Annexure -X to Directors' Report

BUSINESS RESPONSIBILITY REPORT (2017-18)

Section A : General information about the company

1. **CIN (Corporate identity number)** L40101DL1975GOI007966
2. **Name of the company** NTPC LIMITED
3. **Registered address** NTPC Bhawan, Scope Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003
4. **Website** www.ntpc.co.in
5. **Email id** csntpc@ntpc.co.in
6. **FY reported** 2017-18
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
   iii. Coal Mining
9. **Total number of location where business activity is undertaken by the company:**
   International locations - 02 nos.
   a. Trincomalee Power Project, Srilanka
   b. Bangladesh- India Friendship Power Company (Pvt) Ltd. : Maitree Power Project at Khulna, Bangladesh
   National Location- 74 Nos.
10. **Markets served by the company: National & International**

Section B: Financial details of the company

1.	Paid up capital (₹ Crore)	₹ 8245.46 Crore
2.	Total Turnover(Gross) (₹ Crore)	₹ 81529.09 Crore
3.	Total profit after taxes (₹ Crore)	₹ 10343.17 Crore
4.	Total spending on CSR and Sustainable Development (SD) as % of PAT	2.335 % (₹ 241.54) of PAT of FY 17-18
5.	List of activities in which expenditure in 4 above has been incurred	Broad areas of the activities :
		-Education & skill development
		-Swachh Vidhyalya Abhiyaan
		-Health care & Sanitation
		-Rural Development
		-Protection of National Culture and Heritage
		-Women Empowerment
		-Roads & Infrastructure strengthening
		-Providing Drinking Water
		-Art & Culture and Sports
		-Biodiversity, Tree Plantation
		-Waste management
		-Environmental Studies
		-Promotion of Renewable Energy
		-Water management

Section C: Other Details

Subsidiaries: The Company has the following five (5) Subsidiary Companies as on 31-03-2018:

i. NTPC Electric Supply Company limited

ii. NTPC Vidyut Vyapar Nigam Limited

iii. Kanti Bijlee Utpadan Nigam Ltd.

iv. Bhartiya Rail Bijlee Company Limited

v. Patratu Vidyut Utpadan Company Limited

Note: Kanti Bijlee Utpadan Nigam Ltd. and Nabinagar Power Generating Co. Pvt. Limited become 100% Subsidiary Company w.e.f. 29th June 2018.

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 6. Internal code of conduct for prevention of insider trading. 7. Code of Corporate Fair Disclosure Practices for prevention of insider trading. 8. Related Party Transaction Policy. 9. Policy for determination of materiality of events or information for disclosure. 10. Policy on maintenance & preservation of documents. 11. Policy for Determining Material Subsidiaries. 12. Training Policy for Directors of NTPC.	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.	1. Safety Policy 2. NTPC Policy for CSR and Sustainability	Director (Operations) Director (HR)
Principle 3 (P3)	Businesses should promote the well-being of all employees.	1. Human Resource (HR) Policies 2. Placement and 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. Initial Community Development (ICD) 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. NTPC Policy for CSR and Sustainability	Director (Operation) 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. Initial Community Development (ICD) 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:

S.No.	Particulars	Details
1.	DIN Number	00307037
2.	Name	Gurdeep Singh
3.	Designation	Chairman & Managing Director
4.	Telephone number	011-24360044
5.	e-mail 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 /inter-national standards?	Y	Y	Y	Y	Y	Y	Y	Y	-
4.	Has the policy being approved by the Board? If yes, has it been signed by MD/owner/CEO/ appropriate Board Director?	Y	Y	Y	Y	Y	Y	Y	Y	-
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 :**

a. Code of Conduct

http://www.ntpc.co.in/investors/code-of-conduct

b. R&R Policy :

http://www.ntpc.co.in/en/corporate-citizenship/r-and-r-policies

c. CSR and Sustainability Policy

http://www.ntpc.co.in/download/ntpc-policy-csr-sustainability

d. Fraud Prevention Policy

http://www.ntpctender.com/about/FraudPolicy.asp

e. Internal Code of Conduct for prevention of insider trading

http://www.ntpc.co.in/download/internal-code-conduct-prevention-insider-trading-dealing-securities-ntpc-limited

f. Code of Corporate fair discloser practices for prevention of insider trading http://www.ntpc.co.in/download/code-corporate-fair-disclosure-practices-prevention-insider-trading

g. Related Party Transaction Policy

http://www.ntpc.co.in/download/related-party-transaction-policy-ntpc

h. Whistle Blower Policy

http://www.ntpc.co.in/sites/default/files/downloads/WhistleBlowerPolicy.pdf

i. Policy for determination of materiality of events or information for disclosure

http://www.ntpc.co.in/sites/default/files/downloads/NTPC%20-%20Policy%20For%20Determination%20of%20Materiality%20of%20events.pdf

j. Policy on maintenance & preservation of documents

http://www.ntpc.co.in/sites/default/files/downloads/Document%20Preservation%20Policy.pdf

k. Policy for Determining Material Subsidiaries

http://www.ntpc.co.in/download/policy-determining-material

l. Training Policy for Directors of NTPC

http://www.ntpc.co.in/download/training-policy-directors-ntpc

m. Initial Community Development Policy

http://www.ntpc.co.in/download/initial-community-development-policy-2009

n. Environment Policy: Policy hosted on web. Principles of Environment Policy have been given on the website www.ntpc.co.in under Environment Head.

https://www.ntpc.co.in/en/environment/environment-policy-and-management

o. Safety Policy, HR Policies & Placement and Transfer Policy: 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:

- The Company supplies power to the Bulk Customers (State Electricity Distribution companies) majority of which are owned by the respective State Govt.
- 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.
- The Company & Our bulk customers i.e. Discoms work under regulated Environment. NTPC strives for supplying cheapest power deploying all resources optimally in best possible ways resulting in well being of customers & Society.

- The company being a Government company is also subject to the various checks and balances mechanism such as audits etc.
- CERC while determining the tariff of NTPC stations does prudence check on the costs of company.
- The company 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 existing guidelines & Policy to meet the requirement of customers. Unallocated quota of power is allocated by Ministry of Power (MOP) as per demand and requirement of different States hence always keep customer first.
- Central Electricity Regulatory Commission governs power Supply regularity, Performance and all other Commercial parameters and NTPC always excels in satisfying customers by disclosing all relevant information.
- Issues, if any, regarding operational issues etc. are being discussed and resolved in common forums such as Regional Power Committees.
- The company has developed a Customer Satisfaction Index (CSI), which is evaluated through a questionnaire and based on the feedbacks received, actions are taken.

The company engages with customers and provides value to the customers in a responsible manner.

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 business Responsibility Report as a part of annual report 2017-18 and publicises Business Responsibility Report Annually

Section E: Principle –wise performance

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

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 covers 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.

vi Related Party Transaction Policy is framed intended to ensure the proper approval and reporting of transactions between the Company and its Related Parties.

vii The objective of Whistle Blower Policy is 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.

viii The Policy for determination of materiality of events or information for disclosure was framed in terms of Regulation 30 (1) of Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015 (SEBI (LODR)

ix The Policy on maintenance & preservation of documents was framed in pursuance to Regulation 9 of the SEBI (LODR).

x The Policy for Determining Material Subsidiaries was framed in accordance with the requirement stated under the Listing Agreement.

xi The Training Policy aims at providing Orientation & Training programs to be offered to the Board of Directors NTPC

The company has a Vigilance Department headed by Chief Vigilance Officer of the rank of Joint Secretary, GOI, who is a nominee of the Central Vigilance Commission. Vigilance set up in NTPC comprises of Vigilance Executives in Corporate Center and Projects. In Projects, the VEs report to the Project Head in administrative matters but in functional matters, they report to Chief Vigilance Officer. Corporate Vigilance consists of 04 Cells, namely, Investigation & Processing Cell, Departmental Proceedings Cell, Technical Examination Cell and MIS Cell. These Cells deal with various facets of vigilance mechanism. The vigilance works of each Region namely ER-I, ER-II, WR-I, WR-II, NR, NCR, SR and Hydro Region have been separately assigned to one Vigilance Executive of GM/AGM rank for speedier disposal of vigilance cases.

Integrity Pact has been implemented in the company since 2009. Presently tenders having estimated value of ₹ 10 Crore(excluding taxes and duties) and above are covered under the Integrity Pact. Presently NTPC is having 02 Independent External Monitor - Sh.Satyananda Mishra,Ex.CIC and Sh M.R farouqui IAS (retd.) to oversee the implementation of Integrity Pact Programme.

As per the provisions of Section 619(3) of the Companies Act, 1956, Fraud Prevention Policy has been implemented in NTPC and suspected fraud cases referred by the Nodal Officers to Vigilance Dept. are investigated immediately to avoid/stop fraudulent behaviours as defined in "Fraud Prevention Policy".

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.

   During the period, total 6790 new complaints were received. Total 6789 complaints were resolved after verification. One complaint is pending as on 31.03.2018. These complaints are received related to Equity Shares, Bonus Debentures, Private Placement of Bonds, and Public Issue of Bonds

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: NTPC produces Electricity through Coal, Gas, Hydro and Solar PV. These Systems have incorporated State of the Art technologies such as High Concentration slurry disposal (HCSD), Real time monitoring of Pollutants and Zero discharge in new projects.

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	2015-16		2016-17		2017-18	
	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption	Qty.	Per Unit Consumption
Coal	160.6 MMT	0.699 Kg/kwh	162.47 MMT	0.683 Kg/kwh	168.95MMT	0.67 Kg/kwh
Gas	5.21 MMSCMD	0.22 Scm/kwh	5.16 MMSCMD	0.22 scm/kwh	5.34 MMSCMD	0.22 scm/kwh
LDO	15862KL	0.07ml/kwh	21545 KL	0.09ml/kwh	27557 KL	0.35ml/kwh
HFO	76943KL	0.33ml/kwh	68354 KL	0.29ml/kwh	59725 KL	
Naphtha	26854MT	0.25Ltr/kwh	2882 MT	0.25Ltr/kwh	4283 MT	
HSD	388KL		96.975 KL		3118 KL	

Water Withdrawal per year (in million KL):				
S.NO	Type of water	Quantity Consumed		
		2015-16	2016-17	2017-18
1	Total Water withdrawal	4405.0	5533.16*	5610.14*
2	Per unit withdrawal	18.44Litre/kwh	3.22* Litre/kwh	3.06* Litre/ Kwh
* Water calculated on closed loop systems				

Energy saving per year:			
Energy saved by the initiatives taken in NTPC power plants for energy conservation / efficiency improvement	2015-16	2016-17	2017-18
	116.9 MU	118.6 MU	120.5 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,

   The Following procedures are in place for the sustainable sourcing of coal by NTPC for its different power station:

   i) Coal Linkage: Coal linkage for a new project is accorded by Standing Linkage Committee-Long Team (SLC-LT) under the aegis of Ministry of Coal, GOI. Accordingly, NTPC applies for coal linkage to SLC(LT) for its new projects on the direction of SLC-LT, Coal companies issue Letter of Assurance (LoA) to the Buyer valid for 24 months. On receipt of LOA, NTPC completes all the formalities enabling for signing of FSA.

   ii) Fuel Supply Agreement (FSA): FSA is signed between the Buyer and Coal Companies for a period of 20 years with a provision of review after every 5 years. Based on the terms & conditions of FSA, coal companies supply coal to the power stations.

   iii) Bilateral MOUs:Short-term coal procurements are done as per requirement through Bilateral MoUs with coal companies for the quantity, price & period mutually agreed by buyer & Coal Company.

   iv) E-Auctions: Coal is also procured for critical stations by participating in E-Auctions conducted by Coal companies as approved by NTPC Board.

   v) Import: NTPC imports coal with the approval of NTPC Board. NTPC procures the coal on short-term basis and in multi-packages to enable cost benefit to NTPC.

   During 2017-18, NTPC sourced about 168.95 Million Metric Tons of domestic coal and no imported coal.

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 as per the extant policy of Government of India. Company has taken various initiatives to encourage participation in tender for local & small manufacturer including SMEs. The benefits include EMD exemption, tender document fee exemption and purchase preference of 15%.

   Further, NTPC is organizing regular vendor meet for local SMEs for development of items and services and encourage the local vendor for SME registration under Udyog Aadhaar.

   There are certain economic opportunities arising out of need for goods and services by the project and its township. NTPC provides opportunities to the local communities including Project Affected Persons (PAPs) for gainful employment by formation of Co-operative Societies and Self Help Groups. The preference for award of petty contracts etc for supplying goods and services is given to Project Affected Persons (PAPs).

   NTPC conducts regular capacity- building programmes for local communities including PAPs for better employability. The programs are conducted based on the findings of Need Assessment Surveys and Individual requirements and after due consultation with the community. The people are trained under various training programs through training institutes engaged by NTPC/ State Govt.

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 only 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 53.45% of the total ash generation from electricity generation has been used for various productive purposes during 2017-18. 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. Seven NTPC stations (Badarpur, Dadri, Unchahar, Tanda, Ramagundam, Simhadri and Talcher-Thermal) have achieved more than 100% Ash utilization in F.Y 2017-18.

Principle 3: Businesses should promote the wellbeing of all employees

1. **Number of Employees:**

Category	2015-16	2016-17	2017-18
Executives	12,001	11,636	11,567
Non- Executives	9,632	8,957	8,317

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.

3. Number of permanent Women Employees: 1,282

4. Number of permanent Employees with Disabilities:469 as on 1st Jan. 2018

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.

Sl. No.	Category	No. of previous year pending complaints	No. of complaints filed during the FY 17-18	No. of complaints pending as on 31-03-2018
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	27.25	66.27
Permanent Women Employees	8.24	65.47
Casual / Temporary / Contractual Employees	85.84	8.32
Employees with Disabilities	17.45	79.12

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

   The Company has a well structure R&R and CSR Policy to take care of the disadvantages, vulnerable and marginalized people in and around the plants.

   Vulnerable category of persons has been detailed in NTPC's CSR and R&R Policies. These include old-aged, women, PCPs, SC/ ST/OBC etc. They are identified through Socio Economic Survey (SES), Need Assessment Survey (NAS) and other consultations with the stakeholders etc at the time of formulation of CSR/ R&R Plans...

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.

Yes,

NTPC has always been sensitive to the needs of disadvantaged, vulnerable and marginalized stakeholders. As part of R&R, in addition to the entitlements and packages as envisaged for PAP's, NTPC makes special efforts for the welfare measures for this section of the society in the neighborhood community of NTPC locations. NTPC has also taken up the activities for women empowerment, construction of SC/ST multipurpose halls & hostels, relief through distribution of various articles & support to orphanages & old age homes in the vicinity of its stations. Some of the initiatives to address the needs of differently abled include Information and Communication Technology (ICT) Centers and Disability Rehabilitation Centers by NTPC Foundation and inclusive education, distribution of equipments like tricycles, wheelchairs, vocational training etc.

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 pending as on 31.3 2018. (refer principle 3)

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

1. Does the policy relate to Principle 6 cover only the company or extends to the Group / Joint Ventures / Suppliers / Contractors/ NGOs /Others?

   The environment policy of the company 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 is one of the premiers PSU under MOP and has been doing its bit in tackling the issue of global warming & climate change. NTPC, as a responsible global citizen, has taken various steps i.e readjustment of NTPC's fuel / power generation mix by adopting more & more renewable, introduction of clean coal technologies etc. in line with various GoI missions under National Action Plan on Climate Change (NAPCC).

NTPC low carbon initiatives may be categorized into following broad categories:

i) Re-adjustment of NTPC's fuel/ power generation mix

ii) Introduction of Thermo dynamically Efficient Technologies

iii) Renovation & Modernization of old power stations

iv) Induction of advanced clean coal technologies for power generation

v) Establishment of NETRA for addressing climate change concerns

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 a functional 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 issues proactively. The company has taken several initiatives in CDM Projects in Power Sector.

   Six of its renewable energy projects viz. 5 MW Solar PV Power Project at NTPC-Dadri, 5 MW Solar PV Power Project at Port Blair (A&N), 5 MW Solar PV Power Project at NTPC-Faridabad and 8 MW small hydro power project at NTPC-Singrauli, 50 MW Solar PV Plant at Rajgarh (MP) and 10 MW Solar PV Project at NTPC Unchahar has already been registered with United Nations Frame Work Convention on Climate Change (UNFCCC) CDM Executive Board.

Coordinating / Managing Entity (CME) has been appointed for 15 MW Solar PV Power project at NTPC-Singrauli and 10 MW Solar PV project at NTPC Talcher and is in process to include the same in registered UNFCCC CDM Programme of Activities (PoA).

6,173 nos. of Certified Emission Reductions (CERs) for 5 MW Solar PV Power Project at Port Blair (A&N) has been issued by UNFCCC CDM Executive Board. Further, another 5,842 nos of CERs have also been issued by UNFCCC CDM Executive Board for 5 MW Solar PV Power Project at NTPC-Dadri.

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 Frame Work Convention on Climate Change (UNFCCC)" under 'Approved Consolidated Methodology 13 (ACM0013)'. More green field CDM projects are in pipeline.

Further Registration of new projects 250 MW Solar PV power project at Anantpur, 260 MW Solar PV power project at Bhadla, 250 MW Solar PV power project at Mandsaur and 50 MW Wind power project at Rojmal in Verified Carbon Standard (VCS) program has been initiated and will earn Voluntary Emission Reduction (VERs) in due course of time."

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:

   NTPC as the leading power utility of the country has assigned 1% of PAT for R&D activities. Company has focused its research efforts to address the major concerns of the sector as well as the futuristic technology requirements of the sector.

   The main initiatives taken in FY 17-18 are listed below:

A – New & Renewable Energy

1. Development of Geothermal Energy: Detail Project Report for establishment of 10MWe Geothermal based power plant at Tatapani, Chhattisgarh:
2. Integration of Solar thermal energy with conventional rankine cycle for efficient use of solar thermal energy:
3. Indigenous production of solar floating platforms for economical floating solar PV fields:
4. Setting up of solar thermal cooking system
5. Ground Source Heat Pump (GSHP) for Cooling/ Heating Application

B – Clean coal & carbon Capture

1. CO_2 Capture and Utilization Technologies:
   i. CO_2 fixation by micro-algae:
   ii. Development of modified amine absorption based process to separate CO_2 from flue gas:
2. Setting Up Fly Ash Based Light Weight Aggregate Pilot Plant at NTPC-SIPAT

C – Energy Efficiency

1. Utilization of low grade heat from power plant flue gas for various industrial applications:
   (a) Development of HVAC system using low grade heat from Steam generator (SG) flue gas
   (b) Design and Engineering of FG based desalination plant:
2. Performance on PAT (Perform, Achieve and Trade)
3. Heat rate improvement using Wind-Solar Hybrid
4. Capacity building in areas CFD modelling, online performance optimization tools for thermal power stations using Artificial Neural Network, fuzzy system, Genetic algorithm etc:

D – Renewable Energy:

INITIATIVES IN RENEWABLE ENERGY:

NTPC has submitted its green Commitment to Government of India in February 2015 for developing 10,000 MW of Renewable Energy Projects during 2014-19. In addition to this, NTPC has been designated as the Nodal Agency for implementing of a scheme for setting up of 15,000 MW of Grid connected Solar PV power plants under National Solar Mission in five years from 2014-15 to 2018-19.

NTPC has already developed 870 MW of solar PV projects. Out of this 55 MW projects are at its own stations at Dadri (5 MW), Ramagundam (10 MW), Talcher-Kaniha (10MW), Unchahar (10 MW), Faridabad (5 MW) and Singrauli (15 MW) and 250 MW solar PV projects at Ananthapuram Ultra Mega solar park, RajgarhM.P. (50 MW) and Port Blair A.N. (5 MW), Bhadla Solar(Rajasthan) 260

MW, Mandsaur-Solar PV-250 MW. The solar project at Rajgarh is the first largest solar PV project in India, which was built with domestically manufactured solar PV modules.NTPC has also ventured into wind power and installed 50 MW wind power in Gujarat till 21.06.2018.

NTPC has plans to develop solar PV projects at various projects of NTPC on spare land available at these projects. Further NTPC has planned to harness solar energy on the roof tops of potential buildings on its various upcoming thermal power projects.

1. 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.

2. 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.

   All the complaints / notices are addressed timely.

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 18 Chambers & association including SCOPE, FICCI, CII, TERI, WEC, CBIP, IERE, POWER SECTOR SKILL COUNCIL, EPRI, ICSI, POWER HR FORUM 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,**

   To achieve the aim of inclusive growth and equitable development, the Company has a comprehensive Resettlement & Rehabilitation (R&R) policy covering community development (CD) activities, which has been revised and updated from time to time. CD activities in green field area are initiated as soon as project is conceived and thereafter extensive community / peripheral development activities are taken up along with the project development. Separate CSR community Development Policy, formulated in July 2004 and Sustainability Policy formulated in Nov 2012 have been combined and revised in 2015 as "NTPC Policy for CSR & Sustainability" in line with Companies Act 2013 and DPE Guidelines 2014. It covers a wide range of activities for inclusive growth including implementation of key programmes through a NTPC Foundation. Focus areas of NTPC CSR & Sustainability activities are Health, Sanitation, Drinking Water, Education, Capacity Building, Women Empowerment, Social Infrastructure Development, support to Physically Challenged Person (PCPs), and activities contributing towards Environment Sustainability.

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

   Programmes are undertaken by well-defined in – house team through specialized agencies, NGO's, government agencies/ bodies etc. Some of the activities are carried by NTPC Foundation.

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

   Social Impact Evaluation (SIE) studies/ surveys are conducted by NTPC as per policy provisions for all its major community development activities at various stations/ projects at regular interval. Annual Internal Audit of CSR Activities are also carried out.This year SIE has been conducted at 04 locations.

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

   Company as specified programmes for inclusive growth & equitable development not only at station level but also at National level. Details of the programmes and spending are listed below:

   Total spending on CSR – ₹ 241.54 Crore for FY 2017-18. The details of major projects for community are given in Directors Report Annexure-VII

   Further, as most of the stations are located in remote rural areas, NTPC during 2017-18 undertook activities in the neighborhood

area of stations addressing primarily the basic needs like primary education, community health, drinking water, sanitation, vocational training, women empowerment and village infrastructure like roads, community center, solar street lights 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 535 villages in FY 2017-18.

Apart from above, during Project construction stage NTPC is also taking up big ticket projects like establishment of ITIs/ Polytechnic/ Engineering / Medical Colleges / Big infrastructure projects like construction of 4 lane roads, water supply scheme etc. as part of Community Development (CD) activities under R&R Plan.

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 in NTPC are taken in a planned way. The community is engaged in all steps of activities from planning to completion.

Bottom up approach is adopted for taking up these activities. CSR activities/ CD plans are identified after consultations with relevant stakeholders like community, village panchayats, local/ district administration & Village Development Advisory Committee based on Need Assessment Surveys.

Stakeholders participate at each stage of the activity and also execution of some of the activities is supervised by the local authorities. People's involvement is also ensured during implementation and monitoring.

The company's flexible & open approach in this regard coupled with community participation along with local administration & village Panchayats leads to successful adoption & acceptability of initiatives by community. Assets are handed over to local authorities and gram panchayats for maintenance

Social Impact Evaluation (SIE) study/ survey are conducted through external agencies on completion of developmental initiatives. Social audit is done from time to time to evaluate whether all activities have been completed satisfactorily that gives recommendation for necessary modification/ corrective measures, if any, for the future projects.

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:There are no complaints as such from customers. However, as part of the tariff determination process under the overall Regulatory System, different cases have been filed by NTPC against CERC/ Customers or filed at the Appellate Tribunal/ Courts by different Beneficiaries against NTPC/ CERC.

APTEL: 44 Cases

Supreme Court and Other courts: 28 Cases

Total: 72 Cases as on 01.06.2018

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.

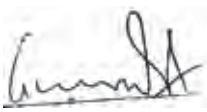
Nil

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

Yes.

As part of the Customer Relationship Management programme, NTPC conducts a Customer Satisfaction Survey to assess the satisfaction level of the customers, captured through an Index and to get feedback from the customers.

For and on behalf of the Board of Directors



(Gurdeep Singh)

Chairman & Managing Director

Place : New Delhi

Dated : 8th August, 2018