

Annexure-I

**Pro-forma for furnishing Actual annual performance/operational data for the coal/lignite based thermal generating stations for the 5-year period
from 2012-13 to 2016-17**

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology/ Remarks
1	Name of Company		NTPC Ltd.					
2	Name of Station/ Pit head or Non- Pit head		Tanda Thermal Power Station (non pit-head)					
3	Installed Capacity and Configuration	MW	4 X 110 = 440 MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		Rated Pressure: 130 kSC SH/RH out let temp: 535,535 deg C Type of Boiler & Turbine: BHEL(SKODA Design)					
5	Type of BFP		Electric Driven					
6	Circulating water system		Close Cycle					
7	Any other Site specific feature		Dry Ash Extraction System (Date of Commissioning 01.04.2014)					
8	Fuels :							
8.1	Primary Fuel :		Coal/ Lignite					
8.1.1	Annual Allocation or/and Requirement		Annual allocation through Modified FSA dated 09.09.2016 with CCL for Tanda - 2.3 MMT Allocation through MOU dated 22.07.2014 & 08.07.2015 with NCL - 3.0 MMT Annual Requirement : 3.0					
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		CCL, ECL,NCL					
			2.70	2.70	2.70	2.70	2.50	
			CCL: G7-G11, W-IV/ Beneficiated coal					
8.1.2.1	FSA	LOA	2.88	2.80	2.43	2.66	2.01	
		MoU	0.00	0.00	0.14	0.07	0.00	
8.1.2.2	Imported	MMT	0.00	0.00	0.00	0.00	0.00	
8.1.2.3	Spot Market/e-auction	MMT	0.00	0.00	0.00	0.10	0.00	
8.1.3	Transportation Distance of the station from the sources of supply	KM	CCL: Min. 559 Km (Dakra Manual Sdng), Max. 630 Km (North Ramgarh Colly Sdng, Chainpur) ECL: Min. 657 Km (Belbaid), Max. 683 Km (Dalurbranch Colly Sdng, Pandabeswar)					
8.1.4	Mode of Transport		Rail					
8.1.5	Maximum Station capability to stock primary fuel	Days & MT	81.2 / 0.5					
8.1.6	Maximum stock maintained for primary fuel	MT	283054	368000	196000	606668	482000	
8.1.7	Minimum Stock maintained for primary fuel	MT	182000	35811	0	203000	127000	
8.1.8	Average stock maintained for primary fuel	MT	235687	185035	70149	336755	285997	

8.2	Secondary Fuel :							
8.2.1	Annual Allocation/ Requirement		KL				1734.48	
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						Indian Railways	
8.2.5	Maximum Station capability to stock secondary fuels		KL				8000	
8.2.6	Maximum Stock of secondary oil actually maintained		KL				2697	
8.2.7	Minimum Stock of secondary oil actually maintained		KL				719	
8.2.8	Average Stock of secondary oil actually maintained		KL				1664	
9	Cost of Spares :							
9.1	Cost of Spares capitalized in the books of accounts		Rs. Lakhs	518.87	1860.08	1125.12	2320.36	2783.23
9.2	Cost of spares included in capital cost for the purpose of tariff		Rs. Lakhs	0.00	0.00	0.00	0.00	0.00
10	Generation :							
10.1	-Actual Gross Generation at generator terminals		MU	3222.78	3576.87	3161.35	3129.83	3241.39
10.2	-Actual Net Generation Ex-bus		MU	2835.38	3151.65	2790.34	2756.78	2857.87
10.3	-Scheduled Generation Ex-bus		MU	2827.59	3149.38	2898.04	2871.66	2954.59
11	Average Declared Capacity (DC)		MW	327.04	368.47	346.79	366.40	366.28
12	Actual Auxiliary Energy Consumption excluding colony consumption		MU	381.20	418.82	362.40	363.84	371.72
13	Actual Energy supplied to Colony from the station		MU	6.20	6.40	8.61	8.76	8.22
14	Primary Fuel :							
14.1	Consumption :		MT	2657318	2907292	2495911	2296153	2224234
14.1.1	Domestic coal	From linked mines	MT	2639699	2907292	2495444	2292176	2224234
		Non-linked mines	MT	0	0	0	0	0
14.1.2	Imported coal		MT	17619	0	467	3977	0
14.1.3	Spot market/e-auction coal		MT					
14.2	Gross Calorific Value (GCV) :							
14.2.1	Domestic Coal	(As Billed) (Eq. Basis)	kCal/kg	-	-	5149	5198	4993
		(As Received) (TM Basis)	kCal/kg	-	-	3521	3737	4042
		(As Fired) (TM Basis)	kCal/kg	3340	3425	-	-	-
14.2.2	Imported Coal	(As Billed) (ADB)	kCal/kg	-	-	-	-	-
		(As Received) (ADB Basis)	kCal/kg	6220	0	0	4980	0

14.2.3	Spot market/e-auction coal	(As Billed)	kCal/kg	-	-	-	-	-
		(As Received)	kCal/kg	-	-	-	-	-
14.2.4	Weighted Average Gross Calorific value (As Billed)		kCal/kg	-	-	5149	5198	4993
14.2.5	Weighted Average Gross Calorific value (As		kCal/kg	-	-	3521	3740	4042
14.2.6	Weighted Average Gross Calorific value (As Fired)		kCal/kg	3340	3425	-	-	-
14.3	Price of coal :							
14.3.1	Weighted Average Landed price of Domestic coal		Rs/MT	2525.96	3339.27	3699.66	3378.71	3759.14
14.3.2	Weighted Average Landed Price of Imported coal		Rs/MT	3683.05		7574.62		
14.3.3	Weighted Average Landed Price of Spot market/e-auction		Rs/MT				4266.44	
14.3.4	Weighted Average Landed Price of all the Coals		Rs/MT	2527.36	3339.27	3706.54	3407.33	3759.14
14.4	Blending :		% and MT (of the total coal consumed)					
14.4.1	Blending ratio of imported coal with domestic coal		Equivalent to domestic coal	0.67	0.00	0.02	0.17	0.00
14.4.2	Proportion of e-auction coal in the blending							
14.5	Actual Average Coal stock maintained		MT	235687	185035	70149	336755	285997
			Days	32.82	25.77	9.77	46.90	39.83
14.5	Actual Transit & Handling Losses for coal/Lignite							
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines		%	NA	NA	NA	NA	NA
14.5.1.2	Transit loss from non-linked mines including e-auction coal			NA	NA	NA	NA	NA
14.5.1.3	Transit loss of imported coal			NA	NA	NA	NA	NA
14.5.2	Non-Pit Head station							
14.5.2.1	Transit loss from linked mines (MGR/ Rail)		%	0.73	0.76	0.70	0.74	0.78
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.			-	-	-	-	-
14.5.2.3	Transit loss of imported coal		%	0.00	-	0.20	-	-
15	Secondary Fuel Oil : (If more than one fuel used then give details of all the fuels							
15.1	Consumption	HFO	KL	1889.0	1513.0	1247.0	1011.0	1427.0
15.2	Weighted Average Gross Calorific value (As received)	HFO	Kcal/Ltr	9310.0	9354.0	9499.0	9562.0	9594.0
15.3	Weighted Average Price		Rs/KL	60985.5		73118.0	44724.0	50838.0
15.4	Actual Average Stock maintained	HFO	KL	1644	1586	1582	1859	1650
16	Weighted average duration of outages(unit-wise details):							
16.1	Planned Outages		Days	37.16	21.68	27.37	14.50	16.62
16.2	Forced Outages		Days	25.99	6.89	18.51	26.57	8.38
16.3	Number of tripping		Nos	27	26	30	16	23
16.4	Number of start-ups:		Nos	42	37	42	26	36
16.4.1	Cold Start-up		Nos	9	2	13	8	6

For the Station 2000 MW

16.4.2	Warm Start-up	Nos	17	22	10	9	15	
16.4.3	Hot start-up	Nos	16	13	19	9	15	
17	NOx , SOx ,and other particulate matter emission in :							
17.1	Design value of emission control equipment	mg/Nm3	ESP design dust outlet Conc.: 99.37% on Inlet					
17.2	Actual emission Stage-I	SPM	mg/Nm3	114	114	115	123	120
		SOX	mg/Nm3	761	793	773	760	728
		NOX	mg/Nm3	392	390	381	339	287
19	Detail of Ash utilization % of fly ash produced							
19.1	Conversion of value added product	%	63.42	41.23	55.43	105.05	118.17	
19.2	For making roads & embarkment	%	0.00	0.00	0.00	0.00	5.90	
19.3	Land filling	%	5.56	5.12	4.60	0.00	1.33	
19.4	Used in plant site in one or other form or used in some other	%	36.28	24.25	21.47	43.87	38.64	
19.5	Any other use , Please specify	%	0.00	0.00	0.00	0.00	0.00	
20	Cost of spares actually consumed							
21	Average stock of spares							
22	Number of employees deployed in O&M							
22.1	- Executives		286	295	291	297	312	As on last day of FY
22.2	- Non Executives		258	254	246	234	225	
22.3	- Corporate office		3170	3051	2916	2973	2787	
23	Man-MW ratio							
			1.24	1.25	1.22	1.21	1.22	

Note: Allocation of stations attached at Appendix-I
Man-MW ratio computed excluding Corporate Employees
Average Coal stock computed based on monthly closing stock

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company:

NTPC Ltd.

Name of the Power Station:

TandaThermal Power Station

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
1	Consumption of stores & spares	2503.10	2781.48	2677.44	2590.99	2943.20
2	Repair & Maintenance	2881.87	2910.76	2894.36	3970.79	3978.16
3	Insurance	136.35	155.65	174.87	139.36	163.16
4	Security	1049.10	1110.13	1344.29	1455.00	1506.85
5	Water Charges	243.58	178.23	189.24	852.17	170.51
6	Administrative Expenses					
6.1	Rent	0.00	0.00	0.00	0.00	0.00
6.2	Electricity charges	145.20	206.82	292.39	245.15	243.02
6.3	Travelling & Conveyance	304.50	324.54	367.32	398.93	372.34
6.4	Communication Expenses	64.09	46.90	43.08	73.06	70.04
6.5	Advertising	6.52	6.89	7.12	10.45	9.43
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	29.26	25.42	44.19	44.41	58.84
6.9	Filing fee	17.60	19.36	19.36	19.36	19.36
	Subtotal (Administrative Expenses)	567.17	629.94	773.46	791.36	773.04
7.0	Employee Cost					
7.1.1	Salaries, Wages & Allowances	5027.95	5106.80	5542.94	5565.69	6085.19
7.1.2	Pension	2332.63	3316.47	2103.60	2211.04	1605.98
7.1.3	Gratuity	154.61	67.99	-29.52	-20.16	1066.89
7.1.4	Provident Fund	339.72	385.61	404.37	442.87	480.82
7.1.5	Leave Encashment	820.22	966.15	534.17	631.68	989.37
7.2	Staff welfare expenses					
7.2.1	-Medical expenses on superannuated employees	4.78	2.16	3.18	6.04	0.00
7.2.2	-Medical expenses on regular employees & others	316.96	210.41	434.07	577.78	218.76
7.2.3	-Uniform/Livries & safety equipment	28.81	86.62	80.18	87.10	139.45
7.2.4	-Canteen expenses	101.14	101.29	89.39	110.35	115.34
7.2.5	-Other staff welfare expenses	90.30	83.54	72.73	90.86	143.07
	Subtotal (Staff welfare Expenses)	541.99	484.03	679.55	872.13	616.62
7.3	Productivity linked Incentive	195.80	245.70	60.73	65.14	0.00
7.4	Expenditure on VRS	0.00	0.00	38.76	0.00	0.00
7.5	Ex-gratia	48.73	51.42	91.20	59.62	59.48
7.6	Performance Related Pay (PRP)	568.09	198.77	531.27	621.38	791.63
	Sub Total (Employee Cost)	10029.73	10822.96	9957.09	10449.38	11695.98
8	Loss of Store	0.00	0.00	1.10	3.08	0.00
9	Provisions	0.00	0.00	22.48	0.50	0.00
10	Prior Period Expenses	0.00	7.60	47.32	0.00	0.00
11	Corporate Office expenses allocation	1131.25	1144.28	1215.61	1251.02	1280.33
12	Others					
12.1	Rates & Taxes	3.12	2.27	2.90	2.65	1.76
12.2	Water cess	42.71	49.44	41.67	24.67	20.72
12.3	Training & recruitment expenses	47.30	29.46	21.03	22.36	36.25
12.4	Tender Expenses	28.84	34.08	72.85	88.02	61.63
12.5	Guest house expenses	41.82	54.85	59.64	52.36	55.10
12.6	Education expenses	19.99	25.59	33.87	10.62	19.00

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
12.7	Community Development Expenses	33.44	64.33	95.19	185.28	326.89
12.8	Ash utilisation expenses	0.00	-4.98	-12.08	-39.66	-19.33
12.9	Books & Periodicals	1.36	0.91	0.13	0.08	0.46
12.10	Professional Charges	19.08	51.30	17.19	32.48	13.06
12.11	Legal expenses	5.39	3.90	11.89	14.21	8.28
12.12	EDP Hire & other charges	20.46	25.48	30.84	40.49	38.22
12.13	Printing & Stationery	26.27	38.31	23.08	11.31	24.49
12.14	Misc Expenses	179.36	173.02	216.77	1319.57	285.87
	Sub Total (Others)	469.14	547.94	614.97	1764.44	872.41
13	(Total 1 to 12)	19011.28	20288.97	19912.22	23268.10	23383.65
14	Revenue / Recoveries	-37.18	-34.33	-40.45	-45.11	-56.55
15	Net Expenses	18974.10	20254.64	19871.77	23222.99	23327.10
16	Capital spares consumed	0.00	9.00	518.43	391.78	854.23
	Total O&M Cost	18974.10	20263.64	20390.20	23614.77	24181.32

Annexure-VI (C)

DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase: Tanda Thermal Power Station (440 MW)

(Rs. In Lakhs)

Sl.No.	ITEM	2012-13	2013-14	2014-15	2015-16	2016-17
1	2	3	4	5	6	7
(A)	Plant					
1	Type of Plant	Coal Fired Thermal Power Plant				
2	Type of Cooling Tower	IDCT				
3	Type of Cooling Water System	Closed system				
4	Any Special Features which may increase/reduce water consumption					
(B)	Quantum of Water : (Cubic Meter)					
5	Contracted Quantum	45				
6	Allocation of Water	45				
7	Actual water Consumption	940301332	760311755	18995750	18056090	16218819
8	Rate of Water Charges	12.48	12.48	12.48	12.48	12.48
9	Other charges/Fees , if paid as part of Water Charges Rs lakhs	6 Lacs/ Cusec/ year	6 Lacs/ Cusec/ year	6 Lacs/ Cusec/ year	6 Lacs/ Cusec/ year	6 Lacs/ Cusec/ year
	Total water Charges Paid Rs lakhs	367.01	274.57	211.36	200.9	180.45

Details of capital Spares

Name of Company : NTPC Limited

Name of Power station : Tanda TPS

Sl . No.	ITEM	2012-13	2013-14	2014-15	2015-16	2016-17
(A)	Details of capital spares in Opening stock	6073.61	6592.48	8443.56	9050.25	10978.84
(B)	Details of capital spares procured during the year	518.87	1860.08	1125.12	2320.36	2783.23
(C)	Details of capital spares consumed during the year	0.00	9.00	518.43	391.78	854.23
(D)	Details of capital spares closing at the end of the year	6592.48	8443.56	9050.25	10978.84	12907.84

Note: Details of spares being provided in soft copy as voluminous

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Tanda TPS														
Station/ Stage/ Unit: 4 X 110														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 440 MW														
COD : 14.01.2000 (date of Takeover)														
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	Absolute value (in Rs Cr)	73.25	76.18	79.22	82.39	85.69	115.5	122.1	129.096	136.488	144.276	157.872	167.816	178.376
	Water charges (finally admitted by CERC) (in Rs Cr) #											2.40	2.40	2.40
	Rate (%)													
	Normative O&M Expenses (in Rs Lakh/MW) #	16.65	17.31	18.00	18.73	19.48	26.25	27.75	29.34	31.02	32.79	35.88	38.14	40.54
	(f) Compensation Allowances (in Rs Cr)													
25	AFC (Rs. Kwh)	0.94	0.95	0.96	0.77	0.78	1.03	1.06	1.12	1.05	1.13	1.12	1.17	1.22
26	Energy Charge (Rs./Kwh)	1.65	1.66	1.77	1.67	2.03	2.06	2.09	2.91	2.48	3.02	3.31	2.89	2.86
27	Total tariff (Rs. Kwh)	2.59	2.61	2.73	2.44	2.81	3.09	3.15	4.03	3.53	4.15	4.43	4.06	4.08
28	Revenue realisation before tax (Rs. Crore)													
29	Revenue realisation after tax (Rs. Crore)													
30	Profit/ loss (Rs. Crore)	52.13	210.16	151.95	100.19	95.42	93.66	203.91	147.82	116.27	49.42	40.26	77.39	201.49
31	DSM Generation (MU)				25.31	20.05	18.85	15.13	20.13	7.79	2.27	-107.71	-114.88	-96.72
32	DSM Rate (Ps/Kwh)													
33	Revenue from DSM (Rs. Crore)				-5.38	-3.90	-6.66	-4.80	-5.71	-1.68	-0.50	22.90	23.05	17.60

Note:

- 1 \$ "Ex-Bus" word is additionally inserted.
- 2 # "Average" word is additionally inserted.
- 3 \$ "for 2004-09 & pre tax (admitted by CERC) for 2009-17" word is additional inserted
- 4 # Additional Row 24(e) inserted
- 5 DSM Revenue (-)Received / (+) Paid