



Engineering Energy...

– November 2008

Power Oil & Gas

**BGR ENERGY SERVES THE CORE SECTORS OF THE
INDIAN ECONOMY**

BGR Energy – A Snapshot

- ❑ **Promoted by Mr. B.G. Raghupathy (BGR) as a joint venture with GEA Energietechnik GmbH, Germany in 1985**
- ❑ **Business predominantly in two segments, viz.,**
 - Supply of systems and equipment; and
 - Turnkey engineering project contracting
- ❑ **Accreditations**
 - ISO:9001 Certification for three Manufacturing Units
 - ASME 'U' Stamp for two Manufacturing Units
 - ASME 'S' certification for one Manufacturing Unit
 - Approved by Indian Boiler Regulations (IBR)
- ❑ **Joint Venture and strategic alliances with multinational companies to cater to Power, Oil and Gas sectors**
- ❑ **Global operations – contracts executed in 45 countries**
- ❑ **Executed more than 130 contracts abroad**
- ❑ **Orders on hand – INR 105911 Million as on 1st November 2008**

Proven track record in design, engineering and project management capabilities across business divisions

- ❑ **Power Projects Division**
- ❑ **Oil & Gas Equipment Division**
- ❑ **Air Fin Cooler Division**
- ❑ **Electrical Projects Division**
- ❑ **Environmental Engineering Division**
- ❑ **Captive Power Division**

Group Companies

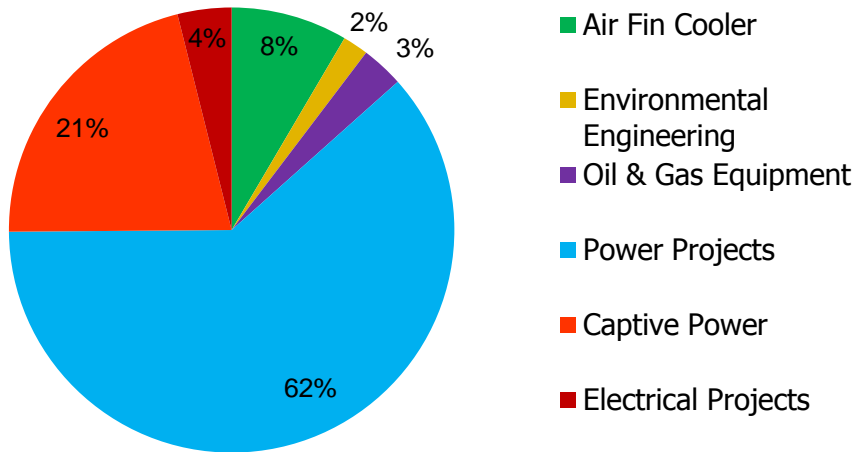
- ❑ **GEA BGR Energy System India Limited**
- ❑ **Progen Systems & Technologies Limited**

Joint Venture Company

- ❑ **GEA Cooling Tower Technologies (India) Pvt Ltd**

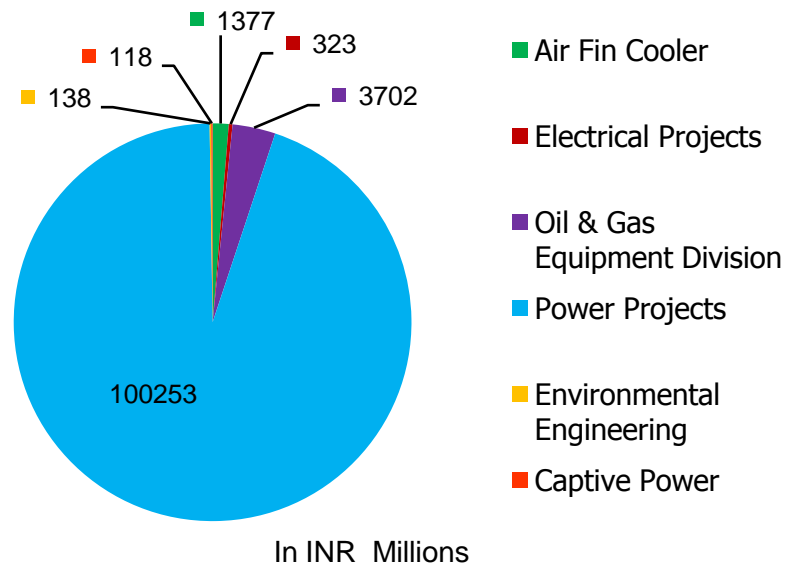
Business Divisions

Revenue break up for Year ended 31-March-08



Total Revenue – INR 15048 Million

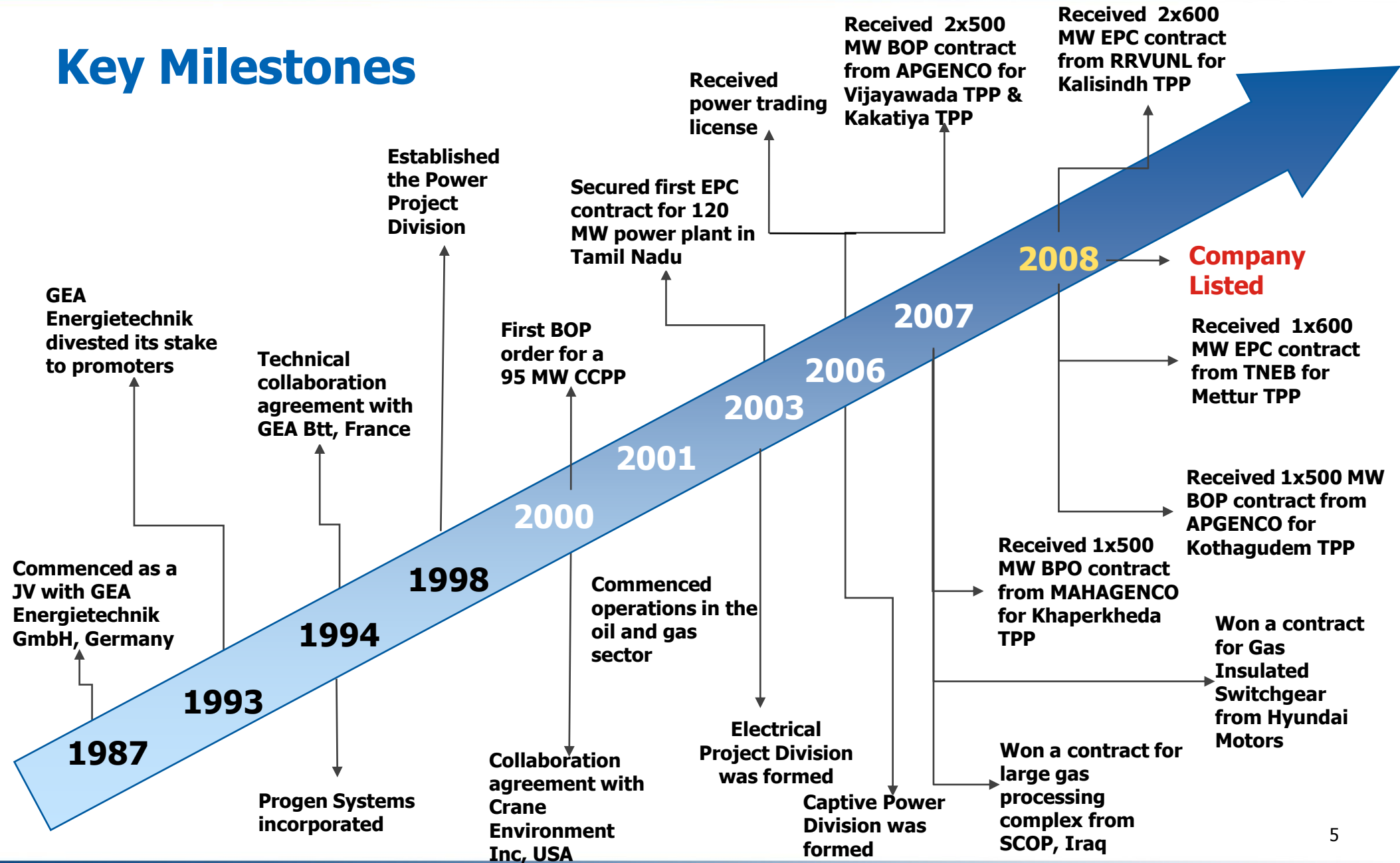
Order backlog as of 1st November 2008



In INR Millions

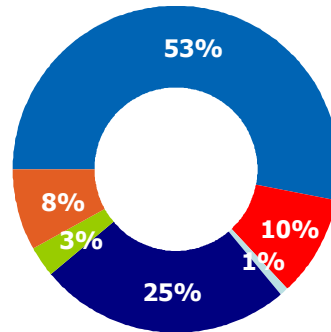
Total Order Backlog – INR 105911 Million

Key Milestones



Favorable Indian Industry Dynamics

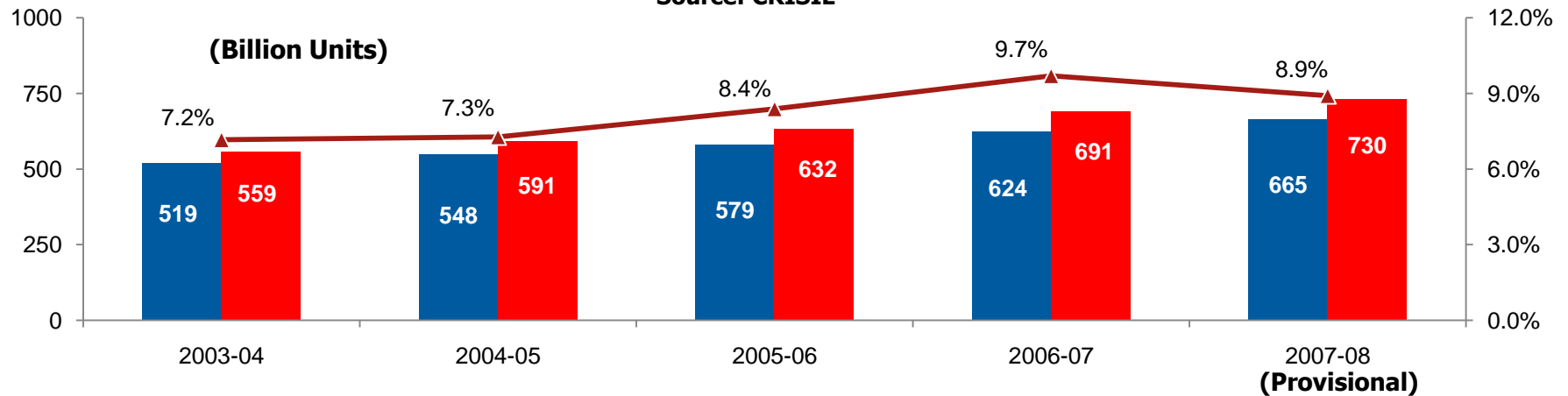
Total installed capacity – July 2008



■ Coal ■ Gas ■ Oil ■ Hydro ■ Nuclear ■ Renewable

Total – 135007MW

Source: CRISIL



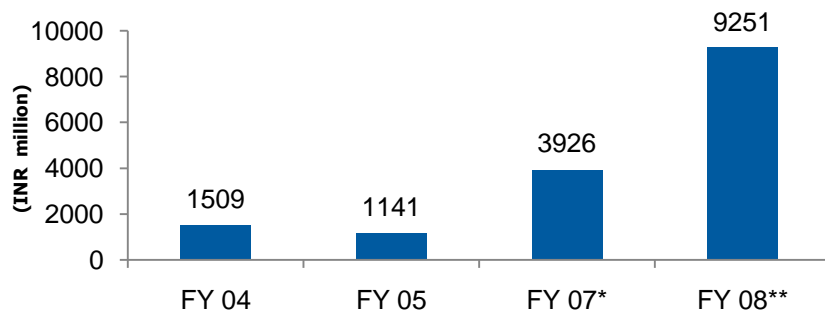
Source: CEA & Min of Power AR 2007-08

■ Power Supply ■ Power Demand —▲— % Deficit

Power Project Division



Total Income from Power Project Division



Note: * FY07 is 18 months period ended March '07;
** FY08 is 12 months period ended 31st March 08

- ❑ Turnkey Engineering, Procurement & Construction (EPC) and Balance of Plant (BOP) Contracting
- ❑ Only Company in India executing 4 BOP contracts for 500 MW unit
- ❑ Secured the perhaps the India's largest ever EPC contract for 2x600 MW power Project
- ❑ Early adopter of BOP concept in India
- ❑ Order backlog of Rs.100253 Million as of 1st November 2008
- ❑ Possesses in-house design and engineering capabilities, and employs them to optimize project costs leading to higher margins and timely delivery and completion
- ❑ 40 – 50% of 'Balance of Plant' systems manufactured in-house

POWER PROJECTS DIVISION - PROJECTS COMPLETED

PROJECT	FUEL	ORDER VALUE (Rs. In Million)	SCOPE
RRVUNL - 330 MW CCPP, Dholpur, Rajasthan	Gas	2095	Turnkey Engineering, Procurement & Construction of Balance of Plant including Civil Works
TNEB - 95 MW CCPP, Valathur, Tamil Nadu	Gas	594	
Grasim Industries - 23 MW CPP, Chittorgarh, Rajasthan	Coal	444	
Aban Power - 120 MW CCPP, Karuppur, Tamil Nadu	Gas	2697	Engineering Procurement and Construction of the Power Plant



**120 MW CCPP Aban
Power, Karuppur, Tamil Nadu**



**330 MW CCPP
RRVUNL, Dholpur, Rajasthan**



**23 MW CPP Grasim
Industries, Chittorgarh, Rajasthan**

POWER PROJECTS DIVISION - PROJECTS UNDER EXECUTION

PROJECT	CAPACITY	FUEL	ORDER VALUE (Rs. in Million)	SCOPE
RRVUNL - Kalisindh TPS, Rajasthan	2 x 600 MW	Coal	49000	Engineering Procurement and Construction of the Power Plant
TNEB - Mettur TPS, Tamil Nadu	1 x 600 MW	Coal	31000	
APGENCO - Kothagudem TPS, Andhra Pradesh	500 MW	Coal	7930	Turnkey Engineering, Procurement & construction of Balance of Plant, Including Civil Works
MAHAGENCO - Khaperkheda TPS, Maharashtra	500 MW	Coal	9,980	
APGENCO - Kakatiya TPS, Andhra Pradesh	500 MW	Coal	6,949	
APGENCO - Vijayawada TPS, Andhra Pradesh	500 MW	Coal	5,788	



Vijayawada Thermal Power Station (Under Construction)



Kakatiya Thermal Power Station (Under Construction)

Oil & Gas Equipment Division



**Gas Compressor Package
Jubail Oil Chemicals**



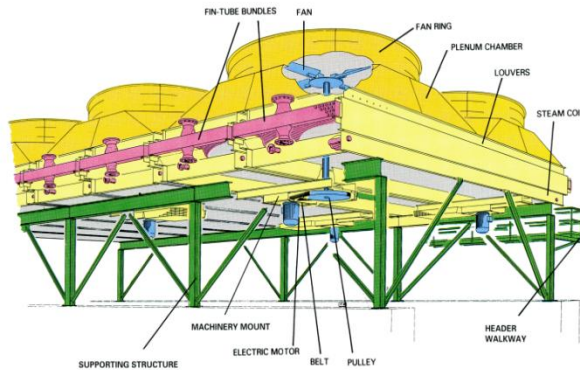
- **Products and turnkey services for the Oil & Gas industry, which includes**
 - **Gas Processing Packages**
 - **Pipeline Systems**
 - **Gas Conditioning & Metering Skid**
 - **Storage Tanks**
 - **Gas Compressor Package**
 - **Hydrogen Gas Compressors for Jubail Oil Chemicals, Saudi Arabia**
 - **Booster Compressor for TNEB, Valathur**
 - **CNG Compressors for Maulana & Sons, Sonergan, Bangladesh**
- **Order backlog of Rs. 3702 Million as of 1st November 2008**

Oil & Gas Equipment Division

- ❑ Received three export orders from the State Company for Oil Projects (SCOP) in Iraq for USD 104.90 Million
- ❑ Fixed and Floating roof storage tanks (API 650)

S/N	Customer	Scope	Value
1	KORMOR Gas Field Development Project, SCOP, Iraq	Engineering, Procurement & Supply of Gas Gathering Station	USD 76.6 Million
2	New Najaf Oil Product Depot and Refinery, SCOP, Iraq	Engineering, Procurement & Supply of Oil Storage Tanks	USD 19.0 Million
3	New Aumara Oil Products Depot, SCOP, Iraq	Design, Engineering, Manufacture and Supply of Oil Products Storage Tanks	USD 9.3 Million

Air Fin Cooler Division



Air Cooled Heat Exchanger



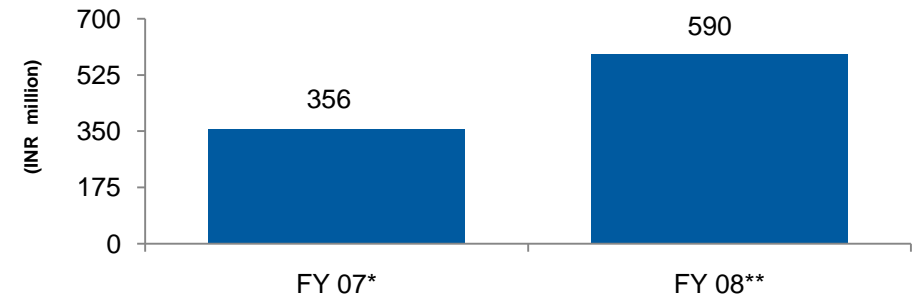
**Air Cooled Heat Exchanger, 120MW
CPP Karuppur, Tamil Nadu**

- ❑ **Turnkey supply of Air Cooled Heat Exchangers for oil & gas processes and power sector industries**
- ❑ **Capable of producing all three variations of finned tubes – embedded, extruded and welded finned tubes**
- ❑ **Certified by ASME with “U”, “U2” & “R” stamp**
- ❑ **Key markets are in India, the Middle East, Southeast Asia and North Africa**
- ❑ **List of clients include Samsung Engineering, Hyundai Heavy Industries, Reliance and L&T**
- ❑ **Turnover of Rs. 1274 Million for Year ended 31st March 2008**
- ❑ **Order backlog of Rs. 1377 Million as of 1st November 2008**

Electrical Projects Division

- ❑ Established in 2003 to undertake turnkey contracting for supply of Electrical Systems and Equipments for Power stations, Refineries and Petrochemical operations.
- ❑ Offering Turnkey solutions for:
 - EHV Substations
 - EHV Transmission Lines
 - Plant Electricals
 - Gas Insulated Switchgear Substations
 - Optical Fiber Communication Network
 - OPGW, ADSS & OLTE
 - Rural Electrification
- ❑ Electrical Balance of Plant for Thermal/ Hydro & Nuclear Power Projects
- ❑ Power Trading – Category 'F' Licensed
- ❑ Exclusive partnership with JZT provides turnkey solutions for OPGW communication networks
- ❑ Incorporation with leading manufacturers offers GIS Substations on case to case basis
- ❑ Order Backlog Position as on 1st November 2008 is Rs. 323 Million

Total Income from Electrical Projects Division



Note: * FY07 is 18 months period ended March '07;
** FY08 is 12 months period ended 31st March 08

ELECTRICAL PROJECTS DIVISION - PROJECTS UNDER EXECUTION

PROJECT	ORDER VALUE (Rs. in Million)	SCOPE
Nuclear Power Corporation of India (NPCIL) A/c BHAVINI, Kalpakkam	255	Design, Engineering, Supply Erection, Testing and Commissioning of Power Distribution Stem
Tamil Nadu Electricity Board	197	Design, Engineering, Supply Erection, Testing and Commissioning of Optical Power Ground Wire Cables (OPGW) and Optical Line Termination Equipments (OLTEs) and System Integration
Karnataka Power Transmission Corporation Limited	209	Supply & Erection on Partial Turnkey Basis, Including Civil Works pertaining to Substation & Associated transmission lines in Kolar & Rural Bangalore
Karnataka Power Transmission Corporation Limited	198	Supply & Erection on Partial Turnkey Basis, Including Civil Works pertaining Substation & Associated transmission lines in Kolar
VA Tech Hydro India Ltd - Teesta Low Dam III Hydro Electric Project, Siliguri, West Bengal	351	Design, Manufacture, Supply, Erection and Commissioning

ELECTRICAL PROJECTS DIVISION - PROJECTS COMPLETED

PROJECT	ORDER VALUE (Rs. in Million)	SCOPE
Jodhpur Vidyut Vitran Nigam Limited , Jodhpur	217	Supply, Erection, Testing and Commissioning of 11 KV line, LT Line & Substation
Indira Gandhi Centre for Atomic Research, Kalpakkam	8	Supply, Erection, Testing and Commissioning – Providing Bulk Power
Hyundai Heavy Industries Ltd, Chennai	15	Supply, Erection, Testing and Commissioning of 230/11 KV Gas Insulated Substation, LT Cables and Earth Slips

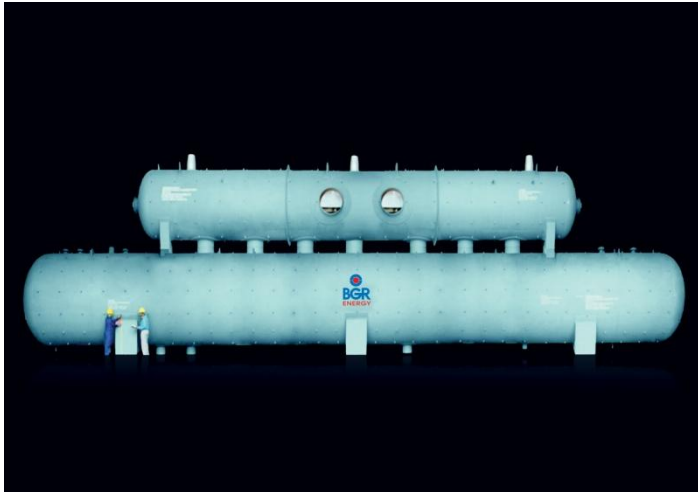


**95 MW CCPP
Substation, Valathur, Tamil Nadu**



**230/ 11kv Gas Insulated Substations
Substation, Hyundai , Chennai**

Environmental Engineering Division



Deaerator – National Power Corporation , Tarapur



Effluent Recycling Plant - Tiruppur

- ❑ **Product range includes:**
 - **Deaerators**
 - **Effluent Treatment & Recycling Plants leading to zero discharge**
 - **Water Treatment Plants (Pre-Treatment & DM Plant)**
 - **RO based Desalination Plants**
 - **CPU – Condensate Polishing Units**
- ❑ **Supplied on turnkey basis the largest ever Deaerator in India for NPC (Tarapur) with capacity of 3,013 TPH**
- ❑ **Presently executing Deaerators for Supercritical 3 x 660 MW NTPC, SIPAT Power Plant**
- ❑ **Six large-size Deaerators for Hyundai Heavy Industries, Korea for Marfiq, Saudi Arabia project under execution**
- ❑ **Sold over 90 Deaerators in India, Asia, Middle East and Africa, ranging in capacity from 10 TPH to 3,103 TPH**
- ❑ **Order backlog of Rs. 138 Million as of 1st November 2008**

Environmental Engineering Division

- ❑ **Four large-size Membrane-based Effluent Recycling Plants at Tiruppur on commissioning would be the largest in capacity in India**
- ❑ **Exclusive Licensee of M/s Termomechanica Ecologia (TME) Italy, offering state-of-the-art technology for Condensate Polishing Plants in India**
- ❑ **Incorporation with INIMA Servicios Europeos del Medio Ambiente, S.A offering complete solution for desalination systems**



CPU – Condensate Polishing Units



Effluent Treatment Plant – RO System Veerapandi

Captive Power Division



**MALCO Project, Mettur, Tamil Nadu
(Under construction)**

- ❑ **Established in 2006 to address the growing demand for industrial captive power plants and public utility projects in India up to 150 MW**
- ❑ **Executes Turnkey EPC contracts**
- ❑ **Captive Power Plants for industries like Steel, Cement, Textiles, Paper, Pharmacy, Refinery, Chemical, Petrochemical, Metallurgical etc**
- ❑ **Coal Based Power Plants, Combined Cycle Power Plants**
- ❑ **Contributed Rs. 3190 Million to the turnover for the year ended 31st March 2008**

Key Differentiators

- ❑ **Established in Product and Turnkey contract segments**
 - An Engineering Company dedicated to Power and Oil & Gas
 - Undertakes turnkey EPC projects for large Utility Power Plants
- ❑ **Diverse Design & Engineering capabilities**
 - Ability to Design & Manufacture customised products
 - In-house Design & Engineering gives control over costs, design and schedule
- ❑ **Diverse range of product and services**
 - Significant synergies through complementary operations
 - Ability to service both large and small scale projects
 - Project management policy & procedures enable execution of large, multifaceted, complex projects
 - Manufacturing capability is an added advantage in EPC projects
- ❑ **Cost Competitiveness**
 - Control costs by optimising product features and design
 - Global sourcing
- ❑ **Technology tie-ups**
 - Successfully tied up with several international companies to obtain technology know-how

In- House Bop Systems

1. Design & Engineering of Civil, Electrical and Mechanical Systems	9. Effluent Treatment Plant
2. Civil Works including	10. Demineralization Plant
a. Chimney	11. Gas Conditioning & Metering Skid
b. Natural and Induced Draft Cooling Towers	12. Fabrication of Columns & Structures
3. Substations and Switchyards	13. Welded Finned Tubes
4. Plant Piping System	14. Heat Recovery Steam Generators
5. Air Fin Coolers	15. On load Condenser Tube Cleaning System
6. Air Cooled Condensers	16. Debris Filter
7. Deaerators	17. Rubber Cleaning Balls for Condenser
8. Desalination Plants including RO Systems	

Strategy for Rapid Growth

Focus on large BOP contracts and EPC contracts

- ❑ **Utilize project management skills and in-house design & engineering capabilities to access the growing demand for power projects both in and around India**
- ❑ **Focus on competitiveness and obtain high profit margins with acceptable level of contractual risk**

Expansion of business & operations

- ❑ **Identify markets that provide cost and operational advantages to clients**
- ❑ **Synergistic acquisitions and joint ventures to expand operations**
- ❑ **Make the products truly global products with manufacturing facilities at China, Bahrain and capacity addition at existing units.**

Development of technological collaboration

- ❑ **Build technological capabilities to execute large, technically complex projects and services in Oil & Gas Industries**
- ❑ **Strategic alliances or consortia or joint venture relationships for specific projects with established International companies.**

Board of Directors

S/N	Name & Occupation	Age (Years)	Designation
1	Mr. B.G. Raghupathy Industrialist	56	Chairman & Managing Director
2	Mr. S. Rathinam Company Executive	58	Director (Finance)
3	Mr. V.R. Mahadevan Company Executive	49	Director (Technologies, HR & Infrastructure)
4	Mr. Heinrich Böhmer Business	72	Independent Director
5	Mr. M. Gopalakrishna, Retd. IAS Director-In-charge, Andhra Pradesh Gas Power Corporation Limited	69	Independent Director
6	Mr. S.A. Bohra Ex. Sr Exec. Director (Technical), Nuclear Power Corporation	64	Independent Director
7	Mr. S.R. Tagat Chartered Accountant	53	Independent Director
8	Mrs. Sasikala Raghupathy Business	52	Director

Leadership & Professional Management

- ❑ **The company is managed by a highly motivated team of professionals**
- ❑ **The Management of the company has broad experience in the industry**
 - **Average industry experience of the management is more than 25 years**

Name	Position	Industry Experience (Years)	Experience with BGR Energy
Mr. B.G. Raghupathy	Chairman & Managing Director	34	23
Mr. S. Rathinam	Director (Finance)	29	16
Mr. V.R. Mahadevan	Director (Technologies, HR & Infrastructure)	26	21
Mr. A. Swaminathan	President & CEO, Power Projects	29	11
Major H.L. Khajuria	President & CEO, Environmental Engineering	38	11
Mr. R. Ramesh Kumar	President, Corporate & Secretary	21	16
Mr. G. Suresh	President & CEO, Captive Power	23	20
Mr. V. Balakrishnan	President & CEO, Electrical Projects	26	5
Mr. S. Ilanchezhiyan	President & CEO, Air Fin Cooler	23	2
Mr. N. Murali	President & CEO, Oil & Gas Equipment	28	2
Mr. G.D. Sharma	President , Human Resource	29	
Mr. P.R. Easwar Kumar	Chief Financial Officer	16	15

Human Resources

S/N	Particulars	No. of Employees
	Total Employees	1212
1	Engineers	972
i	Design & Engineering	271
ii	Project Management & Quality Control	592
iii	Planning, Procurement and Production	75
iv	Marketing	34
2	Professional Staff	186
i	Finance and Accounts	92
ii	Human resource, Legal, Secretarial and Systems	94
3	Others	54

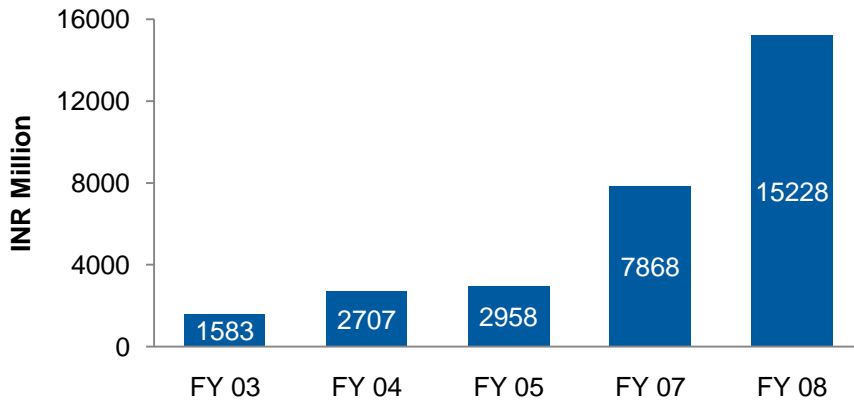
3 Years Financials – A Snapshot

INR Million

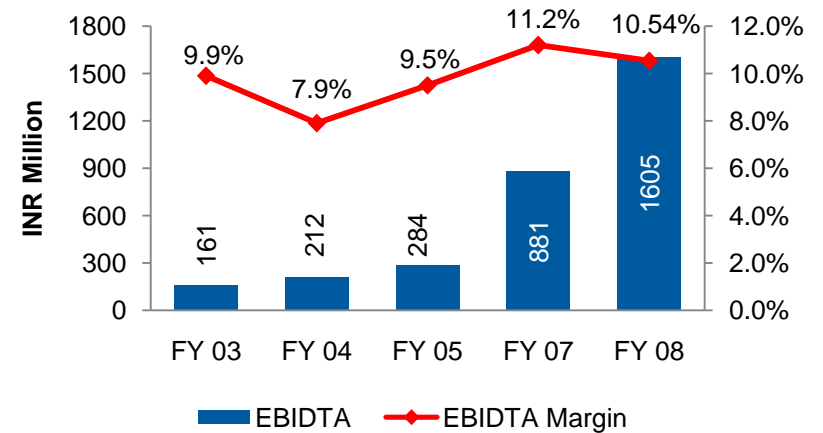
	Audited Year ending 30.09.2005 (12 months)	% age	Audited period ended 31.03.2007 (18 months)	% age	Audited Year ended 31.3.2008	% age
TURNOVER	2890	100	7751	100	15048	100
EBIDTA	272	9.41	860	11	1555	10.33
PBT	187	6.47	608	9.84	1252	8.32
PAT	132	4.56	392	5.05	844	5.60

Robust Financials

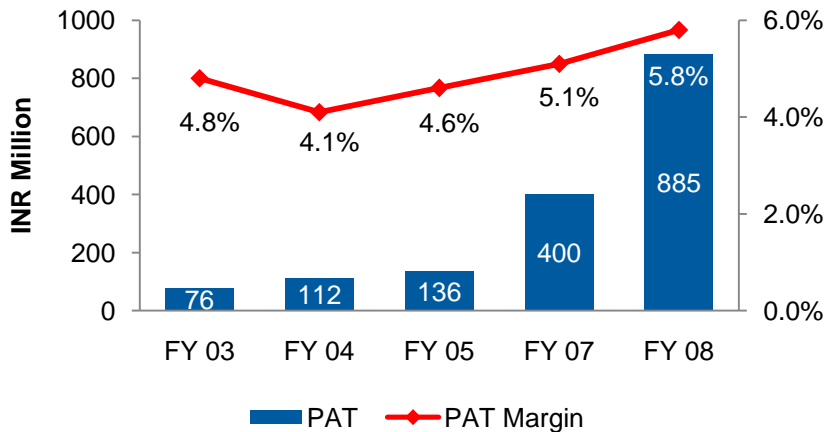
Total Revenues



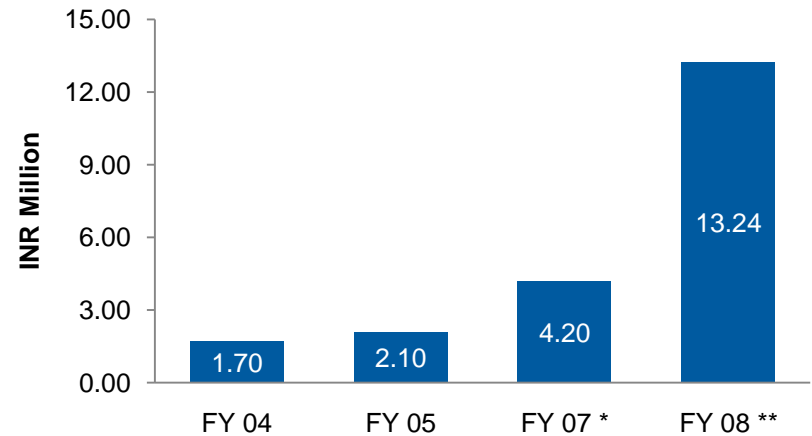
EBITDA and EBITDA margin



PAT and PAT margin



Earnings per share

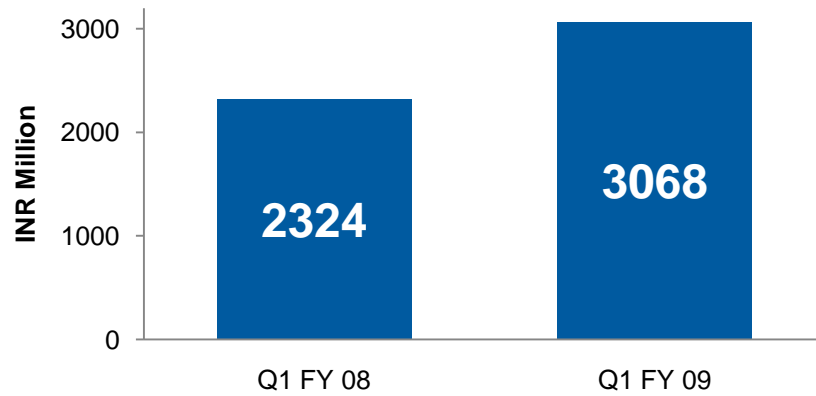


Note: * FY07 is 18 months period ending March '07; all other FY ends on September. **FY08 is 12 months period ended 31 March 08

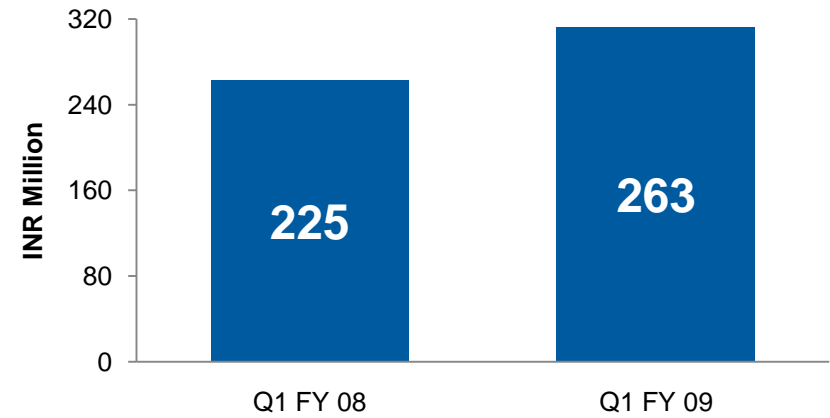
(1) Basic EPS based on consolidated restated financial statements. FY07 EPS figures are annualized

Financials – Q1 of 08-09

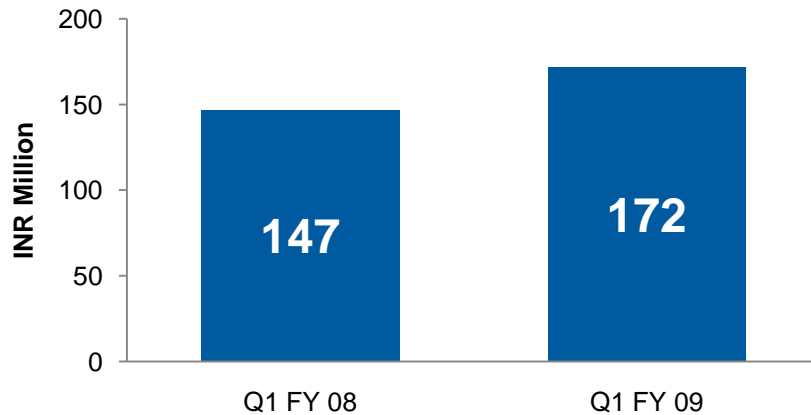
Total Revenues



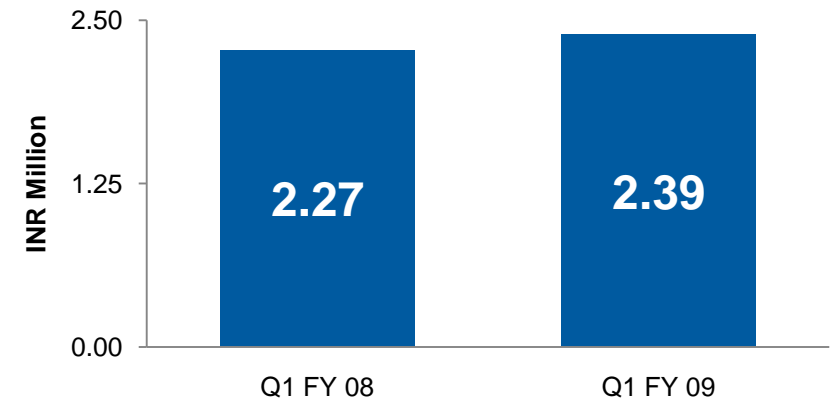
EBITDA



PAT

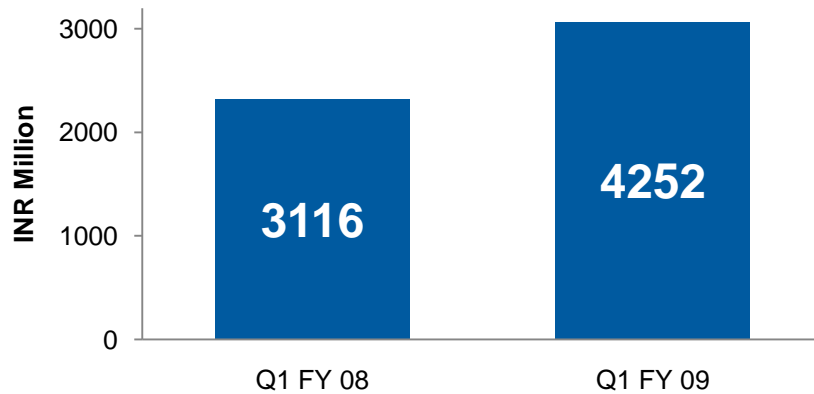


Earnings per share

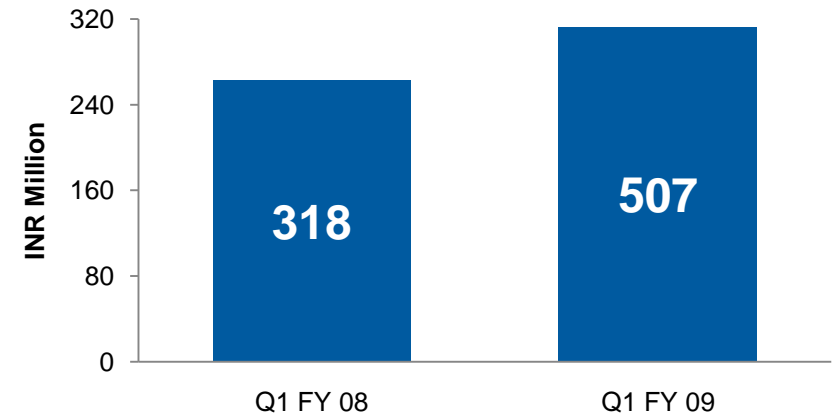


Financials – Q2 of 08-09

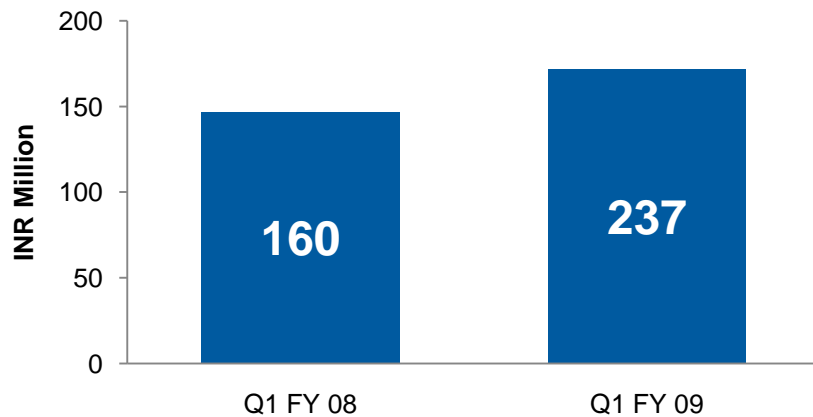
Total Revenues



EBITDA



PAT



Earnings per share

