

BHEL, Ranipet

Boiler Auxiliaries Plant, the 13th manufacturing unit of BHEL was set up at Ranipet in March 1980 ,as a part of the relocation of facilities from Trichy. BAP is located in a 1400 acres site , 120Kms from Chennai towards Bangalore.

BAP at Ranipet started its production activities by manufacturing

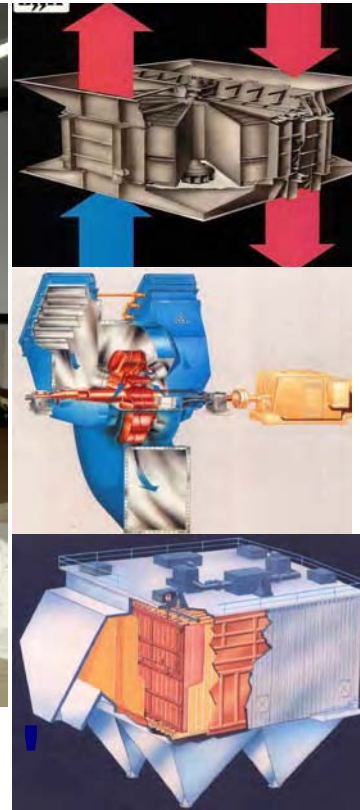
ESP (Electro Static Precipitator)
APH (Air Pre-heater)
FANS

as its main products. After a decade, new products like

Heat exchangers
Desalination plants
Wind Electric Generators
Damper for louvers, gates (hot air)
Ash and Coal Handling
Fabric Filters

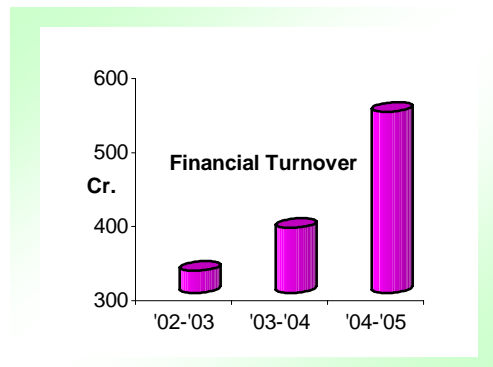
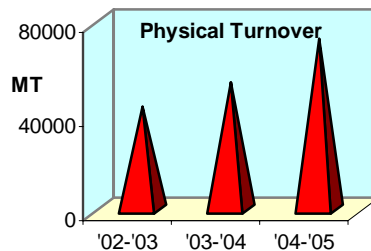
were added to the product line.





Performance Highlights 2004- 05

- First PSU and Engineering & Manufacturing Industry to win International Asia Pacific Quality award & IMC-RBNQ Business Excellence Awards.
- Record Growth & Sales Turnover achieved.
- Profits earned for the 22nd year in a row.
- Highest-ever outstanding order book.

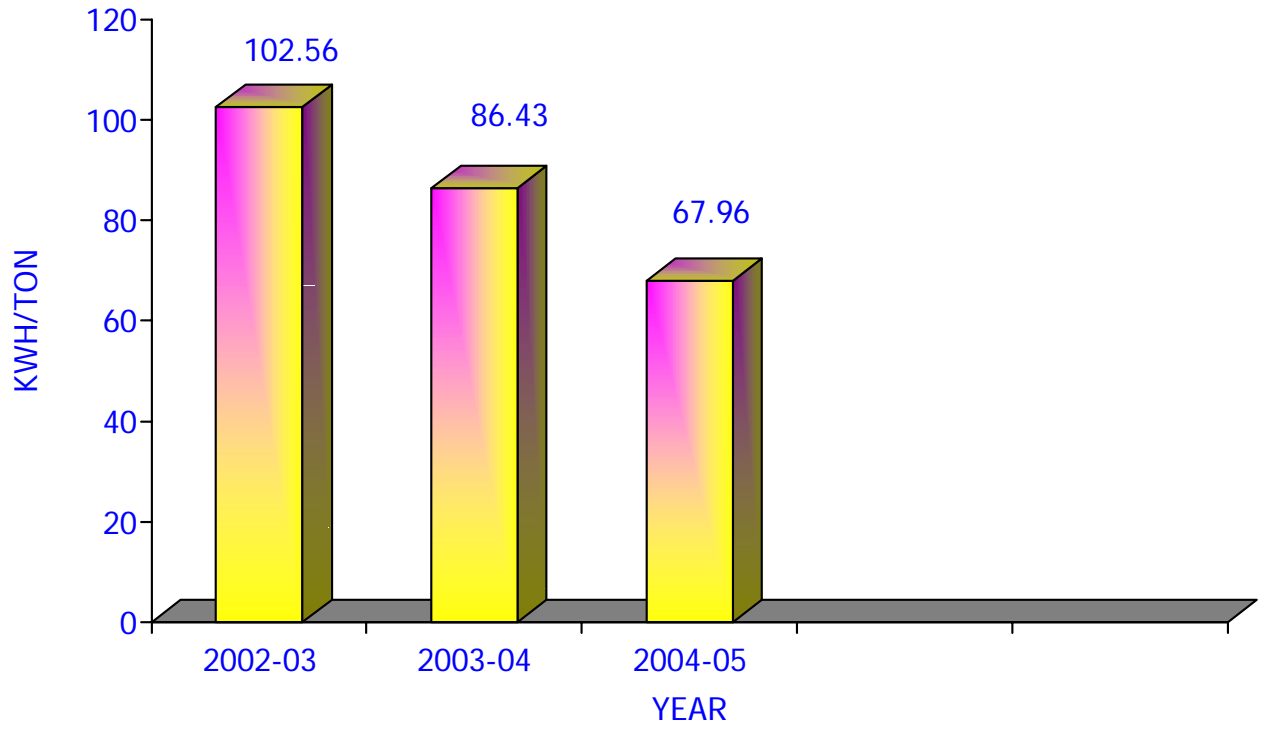


Brightening lives...
Powering progress

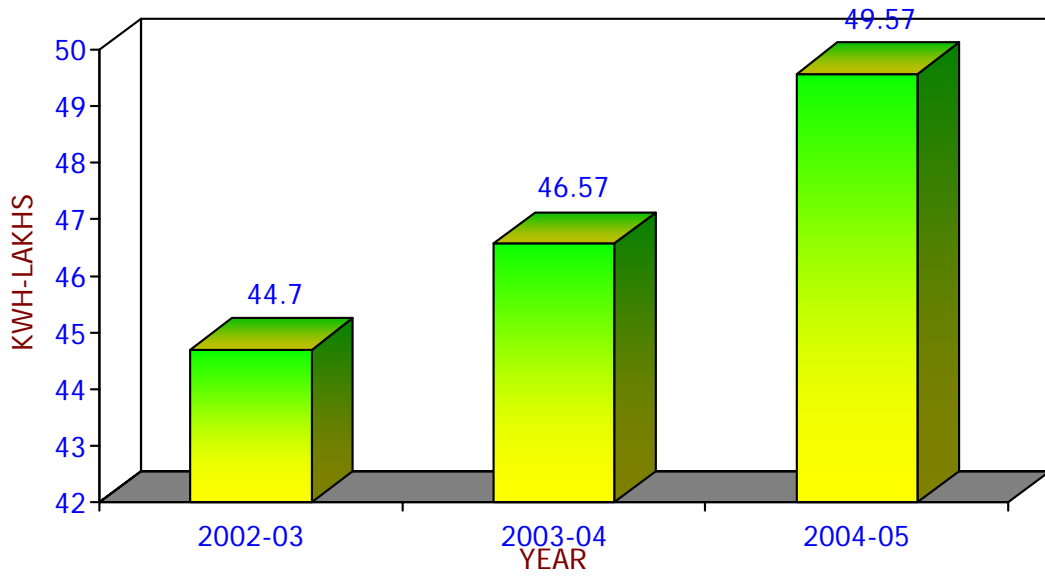


BHEL, Ranipet,

BHEL RANIPET'S SPECIFIC ELECTRICAL ENERGY CONSUMPTION



BHEL RANIPET'S ANNUAL ELECTRICAL ENERGY CONSUMPTION





ऊर्जा प्रबंधन नीति

बीएचईएल, अपने सभी कर्मचारियों की पूर्ण भागीदारी से, ऊर्जा क्षम प्रौद्योगिकियों का प्रयोग करके ऊर्जा के अपव्यय को रोककर अपने सभी कार्यकलापों, उत्पादों और सेवाओं में ऊर्जा संबंधी दक्षता में निरंतर वृद्धि के लिए वचनबद्ध है।

ENERGY MANAGEMENT POLICY

BHEL is committed to continuously enhance energy efficiency in all its activities, products and services through the use of energy efficient technologies and prevention of energy wastages, with the full participation of all employees.

के. जी. रामचन्द्रन
(के. जी. रामचन्द्रन)
अध्यक्ष एवं प्रबन्ध निदेशक

PROJECTS	SAVINGS/ ANNUM-Rs in Lakh
1. Online Energy Management system-SS	12.00
2. Automatic power factor controller-APH	06.00
3. Energy efficient AC Equipments	01.50
4. Replacement of PG plant with LPG	19.70
5. Replacement of O2 plant	13.10
6. Six Sigma project on reduction of Energy Losses	08.00
7. HV Automatic voltage regulator	07.00
8. Retrofit of AC VF drives for VT Lathes	06.30
9. LPG fired Canteen Equipments Instead of Electrical	04.20
10. Introduction of Electronic ballasts	01.90
11. Conversion of Planning to Plano miller	01.40
12. Reduction of air line pressure	00.80
13. Optimization of cooling water pumps	00.60
14. VFD DRIVES for Passenger lifts	00.60
15. Controlling the Frequency of DG sets	00.45
16. Automatic Temperature controller for Air compressor's cooling water pumps	00.25
17. Reduction of maximum demand	56.00
18. Interconnection of FTS feeder	26.00
19. Power factor incentives	06.00

Energy Conservation budget of Rs 115 Lakhs allotted and executed through various Energy conservation projects.

Work in Progress :

1. Online PC based Energy Monitoring, Targeting & controlling system for Shop floors
Expected Savings = Rs 15.00 Lakhs / Year
2. Automatic Power factor controller for Serviceplants and Fanshop
Expected savings = Rs 12.00 lakhs / Year
3. Installation of energy efficient air conditioners for Conference hall
Expected savings = Rs 1.00 lakhs / Year.
4. Optimisation of Air compressor utilities.
Expected savings = Rs 8.38 lakhs / Year.

NO INVESTMENT ENCON PROJECTS IN BAP

1. Operating Portable Air compressor during 01am-8am.
2. Redistribution of Power during non-production hours.
3. Programming the factory illumination for optimization.
4. Pressure reduction of Air compressor.
5. Operating the Generators by varying the Frequency.
6. Power Factor & M D control to earn TNEB incentives.

Future Plans:

1. Installation of Rotary air compressors.
2. Solar water heating system for canteen equipments.
- 3 Manufacturing process optimization.
- 4 .Energy efficient compressors for air conditioning & Refrigeration systems.
5. Introduction of energy efficient tube lights.
6. FRP cooling towers for Package Air conditioner plants.
7. VFD Drives for EOT Cranes & Machines.
8. Modernization scheme of Rs. 16 crores to replace the old machines with the state of the Art giving trust on Energy conservation.
9. Conversion of Electrical boiler into LPG fired boiler.

Awareness on Energy conservation:

1. Energy policy announced and displayed for awareness of the employees.
2. Celebration of Energy conservation week along with TNEB during December 2004.
3. Presentation of best practices of Energy conservation Projects executed by BHEL at the National Energy week Seminar organized at VIT, Vellore where leading National & International Engineering organizations were present.
4. Project Guides for the Engineering Students on Energy conservation projects.
5. Issue of Solar Lanterns & Water Heaters on subsidized price to Promote the usage of Non conventional Energy among our Employees.

Major environmental improvements made during 2002– 2005

01.Replacement of Producer Gas, Acetylene plant with Clean LPG Technology.

Major advantages:

- Eco -friendly Technology
- Pollution totally eliminated
- No by- products / wastes / pollutants
- High cal. Value 11400 cal, Less cycle time and higher productivity.
- Conversion efficiency 100%
- Zero Power consumption except in severe winter when heater is used – whole power consumption is just 27kw/hr.
- Items heat treated through LPG are free from scale formation.
- Stack emission well within limits.

02.Mass Tree a forestation - Planting of two Million Trees at our complex.

03. BHEL Interunit Health safety Environment (HSE) meet for review of HSE and sharing of best practices.

04.Rain Harvesting system installed.

05. Contribution towards Environment through Our products as listed below :

- Design & supply of pollution control equipments (ESP, Bag Filters).
- Design & supply of NCES equipments (WEG).
- Participation in National / International Seminars to propagate the need for / methods of pollution control.
- Supply of Desalination Equipments for conversion of Sea water to potable quality – Equipment working in Ramnad District.

List of Certifications (ISO–9000/14000) Encon, Environment, Quality, Productivity and other Awards won during 2004– 2005

01. BHEL Ranipet is first and only public sector and the first Engineering & Manufacturing organization to receive the International Asia Pacific Quality Award in best of its Class distinction category so far.

02. IMC-Ramakrishna Bajaj National Quality Award 2004 for Business Excellence in Manufacturing category- the first Public sector undertaking & the first Engineering and Manufacturing organization to have won this award since its inception.

03. Greentech Excellence Bronze award for Environ management.

04. ISO 9001-2000 , ISO140001 & OHSAS18001

05. BHEL EXCEL AWARD 2004 under the category “Utkrishthla Puraskar “ award for eight employees for all round excellence.

06. Tamilagaarasu Uyayarntha Uzhapaalar award for two of our employees

07. INSSAN encouragement award for slogan contest.

08. Safety appreciation award in promoting HSE by National safety council.