

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Annexure VI

Name of the Company:

NTPC Ltd.

Name of the Power Station:

Kahalgaon STPS

(Rs. In Lakhs)

Sl. No.	Items	2008-09	2009-10	2010-11	2011-12	2012-13
1	Consumption of stores & spares	3492.85	4747.63	5382.84	7266.21	8448.25
2	Repair & Maintenance	2792.04	4875.15	5202.30	7586.58	9507.48
3	Insurance	330.35	670.97	825.92	814.77	823.41
4	Security	1334.40	1392.57	1608.37	1972.37	1855.18
5	Water Charges	15.79	18.06	21.03	132.48	695.35
6	Administrative Expenses					
6.1	Rent	7.90	8.55	10.65	49.21	1.26
6.2	Electricity charges	288.16	334.73	345.78	331.34	353.24
6.3	Travelling & Conveyance	446.70	415.07	536.86	625.33	669.63
6.4	Communication Expenses	83.27	69.74	89.00	97.75	109.88
6.5	Advertising	10.77	28.26	16.53	17.12	20.92
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	44.69	8.48	10.90	9.14	10.56
6.9	Filing fee	0.00	39.72	43.81	46.80	93.60
	Subtotal (Administrative Expenses)	881.48	904.54	1053.54	1176.70	1259.09
7	Employee Cost					
7.1	- Salaries, Wages & Allowances	8621.45	7604.70	11224.58	10631.16	13227.63
7.2	- Staff Welfare expenses	1060.14	1128.33	1044.10	1011.37	1335.69
7.3	- Incentive	368.68	146.91	160.91	47.66	289.70
7.4	- Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	- Ex-gratia	0.00	223.32	268.34	286.56	307.64
7.6	- Performance Related Pay (PRP)	450.05	718.46	739.51	1118.59	1042.63
	Sub Total (Employee Cost)	10500.32	9821.73	13437.44	13095.35	16203.28
8	Loss of Store	31.15	0.00	0.00	0.00	0.00
9	Provisions	12.75	39.53	5.87	9.43	24.58
10	Prior Period Expenses	0.00	0.00	0.00	0.00	0.00
11	Corporate Office expenses allocation	3240.07	4175.43	6524.93	6152.57	6019.72
12	Others					
12.1	Rates & Taxes	6.13	16.60	21.16	17.75	19.47
12.2	Water cess	53.36	61.52	82.76	79.11	83.22
12.3	Training & recruitment expenses	54.24	63.85	49.00	66.53	53.71
12.4	Tender Expenses	25.58	36.25	95.03	110.00	55.16
12.5	Guest house expenses	12.04	15.84	54.45	54.79	78.32
12.6	Education expenses	132.25	165.63	191.29	33.75	50.51
12.7	Community Development Expenses	79.25	75.20	181.58	405.16	1217.35
12.8	Ash utilisation expenses	64.50	58.43	50.88	101.50	132.90
12.9	Books & Periodicals	7.62	14.17	8.08	8.22	7.67
12.1	Professional Charges	19.14	28.45	46.25	44.53	63.87
12.11	Legal expenses	25.27	27.42	19.20	60.62	22.64
12.12	EDP Hire & other charges	41.69	48.04	45.67	42.87	62.01
12.13	Printing & Stationery	35.81	43.39	49.43	57.01	68.04
12.14	Misc and other Expenses	398.21	738.42	2189.80	1670.24	1615.12
	Sub Total (Others)	955.07	1393.22	3084.59	2752.08	3530.01
13	(Total 1 to 12)	23586.28	28038.82	37146.83	40958.53	48366.35
14	Revenue / Recoveries	38.41	31.61	38.82	46.16	49.80
15	Net Expenses	23547.87	28007.22	37108.01	40912.37	48316.54
16	Capital spares consumed	148.93	843.05	707.22	1275.64	1235.04
	<b>Total O&amp;M Cost</b>	<b>23696.80</b>	<b>28850.27</b>	<b>37815.23</b>	<b>42188.01</b>	<b>49551.58</b>
17	Expenditure of Capital nature as per accounting practice not claimed/ disallowed in capital cost	0.00	0.00	0.00	0.00	
	<b>Total O&amp;M Cost including SI No. 17 above</b>	<b>23696.80</b>	<b>28850.27</b>	<b>37815.23</b>	<b>42188.01</b>	<b>49551.58</b>
	No. of Employee opting for VRS	0.00	0.00	0.00	0.00	0.00

Note:

- 1) Prior period expenses have been incuded 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		<b>NTPC LTD.</b>					
2	Name of Station		<b>KAHALGAON SUPER THERMAL POWER PROJECT</b>					
3	Installed Capacity and Configuration	MW	4x210+3*500 (2340 MW)					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		Stage-I: 130 Kg/ cm2, 535 Deg Cent		Stage-II: 170 Kg/ cm2, 537 Deg Cent			
5	Type of BFP		Electrical Driven for Stg-1 & Electrical Driven (1 stand-by) and Steam Driven(2) for Stg-2					
6	Circulating Water System		Closed cycle					
7	Any other Site specific feature		CW make up from Ganga water Pump House					
8	Fuels:							
8.1	Main Fuel:		Coal/Lignite					
8.1.1	Annual Allocation or/ and Requirement	MT	Annual allocation through FSA (2340MW) = 10.31 MMT (2340 MW) (FSA for 2.32 MT signed recently) Annual requirement =17.90 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 Eastern Coal fields Limited( ECL)					
			Annual contracted quantity of 10.31 MMT					
			Grade of coal as per FSA is A - F					
8.1.2.1	FSA + MOU against LOA	MT	6.98	8.10	9.43	9.88	12.45	
8.1.2.2	Imported	MT	0.66	0.89	1.51	1.67	1.05	
8.1.2.3	Bi- Lateral MOU		0.00	0.37	0.37	0.00	0.00	
8.1.2.4	Spot Market/e-auction	MT	0.00	0.07	0.12	0.00	0.00	
8.1.3	Transportation Distance of the station from the sources of supply	km	30					
8.1.4	Mode of Transport		MGR/IR					
8.1.5	Maximum Station capability to stock main fuel	Days & MT	16 days & 7.4 Lac MT					
8.2	Secondary Fuel:		HFO/LDO					
8.2.1	Annual Requirement	klitre	10241	14636	18449	18499	18449	
8.2.2	Sources of supply		IOCL REFINERY					
8.2.3	Transportation Distance of the station from the sources of supply	Km	HFO (HALDIA REFINRY by Rail route):- 518 KM					
8.2.4	Mode of Transport		Rail/ Road					
8.2.5	Maximum Station capability to stock secondary fuels	klitre	8000(HFO)+200(LDO)					
9	Cost of Spares:							
9.1	Cost of Spares capitalized in the books of accounts (St-I)	(Rs. Lakh)	225.3	0.0	642.0	321.0		2012-13 data to be submitted later
	Cost of Spares capitalized in the books of accounts (St-II)	(Rs. Lakh)	2513.0	3521.0	2595.0	1079.0		
9.2	Cost of spares included in capital cost for the purpose of tariff (St-I)	(Rs. Lakh)	0.0	0.0	0.0	0.0		
	Cost of spares included in capital cost for the purpose of tariff (St-II)	(Rs. Lakh)	2513.0	3521.0	2595.0	1079.0		
10	Generation							
10.1	Actual Gross Generation at generator terminals (Commercial Satge wise)							
10.1.1	Stage-1	MU	6016.96	5109.34	5462.66	5568.12	5803.71	
10.1.2	Stage-2	MU	3090.54	5839.69	8566.10	7870.03	8903.72	
10.2	Actual Net Generation Ex-bus (Total)	MU	8307.34	10073.84	12962.72			
10.2.1	Stage-1	MU				5000.59	5222.94	

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<b>1</b>	<b>Name of Company</b>		<b>NTPC LTD.</b>					
<b>2</b>	<b>Name of Station</b>		<b>KAHALGAON SUPER THERMAL POWER PROJECT</b>					
10.2.2	Stage-2	MU				7347.47	8337.34	
10.3	Scheduled Generation Ex-bus (Total)		8230.06					Based on REA
10.3.1	Stage-1	MU		4584.93	4929.03	5179.77	5465.68	
10.3.2	Stage-2	MU		5387.25	7964.32	7425.55	8508.32	
11	Average Declared Capacity (DC)- (Total)		943.21					Based on REA
11.1	Stage-1	MW		526.12	573.99	614.68	654.43	
11.2	Stage-2	MW		620.19	964.55	910.88	1052.55	
12	Actual Auxiliary Energy Consumption including colony consumption							
12.1	Stage-1	MU	515.59	472.10	503.67	567.53	580.72	
12.2	Stage-2	MU	191.88	392.97	562.37	522.56	566.42	
13	Actual Energy supplied to Colony from the station	MU	16.92	16.23	17.56	17.21	17.41	
14	Main Fuel:							
14.1	Consumption :							
14.1.1	Domestic Coal (Linked mine/ Other mines/e-auction/spot)	MT	6791596	8336101	9997202	9846491	12357683	
14.1.2	Imported Coal	MT	713103	900612	1457294	1668945	1064280	
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	5988	6151	6032	6078	6135	
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	2864	2807	2919	2797	2621	
14.3	Price of Coal:							
14.3.1	Weighted Average price of Domestic coal	(Rs/MT)	1094.7	1374.8	1464.5	1636.9	1568.0	
14.3.2	Weighted Average price of imported coal	(Rs/MT)	6208.2	6494.7	7278.2	9250.4	7283.8	
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)	1442.4	1873.4	2204.2	2739.8	1985.3	
14.4	Blending:	% and MT						
14.4.1	Blending ratio of imported coal with domestic coal	%	9.50%	9.75%	12.72%	14.49%	7.93%	Import/ Total Coal consumption
14.4.2	Proportion of e-Auction coal in the blending							
14.4.3	Actual Average stock maintained	MT	57388	58649	44810	52485	86319	Average of monthly closing stock
14.5	Actual Transit & Handling Losses for coal/Lignite	MT						
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines	MT	0.18%	0.16%	0.12%	0.13%	0.13%	
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.							
14.5.1.3	Transit loss of imported coal	MT	0.05%	0.08%	0.08%	0.09%	0.09%	
14.5.2	Non-Pit Head station							
14.5.2.1	Transit loss from linked mines							
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.							

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<b>1</b>	<b>Name of Company</b>		<b>NTPC LTD.</b>					
<b>2</b>	<b>Name of Station</b>		<b>KAHALGAON SUPER THERMAL POWER PROJECT</b>					
14.5.2.3	Transit loss of imported coal							
15	Secondary Fuel Oil :							
15.1	Consumption	klitre	10861	10937	10048	11201	9675	
15.2	Weighted Average Gross Calorific value (As received)	kCal/kg(litre)	9952	9927	9913	9917	9896	
15.3	Weighted Average Price	Rs/ Kl	26533	27207	33600	40864	49138	
15.4	Actual Average stock maintained	klitre	9497	5507	4977	5067	5409	Average of monthly closing stock
16	Weighted average duration of outages							

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<b>1</b>	<b>Name of Company</b>		<b>NTPC LTD.</b>					
<b>2</b>	<b>Name of Station</b>		<b>KAHALGAON SUPER THERMAL POWER PROJECT</b>					
16.1	Scheduled Outages	MU	396.45	822.79	791.6	797.19	1140.92	
16.2	Forced Outages	MU	516.94	2248.55	2078.33	3158.16	1296.08	
16.3	Number of trippings	No	16	20	24	20	11	
16.4	Number of start-ups :	No	52	43	69	61	49	
16.4.1	Cold Start-up	No	9	18	30	30	20	
16.4.2	Warm Start-up	No	25	10	22	15	20	
16.4.3	Hot start-up	No	18	15	17	16	9	
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 (St-I)	mg/Nm <sup>3</sup>	150					
	Design value of emission- SPM (St-II)	mg/Nm <sup>3</sup>	50					
17.2	Actual emission (SPM) - St I	mg/Nm <sup>3</sup>	131-149	141-148	130-148	127-142	121-147	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>	304-649	414-737	412-738	350-518	324-735	
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>	682-812	596-915	501-937	534-687	531-777	
17.2	Actual emission (SPM)- St-II	mg/Nm <sup>3</sup>	NA	NA*	36-48	38-49	37-49	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>						
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>						
19	Detail of Ash utilization % of fly ash produced	Quantity Produced (Lakh MT)	24.97	30.31	38.12	39.19	45.63	
19.1	Conversion of value added product(Issue to Cement, RMC & Brick /block industries)	%	8.13	3.01	3.31	4.00	6.91	
19.2	For making roads & embarkment	%	0.85	4.06	6.71	0.00	0.18	
19.3	Land filling	%	3.57	7.07	6.79	7.73	6.32	
19.4	Used in plant site in one or other form or used in some other site (Mine filling & Ash dyke raising)	%	13.96	8.86	6.98	12.63	8.98	
19.5	Any other use , Please specify (Agriculture, Bottom ash cover etc.)	Qty. (Lakh MT) and usage	0.07	0.02	0.05	0.05	0.01	
20	Cost of spares actually consumed	(Rs. Lakh)	2893.2	4142.7	4909.1	6146.4	7582.0	
21	Average stock of spares	(Rs. Lakh)	6473.7	7146.6	8904.3	11709.0	15294.0	
22	Number of employees deployed in O&M							
22.1	Executives		479	481	465	480	483	
22.2	Non Executives		609	607	595	621	613	
22.3	Corporate office		3205	3272	3298	3354	3170	Total Corporate Man Power
23	Man-MW ratio		0.59	0.46	0.45	0.47	0.47	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