बी एच ई एल
BHEL
Maharatna Company

Investor Presentation

June 2015








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Table of Contents

1. BHEL: Overview

India's Flagship Engineering & Manufacturing Company

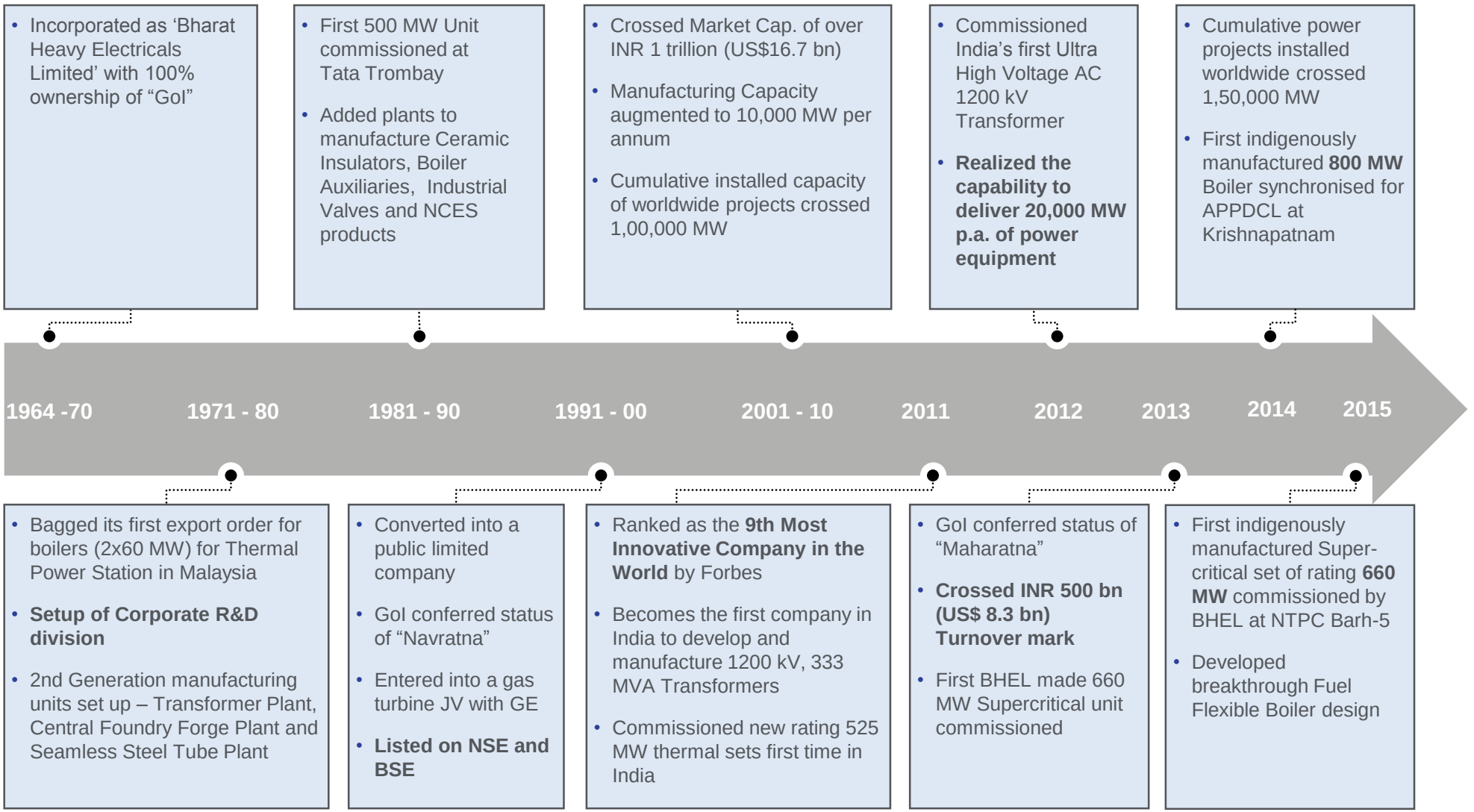
Rich Heritage	• A 'Maharatna' company • Over 50 years of experience • Government of India (GoI) shareholding of 63.06% (1)
Indian Engineering & Manufacturing Giant	• Integrated power plant equipment manufacturer with capability to deliver 20,000 MW of power equipment per annum • Catering to all fuel types viz. Coal, Hydro, Nuclear, Gas & Solar with entire range • Serving core sectors of industry viz. Power, Transmission, Industrials Systems and Products, Transportation (Railway), Renewable Energy, Oil & Gas, and Defence
Pan India Presence	• 17 manufacturing units + 2 repair units + 8 service centres • Infrastructure to deal with 150+ project sites (across India and abroad) • 1 Subsidiary + 6 Joint Ventures
Global Footprint	• References in 77 countries • Executing 24 projects spread over 16 countries for around 7,000 MW • Contracted power plant equipment around 17,000 MW
Rich Experience	• 157 GW capacity installed globally • 30,000+ AC machines supplied • 360+ Locos & 377 Diesel Shunters supplied to Indian Railways & Other Industries • 85MW+ cumulative shipments of PV cells, modules and systems
Innovation	• One of the highest R&D Expenditure In Indian Engineering Field (>2.5% of Turnover) • Filing patent / copyright applications regularly • 44,905 employees(2) including 73% Executives with Engineering background
Strong Financials	• Profit making company since 1971–72 • Consistent dividend paying company for over thirty years(3) • FY15 Revenue(4): US$ 5.13 bn; FY15 PAT: US$ 242 mn • Debt to Equity ratio: 0.01 (FY15)






Source: BSE, Company data and Stock exchange filings. FX: INR/US$: 60.
Note: (1) Shareholding as on March 2015. (2) As on Mar 31, 2015 (3) FY1976 – 77 onwards. (4) Revenue includes other income.

50 Years' Journey of Engineering Excellence

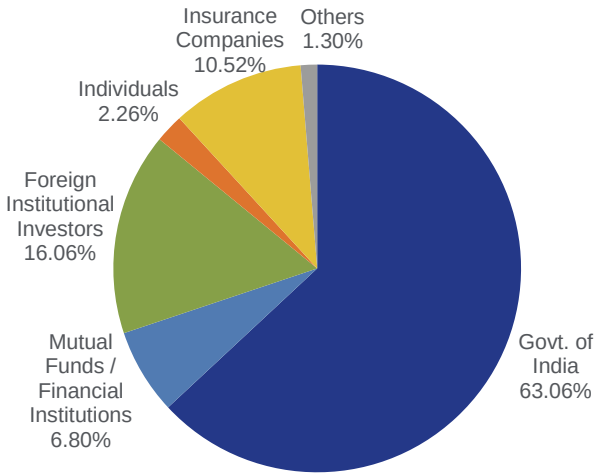


Source: Company data and Stock exchange filings. FX: INR/US$: 60.

One of the Only Seven "Maharatna" CPSEs

Shareholding Pattern

(as on March 31, 2015)



Top Shareholders other than GoI (30/6/15)

Shareholder	% Shareholding
LIC	9.42%
Lazard Asset Management	1.21%
Comgest	1.18%
Magallen	1.07%

Key Facts(1)

Listed on BSE on 12th July 1998
Listed on NSE on 12th September 1998

Share Price (52Wk High / Low):
INR 300/ INR 194.2

No. of Shares:
2,447 mn

FY14 Dividend / Share:
INR 2.83

Market Cap:
US$ 10.4 bn

Upgraded from "Navratna(2)" Status to "Maharatna(2)" Status in February 2013

1997

- ✓ One of the first nine **"Navratna"** companies in India
- ✓ Empowered to take investment decisions, including the power to make equity investments in joint ventures, wholly owned subsidiaries and to undertake mergers and acquisitions on its own, subject to a ceiling of the lower of 15% of the Issuer's net worth and US$167mn for any one project, and subject to an overall ceiling of 30%

2013

- ✓ Consistent performance in a highly competitive environment enabled BHEL to attain the coveted **"Maharatna"** status in 2013
- ✓ Empowered to take investment decisions, including the power to make equity investments in joint ventures, wholly owned subsidiaries and to undertake mergers and acquisitions on its own, subject to a ceiling of the lower of 15% of the Issuer's net worth and US$832mn for any one project, and subject to an overall ceiling of 30%

Source: BSE, Company data and Stock exchange filings. FX: INR/US$: 60.
Note: (1) Market Data as on July 1, 2015.
(2) Exclusive scheme of GoI to grant enhanced powers to the board of profit making CPSEs. Subject to fulfilling qualifying requirements.

Maharatna Company

Single Source with Multiple Solutions for Infrastructure & Industrial Segments

Power

- Contributes to around 80%[1] of the total revenues
- Proven capabilities to execute thermal power projects on EPC basis
- 157 GW[2] installed base of power plant equipment globally

Products:

- **Thermal:** Entire range up to 800 MW ratings including supercritical sets of 660/ 700/ 800 MW
- **Gas:** Advanced class gas turbines up to 289 MW (ISO) for open and combined cycle.
- **Hydro:** EM Package up to 250 MW
- **Nuclear:** TG sets 220/235/500/540/700 MW

Transmission

- Offers wide range of transmission systems and products
- Present in UHV, EHV, HVDC and GIS segments
- Major orders received from MPPTCL, NTPC, TANTRANSCO, BIDCO, Discoms, etc

Products:

- Power Transformers
- Instrument Transformers
- Shunt Reactors
- Switchgears
- Capacitors
- Control & Protection Equipments
- HVDC terminals
- Flexible AC Transmission

Transportation

- Offers system range including traction machines, Electric Locomotive (AC/DC), Diesel Electric Shunting Locos, EMU Coaches and traction drive systems
- BHELs' IGBT propulsion equipment accounts for majority share of IGBT based locomotives in Indian Railways
- > 70% of Indian Railways equipped with traction equipment built by BHEL

Products:

- Locos and EMU
- Electric Rolling Stock – AC & DC
- Electrics for Urban Transportation System

Non Conventional Energy Source

Solar PV:

- Offers EPC solutions from concept to commissioning for PV Power Plants
- Capability to manufacture space grade solar panels and space grade batteries

Water Management:

- Offers turnkey solutions for industrial and power plant water systems

Products:

- Solar cells and modules
- 500 kVA Power Control Unit (PCU) for Solar PV Plants

Defence

- Contributing strategic equipments to Indian defence forces for over 20 years
- Has MoU signed with Pipavav Defence and Offshore Engineering Company
- Consortium with Hindustan Shipyard and Midhani for Indigenous Submarine Project

Products:

- Super Rapid Gun Mount
- IPMS for Naval Ships
- Turret Casting for T72 Tanks
- Equipments for naval ships

Industrial Products & Systems

- Designs, manufactures and services various types of onshore rigs since 1975
- Capability to manufacture onshore deep drilling rigs up to a depth of 9,000 meters
- 86+ oil drilling rigs supplied

Products:

- Oil Rigs
- Well Head & Xmas Trees
- Fabricated Equipments & Boiler Feed Pumps
- Compressors
- AC Machines
- Valves





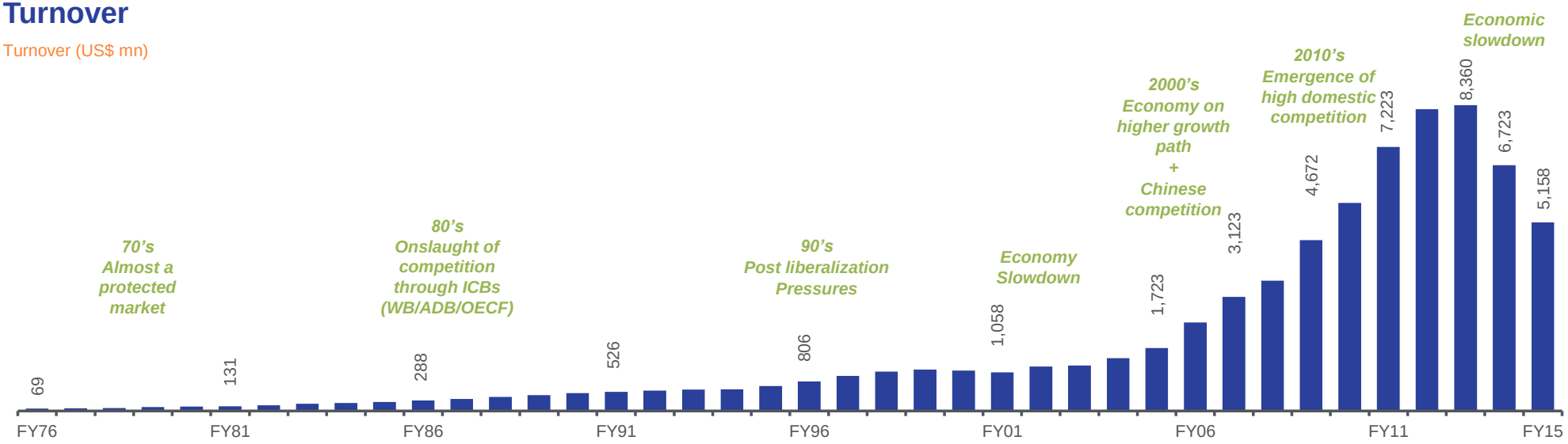

Source: Company data and filings.
Notes: (1) For FY 2015
(2) As of March 31, 2015.

BHEL Maharatna Company

Market Leader with Sustained Growth

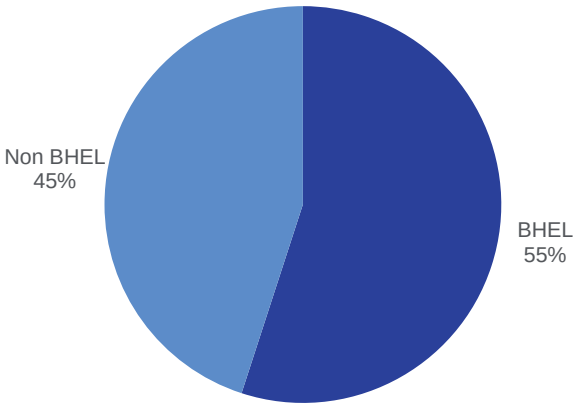
Turnover

Turnover (US$ mn)



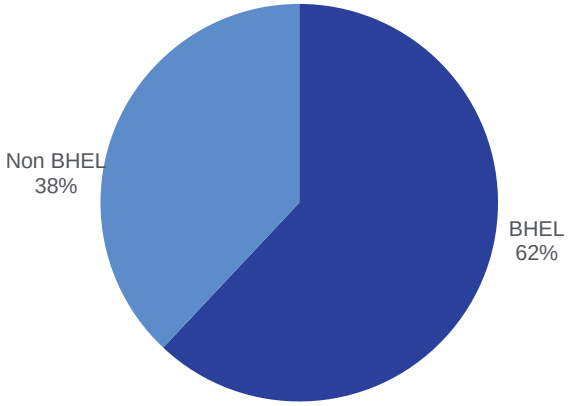
Share of India's Installed Generation Capacity(1)

(As on March 31, 2015)



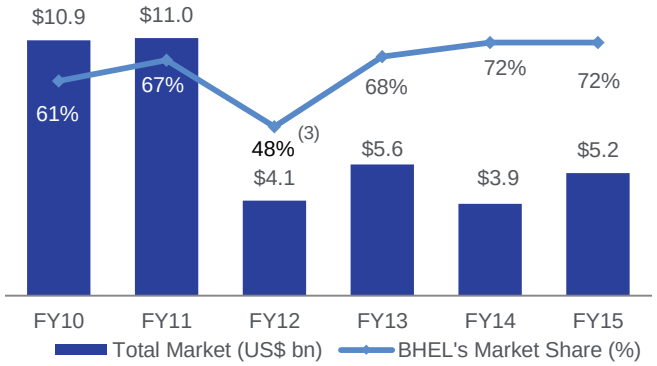
Share of Generation (Thermal)(1)

(During FY 2014 – 15)



Retained Leadership in Shrinking & Competitive Market(2)

(Power Sector) (US$ bn)



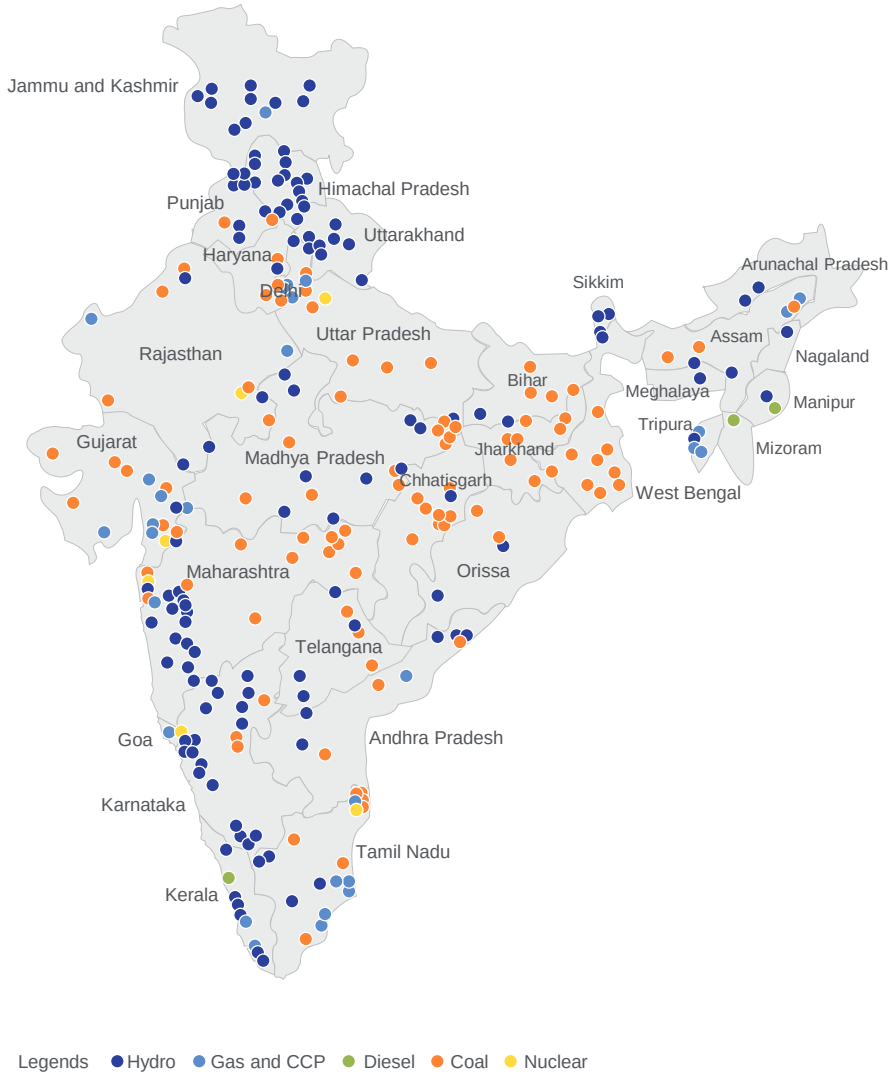
Source: Company data and Stock exchange filings. FX: INR/US$: 60.

Notes: (1) From Thermal Utility Sets.
(2) Represents Power Sector orders.
(3) Due to the bulk tender from NTPC & DVC, maximum market share of BHEL was pre – decided in FY12.

Maharatna Company

BHEL Makes Electric Utilities Installations Across India Covering Entire Range & Type

Coal, Gas, Nuclear, Diesel and Hydro Projects



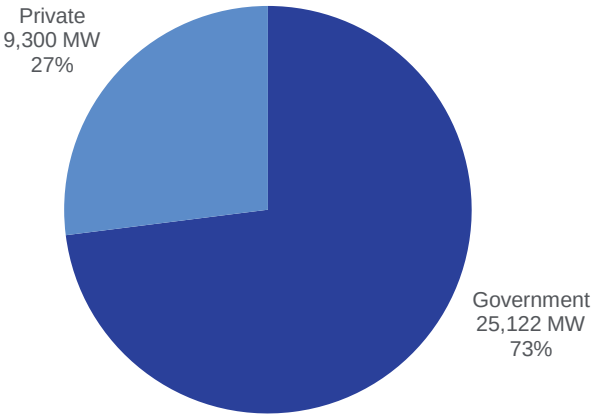
BHEL's Electric Utility Installed Base in India

(As on March 31, 2014)

	Sets	MW
Coal	398	102,000
Gas and CCP	100	7,525
Diesel	23	199
Nuclear	12	3,340
Hydro	395	19,229
Total	**928**	**132,293**

Power Sector Orders Received (MW)

(April 2010 – March 2015)



Source: Company data and Stock exchange filings.
Note: Map not marked to scale.

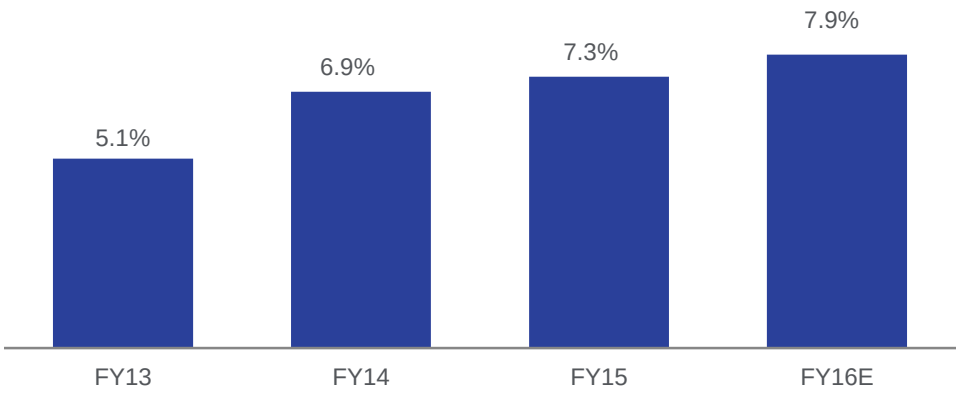
2. Investment Highlights

Investment Highlights

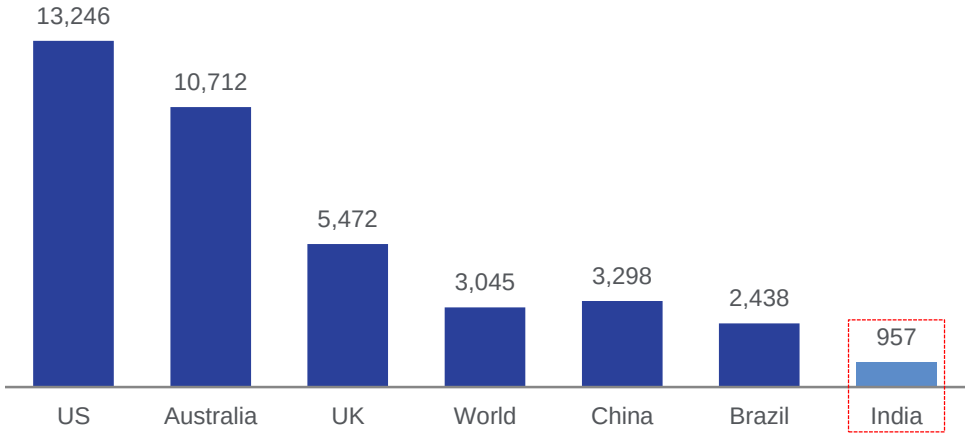
1. India has Strong Fundamental Drivers for Power Capex Recovery
2. 'Make in India' Initiative to Provide Significant Stimulus to BHEL
3. BHEL Well-Positioned to Capture Opportunities in its Core and Emerging Business Segments
4. Gradually Improving Order Book
5. Continuous Focus on R&D and Upgradation of Technology Through Collaboration
6. Quality Performance Standards of BHEL Sets
7. Long Standing Relationship with Sector Leaders (both Government and Privately owned)
8. Strong Management and Government of India Support

1 India has Strong Fundamental Drivers for Power Capex Recovery

India to Become one of the Fastest Growing Economies
(Real GDP)



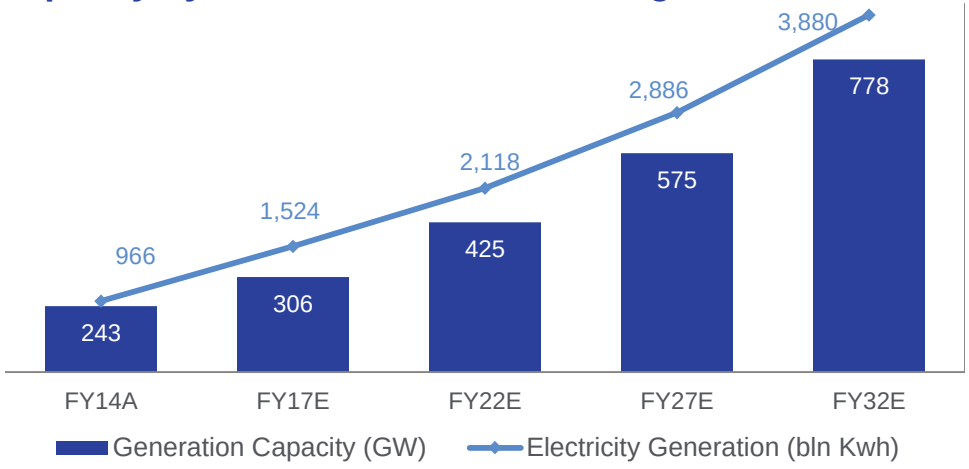
India has a Low Per Capita Consumption[1]
(kWh / Year)



State of Indian Power Sector

Installed Capacity (GW) (including Renewable 35.7GW)	271.7[2]
Demand – Supply Deficit	4.2%[3]
Peak Demand – Supply Deficit	4.5%[3]

India requires 500+ GW[4] of incremental generation capacity by 2032 to sustain 8% GDP growth



Notes: (1) World Bank indicator EG.USE.ELEC.KH.PC (web site) except India data for 2010 and India's data as on 31.03.2014. (2) CEA (3) Data for FY14 and as mentioned in CEA LGBR Report 2014-15. However, large state-wise variances exist with some states experiencing deficit of >30%. (4) Incremental generation capacity calculated from January 31, 2015.

2 ‘Make in India’ Initiative to Provide Significant Stimulus to BHEL

Priority Sectors…

- 25 sectors identified to develop manufacturing capabilities
- Thermal Power, Electrical Machinery, Railways, Defence Manufacturing and Renewable Energy amongst the key selected sectors

Strong Focus on Manufacturing…

- Vision of increase in manufacturing sector growth to 12-14% per annum over the medium term
- Aim to increase manufacturing share in the country’s GDP from 16% in FY14 to 25% in FY22

Efforts to Reduce Imports…

- Reduce reliance on imports for key sectors like defence and manufacturing equipments
  - Aim to reduced imports in defence sector by 30% in next 5 years
- Emphasis on providing scarce raw materials, high-end technology and skilled manpower to help domestic companies

FDI Policy Measures…

- Hike in FDI limits to increase investments
  - **Defence:** FDI increased from 26% to 49% under government approval route
  - **Railways:** Construction, operation and maintenance of specified activities opened to 100% FDI under automatic route

Increasing Exports…

- Focus on standards, services sector and enhancing product competitiveness in the global market
- Incremental exports of ~US$100 - US$200 bn from electrical machinery, auto components, autos, leather products, textiles etc.

Technology Upgradation…

- Increase in domestic value addition and technological depth in manufacturing
- Technological investments
- Information Technology to make governance more efficient and effective

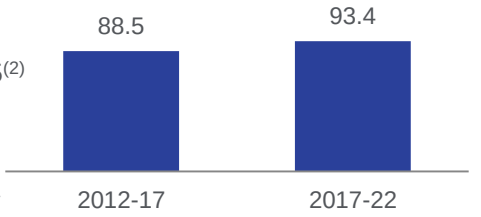
Source: Make in India website (http://makeinindia.com).

3 Significant Growth Expected in All Business Verticals

Power

- **Thermal:** Accounts for 70% of total power capacity and continues to largest contributor to new capacity addition
  - 5 new UMPPs under "Plug and Play" scheme through tariff-based competitive bidding
- **Hydro:** 148 GW of potential in Hydro sector of only 41 GW has been realized till FY15(2)
- **Nuclear:** From current nuclear capacity of 4,780 MW, GoI targets to increase it to 20,000 MW by 2020 and 63,000 MW by 2032(3)
- ➢ **Implications for BHEL:** Being the market leader, stands to benefit from new capacity additions

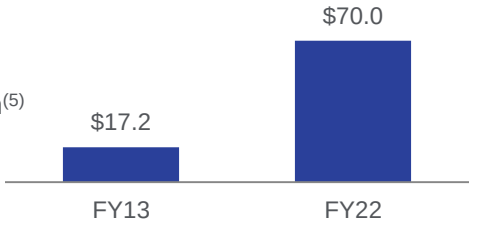
Generation Capacity Addition(1)
(GW)



Transmission

- Thrust on Smart Grid – 100 Smart Cities Planned and Green Energy Corridor
- HVDC Equipment Demand Envisaged in XIII plan-15000 MW(4)
- 9 new projects UHCTC proposed up to 2030 to cater to 199 GW RE power generation(5)
- ➢ **Implications for BHEL:** Positive & first mover advantage in UHV & HVDC Systems

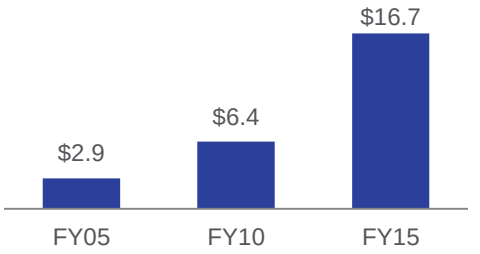
T&D Equipment Industry(6)
(US$ bn)



Transportation

- US$142 bn to be invested in next five years across network decongestion/expansion (45%), signaling (15%), locomotive, station redevelopment & high speed railways(7)
- 9 high – speed rail corridors to be developed and 6,000 km route to be electrified(7)
- High HP Diesel / Electric Locos etc. for Dedicated Freight Corridor (DFC)
- ➢ **Implications for BHEL:** Established relationship with Railways and strong manufacturing base

Plan Outlay for Railways (7)
(US$ bn)



Sources: (1) WG report on Power Sector. (2) CEA. (3) Nuclear Power Corporation of India Limited. (4) CEA. (5) PGCIL. (6) Indian Electrical Equipment Industry Mission Plan 2012 – 2022. (7) Railway Budget, Ministry of Railways.
Note: FX: INR/US$: 60.

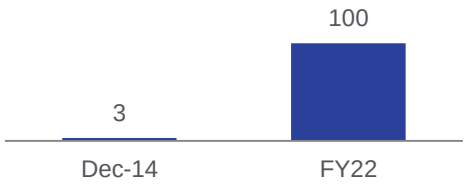
BHEL Maharatna Company

3 Significant Growth Expected in All Business Verticals

Non Conventional Energy Source

- GoI plans to scale up solar power to a cumulative 100 GW by 2022, increase from JN National Solar Mission target of 20,000 MW by 2022[1]
- Government emphasis on Water and Waste Water Segments
- ➢ **Implications for BHEL:** Well poised to capture the unique and growing opportunity

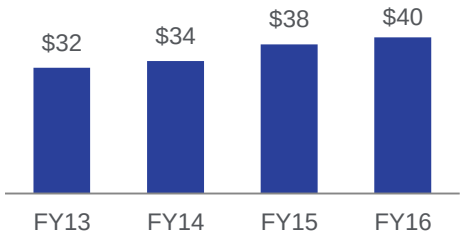
Current gap between installed capacity and estimated potential[1]
(Solar Power) (GW)



Defence

- US$40 bn allocated in the budget for defence spending in FY16; 11% increase[2]
- Offset policy: 30% for procurement of defence equipment in excess of US$50 bn[3]
- ➢ **Implications for BHEL:** Established manufacturing base and long relationship with defence establishments

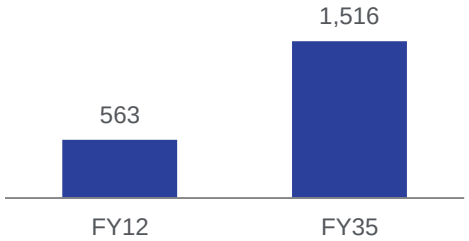
Defence Spending in India[4]
(US$ bn)



Industrial Products & Systems

- **Upstream:**
  - 60% of the prognosticated reserves of 28,000 MMT are yet to be harnessed[5]
  - India to add 91 mn barrels to crude oil capacity to protect from supply disruptions by 2017[6]
- **Midstream:** Increase in India's refining capacity to 307.6 MMTPA by 2017[7]
- **Downstream:** Proposed National Gas Grid of 15,000 km[8]
- ➢ **Implications for BHEL:** Positive with revival of Industrial Capex

Primary Energy Demand[9]
(MTOE)



Sources: (1) Union Budget 2015 -16. (2) Union Budget 2015 -16. (3) Defence Procurement Procedure 2013. (4) Institute for Defence Studies and Analyses. (5) Make in India website (http://makeinindia.com). (6) Ministry of Petroleum and Natural Gas. (7) Make in India website (http://makeinindia.com). (8) Budget 2014 – 15, Ministry of Finance. (9) IEA World Energy Outlook.
Notes: FX: INR/US$: 60.

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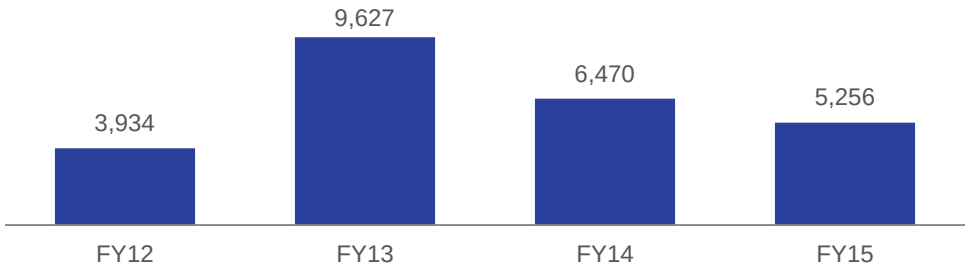
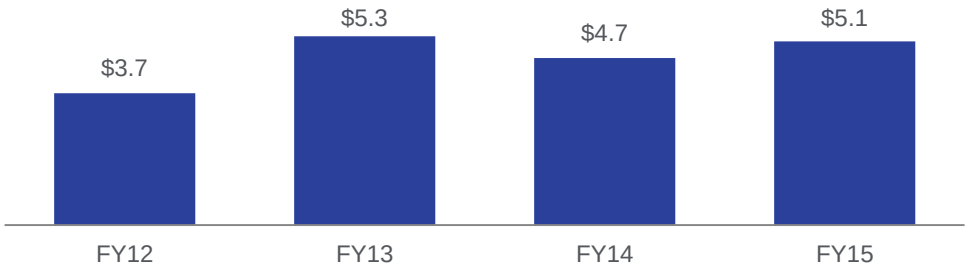
4 Gradually Improving Order Book

Order Book

(MW)



(US$ bn)



Major Orders Received During FY15

Power Sector

- India's first ever EPC contract for 1x800 MW rating Supercritical Power Project from Gujarat State Electricity Corporation Ltd for US$590 mn
- 2x660 MW coal-fired Supercritical Thermal Power Project from TANGEDCO on EPC basis worth US$1,300 mn
- 800 MW EPC order from Telangana State for Kothagudam TPS
- 4x111 MW HEP Vishnugad Pipalkoti
- ESP package for 2x800MW Darlipali Supercritical TPP
- 370MW EPC order from Karnataka Power Corporation Ltd. for Yelahanka
- 4X270MW EPC order from TSGENCO for Manuguru

Industry Sector

- 10 MW SPV plant on EPC basis from KPCL and NLC
- 3 MW Grid connected SPV power plant from DNH Power Distribution & OPCL each
- 20 MW Grid connected SPV plant from GEDCOL
- Transformer orders from GETC, CLW, RRVPNL, and UPRVUNL
- 400 kV Substation Extension package including supply of Shunt Reactors from PGCIL
- 765kV/400kV Substation at Agra from PGCIL
- 33kV GIS based substation from NMDC on EPC basis
- 50 MW STG for ISGEC Heavy Engg, 2x36 MW STG for Sarda Energy & Minerals, 30 MW STG for Emami & 18 MW STG for Wonder Cement.
- 1x22.5 MW GTG + 1x100 TPH HRSG Cogen Plant + 1x150 TPH (Gas / Oil) fired Utility Boiler for CPCL
- 7 nos. Diesel Electric Shunting Locomotives - 3 nos. 800 HP for TSGENCO Kothagudam, 2 nos. 700 HP for SAIL RSP, 1 no. 700 HP each for MPPGCL Chachai and JSW Dolvi

International Operations

- Supply of Fr-9E GT Generator & Exciter Bearing. Iraq M/s Engage Enterprises Pvt Ltd
- Miscellaneous orders for spares & services
- Supply of 50KVA Solar Power Mini Grid and Substation in Nigeria
- 18 MW HFO based Diesel Engine TPP in Comoros

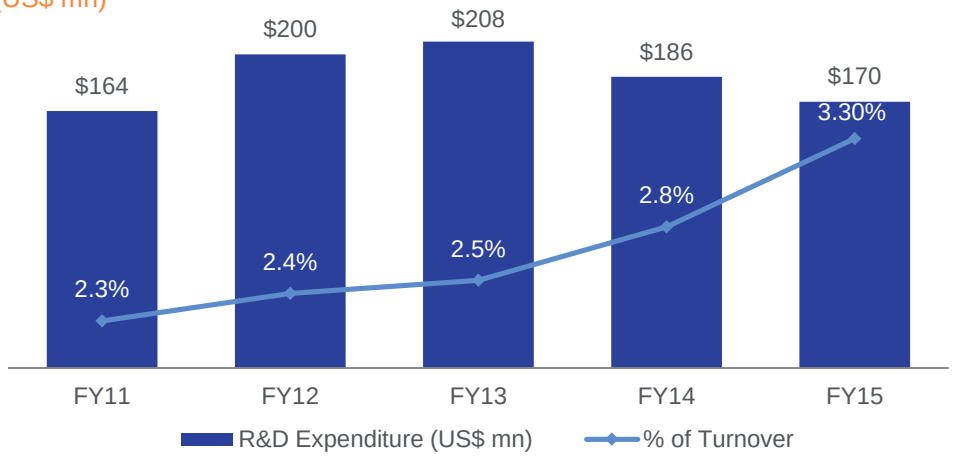
Source: Company data and Stock exchange filings. FX: INR/US$: 60.

Maharatna Company

5 Continuous Focus on R&D

High Spend on R&D

(US$ mn)

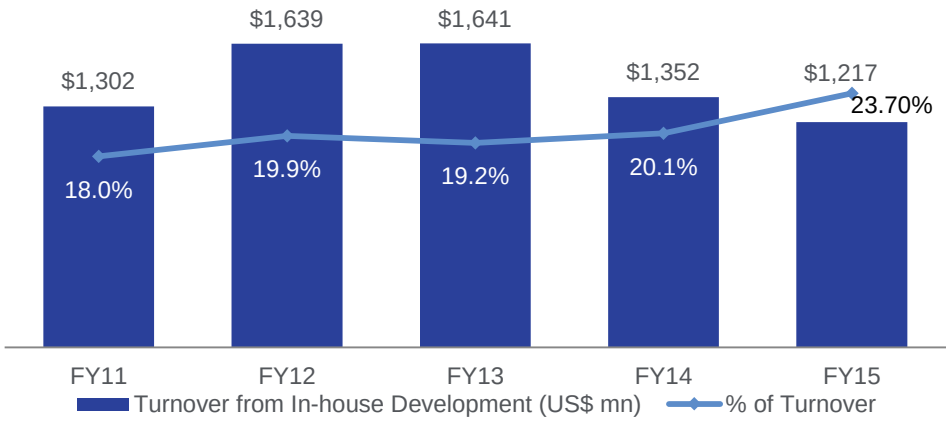


Recent Product Development

- Developing India's first coal fired Advanced Ultra Supercritical (AUSC) power plant technology with NTPC and IGCAR
- Super critical boiler with an ability to switch 100% indigenous / imported coal
- Indigenously developed and commercialised Gas Insulated Switchgear (GIS) up to 400 kV
- 765 & 1200 KV UHVAC Transformer, Reactor developed.
- Transportation- Insulated-Gate Bipolar Transistor (IGBT) propulsion technology developed for Loco & ACEMU
- Sole supplier in world for 420 kN/320 kN porcelain insulators for ±800 kV HVDC lines
- Commissioning of 400kV Phase Shifting Transformers at Kothagudam
- STATCOM: Developed for Industrial and Grid Application
- 500 KW PCU for solar power generation

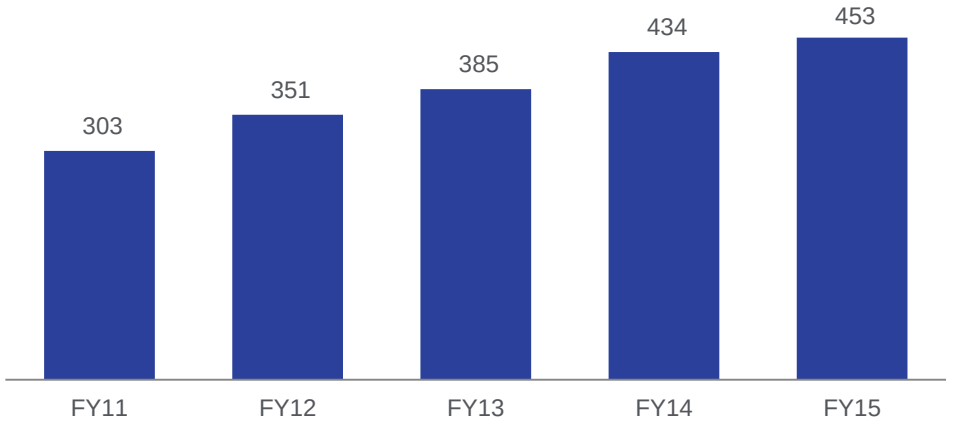
Turnover from In – House Development

(US$ mn)



Filing of Patents and Copy Rights

(Total Filings: 3042)[1]



Source: Company data and Stock exchange filings. FX: INR/US$: 60.
Note: (1) As of March 31, 2015.

5 Technology – Acquiring "Know – How" and "Know – Why" Capabilities

Building Indigenous Technology Capabilities

- Started with technology support from Global OEMs and developed indigenous capabilities
- Capability to design product to customer specs
- Better understanding of Indian coals
- New developments in recent years:
  - Introduction of 100 MW, 150 – 250 MW, 270 MW, 300 MW, 525 MW, 600 MW, 660 MW, 700 MW, and 800 MW sets
  - IGCC development
  - IGBT based technology in Transportation segment
  - Nuclear sets of 240 MWe, 540 MWe, 700 MWe
  - 765 & 1200 kV UHVAC Transformer and Reactors
- Offering Fuel Flexible supercritical boilers (Indian/ Imported Coal)
- Currently developing India's first coal fired Adv. Ultra Supercritical (AUSC) power plant technology with IGCAR & NTPC

Ongoing Partnerships with Leading Technology Partners

Mitsubishi Heavy Industries, Japan	Pumps, Flue Gas Desulphurization (FGD) system
Alstom, France	Once through Boilers
General Electric, United States of America	Gas turbines
Siemens, Germany	Steam Turbines, TG, Axial/lateral condensers
Oto Melara, Italy	76 mm SRGMs
Sheffield Forge – Masters, United Kingdom	Forgings
Metso, Finland	C&I Automation platform
Nuovo Pignone, Italy	Centrifugal Compressors
Vogt Power International, United States of America	HRSG
General Electric Industrial, India	Water Treatment Equipment
TLT GmbH, Germany	Fans

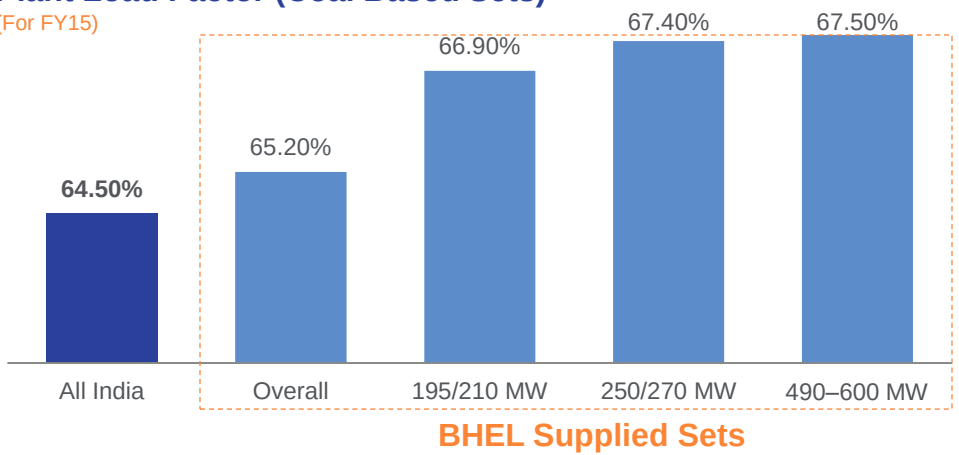
Source: Company data and Stock exchange filings.

6 Quality Performance Standards from BHEL Sets

Superior Performance from BHEL Sets in Indian Market

Plant Load Factor (Coal Based Sets) (1)

(For FY15)

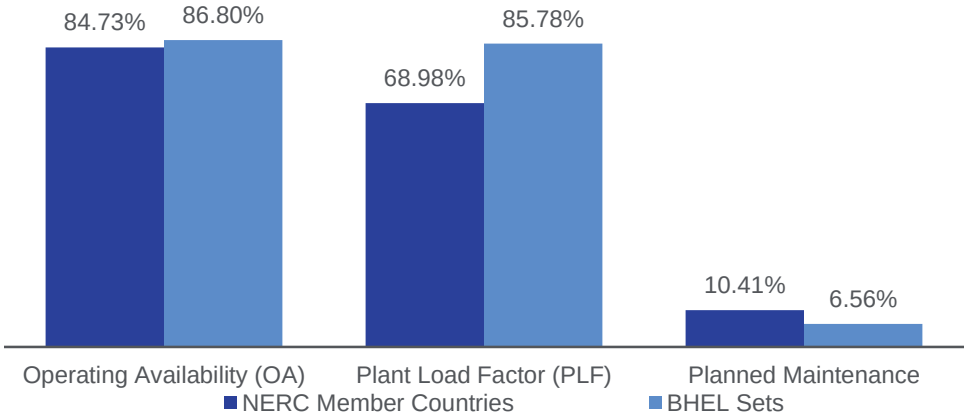


Key Achievements in FY15

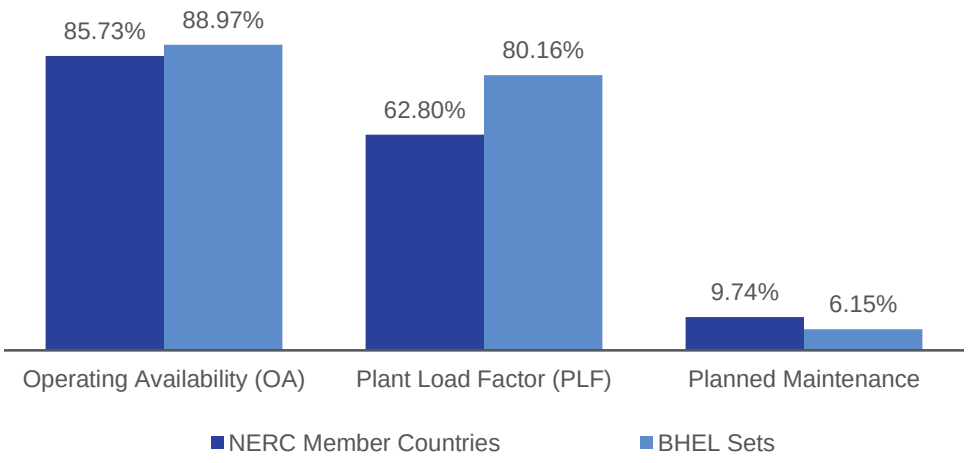
- ✓ 178 BHEL supplied coal based sets achieved PLF of over 70%
  - 27 sets registered PLF of over 90% and 76 sets achieved PLF between 80% - 90%
- ✓ BHEL supplied Nuclear sets registered an OA of 92.3 % and PLF of 83.7 %
  - 12 sets clocked uninterrupted operation for more than 90 days
- ✓ 192 BHEL supplied coal based sets clocked uninterrupted operation of more than 90 days during the year
  - 27 sets continuously operated for more than 200 days and 67 sets operated twice continuously for more than 90 days
- ✓ 181 BHEL coal based sets achieved OA higher than 90%

BHEL Supplied Power Plant Equipment Exhibit World Class Performance

Performance of 400–599MW Sets (2) (3)



Performance of 200–299MW Sets (2) (3)



Source: (1) CEA and Company data.
(2) North American Electric Reliability Council (NERC) 2013. NERC Member Countries include North America, Canada and Europe Part.
(3) Average performance of thermal sets during 2007 – 2011.

7 Long Standing Relationships with Sector Leaders

Power Sector

- DB Power Ltd.
- Jindal Steel and Power Ltd.
- Karnataka Power Corporation Ltd. (KPCL)
- Lalitpur Power Generation Company Limited (LPGCL)
- National Hydro Power Corporation Ltd.
- National Thermal Power Corporation (NTPC)
- Nuclear Power Corporation of India Ltd. (NPCIL)
- Orissa Power Generation Corporation Ltd. (OPGC)
- Rajasthan Rajya Vidyut Utpadan Nigam Ltd.(RRVUNL)
- RattanIndia Power Ltd.
- Singareni Collieries Company Ltd. (SCCL)
- Tamil Nadu Generation and Distribution Corporation Ltd. (TANGEDCO)
- Tata Power Company Ltd.
- Telangana Power Generation Corporation Ltd. (TSGENCO)

Industry Sector

- GAIL (India) Ltd.
- Hindalco Industries
- Indian Oil Corporation Ltd. (IOCL)
- Indian Railways
- National Aluminium Company Ltd. (NALCO)
- NTPC Ltd.
- Oil & Natural Gas Corporation Ltd. (ONGC)
- Oil India Ltd. (OIL)
- Power Grid Corporation of India Ltd. (PGCIL)
- Rashtriya Ispat Nigam Ltd. (RINL)
- Sesa Sterlite Ltd (a Vedanta Group company)

International Operations

Bhutan	Punatsangchhu Hydroelectric Project Authority Mangdechhu Hydroelectric Project Authority (MHPA)
Libya	General Electricity Company of Libya (GECOL)
Oman	Petroleum Development Oman (PDO)
Rwanda	Minister of Infrastructure (MININFRA)
Nigeria	Government of Cross River State
Senegal	Compagnie d'Electricite due Senegal
Yemen	Public Electricity Corporation, Ministry of Electricity & Energy

Source: Company data. Major customers in recent past.

7 Global Presence

References in 77 countries across all six continents of the world and Offices in 6 countries

- ✓ **First large turnkey project export** by Indian co. – **Libya** (1977)
- ✓ Consistent Performance – **16,916 MW contracted**
- ✓ Executing 24 Contracts in 16 Countries valued over US$ 2.5 bn
- ✓ Contracted Power Plant Equipment around 17,000 MW
- ✓ BHEL's major contributions –
  - **Bhutan** (4,356 MW/ 98%)
  - **Iraq** (1,838 MW/ 14%)
  - **Oman** (1,124 MW/ 30%)
  - **Libya** (1,174 MW/ 15%)

Source: Company data and Stock exchange filings.
Note: Map not marked to scale.

8 Strong Management and Government of India Support

Best in Class Management Team in Place

B Prasada Rao
Chairman & MD

- Mr. Rao has 37 years of experience across Production, Erection & Commissioning, Commercial, Corporate Planning & Development
- Qualification: BE (Mechanical), College of Engg. Kakinada; PG Diploma (Industrial Engineering) NITIE

R Krishnan
Director (HR)

- Mr. Krishnan has 38 years of experience across major functions including Engg., Production, Central Planning, R&D & Human Resources
- Qualification: BE (Electrical & Electronics) REC Trichy; PG Diploma (Heavy Electrical Equipment)

W V K Krishna Shankar
Director (Industrial Systems & Products)

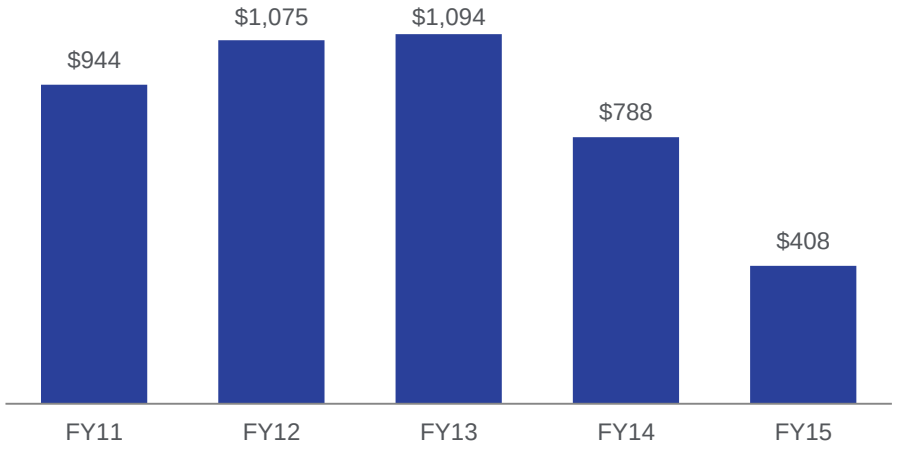
- Mr. Shankar has 38 years of experience across Project Planning, Monitoring, Captive power plant & Defence business, Corporate Planning and Investor Relations
- Qualification: BE (Mechanical), Visveswarayya College of Engineering, Bangalore; Diploma in Management (AIMA)

Atul Sobti
Director (Power & Finance)

- Mr. Sobti has 34 years experience across Marketing, Project Management, Operations, Corporate Planning, Capital Investment, and Project Engineering & Systems Development
- Qualification: BE (Mechanical), MNRE Allahabad; Diploma in Project Management; PG Diploma (International Management) IMI

Strong GoI Support

- Government of India owns 63.06% (1) stake in BHEL
- 2 Government nominee directors
- Significant and consistent contribution to exchequer (US$ mn) (2)



Awarded 'Maharatna' Status in 2013

Numerous Awards & Recognition

Source: Company data. FX: INR/US$: 60.
Note: (1) As on March 2015.
(2) Includes all direct taxes and dividends.

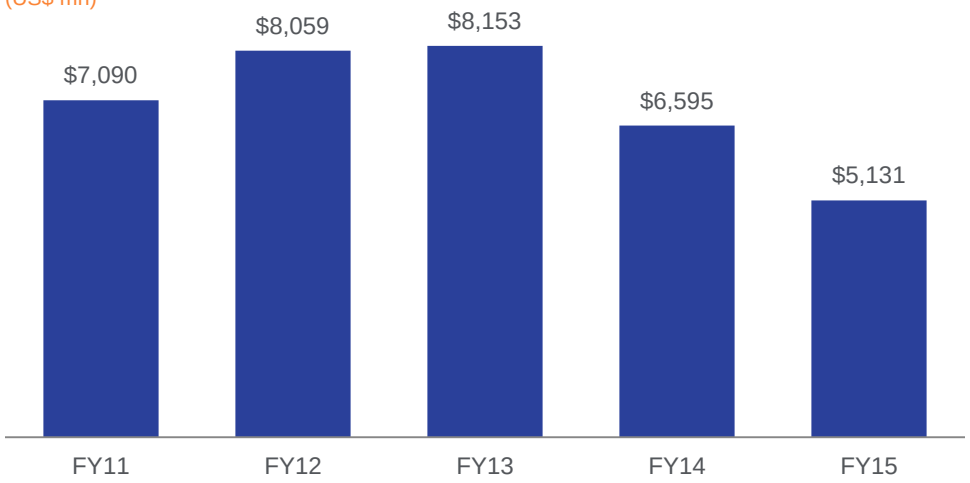
Maharatna Company

3. Financial Profile

Financial Performance

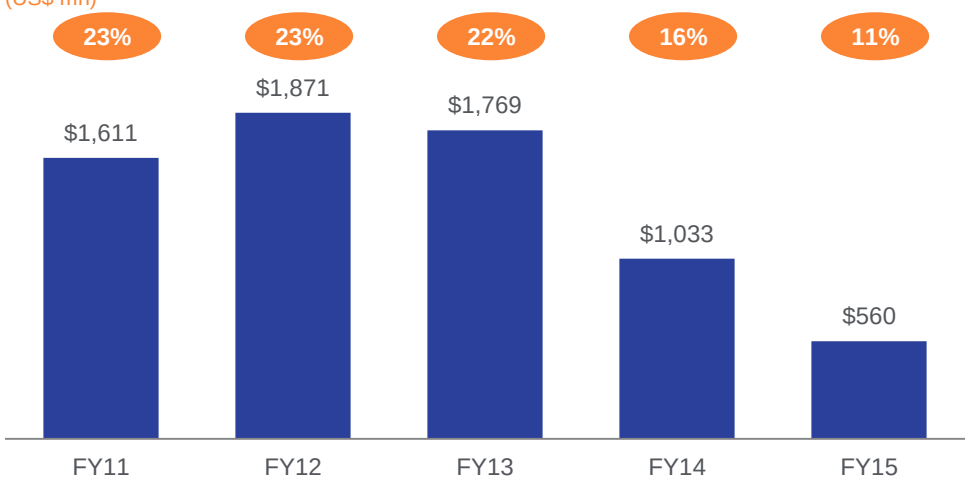
Total Revenues[1]

(US$ mn)



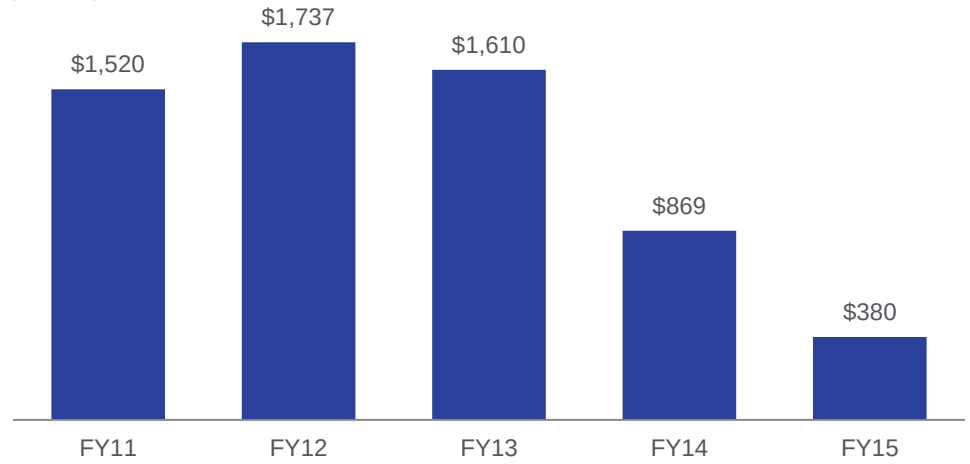
EBITDA and EBITDA Margin[2]

(US$ mn)



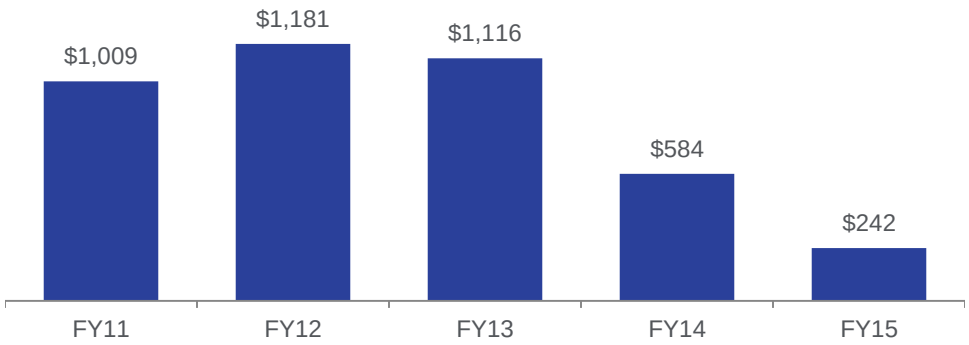
EBIT[3]

(US$ mn)



Net Income

(US$ mn)



Source: Company data and Stock exchange filings. Financials are on consolidated basis. FX: INR/US$: 60.

Notes: (1) Total Revenues = Net Revenue from Operations + Other Operational Income.

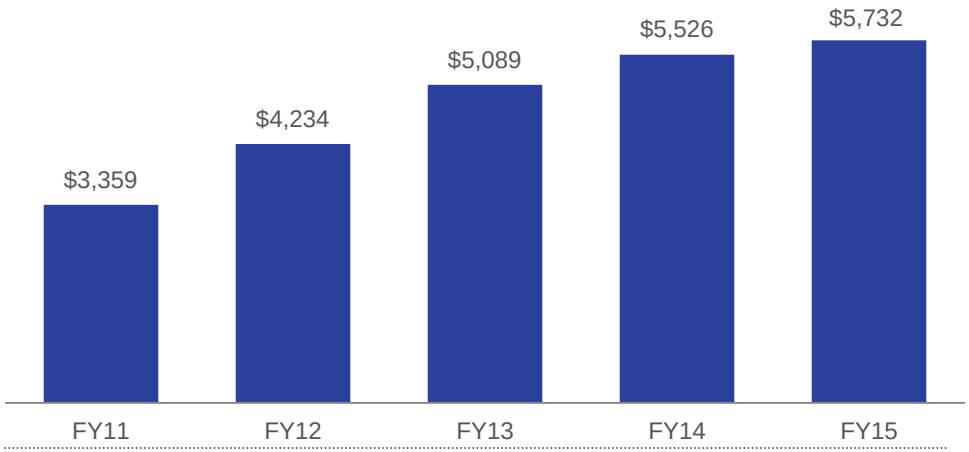
(2) EBITDA = Profit before charging Interest cost, Tax & Depreciation.

(3) EBIT = Profit before charging Interest cost & Tax.

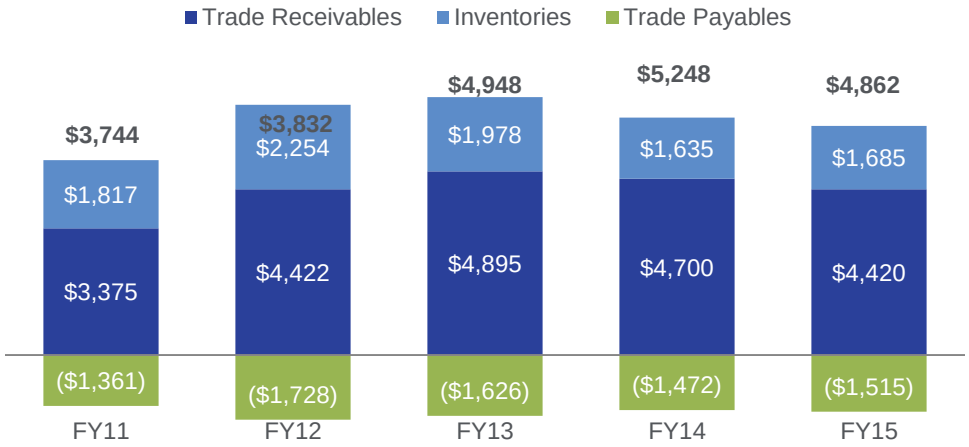
Maharatna Company

Strong Balance Sheet

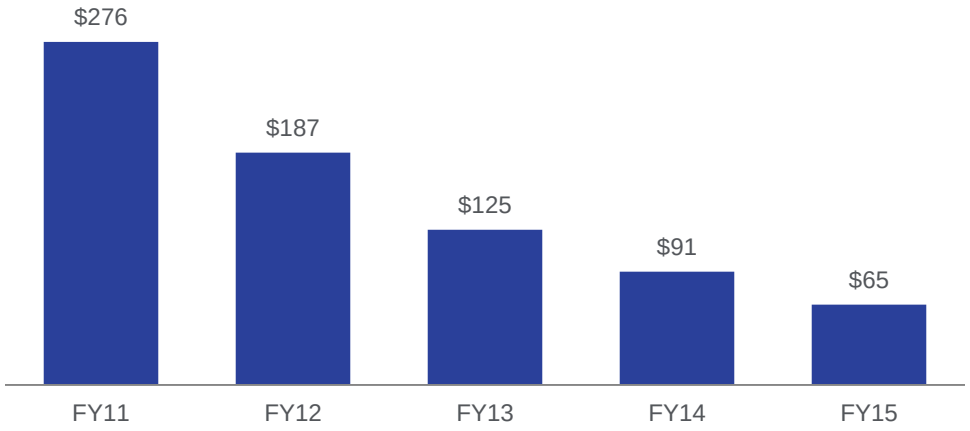
Total Equity
(US$ mn)



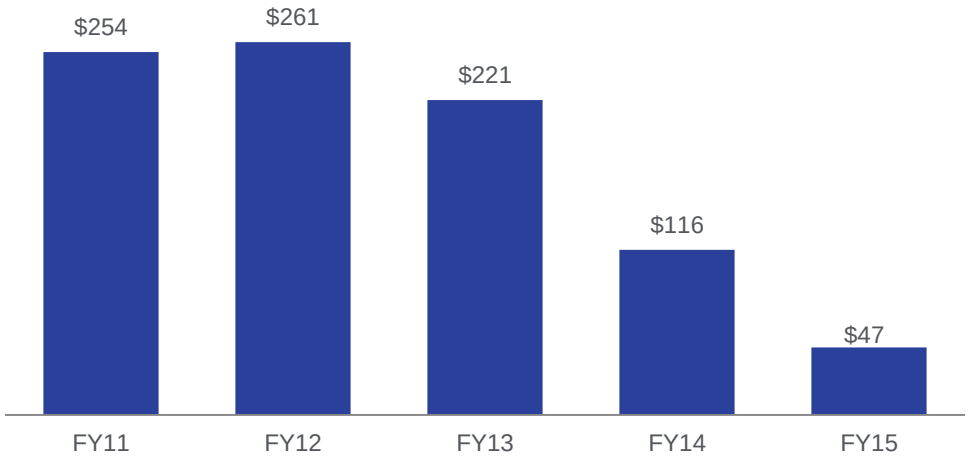
Working Capital(1)
(US$ mn)



Capex
(US$ mn)



Dividend Paid
(US$ mn)



Source: Company data and Stock exchange filings. Financials are on consolidated basis. FX: INR/US$: 60.
Note: (1) Working Capital calculated as Inventories + Trade Receivables – Trade Payables.

4. Key Risks

Key Risks

- **Delayed Resolution of Issues Plaguing Large Infrastructure Projects including Power Sector in India**
- **Suboptimal Order Book due to Increasing Domestic and International Competition**
- **Excess Domestic Manufacturing Capacities**
- **Low Projects Finalization**
- **Political Disturbances in Target Export Countries**

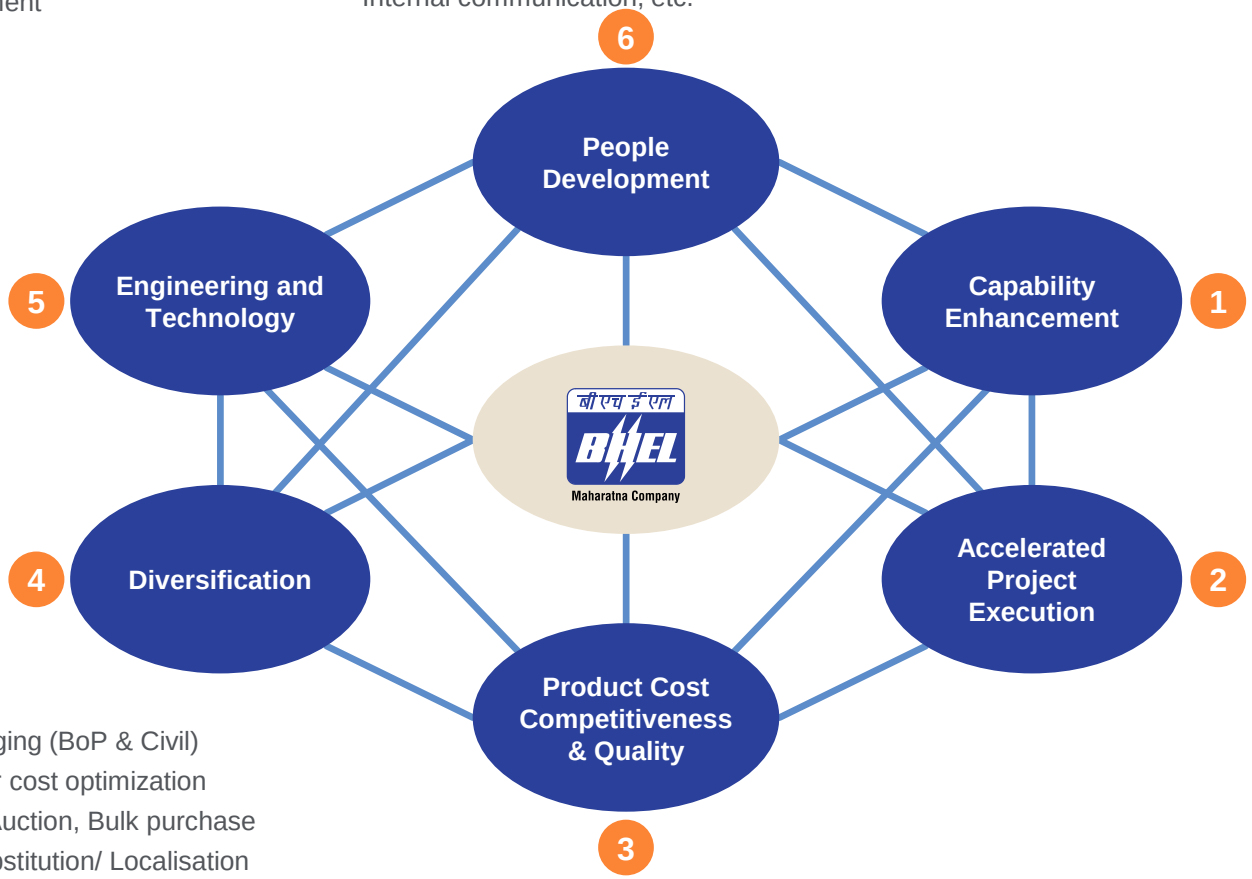
Appendix

A. Business Strategy

Business Strategy for Sustaining Growth: Six Point Agenda

- Employee engagement
- Managerial & Technical training
- Succession Planning
- Internal communication, etc.

- Knowledge Based Engineering
- Product Lifecycle Management
- Assimilation of SC/AUSC
- GIS, 765/1200 kV, FACTS
- High Temperature Superconducting drives
- Establishment of Center of Excellence



- EPC capabilities (Thermal, CPP, exports, Solar)
- Water management
- Solar PV manufacturing capacity expansion
- Loco/ Coaches/ Guns/ Nuclear manufacturing facilities

- Water Management
- Coaches/ High HP Locos/ High Speed Train/ Electric vehicles
- Defence equipment (submarines, guns, ARVT)
- Collaboration with business partners

- Supply Chain Agility
- Skill Enhancement
- Milestone focus
- Effective Site Management & Information Systems
- Debottlenecking of facilities

- De-packaging (BoP & Civil)
- Manpower cost optimization
- Reverse Auction, Bulk purchase
- Import substitution/ Localisation
- Design optimization; Standardization of equipment modules; Enhancing performance parameters
- 5S, TPIA, Automation, ZeD, QMER

Source: Company data.

Power Sector: Business Strategy and Initiatives

	Strategy	Select Initiatives
Thermal (Coal)	• **Increase contribution** • **Business Expansion** • **Enhance Competitiveness**	✓ Enhancing EPC business ✓ Exploiting full potential in Spares & Services area ✓ Partnerships with Power Plant Developers (including UMPPs) ✓ Offering debt financing for new projects in partnership with Financial Institutions ✓ Supercritical Technology – Reaching maximum level of localization – Introducing lower rating supercritical thermal sets – Development of Advanced Ultra Supercritical power equipment ✓ Introducing state-of-the-art CFBC technology suitable for wide range of fuels viz. pet-coke, lignite & washery-rejects etc. ✓ Technology development of major BoP Systems
Hydro	• **Portfolio Expansion** • **R&M**	✓ Single window services for Hydro R&M ✓ Graduate to 300MW Hydro sets ✓ Hydro Turbine Weights/Efficiency benchmarked to international levels
Nuclear	• **Indigenization** • **Entry into Core Nuclear area**	✓ C&I packages for BOPs ✓ Entry into Core Nuclear area: Drives for Sodium Coolant Pumps ✓ Developed indigenous capabilities up to 540MWe conventional island ✓ 700MWe Nuclear sets ✓ NPCIL-BHEL-Alstom JV as technology source, besides own technology
Gas	• **Consolidating Strengths**	✓ Focus on Services

Source: Company data.

Industry Sector: Business Strategy and Initiatives

	Strategy	Select Initiatives
Transmission	• **Product Development** • **Execution Experience**	✓ Commissioned indigenous 765kV substation connecting southern India with rest of India making it a national grid ✓ Executing ± 800kV, 6000MW UHVDC multi-terminal transmission system of PGCIL ✓ Indigenously developed 1200kV class Transformer & 765kV Transformers & Reactors ✓ Building capability for higher rating GIS
Transportation	• **Capacity & Capability Enhancement**	✓ Exploring setting up of an Electric Loco and Diesel Electric Loco Factory ✓ Exploring business opportunities in 'Urban Transportation' segment with Global OEMs ✓ Developed State-of-the-art 3-phase IGBT based propulsion system ✓ Over 80 sets of propulsion systems supplied for locos ✓ Signed MoU with Indian Railways to set up a green field coach factory for MEMU
Solar	• **Collaborative Growth** • **Capacity Expansion**	✓ Enhancing EPC capabilities- progressively up to 600 MW ✓ Plans to set up integrated manufacturing facility for 480 MW Solar PV systems ✓ Commercialization of indigenously developed 500 KW PCU
Water	• **Expanding Footprints** • **Consolidating Capabilities**	✓ Agreement with GE India Industrial Private Limited for membrane based water treatment equipment ✓ Ability to provide cost-effective membrane-based water treatment systems to industries
Defence	• **Product Development** • **Collaboration with Defence PSUs & global OEMs**	✓ Nominated as production agency for 127 mm Medium Calibre Gun & 30 mm Naval Gun ✓ Participating in development of indigenous submarine (P-75i) ✓ Developing Defence Products/Systems in association with DRDO; 1.5-2 MW Marine Gas Turbine, 450 kgf Small Turbo Fan Engine ✓ Exploring business opportunities with nominated agencies for Sub-system/ Components

Source: Company data.

Continually Improving Project Execution

Strategies and Initiatives

Cycle Time Reduction

- Increased focus on project specific value chain alignment
- 'Online Project Engineering Documentation Manager' for expeditious drawings / documents processing
- Focus on intermediate milestones of project execution
- Proactive actions for ODC movement / clearances

Site Capability Enhancement

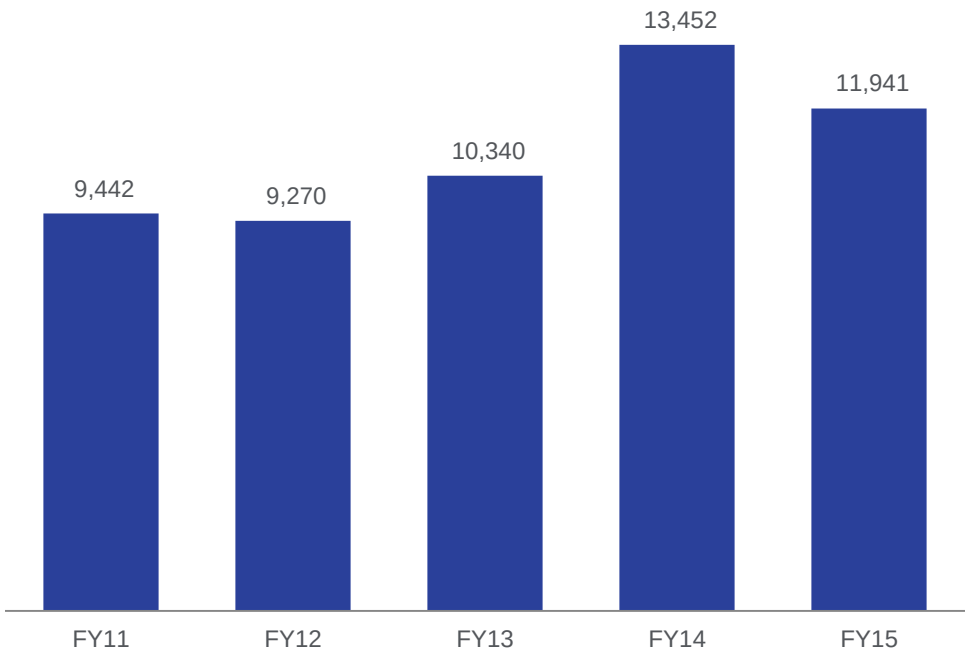
- Empowerment of site managers for faster decision making
- Heavy duty cranes: 52 nos., Strand Jacks: 2 nos., Induction Heating Machines: 217 nos. deployed additionally during last five years

Skill Enhancement

- 693 man days training for E&C of supercritical sets
- Leveraging Welding Research Institute Trichy to train high pressure welders
- Extensive training to act Apprentices & customers
- Skill enhancement of site working engineers by introducing system of training at door step

Projects Execution Performance

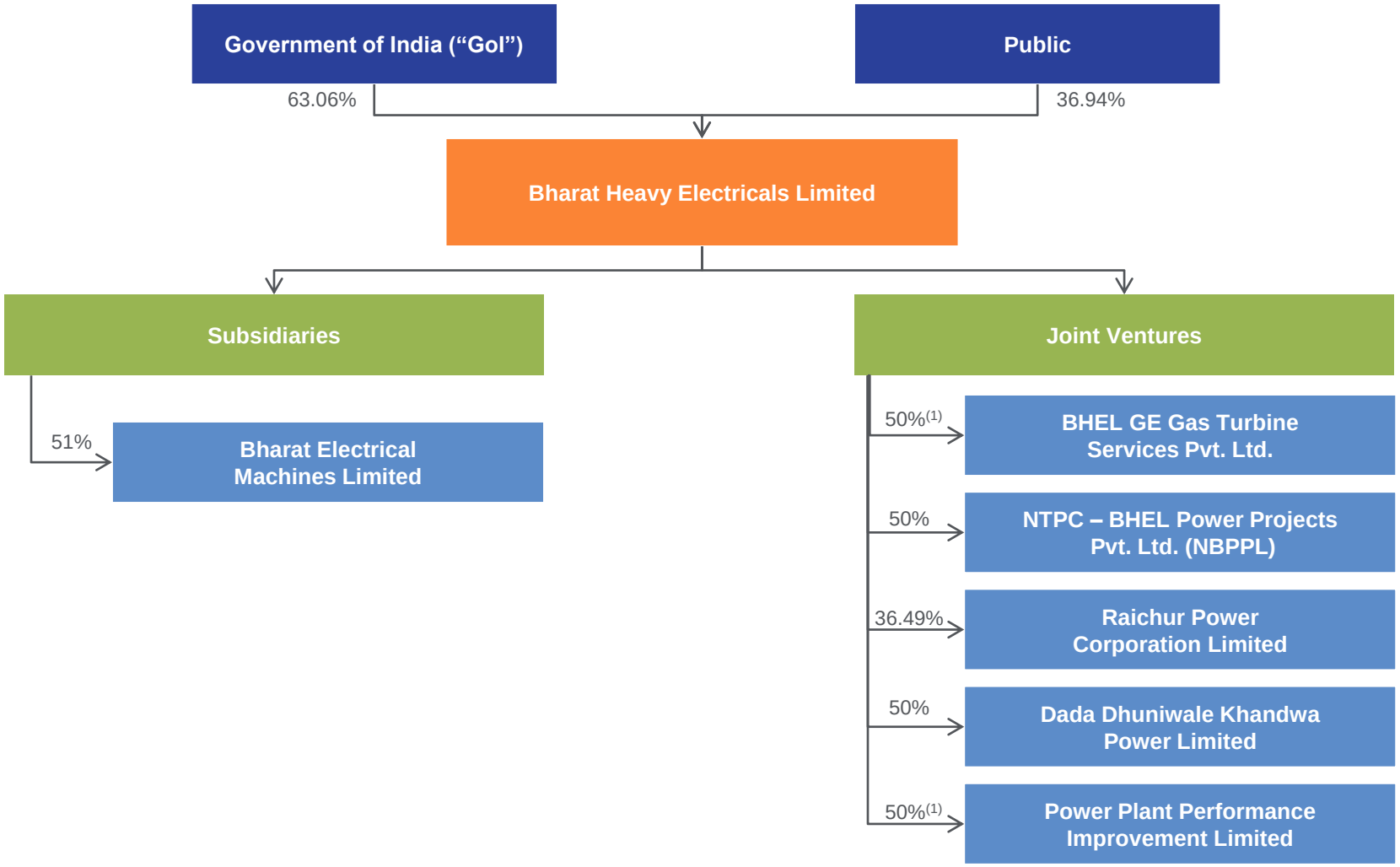
Commissioning/Synchronization (MW)



Source: Company data.

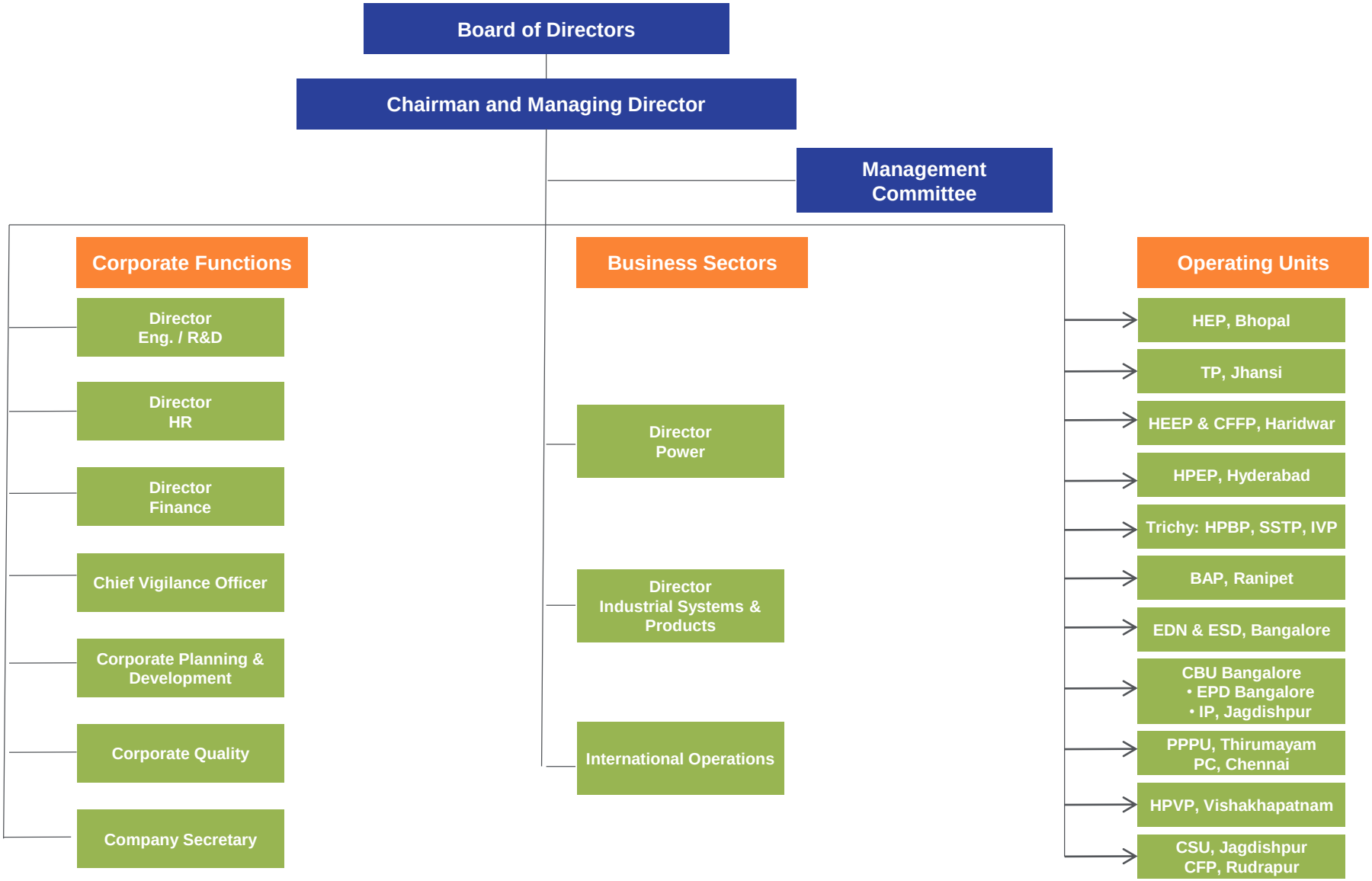
B. Others

JVs and Subsidiaries



Source: Company data.
Note: (1) One share less than 50%.

Organization Structure



Source: Company data.

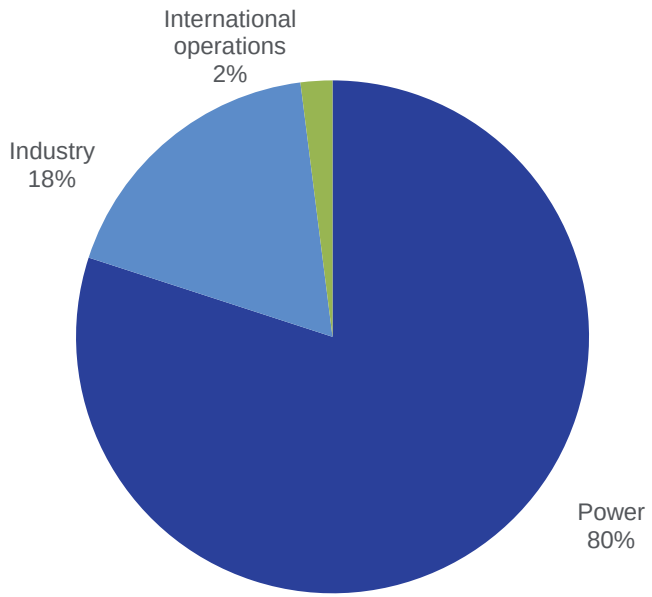
Standalone Financials

Unaudited Standalone Financials

Particular ($ mn)	FY14	FY15
Key Income Statement Items		
Total Revenue(1)	6,595	5,131
EBITDA(2)	1,033	560
% Margin	*16%*	*11%*
EBIT(3)	869	380
Net Income	584	242
% Margin	*8.8%*	*4.7%*
Outstanding Order Book	16,927	16,836

Break-up for Orders Received in FY15

(Total Orders Received in FY15: $5,135.7 mn)

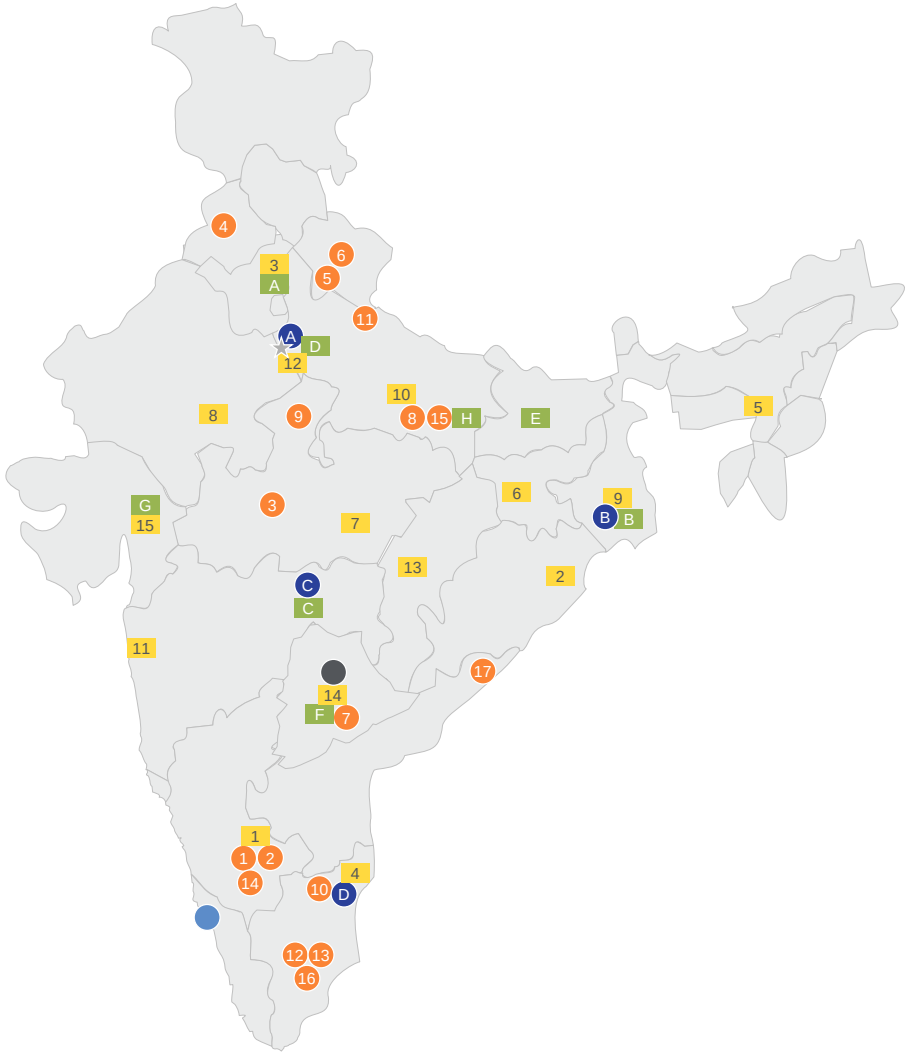


Source: Company data and Stock exchange filings. FX: INR/US$: 60.

Notes: (1) Total Revenue = Net Revenue from Operations + Other Operating Income.
(2) EBITDA = Profit before charging Interest cost, Tax & Depreciation.
(3) EBIT = Profit before charging Interest cost & Tax.

Pan India Presence

BHEL's Operational Footprint in India



Business Offices

1 Bangalore
2 Bhubaneswar
3 Chandigarh
4 Chennai
5 Guwahati
6 Ranchi
7 Jabalpur
8 Jaipur
9 Kolkata
10 Lucknow
11 Mumbai
12 New Delhi
13 Raipur
14 Secunderabad
15 Vadodara

Manufacturing Units

Bangalore
Bhopal
Goindwal
Haridwar
Hyderabad
Jagdishpur
Jhansi
Ranipet
Rudrapur
Tiruchirappalli
Thirumayam
Visakhapatnam

Service Centres

A Chandigarh
B Kolkata
C Nagpur
D Noida
E Patna
F Secunderabad
G Vadodara
H Varanasi

Regional Offices (Power Sector)

A Noida (Northern Region)
B Kolkata (Eastern Region)
C Nagpur (Western Region)
D Chennai (Southern Region)

Subsidiaries—Bhel Electrical Machines LTD., Kasaragod, Kerala

Corporate Office New Delhi

Corporate R&D Hyderabad

Source: Company data and Stock exchange filings.
Note: Map not marked to scale.

Glossary

Term	Description
AC	Alternate Current
ACEMU	Alternate Current Electric Multiple Unit
AT&C	Aggregate Technical and Commercial
AUSC	Advanced Ultra Supercritical
BAP	Boiler Auxiliaries Plant
BIDCO	Bajaj Infrastructure Development Company Limited
BoP	Balance of Plant
C&I	Control & Instrumentation
CBU	Ceramic Business Unit
CEA	Central Electricity Authority
CFBC	Circulating Fluidized Bed Combustion
CFFP	Central Foundry & Forge Plant
CFP	Component Fabrication Plant
CLW	Chittranjan Locomotive Works
CPP	Captive Power Plants
CPSE	Central Public Sector Enterprises
CRGO	Cold Rolled Grain Oriented
CSU	Centralized Stamping Unit
DC	Direct Current
DNH	Dadra and Nagar Haveli
DVC	Damodar Valley Corporation
E&C	Erection & Commissioning
EDN	Electronics Division
EHV	Extra High Voltage

Term	Description
EPC	Engineering, Procurement and Construction
EPD	Electro Porcelains Division
ESP	Electrostatic Precipitator
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEDCOL	Green Energy Development Corporation of Odisha
GETC	Gujarat Energy Transmission Corporation
GIS	Gas-insulated Switchgear
HEEP	Heavy Electricals Equipment Plant
HEP	Heavy Electrical Plant
HPBP	High Pressure Boiler Plant
HPV	Heavy Plates & Vessels
HVDC	High Voltage Direct Current
IGBT	Insulated Gate Bipolar Transistor
IGCAR	Indira Gandhi Centre for Atomic Research
IP	Insulator Plant
IPMS	Integrated Platform Management Systems
ISO	International Organization for Standardization
IVP	Industrial Valves Plant
KPCL	Karnataka Power Corporation Limited
LGBR	Load Generation Balance Report
MEMU	Mainline Electric Multiple Unit
MPL	Maithon Power Limited
MPPTCL	Madhya Pradesh Power Transmission Corporation Limited

Glossary (Contd.)

Term	Description
NCES	Non Conventional Energy Sources
NITIE	National Institute of Industrial Engineering
NLC	Neyveli Lignite Corporation
NMDC	National Mineral Development Corporation
NPCIL	Nuclear Power Corporation of India Limited
NTPC	National Thermal Power Corporation
OEM	Original Equipment Manufacturer
OPTCL	Odisha Power Transmission Corporation Limited
PGCIL	Power Grid Corporation of India Limited
PMG	Project Management Group
PPPU	Power Plant Piping Unit
PSU	Public Sector Undertaking
PV	Photo Voltaic
QMER	Quality Management Effectiveness Review
R&D	Research and Development
R&M	Renovation & Modernization
REC	Regional Engineering College
RRVPNL	Rajashtan Rajya Vidyut Prasaran Nigam Limited
SPV	Solar Photovoltaic
SSBG	Spares and Services Business Group
SSTP	Seamless Steel Tube Plant
STG	Steam Turbine Generator
TANGEDCO	Tamil Nadu Generation and Distribution Corporation Limited
TANTRANSCO	Tamil Nadu Transmission Corporation

Term	Description
TPIA	Third Party Inspection Agencies
TPP	Thermal Power Plant
TPS	Thermal Power Station
TSGENCO	Telangana State Power Generation Corporation Limited
UHCTC	Ultra High Capacity Transmission Corridor
UHV	Ultra High Voltage
UHVAC	Ultra High Voltage Alternating Current
UHVDC	Ultra High Voltage Direct Current
UMPP	Ultra Mega Power Projects
UPRVUNL	Uttar Pradesh Rajya Vidyut Utpadan Nigam
ZeD	Zero Defect