

## DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Annexure VI

Name of the Company: NTPC Ltd.

Name of the Power Station: Ramagundam STPS (Rs. In Lakhs)

Sl. No.	Items	2008-09	2009-10	2010-11	2011-12	2012-13
1	Consumption of stores & spares	5697.32	4786.65	6011.15	6668.22	9521.52
2	Repair & Maintenance	5323.00	6391.00	7190.96	9354.53	11415.31
3	Insurance	425.75	698.79	771.38	804.79	803.49
4	Security	627.79	1328.05	1385.42	1439.67	1822.93
5	Water Charges	1193.19	850.21	1182.22	948.03	1392.10
6	Administrative Expenses					
6.1	Rent	0.00	0.00	0.00	0.00	0.00
6.2	Electricity charges	290.84	304.61	308.98	337.24	371.27
6.3	Travelling & Conveyance	631.84	625.46	703.84	766.70	845.36
6.4	Communication Expenses	77.45	89.27	109.81	132.73	128.55
6.5	Advertising	5.74	5.39	7.46	11.02	7.23
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	38.93	27.11	37.58	38.36	32.77
6.9	Filing fee	0.00	52.00	52.00	52.00	104.00
	Subtotal (Administrative Expenses)	1044.80	1103.84	1219.67	1338.06	1489.19
7	Employee Cost					
7.1	- Salaries, Wages & Allowances	14867.12	13770.03	17087.17	15136.25	18417.71
7.2	- Staff Welfare expenses	2376.66	1894.57	1547.63	1522.75	2026.26
7.3	- Incentive	780.01	774.97	776.19	764.56	730.46
7.4	- Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	- Ex-gratia	0.00	437.66	462.86	482.36	457.71
7.6	- Performance Related Pay (PRP)	673.43	1152.13	896.21	1362.29	1429.39
	Sub Total (Employee Cost)	18697.22	18029.36	20770.06	19268.21	23061.53
8	Loss of Store	2.36	0.00	0.00	1.45	1.99
9	Provisions	121.64	104.38	39.63	20.28	39.45
10	Prior Period Expenses	0.00	0.00	0.00	0.00	0.00
11	Corporate Office expenses allocation	6485.60	5888.05	7250.93	6836.86	6690.99
12	Others					
12.1	Rates & Taxes	92.15	111.07	154.10	125.96	126.73
12.2	Water cess	142.90	102.62	138.16	113.04	112.54
12.3	Training & recruitment expenses	63.72	70.25	154.35	82.84	133.52
12.4	Tender Expenses	92.30	119.34	99.56	121.84	149.50
12.5	Guest house expenses	40.07	44.47	24.89	36.33	22.39
12.6	Education expenses	110.52	114.37	165.24	27.47	16.35
12.7	Community Development Expenses	116.77	109.89	181.70	323.83	698.01
12.8	Ash utilisation expenses	83.77	41.92	50.54	132.65	71.26
12.9	Books & Periodicals	3.56	3.66	3.46	7.59	2.16
12.1	Professional Charges	33.79	32.28	29.34	47.01	86.98
12.11	Legal expenses	29.44	22.95	4.91	7.12	16.21
12.12	EDP Hire & other charges	68.64	107.70	143.18	87.01	82.24
12.13	Printing & Stationery	52.33	51.54	61.56	48.02	39.58
12.14	Misc and other Expenses	311.01	294.52	1704.60	1041.97	1298.36
	Sub Total (Others)	1240.97	1226.58	2915.59	2202.70	2855.82
13	(Total 1 to 12)	40859.64	40406.92	48737.01	48882.78	59094.32
14	Revenue / Recoveries	65.62	68.39	66.01	69.83	84.68
15	Net Expenses	40794.02	40338.53	48671.00	48812.95	59009.64
16	Capital spares consumed	769.00	1532.64	2035.00	796.07	1571.47
	<b>Total O&amp;M Cost</b>	<b>41563.02</b>	<b>41871.17</b>	<b>50706.00</b>	<b>49609.02</b>	<b>60581.11</b>
17	Expenditure of Capital nature as per accounting practice not claimed/ disallowed in capital cost	173.00	3723.00	1222.00	3099.00	
	<b>Total O&amp;M Cost including Sl No. 17 above</b>	<b>41736.02</b>	<b>45594.17</b>	<b>51928.00</b>	<b>52708.02</b>	<b>60581.11</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 Sl 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	<b>Name of Company</b>		<b>NTPC Ltd.,</b>					
2	<b>Name of Station</b>		<b>Ramagundam Super Thermal Power Station</b>					
3	Installed Capacity and Configuration	MW	2600 MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)							
5	Type of BFP		Electrical Driven and Steam Driven					
6	Circulating Water System		Closed cycle					
7	Any other Site specific feature							
8	Fuels:							
8.1	Main Fuel:		Coal					
8.1.1	Annual Allocation or/ and Requirement	MT	Annual allocation through FSA (Stg. I &II) =10.20MMT, Stg. III- 1.0 MMT Annual requirement =13.16 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 Singareni collieries Co. Limited( SCCL), Mahanadi Coal fields Limited( MCL) & South Eastern Coal fields Annual contracted quantity of 11.2MMT (FSA ; SCCL- 10.20 MMT, MCL- 0.50 MMT & SECL - 0.5 MMT. ) Grade of coal as per FSA is SCCL: B - G , SECL all grades , MCL:					
8.1.2.1	FSA	MT	13.3	10.9	10.8	10.7	10.7	
8.1.2.2	Imported	MT	0.6	0.7	0.5	0.4	0.3	
8.1.2.3	Bi- Lateral MOU	MT	0.0	1.5	1.0	1.8	2.2	
8.1.2.4	Spot Market/e auction	MT	0.0	0.0	0.0	0.0	0.0	
8.1.3	Transportation Distance of the station from the sources of supply	km	SCCL- 22, MCL -1099, SECL- 870					
8.1.4	Mode of Transport		MGR/IR					
8.1.5	Maximum Station capability to stock main fuel	Days & MT	15 days & 6.0 LMT					
8.2	Secondary Fuel:							
8.2.1	Annual Requirement	klitre	20500					
8.2.2	Sources of supply		HFO : Tondiarper Port Terminal, Ennore High Road, CHENNAI-1					
8.2.3	Transportation Distance of the station from the sources of supply	Km	700 km					
8.2.4	Mode of Transport		Rail/ Road					
8.2.5	Maximum Station capability to stock secondary fuels	klitre	HFO: 15500 KL					
9	Cost of Spares:							
9.1	Cost of Spares capitalized in the books of accounts (St-1&2)	(Rs. Lakh)	1626	2430	512	1467		2012-13 data to be submitted later
	Cost of Spares capitalized in the books of accounts (St-3)	(Rs. Lakh)	4	96	162	362		
9.2	1&2)	(Rs. Lakh)	0	0	0	0		
	3)	(Rs. Lakh)	0	0	0	0		
10	Generation							
10.1	Actual Gross Generation at generator terminals (Commercial Satge wise)							
10.1.1	Stage-1 &2	MU	17367.2	17162.6	16516.2	17155.9	16982.4	
10.1.2	Stage-3	MU	4145.5	4432.1	4043.6	4099.5	3802.8	
10.2	Actual Net Generation Ex-bus	MU						
10.2.1	Stage-1 &2	MU	16396.9	16215.9	15601.9	16155.0	15995.8	
10.2.2	Stage-3	MU	3895.2	4166.9	3795.3	3826.4	3543.5	
10.3	Scheduled Generation Ex-bus							Based on REA

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<b>2</b>	<b>Name of Station</b>		<b>Ramagundam Super Thermal Power Station</b>					
10.3.1	Stage-1&2	MU	16267.2	16065.6	15462.6	16050.5	15926.8	
10.3.2	Stage-3	MU	3863.0	4134.6	3770.5	3794.1	3529.1	
11	Average Declared Capacity (DC)							Based on REA
11.1	Stage-1 &2	MW	1858.0	1853.7	1828.7	1843.4	1820.1	
11.2	Stage-3	MW	441.6	474.4	444.4	445.2	406.9	
12	Actual Auxiliary Energy Consumption including colony							
12.1	Stage-1&2	MU	1036.2	1022.4	990.0	1074.5	1056.7	
12.2	Stage-3	MU	192.2	202.1	191.4	217.1	189.2	
13	Actual Energy supplied to Colony from the station	MU	23.00	22.29	20.32	20.58	20.47	
14	Main Fuel:							
14.1	Consumption :							
14.1.1	Domestic Coal (Linked mine/ Other mines/e-auction/spot)	MT	12816256	12287618	11866265	12433090	12789251	
14.1.2	Imported Coal*	MT	579000	706052	494612	366524	338012	
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	5950	6250	6255	6074	6244	
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	3807	3939	3942	3936	3749	
14.3	Price of Coal:							
14.3.1	Weighted Average price of Domestic coal	(Rs/MT)	1595.7	1820.3	2089.3	2262.0	2471.8	
14.3.2	Weighted Average price of imported coal	(Rs/MT)	6292.0	5695.8	6627.4	8319.7	6608.8	
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)	1798.5	2030.9	2272.1	2435.4	2578.3	
14.4	Blending:	% and MT						
14.4.1	Blending ratio of imported coal with domestic coal	%	4.32%	5.43%	4.00%	2.86%	2.57%	Imported/ Total Coal
14.4.2	Proportion of e-Auction coal in the blending							
14.4.3	Actual Average stock maintained	MT	251908	503613	380535	219931	222748	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	0.22%	0.18%	0.18%	0.11%	0.17%	
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	0.14%	0.11%	0.04%	0.00%	0.04%	
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 :							
15.1	Consumption	klitre	3486.5	2155.6	2680.4	2497.5	4575.5	
15.2	Weighted Average Gross Calorific value (As received)	kCal/kg(litre)	10073.4	9962.7	9803.6	9933.5	10000.3	

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<b>1</b>	<b>Name of Company</b>		<b>NTPC Ltd.,</b>					
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15.3	Weighted Average Price HFO	(Rs Per MT or K	32365.2	21977.1	25739.7	31753.1	37900.1	
15.3	Weighted Average Price HSD	(Rs Per MT or K	35952.9	36206.3	38519.7	41235.7	44508.0	
15.4	Actual Average stock maintained	klitre	1755.2	3947.3	3870.3	4867.6	4894.6	Average of monthly closing stock
16	Weighted average duration of outages							
16.1	Scheduled Outages	MU	1109.2	605.8	1430.3	650.9	1391.6	
16.2	Forced Outages	MU	364.4	840.4	282.4	351.7	1692.3	
16.3	Number of trippings	No	46	29	35	32	51	
16.4	Number of start-ups :	No	46	29	35	32	51	
16.4.1	Cold Start-up	No	5	4	6	6	5	
16.4.2	Warm Start-up	No	26	18	17	12	25	
16.4.3	Hot start-up	No	15	7	12	14	21	
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>	300					
	Design value of emission- SPM (St-II)	mg/Nm <sup>3</sup>	50					
	Design value of emission- SPM (St-III)	mg/Nm <sup>3</sup>	50					
17.2	Actual emission (SPM)-St-I	mg/Nm <sup>3</sup>	41-113	42-114	82-108	82-103	82-102	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>	1028-1298	1065-1329	1225-1414	1202-1398	1231-1401	
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>	424-562	447-550	457-525	437-516	435-500	
17.2	Actual emission (SPM)- St-II	mg/Nm <sup>3</sup>	85-105	40-110	84-111	101-110	83-110	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>						
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>						
17.2	Actual emission (SPM)- St-III	mg/Nm <sup>3</sup>	60-80	65-90	60-76	60-85	70-86	
17.3	Actual emission (SOx)	mg/Nm <sup>3</sup>						
17.4	Actual emission (NOx)	mg/Nm <sup>3</sup>						
17.2	Actual emission	mg/Nm <sup>3</sup>						
19	Detail of Ash utilization % of fly ash produced	Quantity Produced (Lakh MT)	45.47	42.8	40.66	42.94	45.21	
19.1	Conversion of value added product(Issue to Cement, RMC & Brick /block industries)	%	46.67	52.73	49.21	37.67	41.60	
19.2	For making roads & embarkment	%	0.00	0.00	0.00	0.34	1.46	
19.3	Land filling	%	0.34	0.00	0.00	0.00	0.00	
19.4	Used in plant site in one or other form or used in some other site (Mine filling & Ash dyke raising)	%	5.66	6.31	0.06	4.25	8.61	
19.5	Any other use , Please specify (Agriculture, Bottom ash cover etc.)	Qty. (Lakh M T) and usage	6.58	6.07	6.08	7.94	7.16	
20	Cost of spares actually consumed	Rs Lakhs	5926.5	5258.3	6881.8	6209.9	9953.5	
21	Average stock of spares	Rs Lakhs	15041.6	13653.1	12765.1	13750.8	14856.0	

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<b>2</b>	<b>Name of Station</b>		<b>Ramagundam Super Thermal Power Station</b>					
22	Number of employees deployed in O&M							
22.1	Executives		538	527	534	528	530	
22.2	Non Executives		1055	1019	976	928	880	
22.3	Corporate office		3205	3272	3298	3354	3170	Total Corporate Man Power
23	Man-MW ratio		0.61	0.59	0.58	0.56	0.54	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