

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
1	Name of Company		NTPC Ltd.					
2	Name of Station/ Pit head or Non- Pit head		Farakka Super Thermal Power Station Stage-I&II Pit-Head					
3	Installed Capacity and Configuration	MW	3X200 + 2 X 500 = 1600 MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		Stage-I : CE Boiler; KWU Turbine / 150 Ksc, 535 Deg C Stage-II : B&W Boiler and KWU Turbine/ 170kc , 537 Deg C					
5	Type of BFP		Stage-I: Electric Driven Stage-II : Steam Driven					
6	Circulating water system		Open Cycle					
7	Any other Site specific feature		Draws cooling water from Ganga Feeder Canal;					
8	Fuels :							
8.1	Primary Fuel :		Coal					
8.1.1	Annual Allocation or/and Requirement		Annual allocation through FSA dated 05.09.2011 with NEC for Farakka -I -0.20 MMT Annual allocation through modified FSA dated 24.12.2013 with BCCL for Farakka -I - 0.403 MMT Annual allocation through modified FSA dated 31.08.2016 with ECL for Farakka -I - 6.397 MMT Annual allocation through FSA dated 11.07.2013 with ECL for Farakka-II - 2.312 MMT Allocation through MOU dated 19.10.2011 with NEC - 0.3 MMT Annual Requirement : 11.59					Based on 90% PLF for 2100 MW Station
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		ECL, BCCL, CCL, MCL, NEC (Presently ECL, BCCL, NEC)					For 2100 MW Station
			7.00	9.31	9.31	9.31	9.31	
			ECL: G13 & above BCCL: ROM G5 to G12, W-III, W-IV and washed Power coal NEC: G1, G2, G4					
8.1.2.1	FSA	LOA	8.12	8.97	8.49	7.93	8.58	
		MoU	MMT	0.03	0.04	0.17	0.00	0.02
8.1.2.2	Imported	MMT	1.04	1.37	1.28	0.93	0.37	
8.1.2.3	Spot Market/e-auction	MMT	0.00	0.00	0.00	0.00	0.00	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology	
8.1.3	Transportation Distance of the station from the sources of supply	KM	ECL: Min. 172 Km (Pandabeswar), Max. 238 Km (Bonjemehary colly. Sdng) BCCL: Min. 237 Km (New Lakideh), Max. 301 Km (Kesargargh colly. Sdng) NEC: 1260 Km (Ledo)						
8.1.4	Mode of Transport		Indian Railways / MGR						
8.1.5	Maximum Station capability to stock primary fuel (at normative level)	Days & MMT	19/ 0.58						
8.1.6	Maximum stock maintained for primary fuel	MT	113342	410000	428449	613195	589000		
8.1.7	Minimum Stock maintained for primary fuel	MT	4975	25729	46000	129558	267000		
8.1.8	Average stock maintained for primary fuel	MT	28103	191846	226483	329398	388031		
8.2	Secondary Fuel :								
	HFO		10000						For 2100 MW Station
8.2.2	Sources of supply		IOC						
8.2.3	Transportation Distance of the station from the sources of supply	KM	383						
8.2.4	Mode of Transport		MGR /Indian Railways						
8.2.5	Maximum Station capability to stock secondary fuels	KL	11500						
8.2.6	Maximum Stock of secondary oil actually maintained	KL	7000.00						
8.2.7	Minimum Stock of secondary oil actually maintained	KL	5000.00						
8.2.8	Average Stock of secondary oil actually maintained	KL	6000.00						
9	Cost of Spares :								
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs	4468.71	7149.89	5016.04	5686.53	10888.89	For 2100 MW Station	
9.2	Cost of spares included in capital cost for the purpose of tariff	Rs. Lakhs	0	0	0	0	0		
10	Generation :								
10.1	-Actual Gross Generation at generator terminals	MU	9027.76	10375.6	10195.3	9464.81	10316.64		
10.2	-Actual Net Generation Ex-bus	MU	8360.46	9673.59	9476.01	8750.11	9534.41		
10.3	-Scheduled Generation Ex-bus	MU	8555.55	9703.44	9641.62	8997.36	9673.64		
11	Average Declared Capacity (DC)	MW	1105.18	1379.59	1270.7	1216.45	1303.3		
12	Actual Auxiliary Energy Consumption excluding colony	MU	603.57	661.27	718.34	700.24	777.7		
13	Actual Energy supplied to Colony from the station	MU	22.51	21.462	18.69	17.56	17.44	For 2100 MW Station	
14	Primary Fuel :								
14.1	Consumption :	MT	7099401	7580063	7460388	6591469	6888666		
14.1.1	Domestic coal								
	From linked mines	MT	6270018	6615771	6388933	5902388	6584079		
	Non-linked mines	MT							
14.1.2	Imported coal	MT	829383	964292	1071455	689081	304587		
14.1.3	Spot market/e-auction coal	MT							

SI.No.	Particulars			Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
14.2	Gross Calorific Value (GCV) :									
14.2.1	Domestic Coal	(As Billed) (Eq. Basis)	kCal/kg				4720	4808	4690	
		(As Received) (TM Basis)	kCal/kg					3401	3611	
		(As Fired) (TM Basis)	kCal/kg							
14.2.2	Imported Coal	(As Billed) (Eq. Basis)	kCal/kg				5602	5655	5172	
		(As Received) (TM Basis)	kCal/kg					4520	4663	
14.2.3	Spot market/e-auction coal	(As Billed)	kCal/kg	NA	NA	NA	NA	NA	NA	
		(As Received)	kCal/kg	NA	NA	NA	NA	NA	NA	
14.2.4	Weighted Average	Gross Calorific value (As Billed)	kCal/kg				4845	4898	4737	
14.2.5	Weighted Average	Gross Calorific value (As Received)	kCal/kg	NA	NA		3265	3435	3672	
14.2.6	Weighted Average	Gross Calorific value (As Fired)	kCal/kg	3026	3276		NA	NA	NA	
14.3	Price of coal :									
14.3.1	Weighted Average Landed price of Domestic coal				2813.62	3480.32	3422.88	3413.96	3649.36	
14.3.2	Weighted Average Landed Price of Imported coal				6903.43	6498.85	5104.93	4371.17	3892.84	
14.3.3	Weighted Average Landed Price of Spot market/e-auction coal									
14.3.4	Weighted Average Landed Price of all the Coals				3277.81	3864.71	3662.64	3515.05	3660	
14.4	Blending :		% and MT (of the total coal consumed)	11.68%	12.72%	14.36%	10.45%	4.42%		
14.4.1	Blending ratio of imported coal with domestic coal			Equivalent to domestic coal						
14.4.2	Proportion of e-auction coal in the blending									
14.5	Actual Average Coal stock maintained			MT	28103	191846	226483	329398	388031	Computed at normative levels operating levels for 2100 MW
				Days	0.94	6.40	7.55	10.98	12.94	
14.5	Actual Transit & Handling Losses for coal/Lignite									
14.5.1	Pit- Head Station									
14.5.1.1	Transit loss from linked mines				0.19	0.19	0.19	0.19	0.37	
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.				NA	NA	NA	NA	NA	
14.5.1.3	Transit loss of imported coal				0.11	0.11	0.11	0.11	0.10	
14.5.2	Non-Pit Head station									
14.5.2.1	Transit loss from linked mines			MT						
				%	0.189	0.188	0.185	0.186	0.365	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.							
14.5.2.3	Transit loss of imported coal		0.108	0.106	0.106	0.105	0.104	
15	Secondary Fuel Oil : (If more than one fuel used then give details of all the fuels							
15.1	Consumption	LDO	KL	1	0	0	0	0
		HFO	KL	10240	6112	8965	16670.5	8995
15.2	Weighted Average Gross Calorific value (As received)		Kcal/l	9568	9536	9739	9751	9776
15.3	Weighted Average Price			48300	49515	42509	25584	25653
15.4	Actual Average stock maintained		KL	6646	5812	6010	5176	5747
16	Weighted average duration of outages(unit-wise details):							
16.1	Planned Outages		Days	6.38	3.42	7.07	5.14	1.7
16.2	Forced Outages		Days	68.46	31.59	39.3	49.22	35.37
16.3	Number of tripping		Nos	67	37	51	58	52
16.4	Number of start-ups:		Nos	69	37	51	58	57
16.4.1	Cold Start-up		Nos	22	23	23	31	29
16.4.2	Warm Start-up		Nos	23	3	17	7	7
16.4.3	Hot start-up		Nos	24	11	11	20	21
17	NOx , SOx ,and other particulate matter emission in :							
17.1	Design value of emission control equipment		mg/Nm3	SPM ESP design outlet Conc. Stage-I = 551.7				
17.2	Actual emission (Stage-I)	SPM	mg/Nm3	85.1	99.7	121.5	119.7	119.7
		SOX	mg/Nm3	442.1	460.3	537.8	424.7	303.7
		NOX	mg/Nm3	376.2	341.7	342.8	385.4	331.3
	Actual emission (Stage-II)	SPM	mg/Nm3	121.8	124.8	136.2	142.2	142.2
		SOX	mg/Nm3	461.3	456.4	575.9	400.8	332.8
		NOX	mg/Nm3	463.4	466.4	357.3	541.5	358.7
19	Detail of Ash utilization % of fly ash produced		%	91.40	35.71	27.83	30.02	55.22
19.1	Conversion of value added product		%	29.17	11.53	13.04	5.24	9.56
19.2	For making roads & embarkment		%	46.87	10.08	7.13	8.21	2.01
19.3	Land filling		%	8.60	6.19	1.94	11.72	31.67
19.4	Used in plant site in one or other form or used in some other site		%	6.76	7.91	5.72	4.85	11.99
19.5	Any other use , Please specify		%	0.00	0.00	0.00	0.00	0.00
20	Cost of spares actually consumed		Rs. Lakhs	5584.95	7562.66	7305.71	7972.94	9147.66
21	Average stock of spares		Rs. Lakhs	14603.31	15733.17	18296.27	20207.04	21160.17
22	Number of employees deployed in O&M							
22.1	- Executives			501	502	480	456	433
22.2	- Non Executives			969	914	828	778	700
22.3	- Corporate office			3170	3051	2916	2973	2787
23	Man-MW ratio			0.70	0.67	0.62	0.59	0.54

Note: Allocation of stations attached at Appendix-I

Man-MW ratio computed excluding Corporate Employees

Average Coal stock computed based on monthly closing stock

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
1	Name of Company		NTPC Ltd.					
2	Name of Station/ Pit head or Non- Pit head		Farakka Super Thermal Power Station Stage-III (Non-pit head)					
3	Installed Capacity and Configuration	MW	1 X 500 = 500 MW					
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		BHEL Boiler & Turbine/ 170kc , 537 Deg C					
5	Type of BFP		Steam Driven					
6	Circulating water system		Closed Cycle					
7	Any other Site specific feature		Draws cooling water from hot water discharge of Stage-I&II.					
8	Fuels :							
8.1	Primary Fuel :		Coal / Lignite					Based on 90% PLF for 2100 MW Station
8.1.1	Annual Allocation or/and Requirement		Annual allocation through FSA dated 05.09.2011 with NEC for Farakka -I -0.20 MMT Annual allocation through modified FSA dated 24.12.2013 with BCCL for Farakka -I - 0.403 MMT Annual allocation through modified FSA dated 31.08.2016 with ECL for Farakka -I - 6.397 MMT Annual allocation through FSA dated 11.07.2013 with ECL for Farakka-II - 2.312 MMT Allocation through MOU dated 19.10.2011 with NEC - 0.3 MMT Annual Requirement : 11.59					
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		ECL, BCCL, CCL, MCL, NEC (Presently ECL, BCCL, NEC) 7.00 9.31 9.31 9.31 9.31 ECL: G13 & above BCCL: ROM G5 to G12,W-III, W-IV and washed Power coal NEC: G1, G2, G4					
8.1.2.1	FSA	LOA MoU	8.12	8.97	8.49	7.93	8.58	
8.1.2.2	Imported	MMT	0.03	0.04	0.17	0.00	0.02	
8.1.2.3	Spot Market/e-auction	MMT	1.04	1.37	1.28	0.93	0.37	
8.1.3	Transportation Distance of the station from the sources of supply	KM	ECL: Min. 172 Km (Pandabeswar), Max. 238 Km (Bonjemehary colly. Sdng) BCCL: Min. 237 Km (New Lakideh), Max. 301 Km (Kesargargh colly. Sdng) NEC: 1260 Km (Ledo)					
8.1.4	Mode of Transport		Indian Railways / MGR					
8.1.5	Maximum Station capability to stock primary fuel (at normative level)	Days & MT	19/ 0.58					
8.1.6	Maximum stock maintained for primary fuel	MT	113342	410000	428449	613195	589000	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
8.1.7	Minimum Stock maintained for primary fuel	MT	4975	25729	46000	129558	267000	For 2100 MW Station
8.1.8	Average stock maintained for primary fuel	MT	28103	191846	226483	329398	388031	
8.2	Secondary Fuel :							
	HFO				10000			
8.2.2	Sources of supply				IOC			
8.2.3	Transportation Distance of the station from the sources of supply	KM	383					
8.2.4	Mode of Transport				Indian Railways			
8.2.5	Maximum Station capability to stock secondary fuels	KL			11500			
8.2.6	Maximum Stock of secondary oil actually maintained	KL			7000.00			
8.2.7	Minimum Stock of secondary oil actually maintained	KL			5000.00			
8.2.8	Average Stock of secondary oil actually maintained	KL			6000.00			
9	Cost of Spares :							
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs	4468.71	7149.89	5016.04	5686.53	10888.89	For 2100 MW Station
9.2	Cost of spares included in capital cost for the purpose of tariff	Rs. Lakhs	1684	1713	386	0	0	
10	Generation :							
10.1	-Actual Gross Generation at generator terminals	MU	2584.96	2902.14	3183.6	2875.54	3427.3	
10.2	-Actual Net Generation Ex-bus	MU	2451.49	2732.72	2990.7	2690.3	3196.92	
10.3	-Scheduled Generation Ex-bus	MU	2667.78	2971.95	3112.61	2837.07	3251.17	
11	Average Declared Capacity (DC)	MW	327.57	405.96	398.8	385.77	462.78	
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU	172.82	184.96	170.49	177.83	213.33	
13	Actual Energy supplied to Colony from the station	MU	22.51	21.462	18.69	17.56	17.44	For 2100 MW Station
14	Primary Fuel :							
14.1	Consumption :	MT	2101509	2111078	2304610	1967429	2282719	
14.1.1	Domestic coal	From linked mines	MT	1886590	1841256	1984166	1752569	2186465
		Non-linked mines	MT					
14.1.2	Imported coal	MT	214919	269822	320444	214860	96254	
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			4720	4808	4690
		(As Received) (TM Basis)	kCal/kg				3401	3611
		(As Fired) (TM Basis)	kCal/kg					
14.2.2	Imported Coal	(As Billed) (Eq. Basis)	kCal/kg			5602	5655	5172
		(As Received) (TM Basis)	kCal/kg				4520	4663
14.2.3	Spot market/e-auction coal	(As Billed)	kCal/kg	NA	NA	NA	NA	NA
		(As Received)	kCal/kg	NA	NA	NA	NA	NA
14.2.4	Weighted Average Gross Calorific value (As Billed)	kCal/kg			4845	4898	4737	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
14.2.5	Weighted Average Gross Calorific value (As Received)	kCal/kg	NA	NA	3265	3450	3672	
14.2.6	Weighted Average Gross Calorific value (As Fired)	kCal/kg	2980	3279	NA	NA	NA	
14.3	Price of coal :							
14.3.1	Weighted Average Landed price of Domestic coal		2813.62	3480.32	3422.88	3413.96	3649.36	
14.3.2	Weighted Average Landed Price of Imported coal		6903.43	6498.85	5104.93	4371.17	3892.84	
14.3.3	Weighted Average Landed Price of Spot market/e-auction coal		NA	NA	NA	NA	NA	
14.3.4	Weighted Average Landed Price of all the Coals		3278	3865	3663	3515	3660	
14.4	Blending :	% and MT (of the total coal consumed)	10.23%	12.78%	13.90%	10.92%	4.22%	
14.4.1	Blending ratio of imported coal with domestic coal	Equivalent to domestic coal						
14.4.2	Proportion of e-auction coal in the blending							
14.5	Actual Average Coal stock maintained	MT	28103	191846	226483	329398	388031	Computed at operating levels for 2100 MW
		Days	0.94	6.40	7.55	10.98	12.94	
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 mines.		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	MT						
		%	0.19	0.19	0.19	0.19	0.37	
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.							
14.5.2.3	Transit loss of imported coal		0.11	0.11	0.11	0.11	0.10	
15	Secondary Fuel Oil : (If more than one fuel used then give details of all the fuels							
15.1	Consumption	HFO LDO	KL KL	0 7529	0 2295.5	10 2906	47 4609.5	
15.2	Weighted Average Gross Calorific value (As received)		Kcal/l	9568.29	9535.93	9739.12	9750.71	9775.61
15.3	Weighted Average Price			48299.56	49515.16	42509.29	25583.64	25653.43
15.4	Actual Average stock maintained		KL	6646	5812	6010	5176	5747
16	Weighted average duration of outages(unit-wise details):							
16.1	Planned Outages	Days	0.00	9.36	4.51	8.69	0.00	
16.2	Forced Outages	Days	39.93	47.20	34.55	53.20	3.19	
16.3	Number of tripping	Nos	51	20	16	10	7	
16.4	Number of start-ups:	Nos	51	20	16	10	7	
16.4.1	Cold Start-up	Nos	16	3	4	3	0	
16.4.2	Warm Start-up	Nos	12	4	5	3	2	
16.4.3	Hot start-up	Nos	23	13	7	4	5	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology	
17	NOx , SOx ,and other particulate matter emission in :								
17.1	Design value of emission control equipment	mg/Nm3							
17.2	Actual emission	SPM	mg/Nm3				70.5		70.5
		SOX	mg/Nm3				423.0		346.3
		NOX	mg/Nm3				565.2	377.7	
19	Detail of Ash utilization % of fly ash produced	%	91.40	35.71	27.83	30.02	55.22	For 2100 MW Station	
19.1	Conversion of value added product	%	29.17	11.53	13.04	5.24	9.56		
19.2	For making roads & embarkment	%	46.87	10.08	7.13	8.21	2.01		
19.3	Land filling	%	8.60	6.19	1.94	11.72	31.67		
19.4	Used in plant site in one or other form or used in some other site	%	6.76	7.91	5.72	4.85	11.99		
19.5	Any other use , Please specify	%	0.00	0.00	0.00	0.00	0.00		
20	Cost of spares actually consumed	Rs. Lakhs	5584.95	7562.66	7305.71	7972.94	9147.66	For 2100 MW Station	
21	Average stock of spares	Rs. Lakhs	14603.31	15733.17	18296.27	20207.04	21160.17		
22	Number of employees deployed in O&M							Manpower at the last day of FY. For the station 2100 MW	
22.1	- Executives		501	502	480	456	433		
22.2	- Non Executives		969	914	828	778	700		
22.3	- Corporate office		3170	3051	2916	2973	2787		
23	Man-MW ratio		0.70	0.67	0.62	0.59	0.54		

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

Annexure- VI (A)

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company:

NTPC Ltd.

Name of the Power Station:

Farakka Super Thermal Power Station (2100 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
1	Consumption of stores & spares	5584.95	7562.66	7305.71	7972.94	9147.66
2	Repair & Maintenance	8370.18	9085.36	11990.53	11286.01	12056.66
3	Insurance	787.94	782.98	813.86	658.15	602.59
4	Security	1849.31	1913.99	2258.35	2780.29	2890.05
5	Water Charges	904.50	1002.93	990.79	948.88	1015.19
6	Administrative Expenses					
6.1	Rent	21.72	24.90	27.07	26.70	22.83
6.2	Electricity charges	514.98	664.83	644.41	619.19	1000.78
6.3	Travelling & Conveyance	717.64	778.32	795.54	769.26	677.09
6.4	Communication Expenses	120.29	130.73	128.04	148.73	156.98
6.5	Advertising	0.94	11.63	25.75	10.63	13.74
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	34.92	38.95	57.05	58.21	71.42
6.9	Filing fee	83.84	92.40	92.40	92.40	92.40
	Subtotal (Administrative Expenses)	1494.33	1741.76	1770.26	1725.12	2035.24
7.0	Employee Cost					
7.1.1	Salaries,Wages & Allowances	15204.67	15142.70	14895.40	14569.55	16923.59
7.1.2	Pension	92.98	4085.89	1319.49	1339.08	1283.46
7.1.3	Gratuity	658.95	281.73	-104.88	-58.58	3268.12
7.1.4	Provident Fund	1149.88	1263.64	1240.47	1236.27	1271.50
7.1.5	Leave Encashment	1749.22	1767.48	1725.24	1885.76	2630.53
7.2	Staff welfare expenses					
7.2.1	-Medical expenses on superannuated employees	19.79	32.73	61.76	56.70	0.00
7.2.2	-Medical expenses on regular employees & others	1185.92	1247.31	1504.49	1814.68	912.77
7.2.3	-Uniform/Livries & safety equipment	118.33	308.19	283.71	242.20	357.50
7.2.4	-Canteen expenses	140.84	146.48	144.07	151.75	170.69
7.2.5	-Other staff welfare expenses	320.59	242.84	214.78	183.16	430.97
	Subtotal (Staff welfare Expenses)	1785.45	1977.55	2208.81	2448.48	1871.93
7.3	Productivity linked Incentive	407.33	477.08	307.92	165.83	0.00
7.4	Expenditure on VRS	0.00	0.00	120.53	0.00	0.00
7.5	Ex-gratia	576.30	539.06	859.20	505.19	471.88
7.6	Performance Related Pay(PRP)	679.35	631.88	707.55	934.60	1129.42
	Sub Total (Employee Cost)	22304.16	26167.02	23279.73	23026.17	28850.42
8	Loss of Store	2.84	3.02	3.08	5.24	-2.53
9	Provisions	127.88	217.10	4082.44	71.06	465.40
10	Prior Period Expenses	-650.18	-2.63	-20.52	225.01	0.00
11	Corporate Office expenses allocation	5384.16	5458.02	5807.05	5982.78	6109.47
12	Others					
12.1	Rates & Taxes	101.98	97.02	90.90	125.75	97.65
12.2	Water cess	482.25	716.01	607.46	802.10	664.90
12.3	Training & recruitment expenses	116.10	79.56	71.67	85.55	78.64
12.4	Tender Expenses	45.30	65.23	47.35	65.43	54.18
12.5	Guest house expenses	95.96	109.25	120.05	120.19	130.83
12.6	Education expenses	41.01	40.89	223.39	47.92	133.10

Annexure- VI (A)

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company: NTPC Ltd.
Name of the Power Station: Farakka Super Thermal Power Station (2100 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
12.7	Community Development Expenses	378.96	587.51	461.12	5196.10	1705.55
12.8	Ash utilisation expenses	0.00	-1.95	-14.04	-55.23	-13.66
12.9	Books & Periodicals	2.37	4.65	2.11	2.51	2.08
12.10	Professional Charges	37.96	69.64	24.67	22.30	33.97
12.11	Legal expenses	12.27	14.11	36.95	44.76	15.40
12.12	EDP Hire & other charges	24.53	36.23	37.53	40.67	27.30
12.13	Printing & Stationery	53.22	52.61	43.44	57.91	38.84
12.14	Misc Expenses	918.45	2153.98	1063.54	896.22	1312.91
	Sub Total (Others)	2310.38	4024.73	2816.14	7452.19	4281.70
13	(Total 1 to 12)	48470.44	57956.93	61097.41	62133.86	67451.84
14	Revenue / Recoveries	-130.39	-140.37	-163.11	-106.02	-92.40
15	Net Expenses	48340.05	57816.55	60934.30	62027.83	67359.43
16	Capital spares consumed	824.92	1585.32	1289.86	1602.84	4915.36
	Total O&M Cost	49164.97	59401.87	62224.16	63630.67	72274.79

DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase: Farakka Super Thermal Power Station (2100 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	Thermal : Coal Fired				
2	Type of Cooling Tower	Stage-III ; IDCT				
3	Type of Cooling Water System	Stage-I&II : Open Cycle; Stage-III : Closed Cycle				
4	Any Special Features which may increase/reduce water consumption	Draws cooling water from Farakka Feeder Canal				
(B)	Quantum of Water : (Cubic Meter)					
5	Contracted Quantum	2628*10 ⁶				
6	Allocation of Water	2628*10 ⁶				
7	Actual water Consumption	79.1*10 ⁶	87.7*10 ⁶	86.6*10 ⁶	82.9*10 ⁶	88.7*10 ⁶
8	Rate of Water Charges	Rs. 162 per 5000 cubic feet				
9	Other charges/Fees , if paid as part of Water Charges Rs lakhs					
	Total water Charges Paid Rs lakhs	904.48	1002.93	990.8	948.89	1015.19

Details of Capital Spares

Name of Company: NTPC Limited

Name of Power station : Farakka Super Thermal Power Station (2100 MW)

Rsa. Lakhs

Sl . No.	ITEM	2012-13	2013-14	2014-15	2015-16	2016-17
(A)	Details of capital spares in Opening stock	14169.59	17813.38	23377.95	27104.13	32244.22
(B)	Details of capital spares procured during the year	4468.71	7149.89	5016.04	5686.53	10888.89
(C)	Details of capital spares consumed during the year	824.92	1585.32	1289.86	1602.84	4915.36
(D)	Details of capital spares closing at the end of the year	17813.38	23377.95	27104.13	31187.83	38217.76

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

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Farakka STPS Stage-I&II														
Station/ Stage/ Unit: 3 X 200 + 2 X 500														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 1600 MW														
COD : 01.07.1996														
		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
1	Plant Availability Factor (PAF) (%)	70.53	84.34	84.92	83.99	76.81	73.36	87.23	82.56	73.38	92.65	84.92	81.29	87.09
2	Plant Load Factors (PLF) (%)	69.21	81.79	81.33	81.53	76.76	73.05	79.12	71	67.87	74.03	72.74	67.34	73.6
3	Scheduled Energy (MU)	NA	NA	NA	NA	9917.14	9403.80	10406.95	9540.03	8555.55	9703.44	9641.62	8997.36	9673.64
4	Scheduled Generation (MU)	NA	NA	NA	NA	9917.14	9403.80	10406.95	9540.03	8555.55	9703.44	9641.62	8997.36	9673.64
5	Actual Generation (MU)	8876.37	10660.69	10638.09	10938.65	9993.19	9479.21	10343.22	9277.58	8360.46	9673.59	9476.01	8750.11	9534.41
6	Quantum of coal consumption (MT)	8934468	9441561	9625056	9645264	8602254	8144248	7334125	6898354	7099401	7580063	7460388	6591469	6888666
7	Value of coal (Rs. Lakh)					273130	235857	302437	230681	232705	292947	273247	231693	252125
8	Specific Coal Consumption (kg/kwh)	0.921	0.824	0.844	0.822	0.8	0.795	0.661	0.691	0.8	0.74	0.73	0.7	0.64
9	Gross Calorific Value of Coal (Kcal/ Kg)	2644	2945	2863	2934	3006	3016	3623	3462	3004	3262	3244	3422	3856
10	Heat Contribution of Coal (Kcal/ kwh)	2436	2426	2416	2411	2403	2399	2396	2393	2386	2392	2388	2381	2453
11	Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
12	Quantum of Oil Consumption (Lit.)	23456.00	10772.00	10214.50	10365.00	13068.20	8518.00	4319.50	6036.00	10241.00	6111.50	8965.00	16670.50	8995.00
13	Value of Oil (Rs. lakh)													
14	Gross calorific value of oil (kcal/lit)	9585	9579	9578	9591	9619	9637	9669	9700	9573.5	9531	9738	9751	9774
15	Specific Oil Consumption (ml/ kwh)	2.42	0.94	0.90	0.88	1.21	0.83	0.39	0.60	0.96	0.59	0.88	1.76	0.87
16	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
17	Heat Contribution of Oil (Kcal/ kwh)	23.18	9.00	8.58	8.47	11.68	7.63	3.77	5.87	10.85	5.62	8.56	17.17	8.52
18	Station Heat Rate (kcal/kwh)	2459	2435	2425	2419	2415	2407	2400	2399	2397	2398	2397	2398	2462
19	Auxiliary Energy Consumption (%)	8.50	7.01	6.68	6.80	6.95	7.38	6.62	6.91	8.67	6.86	7.05	7.24	7.54
20	Debt at the end of the year (Rs. Cr)	149.20	101.92	63.86	38.74	40.94	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	Equity (Rs. Cr - (Average) #	1532.47	1536.47	1542.77	1548.28	1551.30	1548.03	1562.13	1568.95	1569.01	1567.74	1566.78	1566.78	1566.78
22	Working Capital (Rs. Cr) – finally admitted by CERC	450.62	455.13	460.20	466.32	470.78	912.36	919.26	928.05	935.01	945.78	904.48	914.63	922.87
23	Capital cost (Rs. Cr) – finally admitted by CERC (Average) #	306718.85	308052.23	310155.08	311991.81	312996.57	313430.86	318131.17	320404.87	320424.93	320001.20	319679.86	319679.86	319679.86
24	Capacity Charges/ Annual Fixed Cost (AFC) in Rs. Cr	538.49	544.08	551.22	559.40	565.93	815.68	833.88	850.35	877.70	914.80	866.78	893.87	918.09
	(a) Return on equity – post tax (admitted by CERC) for 2004-09 & pre tax (admitted by CERC) for 2009-17 \$													
	Absolute value (in Rs. Cr)	214.55	215.11	215.99	216.76	217.18	363.49	362.57	359.98	359.99	368.12	307.25	308.73	308.73
	Rate (%)	14.000	14.000	14.000	14.000	14.000	23.481	23.210	22.944	22.944	23.481	19.610	19.705	19.705
	(b) Interest on Loan													
	Absolute value (in Rs Cr)	7.43	5.28	3.76	3.15	1.30	1.54	0.16	0.00	0.00	0.00	0.00	0.00	0.00
	Rate (%) – Weighted Average Rate	4.31	4.35	4.74	6.47	4.02	6.81	6.36	6.33	6.40	6.41	6.51	6.69	7.31
	(c) Depreciation (finally allowed by CERC)													
	Absolute value (in Rs Cr)	114.33	114.82	115.61	116.29	116.67	71.27	76.29	79.88	79.58	79.19	79.41	79.41	79.41
	Rate (%)	3.73	3.73	3.73	3.73	3.73								
	(d) Interest on working Capital													
	Absolute value (in Rs Cr)	46.19	46.65	47.17	47.80	48.26	111.76	112.61	113.69	114.54	115.86	122.10	123.48	124.59
	Rate (%)	10.25	10.25	10.25	10.25	10.25	12.25	12.25	12.25	12.25	12.25	13.50	13.50	13.50
	(e) Operation and maintenance cost (finally admitted by CERC)													
	Absolute value (in Rs Cr)	156	162.22	168.7	175.4	182.52	239.2	252.84	267.34	282.66	298.84	303.4	322.5	342.8

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Farakka STPS Stage-I&II														
Station/ Stage/ Unit: 3 X 200 + 2 X 500														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 1600 MW														
COD : 01.07.1996														
		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
	Water charges (finally admitted by CERC) (in Rs Cr) #											8.05	8.05	8.05
	Rate (%)													
	(f) Compensation Allowances (in Rs Cr)						5.40	6.40	6.40	6.10	4.80	5.00	7.50	7.50
	(g) Special Allowance (in Rs. Cr)									11.82	24.98	41.57	44.21	47.02
25	AFC (Rs. Kwh)	0.52	0.53	0.53	0.54	0.55	0.74	0.75	0.77	0.79	0.83	0.80	0.82	0.84
26	Energy Charge (Rs./Kwh)	1.1	1.24	1.17	1.27	1.64	2.08	2.76	3.27	2.87	3.11	2.91	2.69	2.53
27	Total tariff (Rs. Kwh)	1.62	1.76	1.70	1.81	2.19	2.82	3.51	4.04	3.66	3.94	3.71	3.51	3.37
28	Revenue realisation before tax (Rs. Crore)													
29	Revenue realisation after tax (Rs. Crore)													
30	Profit/ loss (Rs. Crore)*	220.71	70.43	245.50	365.96	152.12	218.74	468.27	464.82	577.89	836.49	405.87	416.97	473.17
31	DSM Generation (MU)					76.05	75.41	-63.73	-262.45	-195.09	-29.85	-165.61	-247.25	-139.23
32	DSM Rate (Ps/Kwh)													
33	Revenue from DSM (Rs. Crore)					-28.12	-25.38	5.65	63.90	25.49	4.64	32.04	51.57	26.89

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
- 6 * For the whole station as an when the units were declared COD

Annexure-XIX

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Farakka STPS Stage-III														
Station/ Stage/ Unit: 1 X 500														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 500 MW														
COD : 04.04.2012														
		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
1	Plant Availability Factor (PAF) (%)									70.65	86.84	84.64	81.64	98.04
2	Plant Load Factors (PLF) (%)									59.51	66.26	72.68	65.47	78.25
3	Scheduled Energy (MU)									2667.78	2971.95	3112.58	2837.07	3251.17
4	Scheduled Generation (MU)									2667.78	2971.95	3112.58	2837.07	3251.17
5	Actual Generation (MU)									2451.49	2732.72	2990.70	2690.30	3196.92
6	Quantum of coal consumption (MT)									2101509	2111078	2304610	1967429	2282719
7	Value of coal (Rs. Lakh)									68883	81587	84410	69156	83548
8	Specific Coal Consumption (kg/kwh)									0.81	0.73	0.72	0.68	0.64
9	Gross Calorific Value of Coal (Kcal/ Kg)									2980	3279	3274	3450	3850
10	Heat Contribution of Coal (Kcal/ kwh)									2423	2385	2370	2360	2432
11	Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
12	Quantum of Oil Consumption (Lit.)									7529	2296	2906	6402	744
13	Value of Oil (Rs. lakh)													
14	Gross calorific value of oil (kcal/lit)									9573	9540	9722	9761	9767
15	Specific Oil Consumption (ml/ kwh)									2.91	0.79	0.91	1.59	0.22
16	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
17	Heat Contribution of Oil (Kcal/ kwh)									27.88	7.55	8.87	15.64	2.12
18	Station Heat Rate (kcal/kwh)									2451	2393	2379	2376	2434
19	Auxiliary Energy Consumption (%)									5.43	5.38	5.36	6.18	6.22
20	Debt at the end of the year (Rs. Cr)									1449.95	1439.46	1456.65	1333.21	1211.83
21	Equity (Rs. Cr - (Average) #									652.31	690.35	743.11	774.60	778.11
22	Working Capital (Rs. Cr) – finally admitted by CERC													
23	Capital cost (Rs. Cr) – finally admitted by CERC (Average) #									2174.37	2301.18	2477.05	2582.01	2593.69
24	Capacity Charges/ Annual Fixed Cost (AFC) in Rs. Cr									550.87	572.70	535.42	546.96	540.53
	(a) Return on equity – post tax (admitted by CERC) for 2004-09 & pre tax (admitted by CERC) for 2009-17 \$													
	Absolute value (in Rs. Cr)									149.67	162.10	145.72	152.64	153.33
	Rate (%)									22.944%	23.481%	19.610%	19.705%	19.705%
	(b) Interest on Loan													
	Absolute value (in Rs Cr)									144.11	142.05	142.72	137.03	124.51
	Rate (%) – Weighted Average Rate									9.82%	9.83%	9.86%	9.82%	9.78%
	(c) Depreciation (finally allowed by CERC)													
	Absolute value (in Rs Cr)									110.92	117.76	125.00	130.29	130.88
	Rate (%)									5.1011	5.1173	5.0461	5.0461	5.0461
	(d) Interest on working Capital													
	Absolute value (in Rs Cr)									59.39	60.04	48.00	48.48	48.47

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Farakka STPS Stage-III														
Station/ Stage/ Unit: 1 X 500														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 500 MW														
COD : 04.04.2012														
		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
	Rate (%)									13.50%	13.50%	13.50%	13.50%	13.50%
	(e) Operation and maintenance cost (finally admitted by CERC)													
	Absolute value (in Rs Cr)									69.12	73.08	72.00	76.55	81.36
	Water charges (finally admitted by CERC) (in Rs Cr) #											1.98	1.98	1.98
	Rate (%)													
	(f) Compensation Allowances (in Rs Cr)													
25	AFC (Rs. Kwh)									1.60	1.65	1.56	1.59	1.58
26	Energy Charge (Rs./Kwh)									2.83	3.09	2.92	2.70	2.52
27	Total tariff (Rs. Kwh)									4.43	4.74	4.48	4.29	4.10
28	Revenue realisation before tax (Rs. Crore)													
29	Revenue realisation after tax (Rs. Crore)													
30	Profit/ loss (Rs. Crore)*	220.71	70.43	245.50	365.96	152.12	218.74	468.27	464.82	577.89	836.49	405.87	416.97	473.17
31	DSM Generation (MU)									-216.29	-239.23	-121.88	-146.77	-54.25
32	DSM Rate (Ps/Kwh)													
33	Revenue from DSM (Rs. Crore)									38.35	39.62	25.56	31.25	11.11

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
- 6 * For the whole station as an when the units were declared COD