 respectively.

Members who have not claimed/ encashed their Dividend so far for the financial year ended on 31.03.2013 or any subsequent financial year(s) may approach the Company for obtaining payments thereof before expiry of the stipulated 7 years period.

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 elsewhere 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 (DPs) in respect of their electronic share accounts; and

    ii. to the Company at its registered office or the Registrar & Transfer Agent, M/s KFin Technologies Private Limited (Selenium Tower B, Plot 31-32, Gachibowli, Financial District, Nanakramguda, Hyderabad-500032) in respect of their physical shares, if any, quoting their folio number, Banker's name and account number to ensure prompt and safe receipt of dividend warrants.

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 of Auditors for the year 2020-21 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 Act, the Register of Contracts or Arrangements in which the directors are interested maintained under Section 189 of the Act 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 to 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 M/s KFin Technologies Private Limited. Members whose names appear in the Register of Members/ list of Beneficial Owners as on Monday, September 21, 2020 (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 Thursday, September 24, 2020 at 9.00 A.M. and will end on Sunday, September 27, 2020 at 5.00 P.M. The e-voting module will be blocked on September 27, 2020 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 21, 2020.

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 (Insta Poll) and Members attending the AGM who have not cast their vote by remote e-voting will be able to vote at the Meeting through Insta Poll.

22. The Company has appointed Shri Sachin Agarwal of M/s Agarwal S. & Associates, Practising Company Secretary, to act as a Scrutinizer, to scrutinize the remote e-voting and Insta Poll process 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 (Insta Poll) 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 forty-eight hours 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 (https://evoting.karvy.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 (Insta Poll) along with 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 28, 2020

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. 5 to 9 of the accompanying Notice dated August 28, 2020.

ITEM NO. 5

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 shareholders subsequently.

Based on the recommendation of the Audit Committee, the Board of Directors in its meeting held on August 28, 2020 has approved the names of seven Cost Accountants/ Firms for appointment for a total remuneration of Rs. 15.01 Lakhs as detailed under:

(₹ in Lakhs)

Sl. No.	Name of the Cost Auditors	Unit	Remuneration for FY 2020-21
1	M/s Shome & Banerjee, Delhi (Lead Cost Auditor)	Consolidation Audit Report	0.96
		Jhansi	0.77
		HERP Varanasi	0.38
		Bhopal	1.91
2	M/s R.J. Goel & Co., Delhi	HEEP Haridwar	1.91
		CFFP Haridwar	0.38
3	M/s KRJ & Associates, Hyderabad	Hyderabad	1.91
4	M/s M. Krishnaswamy & Associates, Chennai	Trichy	2.54
		BAP Ranipet	1.27
5	M/s J.H & Associates, Bengaluru	EPD Bengaluru	0.5
		EDN Bengaluru	0.64
6	M/s K.B Saxena & Associates, Lucknow	IVP Goindwal	0.38
		FSIP Jagdishpur	0.58
		CFP Rudrapur	0.38
7	M/s Uppalapati & Associates, Visakhapatnam	HPVP Visakhapatnam	0.5
		Total	15.01

The above fee 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, 2021.

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. 5.

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

ITEM NO. 6

Shri Shashank Priya (DIN: 08538400), aged 54 years, was inducted as Part-time Official Director on the Board of BHEL w.e.f. October 4, 2019.

Shri Shashank Priya is a civil servant belonging to 1988 batch of the Indian Revenue Service (Customs and GST). He is presently working as Additional Secretary and Financial Advisor in Ministry of Commerce & Industry.

He has more than 30 years of experience of dealing with issues relating to indirect tax and WTO. He has worked on GST issues in various capacities like Joint Secretary, GST Council, Additional Director General (GST) and Commissioner, GST.

He has a decade of experience of working on WTO issues. He worked for five years as a Professor in the Centre for WTO Studies in the Indian Institute of Foreign Trade and dealt extensively with issues relating to WTO and Trade Facilitation. He also worked for 5 years in the Trade Policy Division of the Department of Commerce as Deputy Secretary/ Director. He has represented India in negotiations in WTO Ministerial Conferences in Cancun, Geneva and Hong Kong as well as in numerous WTO Committee meetings.

He has also worked in different field formations of Customs and Central Excise such as Central Excise Division, Anti-Smuggling, Appraising, Vigilance and Export Promotion.

He has acted as a resource person for several reputed institutions and made numerous presentations on GST and WTO issues before national and international audience in India and abroad. He was the Academic Coordinator for long term WTO Regional Trade Policy Course for Asia Pacific Countries organized by the Centre for WTO Studies in collaboration with WTO, Geneva in 2011 and 2012.

He has contributed articles on WTO issues in newspapers/journals and has written two books, namely 'Review of Trade Policies of India's Major Trading Partners' and 'Trade Facilitation Gap Analysis for Border Clearance Procedures in India.' He also wrote a paper for UN ESCAP, Bangkok on 'Cross-Border Paperless Trade.'

He also holds the position of Part-time Official Director on the Boards of the State Trading Corporation of India Limited, MMTC Limited, India International Convention & Exhibition Centre Limited, India Trade Promotion Organization, HMT Limited and Invest India. He is also member of the Audit Committees of the State Trading Corporation of India Limited, India Trade Promotion Organization and MMTC Limited.

Being a Government of India nominee on the Board of BHEL, Shri Shashank Priya does not receive any remuneration from BHEL.

Shri Shashank Priya does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Shashank Priya attended two (of three) Board Meetings which were held during his tenure in FY 2019-20.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Shri Shashank Priya 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 Shashank Priya for the Office of Director of the Company.

Except Shri Shashank Priya, 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. 6.

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

ITEM NO. 7

Shri Anil Kapoor (DIN: 08587329), aged 58 years, was inducted as Director (Human Resources) on the Board of BHEL w.e.f. October 15, 2019.

He is an Electrical Engineering Graduate from IIT Roorkee. He has also done a certificate course on Statistical Quality Control & Operations Research from Indian Statistical Institute, Madras.

Shri Kapoor has 37 years of holistic and hands-on experience in the areas of Quality, Technology and Manufacturing functions in addition to Human Resource Management at HEEP, Haridwar and Corporate Office, New Delhi.

Shri Kapoor started his career with BHEL as Engineer Trainee at Corporate Office, New Delhi and subsequently moved to Heavy Electrical Equipment Plant, Haridwar where he contributed in various areas and different capacities. After having an enriching spell at HEEP Haridwar, he was transferred to Corporate Office, New Delhi in 2015 as General Manager (HR & CC).

Prior to becoming Director (Human Resources), he was heading the HR Function of BHEL as Executive Director (HR &CC) Corporate Office, New Delhi shouldering the whole gamut of HR processes encompassing Transformational and Core areas of HR in Talent Acquisition & Management, Employee Engagement, Industrial Relations, HR Policy, Corporate Social Responsibility, Medical, Rajbhasha, HSE, Learning & Development and Corporate Communication.

Shri Kapoor is people-oriented and has been instrumental in implementing various innovative and flagship projects conceived by Govt. of India like, Skill Development, Udyan Shalini, Swachh Bharat, & Cashless initiatives. Under his leadership, BHEL has been honoured with various awards and accolades in the areas of Safety, CSR (SKOCH, BT, Times) and HR Excellence (Golden Peacock Green Tech, ICC-PSE, IPE, FICCI). He has also been honoured with BHEL Excel Award twice for Innovative Technological Developments.

Appointment of Shri Anil Kapoor is upto 31.01.2022 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 Anil Kapoor does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Anil Kapoor attended two Board Meetings which were held during his tenure in FY 2019-20.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Shri Anil Kapoor 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 Kapoor for the Office of Director of the Company.

Except Shri Anil Kapoor, 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

Shri Raj Kamal Bindal (DIN: 07423392), aged 45 years, was inducted as an Independent Director on the Board of BHEL w.e.f. January 31, 2020.

Shri Raj Kamal Bindal is a Commerce graduate from University of Delhi and a Fellow Member of the Institute of Chartered Accountants of India. He has also done M.Com. from Shri Ram College of Commerce, University of Delhi and MBA from Indira Gandhi National Open University.

Shri Bindal possesses diverse and wide ranging experience in the areas of Public Policy, Finance, Risk Management, Investment, Private Equity, Corporate Governance, Transforming Business, Infrastructure, Power sector and Railways.

As Consultant, Shri Bindal has served Ministry of Railways and Ministry of Housing and Urban Affairs in Government of India, Governments of the States of Chhattisgarh and Rajasthan, Government of Bangladesh, World Bank, International Finance Corporation, DfID UK and Asian Development Bank etc. during his employment with Ernst & Young India, Deloitte Touche Tohmatsu India, ICRA Management Consulting and ICAI Accounting Research Foundation.

Shri Bindal has extensive experience of Business Development with Governments, Multilaterals and Public Sector Undertakings in India, South Asia and South-East Asia.

Shri Raj Kamal Bindal is a Director on the Boards of Avika Consulting Private Limited, Namah Shivay Ventures Private Limited and Raj Kamal Bindal Foundation.

Appointment of Shri Raj Kamal Bindal is upto 27.01.2023 or until further orders, whichever event occurs earlier. As an Independent Director, he is entitled to sitting fee for Board Meetings and Board Level Committee Meetings attended by him.

Shri Raj Kamal Bindal does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key

Managerial Personnel of the Company.

Shri Raj Kamal Bindal attended one Board Meeting which was held during his tenure in FY 2019-20.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Shri Raj Kamal Bindal 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 Bindal for the Office of Independent Director of the Company.

The Company has received a declaration from Shri Raj Kamal Bindal 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 Shri Raj Kamal Bindal is appointed as an Independent Director. In the opinion of the Board, Shri Raj Kamal Bindal 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 Shri Raj Kamal Bindal, 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

Shri Manish Kapoor (DIN: 02405818), aged 53 years, was inducted as an Independent Director on the Board of BHEL w.e.f. January 31, 2020.

Shri Manish Kapoor is a member of Institute of Chartered Accountants of India and a commerce graduate from Benaras Hindu University. He has also completed 4th Foundation Course at SVP National Police Academy, Hyderabad.

Shri Kapoor's area of specialization includes Finance, Sales & Marketing and Administration. He has vast experience of more than 24 years and held various positions in different organizations. He is a Member, Board of Governors, Motilal Nehru National Institute of Technology, Allahabad.

Shri Manish Kapoor is a Director on the Board of Genext Lifecare Private Limited.

Appointment of Shri Manish Kapoor is upto 27.01.2023 or until further orders, whichever event occurs earlier. As an Independent Director, he is entitled to sitting fee for Board Meetings and Board Level Committee Meetings attended by him.

Shri Manish Kapoor does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Manish Kapoor attended one Board Meeting which was held during his tenure in FY 2019-20.

By virtue of Section 161 of the Companies Act, 2013 read with Article 67(iv) of the Articles of Association of the Company, Shri Manish Kapoor 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 Kapoor for the Office of Independent Director of the Company.

The Company has received a declaration from Shri Manish Kapoor 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 Shri Manish Kapoor is appointed as an Independent Director. In the opinion of the Board, Shri Manish Kapoor 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 Shri Manish Kapoor, 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.

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 28, 2020

DETAILS OF DIRECTORS PROPOSED FOR RE-APPOINTMENT

SHRI MANOJ KUMAR VARMA

Shri Manoj Kumar Varma (DIN: 08308714), aged 59 years, was inducted as Director (Power) on the Board of BHEL w.e.f. December 19, 2018.

He is a Mechanical Engineering Graduate from SGSITS, Indore and an MBA in Marketing from Bhopal University. Prior to becoming Director (Power), he was heading Power Sector- Southern Region Chennai, as Executive Director. PSSR is executing some of the major power projects &contributing substantially to BHEL's Power Sector segment.

Shri Manoj Kumar Varma has 36 years of holistic and hands on experience in the field of Energy, Industrial System and Infrastructure industries covering major value chain functions viz. Production, Commercial Management, Marketing & Business Development, Contract Management, Planning & Development, Information Technology and Strategic Management.

Shri Manoj Kumar Varma joined the organisation as Engineer Trainee at Transformer Plant, BHEL Jhansi and subsequently moved to Heavy Electrical Plant, Bhopal where he worked in various capacities and later on was transferred to Industry Sector, New Delhi as General Manager. During his career in BHEL, he also headed the erstwhile Ceramic Business Unit of BHEL, Bengaluru with erstwhile Electroporcelains Division (EPD, Bengaluru) and Insulator Plant (IP, Jagdishpur) under its ambit.

Shri Manoj Kumar Varma holds the position of Part-time Nominee Chairman on the Board of Raichur Power Corporation Limited.

Appointment of Shri Manoj Kumar Varma is upto 31.01.2021 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 Manoj Kumar Varma does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Manoj Kumar Varma has attended eight (of nine) Board Meetings held in FY 2019-2020.

SHRI KAMALESH DAS

Shri Kamalesh Das (DIN: 08376769), aged 59 years, was inducted as Director (Engineering, Research & Development) on the Board of BHEL w.e.f. March 1, 2019.

Shri Kamalesh Das is an Engineering Graduate from Calcutta University and also has a Post Graduate Diploma in Management.

Prior to becoming Director (E, R&D), Shri Kamalesh Das as Executive Director, was heading various business verticals at BHEL's Industry Sector, which is responsible for carrying out the company's diversification and growth initiatives. Major verticals in his portfolio included Renewable Energy, Industrial Systems, Electrical and Transmission Products.

He joined BHEL as an Engineer Trainee at the company's Insulator Plant in 1982. Shri Das has over 37 years of holistic and hands-on experience in energy, transmission and industrial systems. During his career in BHEL, he has developed and demonstrated a comprehensive set of competencies in various value chain activities like marketing, engineering, production, commercial, project management, human resource & industrial relations, legal management, project finance and strategic management. Earlier he was also the head of various manufacturing units of BHEL like Component Fabrication Plant, Rudrapur and Ceramic Business Unit (CBU) comprising Insulator Plant, Jagdishpur & Electro-Porcelains Division, Bengaluru.

Shri Kamalesh Das holds the position of Part-time Nominee Chairman on the Boards of BHEL-GE Gas Turbine Services Private Limited and BHEL Electrical Machines Limited.

Appointment of Shri Kamalesh Das is upto 31.07.2021 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 Kamalesh Das does not hold any shares in BHEL and he does not have any relationship with other Directors/ Manager/ Key Managerial Personnel of the Company.

Shri Kamalesh Das has attended all the Board Meetings (nine) held in FY 2019-2020.

By Order of the Board of Directors



(Rajeev Kalra)
Company Secretary

Place: New Delhi
Date: August 28, 2020

PROCEDURES FOR JOINING THE AGM THROUGH VC, REMOTE E-VOTING AND VOTING AT THE AGM (INSTA POLL)

- **PROCEDURE FOR JOINING THE AGM THROUGH VC:**

The Company will provide VC facility to its Members for participating at the AGM.

a) Members will be able to attend the AGM through VC at https://emeetings.kfintech.com by using their e-voting login credentials. Members are requested to follow the procedure given below:

   i. Launch internet browser (chrome/firefox/safari) by typing the URL: https://emeetings.kfintech.com.

   ii. Enter the login credentials (i.e. User ID and password for e-voting).

   iii. After logging in, click on "Video Conference" option.

   iv. Then click on camera icon appearing against AGM event of Bharat Heavy Electricals Limited, to attend the Meeting.

b) Members who do not have User ID and Password for e-voting or have forgotten the User ID and Password may retrieve the same by following the procedure given in the instructions for remote e-voting.

c) Members who would like to express their views or ask questions during the AGM may register themselves by logging on to https://emeetings.kfintech.com and clicking on the "Speaker Registration" option available on the screen after log in. The Speaker Registration will be open from Wednesday, September 23, 2020 (9.00 A.M.) to Thursday, September 24, 2020 (5.00 P.M.). The Company reserves the right to restrict the number of questions and number of speakers, depending upon availability of time as appropriate for smooth conduct of the AGM.

d) Members will be allowed to attend the AGM through VC on first come, first served basis.

e) 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.

f) Members who need assistance before or during the AGM, can contact KFinTech on emeetings@kfintech.com or call on toll free number 1800-345-4001. Kindly quote your name, DP ID-Client ID / Folio no. and E-voting Event Number in all your communications.

- **PROCEDURE FOR REMOTE E-VOTING AND VOTING AT THE AGM (Insta Poll):**

Pursuant to the provisions of Section 108 and other applicable provisions, if any, of the Companies Act, 2013 read with the Companies (Management and Administration) Rules, 2014, as amended, and Regulation 44 of SEBI Listing Regulations, the Company is providing to its Members facility to exercise their right to vote on resolutions proposed to be passed at AGM by electronic means (e-voting). Members may cast their votes remotely, using an electronic voting system on the dates mentioned herein below (remote e-voting):

Commencement of remote e-voting	9:00 A.M. on Thursday, September 24, 2020
End of remote e-voting	5:00 P.M. on Sunday, September 27, 2020

The remote e-voting will not be allowed beyond the aforesaid date and time and the remote e-voting module shall be forthwith disabled by KFinTech upon expiry of the aforesaid period.

Further, the facility for voting through electronic voting system will also be made available at the Meeting (Insta Poll) and Members attending the Meeting who have not cast their vote(s) by remote e-voting will be able to vote at the Meeting through Insta Poll. The Company has engaged the services of KFin Technologies Private Limited as the agency to provide e-voting facility. The manner of voting remotely by Members holding shares in dematerialized mode, physical mode and for Members who have not registered their email addresses is provided in the instructions given below.

Voting rights of a Member/ beneficial owner (in case of electronic shareholding) shall be in proportion to his share in the paid-up equity share capital of the Company as on the cut-off date, i.e., Monday, September 21, 2020. The Board of Directors of the Company has appointed Shri Sachin Agarwal of M/s Agarwal S. & Associates, Practising Company Secretary as Scrutinizer to scrutinize the remote e-voting and Insta Poll process in a fair and transparent manner and he has communicated his willingness to be appointed and will be available for the said purpose.

Information and instructions relating to e-voting are as under:

i. The Members who have cast their vote(s) by remote e-voting may also attend the Meeting but shall not be entitled to cast their vote(s) again at the Meeting. Once the vote on a resolution is cast by a Member, whether partially or otherwise, the Member shall not be allowed to change it subsequently or cast the vote again.

ii. A Member can opt for only single mode of voting per E-Voting Event Number (EVEN), i.e., through remote e-voting or voting at the Meeting (Insta Poll). If a Member casts vote(s) by both modes, then voting done through remote e-voting shall prevail and vote(s) cast at the Meeting shall be treated as "INVALID".

iii. A person, whose name is recorded in the register of Members or in the register of beneficial owners maintained by the depositories as on the cut-off date, i.e., Monday, September 21, 2020 only shall be entitled to avail the facility of remote e-voting or for participation at the AGM and voting through Insta Poll. A person who is not a Member as on the cut-off date, should treat the Notice for information purpose only.

iv. Any person who becomes a Member of the Company after dispatch of the AGM Notice and holding shares as on the cut-off date i.e. September 21, 2020 may obtain the User ID and password from KFinTech in the manner as mentioned below:

(a) If the mobile number of the Member is registered against Folio No. / DP ID Client ID, the Member may send SMS: MYEPWD E-Voting Event Number+Folio No. or DP ID Client ID to 9212993399 Example for NSDL: MYEPWD IN12345612345678 Example for CDSL: MYEPWD 1402345612345678 Example for Physical: MYEPWD XXXX1234567890.

(b) If e-mail address or mobile number of the Member is registered against Folio No. / DP ID Client ID, then on the home page of https://evoting.karvy.com, the Member may click "Forgot Password" and enter Folio No. or DP ID Client ID and PAN to generate a password.

(c) Member may call on KFinTech's toll-free numbers 1800-345-4001 (from 9:00 A.M. to 6:00 P.M.).

(d) Member may send an e-mail request to madhusudhan.ms@kfintech.com.

(e) If the Member is already registered with KFinTech's e-voting platform, then he can use his existing login credentials for logging in.

v. The Company has opted to provide the same electronic voting system at the Meeting, as used during remote e-voting, and the said facility shall be operational till all the resolutions proposed in the Notice are considered and voted upon at the Meeting and may be used for voting only by the Members holding shares as on the cut-off date who are attending the Meeting and who have not already cast their vote(s) through remote e-voting.

vi. Instructions for remote e-voting:

(A) In case a Member receives an e-mail from the Company/ KFinTech [for Members whose e-mail addresses are registered with the Company / Depository Participant(s)]:

(a) Launch internet browser by typing the URL: https://evoting.karvy.com.

(b) Enter the login credentials (User ID and password given in the e-mail). The E-Voting Event Number+Folio No. or DP ID Client ID will be your User ID. However, if you are already registered with KFinTech for e-voting, you can use the existing password for logging in. If required, please visit https://evoting.karvy.com or contact toll-free numbers 1800-345-4001 (from 9:00 a.m. to 6:00 p.m.) for your existing password.

(c) After entering these details appropriately, click on "LOGIN".

(d) You will now reach Password Change Menu wherein you are required to mandatorily change your password upon logging in for the first time. The new password shall comprise minimum 8 characters with at least one upper case (A-Z), one lower case (a-z), one numeric (0-9) and a special character (@,#,$,etc.). The system will prompt you to change your password and update your contact details like mobile number, e-mail address etc. on first login. You may also enter a secret question and answer of your choice to retrieve your password in case you forget it. It is strongly recommended that you do not share your password with any other person and that you take utmost care to keep your password confidential.

(e) You need to login again with the new credentials.

(f) On successful login, the system will prompt you to select the E-Voting Event Number (EVEN) for Bharat Heavy Electricals Limited.

(g) On the voting page, enter the number of shares as on the cut-off date under either "FOR" or "AGAINST" or alternatively, you may partially enter any number under "FOR" / "AGAINST", but the total number under "FOR" / "AGAINST" taken together should not exceed your total shareholding as on the cut-off date. You may also choose to "ABSTAIN" and vote will not be counted under either head.

(h) Members holding shares under multiple folios / demat accounts shall choose the voting process separately for each of the folios / demat accounts.

(i) Voting has to be done for each item of the Notice separately. In case you do not desire to cast your vote on any specific item, it will be treated as "ABSTAINED".

(j) You may then cast your vote by selecting an appropriate option and click on "SUBMIT".

(k) A confirmation box will be displayed. Click "OK" to confirm, else "CANCEL" to modify. Once you confirm, you will not be allowed to modify your vote.

(l) Corporate / Institutional Members (i.e., other than Individuals, HUFs, NRIs, etc.) are also required to send scanned certified true copy (in 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 sachin@companylawworld.com with a copy marked to evoting@karvy.com. It is also requested to upload the same in the e-voting module in their login. The naming format of the aforesaid scanned document shall be "BHEL EVENT NO."

(B) In case of a Member whose e-mail address is not registered/ updated with the Company / KFinTech / Depository Participant(s), please follow the following steps to generate your login credentials:

(a) Please refer Note no. 3 to the Notice of the AGM to get the login credentials.

(b) Please follow all steps from Sr. No. (a) to (k) of vi(A) to cast your vote.

vii. You can also update your mobile number and e-mail id in the user profile details of the folio which may be used for sending further communication(s).

viii. Once the vote on a resolution is cast by a Member, whether partially or otherwise, the member shall not be allowed to change it subsequently or cast the vote again.

ix. In case of any query/ grievance pertaining to e-voting, Members may refer to the "Help" and "FAQs" sections / E-voting

user manual available through a dropdown menu in the "Downloads" section of KFinTech's website for e-voting: https://evoting.karvy.com or contact KFinTech as per the details given under point no. (x.) below.

x. Members are requested to note the following contact details for addressing e-voting grievances:

Ms. Laxmi Rajyam, Dy. Manager,
KFin Technologies Private Limited
Selenium Tower B, Plot 31-32,
Gachibowli, Financial District, Nanakramguda,
Hyderabad 500032
Phone No.: +91 40 67161564 Toll-free No.: 1800-345-4001
E-mail: laxmi.rajyam@kfintech.com

xi. **Instructions for Insta Poll:** Facility to cast vote through Insta Poll will be made available on the Video Conferencing screen and will be activated once the Insta Poll is announced at the Meeting.

xii. The Scrutinizer will, after the conclusion of e-voting at the Meeting, scrutinize the votes cast at the Meeting (Insta Poll) 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 forty-eight hours 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 KFinTech at https://evoting.karvy.com. The result will simultaneously be communicated to the stock exchanges.

xiii. 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 28, 2020.

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 Registrars, viz. M/s KFin Technologies Pvt. Ltd. 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.

TEAR HERE

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 KFin Technologies Pvt. Ltd.
UNIT: BHEL
Selenium Tower B, Plot No. 31-32,
Gachibowli Financial District, Nanakramguda,
HYDERABAD-500032

.....
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

Allahabad Bank
Andhra Bank
Bank of Baroda
Canara Bank
Central Bank
Corporation Bank
EXIM Bank
IDBI Bank
Indian Bank
Indian Overseas Bank
Punjab National Bank
State Bank of India
Syndicate Bank
Union Bank of India
United Bank of India
Axis Bank
HDFC Bank
ICICI Bank
Indusind Bank
Kotak Mahindra Bank
RBL Bank
The Federal Bank Limited
Yes Bank
CITI Bank N.A
Deutsche Bank AG
Standard Chartered Bank
The Hongkong and Shanghai Banking Corporation Limited

Auditors

Raj Har Gopal & Co., New Delhi
Tiwari & Associates, New Delhi
Mahesh C. Solanki & Co., Bhopal
Ponraj & Co., Trichy
Rao & Kumar, Hyderabad
S R R K Sharma Associates, Bengaluru
M Srinivasan & Associates, Chennai

Cost Auditors

Shome & Banerjee, Delhi
R. J. Goel & Co., Delhi
KRJ & Associates, Hyderabad
M. Krishnaswamy & Associates, Chennai
J. H & Associates, Bengaluru
K B Saxena & Associates, Lucknow
Uppalapati & Associates, Visakhapatnam

Share Transfer Agent

KFin Technologies Pvt. Ltd.

UNIT: BHEL

Delhi: 305, New Delhi House,
27, Barakhamba Road,
New Delhi – 110 001
Tel. : 011- 43681700
Fax: 011-43681710

Hyderabad: Selenium Tower B,
Plot 31-32, Gachibowli, Financial District,
Nanakramguda, Hyderabad – 500 032
Tel.: 040-67162222
Fax : 040-23001153
Email: madhusudhan.ms@kfintech.com
: einward.ris@kfintech.com
Website: www.kfintech.com

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

Aatmanirbhar in Defence & Aerospace !



BHEL continues to be a reliable supplier of strategic equipment and services to the defence and aerospace sector for over three decades.

BHEL is one of the long-standing partners of Indian Space Research organisation (ISRO), since 1992. Most of the satellites launched by ISRO including GSAT 30, where a 500 sq.m. space grade solar panel was supplied, and India's heaviest communication satellite GSAT-11, among others, are powered by BHEL manufactured solar panels and lithium-ion batteries. BHEL has also supplied the space grade solar panels and batteries for Chandrayaan-II.

Contributing further to the Nation's space programme, BHEL has been supplying Titanium alloy based spacecraft propellant tank components to ISRO. More than 100 such propellant tank components, which amounts to more than 90% of indigenous propellant tanks assembled with Indian satellites, have been supplied till date, including Chandrayaan-I&II, and Mangalyaan, among others.

BHEL is also one of the select few firms in the world having the capability to design and manufacture heat exchangers for military aircraft.





BHARAT HEAVY ELECTRICALS LIMITED
Registered Office : BHEL House, Siri Fort, New Delhi-110049, India
Corporate Identify Number : L74899DL1964GOI004281
www.bhel.com

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