

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Annexure VI

Name of the Company: NTPC Ltd.

Name of the Power Station: Farakka STPS

(Rs. In Lakhs)

Sl. No.	Items	2008-09	2009-10	2010-11	2011-12	2012-13
1	Consumption of stores & spares	5399.68	6007.67	5411.49	5441.65	5584.95
2	Repair & Maintenance	4404.42	4991.69	5769.36	7117.84	8287.20
3	Insurance	352.15	572.84	608.21	640.71	787.94
4	Security	1297.91	1407.70	1600.81	2121.36	1849.31
5	Water Charges	25.96	24.71	26.72	153.24	904.50
6	Administrative Expenses					
6.1	Rent	11.85	16.94	15.98	73.81	1.89
6.2	Electricity charges	324.47	494.98	546.16	626.11	514.98
6.3	Travelling & Conveyance	414.14	436.64	498.18	630.53	717.64
6.4	Communication Expenses	88.11	83.38	98.54	117.05	120.29
6.5	Advertising	5.86	2.88	4.30	7.25	0.94
6.6	Foundation Laying & Inaugration	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	40.26	28.03	28.94	25.42	34.92
6.9	Filing fee	0.00	32.00	32.00	32.00	83.84
	Subtotal (Administrative Expenses)	884.68	1094.86	1224.10	1512.17	1474.49
7	Employee Cost					
7.1	- Salaries, Wages & Allowances	12800.87	11580.17	15733.48	15056.06	17988.85
7.2	- Staff Welfare expenses	1869.66	1555.50	1361.00	1366.16	1803.83
7.3	- Incentive	341.22	317.78	505.01	452.08	407.25
7.4	- Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	- Ex-gratia	0.00	425.48	464.42	486.96	507.21
7.6	- Performance Related Pay (PRP)	810.91	1088.26	762.54	1227.29	1255.40
	Sub Total (Employee Cost)	15822.66	14967.19	18826.44	18588.55	21962.54
8	Loss of Store	0.00	0.00	0.00	1.88	2.84
9	Provisions	217.59	105.60	17.33	567.74	0.84
10	Prior Period Expenses	0.00	0.00	0.00	0.00	0.00
11	Corporate Office expenses allocation	3991.12	3623.08	4463.86	4207.11	5384.16
12	Others					
12.1	Rates & Taxes	22.30	28.77	39.96	34.96	101.98
12.2	Water cess	737.42	788.81	1962.09	-490.27	482.25
12.3	Training & recruitment expenses	43.19	58.57	154.09	127.09	116.10
12.4	Tender Expenses	35.31	37.30	39.26	37.79	45.30
12.5	Guest house expenses	37.29	44.85	58.95	83.86	95.96
12.6	Education expenses	94.74	154.54	185.16	72.49	41.01
12.7	Community Development Expenses	40.17	50.37	100.41	285.99	378.96
12.8	Ash utilisation expenses	0.00	0.00	7.97	0.00	0.00
12.9	Books & Periodicals	2.54	3.56	3.85	1.99	2.37
12.1	Professional Charges	58.18	20.24	108.22	12.67	37.96
12.11	Legal expenses	11.63	6.92	5.13	13.08	12.27
12.12	EDP Hire & other charges	33.02	46.79	35.85	33.57	24.53
12.13	Printing & Stationery	34.37	40.97	46.35	60.39	53.22
12.14	Misc and other Expenses	756.82	417.41	1582.08	1320.17	1701.47
	Sub Total (Others)	1907.00	1699.10	4329.35	1593.80	3093.40
13	(Total 1 to 12)	34303.18	34494.44	42277.67	41946.05	49332.17
14	Revenue / Recoveries	61.59	98.00	144.90	142.52	130.39
15	Net Expenses	34241.59	34396.44	42132.77	41803.53	49201.77
16	Capital spares consumed	786.00	203.52	1169.87	967.63	824.92
	Total O&M Cost	35027.59	34599.96	43302.63	42771.16	50026.69
17	Expenditure of Capital nature as per accounting practice not claimed/ disallowed in capital cost	351.40	869.30	9.14	1351.20	
	Total O&M Cost including SI No. 17 above	35378.99	35469.26	43311.77	44122.36	50026.69
	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					
2	Name of Station		Farakka Super Thermal Power Station					
3	Installed Capacity and Configuration	MW	3X200MW+2X500MW+1X500MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		BOILER: 3X200MW: Natural circulation 2X500MW: Natural circulation, 1X500MW: Controlled circulation Turbine: 3x200MW: Three cylinder reheat condensing turbine.(KWU) 2X500MW: Three cylinder reheat condensing turbine. (BHEL) 1X500MW:Three cylinder reheat condensing turbine. (BHEL) MS PARAMETERS: 3X200MW: 535 C, 150 KSC; 2X500MW: 537, 170 KSC; 1X500: 537C, 170 KSC.					
5	Type of BFP		3X200MW: Electrical Driven; 3X500MW: Steam Driven					
6	Circulating Water System		3X200MW : OPEN CYCLE; 2X500MW: OPEN CYCLE; 1x500MW: CLOSED CYCLE					
7	Any other Site specific feature		Cooling water intake level inadequate for some part of the year on account of International water sharing treaty					
8	Fuels:							
8.1	Main Fuel:		Coal					
8.1.1	Annual Allocation or/ and Requirement	MT	Annual allocation through FSA (Stg. I &II) = 9.31 MMT(2100 MW), (FSA for 2.31 MT signed recently) Annual requirement =14.30 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 ECL,BCCL , CCL , MCL, NECL					
			Annual contracted Qty. 9.31 MMT					
			Grade of coal as per FSA is ECL: A - F , MCL & CCL: E-F, BCCL: C - E, NEC: A					
8.1.2.1	FSA + MOU against LOA	MT	7.72	6.31	3.49	5.23	8.07	
8.1.2.2	Imported	MT	0.98	0.88	1.76	1.66	1.04	
8.1.2.3	Bi- Lateral MOU		0.00	0.82	1.48	0.06	0.04	
8.1.2.3	Spot Market/e-auction	MT	0.00	0.21	0.63	0.38	0.00	
8.1.3	Transportation Distance of the station from the sources of supply	km	ECL-86, MCL-680, CCL- 442, BCCL-310, NECL- 1250					
8.1.4	Mode of Transport		MGR / IR					
8.1.5	Maximum Station capability to stock main fuel	Days & MT	15 days & 6.0 Lac MT					
8.2	Secondary Fuel:							
8.2.1	Annual Requirement	klitre	16556					
8.2.2	Sources of supply		IOC Haldia, Mathura, Barauni					
8.2.3	Transportation Distance of the station from the sources of supply	Km	500/300					
8.2.4	Mode of Transport		Rail					
8.2.5	Maximum Station capability to stock secondary fuels	klitre	11500					
9	Cost of Spares:							

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1	Name of Company		NTPC					
2	Name of Station		Farakka Super Thermal Power Station					
9.1	Cost of Spares capitalized in the books of accounts (St-I & II)	(Rs. Lakh)	1393	2167	2220	2044		2012-13 data to be submitted later
	Cost of Spares capitalized in the books of accounts (St-III)	(Rs. Lakh)				416		
9.2	Cost of spares included in capital cost for the purpose of tariff (St-I & II)	(Rs. Lakh)	0	0	0	0		
	Cost of spares included in capital cost for the purpose of tariff (St-III)	(Rs. Lakh)				416		
10	Generation							
10.1	Actual Gross Generation at generator terminals (Commercial Satge wise)							
10.1.1	Stage-1 &2	MU	10759.3	10239.3	11089.0	9978.3	9027.8	
10.1.2	Stage-3	MU					2585.0	
10.2	Actual Net Generation Ex-bus	MU						
10.2.1	Stage-1 &2	MU	10007.1	9479.4	10341.3	9274.5	8358.2	Based on REA
10.2.2	Stage-3	MU					2451.5	
10.3	Scheduled Generation Ex-bus							
10.3.1	Stage-1 &2	MU	9917.1	9403.8	10407.0	9540.0	8555.6	Based on REA
10.3.2	Stage-3	MU					2667.8	
11	Average Declared Capacity (DC)							
11.1	Stage-1 &2	MW	1143.7	1092.3	1298.9	1229.3	1105.3	
11.2	Stage-3	MW					330.3	
12	Actual Auxiliary Energy Consumption including colony consumption							
12.1	Stage-1 &2	MU	747.8	755.3	734.6	689.3	633.0	
12.2	Stage-3	MU					166.0	
13	Actual Energy supplied to Colony from the station	MU	22.3	23.1	25.2	22.7	22.5	
14	Main Fuel:							
14.1	Consumption :							
14.1.1	Domestic Coal (Linked mine/ Other mines/e-auction/spot)	MT	7829136	7075352	5624237	5265718	8156608	
14.1.2	Imported Coal	MT	773033	1068826	1709888	1632634	1044302	
14.2	Gross Calorific Value (GCV):							
14.2.1	Domestic Coal (As received) avg GCV AD basis	kCal/kg						
	(As fired)	kCal/kg						
14.2.2	Imported Coal (As received)	kCal/kg	5644	5527	5578	5608	5750	
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	3006	3016	3623	3462	3015	
14.3	Price of Coal:							
14.3.1	Weighted Average price of Domestic coal	(Rs/MT)	1190.5	2380.8	3327.6	2968.2	1450.4	
14.3.2	Weighted Average price of imported coal	(Rs/MT)	6935.7	6190.5	6820.6	6513.1	5453.1	

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1	Name of Company		NTPC					
2	Name of Station		Farakka Super Thermal Power Station					
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)	3175.1	2896.0	4123.7	3344.0	1673.1	
14.4	Blending:	% and MT						
14.4.1	Blending ratio of imported coal with domestic coal	%	9.0%	13.1%	23.3%	23.7%	11.3%	Import/ Total Coal Consumption
14.4.2	Proportion of e-Auction coal in the blending							
14.4.3	Actual Average stock maintained	MT	69681	56059	122042	166401	34970	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 (Domestic)	MT	0.26%	0.20%	0.19%	0.21%	0.19%	
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	0.13%	0.13%	0.11%	0.11%	0.11%	
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.							
14.5.2.3	Transit loss of imported coal							
15	Secondary Fuel Oil :	HFO						
15.1	Consumption (for commercial generation)	klitre	13068.2	8518	4319.5	6036	17769	
15.2	Weighted Average Gross Calorific value	kCal/kg(litre)	9219	9637	9669	9700	9570	
15.3	Weighted Average Price	Rs/ KL	20315.9	26194.0	31558.8	40232.2	47425.4	
15.4	Actual Average stock maintained (useable)	klitre	4789	5441	7068	5623	5412	Average of monthly closing stock
16	Weighted average duration of outages							
16.1	Scheduled Outages	MU	927.3	694.2	827.2	1484.2	893.8	
16.2	Forced Outages	MU	838.2	1509.5	532.6	737.9	2216.1	
16.3	Number of trippings	No	29	22	24	33	96	
16.4	Number of start-ups :	No	56	47	37	57	121	
16.4.1	Cold Start-up	No	10	15	11	16	22	
16.4.2	Warm Start-up	No	30	14	7	14	25	
16.4.3	Hot start-up	No	25	18	19	27	74	
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 (St-I)	mg/Nm ³	550					
	Design value of emission- SPM (St-II)	mg/Nm ³	50					
	Design value of emission- SPM (St-III)	mg/Nm ³	50					
17.2	Actual emission (SPM)- St-I	mg/Nm ³	37-144	50-114	52-114	41-121	41-101	
17.3	Actual emission (SOx)	mg/Nm ³	243-463	288-450	294-538	306-476	302-476	
17.4	Actual emission (NOx)	mg/Nm ³	460-1134	423-812	338-647	402-614	388-592	

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1	Name of Company		NTPC					
2	Name of Station		Farakka Super Thermal Power Station					
17.2	Actual emission (SPM)- St II	mg/Nm ³	54-14	62-126	52-116	54-134	63-116	
17.3	Actual emission (SOx)	mg/Nm ³						
17.4	Actual emission (NOx)	mg/Nm ³						
19	Detail of Ash utilization % of fly ash produced	Quantity Produced (Lakh MT)	30.16	28.47	24.81	22.07	36.47	
19.1	Conversion of value added product(Issue to Cement, RMC & Brick /block industries)	%	43.69	44.97	43.64	41.92	29.17	
19.2	For making roads & embarkment	%	5.36	0.76	13.56	43.62	46.87	
19.3	Land filling	%	14.63	37.26	29.73	4.22	8.60	
19.4	Used in plant site in one or other form or used in some other site (Mine filling & Ash dyke raising)	%	17.83	0.00	0.00	0.00	6.76	
19.5	Any other use , Please specify (Agriculture, Bottom ash cover etc.)	Qty. (Lakh MT) and usage	0.00	0.00	0.00	0.00	0.00	
20	Cost of spares actually consumed		6104.5	6016.5	6426.9	6191.4	6218.8	
21	Average stock of spares		16295.2	14790.8	14216.3	14473.0	15127.5	
22	Number of employees deployed in O&M							
22.1	Executives		440	451	465	473	465	
22.2	Non Executives		1076	1053	1026	1036	962	
22.3	Corporate office		3205	3272	3298	3354	3170	Total Corporate Man Power
23	Man-MW ratio		0.95	0.94	0.71	0.72	0.68	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