Dear Members,

Your Directors are pleased to present the 36th Annual Report and the audited financial statements for the year ended March 31, 2012.

Your Company has added capacity of 2,820 MW during the year 2011-12 surpassing its earlier best capacity addition of 2,490 MW during 2010-11. With this addition, the Company surpassed the 11th plan target of 9,220 MW by achieving a total capacity addition of 9,610 MW.

After commissioning of 9,160 MW capacity since April 2012, NTPC has now become a 39,174 MW Company.

1. FINANCIAL RESULTS

<table>
<thead>
<tr>
<th>Revenue</th>
<th>2011-12</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>₹ Crore</td>
<td>US $ Mn*</td>
</tr>
<tr>
<td>Net Revenue from Operations (including Energy Sales, Consultancy, Energy consumed internally)</td>
<td>62,052.23</td>
<td>12,018.64</td>
</tr>
<tr>
<td>Other Income</td>
<td>2,778.42</td>
<td>538.14</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>64,830.65</td>
<td>12,556.78</td>
</tr>
</tbody>
</table>

**Expenses**

<table>
<thead>
<tr>
<th>Expenses</th>
<th>2011-12</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel</td>
<td>41,635.46</td>
<td>8,064.20</td>
</tr>
<tr>
<td>Employee Benefits Expense</td>
<td>3,090.48</td>
<td>598.58</td>
</tr>
<tr>
<td>Finance Costs</td>
<td>1,711.64</td>
<td>331.52</td>
</tr>
<tr>
<td>Depreciation and amortization expense</td>
<td>2,791.70</td>
<td>540.71</td>
</tr>
<tr>
<td>Generation, administration &amp; other expenses</td>
<td>3,588.79</td>
<td>695.10</td>
</tr>
<tr>
<td>Prior Period items (net)</td>
<td>(313.58)</td>
<td>(60.74)</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>52,504.49</td>
<td>10,169.37</td>
</tr>
</tbody>
</table>

**Profit before Tax**

<table>
<thead>
<tr>
<th>Profit before Tax</th>
<th>2011-12</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>₹ 12,326.16</td>
<td>₹ 12,049.60</td>
</tr>
<tr>
<td><strong>Profit for the year</strong></td>
<td>₹ 9,223.73</td>
<td>₹ 9,102.59</td>
</tr>
</tbody>
</table>

**Appropriations:**

<table>
<thead>
<tr>
<th>Appropriations</th>
<th>2011-12</th>
<th>2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer to bond redemption reserve</td>
<td>482.38</td>
<td>93.43</td>
</tr>
<tr>
<td>Transfer to general reserve</td>
<td>5,200.00</td>
<td>1,007.17</td>
</tr>
<tr>
<td>Transfer to capital reserve</td>
<td>0.44</td>
<td>0.09</td>
</tr>
<tr>
<td>Interim dividend</td>
<td>2,885.92</td>
<td>558.96</td>
</tr>
<tr>
<td>Proposed dividend</td>
<td>412.27</td>
<td>79.85</td>
</tr>
<tr>
<td>Tax on dividend</td>
<td>527.92</td>
<td>102.25</td>
</tr>
</tbody>
</table>

*1US $ = ₹ 51.63 as on March 31, 2012*
2. FINANCIAL PERFORMANCE

2.1 Revenue
The total revenue of your Company for the year increased by 12.93% to ₹ 64,830.65 crore from ₹ 57,407.30 crore during the previous year.

2.2 Profit Before and After Tax
The profit before tax was ₹ 12,326.16 crore for the financial year 2011-12 as against ₹ 12,049.60 crore last year. The profit after tax increased by 1.33% to ₹ 9,293.73 crore from ₹ 9,108.59 crore.

3. DIVIDEND

3.1 Interim and Final Dividend
In addition to interim dividend of ₹ 3.50 per equity share paid in February 2012, your Directors have recommended a final dividend of ₹ 0.50 per equity share for the year 2011-12. The total dividend for the year is ₹ 4.00 per equity share of ₹ 10/- each against ₹ 3.80 per share paid during last year. The total dividend payout is 35.76% and the total dividend payout including dividend tax is 41.48% of profit after tax. The final dividend shall be paid after your approval at the Annual General Meeting. The dividend has been recommended in accordance with your Company’s policy of balancing dividend pay-out with the requirement of deployment of internal accruals for its growth plans.

Your Directors believe that growth of the Company through capacity addition, backward and forward integration and strategic diversification of its operations would lead to increase in shareholders’ value.

4. OPERATIONAL PERFORMANCE

4.1 Generation
During the year, the power stations of your Company generated 220.54 BUs. The total generation contributed by coal stations is 199.054 BUs during the year against generation of 195.982 BUs last year registering a growth of 1.93%. Generation could have been still higher but due to less grid demand, there was generation loss of 5.93 BUs. The coal based stations of your Company operated at average Plant Load Factor (PLF) of 85.00% (All India PLF 73.32%) and average Availability Factor of 89.73% on bar during the year.

During the year, 6 coal based stations out of 15 achieved more than 90% PLF.

The gas stations having a capacity of 3,955 MW achieved annual generation of 23,014 BUs at a PLF of 65.92% as against 95,055 BUs last year mainly due to less grid demand which accounted for a generation loss of 10,176 BUs. The average declared capacity of gas based stations of the year was 93.81% as compared to 92.60% during previous year.

Management Discussion and Analysis Report
Management Discussion and Analysis Report for the year under review, as stipulated under Clause 49 of the Listing Agreement with the Stock Exchanges in India, is presented in Annex-I to this Report.

5. COMMERCIAL PERFORMANCE

Your Company has realized 100% payment of current bills raised for sale of power for the ninth consecutive year.

5.1 Rebate Scheme/ One Time Settlement Scheme for realization of dues

In order to achieve early realization of dues, provision of rebate, even for customers making payment after 30 days and upto 55th day, has been introduced in the Rebate Scheme for 2012-13. All the beneficiaries have established Letters of Credit (LC) and are maintaining it. As on 31.05.2012, your Company has monthly LCs of ₹ 4,888.74 crore. RBI, on behalf of State Governments, redeemed the bonds and serviced half-yearly interest installments on bonds in time as per One Time Settlement Scheme. The matter of securitization of outstanding dues amounting to ₹ 1,310.83 crore pertaining to DESU period payable by Government of NCT of Delhi is under active consideration by the Ministry of Power.

5.2 Power Purchase Agreements for renewable energy
Your Company had signed Power Purchase Agreements (PPAs) for Solar PV projects at Andaman & Nicobar Islands, Dadri, Faridabad, Raigarh, Ramagundam, Unchahar & Talcher and for Solar Thermal Project at Anta. The cumulative renewable energy capacity for which PPAs have been signed is 118 MW, consisting of 110 MW of solar capacity and 8 MW of small hydro capacity at Singrauli. PPA has been signed with West Bengal for sale of 75 MW allocated to the Company from Farakka-III.

5.3 Commercial Capacity
The following units were declared commercial during the year 2011-12, adding 1,160 MW to commercial capacity of your Company:

<table>
<thead>
<tr>
<th>Project/ Unit</th>
<th>Capacity (MW)</th>
<th>COD*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sipat-I, Unit#1</td>
<td>660</td>
<td>01.10.2011</td>
</tr>
<tr>
<td>Simhadri-II, Unit#1</td>
<td>500</td>
<td>16.09.2011</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,160</strong></td>
<td></td>
</tr>
</tbody>
</table>

* COD- Commercial Operation Date
Further, after the financial year 2011-12, Unit#6 of 500 MW of Farakka, Unit#2 of 660 MW of Sipat, Unit#2 of 500 MW of Jhajjar (JV i.e. Aravali Power Company Private Limited) have been declared commercial.

5.4 Determination of Tariff
Your Company had filed tariff petitions for the five-year period starting 1.4.2009 before CERC for all the stations in accordance with the CERC (Terms and Conditions of Tariff) Regulations, 2009. The final tariff orders have been received for 19 stations till 30.06.2012.

5.5 Strengthening Customer Relationship
Customer Relationship Management (CRM) initiative has been taken by your Company towards strengthening relationship with our customers. Under this, regular structured interaction with customers takes place on an ongoing basis for sharing of feedbacks /experiences /expectations. These meetings provide a platform for better interaction and sharing of experiences for mutual benefits. Based on the feedback received from the customers, the Company provides various support services to them, identifies potential areas of cooperation and shares each others’ best practices. Besides, your Company also organized Regional Customer Meets, State specific Business Partner Meets and GENCOs Meets for better interaction and sharing of experience.

5.6 Supply of Electricity in 5 Kms area around plant
Under the scheme of Government of India for provision of supply of electricity in 5 Kms area around Central Power Plants, your Company is implementing the electrification work around 29 projects. Award for implementation of the scheme has been placed at 8 stations.

6. INSTALLED CAPACITY
During the year 2011-12, your Company added 9,820 MW detailed as under:

<table>
<thead>
<tr>
<th>Project/ Unit installed during FY 2011-12</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTPC owned</td>
<td></td>
</tr>
<tr>
<td>Sipat-I</td>
<td>1,390</td>
</tr>
<tr>
<td>Simhadri-II</td>
<td>500</td>
</tr>
<tr>
<td>Under JVs</td>
<td></td>
</tr>
<tr>
<td>Jhajjar (JV with HPGCL &amp; IPGCL)</td>
<td>500</td>
</tr>
<tr>
<td>Vallur (JV with TANGEDCO)</td>
<td>500</td>
</tr>
<tr>
<td>Addition during FY 11-12</td>
<td>2,820</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project/ Unit installed in the first quarter of FY 2012-13</th>
<th>Capacity (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTPC owned</td>
<td></td>
</tr>
<tr>
<td>Sipat –I, Unit#3</td>
<td>660</td>
</tr>
<tr>
<td>VindhyaChal, Unit#11</td>
<td>500</td>
</tr>
<tr>
<td>Rihand, Unit#5</td>
<td>500</td>
</tr>
<tr>
<td>Mouda, Unit#1</td>
<td>500</td>
</tr>
<tr>
<td>Addition after FY 11-12</td>
<td>2,160</td>
</tr>
</tbody>
</table>

The capacity added by NTPC Group has registered a growth of 13.25% over the preceding year.

6.1 Installed Capacity of NTPC Group
The total installed capacity of the NTPC Group has increased to 37,014 MW as on 31.03.2012 as tabulated below:

<table>
<thead>
<tr>
<th>Owned by NTPC</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal based projects</td>
<td>28,695</td>
</tr>
<tr>
<td>Gas based projects</td>
<td>3,955</td>
</tr>
<tr>
<td>Sub-total</td>
<td>32,650</td>
</tr>
<tr>
<td>Joint Ventures &amp; Subsidiaries</td>
<td></td>
</tr>
<tr>
<td>Coal based projects</td>
<td>9,424</td>
</tr>
<tr>
<td>Gas based projects</td>
<td>1,940</td>
</tr>
<tr>
<td>Sub-total</td>
<td>4,364</td>
</tr>
<tr>
<td>Total</td>
<td>37,014</td>
</tr>
</tbody>
</table>

Now, with the commissioning of 2,160 MW after the financial year 2011-12, the installed capacity of NTPC’s Group has become 39,174 MW.

7. CAPACITY ADDITION PROGRAM
Your Company has adopted a multi-pronged growth strategy which includes capacity addition through green field projects, brown field expansions, joint ventures and acquisitions towards its journey to become the world’s largest power producer. In addition to furthering capacity addition through Coal / Gas based thermal power projects, your Company has been pursuing enhancement of its power generation portfolio through Hydro, Renewable Energy and Nuclear energy projects.

7.1 Projects under Implementation
Your Company’s various projects having aggregate capacity of 14,818 MW including 2,890 MW, being undertaken by Joint Venture Companies were under construction as on 31.03.2012 excluding 2,160 MW commissioned during first quarter of financial year 2012-13, as detailed below:

<table>
<thead>
<tr>
<th>List of Ongoing Projects as on 31.03.2012 excluding 2,160 MW commissioned during first quarter of FY 2012-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of the Project</td>
</tr>
<tr>
<td>I. Projects under NTPC Ltd</td>
</tr>
<tr>
<td>A. Coal Based Projects</td>
</tr>
<tr>
<td>1. Barh-I</td>
</tr>
<tr>
<td>2. Bongaigaon-I</td>
</tr>
<tr>
<td>3. Mouda-I</td>
</tr>
<tr>
<td>4. Barh-II</td>
</tr>
<tr>
<td>5. Rihand-III</td>
</tr>
<tr>
<td>6. VindhyaChal-IV</td>
</tr>
<tr>
<td>7. Kudgi</td>
</tr>
<tr>
<td>8. Solapur</td>
</tr>
<tr>
<td>9. Mouda-II</td>
</tr>
<tr>
<td>Sub Total (A)</td>
</tr>
</tbody>
</table>
Your Company has also taken up studies/preparation of Feasibility Reports of about 13,000 MW capacity and is pursuing statutory clearances for various other projects to be taken up in future.

7.3 New Technology

To meet the future challenges of meeting India’s electricity needs at affordable cost with minimum environmental impact, your Company has drawn a long term Technology Roadmap up to year 2032 which involves development, adoption and promotion of safe, efficient and clean technologies for entire value chain of power generation business.

Your Company has adopted several new technologies including combined cycle gas-fired power stations, Merry-go-round, Distributed Digital Control & Management Information System, High Voltage Direct Current transmission, Sliding Pressure Operation of SG, Dry Ash Extraction and Disposal, 765 KV Switchyard, Ash Water Recirculation System, Liquid Waste Management System, Performance Analysis and Diagnostic Optimization, Tunnel Boring Machines and Super Critical Technologies. In order to improve efficiency further your Company has adopted higher steam parameters for Barh Expansion project and all of its 660 MW and 800 MW projects resulting in 5% gain in efficiency over the efficiency of conventional sub-critical 500 MW unit considering similar coal. For the sub-critical 500 MW units also, reheat temperature has been increased to 565 deg C for all the new units resulting in about 0.7% gain in efficiency.

Your Company has taken initiatives for development of advance ultra super critical technology for which it has entered into MOU with BHEL and IGCAR. It will enhance thermal efficiency to around 45% and result in about 15-17% less CO₂ emission as compared to conventional sub-critical thermal power plants. Detailed project report is being prepared for hybrid solar thermal plant of about 3.6 MW by integration of solar heat with 210 MW coal based unit at Dadri. Solar heat is being integrated along with feed heaters in the turbine cycle for conversion of solar heat to electrical power with the help of existing steam cycle of 210 MW. Once integrated, this will reduce coal consumption thereby reducing CO₂ emissions.

7.4 Project Management – A New Approach

Your Company believes that in order to achieve its ambitious capacity addition targets, it has to build on its capabilities and leverage its expertise in power project execution. Accordingly, it has revised its delegation of powers and has empowered its regions and projects to enable faster decision making. Your Company has already established a state-of-the-art IT enabled Project Monitoring Centre (PMC) for facilitating fast track project implementation. PMC is extensively utilized for tracking and resolving project issues and helps in providing effective coordination between the agencies. It ensures better and fast monitoring of the projects.

7.5 Capacity addition through Subsidiaries and Joint Ventures (JVs)

Besides adding capacities on its own, your Company plans to add capacities through some of its subsidiaries and joint
ventures. The detail of JV Companies/Subsidiaries along with details of Joint Venture partners for capacity addition are as under:

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>JV Partner</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSPCL</td>
<td>Steel Authority of India Ltd. (SAIL)</td>
<td>A 50:50 JVC formed to own and operate captive power plants at Durgapur (120 MW), Rourkela (120 MW) and Bhilai Steel Plant (74 MW). 2X250 MW units have been implemented at Bhilai. The Company plans to add further capacity of 2X250 MW at Bhilai and 250 MW at Rourkela.</td>
</tr>
<tr>
<td>NTECL (NTPC Tamil Nadu Energy Co. Ltd.)</td>
<td>Tamilnadu Generation and Distribution Corporation Limited (TANGEDCO) (erstwhile TNEB)</td>
<td>A 50:50 JVC is implementing 3x500 MW coal based power project at Vallur, Tamilnadu. Unit#1 of the Project was synchronized on 09.03.2012 and full load operation was achieved on 28.03.2012. Construction of Unit#2 and Unit#3 is in progress.</td>
</tr>
<tr>
<td>APCPL (Aravali Power Company Pvt. Ltd.)</td>
<td>Indraprastha Power Generation Co Ltd. (IPGC) and Haryana Power Generation Co Ltd. (HPGCL)</td>
<td>This JVC has set up coal based Indira Gandhi Super Thermal Power Project consisting of 3 units of 500 MW each. NTPC, IPGCL and HPGCL have contributed equity in the ratio of 50:25:25. Unit#1 of 500 MW was already declared commercial on 05.03.2011 and Unit#2 was declared commercial on 21.04.2012. For Unit#3, boiler light up was done on 17.05.2012 and TG Box up on 02.06.2012.</td>
</tr>
<tr>
<td>BRBCL (Bhartiya Rail Bijlee Company Ltd.)</td>
<td>Ministry of Railways</td>
<td>A subsidiary of NTPC, formed as a JVC with Ministry of Railways with equity contribution in the ratio of 74:26 respectively for setting up power project of 1000 MW (4X250 MW) capacity at Nabinagar in Bihar. Construction work is under progress on site.</td>
</tr>
<tr>
<td>MUNPL (Meja Urja Nigam Pvt. Ltd.)</td>
<td>Uttar Pradesh Rajya Vidut Utpadan Nigam Ltd. (UPRVUNL)</td>
<td>A 50:50 JVC formed for setting up 1320 MW (2X660 MW) coal based power project in the state Uttar Pradesh. Main plant award (SG and TG Package) have been awarded and site construction activities are in progress.</td>
</tr>
<tr>
<td>KBUNL (Kanti Bijlee Utpadan Nigam Ltd.)</td>
<td>Bihar State Electricity Board (BSEB)</td>
<td>A subsidiary of NTPC formed as a JVC with BSEB, took over MTPS having 2 units of 110 MW each from BSEB. The equity of NTPC in this subsidiary is 65%. Both the units of Stage-I are under Renovation and Modernisation. The Company has also taken expansion of the project by 2X195 MW units for which construction is in progress. Major packages have been awarded and remaining packages shall be awarded soon.</td>
</tr>
<tr>
<td>NPGCL (Nabinagar Power Generating Company Pvt.Ltd.)</td>
<td>Bihar State Electricity Board</td>
<td>A 50:50 JVC for setting up and operation of a (3x660 MW) Coal based plant at Nabinagar. Land acquisition activities are in progress.</td>
</tr>
<tr>
<td>RGPPL (Ratnagiri Gas and Power Pvt. Ltd.)</td>
<td>GAIL, ICICI, SBI, IDBI, Canara Bank and MSEB Holding Co.</td>
<td>A JVC between NTPC, GAIL, MSEL holding Co. and Indian FIs. NTPC is having a stake of 31.52%. All the three Power Blocks with a combined capacity of 1,940 MW are in commercial operation since May 2009. Power Block generated 11,619 MUs of energy during the FY 2011-12. LNG terminal is under commissioning and the commissioning cargo arrived at Dabhol port in last of March 2012.</td>
</tr>
<tr>
<td>ASHVINI (Anushakti Vidhyut Nigam Ltd.)</td>
<td>Nuclear Power Corporation of India Ltd. (NPCIL)</td>
<td>ASHVINI was incorporated on 27.01.2011 as a JVC with NPCIL having 51% equity and NTPC having 49% equity. The company has been formed for setting up nuclear power project(s) and also to explore possibilities of entering in areas of front end fuel cycle like uranium mining etc. Project site of Gorakhpur, Haryana has been finalized for setting up Haryana Atomic Power Plant (9X700 MW). Geo technical investigations and topographical survey work orders have been awarded. Construction is likely to start in 2015.</td>
</tr>
</tbody>
</table>

In addition, NTPC Limited has signed Memorandum of Understanding with Ministry of Railways to set up 1,320 MW power project at Adra, West Bengal through Bhartiya Rail Bijlee Company Limited.
7.6 Hydro Power
At present, 1,320 MW Hydro capacity is under implementation apart from 291 MW under bidding.

7.6.1 Your Company is setting up the following hydro projects for increasing its footprints in renewable energy development:

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koldam HEPP</td>
<td>Himachal Pradesh</td>
<td>800 MW</td>
</tr>
<tr>
<td>Tapovan-Vishungad HEPP</td>
<td>Uttarakhand</td>
<td>520 MW</td>
</tr>
<tr>
<td>Lata Tapovan HEPP</td>
<td>Uttarakhand</td>
<td>171 MW</td>
</tr>
<tr>
<td>Rammam-III HEPP</td>
<td>West Bengal</td>
<td>100 MW</td>
</tr>
</tbody>
</table>

*Lata Tapovan HEPP and Rammam-III are being developed as Regional projects, which were earlier to be implemented by NTPC Hydro Limited, a wholly-owned subsidiary of NTPC. NTPC Hydro Limited is now being merged with NTPC Limited.

Your Company is also considering Rupsiabagar-Khasiabara HEPP (261 MW) located at Uttar Pradesh for which the Company has submitted to Ministry of Environment and Forests for reconsideration of case of rejection of forest clearance.

Loharinag Pala HEPP had been discontinued on the advice of Ministry of Power. Ministry of Power has constituted Empowered Committee to facilitate settlement of claims, project-site safety measures and for transfer of project to Government of Uttar Pradesh.

7.6.2 Hydro Engineering

7.6.2.1 In pursuance of Memorandum of Agreement signed with Govt. of Mizoram, Detailed Project Report of Kolodyne HEPP (4X115 MW) prepared by Central Water Commission for Govt. of Mizoram and updated by NTPC was submitted to CEA for according Techno-Economic Clearance (TEC). CEA has considered the proposal and accorded Techno-Economic Clearance on 14.09.2011. The environment clearance for the project is being pursued with the Government of Mizoram.

Your Company carried out the assignment of preparation of Detailed Project Report (DPR) for Amochu Reservoir Hydro-electric Project (4X135 MW) in Bhutan and the DPR has been submitted to CEA and Royal Government of Bhutan in October 2011. Additional geological investigations based on CEA comments are being carried out.

7.6.2.2 Your Company is implementing 5 MW Solar PV based project in Uttarakhand (Bhat, 5 MW Solar PV based Project in Andaman & Nicobar (Port Blair) and 8 MW HEPP at Udhr Pradesh (Singrauli). In addition, 15 MW Solar Thermal based power in Rajasthan (Anta), 5 MW Solar PV based project in Haryana (Faridabad), 10 MW each Solar PV based Projects in Uttarakhand (Unchahar) and Odisha (Talcher), 50 MW Solar PV based project in Andhra Pradesh (Ramagundam), 50 MW Solar PV based project in Madhya Pradesh (Rajgarh), 100 MW wind energy based project in Karnataka and 90 MW wind energy based project in Kerala are also being planned.

8. STRATEGIC DIVERSIFICATION - INCREASING SELF-RELIANCE

8.1 In order to strengthen its competitive advantage in power generation business, your Company also plans to diversify its portfolio to emerge as an integrated power major, with presence across entire energy value chain through backward and forward integration into areas such as coal mining, power equipment manufacturing, power trading, distribution, etc.

Business opportunities are being continuously explored through market scanning and new business plans are adopted accordingly.

8.1.1 The details of joint venture Companies taking up activities in other businesses is as under:

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>JV Partner</th>
<th>Activities undertaken</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPL (Utility Powertech Ltd.)</td>
<td>Reliance Infrastructure Limited</td>
<td>Takes up assignments of construction, erection and supervision of power sector and other sectors like O&amp;M services, project-site safety measures and for transfer of project to Government</td>
</tr>
<tr>
<td>NASL (NTPC Power Services Pvt. Ltd.)</td>
<td>ALSTOM Power Generation AG</td>
<td>Takes up renovation and modernization assignments of power plants both in India and in SAARC Countries</td>
</tr>
<tr>
<td>EESL (Energy Efficiency Services Ltd.)</td>
<td>PFC, PGCIL and REC</td>
<td>The Company was formed on December 10, 2009 for implementation of Energy Efficiency projects and to promote energy conservation and climate change</td>
</tr>
<tr>
<td>NHPTL (National High Power Test Laboratory Pvt. Ltd.)</td>
<td>NHPC, PGCIL and DVC</td>
<td>The Company was incorporated on 92.05.9009 for setting up facility for short circuit testing of transformers and other electrical equipment. The site for setting up the laboratory is located at Bina, MP. Construction activities and award activities are in progress</td>
</tr>
</tbody>
</table>
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8.2 The details of subsidiary Companies in other businesses are as under:

8.2.1 NTPC Electric Supply Company Limited, a wholly owned subsidiary of NTPC was incorporated to foray into the business of distribution and supply of electrical energy as a sequel to reforms initiated in the power sector. The Company is undertaking implementation of turnkey Rajiv Gandhi Gramin Vidyutikaran Yojna Projects (details given under Rural Electrification in the Report), turnkey execution of sub-stations for utilities, project management consultancy for provision of supply of electricity in 5 km area around NTPC power projects.

This subsidiary has commenced business of retail distribution of power in various industrial parks developed by Kerala Industrial Infrastructure Development Corporation (KINFRA), through its Joint Venture Company namely KINESCO Power and Utilities Private Limited, formed with KINFRA.

8.2.2 NTPC Vidyut Vyapar Nigam Limited, a wholly owned subsidiary of NTPC was incorporated to undertake sale and purchase of electric power and to effectively utilize installed capacity and thus enable reduction in the cost of power. The Company is involved in power trading, sale of fly ash and cenosphere. It has been appointed as the nodal agency for Jawahar Lal Nehru National Solar Mission.

8.3 In order to strengthen its competitive advantage in power generation business, the Company has diversified into the area of manufacturing through the following joint ventures:

8.3.1 NTPC-BHEL Power Projects Pvt. Limited (NBPPP), a joint venture of your Company with BHEL was incorporated on April 28, 2008 for taking up activities of Engineering, procurement and construction of power plants and manufacturing of equipments. Manufacturing plant of NBPPP is being constructed at Mannavaram, Tirupati in Andhra Pradesh. The Company is executing EPC contracts for balance of plants packages of Palatana Combined Cycle Power plant in Tripura, Namrup Combined Cycle Power Plant in Assam for BHEL and BOP including Erection & Commissioning works of entire plant for Monarchak, Tripura for NEELPSCO.

8.3.2 Another joint venture Company, BF-NTPC Energy Systems Limited was incorporated with Bharat Forge Limited on June 19, 2008 to manufacture castings, forgings, fittings and high pressure piping required for power projects and other industries. Land acquisition for establishing manufacturing plant at Sholapur, Maharashtra is in progress. Business/ Technical alliances for key product lines and technology tie-up are being actively pursued.

8.3.3 Your Company has acquired 44.6% stake in Transformers and Electricals Kerala Limited from Government of Kerala on June 19, 2009. The Company deals in manufacturing and repair of Power Transformers. The Company produced 5,789 MVA transformers which was highest production ever achieved till date, registering a plant capacity utilization factor of 130% as against the industry utilization factor of 75% in 2011-12.

Please refer to “Management Discussion and Analysis”, Annexure-I included as a separate section to this report for further details.

9. GLOBALISATION INITIATIVES

9.1 Trincomalae Power Company Limited, a 50:50 joint venture Company between NTPC and Ceylon Electricity Board was incorporated on 26.09.2011 to undertake the development, construction, establishment, operation and maintenance of coal based electricity generating station of 2X250 MW capacity at Trincomalae at Sri Lanka. Finalisation of various agreements between JV Company and CEB is in progress.

9.2 Pan-Asian Renewables Private Limited, a joint venture Company has been incorporated amongst NTPC Limited, Asian Development Bank and Kyushu to develop projects for portfolio of about 500 MW of renewable power generation resources in India. In future, the Company may develop projects outside India in Developing Member Countries.

Joint Venture Agreement has been executed between NTPC and Bangladesh Power Development Board (BPDB) on 29.01.2012 for developing a 1,320 MW Coal based power project at Khulna, Bangladesh through a joint venture Company to be incorporated between NTPC and BPDB.

9.3 Your Company has prepared and submitted the DPR for Amochu Hydro-electric project in Bhutan. NTPC has requested Government of India for allocation of Amochu Reservoir Hydro Electric Project to NTPC for execution in Bhutan.

9.5 NTPC Consultancy Wing has bagged an order for O&M services for 2X120 MW Siddhirganj Peaking Power Plant for an amount of ₹ 43.05 crore from Electricity Generation Company of Bangladesh, which is the largest international order bagged by Consultancy Wing so far.

10. FINANCING OF NEW PROJECTS

The capacity addition programs shall be financed with a debt to equity ratio of 70:30. Your directors believe that internal accruals of the Company would be sufficient to finance the equity component for the new projects. Given its low geared capital structure and strong credit ratings, your Company is well positioned to raise the required borrowings.
Your Company is exploring domestic as well as international borrowing options including overseas development assistance provided by bilateral agencies to mobilize the debt required for the planned capacity expansion program.

During the year 2011-12, term loan agreements of ₹13,500 crore were entered into with banks and domestic financial institutions which included loan of ₹10,000 crore executed with State Bank of India. The cumulative amount of domestic loans tied up till March 31, 2012 was ₹59,799.35 crore.

Bonds amounting to ₹830 crore were raised from domestic market for financing the capital expenditure and refinancing of the loans.

Your Company tied-up about USD 700 million from international debt markets through bilateral loan, export credit agency guaranteed loan and bonds. The bond offering of the Company received strong investor response despite the prevalent uncertainty in the global markets.

11. FIXED DEPOSITS
The cumulative deposits received by your Company from 158 depositors as at March 31, 2012 stood at ₹12.26 crore. Further, an amount of ₹0.17 crore has not been claimed on maturity by 19 depositors as on that date.

12. FUEL SECURITY
12.1 Diversified Fuel Mix
In line with the capacity addition plan of the Government of India, your Company will take up more coal-based capacity addition in the coming years owing to large reserves of coal in the Country. However, with a view to promote sustainable energy development and further reduce CO₂ intensity of power generation, your Company is progressively diversifying its fuel mix to increase the share of non-fossil fuels.

12.1.1 Coal Supplies
During the year, your Company has signed a 20 years Fuel Supply Agreement with ECL for supply of 15 MMT coal to Farakka (1,600 MW) and Kahalgaon (1,840 MW) and with MCL & SECL for supply of 1 MMT of coal for Ramagundam (500 MW). The Company has tied up coal through MOU route from Coal India Limited for seven units commissioned after 31.03.2009. It has tied-up bilaterally 0.3 MMT coal for Farakka with NEC and 5.0 MMT with SCCL for Ramagundam, Simhadri, Dadri and Sipat at a mutually negotiated price.

Government of India has issued Presidential Directive to Coal India Limited (CIL) for supply of minimum assured quantity of coal to power producers and to sign Fuel Supply Agreements with power producers. Discussions are being held with CIL for signing Fuel Supply Agreement.

12.1.2 Import of Coal
Your Company resorted to direct procurement of 4 MMT of imported coal at competitive prices for the first time. Earlier, the Company had an agreement with STC for supply of imported coal.

During 2011-12, your Company received 140.99 MMT of coal as against 137.32 MMT in the previous year. Total domestic coal supply during 2011-12 was 128.98 MMT as against 128.71 MMT during 2010-11 and import during 2011-12 was 12.00 MMT as against 10.60 MMT in 2010-11.

12.1.3 Sourcing of coal through E-auction
For supplementing the coal supply chain for Farakka and Kahalgaon, your Company also procured coal (0.38 MMT) through E-auction.

12.1.4 A New Initiative – Coal Transportation through Inland Waterways
Your Company has signed a ‘Tripartite Agreement’ with Inland Waterways Authority of India and Jindal ITF on 11.08.2011 for transportation of 3 MMT of imported coal through inland waterways to NTPC Farakka to supplement coal supplies. Activities for implementation of the project are in progress. This will pave a new era in the development of Inland Waterways system in India.

12.2 Gas supplies
During 2011-12, your Company received 13.09 MMSCMD of gas/RLNG as against 13.77 MMSCMD received during 2010-11. The gas off-take in 2011-12 includes 10.74 MMSCMD of domestic gas and 2.35 MMSCMD of RLNG. Your Company has APM gas agreements up to the year 2021 and PMT gas agreements up to the year 2019 for its gas stations. The long-term RLNG supply agreement with GAIL is valid till 2019. Further, out of 4.46 MMSCMD of KG-D6 gas allocated by Government of India for NCR gas stations, viz. Anta, Auraiya, Dadri & Faridabad, 2.30 MMSCMD has already been tied up. For the balance 2.16 MMSCMD KG D6 gas, Empowered Group of Minister on Pricing & Commercial Utilisation of gas has directed Reliance Industries Limited to enter into GSPA for supply of gas to NTPC immediately. As per the directive, the terms and condition of GSPA for 2.16 MMSCMD KG-D6 gas is in advance stage of finalisation.

Your Company has been making arrangements for tie-up/ supply of spot RLNG/ Fallback RLNG from domestic suppliers on ‘reasonable endeavour’ basis based on requirement/ availability from time to time.

12.3 Development of Coal Mining projects
Your Company was allocated six coal blocks by the Government of India. Further, Brahmani coal block (including Chicho-Patsimal) was allocated for joint operation by CIL NTPC Uja Private Limited, a joint venture Company of Coal India Limited and NTPC. All these mining blocks together have a production potential of more than 73 million tonnes per annum.

However, in case of Chatti-Bariatu, Kerendari and Chatti-Bariatu (South), the timeline stipulated by Ministry of Coal for development of these blocks could not be met for reasons beyond the control of the Company. Accordingly, Ministry of Coal had de-allocated these coal blocks on 14.06.2011. NTPC made representation to Ministry of Coal. Ministry of Coal through letter dated 27.01.2012 had conveyed in-principle approval for withdrawal of de-allocation, but the formal communication is still awaited.
Block development activities are in advance stage in all coal blocks. Mining Plans have been approved by Ministry of Coal for all of these coal blocks except for Chhattisgarh (South), for which it was submitted to Ministry of Coal but returned due to de-allocation. All notifications for mining area land & Socio-Economic Survey have been completed for all of these coal blocks. Payment of land compensation to project-affected families has started in Pakri-Barwadih, Chhattisgarh, Kerandari & Talaipalli coal blocks. MOEF, Govt. of India accorded environment clearance for Pakri-Barwadih, Chhattisgarh & Kerandari coal blocks. In-principle environment clearance received from MOEF for Talaipalli & Dulanga coal blocks and final environment clearance will be issued after Stage-I forest clearance. MOEF accorded Stage-I & Stage-II forest clearances for Pakri-Barwadih & Chhattisgarh coal blocks and Stage-I forest clearance for Kerandari coal block. Forest proposal for Talaipalli and Dulanga coal blocks are under process with MOEF and State Govt. of Odisha, respectively. Construction of R&R Colony, CHP, Sub-Station, Railway Siding, etc. commenced for Pakri-Barwadih coal block. Mine Developer-cum-Operator [MDO] has commenced work in Pakri-Barwadih coal block.

In addition to the above coal blocks, Ministry of Coal has conveyed in-principle approval for allotment of more coal blocks to NTPC in lieu of coal linkages for the following new projects:
(i) Kudgi, (9,400MW)
(ii) Gajamar, (1,600MW)
(iii) Barethi, (3,960 MW)
(iv) Unchahar, Stage-IV, (500 MW)

12.4 Other initiatives for securing coal supply

To leverage the strength of established players in mining and related areas, your Company has formed the following Joint Venture Companies:

<table>
<thead>
<tr>
<th>Name of Company</th>
<th>JV Partners</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIL NTPC Urja Pvt. Ltd.*</td>
<td>Coal India Ltd.</td>
<td>For undertaking the Development, O&amp;M of Brahmani and Chichra Patsimal coal blocks and Integrated Power Project(s). CMPDIL has been entrusted with the job of detailed exploration.</td>
</tr>
<tr>
<td>NTPC SCCL Global Ventures Pvt. Ltd.</td>
<td>Singareni Collieries Company Ltd.</td>
<td>For undertaking development and O&amp;M of coal blocks in India and abroad.</td>
</tr>
</tbody>
</table>

*In case of Brahmani and Chichra-Patsimal coal blocks, allocated to CIL NTPC Urja Private Limited, though there was no schedule stipulated with the allotment letter, Ministry of Coal had de-allocated these blocks for delay in their development. Your Company has taken up the matter with the Ministry of Coal for withdrawal of de-allocation. The Board of NTPC has accorded approval to exit International Coal Ventures Private Limited.

12.5 Exploration Activities

Under New Exploration Licensing Policy (NELP-VII), your Company has signed Production Sharing Contracts (PSCs) on 30.06.2010 with Government of India for four Oil Gas Exploration blocks.

One of the blocks allotted under NELP-VII is held by NTPC with 100% participating interest and as operator. 3D Seismic Data Acquisition has been started subsequent to grant of Petroleum Exploration Licence and the work has been completed. Minimum Work Programme Commitment (MWP) for this block is ₹ 177.53 crore.

The other three blocks with 10% participating interest in each block are held by your Company in consortium with ONGC as operator. Various activities in these blocks are under progress. NTPC’s share of MWP for these blocks is ₹ 87.83 crore.

13. BUSINESS EXCELLENCE: GLOBAL BENCHMARKING

NTPC has developed its own excellence framework for assessing generating stations. This framework is based on globally reputed excellence frameworks like Malcolm Baldrige, USA and European Foundation for Quality Management. This initiative is known as NTPC Business Excellence Model. The outcomes of this model are organizational strength, opportunity for improvement, issues of concern and best practices. A jury of eminent persons from within and outside organization judges outcome of the assessment process and suggests improvements. In the financial year 2011-12, 2nd cycle of assessment was completed and stations ranking high on excellence level like Ramagundam and Dadri were awarded by Honourable Minister of Power in O&M conference during Feb’12. External jury members for assessment cycle have praised the initiative as holistic approach towards excellence.

At strategic level apart from adopting NTPC Business Excellence Model, proposal has also been initiated for Balanced Score Card implementation using ERP enabled software across the organization.

14. RENOVATION & MODERNISATION

14.1 Need for Renovation and Modernization

Renovation and Modernization (R&M) of power plants in the present scenario of severe resource constraint is considered to be the best option for bridging the gap between the demand and supply of power as R&M schemes are cost effective. To this end, renovations are being carried out for the purpose of life extension of units, performance improvements, capacity enhancement, availability improvement and improved environment compliance. It increases the capacity, ensures safe, reliable and economic electricity production by replacement of worn-out, deteriorated or obsolete electrical, mechanical, instrumentation, controls and protection system by state-of-the-art equipment. Your Company completed 794 schemes of R&M out of 930 schemes, which cost around ₹ 2,185 crore.

With a view to comply with increasingly stringent environment norms of reduced emission level prescribed
by State Pollution Control Boards, planning, tendering and approval is on for Renovation and Retrofitting of Electrostatic Precipitator (ESP) in stations like Singrauli, Korba, Rihand, Vindhyachal, Farakka, Unchahar, Talcher Kaniha, Talcher STPS etc. With the same objective, implementation of renovation of ESP is already in progress at Badarpur TPS (9X210 MW).

15. VIGILANCE

15.1 Vigilance Mechanism
Your Company ensures transparency, objectivity and quality in its operations and to monitor the same, the Company has a Vigilance Department headed by Chief Vigilance Officer, a nominee of Central Vigilance Commission. The four units of Vigilance Department namely Corporate Vigilance Cell, Departmental Proceeding Cell (DIPC), MIS Cell and Technical Cell (TC) deal with various facets of Vigilance Mechanism. The Vigilance Department submits its report to the Competent Authority and also to the Board of Directors. The CVO reports to the Central Vigilance Commission.

As per the directive of DOPT/ MOP, the property returns of all the executives have been published on NTPC Website.

15.2 Workshops and Vigilance Awareness Week
Preventive Vigilance Workshops are being conducted every year to sensitize employees about DOs and DONTs in work areas and their role in preventing corruption.

Vigilance Awareness Week is being organized every year in first week of November to emphasize upon leveraging IT, creating awareness for transparency, accountability, fair play and objectivity. The issues relating to contractors are also addressed to their satisfaction during Customer Meet organized during Vigilance Awareness Week.

15.3 Implementation of Integrity Pact
Your Company is committed to bring total transparency, objectivity and quality in its operations and to monitor the same, the Company has a Vigilance Department headed by Chief Vigilance Officer, a nominee of Central Vigilance Commission. The four units of Vigilance Department namely Corporate Vigilance Cell, Departmental Proceeding Cell (DIPC), MIS Cell and Technical Cell (TC) deal with various facets of Vigilance Mechanism. The Vigilance Department submits its report to the Competent Authority and also to the Board of Directors. The CVO reports to the Central Vigilance Commission.

As per the directive of DOPT/ MOP, the property returns of all the executives have been published on NTPC Website.

15.4 Implementation of Fraud Prevention Policy
The Fraud Prevention Policy has been formulated and implemented in your Company since 2006. The cases referred by the nodal officers are being investigated immediately to avoid fraudulent behaviors as defined in the Fraud Prevention Policy.

16. HUMAN RESOURCE MANAGEMENT

16.1 Your Company takes pride in its highly motivated and competent human resource that has contributed its best to bring the Company to its present heights. The productivity of employees is demonstrated by increase in generation per employee and consistent reduction of Man-MW ratio year after year. The over-all Man-MW ratio for the year 2011-12 excluding JV/subsidiary capacity is 0.74 and 0.69 including capacity of JV/ Subsidiary. Generation per employee was 9.25 MUs during the year based on generation of NTPC stations.

The total employee strength of the company stood at 25,511 as on 31.3.2012 against 25,144 as on 31.3.2011.

<table>
<thead>
<tr>
<th></th>
<th>FY 2011-12</th>
<th>FY 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTPC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td>24,011</td>
<td>23,797</td>
</tr>
<tr>
<td>Subsidiaries &amp; Joint Ventures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employees of NTPC in Subsidiaries &amp; Joint Ventures</td>
<td>1,500</td>
<td>1,347</td>
</tr>
<tr>
<td>Total employees</td>
<td>25,511</td>
<td>25,144</td>
</tr>
</tbody>
</table>

The attrition rate of the NTPC executives (including ETs and those posted in Subsidiaries and JVs) during the year was 1.17%.

16.2 Employee Relations
During the year employees’ relations climate was peaceful and conducive. The scheme for employees’ participation in management continues to function successfully all over NTPC. There have been continuous interactions between the management and the apex fora of workmen and executives – National Bipartite Committee (NBC) and NTPC Executives Federation of India (NEFI) respectively. The unions and associations and also the individual employees complemented the efforts of the management in developing and sustaining an enabling performance culture in the organization. Meetings and workshops for workmen and executives association were held during the year wherein issues relating to performance and productivity were discussed. The overall employee relations scenario in NTPC continued to be cordial marked by industrial harmony and mutual trust.

16.3 Safety & Security
Occupational safety and health at workplace is one of the concerns of NTPC Management and utmost importance is given to provide safe working environment and inculcate safety awareness among the employees. The Company has 3-tier monitoring system of safety measurement i.e. at site level, at Regional Head Quarters and at Corporate Centre.

Regular plant inspection, internal and external safety audits are carried out at each Project/Station. Safe methods are practised in all areas of Operation & Maintenance (O&M)
and Construction & Erection (C&E) activities. Safety task force for O&M and Construction activities, height permit and height check list are implemented. Qualified safety officers are posted at all units as per statutory rules/ provisions. Safety control rooms are established at all construction projects to monitor unsafe conditions and unsafe acts through cameras installed at valuable locations of sites. All our plants are certified by OHSAS-18001.

Through our continuous efforts in safeguarding the employees, accidents have come down considerably as compared to last year. Many of our plants have been awarded with prestigious safety awards by various Institutions/ Bodies like Ministry of Labour & Employment, Govt. of India and National Safety Council, Institution of Engineers in recognition of implementing innovative safety procedures and practices.

Concrete steps are being taken for upgrading surveillance systems at all of our projects/ stations by installing ‘State of the Art’ security systems as security of the plant is an area of prime concern for our power plants. A group under the name Security and Coordination has been formed which is responsible for direct liaison with MHA, IB and CISF as well as the State/ District level authorities to augment the security preparedness in our establishment/ power installations. This group also plays a crucial role in strategic intervention in land acquisition related issues prevailing at our green/ brown field projects.

16.4 Training and Development

In line with its long-term objective of being a learning organization, your Company has continuously promoted training and development of not only its own employees but also other professionals of the power sector. In this effort, your Company has endeavored to continuously upgrade the training infrastructure of both Power Management Institute (PMI) at the corporate level as well as the Employee Development Centres at the sites. Training imparted is always in tune with new emerging needs in diverse areas like nuclear power, coal-mining, hydropower, super-critical technology, renewable energy etc. and for this purpose every year some new programmes are included in the annual calendar. Apart from this, the usual programmes include managerial topics, power station operation & maintenance and project construction, erection and commissioning and information technology.

Under the on-going scheme of strengthening the Industrial Training Institutes (ITIs) across the Country, your Company has taken the initiative of adopting ITIs near its power generating stations and a total of 17 ITIs have been adopted under this scheme till 31.03.2012. This activity is being coordinated through PMI which is also facilitating the construction of nine new ITIs where new projects are coming up. Through this initiative, PMI has created 1398 seats in it till 31.03.2012.

During 2011-12, your Company organized a number of training programmes in power and energy sectors which, inter-alia, included National Conference on Cases & Research in Power Sector to provide a platform for practising managers, academicians and research scholars, a two day training programme for Directors on Corporate Governance, Hands-on training in 660 MW supercritical simulator at PMI to 934 participants, National Seminar on Challenges and Issues in Renewable Energy covering the uncertainties in fossil fuel supply and the need for distributed generation using renewable sources.

PMI conducted 405 training programmes with a participant base of 10,326. The training mandays clocked were 45,509.

PMI, for the first time, conducted a training programme through video conferencing, primarily to reach out to more number of people at one go and provide quality training programme to remote sites.

17. SUSTAINABLE DEVELOPMENT

Vision Statement on Sustainable Energy development

“Going Higher on Generation, lowering GHG intensity”

Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable Development involves an enduring and balanced approach to economic activity, social progress and environmental responsibility.

Department of Public Enterprises, Government of India has issued Guidelines on Sustainable Development for CPSEs. These guidelines provide for policy and projects for sustainable development.

Your Company is committed for development of renewable energy in view of global warming and fast depletion of fossil fuel.

Initiatives by the Company

Your Company is aligning its organisational structure to achieve the goal of sustainable development. Sustainable Development Projects have been identified by your Company for implementation next year which includes waste management, bio-diversity conservation, reduction in air emission, life cycle environmental impact assessment and electrification of un-electrified and de-electrified villages (under Rajiv Gandhi Grameen Vidyutikaran Yojna – RGGVY) through its wholly owned subsidiary Company NTPC Electric Supply Company Limited.

Your Company has been a member of TERI – Business Council for Sustainable Development – India (TERI-BCSD) since August 2001, which is the Indian partner of the World Business Council for Sustainable Development, Geneva. Your Company is also a member of Global Compact since 2001, a voluntary initiative of the United Nations for Corporate Social Responsibility. These forums provide an independent and credible platform to address issues related to sustainable development and promote leadership in environmental management, social responsibility and economic performance.

In its endeavour to achieve the goals of Sustainable Development, your Company is addressing the issues through multi-stakeholder approach covering environment and social aspects by implementing Corporate Social Responsibility –Community Development Policy,
Distributed Generation Projects, Rehabilitation & Resettlement Schemes and Rural Electrification. Your Company has formed a trust named NTPC Foundation for serving physically challenged and economic weaker sections of the society. For preserving the environment, your Company is implementing renewable energy projects thereby reducing carbon footprints. It is seeking continuous improvements in Environment Management through Clean Development Mechanism, Ash Utilisation and has established 'Center for Power Efficiency and Environmental Protection' (CenPEEP) to address climate change issues. Details of each of these are as follows:

17.1 Inclusive Growth – An initiative for Social Growth

17.1.1 Corporate Social Responsibility

Your Company has always discharged its social responsibility as a part of its Corporate Governance philosophy. It follows the global practice of addressing CSR issues in an integrated multi stake-holder approach covering the environmental and social aspects.

With a view to address the domains of socio-economic issues at national level and in line with its Corporate Social Responsibility – Community Development Policy (CD), your Company has created basket of activities and taken up various initiatives at its stations, regional and national level.

Your Company confirms its involvement in various CSR activities in line with 10 Global Compact principles and shares its experience with the representatives of the world through “Communication on Progress”.

Your Company, being a core member of Global Compact Network, India, actively participated in the Annual Convention of the Global Compact Network.

A report on progress made in this area is enclosed at Annex- VIII to this Report.

Expenditure incurred towards CSR Activities

A total expenditure of ₹ 49.44 crore was incurred towards Corporate Social Responsibility expenses during the Financial Year 2011-19, which was 0.54% of the net profit of the previous year.

Awards:

Your Company received SCOPE Meritorious Award for CSR and Responsiveness for 2010-11, Golden Peacock Award for CSR for the year 2011 and Greentech Award for the year 2011.

17.1.2 NTPC Foundation

NTPC Foundation, registered in December 2004, is engaged in serving and empowering the physically challenged and economically weaker sections of the society.

Initiatives undertaken by the Company are covered under Annex-VII to this Report.

17.1.3 Distributed Generation Power Projects

Your Company is setting up off-grid Distributed Generation Power projects in villages around its generating stations through a self sustained model.

It has already commissioned 16 Decentralised Distributed Generation (DDG) power projects, out of which five projects each are in Uttar Pradesh, Madhya Pradesh, Chhattisgarh and one in Rajasthan. This includes commissioning of first Micro Hydel Project (2 X 90 kw) on 07.03.2012 at tribal village Nekkiya located at a place 75 km from NTPC Korba in Chhattisgarh. This is the first DG project based on hydro energy (run-off stream) commissioned with the grant from Deptt. of Science and Technology (DST), Govt. of India and NTPC Foundation. Electricity generated through this micro hydel project is provided round the clock to 82 households with a population of 410 residents.

Total installed capacity of these DG projects is around 340 KW, benefiting approximately 2,280 households and population of 12,500.

17.1.4 Rehabilitation & Resettlement (R&R)

Your Company is committed to help the populace displaced for execution of its projects and has been making efforts to improve the Socio-economic status of Project Affected Persons (PAPs). In order to meet its social objectives, your Company is focusing on effective R&R of PAPs and undertaking community development activities in and around the projects.

R&R Plan for Barh ash dyke, Korba Stage-III ash dyke, Vindhyachal Stage-JV and Talaipalli Coal Mining projects were approved during the year. Other R&R and CD Plans in process for the projects/plants continued to be implemented.

Socio-economic Survey was completed for Tanda-II, Khargone and Dhruvan projects and is in progress at Muzaffarpur, Darlipali, Gajamar, Barethi, Lara, Gadarwara and Khargone Projects.

In the area of health, your Company is providing financial assistance for setting up a ‘Medical College’ at Raigarh in Chhattisgarh and for renovation and refurbishment of “Sundargarh District Hospital” in Odisha. In the area of education, Your Company is providing financial assistance for setting up a ‘Hydro Engineering College’ at Bilaspur in Himachal Pradesh and is setting up an ‘Industrial Training Institute’ (ITI) at Korba.

17.2 Environment Management – An Initiative for preserving Environment

Your 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 high efficiency technologies such as super critical boilers for the up-coming green field projects etc and existing brown field projects.

17.2.1 Control of Air Emissions and Automation of Environment measurement systems: High efficiency Electro-static Precipitators (ESPs) with efficiency of the order of 99.9% or higher have been provided to control particulate matter from stacks. Renovation & modernization of old ESPs at various plants is underway by addition of collection area, installation of the state-of-the-art controller to keep Particulate Matter emission below statutory limits.
Flue Gas Conditioning using ammonia is also used as an additional measure to reduce PM emission. Sulphur content in coal is controlled through high stacks and NOx emission in coal based stations is controlled by providing tall stacks and over fire dampers.

In order to monitor key environmental parameters of stack emissions of SO\textsubscript{2}, NO\textsubscript{x} and CO\textsubscript{2} ambient air and effluents continuously on real time basis, 61 continuous Ambient Air Quality Monitoring System (AAQMS) along with Meteorological Sensors have been installed at 20 stations located all over India.

**Water Conservation:** To treat the waste water and reduce consumption of fresh water requirements for the plants, your Company has installed Liquid Waste Treatment Systems, Ash Water Recirculation System and closed cycle condenser cooling water systems with higher Cycle of Concentration (COC) (using more than 4.0 COC) in its stations. The Company is using 3Rs (Reduce, Recycle & Reuse) as guiding principle for reduction in consumption of water. The Company is conducting Water Balance studies at most of its stations. It is using techniques like water harvesting and reuse and recycling of STP & CW Blow Down to achieve maximum water conservation.

**Ash Pond Management:** Ash dykes in your Company have been engineered to ensure that all safety and environment issues are addressed at design stage itself. Multi-lagoon ash ponds with provision of over-flow Lagoons and ash pipe garlanding arrangement for change over of ash slurry feed points have been provided for effective settlement of ash particles. Water sprinklers have been provided in the Ash Pond areas for spraying water in dried up portion of lagoons for control of fugitive dust. Efforts are made to maximize utilization of ash through use of Dry Ash Extraction System (DAES). Balance unutilized ash is sent to ash pond by making ash slurry. The decanted water in Ash Pond is recycled back with the help of Ash Water Recirculation System (AWRS) for making ash slurry again.

**Environmental Studies:** Your Company has taken a number of steps for establishing scientific database to provide room for betterment of environment around the power plant through various studies by reputed Institutes and Consultants. To understand impact of power plants on flora & fauna and human beings, your Company has taken up a number of Environment Studies such as Human Health Risk Assessment, Source Apportionment studies, Fly Ash Leachate Study, Post Operational Environment Impact Assessment Study, Green Cover assessment study and Impact of operation on Mango orchard.

**Tree Plantation:** Your Company has planted more than 19 million trees till date in and around its projects as a measure to take massive afforestation. The afforestation has not only contributed to the ‘aesthetics’ but also helped in carbon sequestration by serving as a ‘sink’ for CO\textsubscript{2} released from the stations and thereby protecting the quality of ecology and environment in and around the projects.

ISO 14001 & OHSAS 18001 Certification: NTPC’s stations have been certified with ISO 14001 and OHSAS 18001 by reputed National and International certifying agencies as a result of sound environment management systems and practices.

### 17.2.2 Clean Development Mechanism (CDM)

Your Company is committed to undertake climate change issues proactively. The Company has taken several initiatives in CDM Projects in Power Sector. Tapovan Vishnugad HEPP & energy efficiency projects at Singrauli STPP, Dadri, small hydro project at Singrauli and 5 MW Solar PV at Dadri have got Host Country Approval from National CDM Authority. The methodology for super critical technology prepared by NTPC viz. “consolidated base line and monitoring methodology for new grid connected fossil fuel fired power plants using less GHG intensive technology” has been approved by 'United Nations Frame Work Convention on Climate Change (UNFCCC)’. All super critical power projects are using the same methodology. More green field energy efficiency CDM projects are in pipeline.

### 17.2.3 Ash Utilisation

During the year 2011-12, 27.53 million tonne of ash had been utilized for various productive purposes which is 55% of the total ash generation.

Important areas of ash utilization are – cement & asbestos industry, ready mix concrete plants (RMC), Road Embankment, Mine filling, Ash Dyke Raising & Land Development, Issue of fly ash to cement, RMC and other industries has been 9.06 Million Tonnes.

Pond ash from all stations of NTPC is being issued free of cost to NTPC Vidyut Vaypar Nigam Limited (NVVN), a wholly owned subsidiary of the Company, which in turn sells it to the users. Fund collected from sale of ash is being maintained in a separate account by NVVN and the same is being utilized for development of infrastructure facilities, promotion and facilitation activities to enhance ash utilization.

The quantity of ash produced, ash utilized and percentage of such utilization during 2011-12 from NTPC Stations is at Annex-IX.

### 17.2.4 CenPEEP – towards enhancing efficiency

‘Center for Power Efficiency and Environmental Protection’ (CenPEEP), was set up to take initiatives to address climate change issues. It is a symbol of NTPC’s voluntary proactive approach towards Greenhouse Gas (GHG) reduction and commitment towards environmental protection. The centre has been entrusted with some of the Strategic Initiatives such as improvement in efficiency and reliability. Various state-of-the-art technologies and practices for improvement in efficiency and reliability have been demonstrated in local conditions and disseminated to power stations through hands-on training, guidelines and workshops. The activities include new technologies and practices such as use of thermal cycle modeling and audit, CFD, cooling tower performance optimization, gas turbine capability assessment, LP turbine performance assessments, technology application development for strengthening ‘Predictive Maintenance Program’ and Failure mode analysis through Reliability Centered Maintenance...
CenPEEP has also shared its knowledge and expertise, demonstrated best practices and provided training at SEBs under GHG Pollution Prevention Project (GEP) and Asia Pacific Partnership (APP) programs in order to improve their efficiency and reduce carbon footprint. A large degree of GEP’s success in sustainability is attributed to the creation, evolution, and institutionalization of CenPEEP.

CenPEEP has estimated cumulative CO\textsubscript{2} emission avoided in NTPC since the year 1996 as 30 million tones.

A study on ‘Efficient and clean use of coal’ in Asia Region was also initiated under the Asia region work programme of World Energy Council with involvement of Japanese experts.

17.2.5 RURAL ELECTRIFICATION

NTPC through its wholly owned subsidiary NESCL is carrying out the implementation of rural electrification in 5 States namely Madhya Pradesh, Chhattisgarh, Odisha, Jharkhand and West Bengal under Rajiv Gandhi Gramin Vidyutikaran Yojna (RGGVY). 273 un-electrified/ de-electrified (UE/DE) villages were made ready and 2,61,115 Below Poverty Line (BPL) Rural household connections were provided during the Financial Year 2011-12.

Besides the above, 3,589 partially electrified villages were also made ready during the financial year 2011-12. The cumulative achievement of PE is 14,861 till 31.03.2012.

The cumulative achievement till 31.03.2012 includes 99,567 UE/DE villages which have been electrified and 25,84,377 BPL connections have been provided.

18. IMPLEMENTATION OF OFFICIAL LANGUAGE

Your Company has made vigorous efforts for the propagation and successful implementation of the Official Language Policy of the Government of India. Several Hindi workshops, meetings, conferences and competitions were conducted at projects, regional offices and corporate centre during the year, in which renowned Hindi Scholars inspired the participants to use Hindi in day-to-day official works.

The progress and usage of Rajbhasha Hindi was inspected in the stations and proper suggestions for compliance were given to the Heads of the Offices. The Sub-committee of Parliament on Official Language appreciated the efforts for Rajbhasha implementation in our projects.

All office orders, formats and circulars were issued in Hindi as well. Important advertisements and house journals were released in bilingual form- in Hindi and in English. Your Company’s website also has a facility of operating in bilingual form- in Hindi as well as in English.

19. NETRA – R&D Mission in Power Sector

Your Company is fully aligned to the needs of adapting emerging technologies and upgrading the technologies through R&D. NTPC Energy Technology Research Alliance (NETRA) as a research and development wing of the Company focuses on areas of efficiency improvement, cost reduction, renewable and alternate energy, Climate Change, scientific support to utilities.

In order to provide utmost benefits to the stations, projects like Artificial Intelligence based plant performance advisory system, real-time advisory system, development and trails of Robotic inspection devices at stations, development of PDC-RDM based expert system (analyzer) for online monitoring and advisory system for transformer conditioning, maintaining boiler water chemistry, monitoring CO\textsubscript{2} utilization through mineralization of fly ash, etc have been successfully completed and deployed/ tested at stations.

Research Advisory Council (RAC), comprising eminent scientists and experts from India and abroad, is in place to steer high-end research. Scientific Advisory Council (SAC), with Regional Executive Directors & Station Heads as its members, provides directions for improving plant performance & reducing cost of generation. Meetings of both the Advisory Councils were held periodically where members deliberated on various project activities and gave guidelines for implementation of suggestions. 16 patent applications filed are in advanced stage of processing. NETRA provides scientific support to all NTPC stations as well as other Utilities to improve their performance.

As a part of establishing state-of-the art facilities for condition monitoring and diagnostic techniques, equipments like ultra-sound phased array, total organic carbon (solid sample module), NDT Simulation CIVA software etc have been procured and installed at NETRA. To further expand the infrastructure creating laboratories and facilities, etc, Phase II building activities are in advanced stage.

NETRA is actively involved in developing DPE guidelines on R&D, R&D inputs for 12th plan as well as contribution to Sectoral Innovation council for power.

NETRA has entered into MOU with National Metallurgical Laboratory, Jamshedpur for collaborative research in the area of Metallurgy, NDE, Corrosion and materials developments.

NETRA laboratories have been accredited as per ISO 17025:2005. NETRA is also certified by Central Boiler Board for RLA studies.

The Company organized a National Workshop on Carbon Capture and Storage on 27th September 2011 for formulating a policy for carbon capture and storage.

20. RIGHT TO INFORMATION

Your Company has implemented Right to Information Act, 2005 in order to provide information to citizens and to maintain accountability and transparency. The Act is being implemented in its true spirit since its inception. The Company has put RTI manual on website for access to all citizens of India and has designated a Central Public Information Officer (CPIO), an Appellate Authority and APIOs at all projects/ stations/ offices of NTPC.

During 2011-12, 1,270 applications were received under the RTI Act, out of which 1,241 applications were replied.
to. Seven workshops on RTI Act have been conducted at regional headquarters/stations to share and deliberate on latest notifications, amendments and other issues for smooth implementation. For better understanding of the employees, your Company has created RTI portal on its Intranet. An interactive session with the delegates from Commonwealth countries was also organized on 01.09.2012 to share and interact on implementation of RTI Act in Public Sector Undertakings.

21. USING INFORMATION AND COMMUNICATION TECHNOLOGY FOR PRODUCTIVITY ENHANCEMENT

Your Company has implemented an Enterprise Resource Planning (ERP) package covering maximum possible processes across the organization including subsidiaries. In addition to core business processes and Employee Self Service functionality, the ERP solution also includes E-procurement, Knowledge Management, Business Intelligence, Document Management and workflow etc. To take care of the need for process data at desktop for analysis and monitoring, Process Integration (PI) system has been implemented at all plants in operation. PI based applications for real time performance monitoring analysis have been implemented at all the locations. To take care of the employee self service needs of remotely located personnel, connectivity through web has been provided through secured access.

The ERP system is fully managed through in-house experts from process groups and technical groups. In-house solutions have been developed to take care of the non-ERP areas and business needs of the joint venture Companies where such vast set up is not available.

Network connectivity has been strengthened using Multi-Protocol Label Switching- Virtual Private Network (MPLS-VPN). Bandwidth of communication network has now been doubled to make ERP operation faster. Further, a parallel communication network from alternate service provider is being arranged to ensure maximum reliability and availability of communication network.

A state-of-the-art Data Centre and centralized server facility to cater the entire NTPC is in operation at NOIDA. A disaster recovery centre is also functional at Hyderabad.

Your Company has already implemented Videoconferencing at all NTPC Plant locations and subsidiaries which is being extensively used for Management Committee Meetings and Project Monitoring on regular basis. This facility at PMI (Super 30) is also now being used for conducting virtual class room coaching for students located at NTPC sites.

22. NTPC GROUP: SUBSIDIARIES AND JOINT VENTURES

Your Company has formed 5 subsidiary companies and 20 joint venture companies for undertaking specific business activities.

The names of Subsidiaries and Joint Venture Companies and the percentage of your Company’s shareholding in these Companies as on 30.06.2012 is as follows:

The performance of these Companies as well as the consolidated financial statements are briefly discussed in the Management Discussion & Analysis section. The financial statements of subsidiary companies along with the respective Directors’ Report are placed elsewhere in this Annual Report.

23. INFORMATION PURSUANT TO STATUTORY AND OTHER REQUIREMENTS

Information required to be furnished as per the Companies Act, 1956, Listing Agreement with Stock Exchanges,
Government guidelines etc. is annexed to this report as below:

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### INFORMATION AS PER COMPANIES (PARTICULARS OF EMPLOYEES) RULES, 1975

Ministry of Corporate Affairs, through Notification G.S.R. 266(E) dated 31st March 2011 has amended the Companies (Particulars of Employees) Rules, 1975 by providing that the information required under Section 217(2A) of the Companies Act, 1956 read with the Companies (Particulars of Employees) Rules, 1975 shall be required to be provided for those employees whose remuneration is more than ₹ 60 lac per financial year, if employed for whole of the year or more than ₹ 5 lac per month, if employed for part of the year. The said Notification further provides that in case of Government Companies such particulars are not required to be included in the Board’s Report.

Also, any member interested in obtaining such particulars may write to the Company Secretary at the Registered Office of the Company. However, such particulars shall be made available to the shareholders on a specific request made by them during the course of Annual General Meeting to be held on 18.09.2012.

### STATUTORY AUDITORS


### MANAGEMENT COMMENTS ON STATUTORY AUDITORS’ REPORT

The Statutory Auditors of the Company have given an unqualified report on the financial statements of the Company for the Financial Year 2011-12.

### REVIEW OF ACCOUNTS BY COMPTROLLER & AUDITOR GENERAL OF INDIA

The Comptroller & Auditor General of India, through letter dated 21.05.2012, has given ‘NIL’ Comments on the financial statements of your Company for the year ended 31st March 2012 under section 619(4) of the Companies Act, 1956. As advised by the Office of the Comptroller & Auditor General of India (C&AG), the comments of C&AG for the year 2011-12 are being placed with the report of Statutory Auditors of your Company elsewhere in this Annual Report.

### COST AUDIT

As prescribed under the Cost Accounting Records (Electricity Industry) Rules, 2001 applicable for financial years 2010-11 and 2011-12, the Cost Accounting records are being maintained by all stations of the Company. The particulars of Cost Auditors as required under Section 233(B) of the Companies Act, 1956 read with General Circular No. 15/2011 dated 11.04.2011 issued by Ministry of Corporate Affairs are given below:


The due date for filing Cost Audit Reports for the financial year ended March 31, 2011 was September 27, 2011 and the Cost Audit Reports were filed with the Central Government between 29.07.2011 and 09.09.2011. The due date for filing Cost Audit Reports for the financial year ended March 31, 2012 is September 27, 2012 and the consolidated Cost Audit Report as prescribed for the financial year 2011-12 shall be filed within the prescribed time period.

### BOARD OF DIRECTORS

Shri M.N. Buch, Shri Shanti Narain, Shri P.K. Sengupta and Shri K. Dharmaraj have ceased to be the Non-Official Part-time Directors on August 25, 2011. Shri A.K. Sanwalka, Shri Kanwal Nath, Shri Adesh C. Jain and Shri Santosh Sautiyal have ceased to be the Non-Official Part-time Directors on January 29, 2012.

Dr. M. Govinda Rao was re-appointed as Non-Official Part-time Director with effect from August 26, 2011 after his tenure of three years was completed on August 25, 2011.

Shri S.B. Ghosh Dastidar and Shri R.S. Sahoo have joined as Non-Official Part-time Directors of the Company with effect from August 26, 2011. Shri Ajit M. Nimbalikar and
Shri S.R. Upadhyay have joined as Non-Official Part-time Directors of the Company with effect from January 20, 2012. Ms. Homai A. Daruwalla, Shri A.N. Chatterji and Prof. Sushil Khanna have joined as the Non-Official Part-time Directors with effect from February 28, 2012.

Shri A.K. Jha, Executive Director has taken over as Director (Technical) with effect from July 1, 2012 as Shri D.K. Jain has ceased to be the Director (Technical) of your Company with effect from June 30, 2012 on attaining the age of superannuation.

The Board wishes to place on record its deep appreciation for the valuable services rendered by Shri M.N. Buch, Shri Shanti Narain, Shri P.K. Sengupta, Shri K. Dharmarajan, Shri A.K. Sanwalka, Shri Kanwal Nath, Shri Adesh C. Jain, Shri Santosh Nautiyal and Shri D.K. Jain during their association with the Company.

In accordance with the provisions of Article 41(iii) of the Articles of Association of the Company four directors - Shri B.P. Singh and, Shri S.P. Singh shall retire by rotation at the Annual General Meeting of your Company and, being eligible, offer themselves for re-appointment.

29. DIRECTORS’ RESPONSIBILITY STATEMENT

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

1. in the preparation of the annual accounts, the applicable accounting standards had been followed along with proper explanation relating to material departures;

2. the Directors had selected such accounting policies and applied them consistently and made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company at the end of the financial year 2011-12 and of the profit of the Company for that period;

3. the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities; and

4. the Directors had prepared the Annual Accounts on a going concern basis.

30. ACKNOWLEDGEMENT

Your Directors acknowledge with deep sense of appreciation for the co-operation received from the Government of India, particularly the Prime Minister’s Office, Ministry of Power, Ministry of Finance, Ministry of Environment & Forests, Ministry of Coal, Ministry of Petroleum & Natural Gas, Ministry of Railways, Planning Commission, Department of Public Enterprises, Central Electricity Authority, Central Electricity Regulatory Commission, Appellate Tribunal for Electricity, State Governments, Regional Power Committees, State Electricity Boards and Office of Solicitor General of India.

Your Directors also convey their gratitude to the shareholders, various International and Indian Banks and Financial Institutions for the confidence reposed by them in the Company. The Board also appreciates the contribution of contractors, vendors and consultants in the implementation of various projects of the Company. We also acknowledge the constructive suggestions received from Government and the Statutory Auditors.

We wish to place on record our appreciation for the untiring efforts and contributions made by the employees at all levels to ensure that the Company continues to grow and excel.

For and on behalf of the Board of Directors

For and on behalf of the Board of Directors

Place : New Delhi
Date : 3rd August 2012

(Arup Roy Choudhury)
Chairman & Managing Director