

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Annexure VI

Name of the Company:

NTPC Ltd.

Name of the Power Station:

Simhadri

(Rs. In Lakhs)

Sl. No.	Items	2008-09	2009-10	2010-11	2011-12	2012-13
1	Consumption of stores & spares	1997.90	295.29	289.57	2852.60	4064.76
2	Repair & Maintenance	1898.73	4253.70	5119.93	2957.52	4160.34
3	Insurance	136.65	229.40	281.98	331.76	469.36
4	Security	437.35	903.47	652.25	977.11	1187.02
5	Water Charges	589.02	712.54	495.45	697.26	1027.82
6	Administrative Expenses					
6.1	Rent	0.00	0.00	0.00	0.00	0.00
6.2	Electricity charges	82.75	105.91	107.76	155.34	145.00
6.3	Travelling & Conveyance	370.63	298.05	375.57	484.88	596.45
6.4	Communication Expenses	62.39	62.07	75.10	76.62	93.03
6.5	Advertising	6.06	7.96	5.79	66.94	8.33
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	21.37	28.51	32.97	54.64	49.87
6.9	Filing fee	2.10	20.00	20.00	35.00	63.78
	Subtotal (Administrative Expenses)	545.30	522.50	617.18	873.43	956.46
7	Employee Cost					
7.1	- Salaries,Wages & Allowances	5139.79	5263.54	6190.69	5954.97	8860.44
7.2	- Staff Welfare expenses	849.64	661.68	725.42	638.11	962.61
7.3	- Incentive	308.35	221.48	261.29	286.61	262.07
7.4	- Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	- Ex-gratia	0.00	71.14	72.86	77.36	88.52
7.6	- Performance Related Pay(PRP)	376.70	585.43	539.73	931.50	814.73
	Sub Total (Employee Cost)	6674.48	6803.27	7790.00	7888.56	10988.37
8	Loss of Store	0.00	0.00	0.00	0.00	0.00
9	Provisions	2.31	9.58	1.28	8.02	16.81
10	Prior Period Expenses	0.00	0.00	0.00	0.00	0.00
11	Corporate Office expenses allocation	2494.48	2264.81	2789.19	2992.52	4135.37
12	Others					
12.1	Rates & Taxes	20.41	38.14	47.95	42.27	35.05
12.2	Water cess	103.85	91.68	91.04	96.24	111.79
12.3	Training & recruitment expenses	38.71	38.95	37.52	58.48	107.05
12.4	Tender Expenses	95.92	83.63	57.81	59.66	90.94
12.5	Guest house expenses	22.00	29.36	32.54	33.94	40.30
12.6	Education expenses	10.25	12.99	13.75	15.46	21.62
12.7	Community Development Expenses	26.39	65.62	99.40	85.17	321.61
12.8	Ash utilisation expenses	16.01	0.16	6.27	18.34	11.61
12.9	Books & Periodicals	1.05	1.13	1.38	1.68	0.78
12.1	Professional Charges	29.73	20.17	20.75	10.32	37.00
12.11	Legal expenses	22.44	6.05	2.77	-9.08	17.66
12.12	EDP Hire & other charges	36.39	35.12	24.96	32.31	25.14
12.13	Printing & Stationery	27.80	36.94	38.98	34.04	43.46
12.14	Misc and other Expenses	426.94	239.67	407.87	470.50	909.63
	Sub Total (Others)	877.89	699.60	882.98	949.32	1773.64
13	(Total 1 to 12)	15654.13	16694.16	18919.81	20528.10	28779.94
14	Revenue / Recoveries	21.64	32.10	30.67	35.29	35.43
15	Net Expenses	15632.49	16662.06	18889.14	20492.81	28744.51
16	Capital spares consumed	77.95	36.84	211.78	150.62	320.28
	Total O&M Cost	15710.44	16698.90	19100.92	20643.43	29064.79
17	Expenditure of Capital nature as per accounting practice not claimed/ disallowed in capital cost	368.00	8100.00	4567.00	3485.00	
	Total O&M Cost including SI No. 17 above	16078.44	24798.90	23667.92	24128.43	29064.79
	No. of Employee opting for VRS	0.00	0.00	0.00	0.00	0.00

Note:

- 1) Prior period expenses have been inculed 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 2008-09 to 2012-2013

	Particulars	Units	2008-09	2009-10	2010-11	2011-12	2012-13	Basis of information/ methodology
1	Name of Company		NTPC Limited					
2	Name of Station		Simhadri Super Thermal Power Station					
3	Installed Capacity and Configuration	MW	2000 MW(Stage-I= 2X500, Stage-II= 2X500)					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler		Stage-I: Steam Pr 170 ata, MS/HRH Temp: 537/537 deg C, Stage-II : Steam Pr: 170 ata, MS/HRH temp :537/565 deg C BHEL make KWU design Steam Turbine, BHEL make CE design Boiler					
5	Type of BFP		Two Steam Driven(2*50%) + 1 Motor Driven(50%)					
6	Circulating Water System		Closed Cycle					
7	Any other Site specific feature		NDCT type Cooling Tower					
8	Fuels:							
8.1	Main Fuel:		Coal					
8.1.1	Annual Allocation or/ and Requirement	MT	Annual allocation through FSA =9.82 MMT (2000MW), (FSA for 4.62 MMT signed recently) Annual requirement =12.79 MMT					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 Mahanadi Coal fields Limited (MCL) Annual contracted quantity of 9.82 MMT Grade of coal as per FSA is E- F					
8.1.2.1	FSA	MT	5.90	4.59	4.82	5.62	6.90	
8.1.2.2	Imported	MT	0.46	0.34	0.62	1.11	1.48	
8.1.2.3	Bi- Lateral MOU		0.00	0.98	0.46	0.94	0.82	
8.1.2.4	Spot Market/e auction	MT	0.00	0.00	0.00	0.00	0.02	
8.1.3	Transportation Distance of the station from the sources of supply	km	610					
8.1.4	Mode of Transport		IR					
8.1.5	Maximum Station capability to stock main fuel	Days & MT	30 days & 8.25 Lac MT					
8.2	Secondary Fuel:							
8.2.1	Annual Requirement	klitre	15768					
8.2.2	Sources of supply		HPCL Vizag					
8.2.3	Transportation Distance of the station from the sources of supply	Km	40					
8.2.4	Mode of Transport		Road					
8.2.5	Maximum Station capability to stock secondary fuels	klitre	LDO :1000 KL/ HFO :2000 KL					
9	Cost of Spares:							
9.1	Cost of Spares capitalized in the books of accounts (St-I)	(Rs. Lakh)	63	484	854	532		2012-13 data to be submitted later
	Cost of Spares capitalized in the books of accounts (St-II)	(Rs. Lakh)			5748			
9.2	Cost of spares included in capital cost for the purpose of tariff (St-I)	(Rs. Lakh)	0	0	0	0		
	Cost of spares included in capital cost for the purpose of tariff (St-II)	(Rs. Lakh)			5748			
10	Generation							
10.1	Actual Gross Generation at generator terminals (Commercial Satge wise)							
10.1.1	Stage-1	MU	8533.10	8520.70	8416.82	8163.98	7706.49	

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1	Name of Company		NTPC Limited					
2	Name of Station		Simhadri Super Thermal Power Station					
10.1.2	Stage-2	MU				2133.3	4956.71	
10.2	Actual Net Generation Ex-bus	MU						
10.2.1	Stage-1	MU	8080.3	8050.84	7947.95	7684.47	7230.29	
10.2.2	Stage-2	MU				2015.04	4669.02	
10.3	Scheduled Generation Ex-bus							
10.3.1	Stage-1	MU	8009.35	7973.54	7668.79	7523.37	7171.66	
10.3.2	Stage-2	MU				1992.70	4630.24	
11	Average Declared Capacity (DC)							
11.1	Stage-1	MW	914.37	914.12	914.43	884.04	824.75	
11.2	Stage-2	MW				422.03	354.47	
12	Actual Auxiliary Energy Consumption including colony consumption							
12.1	Stage-1	MU	449.79	464.89	458.22	461.14	459.28	
12.2	Stage-2	MU				116.29	293.61	
13	Actual Energy supplied to Colony from the station	MU	6.059	6.961	6.482	6.830	6.837	
14	Main Fuel:							
14.1	Consumption :							
14.1.1	Domestic Coal (Linked mine/ Other mines/e-auction/spot)	MT	5895227	5566196	5315485	6401318	7714979	
14.1.2	Imported Coal*	MT	239197	406944	688018	1168937	1437117	
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	5628	5532	5379	5634	5589	
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	3269	3348	3291	3215	3271	
14.3	Price of Coal:							
14.3.1	Weighted Average price of Domestic coal	(Rs/MT)	1224	1606	1531	1894	2085	
14.3.2	Weighted Average price of imported coal	(Rs/MT)	6219	5718	6231	7590	5274	
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)	1586	1886	2070	2763	2586	
14.4	Blending:	% and MT						
14.4.1	Blending ratio of imported coal with domestic coal	%	3.9%	6.8%	11.5%	15.4%	15.7%	Imported/ Total Coal Consumption
14.4.2	Proportion of e-Auction coal in the blending							
14.4.3	Actual Average stock maintained	MT	82684	155354	156946	222717	94861	Average of monthly closing stock
14.5	Actual Transit & Handling Losses for coal/Lignite	%						
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines	MT						
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.	MT						
14.5.1.3	Transit loss of imported coal	MT						
14.5.2	Non-Pit Head station	MT						

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1	Name of Company		NTPC Limited					
2	Name of Station		Simhadri Super Thermal Power Station					
14.5.2.1	Transit loss from linked mines	MT	0.53%	0.61%	0.74%	0.71%	0.72%	
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.	MT						
14.5.2.3	Transit loss of imported coal	MT	0.29%	0.10%	0.14%	0.14%	0.18%	
15	Secondary Fuel Oil :							
15.1	Consumption	klitre	853.9	1900.4	750.0	2159.1	5295.5	
	HFO Consumed	klitre	549.8	1236.1	491.7	663.3	1354.9	
	LDO Consumed	klitre	304.1	664.3	258.3	1495.9	3940.6	
15.2	Weighted Average Gross Calorific value (As received)	kCal/litre	9798.0	9788.0	9784.0	9628.0	9301.0	
15.3	Weighted Average Price (HFO)	(Rs Per KL)	27792.4	28327.3	29299.3	36665.0	49577.0	
	Weighted Average Price (LDO)	(Rs Per KL)	45682.3	43888.4	44934.9	58834.7	70505.0	
	Weighted Average Price (Combined)	(Rs Per KL)	34164.2	33767.0	34684.5	52024.0	65151.0	
15.4	Actual Average stock maintained	klitre						Average of monthly closing stock
	HFO Average Stock	klitre	802.6	802.6	705.3	600.6	442.3	
	LDO Average Stock	klitre	193.2	193.2	244.0	229.8	229.8	
16	Weighted average duration of outages							
16.1	Scheduled Outages	MU	395.0	338.7	388.7	282.7	645.6	
16.2	Forced Outages	MU	83.0	153.4	129.2	98.7	332.3	
16.3	Number of Outages	No	4	11	8	20	30	
16.4	Number of start-ups :	No	4	11	8	20	30	
16.4.1	Cold Start-up	No	1	1	1	1	8	
16.4.2	Warm Start-up	No	3	7	5	8	10	
16.4.3	Hot start-up	No	0	3	2	11	12	
17	NOx , SOx ,and other particulate emission in :							
17.1	Design value of emission- NOx	mg/Nm ³	NA					No norm; not considered in design
	Design value of emission- SOx	mg/Nm ³	NA					No norm; not considered in design
	Design value of emission- SPM	mg/Nm ³	50					
17.2	Actual emission (SPM)	mg/Nm ³	42-105	47-113	40-112	54-114	47-111	
17.3	Actual emission (SOx)	mg/Nm ³	1185-1324	1125-1451	1002-1369	1089-1325	1150-1575	
17.4	Actual emission (NOx)	mg/Nm ³	217-311	204-398	256-554	250-355	275-425	
19	Detail of Ash utilization % of fly ash produced	Quantity Produced (Lakh MT)	23.64	22.18	21.92	28.16	32.25	
19.1	Conversion of value added product(Issue to Cement, RMC & Brick /block industries)	%	18.45	19.27	16.12	16.76	11.21	
19.2	For making roads & embarkment	%	0.58	0.11	1.55	6.10	0.07	
19.3	Land filling	%	37.56	7.84	3.83	0.07	0.00	
19.4	Used in plant site in one or other form or used in some other site (Mine filling & Ash dyke raising)	%	13.51	13.73	35.54	22.99	28.74	
19.5	Any other use , Please specify (Agriculture, Bottom ash cover etc.)	Qty. (Lakh M T) and usage	0.11	0.92	0.66	3.98	6.70	

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1	Name of Company		NTPC Limited					
2	Name of Station		Simhadri Super Thermal Power Station					
20	Cost of spares actually consumed	Rs Lakhs	2026.9	2169.6	2737.9	2897.5	4220.7	
21	Average stock of spares	Rs Lakhs	6251.0	6268.0	6856.3	7710.8	8484.1	
22	Number of employees deployed in O&M							
22.1	Executives		310	348	392	427	455	
22.2	Non Executives		194	189	188	180	226	
22.3	Corporate office		3205	3272	3298	3354	3170	Total Corporate Man Power
23	Man-MW ratio		0.50	0.54	0.39	0.3	0.34	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