



DIRECTORS' REPORT

Dear Members,

On behalf of the Board of Directors, it is my privilege to present the 28th Annual Report on the performance of your company during the financial year ended on March 31, 2004 along with audited Statement of Accounts, Auditors' Report and Review of the Accounts by the Comptroller and Auditor General of India for the reporting period.

FINANCIAL RESULTS

	Rs. Million	
	<u>2003-04</u>	<u>2002-03</u>
Gross Revenue	249994	194511
Gross Profit	109196	65117
Less:		
Interest	6636	5973
Finance charge	27061	3943
Depreciation	20232	15291
Provisions (Net)	(3813)	1567
Prior Period Adjustments (Net)	183	803
Provision for taxation (including deferred tax of Rs.1 million in respect of previous year)	6289	1465
Net Profit after tax	52608	36075
Appropriations:		
Transfer to Bonds Redemption	2067	1815
Proposed Dividend	10823	7080
Tax on Dividend	1387	395
Transfer to General Reserve	39000	27500
Transfer to Capital Reserve	30	100

Net Profit after Tax has increased by Rs.16533 million over the previous year.

GENERATION

As of March 31, 2004, the installed capacity of your company represented approximately 19.1% of India's total installed capacity, and contributed 26.7% of the total power generation of India during the year under review.

NTPC generated a total of 149.2 billion units of electricity registering an increase of 5.9% over previous year's generation. 125.1 billion units or 84% of total generation was through coal-fired plants and 24.1 billion units or 16% of total generation was through gas-fired plants.

SALES

Overall Sales figures, marking an increase of 6.9% on year-to-year basis, are as under:-

	Rs. Million	
	<u>2003-04</u>	<u>2002-03</u>
Energy Sales excluding energy internally consumed	188178	190019
Consultancy, Project Management and Supervision Fees (including turnkey construction projects)	341	269
	188519	190288

REALISATION

Implementation of the One-Time Settlement Scheme (Scheme) has significantly helped in improvement of realisation of bills for sale of electricity. The realisation of total during the year under review improved substantially to 100% which was 92.3% during the previous year.

All the SEBs and power utilities have also enhanced their Revolving LCs to the required level. The amount of LC available as on 31.3.2004 was Rs.19147 Million as against LC of Rs.17301 million as on 31.03.2003.

MOU PERFORMANCE

During the year 2003-04, the company, in keeping with its track record, has achieved Excellent targets set for it under the Memorandum of Understanding (MOU) with the Govt. of India.

DIVIDEND

Your Directors have recommended a dividend of Rs.10823 million for the year as against Rs.7080 million paid last year.

The dividend shall be paid after your approval at this Annual General Meeting.



Dividend Presentation

MANAGEMENT DISCUSSION AND ANALYSIS

A report on Management Discussion and Analysis is at Annex-I.

CORPORATE GOVERNANCE

A report on Corporate Governance is given at Annex-II.

OPERATIONAL PERFORMANCE

During the year 2003-04, for coal-fired plants (excluding two plants taken over from other generators, which are undergoing renovation and modernisation) the average availability was 88.8% and the plant load factor was 84.4%, compared to the all-India average PLF for coal-fired plants of 72.7%. For gas-fired plants, the average availability was 89.0% and the PLF was 68.3%.

The operating efficiency of power stations of your company has improved over the years. The PLF has consistently improved year after year despite the fact that many of our units are as old as 23 years. Timely maintenance and periodic Renovation & Modernisation (R&M) interventions have yielded the desired results.

NTPC has taken new initiatives to bolster its robust performance further. It has also focussed on reduction of forced outages. NTPC is also moving from preventive maintenance towards condition based maintenance.

NTPC has entered into an agreement with Electric Power Research Institute, (EPRI) USA to improve and modernise Cycle Chemistry of NTPC plants. The partnership is also looking at condition based maintenance and its application in NTPC plants progressively. Cycle Chemistry initiative would reduce failure of equipment and tube leakages as well as make NTPC plants' Cycle chemistry world-class.

CORPORATE PLAN

The Company is also pursuing its Corporate Plan of becoming a 40000 MW plus Company by the year 2012 with a variety of fuel mix and ownership profile. Further, it is active for its presence in different aspects of the value chain in the field of power through backward integration in coal mining and washing as well as forward integration in trading and distribution. Major thrust has also been laid on basic research and globalisation initiatives.

CAPACITY ADDITION

During the year 2003-04, one unit of 500 MW at Talcher Project was commissioned ahead of schedule. Further, another 500 MW unit has been commissioned at Talcher in May, 2004. Thus, the total generating capacity of the company has increased from 20,935 MW to 21,935 MW.

As demand for electricity continues to significantly exceed supply in India, the target for capacity addition has been set at 41,110 MW under the Government's Tenth Plan (fiscal 2003-



A panoramic view of Talcher Project

2007). Under the Plan, CPSUs are to implement 22,832 MW of targeted capacity addition. NTPC has plans to add 9370 MW during the X Plan. Further, NTPC envisages to add 11,558 MW during XI Plan through various projects. So far, during X Plan, 2000 MW capacity has been added. Notably, work on 8490 MW capacity addition for benefits in X and XI Plan is progressing concurrently, a unique feat in NTPC's corporate history. The following table profiles the on-going capacity addition:

(Figures in MW)

Sl. No.	Project	Capacity	On-going
1.	Northern Region		
i)	Rihand-II	1000	1000
ii)	Unchahar-III	210	210
iii)	Koldam HEPP	800	800
2.	Southern Region		
i)	Ramagundam-III	500	500
3.	Eastern Region		
i)	Talcher-II (for benefit to Southern Region)	2000	500 (1500 MW already commissioned)
ii)	Kahalgaoon-II (Phase-I & II)	1500	1500
4.	Western Region		
i)	Vindhyachal-III	1000	1000
ii)	Sipat-I	1980	1980
iii)	Sipat-II	1000	1000
	Total	9990	8490



SUPER CRITICAL TECHNOLOGY

With the start of implementation of Sipat-I your company has entered in the era of 660 MW super-critical units, which is also a pioneering effort in the country. Barh and North Karanpura projects will be other forthcoming projects in which super critical parameters are envisaged.

HYDRO PROJECTS

Detailed project reports for Loharinag Pala (4x150 MW) and Tapovan Vishnugad (4x130 MW) have been finalized and submitted to CEA. These projects located in Uttaranchal, have been poised for Asian Development Bank (ADB) financing and are under its consideration for funding.



MOU Signing Ceremony at Dehradun for implementation of Loharinag-Pala and Tapovan Vishnugad

Further, NTPC is in the process of identifying suitable Hydro sites in Sikkim, Karnataka, West Bengal etc. for implementation in XI/XII plans. Projects totaling 4551 MW in Uttaranchal and Arunachal Pradesh have been identified by NTPC and taken up with Central/State Govts for allocation to NTPC for preparation of Feasibility Report/Detailed Project Report.

GAS SUPPLY

The Company has initiated necessary action for international competitive bidding to procure Gas/LNG for the gas projects' expansion. Letter of Intent for supply of 132 trillion BTU of Gas per year for a period of 17 years required for expansion project at Kawas and Jhanor Gandhar of 1300 MW each have been issued in June, 2004. Bids for Natural Gas/LNG required for 1950 MW Kayamkulam-II project have been invited.

ORGANISATIONAL TRANSFORMATION

The implementation of Project Disha initiatives, commenced in September 2003, is progressing to ensure timely implementation of the change initiative. Implementation activities related to Performance Management System,

Regional Commercial initiative and Enterprise Resource Planning are on. In addition, implementation of Planning initiative, Knowledge Management, Globalisation, Rewards and Incentives, Career Development system, Regulatory initiative, Engineering initiative and Unit level processes (pilot) are under way at various stages. Periodic reviews at programme management level and apex level are held regularly.

RAISING OF FUNDS FOR CAPACITY ADDITION PROGRAMME

In order to meet part of the funds requirement for capacity addition programme of the Company, NTPC has tied up with Life Insurance Corporation of India for borrowings upto Rs. 7,000 crore at attractive terms. Out of this, Rs. 4,000 crore shall be by way of term loan and Rs. 3,000 crore shall be by way of issue of bonds in various tranches. Rs. 500 crore has been drawn against this sanction upto March 31, 2004.

During the year under review, NTPC made its debut issue of Euro bonds amounting to US\$ 200 million in the International market.

The Company will need significant additional capital to fund capacity expansion plans. Ministry of Power, in February 2004, has conveyed the approval of Government of India for issue of Initial Public Offering(IPO) not exceeding 10% of NTPC's paid up capital in one or more stages/tranches from the domestic/external markets for augmenting resources for investment programme of the Company.

NTPC proposes to come out with an IPO of 432,915,000 equity shares of Rs. 10 each comprising a net issue to the public of 412,300,000 equity shares of Rs. 10 each and a reservation of 20,615,000 equity shares of Rs. 10 each to the employees i.e. an issue size of 5.25% of the post-issue paid-up capital of the Company. Ministry of Finance, Deptt. of Disinvestment has also conveyed its decision for offer for Sale of 432,915,000 equity shares of Rs.10 each held by Government in NTPC alongwith the public issue of fresh equity of the same quantity by NTPC. Accordingly, the combined issue size shall now be 865,830,000 equity shares of Rs. 10 each.

JOINT VENTURES

The performance of the Joint Venture Companies are covered in the Management Discussion and Analysis. Joint Ventures (JVs) are viewed as a vehicle for growth. Towards this end, the following Joint Ventures are under consideration:

JOINT VENTURE WITH RAILWAYS

NTPC has signed an MOU with Ministry of Railways on February 18, 2002 for setting up power plant(s) of 2000 MW capacity to meet the traction and non-traction power requirements of Railways. After studying various sites in India, it has been decided to set up a 1000 MW (4x250 MW) power plant at

Nabinagar, Bihar. Feasibility Report for this project has been prepared.

Cabinet approval will be sought after State Pollution Control Board clearance and MOEF clearance is available.

JOINT VENTURE WITH BHARAT HEAVY ELECTRICALS LTD.(BHEL)

An MOU was signed between NTPC and BHEL on June 19, 2003 to take up EPC Jobs, running maintenance and peripheral activities in India and abroad. Joint Venture Company will be formed after signing the Joint Venture Agreement.

JOINT VENTURE WITH RURAL ELECTRIFICATION CORPORATION (REC)

NTPC is exploring the possibility to take up Decentralized Distributed Generation (DDG) for rural electrification through Non- Conventional energy resources such as Biomass, Solar etc. REC has shown keen interest in joining NTPC for implementation of such projects. MoU has been signed with REC on March 23, 2004. A task force has been formed to handle the projects under DDG.

JOINT VENTURE WITH GUJARAT POWER CORPORATION LIMITED (GPCL)

An MOU has been signed on February 20, 2004 between NTPC, Gujarat Power Corporation Ltd. (GPCL) and Gujarat Electricity Board (GEB) to set up 1000 MW Thermal Power Project at Pipavav in Gujarat. Share Acquisition & Shareholders Agreement, for transfer of 50% of NTPC's Equity Share in its wholly owned Subsidiary viz. PPDCL to GPCL, is under discussion with GPCL.

SUBSIDIARIES

The Company at present has four subsidiary companies in the area of electricity distribution, developing small and medium hydel projects, power trading and development of Pipavav Power Project respectively. The results of these Subsidiaries are briefly dealt with in the Management Discussion and Analysis. Detailed coverage on these subsidiaries is available in the respective Directors' Report appended hereto. Statement pursuant to Section 212 of the Companies Act, 1956 (Act) in respect of these subsidiaries is given at Annex-III.

RESEARCH & DEVELOPMENT

The applied research work being presently undertaken is proposed to be enhanced. Further, studies are also being made to examine the feasibility of upgrading various laboratories with state-of-the-art equipment/facilities. This will help in proper health assessment of various critical equipment/components and proper failure analysis, which will increase the availability and reliability of the stations.

Apart from significantly up-grading the applied research activities, basic research will also be introduced. As such it has been decided to set up a Centre to be known as "Energy Technologies". The blue print for the "Energy Technologies" is under finalization. The centre proposes to target development of technologies for reduction in the O&M cost of old plants, Carbon/energy conflict, nano-technologies, fuel cell, high efficiency Integrated Coal Gasification, etc.

CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION, FOREIGN EXCHANGE EARNINGS & OUTGO

Power generation technology has been an area of close attention as coal is the mainstay of power generation. NTPC, in its role as a responsible utility, has always encouraged adoption of environmental friendly technologies.

Coal gasification based power generation has of late emerged as environmentally attractive generation alternative. Accordingly, NTPC has tracked and studied the developments in the field of Integrated Gasification Combined Cycle (IGCC). A study is being undertaken to compare IGCC with contemporary coal generation technologies from a techno-economic standpoint, examine the potential gasification technologies to narrow down on the gasifier most suitable to Indian coal and develop a feasibility report for a 100 MW demonstration plant. A highlight of the study is that it includes pilot scale testing using Indian coal and the same is likely to be completed by October 2004. The effort on IGCC exemplifies NTPC's proactive approach and look beyond the immediate in matters of national importance.

NTPC has geared up to engineer SIPAT Power Plants with AC transmission system for 765 kV, which is the next higher voltage level proposed to be adopted in the country for power transmission.

Adoption of substation automation system/SCADA for EHV switchyard is being adopted for all future Projects of NTPC to enhance the reliability, improved availability of the system.

Information in accordance with the provisions of Section 217 (1)(e) of the Companies Act, 1956 regarding conservation of energy, technology absorption and foreign exchange earnings and outgo is given in Annex-IV to this Report.

ENVIRONMENT AND SAFETY

NTPC has taken a number of pro-active and growth oriented measures for improvements in the areas of Environment Management. It is actively pursuing the Charter on Corporate Responsibility for Environment Protection (CREP) released by Ministry of Environment and Forest and has also become a member of its National Task Force for Thermal Power Plants. All NTPC Stations have implemented ISO-14001 Certified Environment Management System.



In order to achieve continual improvement, a number of Environment Projects were completed during the year. Liquid Waste Treatment Plants were commissioned at Singrauli, Vindhyachal, Korba and Kahalgaon where waste water from various locations in Main Plant areas is treated and then recycled for various plant uses. Ash Water Recycling Systems were commissioned at Vindhyachal and Talcher Thermal where supernatant ash water over – flow from ash ponds is recycled for re-use for transportation of ash. These measures have contributed to reduction of fresh water requirement at these stations. Additional Electro – static Precipitators (ESPs) were installed in three units of Talcher Thermal Power Station to reduce high stack emissions. Alternative ESP performance enhancement technology to meet the ever increasing stringency in environmental stipulation is being examined for implementation.

NTPC is committed to ensure and provide safe and healthy work environment, to comply with all applicable Acts, Regulations and other statutory requirements related to occupational health and safety, continually improve the systems and procedures, provide training and create awareness among all employees, contractors and their workmen within the premises of NTPC.

ASH UTILISATION

The actual ash utilisation of NTPC has increased from 0.3 million tonnes during the year 1991-92 to 7.5 million tonnes in the year under review (or 23.5% of total ash production). Ash is utilised for ash dyke raising and for land fills. Ash is supplied free of cost to consumers who use it in the cement and asbestos industry, land development and road development. In order to provide fly ash in dry form to various users, partial dry ash extraction facilities have been commissioned at all NTPC's stations. In order to comply with ash utilisation targets, certain new areas such as mine filling etc. are being identified and the company has approached the Govt. and coal companies for assistance.

HUMAN RESOURCE MANAGEMENT

The company has continuously added to its installed capacity, yet the Man-MW ratio has been consistently improving. The total strength of employees of the Company including that on secondment to different associated organisation stands at 23080 as on March 31, 2004 as against 23527 as on March 31, 2003. All efforts were made to improve the manpower utilization. The overall Man-MW ratio for the year 2003-04 was 0.98 as against 1.02 for the year 2002-03.

In tune with Company's HR initiatives, Training & development was given a renewed thrust to build competence and commitment among the employees. The target of seven days training per employee was achieved by most of the plants.

In order to bring more objectivity and transparency in performance evaluation and building high performance culture, Key performance Area based Performance Monitoring System is being implemented from 2004-05.

Considering the importance of Knowledge Management, a detailed IT enabled KM system has been designed which provides for various domains of knowledge to be comprehensively captured. The system is under implementation and would benefit a large number of users in the company.

Employee morale continued to remain high facilitating smooth working of the Company and contributing to higher generation of power. All efforts to achieve employee development were made through measures like job-rotation, re-deployment etc. The turnover rate of the executives during the year continued to be low at 0.17%.

POWER MANAGEMENT INSTITUTE (PMI)

NTPC's apex training and development centre PMI, has conducted 271 in-house and tailor-made programmes for external organizations covering 7068 participants registering an increase of 14% over last year. More than 20% of the participants were from other organisations in the power sector which led to a revenue generation of Rs. 3.08 crore. In addition 38,387 participants were trained at 13 Employees Development Centres and two Simulator Training Centres.

To meet the diversification plans of the Company, PMI has taken initiative towards providing training for capability building in Distribution and Hydro areas.

NTPC has entered into an MOU with IIT, Mumbai to promote R&D projects in the area of distribution, generation, computational fluid dynamics, renewable and environmental issues etc. It has also entered into an MOU with Administrative Staff College of India (ASCI), Hyderabad to carry out joint research in techno-commercial areas and also develop policy options that would contribute to reform and sectoral growth in the power sector.

Towards its commitment to build business management competence in middle management level executives, NTPC has introduced a 15-months fully sponsored Post Graduate Diploma in Business Management (PGDBM) in collaboration with prestigious Management Development Institute at Gurgaon.

The programme has commenced in July 2004 with a batch of 30 participants from NTPC.

EMPLOYEE RELATIONS

Industrial Relations in NTPC continued to be cordial and harmonious during the year.

RESETTLEMENT & REHABILITATION

In line with the social objective, the company has focussed on effective Resettlement of its Project Affected Persons(PAPs) and also Community Development works in and around the projects.

During the year under review, rehabilitation work for PAPs in Unchahar Stage-II was completed involving 477 beneficiaries. Community development plan for Simhadri Project involving 2577 beneficiaries was also completed.

CORPORATE SOCIAL RESPONSIBILITY (CSR)

NTPC has been a member of Global Compact, an initiative of United Nations since 2001. During the year, the case example submitted by NTPC on employment to physically challenged persons was well appreciated and posted on their website at www.unglobalcompact.org. Another case study of NTPC on “Partnership with the Workers for improving Competitive Edge and Productivity” was presented by Director(HR) at 3rd Annual Global Compact Learning Forums International Meeting held on 9th-11th December, 2003 in Brazil, which was very much acclaimed and appreciated by the audience. For achieving its mission and objective towards Corporate Social Responsibility, NTPC has decided to earmark up to Rs. 17 crore (equivalent to 0.5% of Net profit for the year 2002-03) every year starting from the current year 2003-04 towards Corporate Social Responsibility.



Presentation of cheque for a Cancer Hospital

NTPC has bagged Institute of Directors “Golden Peacock Award for Corporate Social Responsibility” for the year 2003.

PHYSICALLY CHALLENGED PERSONS

With a view to focusing on its role as a socially responsible and socially conscious organization, NTPC has endeavoured

to take responsibility for adequate representation of physically challenged persons in its workforce. Information on various activities performed and policy decisions taken during the year 2003-04 for the welfare of persons with disabilities is provided in Annex-V to this report.

SC/ST/OBC

The company also lays emphasis in promoting the interest of SCs/STs/OBCs in the recruitment and service matters. Statistical information with regard to SCs/STs/OBCs is given in Annex-VI to this report.

IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY

Cash incentives have been given to the employees who perform work in Hindi e.g. cash award equivalent to one increment is given per month. Employees are being encouraged for writing original books in Hindi on technical subjects and are given cash prizes.



Inauguration of All India Conference on “Hindi in UNO: Our Preparations”

The Parliamentary Committee on official language has inspected NTPC Dadri, Faridabad and Mumbai offices this year. The committee has appreciated the progress in use of official language in these offices and also given their valuable suggestions for further improvements in some areas which are being implemented. As per advice of the Parliamentary Committee, NTPC organized All India conference this year at Corporate Centre and at all the five Regional Head quarters on “Hindi in UNO: Our Preparations” to include Hindi as the seventh official language of the UNO.

NTPC introduced “Rajbhasha trophies” for the PSUs under the aegis of Ministry of Power. NTPC won Awards/ recognition for progressive use of Hindi in the Organization.



VIGILANCE

During the year 154 complaints were handled. These included 110 complaints received during the year. Out of the 154 complaints handled during the year, 121 complaints were investigated and carried to logical conclusions. Six complaints were also received from Central Vigilance Commission, Central Bureau of Investigation and Ministry of Power. All the complaints were taken up for investigation within the stipulated time-frame.

15 cases involving 20 officials were proceeded against for major penalty action; 22 cases involving 40 officials for minor penalty action and 02 cases involving 13 officials for administrative action. Major penalties were imposed on seven officials and minor penalties were imposed on 35 officials. Eight officials were exonerated and the cases against four employees were closed with 'Advice' or 'Displeasure'.

Stress is laid on preventive vigilance. As a preventive vigilance measure about 250 Surprise Checks were conducted. Various packages were also taken up for intensive examination on the pattern of CTE's Organization. As many as 26 Workshops were also conducted on "Vigilance Mechanism" for NTPC officials.

STATUTORY AUDITORS

The Statutory Auditors of your Company are appointed by the Comptroller & Auditor General of India. M/s. Kalani & Co., Amit Ray & Co., Umamaheswara Rao & Co., S.N. Nanda & Co. and T.R. Chadha & Co. have been appointed as Joint Statutory Auditors for the financial year 2003-04.

MANAGEMENT COMMENTS ON STATUTORY AUDITORS' REPORT

Members' attention is drawn to the comments of the Statutory Auditors as contained in paragraph 4 (i) & (ii) of their report to the Shareholders. In this regard your Directors clarify that:

The reconciliation of advances, debtors, creditors, material lying with contractors/fabricators and material issued on loan is an on-going process and is under progress. During the year adjustments have been carried out wherever found necessary.

CERC have notified, by regulations, the terms and conditions for determination of tariff effective from 1st April, 2001. Further CERC has directed by notification that billing of sales shall continue to be done on the same basis as on 31st March, 2001 subject, however, to adjustment after final determination of tariff. Sales as per CERC regulations are likely to be lower than the billed amount and accordingly, the company provisionally

recognised sales on the basis of tariff worked out as per CERC regulations pending final determination of tariff by CERC. The fact has been also explained in note no. 3a of the Annual Accounts.

C&AG REVIEW

Review of the Accounts for the year ended March 31, 2004 by the Comptroller and Auditor General of India (C&AG) is furnished at Annex -VII to this Report. Comments of C&AG on the Accounts of the Company for the financial year 2003-04 and management replies thereto are also given in the aforesaid Annex-VII.

PARTICULARS OF EMPLOYEES

Information pursuant to provision of Section 217 (2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975, as amended, is given as Annex-VIII to this Report.

REDRESS OF GRIEVANCES

Grievances received from the public are being processed as per guidelines issued by Department of Administrative Reforms and Public Grievances.

Grievances from employees are being dealt with as per staff grievance procedure framed in this regard. The statistical data of the grievances cases are given in Annex-IX to this Report.

BOARD OF DIRECTORS

Shri Ajay Shankar, Joint Secretary, Union Ministry of Power ceased to be member of the Board with effect from October 15, 2003 and Shri Arvind Jadhav, Joint Secretary (Thermal) joined the Board with effect from the said date. On attaining the age of superannuation, Shri B.N. Ojha ceased to be Director of the company with effect from December 31, 2003. Consequent upon acceptance of his resignation, Shri R.D. Gupta relinquished the charge of the post of Director(Commercial) on June 30, 2004 to join as Member, Uttar Pradesh Electricity Regulatory Commission. The Board wishes to place on record its deep appreciation for the valuable services rendered by S/Shri Ajay Shankar, B.N. Ojha and R.D. Gupta.

Shri Chandan Roy took over as Director (Operations) of the company on January 1, 2004.

In accordance with the provisions of Article 41(iii) of the Articles of Association of the company, S/Shri K.K. Sinha and P. Narasimhamulu will retire by rotation at the Annual General Meeting of your company and, being eligible, offer themselves for re-election.

DIRECTORS' RESPONSIBILITY STATEMENT

As required under Section 217(2AA) of the Companies Act, 1956 your Directors confirm that:

- i) in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;
- ii) the Directors had selected such accounting policies and applied them consistently and made judgements and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the company at the end of the financial year 2003-04 and of the profit of the company for that period;
- iii) the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the company and for preventing and detecting fraud and other irregularities; and
- iv) the Directors had prepared the Annual Accounts on a going concern basis.

ACKNOWLEDGEMENT

The Board of Directors, acknowledges with deep sense of appreciation the co-operation received from the Govt. of India, particularly the Ministry of Power, Ministry of Finance, Ministry of Environment & Forests, Ministry of Coal, Planning

Commission, Department of Public Enterprises, Central Electricity Authority, Central Electricity Regulatory Commission as well as from the State Governments, Regional Electricity Boards and State Electricity Boards.

The Board also conveys its gratitude to various International and Indian Banks/Financial Institutions as well as Indian investors for the confidence reposed by them in NTPC. Board's special appreciation and thanks are due to the valued customers, the purchasers of power as also to valued consultancy clients, who have reposed confidence in NTPC. The Board also appreciates the contribution of contractors, vendors and consultants in the implementation of various projects of the Company. The Board acknowledges with thanks the constructive suggestions received from C&AG and the Statutory Auditors.

The Board wishes to place on record its appreciation for the untiring efforts and contributions made by the employees at all levels to ensure that the company continues to grow and excel.

For and on behalf of the Board of Directors

A handwritten signature in black ink, appearing to read 'C.P. Jain', is positioned above the name of the Chairman & Managing Director.

(C.P.JAIN)

Chairman & Managing Director

Place : New Delhi
Date : 29.07.2004



MANAGEMENT DISCUSSION AND ANALYSIS

INDUSTRY STRUCTURE AND DEVELOPMENTS

The Electricity (Supply) Act, 1948 enacted in 1948, paved the way for creation of State Electricity Boards (SEBs). The vertically integrated SEBs were assigned the sole responsibility of generation, transmission and distribution of electricity within the State. In mid seventies it was realized that with the uneven distribution of coal and hydel resources within the country, power development only by SEBs as spatial units would not only create large inter-state imbalances but also they would not be in a position to meet the increasing power demand. At this juncture, Government of India decided to create generating companies in the Central Sector to supplement the efforts of States. Consequently, National Thermal Power Corporation Ltd. (NTPC) and National Hydroelectric Power Corporation Ltd (NHPC) were created in the year 1975 in the central sector to set up thermal projects and hydro projects (along with associated power evacuation system¹) respectively. North Eastern Electric Power Corporation (NEEPCO) was incorporated in 1976 in the Central Sector for development of power projects in North Eastern States. As on date the SEBs own close to 60% of the total generating capacity in the country and almost the entire distribution network (barring a few private distribution networks in the states of Orissa, Delhi and the cities of Mumbai, Kolkata, Ahmedabad and Surat).

With the objective of bringing in additional resources for the capacity addition programme in the electricity sector, in October 1991 Central Government notified a policy for encouraging greater participation by privately owned enterprises in the electricity generation field. The policy allowed for setting up thermal, hydel and wind/solar energy projects of any size in private sector either as licensees or as generating companies. After the decade long efforts failed to attract significant private investment, the policy makers realised that in the absence of a self sustaining sector, no investor would be willing to risk investment. Therefore the focus of reform shifted to the distribution end, which was the consumer end of the electricity value chain. Reducing the technical and commercial losses in the distribution sector, tariff rationalisation, system modernisation and improvement were the prime objectives of the distribution reform. The Regulatory initiatives of the Government were also intended to reduce the day to day role of the Government in the power sector.

The legislative/legal framework of Indian Power sector has undergone a major shift after the notification of the 'Electricity Act, 2003' on June 10, 2003 by the President of India. The Electricity Act, 2003 supersedes the 1910, 1948 and 1998 Central Acts. The Act is a major milestone in the history of power sector in India. It is expected to give push to

reforms, spearhead sector growth, encourage competition, decrease controls, reduce tariffs and improve customer satisfaction in the medium to long term. The salient features of the Act are:

- Generation has been liberalized and delicensed. The requirement of techno-economic clearance has been done away with (except for hydro projects). Captive plants have been freed from controls. Consumers can also form "bulk purchasing groups" and choose to buy power either directly from the generating companies or from intermediaries such as traders and distribution companies.
- Open access has been allowed in transmission lines, both to distribution licensees as well as to generating companies. Open access in distribution shall be allowed in phases, which shall be decided by the SERC.
- Distribution licensees will be free to take up generation and generation companies will be free to take up distribution. Trading has been permitted as a distinct activity. The Act provides for multiple distribution licences in a single geographical area.
- Allows local bodies like NGOs, panchayats and user associations to undertake distribution of electricity in "non-urban" areas.
- Envisages the establishment of an Appellate Tribunal to hear complaints against the orders of the Central and State Commissions, and to exercise general supervision and control over the Central and State Commissions.
- The role of the Government has been limited to the formulation of policies. The Regulatory Commissions would deal with most of the issues directly which would include activities like finalizing tariffs, granting licenses, induce competition in the market, resolve disputes, etc.

INDUSTRY OUTLOOK

India's power sector has grown tremendously since Independence in 1947, with installed capacity rising 8% annually on an average to 112,059 MW by March 2004 (from 1362 MW in 1947), with the following energy mix.

(Figures in MW)

Hydro	Thermal				Wind	Nuclear	Total
	Coal	Gas	Diesel	Total			
29500	64956	11840	1173	77969	1870	2720	112059

¹ Till March 1992, NTPC constructed 16,968 ckt. Km. of high voltage transmission lines to evacuate power from its generating stations, which were later transferred to Power Grid Corporation of India Ltd.

Despite this eighty-fold increase, per capita consumption of electricity is 355 kWh per annum—much lower than the world average of over 2,000 kWh. Indians often compare their performance with China, which had a lower level of development two decades ago, but today has more than double the per capita electricity consumption (and GDP) than India.

The 16th Electric Power Survey published by CEA in September 2000 has projected a peak load demand of 157107 MW and an energy demand of 975.22 Billion Units by the end of March 2012. It has been estimated that to meet this projected growth in peak demand, India would require 212,000 MW of generating capacity by 2012. At present there is a wide gap between demand and supply of power. During 2003-04, there was a peak demand deficit of 11.2% and an energy deficit of 7.1%.

OPPORTUNITIES

The Electricity Act, 2003 has opened up several opportunities for existing power sector players like NTPC. These opportunities are in the area of direct supply to large customers, retail supply, distribution, trading, etc. The enabling framework put in place by the Act and the built in reform thrust would lead to better cash flows for the States. This in turn would result in better realisations and better paying capacity of NTPC's customers. Further the present shortages and the continuous demand provides enough opportunities for NTPC to pursue aggressive plans in its core area of generation.

THREATS

Competition: The Electricity Act, 2003, is likely to result in increased competition in the generation sector due to the waiver of the licencing criteria for thermal generation, provision of open access and possibility of tying up captive and bulk customers by other players. NTPC would have the advantage of economies of scale and large capacities with lower tariffs and therefore NTPC would need to take the lead and tie up customers by offering power at competitive cost.

RISKS AND CONCERNS

Tariff: CERC has already issued new tariff norms which are effective from 01.04.2004 for a period of 5 years. These norms have resulted in reduction in ROE and O&M cost recovery and shall impact NTPC further by providing for 70:30 DE ratio on retrospective basis. Therefore, it is imperative that the tariff policy which is being formulated by the Government, suitably addresses the issues required to meet the capacity addition targets.

Realisations: Electricity Act, 2003 also provides for disaggregation of SEBs. Although the State Governments have

been given the discretion on the extent and timing of this exercise, there is a good possibility that many States would unbundle the SEBs and create separate entities to take care of generation, transmission and distribution. In a few cases the states may also opt for privatisation of the distribution business. Further as per Electricity Act, 2003, the transmission companies would not be allowed to purchase power from Generators and in turn sell it to the Distribution companies. Therefore NTPC would be required to sign PPAs with the new distribution entities. In case some of these distribution companies are privately held, the comfort of the Tri-partite agreement shall not be available to NTPC. There would be a possibility of payment default in case the private distribution entities are not able to realise appropriate amounts from their operations. However, the inherent risk in realising payment from distribution companies would be mitigated to a large extent if the reforms process at distribution end starts delivering positive results.

Ash Utilisation: Strict guidelines are already in place for ash utilisation. Some of the avenues available for bulk utilisation of ash like availability of used coal mines for backfilling of ash have not yet been fully sorted out. Further, it is also necessary to confirm that the expenditure incurred in facilitating ash utilisation should be adequately covered in the tariff.

Backward integration: Currently the development of coal mines is not keeping pace with NTPC's capacity addition plans and going forward NTPC stations could face issues in attaining full capacity utilisation due to lack of fuel. Furthermore fuel pricing is also an issue which could create problems for NTPC. Although fuel is pass-through in the tariff, but considering the precarious financial condition of the SEBs, any price increase in electricity they have to purchase only exacerbates their situation. Consequently the realisations from these SEBs or otherwise the off-take of NTPC power are likely to be impacted. Therefore the cost of fuel needs to be controlled and therefore NTPC has been pursuing with the Government for appointment of a fuel regulator. NTPC proposes to take up coal mining to improve fuel security and ensure price stabilisation. NTPC has already approached the Ministry of Coal for allocation of mine blocks.

Forward integration: The trading arm of NTPC has been in business now for more than a year. Going forward, this entity could face stiff competition since many other players have also been given trading licence by the Regulator. The distribution subsidiary of NTPC is also exploring business opportunities. Getting to the end consumer forming part of the electricity value chain would be an important addition to the NTPC business portfolio.

FINANCIAL REVIEW

The annual accounts have been prepared in compliance with the requirements of the Companies Act, 1956 and ongoing



concern basis. There is no material departure from the prescribed accounting standards in preparation of the annual accounts. The accounting policies adopted by the company and the estimates and judgments relating to the financial statements have been made on a prudent and reasonable basis in order to reflect the true and fair view of the financial statements.

SHARE CAPITAL

The entire paid-up capital is owned by the Government of India. No share has been issued during the year.

RESERVES & SURPLUS

(a) Capital Reserve

During the year the company has transferred Rs.30 million to capital reserve. This amount relates to Profit on sale/disposal of Fixed Assets.

(b) Bonds Redemption Reserve

Rs.2067 million has been credited during the year and Rs.584 million has been written back leaving a balance of Rs.4071 million at the end of the year.

(c) General Reserve

Rs.39000 million have been transferred from profit & loss account during the year. Further an adjustment of Rs.24 million has been made in respect of opening balance of intangible items. The closing balance as on 31st March, 2004 is Rs.271476 million.

(d) Foreign Project Reserve

No transfer has been made during the year.

DEFERRED REVENUE ON ACCOUNT OF ADVANCE AGAINST DEPRECIATION

Revenue deferred during the year Rs.1342 million. Rs.22 million has been recognized during the year out of the opening balance. The closing balance as on 31st March 2004 is Rs.1591 million.

DEVELOPMENT SURCHARGE FUND

Rs.3784 million represents the amount billed to the customer for development surcharge during the year as per tariff regulation of Central Electricity Regulatory Commission.

SECURED LOANS

Bonds amounting to Rs.7000 million have been issued on private placement basis during the year. Bonds amounting to Rs.1000 million have been redeemed by the Company. Loans

and advances from banks has reduced from Rs.15223 million to Rs.13730 million as on 31st March, 2004. Other loans and advances reduced by one million. Thus the closing balance of secured loans increased to Rs.45844 million from Rs.41226 million as on 31st March 2003.

UNSECURED LOANS

During the year, the company has raised

- (a) Rs.401 million by Fixed Deposits.
- (b) Rs.8862 million by issue of Euro Bonds.
- (c) Rs.3614 million by Foreign Currency Term Loans.
- (d) Rs.17344 million by way of Rupee Term Loans.

The repayment during the year was

- (a) Rs.355 million of Fixed Deposits,
- (b) Rs.403 million of Bonds,
- (c) Rs.8241 million towards Foreign Currency Term Loans,
- (d) Rs.458 million Other Loans and GOI Loans,
- (e) Rs.2901 million Rupee Term Loans (Banks & FIs)

FIXED DEPOSITS

The Company has received cumulative deposits of Rs.5113 million from 3230 depositors. Further an amount of Rs.13 million has not been claimed upto maturity by 177 depositors as on 31st March, 2004.

RATINGS

The Company's borrowings and its deposit scheme have been rated by different credit rating agencies. The instruments rated, the name of rating agency and the ratings are detailed hereunder:

Domestic Bonds

CRISIL	: 'AAA'
ICRA	: 'LAAA'

Euro Bonds

Standard and Poors	: 'BB (Stable)'
Fitch	: 'BB + (Stable)'

Fixed Deposits

CRISIL	: 'FAAA'
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FIXED ASSETS

	(Rs. million)	
	<u>As on 31st March</u>	
	<u>2004</u>	<u>2003</u>
Total Gross Assets	400281	366106
Less : Accumulated Depreciation	187736	167456
Net Block	212545	198650
Capital Work-in-Progress	56413	51543
Construction Stores & Advances	18540	12320
	287498	262513
Depreciation as a % of Total Revenue	8.09	7.86
Accumulated Depreciation as a % of Gross Block	46.90	45.74

During the year the Company has made net addition of Rs.34175 million to its gross block including investment in Plant & Machinery Rs.29172 million, Building Rs.1604 million, Land Rs.1354 million, Earth Dam & Reservoir Rs.142 million, Railway Sidings Rs.157 million, Furniture, Fixture & Other Office Equipment Rs.193 million, MGR Track & Signaling System Rs.384 million.

The capital work-in-progress as on 31st March, 2004 has increased to Rs.56413 million from Rs.51543 million as on 31st March, 2003. This addition is after transferring Rs.27471 million during the year to the Gross Block. The capitalization made during the year is mainly due to commissioning of two 500 MW units of Talcher Super Thermal Power Station. The increase in capital work-in-progress is mainly due to investment in the on-going projects viz. Ramagundam Stage III, Rihand Stage II, Koldam Hydro Power project, Sipat and Barh.

Construction Stores as on 31st March, 2004 is Rs.6382 million, which are required for the timely completion of the on-going construction activities at the projects. Advances made to different contractors/ suppliers and sub-contractors for construction activities have increased to Rs.12158 million from Rs.5267 million as on 31st March, 2003.

The capital commitment as on 31st March 2004 works out to Rs.87465 million against the previous year's figure of Rs.61836 million.

The Company proposes to issue shares in the market and will resort to borrowings, public deposits and loans to meet its fund requirement for expansion plans. However, partial requirement of funds will be met from internal accruals.

INVESTMENTS

Total investment as on 31st March, 2004 is Rs.173380 million as against Rs.36674 million as on 31st March, 2003. The increase in investment is due to receipt of 8.5% Tax-Free State Government Special Bonds from different State Governments amounting to Rs.164107 million during the year as per One Time Settlement Scheme against Sundry debtors, late payment surcharge and other dues.

In continuation of strategic investments in joint ventures and subsidiary companies, the company has made the following investments during the year :-

Joint Ventures

Power Trading Corporation of India Ltd. Rs.60 million

NTPC Tamilnadu Energy Company Ltd. Rs.5 million

Subsidiaries

NTPC Vidyut Vyapar Nigam Ltd. Rs.200 million

NTPC Hydro Ltd. Rs.16 million

The company has also invested during the year Rs.4133 million in different bonds, out of which Rs.705 million is for investment against the Development Surcharge Fund .

The company continued its investments of a nominal amount in NTPC Employees' Consumer Thrift & Co-operative Society for cooperative movement in the township of the units during the year.

Investments in Joint Ventures Companies

a) UTILITY POWERTECH LTD. (UPL)

The company is a 50:50 joint venture between NTPC and Reliance Energy. UPL has been taking up construction, erection and supervision in power sector and in other sectors, having contributed Rs.10 million towards the equity capital of the Company. UPL has recorded a turnover of Rs.859 million and profit after tax of Rs.34 million for the year 2003-04. NTPC received an amount of Rs.15 million as dividend during the year.

b) NTPC ALSTOM POWER SERVICES PVT. LTD. (NASL)

The company is a 50:50 joint venture between NTPC and ALSTOM Power Generation AG, Germany. Both NTPC and ALSTOM Power have so far subscribed an amount of Rs.30 million each towards their share of equity capital in NASL. NASL undertakes the works of Renovation & Modernisation of under performing power stations. During the financial year 2003-04, the company has achieved a turnover of Rs.1064 million and profit after tax of Rs.23 million.



c) POWER TRADING CORPORATION OF INDIA (PTC)

Power Trading Corporation of India Ltd. was formed with an Authorised Capital of Rs.7500 million and the company had, on 31st March, 2004, a paid-up capital of Rs.1500 million, with 8% equity contribution from Power Grid Corporation of India Ltd., (PGCIL), 8% from NTPC and 8% from Power Finance Corporation Limited 8% from NHPC 10% from Tata Power company and balance 58% from State Governments, Financial institutions and general public. NTPC had invested Rs.120 million as on 31st March, 2004 including Rs.60 million made during the current year. The main objective of the company is to purchase power from identified private mega power projects and sell it to identified SEBs. During the year 2003-04, PTC has achieved a profit after tax of Rs.325 million with gross revenue of Rs.23780 million.

d) NTPC-SAIL POWER COMPANY PRIVATE LTD.

NTPC-SAIL Power Company Private Ltd., a Joint Venture Company of NTPC and SAIL, with an authorized capital of Rs.1300 million, owns and operates the captive power plants at Durgapur (120 MW) and Rourkela (120 MW) steel plants of SAIL. Both NTPC and SAIL have subscribed an amount of Rs.587 million each towards the paid-up capital of the joint venture company. The company has achieved a turnover of Rs.1512 million and profit after tax of Rs.240 million for the year 2003-04. During the year 2003-04, NTPC received an amount of Rs.80 million as dividend.

e) BHILAI ELECTRIC SUPPLY COMPANY PRIVATE LTD.

Bhilai Electric Supply Co. Pvt. Ltd. formed as a joint venture with SAIL, by acquiring 50% of the equity of Bhilai Electric Supply Company Ltd., a company formed by SAIL, to own and manage the captive power plant at Bhilai Steel Plant (74 MW). Both NTPC and SAIL have subscribed an amount of Rs.166 million each towards the paid-up capital of this joint venture company. The company has achieved a turnover of Rs.599 million for the year 2003-04 and profit after tax of Rs.66 million.

f) JOINT VENTURE WITH TAMIL NADU ELECTRICITY BOARD (TNEB)

NTPC Tamil Nadu Energy Company Ltd., a 50:50 joint venture of NTPC and the Tamil Nadu Government with the objective of establishing and operating a 1000 MW thermal power project in Tamil Nadu, was formed on 23rd May 2003 with an authorized capital of Rs.50 million. NTPC and the Tamil Nadu Government have contributed Rs.5 million each towards the share

capital of the company as on 31st March, 2004. The company has begun studies for preparation of feasibility report. Following the Accounting Standards, expenditure before Feasibility Report is to be debited to the Profit and Loss Account. Such expenditure amounted to Rs.5 million for the year 2003-04, hence the company reported a net loss of Rs.5 million.

Investments in Subsidiary Companies :

PIPAVAV POWER DEVELOPMENT COMPANY LTD. (PPDCL)

Pipavav Power Development Company Ltd. has been formed as a wholly-owned subsidiary of NTPC on 20th December, 2001 with the authorized capital of Rs.100 million. The main object of PPDCL is inter-alia to promote and take up development work for power projects for generation of the electricity by use of any type of fuel in any manner on build operate and transfer or on any other basis. The company proposes to convert PPDCL into a joint venture company and have recently entered into a memorandum of understanding with the Gujarat Power Corporation Ltd. and Gujarat Electricity Board. PPDCL is a wholly owned subsidiary company and thus the entire capital of Rs.36,50,000/- is held by NTPC. The company has incurred loss of Rs.36,25,748/- which has been carried forward to the Balance Sheet.

NTPC ELECTRIC SUPPLY CO. LTD. (NESCL)

NTPC Electric Supply Co. Ltd. has been formed as a wholly-owned subsidiary of NTPC on 21st August 2002 with an authorised capital of Rs.100 million for retail distribution of power. The paid-up capital of the company as on 31st March 2004 is Rs.809100. The turnover of the company during the year is Rs.15 million as compared to nil in the previous year. The company posted a loss of Rs.33410 during the year 2003-04. The company is exploring various options to acquire electricity, distribution circles in different states. The company has already obtained a consultancy job from Madhya Pradesh Paschim Kheshtia Vidyut Vitran Company Ltd for rendering project management and supervision services. The company is also in discussion for undertaking the job in metering and other activities in Jammu circle of Jammu & Kashmir Power Development Department.

NTPC VIDYUT VYAPAR NIGAM LTD. (NVVNL)

NTPC Vidyut Vyapar Nigam Ltd. has been formed as a wholly-owned subsidiary of NTPC on 1st November 2002 with an authorised capital of Rs.100 million to undertake business of sale and purchase of electric power. NTPC has contributed Rs.199 million during

the year towards the paid-up capital of the Company. Thus the paid-up capital of the company as on 31st March, 2004 has increased to Rs.200 million. The company has earned a profit of Rs.2,13,13,612/- during the year and has proposed a dividend of Rs.63,54,548/- after writing off the entire loss of Rs.1,31,785/- sustained during the year 2002-03.

NTPC HYDRO LTD. (NHL)

The company has been formed as a wholly-owned subsidiary of NTPC on 12th December 2002 with an authorized capital of Rs.100 million for development of small and medium hydro electric power projects upto 250 MW. NTPC has contributed upto 31st March, 2004 Rs.18 million in the company (Rs.17 million in the paid-up capital & Rs.1 million in share capital deposit). The company has not started commercial operation as on 31st March 2004. The company has sustained a loss of Rs.17 million during the year. The cumulative loss has been Rs.17 million carried forward to the balance sheet. Subsequent to the signing of MOU with the Government of Uttaranchal on 18.08.2003 the first stage MOEF clearance and defence clearance to start detailed survey and investigation works of Lata Tapovan Hydro Electric Power project have been obtained. Various studies and investigations related to preparation of EPR/DPR to establish Techno-economic viability are in progress.

INVENTORIES

After making provisions for shortages and obsolete/unserviceable items, inventories as on 31st March 2004 amount to Rs.17380 million as against the previous year's figure of Rs.17712 million. Fuel in number of days consumption as on 31st March 2004 is 13 days in comparison to previous year's 17 days. Considering the time lag in procuring critical spares & imported spares, company has to maintain adequate level of spares inventory in order to reduce the down time of the generating units.

SUNDRY DEBTORS

Debtors amounted to Rs.4699 million (net of provision for bad and doubtful debts amounting to Rs.14287 million) as on 31st March 2004 as compared to Rs.124349 million (net of provision for bad & doubtful debts amounting to Rs.14558 million) as on 31st March 2003, are considered good and recoverable. The main reason for the reduction of the sundry debtors is due to receipt of 8.5% Tax-Free bonds from the State Government against the sundry debtors and other dues. Similarly as per bilateral agreement between Government of India and Government of National Capital Territory of Delhi dues of Rs.7631 million from Delhi Vidyut Board were converted into long term advances on terms similar to the scheme. Further, during the year an agreement was entered

into with Damodar Valley Corporation for settlement of outstanding dues of Rs.2300 million and late payment surcharge.

Provision for bad and doubtful debt is made based on various factors including collectibility of specific dues and disputes raised by the customers on commercial issues.

The debtors are at 2.49% of sales for the year ended 31st March 2004 as against 65.35% of the sales for the year ending 31st March, 2003. At present debtors as on 31st March, 2004 represents 9 days of sales as against 238 days of sales as on 31st March 2003. The age profile is furnished below as on 31st March 2004.

Particulars	(Rs. million)	
	As on 31 st March 2004	2003
Less than 6 months	1055	10016
More than 6 months to one year	-	7127
One year to three years	5007	60985
More than three years	12924	60779
Total	18986	138907

CASH & BANK BALANCES

The cash and bank balances as at 31st March 2004 is Rs.6091 million as against the previous year's figure of Rs.5447 million. The above includes Rs. 317 million in respect of development surcharge. Cash & Bank balance as percentage of Total Assets is 1.02 in comparison to 1.10 in the previous year. Cash & Bank balance as percentage of total Sales is 3.23 in comparison to previous year's figure of 2.86.

OTHER CURRENT ASSETS

The balances of other current assets as at 31st March 2004 is Rs.80023 million as against the previous year's figure of Rs.25149 million. Public Deposit Account with Government of India including interest due thereon as on 31st March 2004 is Rs.60260 million as against the previous year's figure of Rs.18447 million. Other Current Assets as percentage of total Assets is 13.42 as on 31st March 2004 in comparison to the previous year figure of 5.10.

LOANS & ADVANCES

The balance of loans and advances as at 31st March 2004 is Rs.27275 million as against the previous year figure of Rs.21475 million. Loans & Advances as percentage of total assets is 4.57 in comparison to previous year figure of 4.35. The reason for increase in the loans and advances is mainly due to loan to State Government for settlement of dues from customers Rs.10603 million and development surcharge recoverable from customers Rs.2762 million.

Loans to employees granted for purchase of residential house,



car and other assets are recovered regularly from the salary of the employees as per terms of sanction. Advance payment of income tax net of provision for the year ended 31.3.2004 has reduced from Rs.8248 million to Rs.3845 million. The company's liability towards income tax for the year ended has been fully provided for.

During the year the company has provided Rs.10 million against doubtful loans and advances and also withdrawn Rs.21 million from the provision.

CURRENT LIABILITIES

The balances of current liabilities as at 31st March 2004 is Rs.65244 million as against the previous year's figure of Rs.34202 million. The main reason for increase in current liabilities is due to amount refundable to customers. Other liabilities represent amount of income tax deducted at source, redemption amount payable on maturity of bonds, sales tax payable etc.

PROVISIONS

The balances of provisions as at 31st March 2004 is Rs.15697 million as against the previous year's figure of Rs.11648 million. Company has proposed a final dividend of Rs.10823 million as against total dividend of Rs.7080 million in the previous year. Provision for Tax on the proposed dividend has been made for Rs.1387 million.

CONTINGENT LIABILITIES

The contingent liabilities as at 31st March 2004 are Rs.19508 million as against the previous year's figure of Rs.20483 million.

CASH FLOW

The net cash flow during the year from operating activities is Rs.58118 million as against Rs.47402 million for the year ended 31st March, 2003. This has happened mainly due to changes in the working capital and lesser income tax during the year. Net Cash out flow from investing activities works out to Rs.24597 million as against Rs.31881 million for the year 31st March, 2003. Though, the expenditure on fixed assets has increased from Rs.32906 million to Rs.46654 million. Further, interest on bonds received during the year is Rs.22984 million as against Rs.935 million in the previous year. Net cash inflow from financing activities is Rs.8873 million as against cash out flow of Rs.5271 million in the previous year.

Closing cash and cash equivalents as on 31st of March, 2004 is Rs.66351 million in comparison to Rs.23894 million in the previous year .

RESULTS OF OPERATIONS

INCOME	(Rs. million)	
	Year ended 31 st March	
	<u>2004</u>	<u>2003</u>
Sales (including energy internally consumed)	188371	190206
Consultancy, Project Management and Supervision Fees	341	269
	188712	190475

NTPC recorded a sales of Rs.188712 million during 2003-04 as against Rs.190475 million during 2002-03. Sales during the year has been provisionally recognized and accounted for on the basis of tariff worked out as per Central Electricity Regulatory Commission (CERC) Regulations, 2001 pending final determination of tariff by the CERC. In case of stations where CERC has issued final tariff orders, sales has been accounted for, accordingly.

Consultancy Wing, an ISO 9001 certified unit of NTPC, achieved a turnover of Rs.241 million and earned profit of Rs.90 million during the year 2003-04 as against turnover of Rs.211 million and profit of Rs.68 million during the year 2002-03.

The Consultancy Wing has secured 34 orders valued at Rs.114 million during the year, and is executing procurement assignments for National Aids Control Organisation, Ministry of Health and Family Welfare funded by World Bank and for Department of Information & Technology, Govt. of India. The wing is also executing a number of engineering assignments including review of detailed engineering and structural designs for large capacity pumping stations for Saurashtra Branch Canal of SSNNL.

In pursuit of its globalisation efforts, the Company is exploring different opportunities rising in the horizon.

PROVISIONS WRITTEN BACK

Provisions written back during the year 2003-04 went upto Rs.9648 million due to write back of doubtful debts Rs.5957 and adjustment in tariff Rs.3640 million. Provisions are reviewed at the end of the year and the amount is withdrawn wherever they are no longer required.

OTHER INCOME

Other income for the year ended 31st March 2004 is Rs.61282 million in comparison to previous year's figure of Rs.4036 million.

Main reasons for increase in other income are interest Rs.34854 million from Government Securities (8.5% Tax-Free bonds) including Rs.20112 million pertaining to the period upto 31.03.2003, Rs.2253 million as interest on loan to State Government in settlement of dues of customers including Rs.1352 million for the period upto 31.03.2003 and surcharge on late payment from customer Rs.22641 million.

EXPENDITURE

The details of the expenditure for the year ended 31st March 2004 and 2003 are given below:-

	(Rs. million)	
	<u>Year ended 31st March</u>	
	<u>2004</u>	<u>2003</u>
Fuel	122150	110312
Employees Remuneration and Benefits	8835	8268
Generation, Administration and Other Expenses	9813	10814
Depreciation	20232	15291
Provisions	5835	5555
Interest	6636	5973
Rebate under scheme for settlement of SEB dues	21311	-
Finance Charges	5750	3943
Total	200562	160156

Fuel

Increase is due to increase in generation by 9772 million units.

Employees Remuneration and Benefits

The increase is due to normal increment, promotion and increase in dearness allowance paid to employees.

Generation, Administration & Other Expenses

The reduction is mainly due to settlement of liability for water charges less by Rs.1408 million in one of the stations during the year.

Depreciation

Consequent upon the repeal of the Electricity Supply Act, 1948 by the Electricity Act, 2003 depreciation has been charged during the year as per Companies Act, 1956. Further, during the year depreciation has also increased due to capitalization of two units of Talcher STPP. Provision for depreciation has also increased due to additional items of machinery and spares identified during the year.

Provisions

During the year provision has been made for bad & doubtful debts for Rs.5686 million as against Rs.4140 million in the previous year. Provision for bad and doubtful debts provided as a percentage of sales during the year works out to 3.02% in comparison of 2.18 % in the previous year.

Interest

Minor increase in total interest cost is due to one unit of Talcher STPP came into operation during the year.

Rebate

Rebate of Rs.21311 million was allowed to customers under One Time Settlement Scheme of SEB dues during the year.

Finance Charges

The other finance charges has increased from Rs.3943 million to Rs.5750 million as on 31st March, 2004 mainly due to accounting of rebate allowed to customers.

PROFIT

Profit before tax works out to Rs.58897 million during the current year against previous year's Rs.37540 million.

As per CERC Tariff Regulations, income tax payable on generation income is recoverable from the State Electricity Boards. Accordingly, provision for income tax (net) for the year is Rs.6289 million as against previous year's Rs.1465 million.

Profit after tax works out to Rs.52608 million against Rs.36705 million for the previous year.

INTERNAL CONTROL

The Company has a sound system of Internal Controls for financial reporting of various transactions, efficiency of operations and compliance with relevant laws and regulations. Suitable delegation of power and guidelines for accounting have been issued for uniform compliance. In order to ensure that all checks and balances are in place and all internal control systems are in order, regular and exhaustive internal audits are conducted by experienced auditing firms in close co-ordination with Company's own Internal Audit Department. Besides, the Company has two Committees of the Board viz. Audit Committee and Committee on Management Controls which periodically review the important findings of different Audits keeping a close watch on compliance with Internal Control System.

CAUTIONARY STATEMENT

Statements in the Management Discussion and Analysis and in the Directors' Report, describing the Company's objectives, projections and estimates, are forward-looking statements and progressive within the meaning of applicable laws and regulations. Actual results may vary materially from those expressed or implied, depending upon economic conditions, government policies and other incidental factors.

For and on behalf of the Board of Directors



(C.P.JAIN)

Chairman & Managing Director

Place : New Delhi
Date : 29.07.2004



CORPORATE GOVERNANCE REPORT

1. COMPANY'S PHILOSOPHY ON CORPORATE GOVERNANCE

As a good corporate citizen, the company is committed to sound corporate practices based on conscience, openness, fairness, professionalism and accountability in building confidence of its various stakeholders in it thereby paving the way for its long term success.

2. BOARD OF DIRECTORS

Composition

As on 31st March 2004 the Board comprised of eleven directors. Out of these seven are functional directors including the Chairman & Managing Director (CMD), two directors are nominated by the Government of India and two are independent directors. The directors bring to the Board wide range of experience and skills.

Appointment of other Independent Directors are under consideration of the Government of India.

Responsibilities

The Board's mandate is to oversee the company's strategic direction, review and monitor corporate performance, ensure regulatory compliance and safeguard the interest of shareholders and other stakeholders.

Board Meetings

The meetings of the Board of Directors are held at the company's registered office in New Delhi.

Board meetings are scheduled well in advance and are governed by structured agenda. The Company Secretary in consultation with Chairman & Managing Director, sends notice of each Board Meeting in writing to each Director. Agenda papers along with explanatory notes are distributed in advance to the Board Members to enable them to take informed decisions. At the beginning of each Meeting, the Chairman & Managing Director also briefs the Board members about the key developments relating to the Company in diverse areas.

The minutes of the each Board Meeting are circulated to the Directors after these are signed by the Chairman and are also submitted to the Board for confirmation at its next meeting.

During the financial year 2003-04, fourteen meetings of the Board were held on 9th April, 27th May, 2nd July, 16th July, 14th August, 23rd September, 30th October, 5th November, 25th November, 8th December, 2003, 10th January, 4th February, 13th March and 31st March, 2004.

The maximum interval between any two meetings during this period was 47 days.

Details of designation, category of directors, number of Board meetings attended, attendance at last AGM, number of other directorship/committee membership (viz, Audit Committee, Shareholders Grievance Committee and Remuneration Committee as per SEBI's Corporate Governance Code) held by them during the year 2003-04 are tabulated below:

S. No.	Directors	Meeting held during respective tenures of Directors	No. of Board Meetings Attended	Attendance at the last AGM (held on 24.09.2003)	Number of other Directorships held	Number of Committee memberships in other companies	
						As Chairman	As Member
	<u>Functional Directors</u>						
1	Sh. C.P.Jain Chairman & Managing Director	14	14	Yes	4	-	-
2	Sh. B.N. Ojha Director (Operations) (upto 31.12.2003)	10	10	Yes	5	-	-
3	Sh. K.K. Sinha Director (HR)	14	13	No	4	-	-
4	Sh. P.Narasimhamulu Director (Finance)	14	14	Yes	4	-	-
5	Sh. T. Sankaralingam Director (Projects)	14	14	Yes	4	-	-
6	Sh. S.L. Kapur. Director (Technical)	14	14	Yes	5	-	-
7	Sh. R.D. Gupta *Director (Commercial) (from 29.04.2003)	13	13	Yes	3	-	-
8	Sh. Chandan Roy Director (Operations) (From 01.01.2004)	4	4	No	-	-	-
	<u>Non-executive Directors (Government Nominees)</u>						
9	Sh. M.Sahoo JS&FA, Ministry of Power	14	12	No	4	2	3
10	Sh. Ajay Shankar JS(Thermal), MOP(Upto 15.10.2003)	6	6	Yes	2	-	-
11	Sh. Arvind Jadhav JS(Thermal), MOP(from 15.10.2003)	8	7	No	3	-	2
	<u>Independent Directors</u>						
12	Prof. Ashok Misra Director, IIT, Mumbai	14	7	No	4	-	-
13	Sh. Deepak S. Parekh **Chairman, HDFC(Upto 05.08.2003)	4	1	No	15	4	4
14	Dr. R.K. Pachauri Director-General, TERI	14	5	No	1	1	-

* Ceased to be Director w.e.f. 01.07.2004 upon his selection as Member, UPERC.

** Excluding the directorships mentioned above, Sh. Deepak S. Parekh is an alternate Director in 5 companies.



Age limit and Tenure of Directors

The age limit of whole-time functional directors including the CMD is 60 Years.

The Functional Directors including CMD are appointed for a period of five years from the date of taking over of charge or till the date of superannuation of the incumbent, or till further instructions from the Government of India, whichever event occurs earlier.

Government Nominees representing Ministry of Power, Government of India retire from the Board of NTPC on ceasing to be officials of the Ministry of Power.

Part-time Non-official Directors are appointed by the Government of India for a tenure of three years.

Information placed before the Board of Directors, inter alia, include:

- Annual operating plans and budgets and any updates.
- Capital Budgets and any updates.
- Quarterly results for the company.
- Minutes of meetings of Audit Committee and other Committees of the Board.
- The information on recruitment of senior officers just below the Board level.
- Fatal or serious accidents, dangerous occurrences etc.
- Operational highlights and substantial non-payment for goods sold by the company.
- Majors investments, formation of subsidiaries and Joint Ventures, Strategic Alliances etc.
- Award of large contracts.
- Disclosure of Interest by Directors about directorship and committee positions occupied by them in other companies.
- Any significant development in Human Resources/Industrial Relations front like signing of wage agreement, implementation of Voluntary Retirement Scheme, etc.
- Compliance Certificate of any regulatory, statutory nature.
- Short term investment of surplus funds.
- Information relating to major legal disputes.
- Other materially important informations.

3. COMMITTEES OF THE BOARD OF DIRECTORS

The Board has established the following Committees:-

Audit Committee.

Shareholders / Investors Grievance Committee

Committee on Management Controls.

Sub-Committee of the Board for Contracts.

Project Sub-Committee.

Investment/Contribution Sub-Committee.

Sub-Committee of the Board for allotment and post-allotment activities of Bonds.

Committee for Initial Public Offering of Equity Shares.

AUDIT COMMITTEE

The Audit Committee was constituted on 3rd August, 1995 much prior to introduction of Section 292A in the Companies Act, 1956 and introduction of relevant provisions in the Listing Agreements with the Stock Exchanges as per SEBI Guidelines.

The constitution, quorum, scope etc. of the Audit Committee was modified from time to time in line with the Navratna Guidelines and amendment in the Companies Act, 1956. The Audit Committee was further reconstituted on 10.01.2004 in line with the provisions of the Listing Agreement prescribed by SEBI.

SCOPE OF AUDIT COMMITTEE

- Discussion with Auditors periodically about internal control systems and the scope of audit including the observations of the auditors.
- Review of half-yearly and annual financial statements before submission to the Board.
- Ensure compliance of internal control system.
- Oversight of Company's financial reporting to process and the disclosure of its financial information to ensure that the financial statement is correct, sufficient and credible.
- Noting appointment and removal of external auditors. Recommending the fixation of audit fee of external auditors and also approval of payment for any other services.
- Reviewing with management the annual financial statements before submission to the Board, focusing primarily on:
 - Any Changes in accounting policies and practices.
 - Major accounting entries based on exercise of judgment by management.
 - Qualification in draft audit report.
 - Significant adjustments arising out of audit.
 - The going concern assumption.
 - Compliance with accounting standards.
 - Compliance with Stock Exchange and legal requirements concerning financial statements.
 - Any related party transactions i.e. transactions of the company of material nature, with promoters or the management, their subsidiaries or relative etc. that may have potential conflict with the interests of the company at large.
- Reviewing with management, external and internal auditors, the adequacy of internal control systems.
- Reviewing the adequacy of internal audit function, including the structure of the internal audit department, staffing and seniority of the official heading department, reporting structure, coverage and frequency of internal audit.
- Discussion with internal auditors any significant findings and follow up thereon.
- Reviewing the finding of any internal investigations by the internal auditors into matters where there is suspected fraud or irregularity or a failure of internal control systems of material nature and reporting the matter to the Board.
- Discussion with external auditors before the audit commences, the nature and scope of audit as well as to have post-audit discussion to ascertain any area of concern.
- Reviewing the company's financial and risk management policies.
- To look into the reasons for substantial defaults in the payment to the depositors, debenture holders, shareholders (in case of non payment of declared dividends) and creditors.
- Investigation into any matter in relation to the items specified above or referred to it by the Board.

Composition

As on 31-03-2004, the Audit Committee comprised the following members:-

Prof. Ashok Misra, Independent Director

Dr. R.K. Pachauri, Independent Director

Shri M. Sahoo, Non-executive Director (Government nominee)



Director (Finance), Head of Internal Audit and the Statutory Auditors are also invited in the Audit Committee Meeting but they have no right to vote. Quorum for the Audit committee is two Independent non-executive Directors w.e.f. 12.05.2004. Senior most Independent Director chair the meetings of the Committee.

Meetings and Attendance

Five meetings of the Audit Committee were held during the financial year 2003-04 on 16th July, 23rd September, 25th November, 19th December, 2003 and 4th February, 2004. The details of the meetings of Audit-Committee attended by the members are as under:-

Members of Audit Committee	Meetings held during his tenure	Meetings attended
Shri B.N. Ojha (Chairman of the Committee) (upto 31.12.2003)	4	4
Shri M. Sahoo	5	5
Prof. Ashok Misra	5	4
Dr. R.K. Pachauri (from 10.01.2004)	1	NIL

SHAREHOLDERS / INVESTORS GRIEVANCE COMMITTEE

The entire paid-up share capital of NTPC is currently held by the President of India and his seven nominees. Further, all the series of NTPC's Bonds are privately placed with a very limited number of investors. Therefore, no Shareholders/Investors Grievance Committee was constituted by the company upto financial year 2003-04.

In view of proposed Initial Public Offering of equity shares by the Company a committee namely 'Shareholders / Investors Grievance Committee' has been constituted by the Board in its meeting held on 11th June 2004. This Committee comprises:

- (i) Shri M. Sahoo, Non-executive Director (Government nominee)
- (ii) Shri P. Narasimhamulu, Director (Finance)
- (iii) Shri K.K. Sinha, Director (HR)/ Shri S.L. Kapur, Director (Technical)

Shri M. Sahoo is the Chairman of the Committee. Quorum for the meeting of the committee is two members.

Scope of the Committee

Redressing of Shareholders and Investors complaints like transfer of shares, non-receipt of Balance Sheet, non-receipt of declared dividend etc. as well as complaints/grievances of the Bondholders and also of the Depositors under the Public Deposit Scheme of NTPC.

Shri Anjan Kumar Bajpaie, Company Secretary is the compliance officer in terms of the Listing Agreement.

COMMITTEE ON MANAGEMENT CONTROLS

On being conferred enhanced autonomy by the Government of India under 'Navratna Guidelines', this committee was constituted on 15th March 2001 for establishing transparent and effective system of internal monitoring with membership of non-official Directors. As per terms of reference the committee reviews the Management Control System, significant deviations in project implementation and construction, operation and maintenance budgets etc.

As on 31st March 2004 following four Directors comprised this committee:

- Shri P. Narasimhamulu, Director (Finance)
- Prof. Ashok Misra, Independent Director
- Shri M. Sahoo, Non-executive Director (Government nominee)
- Shri Chandan Roy, Director (Operations)

Quorum for the Committee on Management Controls is two members of which one shall be Part-Time Director.

Four meetings of this committee were held during the financial year 2003-04 on 19th May, 19th December, 2003, 21st January and 13th March, 2004.

The details of meetings attended by the members are as under:-

Members of Committee	Meeting held during his tenure	Meeting attended
Shri B.N. Ojha (Chairman of the Committee) (upto 31.12.2003)	2	2
Shri P. Narasimharamulu (Chairman of the Committee)	4	4
Shri M. Sahoo	4	4
Shri Ashok Misra	4	3
Shri Chandan Roy (from 01.01.2004)	2	1

SUB-COMMITTEE FOR CONTRACTS

This committee has been constituted for approval of award of contracts of value exceeding Rs.25 crore but not exceeding Rs. 100 crore and Overseas Consultancy Contracts exceeding Rs. 2 crore.

The following are members of Sub-Committee for Contracts as on 31st March 2004:

Shri C.P.Jain, Chairman & Managing Director

Shri P.Narasimharamulu, Director (Finance)

Shri T. Sankaralingam, Director (Projects)

Shri S.L.Kapur, Director (Technical)

Shri M.Sahoo, Non-executive Director (Government nominee)

Shri Arvind Jadhav, Non-executive Director (Government nominee)

Quorum for the Sub-committee for contracts is four members.

Meetings and Attendance

Nine Meetings of this committee were held during the financial year 2003-04 on 5th June, 19th June, 5th August, 25th August, 24th November, 31st December, 2003, 4th February, 13th March and 31st March, 2004.

The details of the meetings attended by members of this Committee are as under:

Directors	Meetings held during his tenure	Meetings Attended
Shri C.P.Jain	9	9
Shri P. Narasimharamulu	9	9
Shri T.Sankaralingam	9	9
Shri S.L.Kapur	9	9
Shri M.Sahoo	9	6
Shri Arvind Jadhav (from 15.10.2003)	5	5
Shri Ajay Shankar (upto 15.10.2003)	4	4

PROJECT SUB-COMMITTEE

The Project Sub-Committee examines and makes recommendations to the Board on proposals for Investment in New/ Expansion Projects and Feasibility Reports of new projects.



As on 31st March 2004, the Committee comprised the following members:

Shri C.P.Jain, Chairman & Managing Director
 Shri P.Narasimharamulu, Director(Finance)
 Shri T. Sankaralingam, Director(Projects)
 Shri S.L.Kapur, Director(Technical)
 Prof. Ashok Misra, Independent Director
 Shri R.D. Gupta, Director (Commercial)
 Shri Arvind Jadhav, Non-executive Director (Government nominee)
 Shri Chandan Roy, Director(Operations)

Quorum for this Sub-Committee is four members including one Non-executive Director.

Seven meetings of the Project Sub-Committee were held during the financial year 2003-04 on 5th June, 2nd July, 5th November, 25th November, 8th December, 2003, 13th March and 31st March, 2004.

The details of the meetings of the committee attended by the members are as under:-

Members of Committee	Meetings held during his tenure	Meetings attended
Shri C.P. Jain	7	7
Shri B.N. Ojha (upto 31.12.2003)	5	5
Shri P. Narasimharamulu	7	7
Shri T.Sankaralingam	7	7
Prof. Ashok Misra	7	4
Shri S.L. Kapur	7	7
Shri R.D. Gupta	7	7
Shri Chandan Roy (from 01.01.2004)	2	2
Shri Ajay Shankar (upto 15.10.2003)	2	2
Shri Arvind Jadhav (from 15.10.2003)	5	5

INVESTMENT/CONTRIBUTION SUB-COMMITTEE OF THE BOARD

The terms of reference of Investment/Contribution Sub-Committee of the Board is deployment of surplus funds as per Govt. Guidelines issued from time to time, and acceptance of Bonds/Debt Instruments in lieu of settled dues with State Electricity Boards or State Transmission Companies and deciding terms and conditions thereof. This committee also approves contribution/donation for national, public, benevolent or charitable cause, purpose or object or other funds not directly related to the business of the company or welfare of its employees between Rs. 5 lakh to Rs. 20 lakh subject to maximum limit of Rs. 1 crore in a year.

As on 31st March 2004, the Committee comprised of the following four Members:

Shri C.P.Jain, Chairman & Managing Director
 Shri P.Narasimharamulu, Director(Finance)
 Shri Chandan Roy, Director(Operations)
 Shri K.K. Sinha, Director (HR)/ Shri R.D. Gupta, Director (Commercial)

Eight meetings of Investment/Contribution Sub-Committee of the Board were held during the financial year 2003-2004 on 3rd April, 22nd July, 27th August, 22nd September, 29th September, 16th December, 2003, 23rd March and 29th March, 2004.

The details of the meetings of the committee attended by the members are as under-

Members of Committee	Meeting held during his tenure	Meeting attended
Shri C.P. Jain	8	8
Shri B.N. Ojha (upto 31.12.2003)	6	5
Shri P Narasimharamulu	8	8
Shri Chandan Roy (from 01.01.2004)	2	2
Shri K.K. Sinha*	2	1
Shri R.D. Gupta*	6	6

*In case of investment of funds and contribution matters Shri K.K. Sinha and in case of Commercial matters Shri R.D. Gupta are co-opted in the meeting.

SUB-COMMITTEE OF THE BOARD FOR ALLOTMENT AND POST-ALLOTMENT ACTIVITIES OF BONDS

The Board has constituted a Sub-Committee for Allotment and Post-allotment activities of Bonds. The scope of work of this committee is allotment of Bonds, issue of Bonds, Certificate/Letter of allotment, issue of duplicate certificates, consolidation/ split of Bonds etc.

As on 31st March 2004, the Committee comprised the following three Members:

Shri P.Narasimharamulu, Director(Finance)

Shri Chandan Roy, Director(Operations)

Shri T.Sankaralingam, Director(Projects) / Shri K.K. Sinha, Director (HR) / Shri S.L. Kapur, Director (Technical)

Eight meetings of this Committee were held during the financial year 2003-2004 on 10th April, 1st May, 30th July, 10th September, 15th September, 5th November, 2003, 12th January and 5th March, 2004.

The details of the meetings of the committee attended by the members are as under:-

Members of Committee	Meeting held during his tenure	Meeting attended
Shri P Narasimharamulu	8	7
Shri B.N. Ojha (upto 31.12.2003)	6	6
Shri T. Sankaralingam	7	6
Shri S.L. Kapur	1	1
Shri Chandan Roy (from 01.01.2004)	2	1

In view of proposed Initial Public Offering of equity shares by the Company the Board of Directors in its meeting held on 11th June 2004 has changed the nomenclature of this committee as Sub-Committee of the Board for Allotment and Post-Allotment Activities of NTPC's Securities and has also enlarged the scope of this committee so as to include allotment and post-allotment activities relating to the shares of NTPC.

COMMITTEE FOR INITIAL PUBLIC OFFERING OF EQUITY SHARES

In view of proposed Initial Public Offering of equity shares by Company a committee namely 'Committee for Initial Public Offering of Equity Shares' has been constituted by the Board in its meeting held on 11th June 2004. This Committee comprises:

Shri P. Narasimharamulu, Director (Finance)

Shri S.L. Kapur, Director (Technical) and

Shri Chandan Roy, Director (Operations)

Shri P. Narasimharamulu is the Chairman of this Committee. Quorum of this Committee is two members.

Scope of the Committee

To finalise, settle, approve and adopt the Draft Red-herring Prospectus, the Red-herring Prospectus, and the Prospectus for the issue of equity shares and take all such actions as may be necessary for filing of these documents.



4. REMUNERATION COMMITTEE

NTPC being a Central Public Sector Undertaking, the appointment, tenure and remuneration of Directors are decided by the President of India. Hence, the Board does not decide remuneration of the Directors. Independent Directors are paid only sitting fees at rate approved by the Government for attending the Board Meetings as well as Committee Meetings. Hence, the Board has not set-up any Remuneration Committee for this purpose.

Details of remuneration of functional Directors of the company:

(In Rupees)

S.No.	Name of the Director	Salary	Benefits	Bonus/ Commission	Performance Linked Incentives	Total
1	Sh. C.P.Jain	787308	134258	-	84907	1006473
2	Sh. B.N. Ojha (upto 31.12.2003)	1188683	178273	-	71827	1438783
3	Sh. K.K. Sinha	753674	134701	-	82244	970619
4	Sh. P.Narasimharamulu	539794	363757	-	77512	981063
5	Sh. T. Sankaralingam	587959	142675	-	78554	809188
6	Sh. S.L. Kapur	712966	216909	-	82345	1012220
7	Sh. R.D. Gupta (from 29.04.2003)	699833	162529	-	36317	898679
8	Sh. Chandan Roy (From 01.01.2004)	126819	47087	-	6622	180528
				-		7297555

Details of payments to Independent Directors during the year 2003-04 are given below:

(In Rupees)

Name of Part-time non-official Directors	Sitting Fees		Total
	Board Meeting	Committee Meeting	
Prof. Ashok Misra	35000	55000	90000
Sh. Deepak S. Parekh (Upto 05.08.2003)	5000		5000
Dr. R.K. Pachauri	25000		25000

5. GENERAL BODY MEETINGS

Annual General Meeting

Date, time and location where the last three Annual General Meetings were held is as under:

Particulars	FY 2000-01 (25 th AGM)	FY 2001-02 (26 th AGM)	FY 2002-03 (27 th AGM)
Date & time	25 th September 2001 at 2:00 P.M.	23 rd September 2002 at 2:00 P.M.	24 th September 2003 at 3:00 P.M.
Venue	NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, N. Delhi-110003	NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, N. Delhi-110003	NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, N. Delhi-110003
Special Resolution passed	NIL	Enhancement of authorised capital from Rs. 8000 crore to Rs. 10000 crore and sub-division of one share of Rs. 1000 into 100 shares of Rs. 10 each.	NIL

No postal ballots were used for voting.

6. DISCLOSURES

The transactions with related parties contain (i) payment to companies under Joint Venture Agreement and on account of contracts for works / services, (ii) remuneration to key management personnel and (iii) equity contribution to subsidiaries, which are not in nature of potential conflicts with interest of the company at large.

The company has complied with all the requirements of the Listing Agreement with Stock Exchange as well as Regulations and Guidelines prescribed by SEBI. There were no penalties or strictures imposed on the company by any statutory authorities for non-compliance on any matter related to capital markets, during the last three years.

7. MEANS OF COMMUNICATION

In order to make the general public aware of the achievements of the company, a press conference is held immediately after the close of the financial year where the highlights of the company during the year are briefed to the Press for information of the stakeholders. Also, after the Annual General Meeting another press conference is held for communicating the audited results of the company.

With effect from the quarter ended 31.03.2004 Company's quarterly results (unaudited, provisional) are published in the leading newspapers and also displayed on the Company's web site and are submitted to NSE where the Bonds of the Company are listed w.e.f. 17.02.2004. All applicable provisions of the Listing Agreement with NSE have been duly complied with in this regard. Company's Annual Accounts are also put on the Company's web site i.e. www.ntpc.co.in after the Annual General Meeting.

8. GENERAL SHAREHOLDERS INFORMATION

AGM (Date, Time and Venue):

NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi -110 003.

Financial Calendar for FY 2004-05

Particulars	Date
Accounting Period	1 st April 2004 to 31 st March 2005
First Quarter Results	On or before July 31, 2004
Second Quarter Results	On or before October 31, 2004
Third Quarter Results	On or before January 31, 2005
Fourth Quarter Results	On or before April 30, 2005
AGM (Next year)	September 2005 (Tentative)

Dividend History

Year	Total paid-up capital (Rs. in crore)	Total amount of dividend paid (Rs. in crore)	Date of AGM in which dividend was declared	Date of payment
1998-1999	7712.55	650.00	16.09.1999	15.10.1999
1999-2000	7812.55	650.00	28.09.2000	07.11.2000
2000-2001	7812.55	747.00	25.09.2001	26.09.2001
2001-2002	7812.55	707.93	23.09.2002	25.09.2003
2002-2003	7812.55	708.00	24.09.2003	24.09.2003

Listing on Stock Exchange -

Equity shares of NTPC are not listed on any Stock Exchange. However, NTPC's Privately Placed Bonds issued upto 30.09.2003 are listed on National Stock Exchange of India Limited, Exchange Plaza, Bandra-Kurla Complex, Bandra (E), Mumbai-400 051



Payment of Listing fees

Listing fee has been paid to the Stock Exchange.

Registrar & Transfer Agent

For Xth, XVIIIth and XIXth series of Bonds -
Mas Services Pvt. Limited, AB-4, Safdarjung Enclave, New Delhi – 110 029

For XIIth to XVIIth series of Bonds -
MCS Limited, Shri Venkatesh Bhawan, W-40, Okhla, Industrial Area, Phase-II, New Delhi – 110 020

Distribution of Shareholding

Entire paid-up share capital is held by the President of India except 100 shares each by seven nominees of the President of India.

Dematerialisation of Shares

Government of India has conveyed its approval for converting in Demat mode all the existing shares of NTPC held in name of the President of India in physical mode and to issue future shares in Demat mode. Accordingly, company has already started necessary process for dematerialisation of its equity shares.

Series XIIth and XVIIIth Bonds of NTPC are admitted under Demat Mode with both the Depositories of the Country i.e. National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited (CDSL). Bonds of series XIIIth to XVIIth and XIXth series are admitted under Demat mode with NSDL only. The names and addresses of the Depositories are as under:

1. National Securities Depository Ltd.
Trade World, 4th Floor, Kamala Mills compound,
Senapathi Bapat Marg, Lower Parel,
Mumbai-400 013
2. Central Depository Services (India) Limited
Phiroze Jeejeebhoy Towers,
28th Floor, Dalal Street,
Mumbai-400 023

Details of International Securities Identification Numbers (ISIN) are at Appendix-A to this report.

Station/Project Locations

- Anta Gas Power Project, Baran (Rajasthan)
- Auraiya Gas Power Station, Auraiya (U.P.)
- Barh Super Thermal Power Project, Patna (Bihar)
- Farakka Super Thermal Power station, Murshidabad (West Bengal)
- Faridabad Gas Power Station, Faridabad (Haryana)
- Feroze Gandhi Unchahar Thermal Power project, RaeBareli (U.P.)
- Jhanor Gandhar Gas Power Project ,Bharuch (Gujarat)
- Kahalgaon Super Thermal Power Project, Bhagalpur (Bihar)
- Kawas Gas Power Project, Surat (Gujarat)
- Kayamkulam Combined Cycle Power Project, Alappuzha (Kerala)
- Koldam Hydro Power Project, Bilaspur (H.P.)
- Korba Super Thermal Power Station, Korba (Chattisgarh)
- Loharinag - Pala Hydro Power Project, Uttarkashi (Uttaranchal)
- National Capital Power Station, Dadri (U.P.)

- North Karanpura Super Thermal Power Project, Dhurwa, Ranchi (Jharkhand)
- Ramagundam Super Thermal Power Station, Karimnagar (A.P.)
- Rihand Super Thermal Power Project, Sonebhadra (U.P.)
- Sipat Super Thermal Power Project, Bilaspur (Chattisgarh)
- Simhadri Super Thermal Power Project, Visakhapatnam (A.P.)
- Singrauli Super Thermal Power Station, Sonebhadra (U.P.)
- Talcher Super Thermal Power Project, Angul (Orissa)
- Tanda Thermal Power Station, Ambedkarnagar (U.P.)
- Tapovan-Vishnugad Hydro Power Project, Chamoli (Uttaranchal)
- Vindhyachal Super Thermal Power Station, Sidhi (Madhya Pradesh)

For Investors correspondence

Investors can send their queries regarding Transfer/Dematerialisation of Bonds, Non-receipt/revalidation of Interest Warrants and any other correspondence relating to the Bonds and Public Deposits of the Company either to:

SHRI ANJAN KUMAR BAJPAIE
Company Secretary
National Thermal Power Corporation Limited
Regd. Office: NTPC Bhawan, SCOPE Complex,
7, Institutional Area, Lodi Road,
New Delhi – 110 003
Ph.: 24360071
Fax No.: 24360241
e-mail: anjanbajpaie@ntpc.co.in

OR

For Xth, XVIIIth and XIXth series of Bonds

Mas Services Pvt. Limited
Safdarjung Enclave
New Delhi – 110 029
Ph.: 26104142
e-mail: masserv@glasdl01.vsnl.net.in

For XIIth to XVIIth series of Bonds

MCS Limited
Shri Venkatesh Bhawan
W-40, Okhla, Industrial Area
Phase-II, New Delhi – 110 020
Ph.: 26384909
e-mail: mcsdel@vsnl.com

For and on behalf of the Board of Directors



(C.P.JAIN)

CHAIRMAN & MANAGING DIRECTOR

Place : New Delhi
Date : 29th July, 2004



DEMATERIALISATION

Series XII

Upon conversion of the Letters of Allotment, of Secured Non-convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) - Series XII, to Bond Certificates, National Securities Depository Limited (NSDL) and Central Depository Services Limited (CDSL) have issued the following ISIN numbers to enable trading in dematerialized (Demat) mode:

ISIN	Details of Security
INE733E07116	10.00% Secured Non-Convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) Series XII Part A. Date of Maturity: 05.09.2007.
INE733E07124	10.00% Secured Non-Convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) Series XII Part B. Date of Maturity: 05.09.2008.
INE733E07132	10.00% Secured Non-Convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) Series XII Part C. Date of Maturity: 05.09.2009.
INE733E07140	10.00% Secured Non-Convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) Series XII Part D. Date of Maturity: 05.09.2010.
INE733E07157	10.00% Secured Non-Convertible Taxable Bonds with Separately Transferable Redeemable Principal Parts (STRPP) Series XII Part E. Date of Maturity: 05.09.2011.

Series XIII-A and Series XIII-B Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Numbers issued by NSDL to Series XIII-A and Series XIII-B are as follows:

Series XIII-A

ISIN	Details of Security
INE733E07165	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-A. Date of final redemption 18.04.2017.

Series XIII-B

ISIN	Details of Security
INE733E07017	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2008.
INE733E07025	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2009.
INE733E07033	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2010.
INE733E07041	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2011.
INE733E07058	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2012.
INE733E07066	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2013.
INE733E07074	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2014.
INE733E07082	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2015.
INE733E07090	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2016.
INE733E07108	9.55% Secured Non-Cumulative Non-Convertible Redeemable Taxable Bonds in the nature of Debentures Series XIII-B. Date of Maturity:30/04/2017.

Series XIV

Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Numbers issued by NSDL to Series XIV are as follows:

ISIN	Details of Security
INE733E07173	8.05% Secured Non-Cumulative Non-Convertible Taxable Bonds in the nature of Debentures Series XIV STRPP-A. Date of Maturity:01/08/2006.
INE733E07181	8.05% Secured Non-Cumulative Non-Convertible Taxable Bonds in the nature of Debentures Series XIV STRPP-B. Date of Maturity:01/08/2007.

Series XV

Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Numbers issued by NSDL to Series XV are as follows:

ISIN	Details of Security
INE733E08106	15 BD 31MR06 LOA UPTO 18DC 03
INE733E08114	13.6 BD 28SP06 LOA UPTO 18DC03

Series XVI

Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Number issued by NSDL to Series XVI is as follows:

ISIN	Details of Security
INE733E08122	8 BD 10AP18 FV RS 10LAC LOA UPTO 20MY04

Series XVII

Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Numbers issued by NSDL to Series XVII is as follows:

ISIN	Details of Security
INE733E08130	8.48 BD 01MY 23 FV RS 10 LAC LOA UPTO 20 MY 04

Series XVIII

Bonds have been made available for dematerialisation by National Securities Depository Limited and Central Depository Services Limited. ISIN Numbers issued by NSDL to Series XVIII are as follows:

ISIN	Debenture/Bond Description
INE733E07199	Part-A 5.95 BD 15SP09 LOA UPTO 26FB04
INE733E07207	Part-B 5.95 BD 15SP10 LOA UPTO 26FB04
INE733E07215	Part-C 5.95 BD 15SP11 LOA UPTO 26FB04
INE733E07223	Part-D 5.95 BD 15SP12 LOA UPTO 26FB04
INE733E07231	Part-E 5.95 BD 15SP13 LOA UPTO 26FB04

Series XIX

Bonds have been made available for dematerialisation by National Securities Depository Limited. ISIN Number issued by NSDL to Series XIX is as follows:

ISIN	Debenture/Bond Description
INE733E07249	SR-19 7.5 BD 12JN19 FV RS10LAC LOA UPTO 30MAR04



AUDITORS' CERTIFICATE ON CORPORATE GOVERNANCE

The Members
National Thermal Power Corporation Limited
NTPC Bhawan, SCOPE Complex
Core-7, 7 Institutional Area
Lodi Road
New Delhi – 110 003

We have examined the compliance of conditions of corporate governance by National Thermal Power Corporation Limited, for the year ended on March 31, 2004 as stipulated in the clause 34 of the Listing Agreement in respect of Bonds of the said company with the National Stock Exchange of India Limited.

The compliance of conditions of corporate governance is the responsibility of the management. Our examination was limited to procedures and implementation thereof, adopted by the company for ensuring the compliance of the conditions of the Corporate Governance. It is neither an audit nor an expression of opinion on the financial statements of the company.

In our opinion and to the best of our information and according to the explanations given to us and subject to that the Board of Directors of company comprises two Independent Directors as against requirements of six in terms of Clause 34 I (A) of Listing Agreement we certify that the company has complied with the conditions of Corporate Governance as stipulated in the above mentioned Listing Agreement.

We state that no investor grievance is pending for a period exceeding one month against the company as per the information furnished by the Registrar and Transfer Agents and records maintained by the Company.

We further state that such compliance is neither an assurance as to the future viability of the company nor the efficiency or effectiveness with which the management has conducted the affairs of the company.

For Kalani & Co.
Chartered Accountants

(K. L. Jhanwar)
Partner

For Umamaheswara Rao & Co.
Chartered Accountants

(G. Sivarama Krishna Prasad)
Partner

For T.R. Chadha & Co.
Chartered Accountants

(Sanjay Gupta)
Partner

For Amit Ray & Co.
Chartered Accountants

(Amitava Ray)
Partner

For S.N. Nanda & Co.
Chartered Accountants

(S. N. Nanda)
Partner

Place: New Delhi
Date : 29th July, 2004

STATEMENT PURSUANT TO SECTION 212 OF THE COMPANIES ACT, 1956 RELATING TO SUBSIDIARY COMPANIES

	NAME OF THE SUBSIDIARY	PIPAVAV POWER DEVELOPMENT COMPANY LTD.	NTPC ELECTRIC SUPPLY COMPANY LTD.	NTPC VIDYUT VYAPAR NIGAM LTD.	NTPC HYDRO LTD.
1.	Financial year of the Subsidiary ended on	31 ST March, 2004	31 ST March, 2004	31 ST March, 2004	31 ST March, 2004
2.	Date from which they became Subsidiary	20 TH December, 2001	21 ST August, 2002	1 ST November, 2002	12 TH December, 2002
3.	Share of the subsidiary held by the company as on 31 ST March, 2004				
	a) Number & face value	365000 equity shares of Rs. 10/- each	80910 equity shares of Rs. 10/- each	20000000 equity shares of Rs. 10/- each	1654810 equity shares of Rs. 10/- each
	b) Extent of holding	100%	100%	100%	100%
4.	The net aggregate amount of the subsidiary companies Profit/(loss) so far as it concerns the member of the holding company				
	a) Not dealt with in the holding company's accounts				
	i) For the financial year ended 31 ST March, 2004	(Rs. 3600032)	(Rs. 33410)	Rs. 21313612	Rs. 17229022
	ii) Upto the previous financial years of the subsidiary company	(Rs. 25716)	(Rs. 29493)	(Rs. 131785)	(Rs. 16393)
	b) Dealt with in the holding company's accounts				
	i) For the financial year ended 31 ST March, 2004.	Nil	Nil	Nil	Nil
	ii) For the previous financial year of the subsidiary company since they became the holding company's subsidiaries	Nil	Nil	Nil	Nil

For and on behalf of Board of Directors



(C.P. JAIN)
Chairman & Managing Director

Place : New Delhi
Dated: 29.07.2004



PARTICULARS REQUIRED UNDER THE COMPANIES (DISCLOSURE OF PARTICULARS IN THE REPORT OF THE BOARD OF DIRECTORS), RULES 1988

A. CONSERVATION OF ENERGY

a) Energy Conservation Measures taken:

Some of the important energy conservation measures taken during the year 2003-2004 in different areas are as under:

ENERGY AUDITS

During the year 2003-04, 194 in-house energy audits (including 11 energy audits of NSPCPL, Durgapur) in the areas of auxiliary power consumption, water balance, cooling water system, compressed air, coal handling plant, ash handling system, boilers, turbines, GT Compressors, GT open cycle efficiency, WHRB, lighting, thermal insulation were carried out at different stations. In addition, a workshop on Energy Conservation in Ash Handling System and 7 nos of training programmes for O & M executives in energy auditing were also held.

AUXILIARY POWER CONSUMPTION

Intake channel level based operation of CW pumps, ambient condition based and actual requirement based operation of CW pumps and cooling towers, monitoring running of auxiliary cooling water pumps and air compressors as per requirements, using vapour absorption system for air conditioning etc.

LIGHTING

Replacing conventional FLTs with E+28W energy efficient tube lights, timer based operation of common area lighting, replacing 70w conventional aviation lights with energy efficient 15 w aviation lights etc

HEAT ENERGY

Repair of thermal insulation, periodic cleaning of soot deposits in WHRB and cleaning of condenser water boxes and tubes etc.

LUBRICANTS

Attending leakages and changing/topping up oil on actual condition based requirements, recycling used up oils for reuse.

FUEL OIL

Modifying FSSS Logic for ignition support, using Trevy Test method for safety valve floating, attending line leakages etc.

DM WATER

Attending DM water/steam leakages etc.

MISCELLANEOUS WATER

Maintaining appropriate Cycle of Concentration in Circulating water system, attending water leakages, using discharge water from Air Pre-heater guide bearing cooling system for Bottom Ash Hopper sealing, controlling ash water ratio etc.

DIESEL/MGR FUEL

Reduction in idle running of locos and dozers, monitoring cycle time of MGR etc.

NON CONVENTIONAL ENERGY

Using solar water heaters in canteens and guest houses, solar PV pumps for horticulture, bio-mass plant gas in canteen kitchen etc.

- b) Additional investments and proposals for reduction in consumption of energy:
Provision of Rs 53.2 million has been kept in BE 2004-05 for various energy conservation schemes like:-
- Energy Meters and other portable Energy Audit Instruments and on-line Energy Monitoring System
 - Vapour Absorption System for Air Conditioning
 - Energy Efficient devices in lighting
 - Soft Starters for Motors
 - Solar Water Heaters, Solar PV Lighting and Solar PV Pumps
- c) Impact of measures taken for energy conservation :
Savings achieved during 2003-2004 on account of specific efforts for energy conservation :-

S. No	Area/Activities	Savings		
		Energy Unit	Qty. of units	Rs. (Million)
(1)	Electricals (including 6.82 MU savings in lighting)	MU	138.85	167.787
(2)	Heat Energy(equivalent MT of coal)	MT	16410	25.321
(3)	Fuel Oil	KL	1122.6	16.979
(4)	DM Make up water	MT	180186	0.249
(5)	Miscellaneous Water	M.Cu.M	5.655	45.774
(6)	Diesel/MGR Fuel	KL	-	-
(7)	Lubricants	KL	55.33	3.470
(8)	Gas/NAPTHA	M.Cu.M	1.69	7.529
(9)	Chemicals/LPG/Misc			0.053
	Grand Total			267.16

Savings achieved during 2002-03 : Rs. 316.654 (Million)

B. TECHNOLOGY ABSORPTION

Efforts made towards technology as per Form-B
(Form-B is enclosed)

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

Activities relation to export initiative taken to increase export, development of new export markets for products and services and export plan:

Total Foreign Exchange Used/Earned (2003-2004)		Rs./Million
1. Foreign Exchange Outgo		
a) Value of Imports calculated on CIF basis:		
Capital Goods		372
Spare Parts		886
b) Expenditure:		
Professional and Consultancy Charges		27
Interest		1874
Others		11433
2. Foreign Exchange Earned		
Consultancy		-
Interest		2
Others		1



FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO ABSORPTION OF TECHNOLOGY

RESEARCH & DEVELOPMENT (R&D)

1.0 Specific areas in which R&D activities have been carried out during 2003 - 04:

- a. Studies were carried out for power generation through alternate sources of energy such as solar, biomass, MHD, Ocean Thermal and fuel cell technology.
- b. Studies were carried out for strengthening off-line and online monitoring techniques for reducing the boiler tube failures and Transformer failures.
- c. Studies to establish mechanical properties-Hardness correlations for in-situ health assessment of UDIMET-520 GT blade material.
- d. Studies on Corrosion behaviour of seawater at higher COC for use in Ash handling system and Cooling water systems at a coastal Power Station.
- e. Studies to define level of degradation in metallurgical microstructures & mechanical properties for determination of end life criteria of gas turbine inlet segments.
- f. Analysis of various problems of equipment vibrations and providing solutions for the same.
- g. Health assessment of number of Gas Turbines, Boilers, Steam Turbines, Condenser Tubes and Retaining Rings were carried out through latest NDT techniques. Recommendations for repair/refurbishment/replacement of various components were furnished to various stations.
- h. Failure analysis of boiler & turbine components like boiler tubes, turbine blades etc.
- i. Condition Monitoring of Transformers / Reactors through DGA, furfural content and degree of polymerization.
- j. Development of Corrosion inhibitors to prevent corrosion of Cooling Tower make-up water pipelines, filter water pipelines and clarified water pipelines at different power stations.
- k. Condition monitoring of components through wear – Debris analysis
- l. Scientific investigations of number of used GT components to assess their condition for further use.
- m. R&D took an initiative in capturing the knowledge in the field of Carbon sequestration. Assessment was made of R&D work presently being undertaken by various organizations in the country, areas for knowledge sharing with CSLF countries and projects in which India can associate with other CSLF countries.
- n. The new facilities in respect of Digital Camera & its interfacing with optical microscope, Dimensional Measuring Equipment were added.

2.0 Benefits derived as a result of above R&D:

1. Development of power generation through alternate sources of energy would reduce the dependence on fossil fuels and help in generation of clean power that is more eco-friendly.
2. Strengthening of online monitoring techniques to prevent transformer failure and early detection & prediction of the boiler tubes leakage would help in reducing the forced outages of boilers and transformers and thus improve the availability and reliability of plants.
3. The studies on correlation of mechanical properties will help in preventing failures of Row #1 blade materials thus increasing availability and reliability of the machines.
4. The corrosion behaviour studies of mild steel and cast iron components in contact with seawater will help in understanding the corrective action required in operating the systems at higher COC thereby helping in increasing the life/availability of the plant using seawater.

5. Accelerated ageing studies will provide input for heat treatment to improve the life of the machines and thus help in life extension of the machines.
6. The corrective actions as suggested to overcome the high levels of vibration and failure of teeth of Gear-boxes at three Mini-Hydel projects at Ludhiana will help the stations in improving the availability and reliability of the machines.
7. On the basis of health assessment carried out through NDT techniques, in number of cases, repairs rather than replacement of costly components were recommended resulting into savings. In case of expensive hot gas path components of GTs, refurbishment works were undertaken by indigenous agencies in association of R&D and these refurbished components have been working satisfactorily.
8. The timely and scientific failure analysis of various components helped in identifying the cause of failure and thus providing necessary input for taking corrective action in preventing re-occurrence of similar failures thereby increasing the availability of power plant equipment.
9. Few Transformers were saved from significant damage through systematic condition monitoring like DGA analysis and Degree of Polymerization. This has helped in increasing the reliability and availability of the stations.
10. Development of in-house corrosion inhibitors for different pipeline system will provide cost effective solution to the damage of pipelines by corrosion and thus help in increasing the availability of the system besides reducing the energy consumption through increase in flow of water in the pipelines.
11. Condition monitoring of Bearing of Gas Turbine through wear-debris analysis helped in identifying the cause of rise in temperature and the timely inspection based on condition monitoring of lubricating oil saved the system from an extensive damage on account of wear.
12. Life extension studies as carried out on Vanes of GT at one of the gas station along with OEM helped in extending the life of vanes through heat treatment. These studies helped the stations in improving the life of the plants components.
13. The new facilities added will help in better understanding of metallurgical analysis carried out and assessment failures/life of components

The following applied research projects will also be undertaken:

- i) Studies on internal corrosion and its control of the clarified pipelines and CW ducts at a few of NTPC stations.
- ii) Study of fire-side (external) corrosion of boiler tubes.
- iii) Expert system for health assessment of HV transformers.
- iv) Heat treatment of super heater tubes (T-22) for accelerated technique for life assessment.

3.0 Future Plans (2004-05)

NTPC Management has approved setting up of a "Power Technology & Research Centre" (PTC) at Greater NOIDA. Land for the PTC has been allotted by the concerned authority and 50% payment for the same has already been made. The Head of Power Technology Centre has been appointed. The Blue Print for the "Power Technology Centre" is under finalization. The centre proposes to target development of technologies for reduction in the O&M cost of plants, Carbon/energy conflict, nano-technologies, fuel cells, high efficiency integrated Coal Gasification, etc.

4.0 Expenditure of R&D

	(Rs./Millions)	
	2003-04	2002-2003
a) Capital	1	3
b) Recurring	46	46
c) Total	47	49
d) Total R&D expenditure as a percentage of total turnover	0.0249%	0.0257%



5.0 Technology Absorption, Adaptation and Innovation

Efforts made towards technology absorption, adaptation and innovation etc., and benefits derived therefrom.

The cost saving resulting from introduction of some of the innovations/technologies are as under:

SL No	System Description	Saving in Cost
1.	Use of Supercritical parameters 255KG/sq.cm. steam pressure & 540 C /568 C MS/RH steam temperature. Sipat Stage-I (3X660 MW) main plant has been ordered with super critical parameters	2.5% improvement in thermal efficiency; reduction in greenhouse gas emissions up to 79000 tonnes per annum CO ₂ for a typical 500 MW unit at 68.5% Plant Load Factor.
2.	Introduction of Integrated Gasification Combined Cycle (IGCC) Technology.	Recognizing the fact that IGCC is going to be the future technology for power generation NTPC has decided to set up IGCC demonstration plant although the cost of generation will be comparatively higher at present due to higher capital cost of the technology.
3.	765 KV Transmission System	Saving on Transmission of Bulk power. Both in terms of losses & capital cost.

C. Particulars of technologies imported during last five years.

NTPC has been the pioneer in the introduction and absorption of latest generation technologies in the Indian Power Sector.

Particulars of some of the important technology imported during last five (5) years are as follows:

Sl. No.	Technology	Year	Station
1.	Introduction of high performance 3D twisted hollow banana type blades for LP turbines at Simhadri and Talcher	2000	Being implemented.
2.	One of the largest Sea-water intake systems in the world for closed cycle condenser cooling at Simhadri	2000	Being implemented

For and on behalf of the Board of Directors

(C.P. JAIN)
Chairman & Managing Director

Place : New Delhi
Dated: 29.07.2004

PHYSICALLY CHALLENGED PERSONS

NTPC prides itself on being a socially conscious corporate entity with a responsibility towards society, which it seeks to address through various means. All its efforts are directed towards improving the quality of life of the people whom it touches. One out of many such efforts is working for the welfare of Physically challenged persons.

Various activities have been undertaken by NTPC in this area like Special Recruitment drives, Scholarships for Engineering students, Medical Camps for treatment and distribution of aids/appliances, Financial Support to agencies/NGOs working for the cause of the physically challenged, allotment of Shops/PCOs in NTPC Townships to physically challenged persons, running a school "Asha Kiran" for Deaf & Dumb and mentally challenged children, award of petty contracts like book binding, scribbling pad preparation from waste paper, file binding, furniture repair, Painting etc, Regular interaction meetings with Physically Challenged employees.

In recognition of the efforts made in giving direct employment to such persons, NTPC has been awarded the 4th NCPEDP-Shell Helen Keller Award in the organization category in the year 2002 and National award for Welfare of Persons with Disabilities-2003 in the Best Employer category, instituted by Ministry of Social Justice and Empowerment.

Main activities & Policy decisions taken during the year 2003-2004 for the welfare of Physically challenged persons are as under:

- Recruitment in Group C & D Posts (IInd phase). 102 persons with disabilities have joined in the year 2003-2004 (126 had joined in the 1st phase in 2002-03).
- Relaxation in qualifying marks for open recruitment to pass marks only and also 10% relaxation in written test and interview.
- Scholarship for Physically Challenged students pursuing MBA.
- For individual needs of the VH employees, screen reading software etc. being procured.
- 'Sign language' training for the employees in general, wherever hearing impaired candidates are posted.
- As a special effort, NTPC decided to fabricate & install 13 telephone booths for physically challenged persons in Delhi.
- At CC procurement of stationery items like files, envelopes are mainly being done from Agencies who are working for the physically challenged thereby creating indirect employment.
- Wheel chairs have been provided to employees with orthopedic disabilities. If required, assistance of an attendant has also been provided. Gates/doors of township quarters have been widened wherever required.
- Ramps and lifts for barrier free access and toilets specifically for the needs of physically Challenged persons have been constructed/installed. Special parking facilities have been provided for physically challenged persons.

For and on behalf of the Board of Directors



(C.P. JAIN)

Chairman & Managing Director

Place : New Delhi
Dated : 29.07.2004

STATISTICAL INFORMATION ON RESERVATION OF SCs/STs FOR THE YEAR 2003

REPRESENTATION OF SC/ST IN NTPC AS ON 01-01-04

Group	Emp.on Roll	SCs	% age	STs	% age
A	8679	783	9.02	91	1.05
B	2765	264	9.55	139	5.03
C	8761	1689	19.28	552	6.30
D	2913	584	20.05	273	9.37
Total	23118	3320	14.36	1055	4.56

RECRUITMENT OF SCs/STs DURING THE YEAR 2003

Group	Total Rectt.	SCs	% age	STs	% age
A	281	31	11.03	5	1.78
B	-	-	-	-	-
C	90	3	3.33	-	-
D	25	1	4.00	1	4.00
Total	396	35	8.84	6	1.52

PROMOTIONS DURING THE YEAR 2003

Group	Total	SCs	% age	STs	% age
A	1947	148	7.60	24	1.23
B	646	114	17.65	10	1.55
C	1081	201	18.59	62	5.74
D	89	14	15.73	10	11.24
Total	3763	477	12.67	106	2.81

Steps taken or proposed to be taken to fill up all reserved vacancies for SCs/STs, Backlog as well as current:

- i) Six Special Recruitment Drives were launched from 1989-90 to 1996.
- ii) It was discontinued from 1997 as per the Govt. instructions.
- iii) The same has been restored since July, 2000.
- iv) NTPC again conducted two special recruitment drives in July, 2000 and in Jan. 2002. Another exercise for special recruitment drive was initiated in Dec. 2003.
- v) Exclusive advertisements/notifications covering populous belts of SC/STs.
- vi) Notifications of vacancies to recognized SC/ST Associations.
- vii) All major vacancies involving All India Competitive Selection Tests are circulated to all accredited SC/ST Associations as prescribed under the relevant Government Directives.
- viii) Exchange of SC/ST vacancies in the 3rd year of carry forward. However, in view of OM No.3612/17/2002-Estt.(Res) dated 06.11.2003 the exchange of SC/ST vacancies in the 3rd year of carry forward has been discontinued.
- ix) Award of Annual Scholarships to the following extent to SC/ST students pursuing Degree/Diploma in Engineering and MBA/PGDBM course is given as under:

Degree Course	Diploma Course	MBA/PGDBM
Rs. 1000/- p.m.	Rs. 600/- p.m.	Rs. 1000/- p.m.

Besides above NTPC has also instituted annual NTPC Gold Medal award with XISS for one student each topping the merit list of SC/ST candidates in Personnel Management Course and Rural Development Course.

For and on behalf of the Board of Directors



(C.P. JAIN)

Chairman & Managing Director

Place : New Delhi
Dated: 29.07.2004

REVIEW OF ACCOUNTS OF NATIONAL THERMAL POWER CORPORATION LIMITED, NEW DELHI FOR THE YEAR ENDED 31ST MARCH 2004 BY THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

1. FINANCIAL POSITION

The table below summaries the financial position of the Company under broad headings for the last three years:

	(Rs. in Million)		
	2001-02	2002-03	2003-04
Liabilities			
a) Paid up capital			
i) Government	78125	78125	78125
ii) Others	-	-	-
b) Reserves and Surplus			
i) Free Reserves and Surplus	207269	235769	276113
ii) Foreign Project Reserve	4	4	4
iii) Capital Reserve	1127	1229	1259
c) Borrowings			
i) From Government of India	21943	1442	984
ii) From Financial Institutions	27059	43232	57675
iii) Foreign Currency Loans	58159	55900	58642
iv) Cash Credit	-	-	-
v) Others	8651	31583	37227
vi) Interest Accrued and Due	-	-	-
d) i) Current Liabilities & Provisions	47352	45482	80565
ii) Provision for Gratuity	794	368	376
e) i) Deferred Tax Liability	-	1	1
ii) Advance Against Depreciation	-	271	1591
iii) Development Surcharge Fund	-	-	3784
Total	450483	493406	596346
Assets			
f) Gross Block	328912	366106	400281
g) Less: Depreciation	152131	167456	187736
h) Net Block	176781	198650	212545
i) Capital Work-in-Progress & Construction Stores & Advances	65550	63863	74953
j) Investments	40281	36674	173380
k) Current Assets, Loans & Advances	167799	194132	135468
l) Deferred Tax Assets	-	-	-
m) Misc. Expenditure (to the extent not written off or adjusted)	72	87	-
n) Accumulated Loss	-	-	-
Total	450483	493406	596346
o) Working Capital [K- d(i) -c(vi)]	120447	148650	54903
p) Capital Employed [h + o]	297228	347300	267448
q) Net Worth [a + b(i) - (n + m)]	285322	313807	354238
r) Net Worth per rupee of Paid-up Capital (in Rs.)	3.65	4.02	4.53



2. SOURCES AND UTILISATION OF FUNDS

Funds amounting to Rs.185446 Million from internal and external sources were realised and utilised during the year as detailed below:

(Rs. in Million)

Sources of Funds

a) Funds from operations:		
Profit after tax	52608	
Add: Depreciation	<u>20280</u>	72888
b) Increase in Borrowings		22371
c) Decrease in Working Capital (excluding Proposed Dividend & Tax on Proposed Dividend)		85020
d) Increase in Advance Against Depreciation		1320
e) Increase in Development Surcharge Fund		3784
f) Decrease in Miscellaneous Expenditure		<u>63</u>
Total		<u>185446</u>

Utilisation of funds

a) Increase in Capital Work in Progress and Construction Stores & Advances		11090
b) Increase in Fixed assets		34175
c) Increase in Investments		136706
d) Dividend & Dividend Tax paid		<u>3475</u>
Total		<u>185446</u>

3. WORKING RESULTS

The working results of the Company for the last three years ending 31st March 2004 are given below:

(Rs. in Million)

	<u>2001-02</u>	<u>2002-03</u>	<u>2003-04</u>
(i) Turnover (including Electricity Duty & Consultancy Income)	179110	191821	189951
(ii) Other income	6725	4036	61282
(iii) Profit Before Tax, Prior Period & Extra Ordinary Items	37021	38343	59080
(iv) Prior Period & Extra Ordinary Items	500	803	183
(v) Profit Before Tax	37521	37540	58897
(vi) Provision for Taxation	2125	1465	6289
(vii) Profit After Tax	35396	36075	52608
(viii) Proposed Dividend and Dividend Tax	7079	7475	12210

4. RATIO ANALYSIS

Some Important ratios on the financial health and working of the Company at the end of the last three years ending 31st March 2004 are as under:

	<u>2001-02</u>	<u>2002-03</u>	<u>2003-04</u>
i) Liquidity ratio	3.54	4.27	1.68
Current ratio $[k/\{d(i)+c(vi)\}]$			
ii) Debt equity ratio			
Long term debt to net worth $[\{c(i \text{ to } iii)+c(v)\}/q]$	0.41	0.42	0.44

Profitability Ratios (in percentage)

a) Profit Before Tax to :			
i) Capital Employed {3(v)/p}	12.62	10.81	22.02
ii) Net Worth {3(v)/q}	13.15	11.96	16.63
iii) Turnover (including Electricity Duty & Consultancy) {3(v)/3(i)}	20.95	19.57	31.01
b) Profit After Tax to Equity	45.31	46.18	67.34
c) Earning per Share (in Rs)	453.07	4.62*	6.73*

* Equity Shares with face value of Rs. 1000/- in the year 2001-02 have been split into equity shares of Rs. 10/- each in the year 2002-03.

5. INVENTORY LEVELS

The inventory levels at the close of the last three years ending 31st March 2004 are as under:

	(Rs. in Million)		
	2001-02	2002-03	2003-04
i) Coal, Fuel Oil and Naptha	6757	5015	4407
ii) Chemicals and Consumables	810	634	686
iii) Components and Spares	12003	11390	11742
iv) Loose tools	58	51	55
v) Others	589	704	663

6. SUNDRY DEBTORS

The Sundry debtors and Sales in the last three years ending 31st March 2004 are as follows:

	(Rs. in Million)				
As at 31st March	Sundry Debtors			Turnover (including Electricity Duty & Consultancy)	Percentage of Sundry Debtors to Turnover
	Considered Good	Considered Doubtful	Total		
2002	115328	11344	126672	179110	70.72
2003	124349	14558	138907	191821	72.41
2004	4699	14287	18986	189951	10.00

Sundry debtors to turnover decreased from 72.41 percent in 2002-2003 to 10.00 percent in 2003-2004 due to securitisation of SEBs dues.

The age-wise break-up of the Sundry debtors at the end of 31st March 2004 is as under:

Debtors Outstanding for	(Rs. in Million)
Less than six months	1055
Six months to one year	-
One year to three years	5007
More than three years	12924
Total	18986

(Revathi Bedi)
Principal Director of Commercial Audit
and Ex-Officio Member, Audit Board-III, New Delhi

Place : New Delhi
Dated : 29 July 2004



COMMENTS OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA UNDER SECTION 619(4) OF THE COMPANIES ACT, 1956, ON THE ACCOUNTS OF NATIONAL THERMAL POWER CORPORATION LIMITED, FOR THE YEAR ENDED 31 MARCH 2004.

Comment

Accounting Policy No. 8.2.1

Notes on Accounts (Schedule-28) - Note No.8 (i)

Consequent upon the enactment and coming into force of Electricity Act, 2003, with effect from 10.6.2003, three old electricity laws namely the Electricity Act 1910, the Electricity (Supply) Act 1948 and the Electricity Regulatory Commission Act 1998 have been repealed. The Electricity Act, 2003, does not contain any provision regarding rates of depreciation to be followed by the 'generating companies' for the purpose of preparation of their annual accounts. In the absence of this, the Company has followed the rates of depreciation as laid down in the Companies Act, 1956 for preparation of its accounts for the year ended 31 March 2004.

Matter has been referred to the Government of India for clarification regarding applicability of the rates of depreciation to be charged in the books of accounts.

(Revathi Bedi)

Principal Director of Commercial Audit
and Ex-officio Member Audit Board-III, New Delhi

Place : New Delhi

Dated : 29 July 2004

Management Reply

The Company is governed by all the provisions of Companies Act, 1956 except those which are inconsistent with the provisions of Indian Electricity Act 1910 or Electricity (Supply) Act 1948. With the repeal of the Indian Electricity Act 1910, Electricity (Supply) Act 1948 and Electricity Regulatory Commission Act 1998 and coming into force of Electricity Act, 2003 w.e.f. 10.06.2003 and in the absence of provision analogous to Section 75 A of the Electricity (Supply) Act 1948, no inconsistency exists as regards the rates of depreciation to be followed. The Company has to fall back on the provisions of Companies Act, 1956 and prepare its accounts for the year ended 31.03.2004 following the rates of depreciation as laid down in the Companies Act, 1956. The independent official legal opinion also confirms the fact that the company is right in following the rates of depreciation as per Schedule-XIV of the Companies Act, 1956 for charging depreciation in the books of accounts of NTPC for the financial year 2003-04.

(C.P. Jain)

Chairman & Managing Director

Place: New Delhi

Dated : 29 July 2004

PARTICULARS OF EMPLOYEES PURSUANT TO SECTION 217(2A) OF THE COMPANIES ACT, 1956

Name	Designation and Nature of duties	Remuneration	Qualification	Date of Commencement of Employment	Exp. (Yrs)	Age (Yrs)	Last Employment held
1.	2.	3.	4.	5.	6.	7.	8.
Employed for the whole year							
Singh Satinder Pal	DGM	2595246	B.Sc., PG Dip. in Social Services, Dip. in Labour Law	23.01.82	24	46	BHEL
Employed for the part of year							
Arora J.S.	SR. MGR.	1800728	BE	17.12.84	19	48	-
Bajaj R.S.	DGM	2059220	B.Tech (C)	05.02.78	26	51	-
Das A.K.	AGM	795132	BE (C) Engg.	26.02.82	21	61	The Braitts waitt Burns & Jessop Constr. Co Ltd.
Das M.	DGM	1904261	FCA	23.09.83	20	58	Hindustan Paper Corp. Ltd.
Gandhi K.S.	DGM	1923593	B.E.(Elec.) M.Tech. (Electrical)	16.12.80	28	57	BHEL
John P. John	DGM	2890432	B.Sc.(Engg. Mech.)	04.07.79	33	55	M/s. TataRobins Fraser Ltd.
Kumar Naresh	CDE	2024589	B.Sc(M) Engg.	15.11.79	24	48	-
Nair Vinay	Sr. ES	1728808	MA	01.01.79	25	54	CEA
Raju C. S.	MGR.	2078405	PG Dip in IRPM	28.04.80	23	54	-
Satyanarayana G.	Supervisor	1028228	ITI (Fitter)	13.08.84	19	53	-
Savithri O.	Dy. MGR.	1647670	Dip. In Civil Engg.	17.07.82	20	56	-
Sikand P.S.	DCDE	1238718	Dip (Electro)	11.12.87	16	57	-
Silvasthiri R.	MGR.	2095283	Dip. In Civil Engg.	22.10.79	23	56	-
Singh Daljeet	CDE	1714246	BE (Electro)	12.09.84	19	43	-
Singh G.P.	ED (NR)	854614	B.Sc. Engg.(Mech.)	14.01.88	15	60	-

Note:

- Persons named above are / were employees of the Company.
- Remuneration includes salary, allowances, leave encashment, leave travel concession, payment for subsidized leased accommodation, reimbursement of medical expenses to employees and employer's contribution to Provident Fund and other funds. However, it does not include the monetary value of the medical treatment provided in the Company's dispensaries/hospitals of Project sites, since it can not be quantified employees-wise. In addition, the employees are entitled to gratuity/group insurance in accordance with Company's Rules.
- None of the employees listed above is related to any directors of the company.

For and on behalf of the Board of Directors



(C.P.JAIN)

Chairman & Managing Director

Place : New Delhi
Date : 29.07.2004



STATISTICAL DATA OF GRIEVANCE CASES

2003-04

Sl. No.	Particulars	Public Grievance Cases	Staff Grievances Cases
1	Grievance cases outstanding at the beginning of the year	-	4
2	Grievance cases received during the year	3	43
3	Grievance cases disposed of during the year	3	43
4	Grievance Cases outstanding at the end of the year	-	4

For and on behalf of the Board of Directors

(C.P.JAIN)
Chairman & Managing Director

Place : New Delhi
Date : 29.07.2004



Integrating individual excellence with team spirit - Employees at work in an NTPC power station