



*Engineering Energy...*

**As on 31<sup>st</sup> December 2011**

# **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 in two segments – Power, Oil & Gas sector**
  - Turnkey project engineering and contracting; and
  - Supply of systems and equipment for Power, Oil & Gas industries
- ❑ **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**
- ❑ **Recipient of 15 prestigious awards for export performance**
- ❑ **Global operations – executed more than 520 contracts in 59 countries**
- ❑ **Orders on hand – INR 82150 Million as on 31<sup>st</sup> December 2011**
- ❑ **In the Domestic market, the Company has executed more than 1000 Contracts.**

## **Proven track record in Design, Engineering and Turnkey Project Management capabilities across business divisions**

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

### **Group Companies**

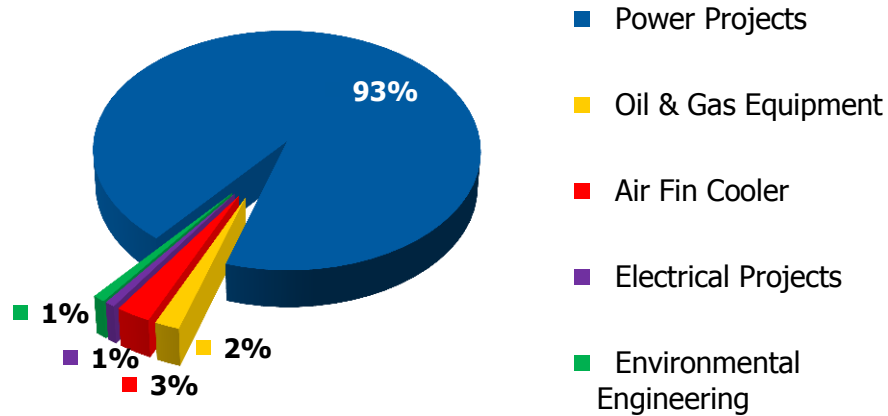
- ☐ **GEA BGR Energy System India Limited**
- ☐ **Progen Systems & Technologies Limited**

### **Joint Venture Company**

- ☐ **GEA Cooling Tower Technologies (India) Private Limited**
- ☐ **BGR Boilers Private Limited**
- ☐ **BGR Turbines Company Private Limited**

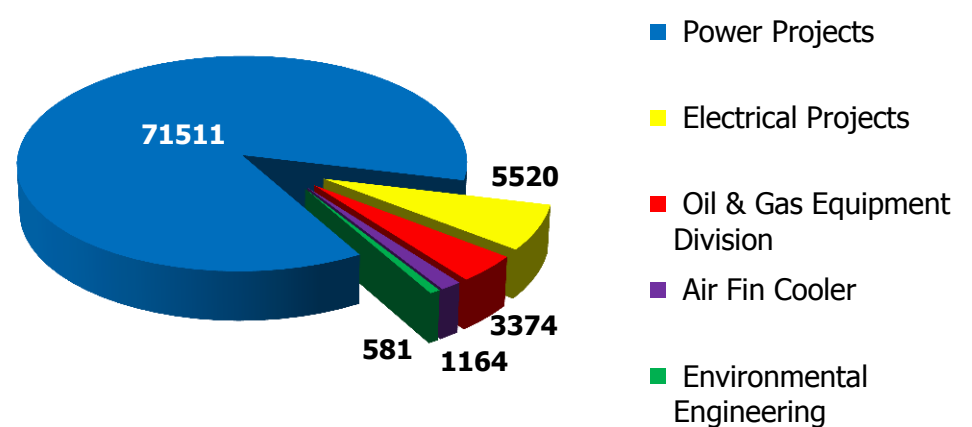
## Business Divisions

### Revenue break up for Year ended 31<sup>st</sup> March 2011



**Total Revenue – INR 47475 Million**

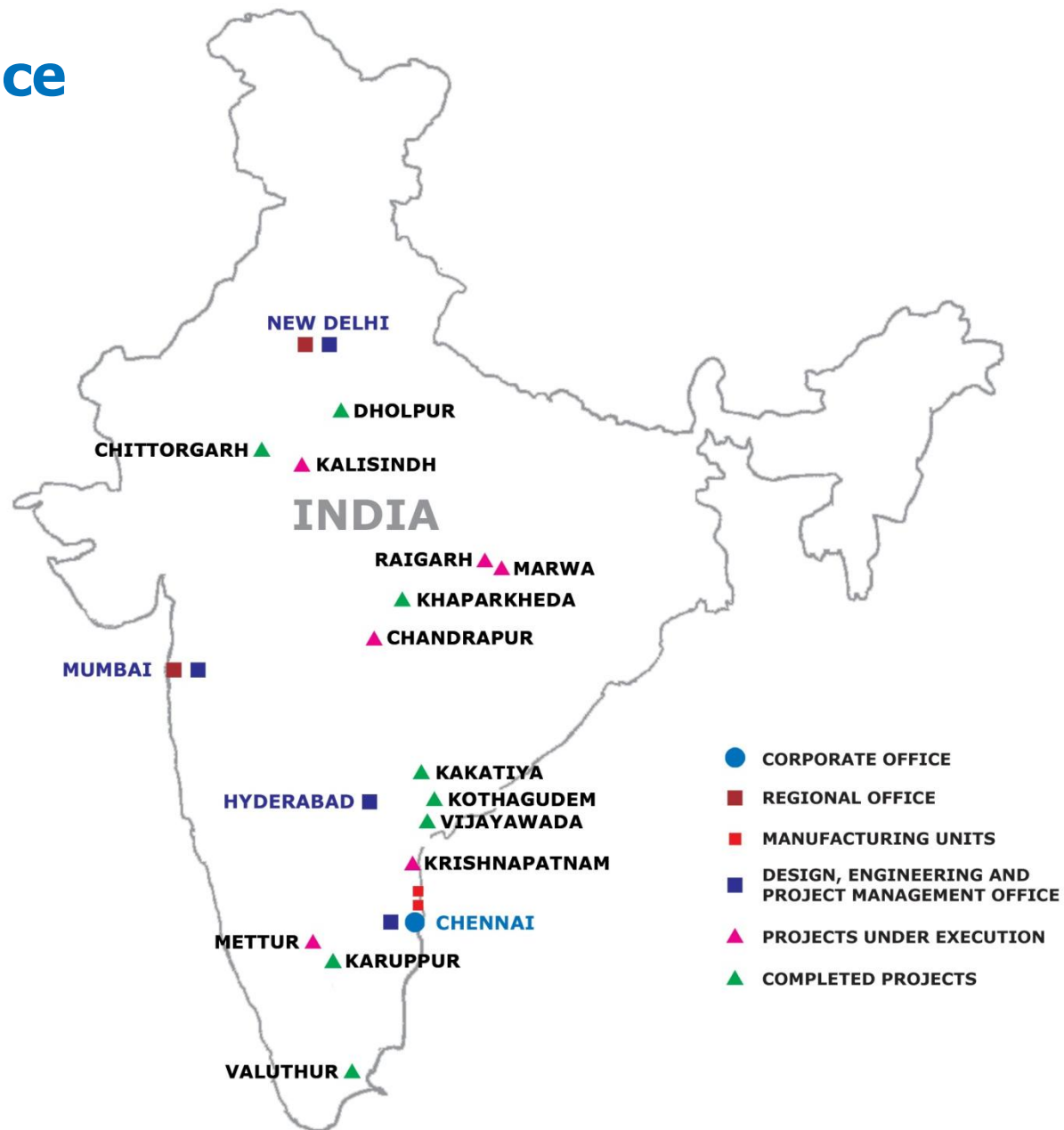
### Order backlog as of 31<sup>st</sup> December 2011



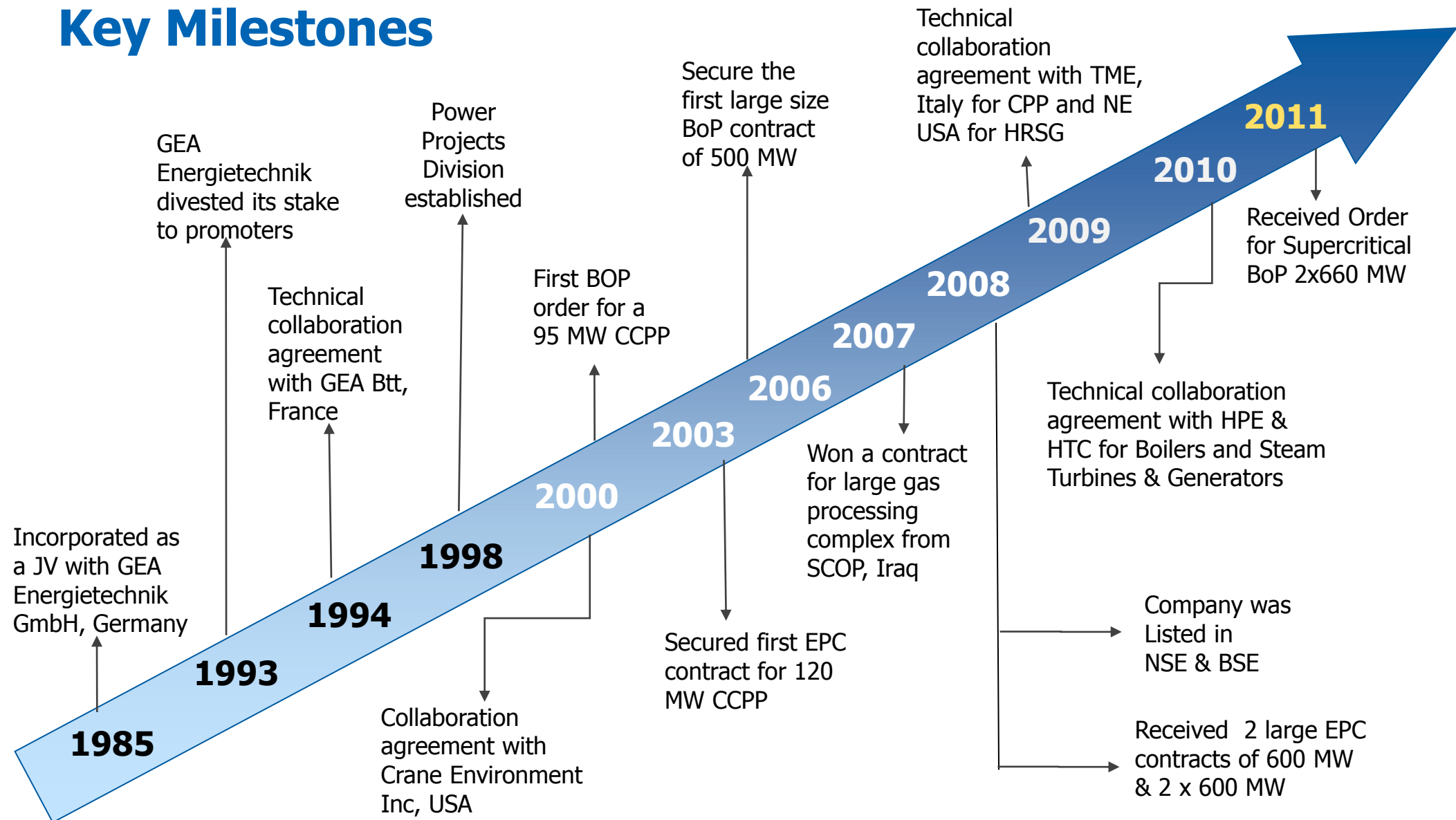
**In INR Million**

**Total Order Backlog – INR 82150 Million**

## Pan India Presence



## Key Milestones

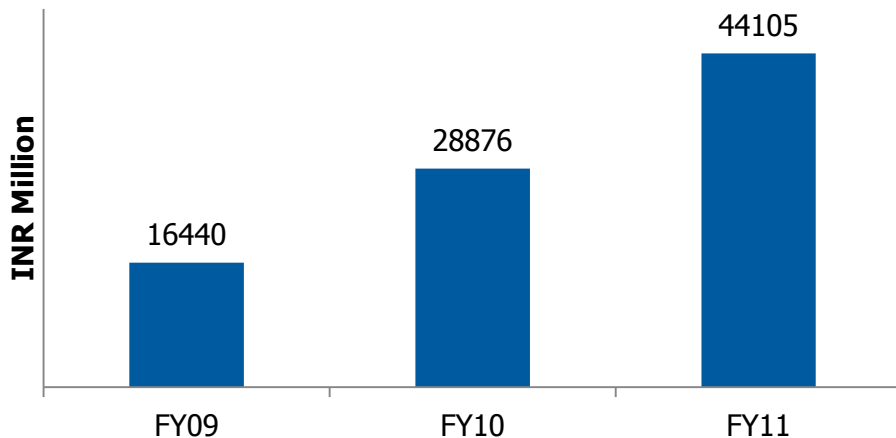


## Power Projects Division



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

### Total Income from Power Projects Division



- ❑ **Turnkey Engineering, Procurement & Construction (EPC) Contracting –  
3 x 600 MW, 2 x 300 MW**
- ❑ **Balance of Plant (BOP) Contracting –  
5 x 500 MW, 2 x 660 MW**
- ❑ **In-house design and engineering capabilities, gives edge in Cost , design and Project Schedule**
- ❑ **40 – 50% of 'Balance of Plant' systems manufactured in-house**
- ❑ **Early adopter of BOP concept in India**
- ❑ **Income of Rs.44105 Million in FY 10-11**
- ❑ **Order backlog of Rs.71511 Million as of 31<sup>st</sup> December 2011**

## PROJECTS COMPLETED - BoP PROJECTS COMPLETED

| PROJECT                                         | CAPACITY<br>(MW) | FUEL | ORDER VALUE<br>(Rs. in Million) |
|-------------------------------------------------|------------------|------|---------------------------------|
| Grasim Industries - CPP, Chittorgarh, Rajasthan | 23               | Coal | 444                             |
| TNEB - CCPP, Valathur (Phase I), Tamil Nadu     | 95               | Gas  | 594                             |
| RRVUNL - CCPP, Dholpur, Rajasthan               | 330              | Gas  | 2095                            |
| APGENCO – Vijayawada TPS, Andhra Pradesh        | 500              | Coal | 5788                            |
| APGENCO - Kakatiya TPS, Andhra Pradesh          | 500              | Coal | 6949                            |
| MAHAGENCO - Khaperkheda TPS, Maharashtra        | 500              | Coal | 9980                            |



**95 MW CCPP Valuthur  
(Phase I), Tamil Nadu**



**Vijayawada Thermal Power Station  
(Synchronized on 4<sup>th</sup> Apr '09)**



**Kakatiya Thermal Power Station,  
Andhra Pradesh**

## PROJECTS COMPLETED – EPC PROJECTS COMPLETED

| PROJECT                                      | CAPACITY<br>(MW) | FUEL | ORDER VALUE<br>( Rs. in Million) |
|----------------------------------------------|------------------|------|----------------------------------|
| Aban Power - CCPP, Karuppur, Tamil Nadu      | 120              | Gas  | 2697                             |
| TNEB - CCPP, Valathur (Phase II), Tamil Nadu | 92.2             | Gas  | 3553                             |
| Madras Aluminium Company Limited Mettur      | 25               | Coal | 765                              |



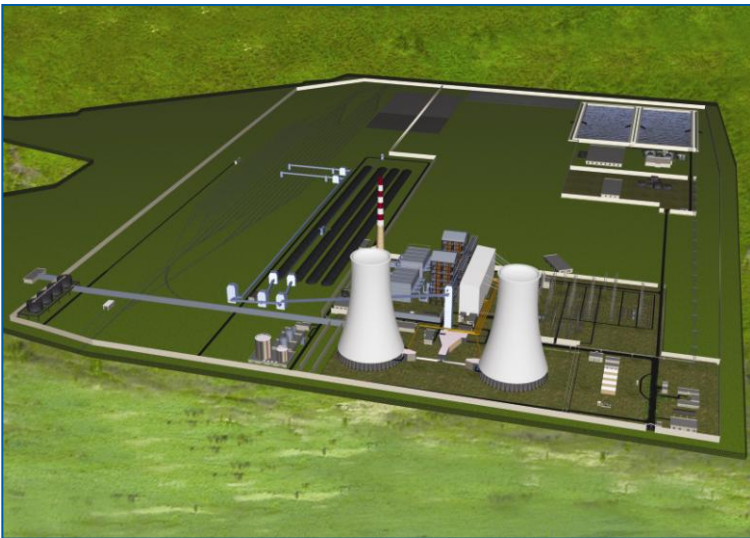
**120 MW CCPP Aban Power,  
Karuppur, Tamil Nadu**



**92.2 MW CCPP Valuthur  
(Phase II), Tamil Nadu**

## POWER PROJECTS DIVISION – EPC PROJECTS UNDER EXECUTION

| PROJECT                           | CAPACITY<br>(MW) | FUEL | ORDER VALUE<br>( Rs. in Million) | Contractual Completion<br>Schedule |
|-----------------------------------|------------------|------|----------------------------------|------------------------------------|
| RRVUNL - Kalisindh TPS, Rajasthan | 2 x 600          | Coal | 49000                            | 42 Months                          |
| TNEB - Mettur TPS, Tamil Nadu     | 1 x 600          | Coal | 31000                            | 39 Months                          |
| TRN Energy - Chhattisgarh         | 2 x 300          | Coal | 16980                            | 29 Months                          |



**Kalisindh Thermal Power Station**  
Basic layout – Perspective view



**Mettur Thermal Power Station**  
Basic layout – Perspective view

## POWER PROJECTS DIVISION – BoP PROJECTS UNDER EXECUTION

| PROJECT                                   | CAPACITY<br>(MW) | FUEL | ORDER VALUE<br>(Rs. in Million) |
|-------------------------------------------|------------------|------|---------------------------------|
| TPCIL - Krishnapatnam TPP, Andhra Pradesh | 2 x 660          | Coal | 21680                           |
| CSPGCL- Marwa TPS, Chhattisgarh           | 2 x 500          | Coal | 16330                           |
| MAHAGENCO - Chandrapur STPS, Maharashtra  | 2 x 500          | Coal | 16320                           |
| APGENCO - Kothagudem TPS, Andhra Pradesh  | 500              | Coal | 7930                            |



**Kothagudem Thermal Power Station  
(Under Construction)**

## Oil & Gas Equipment Division



**Indirect Water Bath Heaters**



**Compressor Packaging**

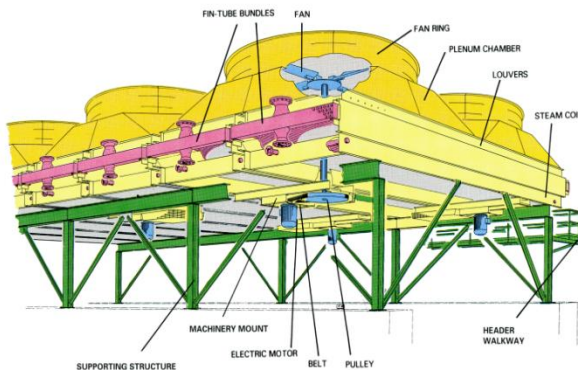
- ❑ **Products and turnkey services for the Oil & Gas Industry**
  - Process Equipment Package and Systems
    - 2/3 Phase Separator System / Skids
    - Indirect Water Bath Heater
    - Gas Conditioning, Regulating & Metering Systems
    - Knockout Drums / Scrubbers
    - Filter Separators / Dry Gas Filters
  - Pipeline Equipment - Pig Launchers/Receivers
  - Compressor Packaging
  - Storage Tanks
- ❑ **Income of Rs.871 Million in FY 10-11**
- ❑ **Order backlog of Rs.3374 Million as on 31<sup>st</sup> December 2011**

## Oil & Gas Equipment Division

**Executing many export orders**

| S/N | Customer                                               | Scope                                                              | Value<br>(USD in Million) |
|-----|--------------------------------------------------------|--------------------------------------------------------------------|---------------------------|
| 1   | Akas & Al-Mansuria Gas Processing Projects, SCOP, Iraq | Engineering, Procurement & Supply of Gas Gathering Station         | 80.5                      |
| 2   | Karbala Oil Products Depot, SCOP, Iraq                 | Engineering, Procurement & Supply of Oil Storage Tanks             | 8.57                      |
| 3   | South Refineries Company (SRC), Iraq                   | Engineering, Procurement & Supply of Double Deck Oil Storage Tanks | 8.75                      |

## 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 - India, Middle East, Southeast Asia and North Africa
- ❑ List of clients include Larsen & Toubro Limited, Cameron Systems, Petrofac, Petrojet, Technip KT India Limited, KazStoryService Infrastructure India Pvt Ltd.
- ❑ Subsidiary Company qualified under Boiler regulations IBR
- ❑ Income of Rs.1305 Million in FY 10-11
- ❑ Order backlog of Rs.1164 Million as on 31<sup>st</sup> December 2011

## Electrical Projects Division

- ❑ **Undertakes Turnkey contracting for supply of Electrical Systems and Equipment for Power stations and process industries**
- ❑ **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**
- ❑ **Exclusive partnership with JZT provides turnkey solutions for OPGW communication networks**
- ❑ **Offers GIS Substations in association with leading manufacturers on case to case basis**
- ❑ **Income of Rs.706 Million in FY 10-11**
- ❑ **Order Backlog as on 31<sup>st</sup> December 2011 is Rs.5520 Million**

## Electrical Projects Division



**66/11 KV KPTCL Substation, Ganji Kunte**



**230/11 KV Gas Insulated Substations,  
Hyundai, Chennai**

## Environmental Engineering Division



**CPP – Condensate Polishing Plant**



**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
  - CPP – Condensate Polishing Plants
- ❑ **Exclusive Technical Collaboration with TERMOMECCANICA, Italy for Condensate Polishing Plants**
- ❑ **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**
- ❑ **Under execution - Six large-size Deaerators for Marfiq in Saudi Arabia, Hyundai Heavy Industries, Korea**
- ❑ **Income of Rs.485 Million in FY 10-11**
- ❑ **Order backlog of Rs.581 Million as on 31<sup>st</sup> December 2011**

## Environmental Engineering Division

- ❑ **Four large-size Membrane-based Effluent Recycling Plants at Tiruppur – largest in capacity in India for treating textile dye effluents**
- ❑ **Sold over 100 Deaerators in India, Asia, Middle East and Africa, ranging in capacity from 10 TPH to 3,103 TPH**



**Deaerator – NPC, Tarapur**

## Key Differentiators

- ❑ **Proven track record in equipment and Turnkey contracting**
  - Dedicated to Power and Oil & Gas sector
  - Undertakes turnkey EPC projects for large Utility Power Plants upto 600 MW
- ❑ **Diverse Design & Engineering capabilities**
  - Ability to Design & Manufacture customised products
  - In-house Design & Engineering gives control over costs, design, time and competitive edge
- ❑ **Diverse range of products and services**
  - Significant synergies through complementary operations
  - Ability to service both large and small scale projects
  - Project management system and policy 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 and know-how

## BOP Package – In House Systems

|                                                                     |                                            |
|---------------------------------------------------------------------|--------------------------------------------|
| 1. Design & Engineering of Civil, Electrical and Mechanical Systems | 10. Effluent Treatment Plant               |
| 2. Civil Works including                                            | 11. Demineralization Plant                 |
| a. Chimney                                                          | 12. Ash Handling System                    |
| b. Natural and Induced Draft Cooling Tower                          | 13. Coal Handling System                   |
| 3. Substation and Switchyard                                        | 14. Gas Conditioning & Metering Skid       |
| 4. Plant Piping System                                              | 15. Fabrication of Columns & Structures    |
| 5. Air Fin Cooler                                                   | 16. Welded Finned Tubes                    |
| 6. Air Cooled Condenser                                             | 17. Heat Recovery Steam Generator          |
| 7. Deaerator                                                        | 18. On-line Condenser Tube Cleaning System |
| 8. Desalination Plant including RO System                           | 19. Debris Filter                          |
| 9. Condensate Polishing Plant                                       | 20. Rubber Cleaning Balls for Condenser    |

## Board of Directors

| S/N | Name & Occupation                                                                                      | Industry Exp (Yrs) | Designation                                  |
|-----|--------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------|
| 1   | Mr. B.G. Raghupathy<br>Industrialist                                                                   | 37                 | Chairman & Managing Director                 |
| 2   | Mr. T. Sankaralingam<br>Company Executive                                                              | 41                 | Managing Director                            |
| 3   | Mr. S. Rathinam<br>Company Executive                                                                   | 32                 | Director (Finance)                           |
| 4   | Mr. V.R. Mahadevan<br>Company Executive                                                                | 29                 | Director (Technologies, HR & Infrastructure) |
| 5   | Mr. A. Swaminathan<br>Company Executive                                                                | 32                 | Director (Sales & Marketing)                 |
| 6   | Mr. Heinrich Böhmer<br>Business                                                                        | 44                 | Independent Director                         |
| 7   | Mr. M. Gopalakrishna, Retd. IAS<br>Director-In-charge, Andhra Pradesh Gas<br>Power Corporation Limited | 51                 | Independent Director                         |
| 8   | Mr. S.A. Bohra<br>Ex. Sr. Exec. Director (Technical)<br>Nuclear Power Corporation                      | 46                 | Independent Director                         |
| 9   | Mr. M. S. Sundara Rajan<br>Ex. CMD Indian Bank                                                         | 38                 | Independent Director                         |
| 10  | Mr. S.R. Tagat<br>Chartered Accountant                                                                 | 30                 | Independent Director                         |
| 11  | Mr. Gnana Rajasekaran<br>IAS (Retired)                                                                 | 25                 | Independent Director                         |
| 12  | Mrs. Sasikala Raghupathy<br>Business                                                                   | 26                 | Director                                     |

## Leadership & Professional Management

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

| Name                   | Position                                     | Industry Exp (Years) | Exp with BGR Energy |
|------------------------|----------------------------------------------|----------------------|---------------------|
| Mr. B.G. Raghupathy    | Chairman & Managing Director                 | 37                   | 26                  |
| Mr. T. Sankaralingam   | Managing Director                            | 41                   | 2                   |
| Mr. S. Rathinam        | Director (Finance)                           | 32                   | 19                  |
| Mr. V.R. Mahadevan     | Director (Technologies, HR & Infrastructure) | 29                   | 24                  |
| Mr. A. Swaminathan     | Director (Sales & Marketing)                 | 32                   | 14                  |
| Mr. R. Ramesh Kumar    | President, Corporate & Secretary             | 24                   | 19                  |
| Mr. P. R. Easwar Kumar | President & Chief Financial Officer          | 18                   | 17                  |
| Mr. S. Venkataraman    | Group President , Human Resource             | 35                   | 2                   |
| Mr. G. Amudhan         | President, Project Management                | 33                   | 1                   |
| Mr. Ashish Tandon      | President, Business Development              | 29                   | -                   |
| Major H.L. Khajuria    | President & CEO, Environmental Engineering   | 41                   | 14                  |
| Mr. V. Balakrishnan    | President & CEO, Electrical Projects         | 29                   | 8                   |
| Mr. N. Murali          | President & CEO, Oil & Gas Equipment         | 31                   | 5                   |
| Mr. S. Ilanchezhiyan   | President & CEO, Air Fin Cooler              | 25                   | 4                   |

## Human Resources

As on 31<sup>st</sup> January'12

| Particulars                                    | No. of Employees |
|------------------------------------------------|------------------|
| <b>Total Employees</b>                         | <b>2288</b>      |
| <b>Engineers</b>                               | <b>1914</b>      |
| Design & Engineering                           | 652              |
| Project Management & Quality Control           | 310              |
| Planning, Procurement and Production           | 891              |
| Marketing                                      | 61               |
| <b>Professional Staff</b>                      | <b>242</b>       |
| Finance and Accounts                           | 110              |
| Human resource, Legal, Secretarial and Systems | 132              |
| <b>Others</b>                                  | <b>132</b>       |

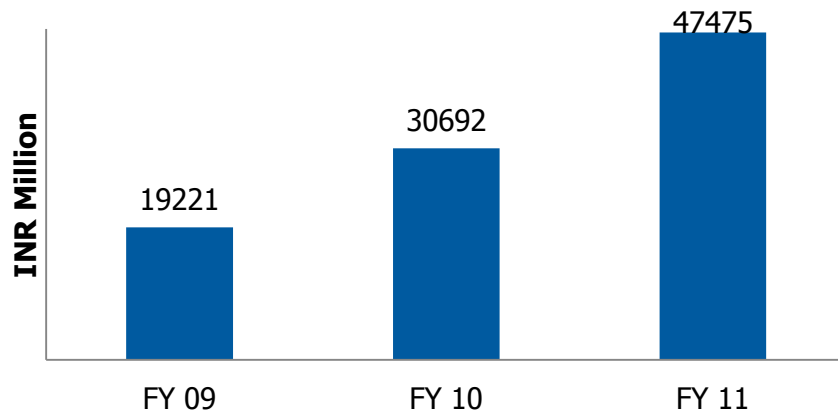
## 3 Years Financials – A Snapshot

INR Million

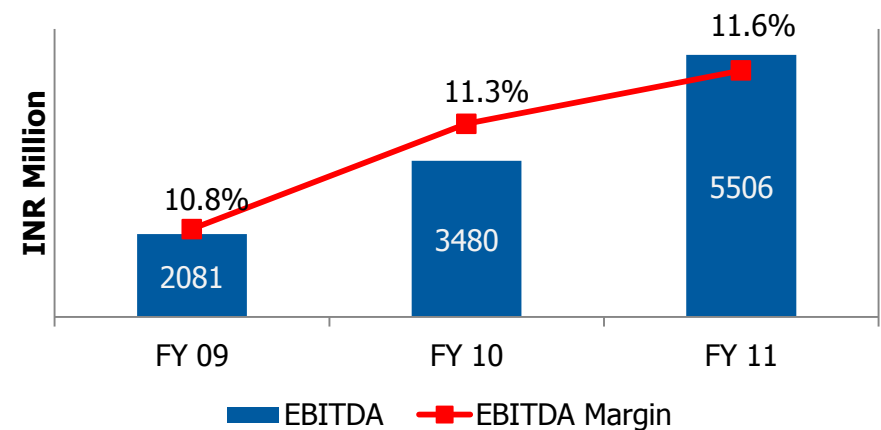
|                 | Audited<br>Year ended<br>31.3.2009<br>(12 months) | %     | Audited<br>Year ended<br>31.3.2010<br>(12 months) | %     | Audited<br>Year ended<br>31.3.2011<br>(12 months) | %     |
|-----------------|---------------------------------------------------|-------|---------------------------------------------------|-------|---------------------------------------------------|-------|
| <b>TURNOVER</b> | 19221                                             | 100   | 30693                                             | 100   | 47475                                             | 100   |
| <b>EBIDTA</b>   | 2081                                              | 10.83 | 3480                                              | 11.34 | 5507                                              | 11.60 |
| <b>PBT</b>      | 1747                                              | 9.09  | 3047                                              | 9.93  | 4820                                              | 10.15 |
| <b>PAT</b>      | 1151                                              | 5.99  | 2010                                              | 6.55  | 3242                                              | 6.83  |

## Robust Financials

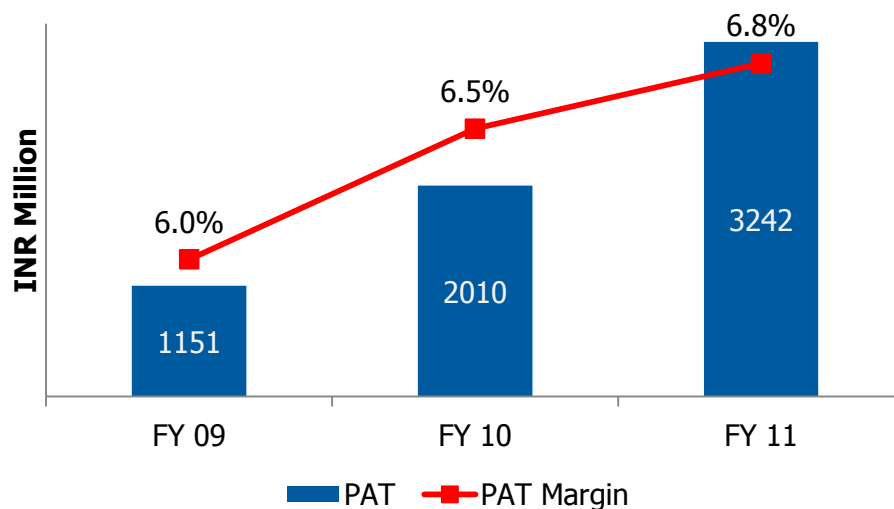
**Total Revenues**



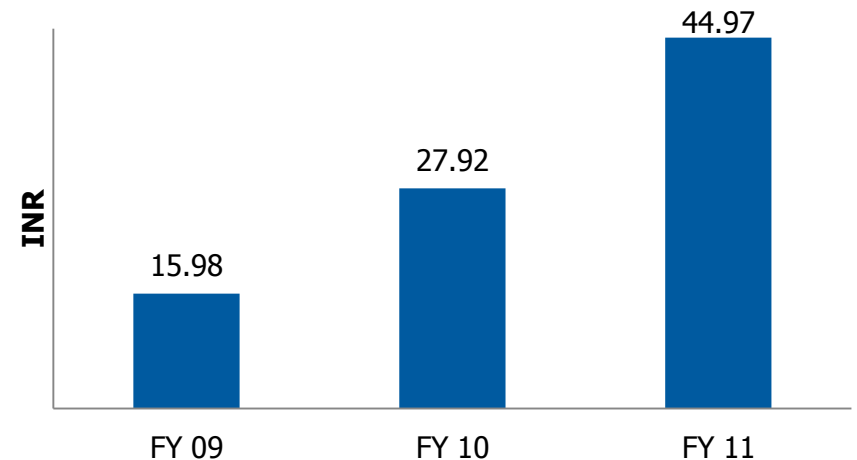
**EBITDA and EBITDA margin**



**PAT and PAT margin**

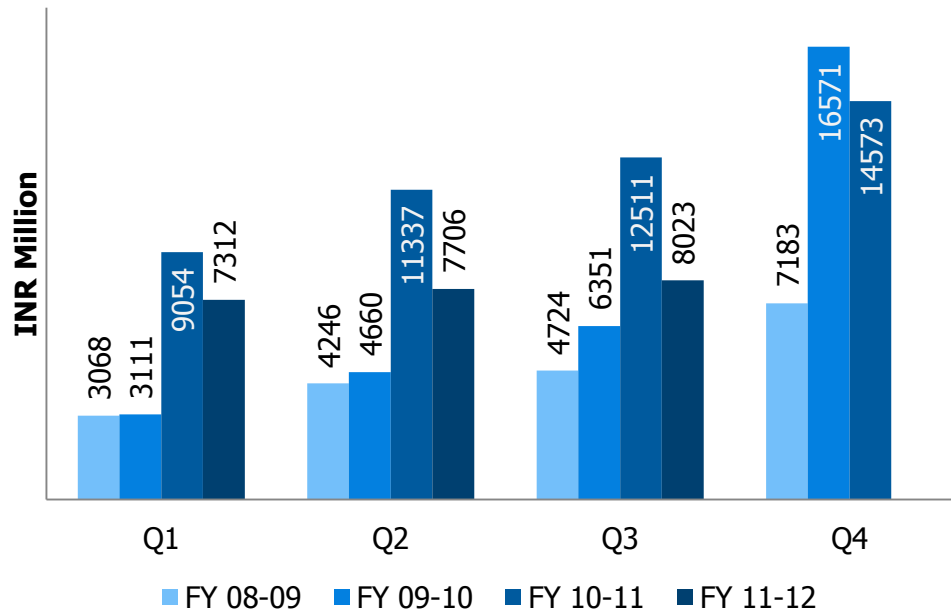


**Earnings per share**

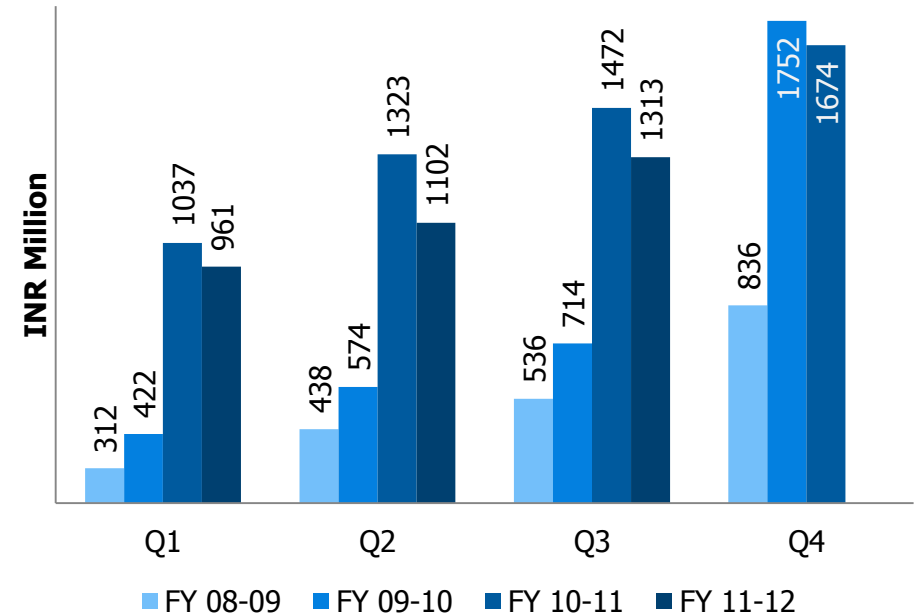


## Quarterly Financials

### Total Revenues

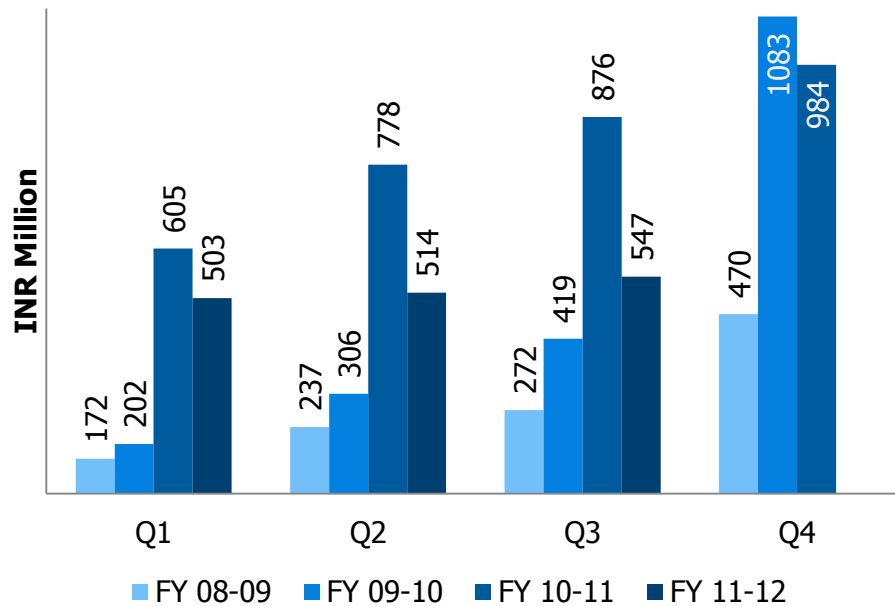


### EBIDTA



## Quarterly Financials

### PAT



### Earnings Per Share

