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No. 01:PR:2008-09: April 10, 2008

# MAJOR HIGHLIGHTS 2007-08

### **OPERATIONAL EXCELLENCE**

- Coal based stations recorded the highest ever Plant Load Factor (PLF) of 92.24% as compared to 89.43 % previous year
- All time record PLF of 98.02 % by NCTPP Dadri (Coal)
- Ten coal based stations achieved more than 90 % PLF
- Commendable turnaround at Unchahar project. From a PLF of 18% at the time of takeover to present PLF of 97.69 %
- Highest ever generation of 200.86 Billion Units (BUs) an increase of 6.46 % over the previous year
- Contributed 28.51 % of the total electricity generated in the country during 2007-08 with 19.11 % share of the total installed capacity of the nation

### **ROBUST FINANCIALS**

- ♣ Provisional and un-audited Net Sales of Rs 370,046 million during 2007-08 as against Rs. 325,952 million registering an increase of 13.53%. The provisional and un-audited Gross Revenue is Rs. 398,734 million during 2007-08 as against Rs. 353,807 million for the year 2006-07, an increase of 12.70%.
- ♣ Provisional and un-audited Profit after tax for the year 2007-08 is Rs. 71,293 million as compared to Rs. 68,647 million during the year 2006-07. Adjusted provisional and unaudited profit after tax for 2007-08 is Rs. 74,056 million as against adjusted audited profit of Rs. 65,620 million for 2006-07, an increase of 12.86% after providing for incentive and keeping provision for wage revision and others (one off items).
- Highest interim dividend @ 27% amounting to Rs. 22262.8 million during the year.
- Contributed Rs. 56,898 Million to exchequer on account of Corporate tax, Dividend and tax thereon and wealth tax
- Market Capitalisation of the company is over Rs 1621 billion (US \$ 40.33 billion approximately) making it the third largest company as on 31.3.2008.
- Highest ever capital expenditure of Rs. 86210 Million during 2007-08.
- 100 % realization of the billing for the fifth year in succession
- ♣ NTPC tied a loan of USD 380 million (approximately Rs. 15272 million) with international banks under Japan Bank of Cooperation (JBIC) guarantee to part finance the 1980 MW Barh Super Thermal Power Project (Stage I) in Bihar state

- Signed a loan Agreement of Euro 68.563 million (equivalent to USD 100 million or Rs. 4361 million) with the Nordic Investment Bank (NIB) on February 15, 2008, a multilateral financial institution owned by the Nordic and Baltic countries, to part finance the capital expenditure.
- Signed a loan Agreement of Rs. 10000 million with Life Insurance Corporation of India on December 26, 2007 to finance Capital Expenditure of our power generation projects, Coal Mining business, Renovation and Modernization activity and LNG business
- New loans aggregating to Rs. 34750 million were tied up with domestic Banks and other Financial institutions
- ♣ During 2007-08, NTPC placed Series XXV and XXVI Bonds amounting to Rs. 5000 million each with Life Insurance Corporation of India to finance Capital Expenditure of our projects

#### **RAPID GROWTH**

# A) Capacity Addition

- ♣ Plans to be a 50,000 MW plus Company by 2012 and 75,000 MW plus Company by 2017
- Current capacity of 29,144 MW, including 1794 MW from JVs.
- 4 16,930 MW under construction
- New Projects Investment Approval accorded for 5570 MW, Main Plant awards placed for 6570 MW and JV Agreements signed for setting up projects aggregating 3300 MW during the year
- → Thrust in hydro power generation gathers momentum Koldam (800 MW) in Himachal Pradesh, Loharinag Pala (600 MW) and Tapovan Vishnugad (520 MW) in Uttarakhand are under construction
- MOU signed with ADB for establishment of power generation capacity of about 500 MW through Renewable Energy Sources
- ↓ JVA signed between NTPC and BSEB for setting up 3x660 MW at Nabinagar, Bihar
- ♣ JVA signed with UPRVUNL to set-up 2x660 MW power project at Meja Tehsil in Allahabad. UP
- Joint Venture Company (Subsidiary of NTPC) under the name of "Bhartiya Rail Bijlee Company Limited" incorporated with Railways for setting up 1000 MW coal based power plant at Nabinagar, Bihar

### B) Fuel Security

- Clearance has been obtained for Pakri Barwadih Block from Jharkhand State Pollution Control Board.
- Mining Plan submitted to Ministry of Coal for Chatti-Bariatu (7 MTPA) and Kerandari (6 MTPA)

- ♣ Ministry of Coal, Govt. of India, has allotted Chatti-Bariatu (South) coal block to NTPC
- → JV Company, "NTPC-SCCL global Venture Pvt. Ltd.", incorporated with Singareni Collieries Company Ltd. (SCCL), to undertake coal mining in India & abroad
- ♣ MOU signed amongst NTPC, RINL, SAIL, NMDC and CIL for sourcing coking coal and thermal coal from abroad
- Leading the Exploration activity in NELP-V petroleum block in Arunachal Pradesh in full swing

# C) Strategic Initiatives

- Business Collaboration and Share Holder's Agreement signed with Govt. of Kerala and TELK to acquire around 44.6% stake of TELK
- MOU signed with Bharat Forge Limited for setting up a new facility to take up manufacture of Balance of Plant equipments, castings, forgings, fittings etc
- JVA signed with BHEL for taking up activities related to carrying out EPC and manufacturing of equipments

# D) Going Global

- MoU signed with Federal Govt. of Nigeria for energy cooperation between the two nations
- Site identified for 2x250 MW coal based plant in Sri Lanka
- Two consultancy orders received from UAE

#### **ENERGY TECHNOLOGIES (ET) CENTRE**

- Signed MoU with BARC, Mumbai for the development of Automated Boiler Tube Inspection System for coal based thermal power plants
- Entered into an MoU with Heavy Water Board, Mumbai for the transfer of Ammonia Based Flue Gas Conditioning Technology to NTPC, on non-exclusive basis, for its use in NTPC power stations

#### **GREEN POWER**

- NTPC created a green wealth of more than 18.37 million trees till March 2008
- ♣ All NTPC stations have been certified with ISO 14001 and OHSAS 18001 by international and national certifying agencies
- During 2007-08, about 23.7 million tonnes of ash utilized as compared to 20.7 million tonnes for productive purposes
- Pilot ash brick manufacturing plants at all NTPC coal based stations. More than 446 million ash bricks manufactured
- For hydro projects, Catchment Area Treatment (CAT), Compensatory Afforestation and Rim Plantation schemes finalized and implemented in consultation with respective State Governments

# **CSR INITIATIVES**

- ♣ Total of 424 physically challenged persons are on the rolls of NTPC and the Company has ensured barrier free access along with strong cultural and psychological support
- NTPC Foundation providing loans/training/medical treatment to physically challenged persons and economically weaker sections
- Signed an MOU with Delhi University to set up an Information and Communication Technology Training Centre for the physically challenged persons
- ♣ Ten Distributed Generation (DG) projects commissioned till date. Six more projects under various stages of implementation

# SECTORAL SUPPORT

- Under the Partnership in Excellence (PIE) programme launched by MOP, power plants entrusted to NTPC recorded net increase of approximately 2859 MUs equivalent to 440 MW capacity
- Rural electrification work progressing satisfactorily under RGGVY in 6 States and one Union Territory covering approx. 40,000 villages

### **WINNING ACCOLADES**

- 411<sup>th</sup> largest company in the world in the Forbes List of World's 2000 Largest Companies for the year 2007: jumps up by 83 positions from the 494<sup>th</sup> rank in 2006.
- ♣ No 1 Independent Power Producer Company in Asia, 2007 "Platts Top 250 Global Energy Company 2007 Survey".
- National Awards for Meritorious Performance during 2006-07, conferred by Ministry of Power on four NTPC stations.
- Vishvakarma Rashtriya Puraskar, 2006 awarded by Ministry of Labour to 12 employees for innovation and productivity.
- 'Mother Teresa Award for Corporate Citizen' instituted by Loyola Institute of Business Administration (LIBA).
- 'Gold Award for Excellence in People Management' by Grow Talent in 2007 for consistently high ranking for three consecutive years among the 'Best Places to Work for in India'
- 'Golden Peacock Global Award' for Excellence in Corporate Governance 2007
- SCOPE Meritorious Award for Good Corporate Governance for 2005-06.
- ♣ CII-EXIM Bank Excellence Award 2007: 'Commendation for Significant Achievement' to Simhadri and 'Commendation for Strong Commitment to Excel' to five NTPC stations.

- ♣ CII-ITC Sustainability Award 2007: 'Commendation Certificate for significant achievement among large business organizations'.
- ♣ Dun and Bradstreet American Express Corporate Awards –2007 for "Top Indian Company" in the Power Sector.
- ♣ SAP-ACE Award for Customer Excellence for Best Implementation in Utilities awarded in 2007.
- ♣ Infraline Energy Excellence Awards 2007 for Long Standing Contribution and service to the Nation in power sector.

In its journey of excellence, NTPC continued to set new benchmarks during the year 2007-08.

# **Operational Performance**

The stations of the company recorded a total generation of 200.86 Billion Units (BUs), showing an increase of 6.46 % over the previous year's generation. With a share of 20.37% in the total installed capacity of the country, NTPC generated 28.51% electricity during 2007-08.

NTPC stations recorded an all time high PLF of 92.24 % which is highest for any financial year since its inception as compared to 89.43 % last year.

Dadri (Coal) recorded the highest PLF of 98.02 %. Nine other stations recorded over 90 % PLF. They are Unchahar (97.69 %), Korba (96.12 %), Rihand (95.42 %), Talcher Kaniha (93.97 %) Vindhyachal (92.68 %), Kahalgaon (91.69 %), Singrauli (91.67 %), Tanda (91.66 %) and Ramagundam (90.14 %).

The following projects taken over by NTPC have also registered a remarkable turnaround:-

PROJECT	PLF prior to takeover (%)	2007-08 PLF (%)
Unchahar	18.0	97.69
Talcher Thermal	18.7	86.35
Badarpur	31.9	86.46
Tanda	19.8	91.66

Under the scheme of "National Awards for Meritorious Performance", conferred by Ministry of Power, Simhadri has won Gold Shield, Talcher-Kaniha and Korba have won Silver Shields and Vindhyachal has won Bronze shield for 2006-07.

### **Gross Revenue and Profit after Tax**

- ♣ Provisional and un-audited Net Sales of Rs 370,046 million during 2007-08 as against Rs. 325,952 million registering an increase of 13.53%. The provisional and un-audited Gross Revenue is Rs. 398,734 million during 2007-08 as against Rs.353,807 million for the year 2006-07, registering an increase of 12.70%.
- Provisional and un-audited Profit after tax for the year 2007-08 is Rs. 71,293 million as compared to Rs. 68,647 million during the year 2006-07. Adjusted provisional and unaudited profit after tax for 2007-08 is Rs. 74,056 million as against adjusted audited profit of Rs. 65,620 million for 2006-07, an increase of 12.86% after providing for incentive and keeping provision for wage revision and others (one off items).

#### **Budget Utilisation**

Capital expenditure incurred in 2007-08 on various capital schemes is Rs.86210 million. In the previous year 2006-07, capital expenditure incurred was Rs.80000 million, an increase of 7.76%.

### **Capital Outlay**

The approved outlay for 2008-09 for capital schemes of NTPC is Rs. 135880 million

### **Equity**

NTPC stocks continued to attract investors at the stock markets. The stocks closed at Rs. 196.60 at the end of the year as against the opening price of Rs. 150.25. The Market Capitalization of the company at the close of 2007-08 is Rs. 1621 billion (US \$ 40.33 billion) and the company is amongst the top three companies in terms of market capitalization. The company also declared an all time high interim dividend @ 27% of paid-up capital resulting into a dividend payout of Rs. 22262.8 million.

### **Borrowings**

#### Loans

NTPC tied up a loan of USD 380 million (approximately Rs.15272 million) with international banks under Japan Bank of Cooperation (JBIC) guarantee to part finance the 1980 MW (3 X 660 MW) Barh Super Thermal Power Project (Stage I) in Bihar state. The Loan agreement was signed on 20th December 2007.

NTPC signed a loan Agreement of Euro 68.563 million (equivalent to USD 100 million or Rs. 4361 million ) with the Nordic Investment Bank (NIB) on February 15, 2008, a multilateral financial institution owned by the Nordic and Baltic countries, to part finance the capital expenditure of its projects. During 2007-08, an amount of USD 10 million (approximately Rs. 402 million) was drawn from this loan.

NTPC signed a loan Agreement of Rs. 10000 million with Life Insurance Corporation of India on December 26, 2007 to finance Capital Expenditure of our power generation projects, Coal Mining business, Renovation and Modernization activity and LNG business.

NTPC has tied up loans from Domestic banks and Financial Institutions aggregating Rs. 218093 million as on 31st March, 2008 for its capacity addition programs. During the year 2007-08, new loans aggregating to Rs. 34750 million were tied up excluding the loan extended by LIC. During 2007-08, an amount of Rs 18500 million was drawn from domestic banks.

The cumulative domestic borrowing up to 31st March, 2008 is Rs. 207393 million (including Rs. 40000 million bonds placed with LIC).

#### **Bonds**

During 2007-08, NTPC placed Bonds amounting Rs.10000 million with Life Insurance Corporation of India to finance Capital Expenditure power generation projects, Coal Mining business, Renovation and Modernization activity and LNG business.

With issue of Series XXV and XXVI Bonds, outstanding amount of Bonds as on 31.03.2008 aggregates to Rs.66000 million.

### **Public Deposits**

During the year 2007-08, there was no change in interest rates of Public Deposit Schemes with effect from 21.12.2006 on PDS schemes. As on 31.03.2008, there are 367 deposit holders with outstanding deposit amount aggregating to Rs. 129.4 million.

### **Contribution to Exchequer**

Contributed Rs. 56898 Million to exchequer on account of corporate tax amounting to Rs. 26149 million, Dividend amount of Rs. 25828.7 million, Dividend tax amounting to Rs. 4904.6 million and wealth tax of Rs. 15.5 million.

#### Realization

The realization of monthly bills from April, 2007 to March, 2008 was 100%. All the customers have opened and are maintaining LC equal to 105 % of average monthly billing as per One – Time Settlement Scheme and are making full payment of current bill. All the beneficiaries are paying within 30 days of billing except UP and J&K which are paying in 60 days cycle.

### **Power Purchase Agreements**

NTPC signed PPAs with 28 beneficiaries for new projects during 2007-08 for a total of 10,510 MW.

### Capacity addition during 2007-08

Capacity added during the year 2007-08 is as follows:

1. Sipat-II (2x500 MW) – Unit-IV - 500 MW 2. Kahalgaon-II, Phase-I (2x500 MW) – Unit-VI - 500 MW **Total** - **1000 MW** 

3. Capacity addition through Joint Venture (RGPPL, Dabhol) - 740 MW (Module-III)

Grand Total - 1740 MW

### Capacity Addition during XI Plan (2007-2012)

NTPC has adopted multi-pronged growth strategy to become 50,000 MW plus company by the year 2012. Further, the Company has envisaged 75,000 MW Plus installed capacity by 2017 and the same includes significant addition of hydro capacity and forays into non-conventional and nuclear power generation. The strategy, inter-alia, includes capacity addition through green field projects, expansion of existing stations, joint venture and takeover of SEB's stations.

NTPC has planned an ambitious capacity addition of about 22,430 MW during XI Plan. The broad status of **XI Plan capacity addition** is as under:

Description	Capacity Addition in XI Plan (MW)
Capacity commissioned	1740
Capacity under implementation	16930*
Capacity for which bids received/ invited	3760 MW
	(6871 MW in XI & XII Plans)
Total	22430 MW

\* Including Mauda (1000 MW) for which LOI issued for Main Plant and Barh-II (1320 MW) for which LOA issued for Steam Generator.

# **Capacity Addition through Joint Venture Companies**

JVs with States have been given special thrust. Capacity of 4000 MW is under construction.

In addition, Memoranda of Understanding have been signed to take up capacity addition of another 3300 MW projects under joint venture route as per following details:

S. No.	Project	Capacity (MW)
1	New Nabinagar (Coal based)	1,980
2	Meja Urja Nigam Pvt. Ltd./Meja Project (Coal Based)	1,320
Total		3,300

Further, new business opportunities are being continuously explored through environment scanning and new business plans are adopted through mid-course correction.

# **Further Initiatives Towards Capacity Addition**

- Transfer Agreement signed with Govt. of Assam and Assam Power Generation Corporation Ltd. for transfer of the existing power plant and setting up of new 3x250MW coal based power plant at Bongaigaon (Assam).
- MOU signed with RINL (Rashtriya Ispat Nigam Ltd.) for setting up of around 150 MW Combined Cycle power Plant, using Blast Furnace Gas as fuel. NIT has been floated by RINL.

#### **Diversification into Manufacturing**

- JV Agreement has been signed between NTPC and Transformers and Electricals Kerala Ltd. (TELK) with NTPC equity stake of 44.6%.
- A Joint Venture Agreement has been signed with BHEL for taking up activities related to carrying out EPC and manufacturing of equipments in the field of power sector and infrastructure projects on mutually beneficial terms. The Joint Venture Company shall be jointly owned by NTPC and BHEL on the basis of 50:50 equity participation.
- An MOU was signed with Bharat Forge Limited for setting up a new facility to take up manufacture of castings, forgings, fittings and high pressure piping required for power projects and other industries, Balance of Plant (BOP) equipments for the power sector etc. with an equity participation of 49:51 by NTPC and BFL respectively.

# **Emphasis on Hydro**

NTPC has been giving increased thrust to hydro development for a balanced portfolio for long term sustainability. The construction activities are in full swing at the Koldam project (800 MW), Loharinag-Pala (600 MW) and Tapovan Vishnugad Projects (520 MW). The land acquisition activities for main project areas for all the three projects have been completed. Community Development (CD) / R&R activities are under implementation as per the plan.

# **Coal Mining**

NTPC has been allotted six coal blocks namely Pakri Barwadih, Chatti Bariatu, Kerandari, Dulanga, Talaipalli and Chatti-Bariatu (South) with estimated Geological Reserves of plus 3 Billion tonnes and production potential of about 48 Million Tonnes Per Annum(MTPA)

Brahmini & Chichro-Patsimal coal blocks, with estimated Geological Reserves of about 2 Billion tonnes, have been identified by Ministry of Coal for joint operation by 50:50 JV between NTPC & CIL and these blocks have production potential of about 20 MTPA.

These blocks are targeted to be developed to entail overall coal production of about 14 MTPA by 2012 and 56 MTPA by 2017.

### Strategic Alliances

NTPC has formed a JV Company, "NTPC-SCCL Global Venture Pvt. Ltd.", incorporated with Singareni Collieries Company Ltd. (SCCL), to undertake coal mining in India & abroad. Memorandum and Article of Association already approved.

MOU has been signed amongst NTPC, RINL, SAIL, NMDC and CIL for sourcing Coking coal and Thermal coal from abroad.

#### **Exploration & Production (E&P) Activities**

Exploration activities in the NELP-V awarded petroleum block (along with Consortium Partners-GeoPetrol as Operator) in Arunachal Pradesh is in full swing. 2D seismic data acquisitions, processing & interpretation have been completed. 3D seismic data acquisition is currently under progress. Drilling of exploratory wells is planned during FY 2008-09 at identified prospective locations.

#### Renewable Energy

By 2017, NTPC plans to have at least 1000 MW through renewable energy resources such as wind, hydro, solar, biomass and geo-thermal. Notice Inviting Tender for implementation of 100 MW wind farm has been floated. An MOU has been signed with ADB for establishment of power generation capacity of about 500 MW through Renewable Energy Sources

Another MOU has been signed between NTPC and National Geo-physical Research Institute (NGRI) for cooperating and sharing their knowledge to identify potential sites for setting up Geothermal based power projects in India as an alternate source of energy.

# **Consultancy Wing**

During the year 2007-08, consultancy activities recorded a provisional Gross Income of Rs. 1020 million and booked a provisional net profit of Rs. 300 million. The Consultancy Wing secured orders valued at Rs. 1798 million, including overseas order. The order booking include, one largest order of Rs. 805 million from Aravali Power Company Pvt. Ltd. ( Joint Venture Company of NTPC, HPGCL & IPGCL), for setting up 1500 MW (3 X 500 MW) Power Plant at Jhajjar in Haryana.

# **SUBSIDIARIES**

### NTPC Vidyut Vyapar Nigam Ltd. (NVVN)

NTPC Vidyut Vyapar Nigam Ltd., a 100% owned subsidiary of NTPC transacted a business of 3325 MUs of power in 2007-08 out of which the trading through Swap touched all time high of 1967 MUs. It is the second largest power trading company in terms of trading volume in India. During the year estimated provisional un-audited Profit after Tax is Rs 192 million as compared to Rs 65 million in the previous year. The provisional un-audited Gross Income of the company during the year was Rs.7253 million as compared to Rs 8808 million in the previous year.

### NTPC Electric Supply Company Ltd. (NESCL)

NESCL is a 100% owned subsidiary of NTPC. The provisional un-audited Gross Income of the company for the year 2007-08 is Rs 346.9 million and provisional un-audited Profit after Tax of the company for the year is Rs. 106.08 million as compared to Rs 207 million and Rs 29 million respectively in the previous year.

#### NTPC Hydro Ltd

NTPC Ltd., in furtherance of its efforts to take forward the hydro capacity addition and to give exclusive thrust to small and medium sized Hydro Power Projects up to 250 MW capacity, has set up a wholly owned subsidiary company named "NTPC Hydro Ltd.".

NTPC Hydro Ltd.'s (NHL) maiden venture, namely Lata-Tapovan Project (171 MW) is located in Chamoli district of Uttarakhand state. MOEF has accorded Environmental Clearance.

NHL's second venture Rammam Stage-III (120 MW) is located in Darjeeling district of West Bengal. Environment, Defence and Wildlife clearances have been obtained. Section IV and VI notifications have been published in the State Gazette. For another project at Rupsiya Bagar Khasiyabara HEPP (260 MW), the FR has been finalized.

### **Vaishali Power Generating Company Limited**

VPGCL was incorporated as a subsidiary of NTPC Ltd. in joint venture with Bihar SEB and has taken over Muzaffarpur Thermal Power Station (2x110 MW). At present NTPC is holding 51% equity and the remaining equity of 49% has been contributed by BSEB. The equity of NTPC Ltd. may go up to 74%. This Company was formed to renovate the existing units and run the plant. The 2<sup>nd</sup> unit has been successfully resynchronized on 17.10.2007 after four years of being idle. Renovation and Modernization of Unit no-I is under progress.

# **Bhartiya Rail Bijlee Company Limited**

A Joint Venture Company (Subsidiary of NTPC) under the name of "Bhartiya Rail Bijlee Company Limited" was incorporated with Railways for setting up of 4 units of 250 MW each of coal based power plant at Nabinagar, Bihar. Investment approval for the project was accorded in January 2008. Award for Main Plant SG and TG package was placed on BHEL in January 2008.

### **JOINT VENTURES**

# **Utility Powertech Ltd. (UPL)**

UPL (a Joint Venture Company of NTPC & Reliance Energy) formed to take up assignments of construction, erection and supervision in power sector and other sectors in India and abroad is operating satisfactorily. The provisional un-audited Gross Income and provisional un-audited Profit after Tax for the year 2007-08 are Rs.1982 million and Rs. 95 million respectively as compared to Rs 1809 million and Rs 93 million respectively in the previous year.

# NTPC Alstom Power Services Pvt. Ltd. (NASL)

NTPC Limited has formed a JV Company with Alstom Power Generation AG, under the name of "NTPC-ALSTOM Power Services Private Limited (NASL)" for taking up Renovation & Modernization assignments of power plants both in India and abroad. The provisional gross revenue for the year 2007-08 is Rs 1002.3 million and Profit after tax of the company for the year is Rs.37.2 million as compared to Rs 465 million and Rs 30 million respectively in the previous year.

#### NTPC-SAIL Power Company (Pvt.) Ltd. (NSPCL)

This joint venture company was formed for operating and maintaining the captive power plants of SAIL. The provisional un-audited Gross Income of the NSPCL for the year 2007-08 is Rs 2300 million and provisional un-audited Profit after Tax of the company for the year is Rs.335 million as compared to Rs 2009 million and Rs 390 million respectively in the previous year. The captive power plants at NSPL namely Durgapur, Rourkela and Bhilai maintained average PLF of 93% during 2007-08.Two units of 250 MW each are under advanced stage of completion.

# Ratnagiri Gas and Power Pvt. Limited (RGGPL)

Ratnagiri Gas And Power Supply Pvt Ltd has been formed as joint venture between NTPC, GAIL, Maharashtra State Electricity Board and Indian Financial institutions with NTPC having a stake of 28.33 % for taking over and operating Dabhol Power Project. NTPC's shareholding is to be revised to 32.88%. The total generation from Power Block II (740 MW) and Power Block III (740 MW) during 2007-08 is 4862 MUs which includes infirm power. The commercial generation is 3665 MUs. The provisional Gross Income of RGGPL for the year 2007-08 is Rs 10870 million as compared to Rs 4 million in the previous year.

# **Aravali Power Company Pvt. Ltd (APCPL)**

An MoU was signed for formation of Aravali Power Company Pvt. Ltd. (APCPL), a joint venture company of NTPC Ltd., Haryana Power Generation Corp. Ltd. (HPGCL) and Indraprastha Power Generation Company Ltd. (IPGCL) on 50:25:25 basis for setting up 3 x 500 MW Coal based Indira Gandhi Super Thermal Power Project in Jhajjar, Haryana for meeting the power requirement of Haryana and NCT of Delhi and the Commonwealth games to be held in Delhi in the year 2010. The power will be shared on 50:50 basis between Haryana and NCT of Delhi.

Construction activities at the site have since taken off and the Unit-I is expected to be ready during 2010-2011.

### NTPC Tamil Nadu Energy Company Ltd.

The company was incorporated to set up a coal-based power station of 1000 MW capacity at Vallur Thermal Power Project having two units of 500 MW each. The Main Plant award was issued in August 2007. The construction work at site is under progress.

#### PTC India Ltd.

The shareholding of NTPC Ltd. in PTC India Ltd. is 8%. The main objective of the company includes trading of power, import/export of power and purchase of power from identified private power projects and sell it to identified SEBs/others. PTC has traded a total 8.67 BUs for the period 1.4.2007 to 31.12.2007. For the same period the provisional un-audited total income is Rs. 33830.7 million and Profit after Tax is Rs. 295.9 million.

### Partnership in Excellence (PIE)

In a mission to increase capacity addition and meet the objective of Power for all by year 2012, Ministry of Power launched the Partnership in Excellence (PIE) Programme on 9<sup>th</sup> August 2005 to improve the under performing stations. Under this Programme, 13 stations with an operating capacity of 5050 MW were entrusted to NTPC. Performance turnaround has taken place at all the thirteen power stations. The plants entrusted to NTPC recorded an additional generation of 2859 MUs in the year 2007-08 from the existing installed capacity which is equivalent to 440 MW additional capacity.

### Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY)

NTPC has been entrusted by Government of India for rural electrification work under RGGVY in 6 States & one Union Territory covering approx. 40,000 villages. The work is in progress in 8 districts i.e. West Midnapore (West Bengal), Ashok Nagar & Guna (Madhya Pradesh), Janjgir-Champa (Chhattisgarh), Angul & Nayagarh (Orissa) and Deoghar & Jamtara (Jharkhand) during the X plan. 22 more projects have been sanctioned for XI plan period. The work is under progress in 9414 villages. Out of these 1253 villages have been charged/ made ready for charging.

# **Distributed Generation (DG)**

To provide power to the remotely situated villages, ten DG projects have been commissioned so far. During FY 07-08, the Company has commissioned four DG projects at village Piprahar, Mahuli, Biyar Basti and Biruhani in Uttar Pradesh based on biomass (woody), for integrated growth of the villages. Six more DG projects are under various stages of implementation based on locally available fuels.

# **Energy Technologies (ET)**

NTPC has set up Energy Technologies Centre with a well-defined mandate to develop and innovate cutting edge technologies to meet the ever-changing scenario in power sector.

Company has networked with 8 institutes for 12 research projects in the areas like carbon sequestration, power plant efficiency improvement, waste heat utilization, flue gas conditioning etc. These projects are in the different stages of development.

Company has recently signed an MoU with BARC, Mumbai for the Development of Automated Boiler Tube Inspection System for Coal Based Thermal Power Plants.

NTPC has also entered into an MoU with Anna University, Chennai to take up research in the areas relevant to Energy sector.

An MoU with Heavy Water Board, Mumbai has been signed for the transfer of Ammonia Based Flue Gas Conditioning Technology to NTPC, on non-exclusive basis, for its use in NTPC power stations.

# **Information Technology**

NTPC is currently in the process of implementing Enterprise Resource Planning package covering most of the processes of the organization at all its locations. The ERP package has already been implemented at 21 locations of NTPC and is being implemented at balance locations. NTPC received SAP award for Customer Excellence for Best Implementation in Utilities

### **Environment Management**

The company is undertaking massive afforestation covering vast areas of land in and around its projects and till date has planted more than 18.37 million trees at its projects. The afforestation has not only contributed to the aesthetics but also has been serving as a "sink" for the pollutants released from the station and thereby protecting the quality of ecology and environment in and around the projects. For hydro-projects, Catchment Area Treatment (CAT), Compensatory Afforestation, Rim Plantation etc are finalized and implemented in consultation with respective State Governments.

As a result of pursuing sound environment management systems and practices, all NTPC stations have been certified with ISO 14001 and OHSAS 18001 by reputed national and international certifying agencies.

NTPC has adopted advanced and high efficiency technologies such as super critical boilers for the up-coming greenfield projects (e.g Sipat, Barh, North Karanpura etc). The company also designed plants, under implementation, for use of beneficiated coal and imported low ash coal. These measures will not only help in reducing pollution and minimizing use of precious natural resources but also lead to reduction of CO<sub>2</sub> emissions and thereby reducing global warming.

### **Ash Utilization**

During the year 2007-08, about 23.7 million tonne of ash has been utilized for various productive purposes which is 55.1% of total ash generation against MoU target of 55%. Important area of ash utilization are manufacturing Cement, Concrete, Ash based products, Asbestos sheets etc., construction of Road Embankment, Ash Dyke raising, Mine filling, and Land Development.

Issue of fly ash to cement and concrete industry this year has been 8.69 million tonne which is 16.6 % more than last year's issue.

All NTPC coal based stations are having Pilot ash brick manufacturing plants. More than 446 million ash bricks have been manufactured at these plants till date. Out of these 70 million ash bricks have been utilized for various construction activities within NTPC this year.

Construction works at all expansion projects like Dadri-II, Kahalgaon-II and Rihand-II including their townships are being done with ash bricks only. Ash Bricks have also been used in green field project at Sipat.

### **CenPEEP**

Ministry of Power and Central Electricity Authority (CEA) have projected NTPC/CenPEEP as an important agency involved in GHG reduction efforts and the success achieved in this area.

On a request of Government of India, CenPEEP has been entrusted the work of efficiency evaluation for improvement in two power stations of state utilities (Kolaghat and Ropar) as part of Asia Pacific Partnership

#### **Energy Conservation**

During the year 2007-08, NTPC carried out 105 energy audits in its different power plants for various systems. Implementation of recommendations of these energy audit reports and other energy conservation activities led to saving of different forms of energy like Electricity, fuel oil, Coal, Natural gas, Water etc. amounting to approximately Rs. 490.2 million during the year.

#### **Corporate Social Responsibility (CSR)**

Vitally engaged in the endeavour of nation building, NTPC is not only a partner in powering India's growth, it is also a partner in making Indian society more humane and just. Corporate Social Responsibility is an article of faith for NTPC.

Keenly conscious of its social responsibilities, NTPC became member of Global Compact, the largest Voluntary Initiative of UN for Corporate Social Responsibility (CSR). NTPC confirms its involvement in various CSR activities in line with 10 Global Compact principles and share the experiences with the representatives of the world through "Communication on Progress" and a report on the progress made in this area is also annexed to NTPC's Annual Report.

NTPC is providing sponsorship to candidates from villages in the vicinity of NTPC stations/ Projects for ITI training at Government/ Government recognized private ITIs in the trades of Welder/ Fitter/ Instrument mechanic/ Electrician. Close to 750 village youth have been sponsored during the financial year. As a CSR initiative in the field of Health, NTPC is providing support to Hyderabad Eye Research Foundation for three specialized Eye Centers at Bhubaneswar Eye Hospital. The centers were inaugurated on October 10, 2007 by Hon'ble Union Minister of Power

Further in the field of education, NTPC is committed to provide support for setting up two technical polytechnic at Uattarakhand, at Kaladungi, distt. Nainital and a Women's Polytechnic at Gopeshwar, distt. Chamoli. Support has also been extended by NTPC for delivery vehicles for mid-day meal programme for the children of Govt. Schools located in the National Capital Region through Food Relief Foundation of ISKCON and for assistance in self reliance for 200 tribal girls/ women in tribal area of Jhamar Kotra in Udaipur Dist. of Rajasthan.

#### NTPC Foundation

NTPC foundation has been established by the company under Indian Trust Act, 1882 for addressing the niche domains of social development at national level through strategic interventions at National Level.

NTPC Foundation provides loans/training/medical treatment to physically challenged persons and economically weaker sections in a phased manner.

### **Resettlement & Rehabilitation**

During the financial year 2007-08, Socio Economic Survey (SES) has been completed for Coal mining projects like Darlipalli, Chatti-Bariatu and Kerendari and Korba-III ash dyke .The Rehabilitation Action Plan (RAP) / Community Development (CD) Plan has been approved and is under implementation at North-Karanpura, Loharinag-Pala and Tapovan-Vishnugad

The Social Impact Evaluation (SIE) study has been completed at Sipat and Simhadri during the year 2007-08

#### Safety

Looking into the necessity and to ensure the best health and safety performance and the accident free environment, all NTPC Projects / Stations have obtained the OHSAS / IS – 18001 (Occupational Health & Safety Management Systems) certification.

NTPC has won the "Golden Peacock Occupational Health & Safety Award" for the year 2007. This is in recognition on implementation of National Occupational Health & Safety standards in the Organization.

Ramagundam, Dadri, Simhadri & Anta stations have won the "Safety Initiative Award 2007" for implementing innovative, Safety, and Quality Procedures and Practices. The award is instituted by the Safety and quality forum of Institution of Engineers (India). The award has been conferred to Ramagundam for the third consecutive year.

Auraiya and Dadri have won National Safety Awards for the year 2005. These Awards were presented in September, 2007 at New Delhi.

#### **Human Resource Management**

NTPC has a pool of capable and committed manpower, which is its core strength, the key factor behind all its success and achievements. The total strength of employees of the Corporation stands at 23,716 as on 31.03.2008 as against 23,633 for the year 2006-07(excluding employees in JVs & Subsidiaries). All efforts were made to improve the manpower utilization. The overall Man: MW ratio for the year is 0.87.

During the year NTPC received the "Gold Award for Excellence in People Management " by Grow Talent. In a 2006 survey by Grow Talent and Business World, NTPC was declared as the "Seventh great place to work for" in India .

# **Training and Development**

The Power Management Institute (PMI), NTPC's apex Training and Development Centre conducted 324 training program with a participants base of 8520. The training man days clocked was 54,254 an all-time high, 2.06% higher than the previous year's figure of 53,160.

The National Seminar on "Power Project Management" organized in March, 2008 was attended by 75 participants from power utilities of India. A total 11 [Eleven] programs were conducted under DRUM project which were attended by 103 participants from various SEBs.

### **Employee Relations**

Industrial Relations in NTPC continued to be cordial and harmonious during the year. Workshops for employee representatives from projects were held, at the apex as well as regional level, to sensitize them of the opportunities, threats and challenges facing the company in the dynamics of an uncertain business environment and to reiterate their significant role in synergizing the potential of the human resource – the sole differentiating factor of competitive advantage in today's knowledge economy.