

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Annexure VI

Name of the Company:

NTPC Ltd.

Name of the Power Station:

Tanda

(Rs. In Lakhs)

Sl. No.	Items	2008-09	2009-10	2010-11	2011-12	2012-13
1	Consumption of stores & spares	1609.82	2067.60	2021.07	1663.76	2503.10
2	Repair & Maintenance	1694.97	1852.22	2101.53	2887.01	2881.87
3	Insurance	75.09	121.01	133.94	138.18	136.35
4	Security	503.87	709.77	912.21	902.22	1049.10
5	Water Charges	62.56	61.16	62.41	185.21	243.58
6	Administrative Expenses					
6.1	Rent	0.00	0.00	0.00	0.00	0.00
6.2	Electricity charges	157.96	92.92	112.81	166.33	145.20
6.3	Travelling & Conveyance	228.20	240.53	272.90	311.49	304.50
6.4	Communication Expenses	50.91	55.63	60.76	59.09	64.09
6.5	Advertising	0.70	3.14	3.83	5.82	6.52
6.6	Foundation Laying & Inauguration	0.00	0.00	0.00	0.00	0.00
6.7	Donation	0.00	0.00	0.00	0.00	0.00
6.8	Entertainment	20.57	22.48	28.38	24.76	29.26
6.9	Filing fee	1.82	8.80	8.80	8.80	17.60
	Subtotal (Administrative Expenses)	460.16	423.50	487.48	576.29	567.17
7	Employee Cost					
7.1	- Salaries, Wages & Allowances	6116.22	5979.63	6072.35	5755.67	8629.07
7.2	- Staff Welfare expenses	510.93	452.73	591.60	454.32	541.22
7.3	- Incentive	185.87	375.07	274.88	220.23	195.80
7.4	- Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	- Ex-gratia	0.00	102.96	36.22	130.88	46.82
7.6	- Performance Related Pay (PRP)	246.96	460.90	681.65	689.13	616.82
	Sub Total (Employee Cost)	7059.98	7371.29	7656.70	7250.24	10029.73
8	Loss of Store	0.00	2.17	0.00	0.00	0.00
9	Provisions	0.00	0.00	29.79	6.89	0.00
10	Prior Period Expenses	0.00	0.00	0.00	0.00	0.00
11	Corporate Office expenses allocation	1098.00	995.14	1226.92	1158.52	1131.25
12	Others					
12.1	Rates & Taxes	1.01	1.79	12.34	1.42	3.12
12.2	Water cess	43.00	43.69	44.45	42.85	42.71
12.3	Training & recruitment expenses	17.05	26.15	47.29	33.20	47.30
12.4	Tender Expenses	44.66	57.51	60.61	50.27	28.84
12.5	Guest house expenses	30.80	37.13	40.65	43.29	41.82
12.6	Education expenses	21.94	21.78	22.84	21.73	19.99
12.7	Community Development Expenses	11.59	24.93	31.79	16.77	33.44
12.8	Ash utilisation expenses	0.00	0.43	0.00	0.00	0.00
12.9	Books & Periodicals	3.07	0.54	0.43	0.87	1.36
12.1	Professional Charges	29.44	4.57	30.36	34.50	19.08
12.11	Legal expenses	4.52	1.88	5.71	6.93	5.39
12.12	EDP Hire & other charges	30.63	31.86	26.64	21.20	20.46
12.13	Printing & Stationery	12.47	34.16	29.64	19.90	26.27
12.14	Misc and other Expenses	263.17	135.35	129.47	-3.12	178.17
	Sub Total (Others)	513.34	421.79	482.22	289.82	467.96
13	(Total 1 to 12)	13077.79	14025.65	15114.26	15058.13	19010.10
14	Revenue / Recoveries	32.86	46.02	34.32	41.00	37.18
15	Net Expenses	13044.93	13979.63	15079.94	15017.12	18972.92
16	Capital spares consumed	237.86	1257.82	394.36	261.00	504.75
	<b>Total O&amp;M Cost</b>	<b>13282.79</b>	<b>15237.45</b>	<b>15474.30</b>	<b>15278.12</b>	<b>19477.67</b>
17	Expenditure of Capital nature as per accounting practice not claimed/ disallowed in capital cost	307.67	457.63	812.98	1261.78	
	<b>Total O&amp;M Cost including SI No. 17 above</b>	<b>13590.46</b>	<b>15695.08</b>	<b>16287.28</b>	<b>16539.91</b>	<b>19477.67</b>
	No. of Employee opting for VRS	0.00	0.00	0.00	0.00	0.00

Note:

- 1) Prior period expenses have been included in their natural head
- 2) Ex gratia has been included in PRP for the year 2008-09
- 3) Employee cost includes arrears
- 4) For 2012-13, data in respect of SI No.17 shall be submitted later

**ANNEXURE-I**

Pro-forma furnishing Actual annual performance/operational data for the coal /lignite based thermal generating stations for the 5 year period from

	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13	Basis of information/ methodology
1	<b>Name of Company</b>		<b>NTPC LTD</b>					
2	<b>Name of Station</b>		<b>TANDA TPS</b>					
3	Installed Capacity and Configuration	MW	440					
4	Rated Steam Parameters (Also state the type of Steam turbine and		MS/HRH - 535/535 deg C, Czech design 110MW Turbine and BHEL make Boiler					
5	Type of BFP		Electrical Driven					
6	Circulating Water System		Closed cycle					
7	Any other Site specific feature		3-stage raw water pumping system from intake canal.					
8	Fuels:							
8.1	Main Fuel:		Coal					
8.1.1	Annual Allocation or/ and Requirement	MT	Annual allocation through FSA =2.70MMT (440MW), Annual requirement =2.93 MMT (440 MW)					Requirement has been worked out for 90% PLF
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		FSA signed with Central Coal fields Limited, Eastern Coal fields Limited					
			Annual contracted quantity of 2.70 MMT (CCL-2.5 , ECL0.2)( 440 MW)					
			Grade of coal as per FSA is CCL: E-F , ECL : A - F					
8.1.2.1	FSA	MT	2.42	2.46	2.63	2.80	2.88	
8.1.2.2	Imported	MT	0.21	0.24	0.09	0.09	0.00	
8.1.2.3	Spot Market/e auction	MT	0.00	0.00	0.00	0.00	0.00	
8.1.3	Transportation Distance of the station from the sources of supply	km	CCL- 580, ECL- 710					
8.1.4	Mode of Transport		IR					
8.1.5	Maximum Station capability to stock main fuel	Days & MT	50 days & 5.0 Lac MT					
8.2	Secondary Fuel:							
8.2.1	Annual Requirement	klitre	3468.96					
8.2.2	Sources of supply		HPCL, BPCL, IOCL					
8.2.3	Transportation Distance of the station from the sources of supply	Km	300 to 700					
8.2.4	Mode of Transport		Rail					
8.2.5	Maximum Station capability to stock secondary fuels	klitre	8000					
9	Cost of Spares:							
9.1	Cost of Spares capitalized in the books of accounts	(Rs. Lakh)	1195	602	255	672		2012-13 data to be submitted later
9.2	Cost of spares included in capital cost for the purpose of tariff	(Rs. Lakh)	0	0	0	0		
10	Generation							
10.1	Actual Gross Generation at generator terminals	MU	3445.80	3555.31	3569.66	3404.85	3222.78	
10.2	Actual Net Generation Ex-bus	MU	3024.52	3137.86	3158.40	3002.29	2835.26	
10.3	Scheduled Generation Ex-bus	MU	3023.81	3117.42	3140.50	2982.57	2827.59	
11	Average Declared Capacity (DC)	MW	346.75	358.57	362.09	345.22	327.04	
12	Actual Auxiliary Energy Consumption including colony consumption	MU	405.21	402.79	411.26	402.59	387.40	
13	Actual Energy supplied to Colony from the station	MU	8.23	4.68	5.48	5.80	6.20	
14	Main Fuel:							
14.1	Consumption :							

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14.1.1	Domestic Coal (Linked mine/ Other mines/e-auction/spot)	MT	2573580	2303286	2720967	2947964	2639699	
14.1.2	Imported Coal	MT		284837	99816	80346	17619	
14.2	Gross Calorific Value (GCV):							
14.2.1	Domestic Coal (As received)	kCal/kg						
	(As fired)	kCal/kg						
14.2.2	Imported Coal (As received)	kCal/kg		5376	5102	5572	5607	
14.2.3	Spot market/e-auction coal (As received)	kCal/kg						
14.2.4	Weighted Average Gross Calorific value (As received)	kCal/kg						
14.2.5	Weighted Average Gross Calorific value (As fired)	kCal/kg	3644	3740	3449	3109	3340	
14.3	Price of Coal:							
14.3.1	Weighted Average price of Domestic coal	(Rs/MT)	1807	1875	2030	2675	2244	
14.3.2	Weighted Average price of imported coal	(Rs/MT)	7830	7103	8253	8962	10407	
14.3.3	Weighted Average price of spot market/ e-auction coal	(Rs/MT)						
14.3.4	Weighted Average price of all the Coals (as received)	(Rs/MT)	2271	2344	2245	2880	2254	
14.4	Blending:	% and MT						
14.4.1	Blending ratio of imported coal with domestic coal	%	0.00%	11.01%	3.54%	2.65%	0.66%	Imported/ Total Coal Consumption
14.4.2	Proportion of e-Auction coal in the blending							
14.4.3	Actual Average stock maintained	MT	107851	166802	293607	206899	233005	
14.5	Actual Transit & Handling Losses for coal/Lignite	%						
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines							
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.		NA	NA	NA	NA	NA	
14.5.1.3	Transit loss of imported coal							
14.5.2	Non-Pit Head station							
14.5.2.1	Transit & handling loss from linked mines							
14.5.2.2	Transit & handling loss from non-linked mines including e-auction coal mines.	%	0.47%	0.33%	0.49%	0.58%	0.73%	
14.5.2.3	Transit loss of imported coal		NA	NA	NA	NA	NA	
15	Secondary Fuel Oil :							
15.1	Consumption	klitre	2396	1549	2498	1647	1889	
15.2	Weighted Average Gross Calorific value (As received)	kCal/litre	9480	9289	9335	9370	9310	
15.3	Weighted Average Price	Rs/ KL	51,736	36,361	39,200	59,750	60,986	
15.4	Actual Average stock maintained	klitre	1625	1573	1693	2271	1594	
16	Weighted average duration of outages							
16.1	Scheduled Outages	MU	346.8	259.4	205.9	347.7	392.4	
16.2	Forced Outages	MU	71.9	95.8	114.2	91.6	274.5	
16.3	Number of trippings	No	63	58	49	35	42	
16.4	Number of start-ups :	No	63	57	50	35	41	
16.4.1	Cold Start-up	No	7	4	5	4	13	
16.4.2	Warm Start-up	No	15	19	12	17	10	
16.4.3	Hot start-up	No	41	34	33	14	18	
17	NOx , SOx ,and other particulate emission in :							
17.1	Design value of emission- NOx	mg/Nm <sup>3</sup>			NA			No norm; not considered in design
	Design value of emission- SOx	mg/Nm <sup>3</sup>			NA			No norm; not considered in design
	Design value of emission- SPM	mg/Nm <sup>3</sup>			150			

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17.2	Actual emission (SPM)	mg/Nm <sup>3</sup>	109-139	100-146	52-138	75-142	89-142	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>	752-913	697-967	751-907	725-869	725-864	
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>	313-468	392-483	259-483	384-442	378-425	
19	Detail of Ash utilization % of fly ash produced	Quantity Produced (Lakh MT)	9.89	9.7	11.59	13.6	11.56	
19.1	Conversion of value added product(Issue to Cement, RMC & Brick /block industries)	%	29.40	33.98	27.08	22.26	21.58	
19.2	For making roads & embarkment	%	16.40	5.41	0.00	0.00	0.00	
19.3	Land filling	%	4.54	1.86	9.27	3.39	5.56	
19.4	Used in plant site in one or other form or used in some other site (Mine filling & Ash dyke raising)	%	11.12	16.49	2.24	16.29	16.26	
19.5	Any other use , Please specify (Agriculture, Bottom ash cover etc.)	Qty. (Lakh M T) and usage	0.00	1.48	2.49	2.76	2.31	
20	Cost of spares actually consumed	Rs Lakh	1726.2	3221.5	2279.6	1767.2	2837.8	
21	Average stock of spares	Rs Lakh	2185.1	2826.3	2963.7	3170.4	3432.0	
22	Number of employees deployed in O&M							
22.1	Executives		246	268	292	287	280	
22.2	Non Executives		313	293	282	277	255	
22.3	Corporate office		3205	3272	3298	3354	3170	Total Corporate Man Power
23	Man-MW ratio		1.27	1.28	1.3	1.28	1.22	Excluding Corporate Man Power

**Note:**

From Oct/ Nov 2012 onwards payment to coal companies is being made on the basis of GCV as received at plant boundary. As per FSA, payment is to be made as per the quality assessed at mine end . Accordingly substantial amount billed by Coal companies are yet to be paid. Prices indicated above reflect the payment being made to Coal Companies.

GCV of Domestic Coal as received is being measured only from Oct/Nov 2012