

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 2013-2014 in different areas are as under:

ENERGY AUDITS

During the year 2013-14, total 48 energy audits were conducted in different Stations of NTPC. The areas of audit covered auxiliary power consumption, water balance, cooling water system, thermal insulation, compressed air system, milling system, air conditioning system, ash handling system, WHRB and lighting etc. were carried out at different stations of NTPC. A Conference of Energy Managers of all NTPC stations was also organized to deliberate actions for energy conservation and disseminate the activities undertaken at various Stations.

AUXILIARY POWER CONSUMPTION

Some of the actions undertaken to reduce auxiliary power consumption are replacement of inefficient BFP cartridges and addressing BFP recirculation valves passing at various Stations, repairing duct leakages / APH seal replacement at various stations, Flue gas duct modification using Computational Fluid Dynamic (CFD) studies at Tanda & Vindhyachal, reducing / stopping MDBFP running during unit start-ups and instead using TDBFP during startup in 500MW units, application of efficiency improvement coating on CW / other large pumps internal at some stations, installation of VFD's in various LT drives at Gandhar, Korba & Kyamkulam, installation of energy efficient blades for Cooling Towers at Dadri Gas & Faridabad, replacement of old air compressor with energy efficient screw compressor at Auraiya, optimization of operation of pumps and fans such as CW pumps, ARCW, clarified water pumps & Cooling Tower Fans, replacement of cartridges of ash slurry pumps at Tanda with energy efficient cartridges, optimizing DP across Feed Regulating Station at Kahalgaon & Vindhyachal, etc. Roof mounted 25KW grid interactive Solar Photovoltaic plant was also installed at Ramagundam to supplement auxiliary power.

LIGHTING

To reduce energy conservation from lighting, replacement of conventional GLS lamps and conventional FTLs with CFLs / efficient TL, replacement of HPSV / Halogen / FTL fixtures with LED light fixtures at various stations, and installation of solar based LED lights at Anta and Kayamkulam were undertaken during the year.

HEAT ENERGY

Restoring & upgrading thermal insulation, preventing passing in HP heaters partition plane, and replacement of high energy drain valves etc were undertaken at some of the Stations to reduce loss of thermal energy.

b) Additional investments and proposals for reduction in consumption of energy:

Provision of ₹ 11.62 crore has been kept in BE 2014-15 for different energy conservation schemes like:

- Energy Efficient fan blades in Cooling Towers
- Grid interactive roof-top SPV plant
- Energy efficient LT motors
- Energy efficient lighting
- Solar water heaters for houses and canteen

c) Impact of measures taken for energy conservation:

Savings achieved during 2013-14 on account of specific efforts for energy conservation:-

S.No.	Area/Activities	Energy Unit	Savings Qty. of units	₹ (Crore)
1	Electrical	MU	115.1	26.81
2	Heat Energy (equivalent MT of coal)	MT	11678	2.49
	Grand Total			29.30

Savings achieved during 2012-13 - ₹ 32.48 Crore

d) Technology Absorption:

Efforts made towards technology absorption are contained in enclosed Form -B.

B. FOREIGN EXCHANGE EARNINGS AND OUTGO

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

Total Foreign Exchange Used/ Earned (2013-14)		₹ (Crore)
1.	Foreign Exchange Outgo	
a)	Value of Imports calculated on CIF basis:	
	- Capital Goods	2472.14
	- Spare Parts	115.46
b)	Expenditure:	
	- Professional and Consultancy Charges	13.83
	- Interest	775.72
	- Others	66.22
2.	Foreign Exchange Earned	
	- Professional & Consultancy Fee	3.08
	- Others	0.05

FORM FOR DISCLOSURE OF PARTICULARS WITH RESPECT TO ABSORPTION OF TECHNOLOGY
1.0 Specific areas in which NETRA activities have been carried out during 2013 - 14:
a. Gol MOU Projects for 2013–14 Completed:

Design, procurement, erection and commissioning of waste flue gas based 100 TR air conditioning systems; In-house developed Technology to upgrade existing motor for VFD retrofitting in one complete cooling tower fans; Setting up of 50m² open pond race way algae reactor and commencement of cultivation of algae with selected strains for fixation of CO₂ from flue gas; Setup of in-house designed thermo-syphon heat pipe based air pre-heater pilot facility; Application of “Time of Flight Diffraction (TOFD)” techniques for detection & sizing of internal defects on selected welds of critical pipelines; Finalization of Tech Specs, Costing and NIT at NTPC Gandhar Gas Station CW Effluent Water Recovery System.

b. Developmental Projects undertaken by NETRA: Optimization studies of conversion of MSW to fuel at bench scale level; Pilot plant studies for mineralization of fly ash slurry; CFD modeling of power plant process for improving plant efficiency; Packaging of LTSH robotic system for inspection of boiler pressure parts; Final commissioning of RFID system for 5 Km. stretch; Development of software for in-situ detection of turbine blade defects.

c. Scientific Support to Stations on continuous basis:

- CFD modeling of flue gas ducts at Tanda and Vindhyachal. It has resulted in saving of 100 KW ID fans power at Tanda#1 &3 and by 70 KW at Vindhyachal U#5. Modification in CW sump of 500 MW Farakka #6 based on CFD modeling has helped in reduction of vibrations. In-house developed robotic inspection was carried out successfully at Singrauli#6, Talcher Kaniha #1, #2, etc. In-situ metallography and hardness measurement for gas turbine component was carried out at Dadri Gas GT#2. A comprehensive document on application and selection of coating as per environment norms was prepared for all stations. ESP efficiency measurements have been carried out at 3 units for up-gradation and renovation of ESP.

- **Health Assessment:** Health assessment studies carried out for total 20 nos. of Boiler, Steam & gas turbines. Time of Flight Diffraction (TOFD) technology was employed to demonstrate the capability for rapid, reliable, accurate inspection of welds of high pressure high temperature pipeline and headers during erection (Rihand #6, Bongaigaon #1) as well as in-services (Talcher Kaniha- #3, Singrauli- #5). Condition assessment of about 50 boiler tubes from the Water wall, Reheater and super heater regions has been carried out.

Residual creep life assessments carried out for service-exposed Superheater and Reheater tubes of boilers of coal-fired units by conducting accelerated stress rupture tests (ASRT) on the tube samples operating in the creep domain.

More than 2500 transformer oil samples were analysed from various stations. It helped in early detection of transformer faults such as Badarpur GT#5, Korba #1, Ramagundam TT#1, Vindhyachal GT#4 and GT#5, Dadri Gas ICT#4R, Talcher Thermal GT#2 etc.

Boiler Tube/ failure analysis. Failure analysis of boiler tubes to find the cause of failure was done for over 110 tubes of various boilers of NTPC and external Power Producers.

Condition monitoring of ion exchange resins for capacity and kinetics done for more than 20 stations to assess the exchange capacities of in-service resins.

d. Scientific Support to Other Utilities:

Provided to NSPCL-Durgapur, Bhillai; PSPCL-Bathinda; NHPC-Salal, Tanakpur, Dhauliganga; THDC-Koteshwar, Tehri; PPCL-Delhi; HPGCL-Panipat, Yamuna Nagar; IOCL-Mathura Refinery; APGCL-Kothegudam; APCPL Jhajjar, MAHAGENCO Chandrapur, Siemens Ltd; RGPPL Dhabol, STEAG Energy Ltd.; Jindal Power; Reliance Infra; Vedanta; etc.

2.0 Benefits derived as a result of above Research & Technology Development:

NETRA activities have helped in increasing the availability, reliability and efficiency of the stations. Techniques developed by NETRA are implemented at stations, which are enhancing the life of boiler & turbine components. Environmental appraisals, rejuvenation treatments of resins, chemical cleaning/treatment and corrosion control measures supported the stations in improving the efficiency, availability and life of boilers, various heat exchangers/cooling towers etc.

Waste flue gas based Air-conditioning system for control rooms is successfully commissioned at one of the NTPC stations. CFD based modifications have resulted in power saving and have been helpful in analyzing and resolving vibration problems in CW pumps. Studies on CO₂ fixation/utilization, solar thermal, bio-fuels will result into development of technologies for reduction in the impact on climate change and technologies for affordable renewable energy sources.

3.0 Future Plans

Developmental Projects planned to be taken up:

- Solar Thermal Hybrid Project at Dadri.
- 120 TPD Flue Gas Based Desalination Plant at Simhadri
- In-house design engineering & award of high temperature thermic fluid based solar thermal cooking demonstration plant at NTPC Dadri.
- DPR for 10Mwe Geothermal Power Plant at Tattapani, Chhatisgarh in association with GSI, CREDA.
- Experimentation on Microalgae based study plant set up at NTPC Faridabad for CO₂ fixation from Flue gas.
- Design and Installation of technology assessment platform of Floating PV system at one of NTPC reservoir.

- Advance kinetic and physical coal/blend characterization: Design development and start of fabrication of Drop Tube Reactor for 1500°C.
- *In-house* CFD model development and optimization of CW sump for one future NTPC Station.
- Completion of Condition Assessment of Switchyard Equipment through Corona Imaging at NTPC Stations
- Pilot Plant studies for reconditioning of aged FRF from two Stations using resin based conditioning system
- Development of modified Amine absorption based process to separate CO₂ from flue gas. Completion of detailed design including specification of necessary equipments, instruments software etc.
- Development and trial of prototype magnetic crawler for water wall tubes inspection.
- Completion of Condition Assessment of coatings on gas turbine blades/vanes using Frequency scanning eddy current testing (FSECT) at NTPC units
- Development of power plant performance and optimization intelligent system as a package "NETRA e Power Plant Solution"

4.0 Expenditure on R&D: 2013-14

S.No.	Description	Expenditure in (₹ Crores)	
		2013-14	2012-13
a)	Capital	35.82	10.11
b)	Revenue	98.52	91.85
c)	Total	134.34	101.96
d)	Total R&D expenditure as a percentage of PAT	1.06%	1.105%

5.0 Technology Absorption, Adaptation and Innovation

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

S.No.	Technology	Year	Stations
1	Ultra- supercritical Power plants with steam parameters 269 kg/cm ² steam pressure and 596/596 deg C.	2013-14	Being implemented in 3x660 MW North Karanpura.
2	Adoption of Air cooled condenser for super critical units	2013-14	Being implemented in 3x660 MW North Karanpura.
3	Adoption of supercritical technology in large size units of 800 MW	2012	Being implemented in bulk tender projects of 800 MW at Kudgi, Lara, Darlipalli & Gadarwara
4	Super critical technology with 256 Kg/cm ² Steam Pressure and 568/596 CMS/RH steam temperature is being adopted for improvement in thermal efficiency and reduced emission of green house gasses.	2008-10	Being implemented in Barh-II and also being implemented in 9 units of 660 MW (in Mauda, Solapur, Meja, Nabinagar) through bulk tendering mechanism.
5	Development of IGCC technology for high ash Indian coal(s)	2010	A technology demonstration plant of about 100 MW capacity at Dadri project is being planned.
6	Communicable Numerical Relay Technology (on IEC 61850) along with Networking Systems introduced in 33 KV/11 KV /6.6 KV/3.3 KV and LV System	2009	Implemented at Dadri-II, Korba-III & IGSTPP, Simhadri-II. Being implemented in all ongoing projects.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014

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

S. No.	NAME OF THE SUBSIDIARY	NTPC ELECTRIC SUPPLY COMPANY LIMITED	NTPC VIDYUT VYAPAR NIGAM LIMITED	KANTI BIJLEE UTPADAN NIGAM LIMITED	BHARTIYA RAIL BIJLEE COMPANY LIMITED
1.	Financial year of the Subsidiary ended on	March 31, 2014	March 31, 2014	March 31, 2014	March 31, 2014
2.	Date from which they became Subsidiary	August 21, 2002	November 1, 2002	September 6, 2006	November 22, 2007
3.	Share of the subsidiary held by the company as on March 31, 2014				
	a) Number & face value	80,910 equity shares of ₹10/- each	2,00,00,000 equity shares of ₹10/- each	47,30,01,233 equity shares of ₹10/- each	77,41,52,309 equity shares of ₹10/- each
	b) Extent of holding	100%	100%	65%	74%
4.	The net aggregate amount of the subsidiary companies Profit/(loss) so far as it concerns the member of the holding company (in ₹)				
	a) Not dealt with in the holding company's accounts				
	i) For the financial year ended March 31, 2014	19,75,78,497	60,23,60,048	(35,17,858.50)	(5,08,841.76)
	ii) Upto the previous financial years of the subsidiary company	27,91,50,280	123,05,91,152	(14,43,68,357.25)	(51,09,949.38)
	b) Dealt with in the holding company's accounts				
	(i) For the financial year ended March 31, 2014	Nil	Nil	Nil	Nil
	(ii) For the previous financial year of the subsidiary company since they become the holding company's subsidiaries	Nil	Nil	Nil	Nil

NTPC Hydro Limited, a wholly owned subsidiary of NTPC has been merged with NTPC Limited on 18.12.2013 in terms of Section 391-394 of the Companies Act, 1956 after obtaining the approval of the Ministry of Corporate Affairs.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi

Dated: 11th July 2014

STATISTICAL DATA OF GRIEVANCE CASES

2013-14

S. No.	Particulars	Public Grievance Cases*	Staff Grievances Cases
1.	Grievance cases outstanding at the beginning of the year	17	4
2.	Grievance cases received during the year	32	12
3.	Grievance cases disposed of during the year	41	13
4.	Grievance cases outstanding at the end of the year	8	3

*Public Grievances data is as per the data available on Portal for Public Grievances maintained by Department of Administrative Reforms & Public Grievances.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014

Annex-VI to Directors' Report

STATISTICAL INFORMATION ON RESERVATION OF SCs/STs FOR THE YEAR 2013

Representation of SCs/STs as on 01.01.2014

Group	Employees on Roll	SCs	%age	STs	%age
A	14,266	1,769	12.40	636	4.46
B	5,397	939	17.40	408	7.56
C	4,515	801	17.74	310	6.87
D	874	216	24.71	129	14.76
Total*	25,052	3,725	14.87	1,483	5.92

* The above data is inclusive of manpower posted at JVs and Subsidiaries and manpower of taken over projects.

Recruitment of SCs/STs during the year 2013:

Group	Total Recruitment	SCs	%age	STs	%age
A	172	21	12.21	4	2.33
B	-	-	-	-	-
C	179	29	16.20	2	1.12
D	7	-	-	-	-
Total	358	50	13.97	6	1.68

Promotions of SCs/STs during the year 2013:

Group	Total	SCs	%age	STs	%age
A	3,104	447	14.40	209	6.73
B	1,133	205	18.09	56	4.94
C	894	129	14.43	73	8.17
D	28	6	21.43	3	10.71
Total	5,159	787	15.25	341	6.61

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014


Annex- VII to Directors' Report

INFORMATION ON PHYSICALLY CHALLENGED PERSONS

With a view to focus on its role as a socially responsible and socially conscious organization, your Company has endeavored to take responsibility for adequate representation of Physically Challenged Persons (PCP) in its workforce. With this in view, the Company launched a massive recruitment drive to make up the shortfall of PCP. Presently, 473 PCP (97 VH, 107 HH and 269 OH) are on rolls of NTPC. Reservation has been provided for PH as per rules/policy. Some of the other initiatives taken for the welfare of PCP by NTPC over the years are as under:

- For individual needs of the Visually Hampered employees, screen reading software and Braille shorthand machines, are made available by the Projects of NTPC. A website has been made PCP friendly, particularly for Low Vision Employees.
- "Sign language" training for the employees in general.
- Changes in the existing building have been/ are being made to provide barrier free access to physically challenged.
- Ramps have also been provided for unhampered movement of wheel chairs.
- At most of the NTPC Projects, wherever houses are located in multi-storied structures, allotments to PCP has been made on the ground floor.
- Special parking enclosure near the ramp at the office entrance as well as Physically Handicapped friendly toilet and lift at CC and Projects.
- Wheel chairs have been provided to employees with orthopaedics disabilities. If required, the assistance of an attendant has also been sanctioned.
- Wherever required, gates/ door of the quarter have been widened.
- At CC procurement of stationery items like files, envelopes are mainly being done from NGOs/ Agencies like ADDI, MUSKAN, Blind Relief Association who are working for physically challenged thereby creating indirect employment.
- Paintings made by disabled persons have also been procured and placed at different locations in the Company Offices.
- Medical camps have been organized in various projects of the Company for treatment and distribution of aids like artificial limbs, tricycles, wheelchairs, calipers etc.
- Shops have been allotted in Township to PCP so that they may earn their livelihood. Similarly, PCOs within/ outside plant premises are also allotted to PCP.
- Regular interactive meetings are being organized with physically challenged employees.
- Training needs are being fulfilled as per the individual requirement.
- 9 number of Scholarships @ ₹1,500/- per month/ per student are given to PH students pursuing MBA/ PGDBM/Degree in Engineering Courses.
- Petty contracts like book binding, scribbling pad preparation from waste paper, file binding, furniture repair, screen printing, spiral binding, painting contract are also being given to disabled persons.
- Physically challenged (Orthopedically Handicapped) employees have been allowed to purchase a three wheeler vehicle with a hand fitted engine against their normal entitlement (advance for scooter/ motorcycle/ moped) under NTPC Conveyance Advance Rules.
- At all Projects/ Offices, Nodal Officers (Physically Challenged) have been nominated.
- Reimbursement towards low vision aids, dark glasses etc. subject to maximum of ₹1,000/- every year has been introduced. Similarly hearing aid; behind the ear model for each ear restricted to ₹10,000/- or actual cost whichever is lower has been introduced. It may be replaced every four years subject to certificate of condemnation by ENT Specialist.
- Relaxation in qualifying marks for open recruitment: pass marks only and also 10% relaxation in written test and interview from the year-2002 onwards.
- The minimum performance level marks for promotions within the cluster is relaxed by 3 marks in case of employees belonging to SC/ ST/ Physically Challenged category.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014

UNGC – Communication on Progress

NTPC expresses its continued support for the Global Compact and its commitment to take action in this regard, as was communicated by the Chairman & Managing Director, NTPC in his letter dated May 29, 2001 addressed to Secretary General, United Nations.

NTPC has posted the brief of Global Compact and its commitment to the principles of GC on its website at www.ntpc.co.in. The principles of GC were communicated to all employees through in-house magazines, internal training programmes and posters. NTPC, a core member of Global Compact Network (GCN), India, (formerly known as Global Compact Society) actively participated in the monthly meetings, Governing Council Meetings and Annual Convention of the Global Compact Network at New Delhi.

Human Rights Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights

In Workplace:

- Providing of self-sufficient townships to the employees with access to healthcare facilities through NTPC hospitals, education through NTPC operated schools and other recreation facilities.
- Providing a safe working environment at all its work places and promoting safety culture and safety consciousness among its employees and associates. Guidelines, rules / policies, General Conditions of Contract on Safety etc. are prepared and reviewed time to time and circulated to all projects / stations for implementation.

In the Community:

- Community Development initiatives in the form of R&R program aiming to improve the overall economic status of persons displaced or otherwise affected by our projects based on specific local requirements and guided by extensive socio-economic surveys.
- NTPC recognized to continue community and peripheral development works covered under Initial Community Development (ICD) Policy where the same were closed under R&R policy. NTPC revised its CD policy in August 2010, keeping in view the changed Business environment, Global practices and guidelines issued from DPE, Ministry of Heavy Industry & Public Enterprises. In line with the CD Policy, NTPC takes up activities at Station level and Regional/ National level within the identified Basket of Activity.

The activities undertaken for the community development are mentioned under Principle 8 of Business Responsibility Report for the FY 2013-14 (Annex-X to the Directors Report).

Principle 2: Make sure that they are not complicit in human rights abuses.

- NTPC respects and, at all times, makes conscious effort to safeguard the human rights.
- It privately and publicly condemns any instances of systematic and continuous human rights abuse anywhere in the world;
- It continually consults within and outside the company with relevant stakeholders including contractors, as part of a human rights due diligence process;
- It raises awareness within the company of known human rights issues within the company's sphere of influence;
- Human resource management practices are constantly reviewed to ensure transparency and to ensure protection of Human rights.
- HSE (health, safety and environment) related policies / practices are also constantly reviewed to ensure that they are in sync with global norms, local statutes and industry best practices. All the 21 power stations of NTPC which are fully commissioned are OHSAS 18001 certified.
- Policies and practices are constantly updated to ensure that no violation of Human Rights takes place either directly or indirectly.

LABOUR

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining

- NTPC is one of the most preferred employers in the country and its employees enjoy complete freedom of association. The practices as regards the collective bargaining rights of workmen are in sync with the provisions of Trade Unions Act, the governing statute on the issue.
- At Company Level, an apex level forum consisting of employer and employee representatives' viz. National Bi partite Committee (NBC) is in place to discuss, negotiate and bargain on the issues like productivity, remuneration, benefits/ facilities etc. concerning the workmen.
- At Regional level, Regional Joint Productivity Council (RJPC), consisting of employer and employee representatives is operational.
- Similarly, at Project Level, Plant Level Committee (PLC), at shop floor level, Shop Level Council (SLC), Canteen Management Committee (CMC), Township Advising Committee (TAC) and House Allotment Committee (HAC) etc. are functional with representation from employer and employees for facilitating the concept of Participative Decision making.

Principle 4: The elimination of all forms of forced and compulsory labour

- NTPC has well laid down recruitment/manpower engagement system. The manpower working in NTPC enjoys complete freedom to join and leave the organisation as per its own volition. The company not only adheres to International conventions and statutory provisions on employment, but also constantly upgrades its practices on employee engagement, as per emerging scenarios and prevalent best practices.

Principle 5: The effective abolition of child labour

- As a responsible corporate citizen, NTPC ensures prohibition of engagement of child labour in its plants and offices. Our service rules stipulate that minimum age for employment in NTPC is 18 years.
- The bidding/ contract documents etc. also explicitly prohibit engagement of child labour. Further, NTPC's plants being high security installations, the entry is regulated through issue of security gate pass for workers. Thorough preventive check is done at the time of issuing gate passes, to ensure that no contracting agency deploys child labour in NTPC's premises.

Principle 6: The elimination of discrimination in respect of employment and occupation.

- In NTPC, there is no discrimination based on caste, creed, religion, gender or place of origin etc., in engagement of manpower or remunerations.
- Compliance of various statutes like Minimum Wages Act, Equal Remuneration Act, Payment of Wages Act etc., which are aimed at ensuring equality in terms of wages, working conditions etc. is ensured.

ENVIRONMENT

Principle 7: Businesses should support a precautionary approach to environmental challenges

- NTPC, since inception, has been proactive in addressing environmental concerns. It has identified Environment Management as a thrust area to achieve excellence and aims to strengthen its position as a leader in environment protection area. To meet the environmental challenges of 21st century and beyond, sound Environment Management practices and advanced environment protection systems have been adopted to minimize impact of power generation on environment. NTPC with the goal of achieving sustainable development of the power sector in the country has taken a number of dedicated and growth oriented measures for improvement in the areas of environment management in its various units while following the principle of "3R's" (Reduce, Recycle and Reuse). All NTPC units have been ISO 14001 certified by reputed National/International certifying agencies.
- In order to monitor key environmental parameters of ambient air and stack emissions continuously on real time basis, automation in monitoring techniques has been taken up in NTPC. NTPC is a leader in the installation and operation of 67 nos. of Ambient Air Quality Systems to monitor air quality around its power plants and access of data has been provided to CPCB on real time basis. Installation of Continuous Emission Monitoring System (CEMS) to monitor emissions of SO₂, NO_x and CO₂ in all its units on real time basis is also under progress. It is also considering online monitoring of its effluents quality at the outfalls.
- In order to develop scientific data base for betterment of environment protection around its power projects, Human Health Risk assessment, Source Apportionment studies and various other studies are being taken at all NTPC Stations.

Principle 8: Undertake initiatives to promote greater environmental responsibility

- NTPC has installed advanced Environmental Protection and Pollution Control Systems such as High Efficiency Electrostatic Precipitators to combat air pollution in its coal based units and Ash Water Re-circulation Systems (AWRS) and Liquid Waste Treatment Plant (LWTP) and Sewage Treatment Plant (STP), to combat water pollution and conserve water in its various units. In order to monitor, and continuously strive to improve environmental performance. The company is pursuing the objective of sustainable power development. It has taken a number of initiatives towards protection of the environment by providing advanced environment protection control systems, regular environment monitoring and judicious use of natural resources, adoption of higher energy efficient technologies such as super critical boilers for the up-coming green field projects, use of blended coal etc in existing brown field projects, besides adopting State of the art environmental technologies such as flue gas conditioning etc. Such measures not only reduce the overall pollutants, but also results in reduction of CO₂ emission.

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

- NTPC started its journey in 1975 and in order to increase its efficiency of power generation while conserving resources, has been continuously evolving in technology and has been migrating from 200 MW units, to 500 MW units, to 660 MW supercritical technology units and now all its 4th generation new power plants are envisaged with 800 MW super critical technology units. The company envisages augmenting its capacity, albeit, in a minor way by installing solar power systems and micro hydel power systems attached to its thermal power plants wherever possible so as to encourage garnering of renewable energy resources.
- In addition to embracing the principle of 3R's, in the area of water conservation also NTPC is planning all its 3rd and 4th generation plants with near zero discharge capability and is also in-principle embedded the rain water harvesting systems in all its existing and upcoming power plants. Further, in order to maximize energy sent out for National use NTPC has also commissioned 4 Bio meth nation plants as pilot projects.
- NTPC has so far planted more than 21 million trees not only in and around its locations but also in other locations in association with State Authorities in order to increase Green cover to act as Carbon sink for the Country.

ANTI-CORRUPTION**Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.**

- The Company has a Vigilance Department headed by Chief Vigilance Officer (CVO) who is a nominee of the Central Vigilance Commission (CVC). It deals with various facets of Vigilance Mechanism and transparency, objectivity and quality in vigilance functioning is ensured. The Vigilance Department submits its reports to Competent Authority including the Board of Directors. The CVO also reports to the Central Vigilance Commission as per their norms.
- As suggested by the CVC the Integrity Pact has been implemented in NTPC. A MoU between Transparency International (India) and NTPC has been signed and the Pact is being implemented for all Contract values exceeding ₹10 Crores. Two Independent External Monitors have been nominated by the Commission for all contracts exceeding ₹100 Crores.
- As per the provisions of Section 619(3) of the Companies Act, 1956, a Fraud Policy has been formulated and implemented in NTPC since 2006 and Nodal Officers have been appointed. The cases being referred by the Nodal Officers are investigated immediately to avoid/stop fraudulent behaviors as defined in "Fraud Policy".
- As per advice of CVC, Complaint Handling Policy has been approved by Management on 31st July, 2013 and the same has been widely circulated all over NTPC through NTPC Intranet.
- Whistle Blower Policy has been approved by Board of Directors on 27th November, 2013 to build and strengthen a culture of transparency and trust in the organization and to provide employees with a framework/procedure for responsible and secure reporting of improper activities(whistle blowing) within the company and to protect employees wishing to raise a concern about improper activity/serious irregularities within the Company.
- As a part of preventive vigilance exercise advocated by the CVC, Preventive Vigilance Workshops are being conducted every year to sensitize the employees about sensitive points in work areas and their role in prevention of corruption.
- Pursuant to the directive of the CVC, Vigilance Awareness Week was observed from October 28, 2013 to November 02, 2013 in all important locations of the Company, Subsidiaries and Joint Venture Companies and Inspection Offices. The focus of the initiative was "Promoting Good Governance – Positive Contribution of Vigilance." On the occasion, the Department has also come out with a series of system improvements guidelines/circulars with a view to promote good governance in the Company. All Vigilance Executive at Projects were also directed by the CVO to bring out the main points of various Circulars, issued in recent time from the Office of the Chief Vigilance Officer, to the notice of all officials, vendors and contracting agencies.
- The Immovable Property Returns of all Executives who have submitted their Annual Property Returns (APRs) as on 01.01.2014 have been published on the NTPC Website as per the directives of the Government of India. Also, as per directives of the Government, issuance of vigilance clearance has also been linked with the submission of APRs by the Executives.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014

Annex-IX to Directors' Report

The quantity of ash produced, ash utilized and percentage of such utilization during 2013-14 from NTPC Stations is as under:

Sl. No.	Stations	Ash Produced	Ash Utilization	% Utilization
		Lakh MTs	Lakh MTs	%
1	Badarpur	10.64	8.00	75.19
2	Dadri	26.80	31.23*	116.53*
3	Singrauli	37.66	9.85	26.16
4	Rihand	44.87	18.94	42.21
5	Unchahar	22.07	14.08	63.80
6	Tanda	12.22	5.04	41.24
7	Korba	62.26	19.88	31.93
8	Vindhyachal	68.40	29.82	43.60
9	Sipat	47.29	10.05	21.25
10	Ramagundam	50.49	31.52	62.43
11	Simhadri	34.40	14.38	41.80
12	Farakka	36.13	12.90	35.70
13	Kahalgaoon	47.34	10.76	22.73
14	Talcher-Thermal	12.17	12.17	100
15	Talcher-Kaniha	63.13	25.08	39.73
16	Mouda	2.38	0.03	1.26
	Total	578.25	253.73	43.88

* Figure includes Ash utilized from ash produced during previous years.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014

NTPC BUSINESS RESPONSIBILITY REPORT (2013-14)

Section A : General information about the company

- | | |
|--|---|
| 1. CIN (Corporate identity number) | L40101DL1975GOI007966 |
| 2. Name of the company | NTPC Ltd. |
| 3. Registered address | NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003 |
| 4. Website | www.ntpc.co.in |
| 5. Email id | akrastogi@ntpc.co.in |
| 6. FY reported | 2013-14 |
| 7. Sector that company is engaged in : | Power |
| 8. Product/services that the company manufacturers /provides (as in balance sheet): | |
| i. Generation of Electricity | |
| ii. Consultancy | |
| 9. Total number of location where business activity is undertaken by the company: | |
| 1. International locations - 03 nos. | |
| a. Trincomalee Power Project, Srilanka | |
| b. Power Project at Khulna, Bangladesh | |
| c. Power Project at Siddhirganj, Bangladesh | |
| 2. National locations - 55 nos. | |
| 10. Markets served by the company : National & International | |

Section B : Financial details of the company

1.	Paid up capital (₹ Crore.)	₹ 8245.46 Cr.
2.	Total Revenue (₹ Crore)	₹ 74,707.82 Cr.
3.	Total profit after taxes (₹ Crore)	₹ 10,974.74 Cr.
4.	Total spending on CSR and Sustainable Development (SD) as % of PAT (%)	1.17% of PAT
5.	List of activities in which expenditure in 4 above has been incurred	Areas of the activities : <ul style="list-style-type: none"> - Education and awareness creation - Health and sanitation - Vocational Training and Skill up-gradation - Conducting Medical camps - Activities for physically challenged - Women Empowerment - Roads & Infrastructure strengthening - Providing Drinking Water - Animal Health - Art & Culture and Sports - Quality Circles (QCs) activities in neighbourhood villages of stations - Extending financial support/activities for relief during Natural Calamity - Biodiversity, Tree Plantation - Improvement in air quality - Waste management - Environmental Studies - Promotion of Renewable Energy - Water management

Section C: Other Details

Subsidiaries : The company has the following four Subsidiary Companies as on 31-03-2014 :

- i. NTPC Electric Supply Company limited
- ii. NTPC Vidyut Vyapar Nigam Limited
- iii. Kanti Bijlee Utpadan Nigam Ltd.
- iv. Bhartiya Rail Bijlee Company Limited

The Business Responsibility Initiatives of the parent company are applicable to the subsidiary companies also. However, none of the entities that the Company does business with, participate in the BR initiatives of the Company.

Section D: BR information

1. Individual Directors responsible for implementation of the BR policy / policies:

Principle No	Description	Policy / Policies	Director(s) Responsible
Principle 1 (P1)	Businesses should conduct and govern themselves with Ethics, Transparency and Accountability.	1. Code of Conduct* 2. Core Values 3. Fraud Prevention Policy 4. CDA Rules 5. Whistle Blower Policy	All Directors & Chief Vigilance Officer
Principle 2 (P2)	Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle.	Safety Policy Sustainable Development (SD) Policy	Director (Operations) Director (HR)
Principle 3 (P3)	Businesses should promote the well-being of all employees.	1. Human Resource (HR) Policies 2. Transfer Policy	Director (HR)
Principle 4 (P4)	Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.	1. R&R Policy 2. Community Development (CD) Policy 3. HR Policies	Director (HR)
Principle 5 (P5)	Businesses should respect and promote human rights.	HR Policies	Director (HR)
Principle 6 (P6)	Businesses should respect, protect, and make efforts to restore the environment.	1. Environment Policy 2. SD Policy	Director (Technical) Director (HR)
Principle 7 (P7)	Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner.	1. Code of Conduct* 2. Core Values	All Directors
Principle 8 (P8)	Businesses should support inclusive growth and equitable development.	1. R&R Policy 2. Community Development (CD) Policy	Director (HR)
Principle 9 (P9)	Businesses should engage with and provide value to their customers and consumers in a responsible manner.	Commercial systems & Procedures	Director (Commercial)

*Code of Conduct for Board Members & Senior Management Personnel

2. Details of Director/Directors responsible for BR as a whole

a. Details of the Director/Directors responsible for implementation of the BR policy/policies:

- i. **DIN number** 00659908
- ii. **Name** Dr. Arup Roy Choudhury
- iii. **Designation** Chairman & Managing Director
- iv. **Telephone no.** 011-24360044
- v. **Email-ID** cmd@ntpc.co.in

b. Details of BR head: Same as above

3. Principle wise reply to each question on BR Policy / Policies:

	Question	P1	P2	P3	P4	P5	P6	P7	P8	P9
1.	Do you have a policy/ policies for the Principle?	Y	Y	Y	Y	Y	Y	Y	Y	N
2.	Has the policy being formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	-
3.	Does the policy conform to any national /international standards?	Y	Y	Y	Y	Y	Y	Y	Y	-
4.1	Has the policy being approved by the Board?	Y	Y	Y	Y	Y	Y	Y	Y	-
4.2	If yes, has it been signed by MD/owner/CEO/ appropriate Board Director?	N	N	N	N	N	N	N	N	-
5.	Does the company have a specified committee of the Board/ Director/ Official to oversee the implementation of the policy?	Y	Y	Y	Y	Y	Y	Y	Y	-
6.	Indicate the link for the policy to be viewed online?	(i)	(i)	(ii)	(i)	(ii)	(i)	(i)	(i)	-
7.	Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y ^{\$}	Y	Y ^{\$}	Y	Y	Y	-
8.	Does the company have in-house structure to implement the policy/ policies?	Y	Y	Y	Y	Y	Y	Y	Y	-
9.	Does the Company have a grievance redressal mechanism related to the policy / policies to address stakeholders' grievances related to the policy / policies?	Y	Y	Y	Y	Y	Y	Y	Y	-
10.	Has the company carried out independent audit / evaluation of the working of this policy by an internal or external agency?	Y	Y	Y	Y	Y	Y	Y	Y	-

\$ Communicated to Internal Stakeholders only.

(i) Web links for the Policies :

- Code of Conduct & Core Values :
www.ntpc.co.in/images/content/investors/Code_of_Conduct_for_Board2012.pdf
- R&R Policy :
www.ntpc.co.in/images/content/corporate_citizenship/NTPC_R&R_Policy_2010.pdf
- CSR-CD Policy :
www.ntpc.co.in/images/content/corporate_citizenship/CSR-CD-Policy-2010.pdf
- Sustainable Development (SD) Policy :
www.ntpc.co.in/images/content/corporate_citizenship/SustainableDevelopmentPolicy/NTPC-SD-Policy.pdf
- Fraud Prevention Policy : www.ntpctender.com/about/FraudPolicy.asp

(ii) Policies not hosted on web :

- Environment Policy : Policy is in hard copy only and not hosted on web. However, Principles of Environment Policy have been given on the website www.ntpc.co.in under Environment Head.
- Safety Policy & HR Policies : Available for internal stakeholders only and not hosted on web.

4. If answer against any principle is 'No', please explain why:

Principle 9 : All the sub-principles identified under principle -9 are duly followed by NTPC through its commercial systems and procedures. However, NTPC feels that a separate Policy on Principle -9 is not required because :

- NTPC supplies power to the Bulk Customers (State Electricity Distribution companies) majority of which are owned by the respective State Govts.
- The CERC, while finalizing Tariff and other Regulations engages all Stakeholders and takes views of them. CERC Tariff Regulations and relevant orders are being displayed on CERC Website www.cercind.gov.in.
- NTPC & Our bulk customers i.e. Discoms works under Regulated Environment.

- NTPC thrives for supplying cheapest power deploying all resources optimally in best possible ways resulting in well being of customers & Society.
- NTPC never restricts the freedom of choice and free competition in any manner while supplying bulk Power.
- Needs of the customers is taken into account and accordingly PPA are signed and Allocation of Power is made by Ministry of Power as per certain guidelines & Policy to meet the requirement of customers. Unallocated quota of power is allocated by MoP as per demand and requirement of different States hence always keep customer first.
- Power Supply regularity, Performance and all other Commercial parameters are governed by Central Regulator and NTPC always excels in satisfying customers by disclosing all relevant information truthfully, and factfully.
- Issues, if any, regarding operational issues etc are being discussed and resolved in common forums such as Regional Power Committees

5. Governance related to BR

I.	Indicate the frequency with which the Board of Directors, Committee of the Board or CEO to assess the BR performance of the Company.	Within 3-6 months
II.	Does the Company publish a BR or a Sustainability Report? What is the hyperlink for viewing this report? How frequently it is published?	The Company has published its Sustainability Report (A+ level) for the Financial Year 2012-13 and intends to publish it annually. The hyperlink to the report is : http://www.ntpc.co.in/images/content/corporate_citizenship/SustainableDevelopmentPolicy/SustainabilityReport12-13.pdf Further the company has published Business Responsibility Report as part of Annual Report 2012-13.

Section E: Principle –wise performance

Principle 1: Businesses should conduct and govern themselves with Ethics, Transparency and Accountability

1. Does the policy relating to ethics, bribery and corruption cover only the company? Does it extend to the Group/ Joint Ventures/ Suppliers/ Contractors/ NGOs / Others?
 - i. Code of Conduct for Board Members & Senior Management Personnel cover all the Directors and Senior Management Personnel of the Company.
 - ii. Fraud Prevention Policy applies to any fraud, or suspected fraud involving employees of NTPC as well as representatives of vendors, suppliers, contractors, consultants, service providers or any outside agency (ies) doing any type of business with NTPC.
 - iii. CDA Rules are applicable to all employees of NTPC and employees posted in JVs/ Subsidiaries.
 - iv. Insider Trading Code is applicable to designated employee of the company.
 - v. However in line with NTPC, RGPPL and NTECL, JVs of NTPC have also adopted Fraud Prevention Policy and CDA rules.

Additionally, the Company has a Vigilance Department headed by Chief Vigilance Officer (CVO), who is a nominee of the Central Vigilance Commission. The Vigilance Department submits its reports to Competent Authority including the Board of Directors. The CVO also reports to the Central Vigilance Commission as per their norms.

2. How many stakeholder complaints have been received in the past financial year and what percentage was satisfactorily resolved by the management? If so, provide details thereof, in about 50 words or so.

A total of 188 new complaints were received during the period 1st April'13 to 31st March'14. 118 complaints (including previously received) were closed after verification. 99 complaints (including previously received) were taken up for investigation and 51 were under verification as on 31.03.14.

All cases, referred under the Fraud Policy, have been investigated and taken to its logical conclusion.

Principle 2: Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle

1. List up to 3 of your products or services whose design has incorporated social or environmental concerns, risks and/or opportunities
 - i. Generation of Electricity
2. For each such product, provide the following details in respect of resource use (energy, water, raw material etc.) per unit of product(optional):
 - a. Reduction during sourcing/production/distribution achieved since the previous year throughout the value chain?
 - b. Reduction during usage by consumers (energy, water) has been achieved since the previous year?

RAW MATERIAL (ENERGY) CONSUMPTION PER YEAR

Energy Source	2011-12		2012-13		2013-14	
	Quantity	Per Unit Consumption	Quantity	Per Unit Consumption	Quantity	Per Unit Consumption
Coal	140.6 MMT	0.711 Kg/kwh	154.5 MMT	0.731 kg/kwh	158.2 MMT	0.718 Kg/kwh
Gas	13.08 MMSCMD	0.21 scm/kwh	10.70 MMSCMD	0.22 scm/kwh	6.88 MMSCMD	0.19 scm/kwh

WATER CONSUMPTION PER YEAR

	2011-12		2012-13		2013-14	
	Quantity	Per Unit Consumption	Quantity	Per Unit Consumption	Quantity	Per Unit Consumption
Total Water Withdrawal	4701 million KL	21.3 Litre/kwh	4591 million KL	19.9 Litre/kwh	4665 million KL	20.0 Litre/kwh

ENERGY SAVING PER YEAR

Energy saved by the initiatives taken in NTPC power plants for energy conservation / efficiency improvement	2011-12	2012-13	2013-14
		111.2 MU	119.9 MU

3. Does the company have procedures in place for sustainable sourcing (including transportation)? If yes, what percentage of your inputs was sourced sustainably? Also, provide details thereof, in about 50 words or so.

Yes, the Company has procedures in place for Sustainable Sourcing of Coal. NTPC has the systematic procedures in place of sustainable sourcing of fuel, through the Long Term Fuel Supply Agreement (FSAs) with coal companies as per national coal distribution policy of GOI. The coal available from the FSAs is sufficient for generating at 76-85% PLF. For any gap in requirement, vis-a-vis available from FSAs, NTPC procures coal through E-auction, bilateral agreement and import.

NTPC has its own dedicated captive railway network called Merry-Go-Round (MGR) system, which has second largest in the country (900 KM Track, 140 Locos and 2200 wagons) at its 17 coal stations (9 pit head & 8 Rail-Fed). MGR system is now connected with Railway network also, in order to receive Import coal as well as domestic coal from Railway system, which is sustained source in case of Rail-Fed stations. In FY 2013-14, total coal transportation was 161.16 MMT, out of which 55% coal was transported through MGR and balance by Railway.

4. Has the company taken any steps to procure goods and services from local & small producers, including communities surrounding their place of work? If yes, what steps have been taken to improve their capacity and capability of local and small vendors?

The Company adopts fair, equitable and transparent tendering procedures. To encourage Indian bidders and suppliers, provisions regarding price preference and deemed export benefits are stipulated in the bidding documents to the extent of policy of Government of India. However, there are certain economic opportunities for the local and small producers, arising out of need for goods and services by the project and its township, which

are extended to project affected persons/ families as additional facilities over and above the entitlements. These economic opportunities include preference to Project Affected Persons (PAPs) / land oustees in the project and its township in following areas:

- Employment with contracting agencies and through other sources
- Allotment of Shops/ Kiosks in township
- Award of petty contracts
- Vehicle hiring in project
- Vendor permit
- Any other opportunities deemed fit by the project.

5. Does the company have a mechanism to recycle products and waste? If yes what is the percentage of recycling of products and waste (separately as <5%, 5-10%, >10%). Also, provide details thereof, in about 50 words or so.

Our Product viz. Electricity gets completely consumed and hence there is no scope of its recycling. Guidelines have been issued in line with National Environment Policy for disposal of hazardous wastes from NTPC power stations. The hazardous wastes generated at our power stations such as used transformer oil, used lubricants, lead acid batteries etc. are sold to government approved recyclers or given back to the sellers for recycling under buy back arrangements, which takes care of 100% recycling of such wastes.

Around 44% of the total ash generation from electricity generation has been used for various productive purposes during 2013-14. Important areas of ash utilization are – cement & asbestos industries, ready mix concrete plant (RMC), road embankment construction, brick/ block/ tile manufacturing, mine filling, ash dyke raising, and land development

Principle 3 : Businesses should promote the wellbeing of all employees

1. Number of Employees :

- a. Executives : 12,699
- b. Non- executives : 10,712

2. Number of Employees hired on Temporary / Contractual / Casual basis :

NTPC does not hire employees on temporary / casual basis. The no. of workers with Contractors are dynamic in nature and vary from time to time. As per the available information, the total no. of Contract labours were 11,578.

3. Number of permanent Women Employees: 1,457

4. Number of permanent Employees with Disabilities : 473

5. Do you have an employee association that is recognized by management?

NTPC Limited is a multi unit organization. Association(s) comprising of executives of NTPC need not be recognized in the absence of any statutory mandate. Workmen of various NTPC Units have formed unions. The same are accorded recognition by NTPC Limited as per applicable law / practice.

6. What percentage of your permanent employees is members of this recognized employee association?

About 50-55% of the permanent employees in workmen category are members of the recognized union of workmen.

7. Please indicate the Number of complaints relating to child labour, forced labour, involuntary labour, sexual harassment in the last financial year and pending, as on the end of the financial year.

No.	Category	No. of previous year pending complaints	No. of complaints filed during the FY 13-14	No. of complaints pending as on 31-03-2014
1	Child labour / forced labour / involuntary labour	NIL	NIL	NIL
2	Sexual harassment	NIL	NIL	NIL
3	Discriminatory employment	NIL	NIL	NIL

8. What percentage of your under mentioned employees were given safety & skill up-gradation training in the last year? (Excluding joint venture companies)

Category of employee	Training for safety (% covered)	Training for skill up -gradation (% covered)*
Permanent Employees	31.05	57.04
Permanent Women Employees	19.34	45.65
Casual / Temporary / Contractual Employees	75.96	13.83
Employees with Disabilities	27.91	50.53

* Programmes, which involve direct hands on training, have been considered under skill up-gradation programmes

Principle 4: Businesses should respect the interests of, and be responsive towards all stakeholders, especially those who are disadvantaged, vulnerable and marginalized.

1. Has the company mapped its internal and external stakeholders? : Yes
2. Out of the above, has the company identified the disadvantaged, vulnerable & marginalized stakeholders
NTPC identifies vulnerable & marginalised stakeholders through Socio Economic Surveys and extend benefits as per provisions of extant R&R policies of GOI / concern State Govt / NTPC.
3. Are there any special initiatives taken by the company to engage with the disadvantaged, vulnerable and marginalized stakeholders. If so, provide details thereof, in about 50 words or so.

In addition to the entitlements and packages as envisaged in the policy, NTPC makes special efforts for the welfare of this section of the society. These may include special vocational training programmes for making them self employable, priority in engagement for suitable jobs, pension under Widow Pension Scheme, Old Age Pension Scheme etc. as per provisions outlined in NRRP-2007/ concern State Government R&R policies or as decided in VDAC/R&R plan. NTPC has also provided skill upgradation training for approximately 1388 nos. village youth/women in backward districts identified under BRGF of planning commission for improving employability.

Principle 5 : Businesses should respect and promote human rights

1. Does the policy of the company on human rights cover only the company or extend to the Group / Joint Ventures / Suppliers / Contractors / NGOs / Others?
All HR Policies of NTPC are applicable to all its employees posted in various stations, projects, offices, JVs and Subsidiaries. Human Rights provisions are also built in our bidding documents for supply cum erection and civil packages invited on competitive bidding basis covering our suppliers and contractors.
2. How many stakeholder complaints have been received in the past financial year and what percent was satisfactorily resolved by the management?

No complaint on human rights, such as child labour, forced labour, involuntary labour, sexual harassment, discrimination, rights of the disabled etc was received during the year.

Principle 6 : Business should respect, protect, and make efforts to restore the environment

1. Does the policy related to Principle 6 cover only the company or extends to the Group / Joint Ventures / Suppliers / Contractors / NGOs /Others.
The environment policy of NTPC and implementation thereof covers the core business activity of producing thermal power through its power stations. However, the Joint Ventures / Suppliers / Contractors / Other stake holders are free to adopt the same voluntarily.
2. Does the company have strategies/ initiatives to address global environmental issues such as climate change, global warming, etc? If yes, please give hyperlink for webpage etc.
Yes, the Company has established a Centre for Energy Efficiency and Environmental Protection (CenPEEP) to work on GHG emission reduction through efficiency & reliability improvement. A web-page on the same is available on NTPC web-site (www.ntpc.co.in) under the subhead - Environment.
3. Does the company identify and assess potential environmental risks?

NTPC has an elaborate and structured methodology for identifying and assessing potential environmental risks through an institutionalized "Enterprise Risk Management (ERM)" framework. ERM comprises of an Executive Director level committee, which meets every quarter to review and mitigate risks. NTPC's risk portfolio includes "Compliance of emission, ash utilization and regulatory norms" risk, under which environmental risks are regularly identified, assessed & reviewed and steps for mitigation are evolved.

4. Does the company have any project related to Clean Development Mechanism? If so, provide details thereof, in about 50 words or so. Also, if Yes, whether any environmental compliance report is filed?

NTPC is pioneer in undertaking climate change issue proactively. The company has taken several initiatives for taking up CDM Projects in Power Sector. Some of these CDM initiatives are as under :

- i. Two of its Solar Power Projects viz. Solar PV Power Project at NTPC-Dadri (5 MW) and Solar PV Power Project at Port Blair (5 MW) had already been registered with UNFCCC CDM executive board. Verification/ Issuance of CERS for solar PV Power Project at NTPC-Dadri (5 MW) and Solar PV Power Project at Port Blair (5 MW) are in process.
 - ii. Another two projects viz. Solar PV Power Project at NTPC-Faridabad (5 MW) and Small Hydro Power Project at NTPC-Singrauli (8 MW) are in advanced stage of Validation and are likely to be submitted to UNFCCC for registration.
 - iii. Eight more CDM Projects viz. North-Karanpura STPP, Tapovan Vishnugad HEPP, Energy Efficiency Projects at NTPC-Singrauli, Energy Efficiency Project at NTPC-Dadri, small hydro power project at NTPC-Singrauli, 5MW Solar PV power project at NTPC-Dadri, 5MW Solar PV power Project at NTPC-Faridabad and 5MW Solar PV power project at Port Blair (A&N) have got Host Country Approval (HCA) from National CDM Authority (NCDMA)
 - iv. Also, the methodology prepared by NTPC viz. "Consolidated base line and monitoring methodology for new grid connected fossil fuel fired power plants using less GHG intensive technology" for Super Critical technology has been approved by "United Nations Framework Convention on Climate Change (UNFCCC)" under 'Approved Consolidated Methodology 13 (ACM0013)'.
5. Has the company undertaken any other initiatives on – clean technology, energy efficiency, renewable energy, etc. Y/N. If yes, please give hyperlink for web page or write up.

Yes, the company has taken up several Initiatives for clean technology, energy efficiency and renewable energy. Details are as follows:

i. Clean Technology :

- Setting up of Coal Fired Units with Ultra Supercritical Parameters targeting efficiency comparable to the best available technology in the world.
- Establishment of Integrated Gasification Combined Cycle (IGCC) Technology Demonstration Plant (TDP) suited for high ash containing Indian coal : NTPC has been proposed to implement a 100MW IGCC Technology Demonstration Project (IGCC-TDP) at NTPC Dadri in two stages, with Stage-I comprising of installation of coal gasifier along with associated gas clean-up and other systems. Stage-II comprising of combined plant shall be installed upon stabilization of stage-I.
- Development of Advance Ultra Super Critical technology : Under National Mission on Clean Coal (Carbon) Technologies, NTPC, BHEL and Indira Gandhi Centre for Advanced Research (IGCAR) have entered into MOU for indigenous development of advance ultra super critical technology which will have enhanced efficiency of around 46% and about 20% less CO₂ emission as compared to conventional 500 MW sub-critical thermal power plants.

ii. Energy Efficiency Improvement:

- The Centre for Energy Efficiency and Environmental Protection (CenPEEP) works on GHG emission reduction through efficiency & reliability improvement. Activities undertaken by CenPEEP in the area of Energy Efficiency improvement are given on the website www.ntpc.co.in
- NTPC is implementing Perform, Achieve and Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency (NMEEE) in 22 Power Stations of the company as notified by BEE.

iii. Renewable Energy

NTPC has adopted the following vision statement on sustainable energy development : "Going Higher on Generation, lowering GHG intensity". In NTPC, Renewable energy (RE) is being perceived as an alternative source of energy for "Energy Security". Renewable energy technologies provide not only electricity but offer an environmentally clean and low noise source of power. NTPC plans to broad-base generation mix by evaluating conventional and alternate sources of energy to ensure long term competitiveness and mitigate fuel risks. NTPC has taken various initiatives to implement the Renewable Energy Projects.

The brief status of these initiatives is as given below:

- Solar Projects-110 MW
 - Commissioned: 75 MW (Andman - 5 MW, Dadri- 5 MW, Ramagundam- 10 MW, Unchahar 10 MW, Talcher Kaniha- 10 MW, Faridabad- 5 MW, Rajgarh- 30 MW).
 - Under Execution: 35 MW (Rajgarh-20 MW, Singrauli- 15 MW).

- Geothermal Projects
 - MoU was signed with CREDA (Chhattisgarh Renewable Energy Development Agency) for development of geothermal projects at Tatapani on 16.02.2013.
 - MoU was signed with GSI (Geological Survey of India) on 07.01.2014 for preparation of feasibility report. Pre-feasibility Report is being prepared in association with GSI, Nagpur to ascertain exact potential and place for deep drilling.
6. Are the Emissions / Waste generated by the company within the permissible limits given by CPCB/SPCB for the financial year being reported?

All the legal parameters including emission norms and effluent (wastes) norms are being adhered to by NTPC stations. Change of Law in certain cases, has necessitated up-gradation of pollution control equipments which are being addressed through R&M Schemes for which actions plans have been submitted to the Regulators.

7. Number of show cause/ legal notices received from CPCB/SPCB which are pending (i.e. not resolved to satisfaction) as on end of Financial Year.

During FY 2013-14, aberrations were observed in 17 instances and remarks were received from regulators. Mitigative actions in all instances have been taken.

Principle 7 : Businesses, when engaged in influencing public and regulatory policy, should do so in a responsible manner

1. Is your company a member of any trade and chamber or association? If Yes, Name only those major ones that your business deals with.

The Company has taken Corporate Membership of 57 Chambers & association including SCOPE, FICCI, CII, TERI, ITRHD, WEC, SHRM, IPE, IERE etc.

2. Have you advocated / lobbied through above associations for the advancement or improvement of public good? if yes specify the broad areas (drop box: Governance and Administration, Economic Reforms, Inclusive Development Policies, Energy security, Water, Food Security, Sustainable Business Principles, Others).

NTPC is a member of World Energy Council. Chairman and Managing Director of NTPC is also an ex-officio Member Secretary. WEC India and its international counterpart WEC work towards sustainable use and supply of energy. Their work enables promoting policies which balance Energy Security, Energy Equity (Energy access/inclusive growth) and Environmental Sustainability.

Principle 8 : Businesses should support inclusive growth and equitable development

1. Does the company have specified programmes / initiatives / projects in pursuit of the policy related to Principle 8? If yes details thereof.

Yes, NTPC has specified programmes for inclusive growth and equitable development not only at station level but at country level also.

As most of the Stations are located in remote rural areas, NTPC during 2013-14 undertook activities in the neighborhood area of stations addressing the basic needs like primary education, community health, drinking water, sanitation, vocational training, women empowerment and village infrastructure like roads, community centres , cremation sheds etc. In addition, Quality Circles (QCs) activities are being carried out in neighborhood villages of stations which contribute for improvements in various areas. NTPC employees participate in various activities through Employee Voluntary Organization for Initiative in Community Empowerment (EVOICE). NTPC has been taking up CSR Activities in all the major sectors, in the vicinity of its operating stations, benefitting communities in more than 500 villages.

Some of the areas of our initiatives and programmes undertaken are listed below:

i. Education :

- Setting up polytechnic at Kaladungi, Dist. Nainital, Uttarakhand.
- Subsidized education to children of about 20 schools run by NTPC predominantly for community children, benefitting about 20,000 students of neighbourhood areas.
- Financial support to Ramakrishna Mission, New Delhi, for taking up identified Value Education Initiative for students of schools, affiliated with Central Board of Secondary Education, teachers & parents.
- Merit scholarships to more than 2600 students.
- Financial assistance for construction of classrooms and installation of Solar Street lights at Sadhana Vidyalaya, village Kannamangala, Ramnagara District, Karnataka.

- Financial Assistance for the Construction of 1st Floor for extension of the building of Shirdi Sai Baba School, Faridabad.
- Financial Support to Cluster Innovation Centre (CIC) of Delhi University for 16 Educational Projects for Social Sensitization by students of B. Tech (Humanities), Delhi University.
- Solar lanterns distributed to nearly 1300 students.
- 44 toilet blocks constructed for girl students at various locations.
- Distribution of uniforms, books, stationery, equipments and infrastructural support to schools covering about 500 schools around NTPC stations benefiting more than 65000 students.

ii. Health :

- Financial assistance to Impact India Foundation for “Lifeline Express Project” (camp) at Dalmau Railway station in Distt. Raebareli, U.P for providing curative interventions for disabled poor by general treatment & various surgical operations.
- Financial assistance to District Hospital, Aurangabad, Bihar for procurement of medical equipments for modular ICU.
- Financial support to N. Swain Memorial Trust - Aakar Asha, Hyderabad, for purchase of equipments for Operation Theatre.
- Funds committed for development of New Block at King George Hospital, Visakhapatnam.
- Mobile health clinic are operational at 7 locations covering 80 villages providing health care facility at doorsteps to more than 60000 people.
- About 1200 Medical Health checkups Camps and about 365 Eye camps organized at various locations. About 2000 surgeries were performed during these camps.
- Regular health related initiatives in the communities around NTPC stations benefitted more than 165000 individuals.
- Under Sanitation, 45 Individual toilets & 06 community toilets were constructed.
- More than 100 Animal Health Camps & other animal health related activities were organized benefitting populations of more than 100 villages.

iii. Infrastructure Strengthening:

- Installation of more than 500 Solar Lights in UP (Sidharthnagar, Santravidas Nagar and Barabanki districts) and West Bengal (Malda district) to promote use of conventional energy.
- Installation of 20 High Mast Lights (HMLs) in Kerala (Alappuzha, near Kayamkulam); West Bengal (Berhampore, near Farakka) and Tripura (Udaipur).
- Laying of cement concrete road in various villages in district Chhindwara, MP.
- Construction of culvert over Pikia Nala at Pakaaria Ghat, Sant Kabir Nagar, UP.
- Financial Assistance being provided for construction of Community Parivarthana Bhavans in the select mandals for catering to the needs of SC/ST persons to District Administrations of Prakasam & Guntur Districts of AP.
- Regular infrastructure related CSR activities during 2013-14 in the villages around NTPC stations like construction of 12 Community Centres, installation of 101 HML/ street lights, 80 Solar Street Lights and Construction & repair of more than 30 Kms of road and other infrastructural developmental activities at various locations covered more than 110 villages.

iv. Drinking water provision:

- Installation of about 500 hand pumps & bore wells in Jharkhand (Garhwa and Dhanbad districts); Uttar Pradesh (Raebareli, Siddharth Nagar, Jaunpur and Santravidas Nagar districts) and Bihar (Arrah and Darbhanga districts).
- Piped water scheme and RO plants provided at 11 locations.
- A total of 124 bore-wells were sunk and hand pumps installed at various locations.
- During extreme summers supply of water through water tankers relieved close to 32000 individuals.
- Regular water related CSR activities around its stations covered close to 130 villages.

v. Vocational Skills Programmes:

- Training to about 4000 students in various ITI trades in 17 adopted ITI at various locations partnering with the State and Central Governments.

- 36 Weeks Training Program for 41 Jammu & Kashmir Youth in Thermal Power Plant Engineering under Special Industry initiative – Udaan.
- Skill up gradation training in backward districts identified under BRGF of Planning commission for improving employability benefitting 1388 village youth/ women.
- Regular vocational training related CSR activities in the communities around NTPC stations covered a total of 165 villages, benefiting amongst others Close to 700 youths through skills up gradation.
- Assistance committed to part- finance Chanderi Development Society for Handloom Weavers for construction of Weavers Blocks of Common Facility Centre (CFC) in Handloom Park at Chanderi, District, Ashok Nagar, and MP.

vi. Women Empowerment:

- Construction of double storey women’s Polytechnic, Kayamkulam, Kerala.
- Construction of Ladies waiting room & purchase of furniture at Government Women’s Polytechnic Nedupuzha, Thrissur, and Kerala.
- Bicycles Provided to 8000 poor & indigent school going girls in West Bengal.
- More than 2500 women imparted training in various vocational courses like sewing, beautician, food processing etc for self employability. Provided tool kits & sewing machines to approximately 300 women after successful training.

vii. For Physically Challenged and Economically weaker section of the society:

- For providing IT education to physically & visually challenged students, in addition to Information and Communication Technology (ICT) centres established earlier at Delhi University and four Govt. Blind Schools, Ajmer, Lucknow, Thiruvananthapuram and Mysore, new ICT Centres established at Gauhati University Guwahati and Devi Ahilya Vishwavidyalaya, Indore benefited approx. 60 students during 2013-14.
- Directly Observed Treatment cum Designated Microscopy Centre (DOTs cum DMC) with Mobile ambulance facilities being operated at 12 NTPC hospitals under Revised National Tuberculosis Control Programme (RNCTP) that cater to villages upto 25-30Km have benefited about 5000 cases.
- Disability Rehabilitation Centre (DRC) at NTPC Tanda, Rihand, Korba, Dadri and Bongaigaon established in collaboration with National Institute for the Orthopaedically Handicapped (NIOH), under the Ministry of Social Justice and Empowerment, Government of India has benefited about 3700 physically challenged people.

viii. Promotion of Art & Culture and Sports

- NTPC had signed a MoU with Archeological Survey of India (ASI) and National Culture Fund (NCF) for financial support for Preservation and conservation of 3 monuments (Group of Monuments, Mandu (MP), Excavated site at Vikramshila (Bihar), and Archaeological site, Lalitgiri / Dhauli (Odisha).The preservation & conservation works are in progress at all the 3 sites.
- To promote traditional art culture, NTPC has taken up various art & culture activities covering 46 villages and more than 100 schools touching 900 students.
- To promote Rural Sports Rural Sports Meet and various sports events covered nearly 200 schools in about 170 villages.
- 400 students benefited from sports coaching.

ix. Relief during Natural Calamity:

- Financial support & Flood relief activities for Uttarakhand and Himachal Pradesh.
- Financial Support for relief during Phailin Cyclone and Floods affected areas of Odisha.

2. Are the programmes/projects undertaken through in-house team/own foundation/external NGO/government structures/any other organization?

Based on best practices, Programmes are undertaken through well defined in – house team with three tier structure, station level team, regional level team & Corporate level team through specialized agencies, NGO’s, government structure, in some activities own foundation & other organizations also.

3. Have you done any impact assessment of your initiative?

Yes, every two year NTPC conducts a third party Social Impact assessment for all its major CSR activities at various stations. During the Year 2013-14, NTPC has taken up Impact Assessment at 13 stations. While the Impact Assessment has been completed for Farakka, Jhanor Gandhar, Kayamkulam, Korba, Dadri, Sipat, Tanda, Talcher Thermal, Talcher Kaniha and Unchahar. The same is under progress at Anta, Ramagundam & Vindhyachal.

4. What is your company's direct contribution to community development projects- Amount in INR and the details of the projects undertaken.

Total expenditure of ₹ 128.35 Cr. was done. The details of major projects in which expenditure has been incurred are covered in respective Sections above.

5. Have you taken steps to ensure that this community development initiative is successfully adopted by the community? Please explain in 50 words or so.

Community development initiatives are taken in planned way. The community is engaged in all steps of activities from planning to completion. Community participation along with local administration & village panchayats in all activities, ensures the successful adoption of initiative by the community.

Bottom up approach is adopted for taking up CSR activities. CSR activities are identified after consultations with community, village panchayats, local/ district administration & Village Development Advisory Committee based on Need Assessment Surveys. Community involvement is ensured during implementation and monitoring. Assets are handed over to local authorities and gram panchayats for maintenance.

Principle 9 : Businesses should engage with and provide value to their customers and consumers in a responsible manner

1. Customer complaints / consumer cases are pending as on the end of financial year:

As part of the tariff determination process under the overall Regulatory System, following cases have been filed (as on 31.03.2014) by NTPC against customers or filed by different Beneficiaries of NTPC against NTPC Ltd. The details are as under:

- Cases with Appellate Tribunal For Electricity (APTEL) : 34 nos.
- Cases in Supreme Court : 82 nos.

In addition, 22 cases are pending in various Consumer forums of the country on other matters.

2. Does the company display product information on the product label, over and above what is mandated as per local laws?

Not Applicable

3. Is there any case filed by any stakeholder against the company regarding unfair trade practices, irresponsible advertising and / or anti-competitive behaviour during the last five years and pending as on end of financial year. If so, provide details thereof, in about 50 words or so.

Nil

4. Did your company carry out any consumer survey/ consumer satisfaction trends?

Yes, Customer Survey is carried out and customer Satisfaction trending done for internal assessment, and bring up new means to satisfy maximum no. of customers.

For and on behalf of the Board of Directors



(Dr. Arup Roy Choudhury)
Chairman & Managing Director

Place: New Delhi
Dated: 11th July 2014