

RELIABLE PARTNER FOR COMPLETE POWER PLANT SOLUTIONS



Power Projects



Electrical Projects



Air Fin Cooler



Oil & Gas Equipment



Environmental Engineering

KEY MILESTONES



Established
1985 ➤ Promoted by
Mr. B.G. Raghupathy (BGR),
first generation entrepreneur

1998 ➤ Power Projects Division established

2006 ➤ Secured three large size BoP contracts for 500 MW
units at Vijaywada, Kakatiya and Kothagudem

2008 ➤ BGRENERGY Listed in both
National Stock Exchange (NSE) &
Bombay Stock Exchange (BSE)

2011 ➤ E-BoP Orders from NPCIL for 2 x 700 MW Nuclear
Power Plant at Kakrapar (Gujarat) and Kota
(Rajasthan)

1995 ➤ Air Fin Cooler Division established

2000 ➤ First Balance of Plant (BoP) contract for a
95 MW Combined Cycle Power Plant (CCPP)

2007 ➤ GEA Energy System (India) Ltd was renamed as
BGR ENERGY SYSTEMS LIMITED and Initial Public Offer

2008 ➤ Received two large Engineering, Procurement &
Construction (EPC) contracts of three 600 MW Units

2016 ➤ Received Three large Balance of Plant contracts for
two units of 800 MW and three units of 660 MW

GLOBAL BUSINESS PARTNERS



Joint Venture with

ENEXIO Germany GmbH
(Formerly GEA Energietechnik GmbH)

for Engineering, Procurement and
Construction (EPC) of Dry (ACC)
Cooling, and Wet (NDCT/IDCT)
Cooling System

License & Technology Transfer
Agreement with

Nooter/Eriksen, USA

for Design, Manufacture,
Installation & Commissioning of
Heat Recovery Steam Generator
(HRSG)

Technology Collaboration
& License Agreement with

TM.E. S.p.A
Termomeccanica
Ecologia, Italy

for Design, Manufacture Testing,
Installation, Commissioning and
Servicing of Condensate Polishing Unit
(CPU)

DOMAIN EXPERTISE PROJECT EXECUTION



Executing turnkey EPC & BoP contracts for Thermal Power Plants

'DESIGN AND BUILD' structure, where the entire Design & Engineering is done under one roof

Deep domain expertise in design, detailed engineering, manufacturing, installation, & commissioning; efficient & seamless interfacing of BoP systems with Boiler, Turbine & Generator

Expertise in civil and tall structures, mechanical, Electrical C&I works enables 'MADE TO FIT DESIGN' from proposal stage to delivery

TURNKEY EXECUTION EXPERTISE



Balance of Plant

- Civil, Electrical & Mechanical Systems
- Tall Structures – Chimneys & Cooling Towers
- Substation & Switchyard
- Plant Piping System
- Air Cooled Condenser
- Deaerator

- Air Fin Cooler
- Desalination Plant including RO System
- Condensate Polishing Plant
- Effluent Treatment Plant
- Demineralisation Plant
- Water Treatment Plant
- Ash Handling System

- Coal Handling Plant
- Gas Conditioning & Metering Skid
- Welded Fin Tubes
- Condenser Tube Cleaning System & Debris Filter
- Fire Protection System
- AC & Ventilation System
- Surface Condenser & Feedwater Heater
- Rubber Cleaning Balls for Condenser



TALLEST COOLING TOWER IN THE WORLD

- Natural Draft Cooling Tower - constructed at Kalisindh, Rajasthan, India for RRVUNL
- 202 m high structure
- Maximum diameter of 149.35 meters using reinforced concrete in hyperbolic shell.
- Designed to withstand wind velocity of 170 KM per hour.



LARGEST BOTTOM ASH HANDLING SYSTEM IN THE WORLD

- Installed in Mettur Stage-3, 1 x 600 MW Thermal Power Project
- Designed for the maximum demand for 77 tonnes/per hour (tph)
- The Crushed ash is pneumatically conveyed to ash silos nearly a kilometer away
- Huge saving in water to the extent of 2000 cubic meters/per day

PROJECTS PAN INDIA



KEY CUSTOMERS



NTPC Limited



Tamil Nadu
TANGEDCO



Odisha
OPGC



Andhra Pradesh
APGENCO



Maharashtra
MAHAGENCO



Chhattisgarh
CSPGCL



Rajasthan
RRVUNL



Uttar Pradesh
MUVNL



PROJECTS COMPLETED



CUSTOMER / PROJECT	Capacity (MW)	Fuel	Scope
TPCIL - Krishnapatnam, Andhra Pradesh.	2 x 660	Coal	BOP
RRVUNL - Kalisindh TPS, Rajasthan	2 x 600	Coal	EPC
TNEB - Mettur TPS, Tamil Nadu	1 x 600	Coal	EPC
MAHAGENCO - Chandrapur STPS, Maharashtra	2 x 500	Coal	BOP
CSPGCL - Marwa TPS, Chhattisgarh	2 x 500	Coal	BOP
APGENCO - Vijayawada TPS, Andhra Pradesh	1 x 500	Coal	BOP
APGENCO - Kakatiya TPS, Andhra Pradesh	1 x 500	Coal	BOP
MAHAGENCO - Khaperkheda TPS, Maharashtra	1 x 500	Coal	BOP

PROJECTS COMPLETED



CUSTOMER / PROJECT	Capacity (MW)	Fuel	Scope
APGENCO - Kothagudem TPS, Andhra Pradesh	1 x 500	Coal	BOP
TRN Energy Pvt Ltd, Nawapara, Chhattisgarh	2 x 300	Coal	EPC
RRVUNL - CCPP, Dholpur, Rajasthan	330	Gas	BOP
Aban Power - CCPP, Karuppur, Tamil Nadu	120	Gas	EPC
TNEB - CCPP, Valathur (Phase I), Tamil Nadu	95	Gas	BOP
TNEB - CCPP, Valathur (Phase II), Tamil Nadu	92	Gas	EPC
Madras Aluminium Company Limited Mettur	25	Coal	EPC
Aditya Cement CPP, Rajasthan	23	Coal	BOP

PROJECTS IN PROGRESS – POWER PROJECTS



CUSTOMER / PROJECT	Capacity (MW)	Fuel	Scope
Neyveli Uttar Pradesh Power Ltd – Ghatampur Thermal Power Project	3 x 660	Coal	BOP
TANGEDCO Ltd – North Chennai Thermal Power Project	1 x 800	Coal	BOP
APGENCO Ltd - Dr NTTPS, Vijayawada	1 x 800	Coal	BOP
NTPC Ltd. - Lara TPP, Chhattisgarh	2 x 800	Coal	STG
MUVNL Ltd. - Meja TPP, Uttar Pradesh	2 x 660	Coal	SG
NTPC Ltd. - Solapur TPP, Maharashtra	2 x 660	Coal	SG
OPGC - Banaharpalli STPP, Odisha	2 x 660	Coal	BOP

PROJECTS IN PROGRESS – WATER TREATMENT



CUSTOMER	PROJECT	CAPACITY
Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB)	Tertiary Treatment Reverse Osmosis Plant (TTRO) at Kodungaiyur, Chennai	45 MLD
Tata Projects Limited	Water Treatment Plant Package for 3 x 800 MW Krishnapatnam APPDCL Project	55 MLD

- Commenced operation in 2001
- Catering to the needs of Onshore and Offshore Customers

Products & Services

- 2/3 Phase Production/Test Separators
- Scrubbers, Filter Separators & Dry gas filters
- Indirect Water bath heaters
- Gas Gathering Systems
- Gas Conditioning, Regulating & Metering Systems
- Gas Compressor Packages
- Gas Dehydration & Sweetening Systems
- Heater -Treater & Oil -Desalters
- Storage Tanks
- Pipeline Equipment-Pig Launchers/ Receivers

EPC/ LSTK Services

- Oil & Gas Processing units
- Storage tanks & Tank Farm Projects
- Gas Gathering, Gas Compression and Oil Collecting Stations

User Industries

- Oil & Gas Companies- Onshore/ Offshore
- Oil & Gas Pipeline Transport Companies
- Refineries / Petrochemical Industry
- Power Plants- Gas/ Combined Cycle

Commenced operation in 2002

Products & Services

- Turnkey contracts for Transmission and Distribution (T&D) network
- EHV AIS Substations
- EHV GIS Substations
- Turnkey Contracts for Optical Fibre Communication Network – OPGW, ADSS & OLTE including Live Line Stringing.
- Electrical Balance of Plant for Thermal, & Hydro Power Projects
- Leading Provider of Electrical Balance of Plant Solutions for Nuclear Power Projects

Competency

- Proven In-house engineering capability for Nuclear plants.
- Strong in house team to plan and deliver under stringent Quality norms.
- Excellent Track record of Safe execution of Projects, as witnessed by successive awards from wide customer base.
- Versatile Project Management capability ISO 9000 certified.

- Commenced operation in 1995
- Market leader in India
- Certified by ASME with “U”, “U2” & “R” stamp
- Key markets -India, Middle East, Southeast Asia and North Africa

Products

- Air Cooled Heat Exchanger
- Water and Oil Cooler

Finned Tubes

- Extruded Fins
- Embedded Fins
- Knurled Fins
- Wrap on Fins
- Welded Fins

Header

- Cover plate Header
- Plug Header
- Pipe Header
- Welded Bonnet header
- Manifold

Services

- Turnkey supply of Air Cooled Heat Exchangers for
- Oil and Gas processes, Refinery, Steel, LNG, Petrochemical and Power sector Industries

User Industries

- Oil and Gas processes, Refinery, Steel, LNG, Petrochemical and Power sector Industries

Capability

- High Pressure air cooled heat exchanger
- Range of raw materials handled – like CS, SS, Duplex, Incolloy, Titanium & Clad
- Ability to engineer & manufacture to the most stringent requirement
- Supplied to both Onshore & Offshore application

- Commenced Operation in 1996
- Market Leader in Deaerators

Products & Services

- Deaerators
- Effluent Treatment & Recycling Plants leading to zero discharge.
- Water Treatment Plants (Pre-Treatment & DM Plant).
- RO based Desalination Plants.
- CPP –Condensate Polishing Plants.
- Municipal Water Treatment & Supply Systems.
- Common Effluent Treatment Plants.
- Sewage Tertiary Treatment Plants.

Highlights

- Supplied on turnkey basis the largest ever Deaerator in India for NPC (Tarapur) with capacity of 3,013 TPH.
- Commissioned-Deaerators for
- SIPAT Supercritical 3 x 660 MW Power Plant, NTPC.
- NPCIL TAPP 2x500 MW Power Plant.
- Exported Deaerators to Middle East, Indonesia, Malaysia, Nigeria, Philippines, Portugal, South Africa, Singapore & Egypt.

User Industries

- Power Projects
- Petrol Chemical
- Infrastructure
- Chemical & Other Industries

QUALITY CERTIFICATIONS AND ACCREDITATIONS



ISO Certification for
Power Projects
Division



Approved by
INDIAN BOILER REGULATIONS (IBR)



ASME 'U' Stamp for two
Manufacturing Units

ISO:9001 Certification for
three Manufacturing Units



ASME 'S' certification for one
Manufacturing Unit



14 Prestigious Awards for
Export Performance

BOARD OF DIRECTORS



S/N	Name	Occupation	Exp.	Designation
1	Mr. Gnana Rajasekaran	Retd. IAS	29	Independent Director
2	Mr. M. Gopalakrishna	Retd. IAS	55	Independent Director
3	Mr. S.A. Bohra	Ex. Sr. Exec. Director, Nuclear Power Corporation	50	Independent Director
4	Mr. S.R. Tagat	Practicing Chartered Accountant	35	Independent Director
5	Mrs. Swarnamugi R Karthik	Company Executive	14	Director – Corporate Strategy
6	Mr. Arjun Govind Raghupathy	Company Executive	9	Deputy Managing Director & COO
7	Mr. A. Swaminathan	Company Executive	37	Director – E & C
8	Mr. V.R. Mahadevan	Company Executive	33	Joint Managing Director
9	Mrs. Sasikala Raghupathy	Business	42	Chairperson

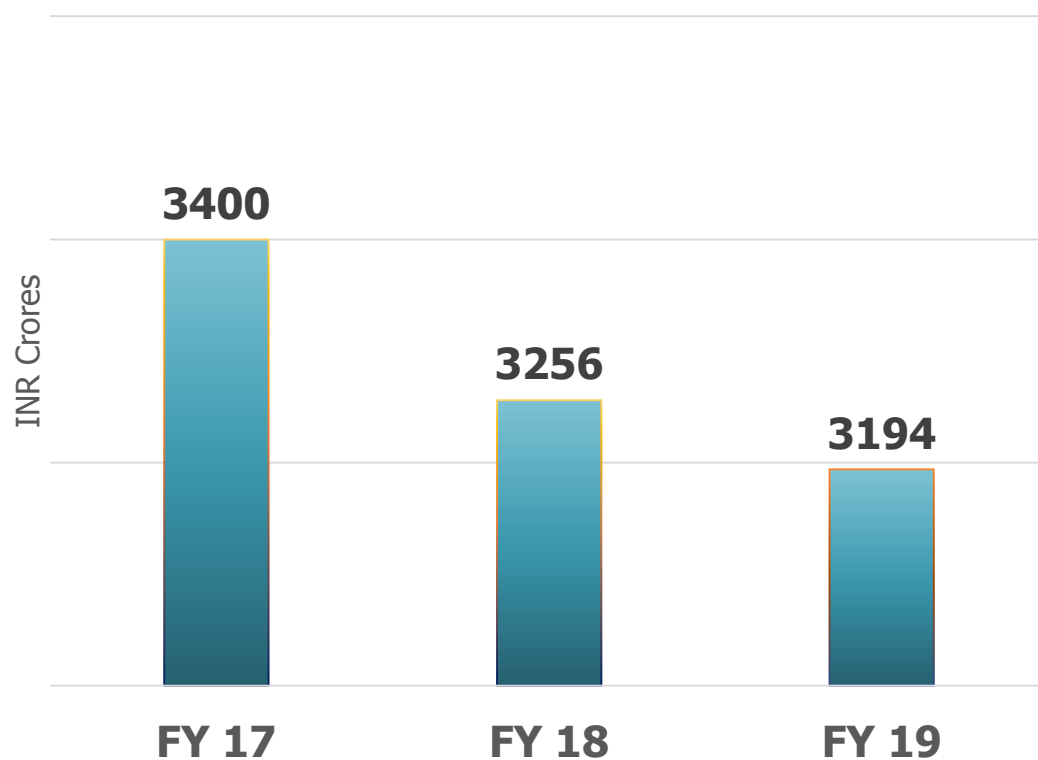
HUMAN RESOURCES



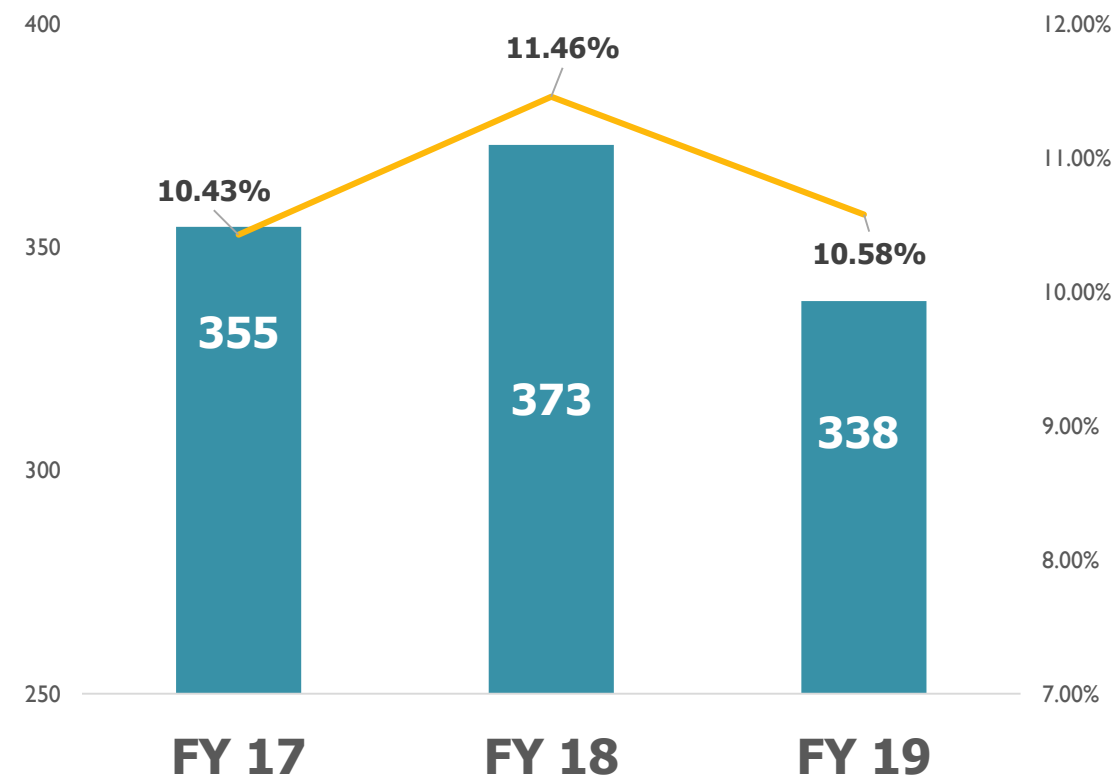
Department	Count
Design & Engineering	402
Procurement & Commercial, Project Management	377
Manufacturing, Construction Management & Quality Control	975
Business Development, Marketing & Proposals	58
Finance and Accounts, Human resource, Legal, Secretarial and other supported systems	198
Others	48
Total Employees (as on 31.03.2019)	2,056

	FY 2016-17		FY 2017-18		FY 2018-19	
	₹ Crores	%	₹ Crores	%	₹ Crores	%
TURNOVER	3400		3256		3194	
EBIDTA	355	10	373	11	338	11
P B T	68	2	82	3	41	1
P A T	44	1	40	1	28	1

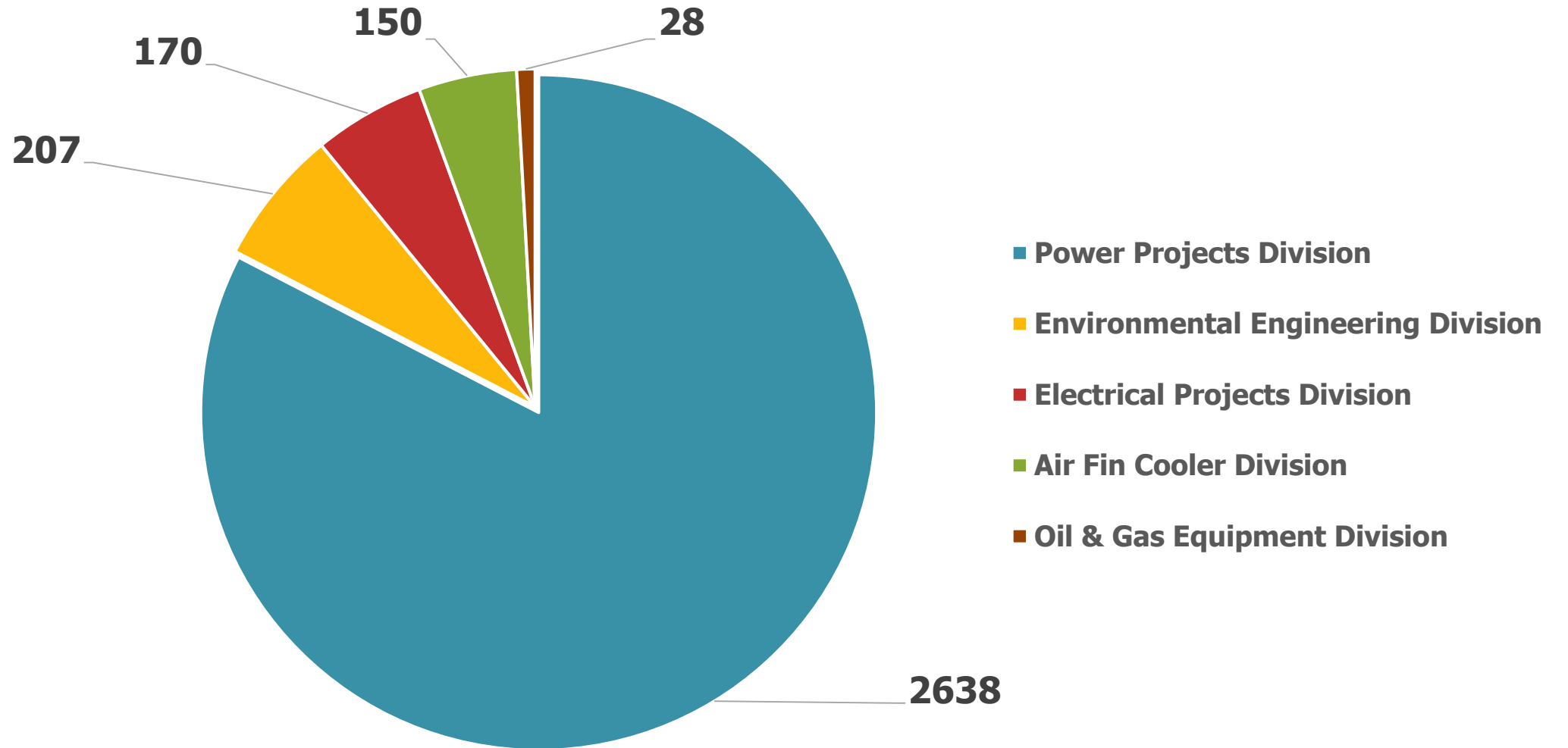
TOTAL REVENUES



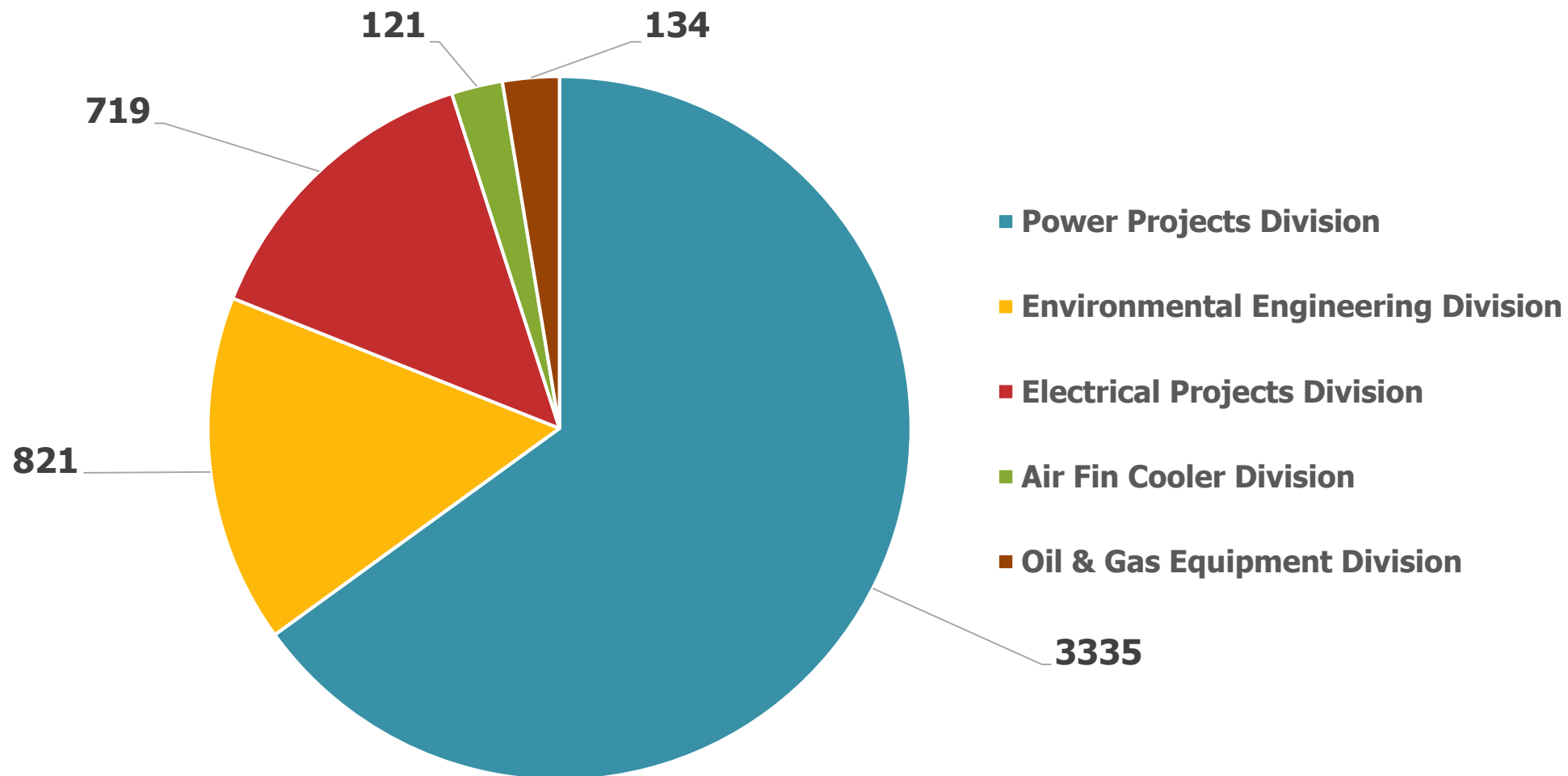
EBIDTA AND EBIDTA MARGIN



FINANCIALS REVENUE FY 2018-19



Total Revenue - ₹ 3,194 Crores



Total Order Backlog – ₹ 5,130 Crores
(As of 31st March, 2019)