

## 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		Korba Super Thermal Power Station Stage-I&II (pit-head)						
3	Installed Capacity and Configuration	MW	3 X 200 + 3 x 500 = 2100 MW						
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		Stage - I (3X200MW) Steam Pr: 150 ata, MS/HRH Temp: 535/535 deg C, BHEL make KWU design Steam Turbine, BHEL make CE design Boiler. Stage -II (3X500MW) Steam Pr: 170 ata, MS/HRH Temp: 537/537 deg C, BHEL make KWU design Steam Turbine, BHEL make CE design Boiler.						
5	Type of BFP		Stage-I : Electric Driven Stage-II :2nos Steam Driven + 1nos Electric Driven						
6	Circulating water system		Hybrid(65% closed 35% Open approx.)						
7	Any other Site specific feature		Induced Draft Cooling system						
8	Fuels :								
8.1	Primary Fuel :		Coal						
8.1.1	Annual Allocation or/and Requirement		Annual allocation through FSA dated 12.09.2009 with SECL for Korba- I - 12.2 MMT Annual allocation through FSA dated 17.07.2013 with SECL for Korba- II - 2.312 MMT Requirement : 14.34 MT					For the Station (2600 MW) Requirement has been worked out at 90% PLF	
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		SECL 12.20      14.51      14.51      14.51      14.51 CCL: All Grades						
8.1.2.1	FSA	LOA MoU	MMT	14.84	15.15	14.17	14.16	12.98	
				0.00	0.00	0.00	0.00	0.00	
8.1.2.2	Imported		MMT	0.365	0.28	0.52	0.03	0.00	
8.1.2.3	Spot Market/e-auction		MMT	0.00	0.00	0.00	0.00	0.00	
8.1.3	Transportation Distance of the station from the sources of supply		KM	SECL: Min. 4 Km (Surakachar Colly Sdng, KORBA), Max. 399 Km (Bhatgaon Colly Sdng, KARONJI)					For the Station (2600 MW)
8.1.4	Mode of Transport		Indian Railways /MGR						
8.1.5	Maximum Station capability to stock primary fuel	Days & MMT	20/ 0.8						
8.1.6	Maximum stock maintained for primary fuel	MT	338370	609040	638000	687262	640000		
8.1.7	Minimum Stock maintained for primary fuel	MT	12786	371646	7000	154160	304753		
8.1.8	Average stock maintained for primary fuel	MT	136233	482115	203215	434900	434758		
8.2	Secondary Fuel :								
8.2.1	Annual Allocation/ Requirement		KL	10249.2					
8.2.2	Sources of supply		IOCL					For the Station (2600 MW)	

SI.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology/ Remarks	
8.2.3	Transportation Distance of the station from the sources of supply	KM	HSD 10 KM (Gopalpur-Korba)/LDO 100 KM Bilaspur/ HFO Barauni 700 KM						
8.2.4	Mode of Transport		Indian Railways (HFO) / Road (LDO/ HSD)						
8.2.5	Maximum Station capability to stock secondary fuels	KL	16700 (HFO)/ HSD (60)/ LDO (500)						
8.2.6	Maximum Stock of secondary oil actually maintained	HFO	KL	5851	5435	4485	4548	5354	For the Station (2600 MW)
		HSD	KL	46	41	36	35	42	
		LDO	KL	353	353	345	179	104	
8.2.7	Minimum Stock of secondary oil actually maintained	HFO	KL	3040	3286	1849	1636	3083	
		HSD	KL	19	21	19	16	24	
		LDO	KL	353	345	179	14	14	
8.2.8	Average Stock of secondary oil actually maintained	HFO	KL	4422	4150	3304	3065	3855	
		HSD	KL	32	29	26	29	33	
		LDO	KL	353	351	224	66	73	
<b>9</b>	<b>Cost of Spares :</b>								
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs	6195.99	7583.45	6205.09	3021.44	9211.07	For the Station (2600 MW)	
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		
<b>10</b>	<b>Generation :</b>								
10.1	-Actual Gross Generation at generator terminals	MU	16440.98	16832.34	16139.05	16541.82	16188.55		
10.2	-Actual Net Generation Ex-bus	MU	15376.24	15741.80	15112.48	15509.67	15145.76		
10.3	-Scheduled Generation Ex-bus	MU	15343.95	15792.61	15018.25	15380.30	15004.58		
<b>11</b>	<b>Average Declared Capacity (DC)</b>	MW	1772.54	1857.20	1726.78	1772.73	1799.46		
<b>12</b>	<b>Actual Auxiliary Energy Consumption excluding colony consumption</b>	MU	1047.46	1073.69	1007.32	1014.50	1028.38		
<b>13</b>	<b>Actual Energy supplied to Colony from the station</b>	MU	17.27	16.85	19.25	17.65	14.40		
<b>14</b>	<b>Primary Fuel :</b>								
14.1	<b>Consumption :</b>	MT	12268028	12321045	11689922	11581541	10478227		
14.1.1	Domestic coal	From linked mines	MT	11970880	12096354	11274728	11556356	10478227	
		Non-linked mines	MT						
14.1.2	Imported coal	MT	297147.8	224691.1	415194	25185	NA		
14.1.3	Spot market/e-auction coal	MT	NA	NA	NA	NA	NA		
<b>14.2</b>	<b>Gross Calorific Value (GCV) :</b>								
14.2.1	Domestic Coal	(As Billed) (Eq. Basis)	kCal/kg	4162	4150	4125	3874	4225	
		(As Received) (TM Basis)	kCal/kg	3502	3459	3479	3443	3725	
		( As Fired ) (TM Basis)	kCal/kg	-	-	-	-	-	

SI.No.	Particulars		Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology/ Remarks
14.2.2	Imported Coal	(As Billed) (ADB Basis)	kCal/kg	6262	6057	5648	5822	NA	
		(As Received) (ADB Basis)	kCal/kg	6262	6057	5648	5822	NA	
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							
14.2.5	Weighted Average Gross Calorific value (As	kCal/kg	NA	NA	3276	3391	3698		
14.2.6	Weighted Average Gross Calorific value (As Fired)	kCal/kg	3196	3255	NA	NA	NA		
14.3	Price of coal :								
14.3.1	Weighted Average Landed price of Domestic coal			1051.43	1103.01	1172.93	1446.77	2203.57	
14.3.2	Weighted Average Landed Price of Imported coal			7194.17	7154.99	6735.87	6252.76	0.00	
14.3.3	Weighted Average Landed Price of Spot market/e-auction				0.00	0.00	0.00	0.00	
14.3.4	Weighted Average Landed Price of all the Coals			1201.94	1212.88	1369.84	1456.39	2203.57	
14.4	Blending :		% and MT ( of the total coal consumed )	2.42%	1.82%	3.55%	0.22%		
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	136233	482115	203215	434900	434758	
			Days	3.34	5.00	11.00	19.00	10.00	
14.5	Actual Transit & Handling Losses for coal/Lignite								
14.5.1	<b>Pit- Head Station</b>								
14.5.1.1	Transit loss from linked mines		%	0.19	0.19	0.20	0.20	0.20	For the Station (2600 MW)
14.5.1.2	Transit loss from non-linked mines including e-auction coal			NA	NA	NA	0.80	0.80	
14.5.1.3	Transit loss of imported coal			0.18	0.19	0.19	0.20	NA	
14.5.2	<b>Non-Pit Head station</b>								
14.5.2.1	Transit loss from linked mines		MT	NA	NA	NA	NA	NA	
			%	NA	NA	NA	NA	NA	
14.5.2.2	Transit loss from non-linked mines including e-auction coal			NA	NA	NA	NA	NA	
14.5.2.3	Transit loss of imported coal			NA	NA	NA	NA	NA	

SI.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology/ Remarks	
15	Secondary Fuel Oil : ( If more than one fuel used then give details of all the fuels)								
15.1	Consumption	HFO	KL	1480	1625	2856	4000	3918	For the Station (2600 MW)
		HSD	KL	44	54	105	178	111	
		LDO	KL						
15.2	Weighted Average Gross Calorific value (As received)	HFO	Kcal/Ltr	10019	10092	10123	10207	10177	
		HSD	Kcal/Ltr	9057	9077	9069	9069	9073	
		LDO	Kcal/Ltr	9957	9825	9825	9910	9910	
15.3	Weighted Average Price	HFO	Rs/KL	48978	0	51542	26562	26829	
		HSD	Rs/KL	49598	70593	59280	49900	57394	
		LDO	Rs/KL	0	0	0	0	40827.9	
15.4	Actual Average Stock maintained	HFO	KL	4424	4150	3304	3065	3855	
		HSD	KL	32	29	26	29	33	
		LDO	KL	353	351	224	66	73	
16	Weighted average duration of outages (unit-wise)								
16.1	Planned Outages	Days	88.32	110.45	156.33	130.30	83.05		
16.2	Forced Outages	Days	19.00	21.33	31.19	43.11	30.96		
16.3	Number of tripping	Nos	27	30	42	42	40		
16.4	Number of start-ups:	Nos	28	32	41	44	40		
16.4.1	Cold Start-up	Nos	4	5	4	9	9		
16.4.2	Warm Start-up	Nos	13	17	26	22	24		
16.4.3	Hot start-up	Nos	11	10	11	13	7		
17	NOx , SOx ,and other particulate matter emission in :								
17.1	Design value of emission control equipment	mg/Nm3	ESP design dust outlet Conc.: Stage-I = 396; Stage-II = 300						
17.2	Actual emission (Stage-I)	SPM	mg/Nm3	107	90	98	102	111	
		SOX	mg/Nm3	598	535	566	555	490	
		NOX	mg/Nm3	301	254	263	282	272	
	Actual emission (Stage-II)	SPM	mg/Nm3	117	91	101	105	113	
		SOX	mg/Nm3	616	573	568	553	487	
		NOX	mg/Nm3	275	256	265	281	270	
19	Detail of Ash utilization % of fly ash produced	%	37.55	31.93	31.10	30.45	45.03		
19.1	Conversion of value added product	%	2.85	1.82	1.89	2.62	3.84	For the Station (2600 MW)	
19.2	For making roads & embarkment	%	0.00	0.00	0.00	0.00	0.45		
19.3	Land filling	%	1.57	0.00	0.00	0.00	0.38		
19.4	Used in plant site in one or other form or used in some other	%	33.14	30.12	29.21	27.83	40.37		
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	8093.32	9791.17	9045.88	9940.69	8069.70	For the Station (2600 MW)	
21	Average stock of spares	Rs. Lakhs	10803.70	13152.23	14594.69	14869.65	14471.51		
22	Number of employees deployed in O&M							Man power as on last day of FY. Man-MW capacity for the Station 2600 MW	
22.1	- Executives		554	527	503	480	486		
22.2	- Non Executives		1009	931	837	759	697		
22.3	- Corporate office		3170	3051	2916	2973	2787		
23	Man-MW ratio		0.60	0.56	0.52	0.48	0.46		

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/ Remarks		
1	Name of Company		NTPC Ltd.							
2	Name of Station/ Pit head or Non- Pit head		Korba Super Thermal Power Station Stage-III (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)		make KWU design Steam Turbine, BHEL make CE design Boiler.							
5	Type of BFP		2nos Steam Driven + 1nos Electric Driven							
6	Circulating water system		Hybrid(65% closed 35% Open approx.)							
7	Any other Site specific feature									
8	Fuels :									
8.1	Primary Fuel :		Coal							
8.1.1	Annual Allocation or/and Requirement		Annual allocation through FSA dated 12.09.2009 with SECL for Korba- I - 12.2 MMT Annual allocation through FSA dated 17.07.2013 with SECL for Korba- II - 2.312 MMT Requirement : 14.34 MT						For the Station (2600 MW) Requirement has been worked out at 90% PLF	
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		SECL 12.20      14.51      14.51      14.51      14.51 CCL: All Grades							
8.1.2.1	FSA	LOA MoU	MMT	14.84	15.15	14.17	14.16	12.98		
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	0.00	0.00		
8.1.3	Transportation Distance of the station from the sources of supply		KM	SECL: Min. 4 Km (Surakachar Colly Sdng, KORBA), Max. 399 Km (Bhatgaon Colly Sdng, KARONJI)						For the Station (2600 MW)
8.1.4	Mode of Transport			Indian Railways /MGR						
8.1.5	Maximum Station capability to stock primary fuel	Days & MT		17.5 / 0.6						
8.1.6	Maximum stock maintained for primary fuel	MT		338370	609040	638000	687262	640000		
8.1.7	Minimum Stock maintained for primary fuel	MT		12786	371646	7000	154160	304753		
8.1.8	Average stock maintained for primary fuel	MT		136233	482115	203215	434900	434758		
8.2	Secondary Fuel :									
8.2.1	Annual Allocation/ Requirement	KL		10249.2						For the Station (2600 MW)
8.2.2	Sources of supply			IOCL						

8.2.3	Transportation Distance of the station from the sources of supply		KM	HSD 10 KM (Gopalpur-Korba)/LDO 100 KM Bilaspur/ HFO Barauni 700 KM				
8.2.4	Mode of Transport			Indian Railways (HFO) / Road (LDO/ HSD)				
8.2.5	Maximum Station capability to stock secondary fuels	KL		16700 (HFO)/ HSD (60)/ LDO (500)				
8.2.6	Maximum Stock of secondary oil actually maintained	HFO	KL	5851	5435	4485	4548	5354
		HSD	KL	46	41	36	35	42
		LDO	KL	353	353	345	179	104
8.2.7	Minimum Stock of secondary oil actually maintained	HFO	KL	3040	3286	1849	1636	3083
		HSD	KL	19	21	19	16	24
		LDO	KL	353	345	179	14	14
8.2.8	Average Stock of secondary oil actually maintained	HFO	KL	4422	4150	3304	3065	3855
		HSD	KL	32	29	26	29	33
		LDO	KL	353	351	224	66	73
<b>9</b>	<b>Cost of Spares :</b>							
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs		6195.99	7583.45	6205.09	3021.44	9211.07
9.2	Cost of spares included in capital cost for the purpose of tariff	Rs. Lakhs		2370.00	933.00	0.00	0.00	0.00
<b>10</b>	<b>Generation :</b>							
10.1	-Actual Gross Generation at generator terminals	MU		4081.95	3820.59	3921.70	3887.29	4176.30
10.2	-Actual Net Generation Ex-bus	MU		3856.10	3611.42	3694.93	3666.50	3932.36
10.3	-Scheduled Generation Ex-bus	MU		3845.07	3616.65	3673.02	3638.86	3893.00
<b>11</b>	<b>Average Declared Capacity (DC)</b>	MW		443.00	430.11	422.32	417.82	469.99
<b>12</b>	<b>Actual Auxiliary Energy Consumption excluding colony consumption</b>	MU		221.52	205.30	225.09	218.06	239.14
<b>13</b>	<b>Actual Energy supplied to Colony from the station</b>	MU		4.33	3.87	1.73	2.73	4.77
<b>14</b>	<b>Primary Fuel :</b>							
14.1	Consumption :	MT		3037156	2750783	2799961	2662302	2676015
14.1.1	Domestic coal	From linked mines	MT	2962192	2695853	2696263	2659139	2676015
		Non-linked mines	MT					
14.1.2	Imported coal*	MT		74964	54930	103698	3163	0
14.1.3	Spot market/e-auction coal*	MT		NA	NA	NA	NA	NA
<b>14.2</b>	<b>Gross Calorific Value (GCV) :</b>							
14.2.1	Domestic Coal	(As Billed) (Eq. Basis)	kCal/kg	4150	4150	4125	3781	3981
		(As Received) (TM Basis)	kCal/kg	3502	3459	3479	3443	3725
		(As Fired) (TM Basis)	kCal/kg	-	-	-	-	-

For the Station (2600 MW)

For the Station (2000 MW)

14.2.2	Imported Coal	(As Billed) (ADB Basis)	kCal/kg	6262	6057	5648	5822	NA	
		(As Billed) (ADB Basis)	kCal/kg	6262	6057	5648	5822	NA	
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						
14.2.5	Weighted Average	Gross Calorific value (As Received)	kCal/kg	NA	NA	3284	3418	3694	
14.2.6	Weighted Average	Gross Calorific value (As Fired)	kCal/kg	3189	3269	NA	NA	NA	
14.3	Price of coal :								
14.3.1	Weighted Average Landed price of Domestic coal				1051.4	1103.0	1172.9	1446.8	2203.6
14.3.2	Weighted Average Landed Price of Imported coal				7194.2	7155.0	6735.9	6252.8	0.0
14.3.3	Weighted Average Landed Price of Spot market/e-auction					0.0	0.0	0.0	0.0
14.3.4	Weighted Average Landed Price of all the Coals				1201.9	1212.9	1369.8	1456.4	2203.6
14.4	Blending :		% and MT ( of the total coal consumed )		2.47%	2.00%	3.70%	0.12%	0.00%
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		136233	482115	203215	434900	434758
			Days		3.34	5.00	11.00	19.00	10.00
14.5	Actual Transit & Handling Losses for coal/Lignite								
14.5.1	<b>Pit- Head Station</b>								
14.5.1.1	Transit loss from linked mines		%		0.186	0.194	0.196	0.196	0.197
14.5.1.2	Transit loss from non-linked mines including e-auction coal				NA	NA	NA	0.797	0.797
14.5.1.3	Transit loss of imported coal				0.179	0.188	0.194	0.196	NA
14.5.2	<b>Non-Pit Head station</b>								
14.5.2.1	Transit loss from linked mines		MT		NA	NA	NA	NA	NA
			%		NA	NA	NA	NA	NA
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.				NA	NA	NA	NA	NA
14.5.2.3	Transit loss of imported coal				NA	NA	NA	NA	NA
15	Secondary Fuel Oil : ( If more than one fuel used then give details of all the fuels								

For the Station (2600  
MW)

15.1	Consumption	HFO	KL	552.5	524	284	614	440	For the Station (2600 MW)	
		LDO	KL	0	8	166	165			
15.2	Weighted Average Gross Calorific value (As received)	HFO	Kcal/Ltr	10024	10074	10119	10198	10188		
		LDO	Kcal/Ltr	NA	9825	9825	9910	NA		
15.3	Weighted Average Price	HFO	Rs/KL	48978	0	51542	26562	26829		
		HSD	Rs/KL	49598	70593	59280	49900	57394		
		LDO	Rs/KL	0	0	0	0	40827.9		
15.4	Actual Average Stock maintained	HFO	KL	4424	4150	3304	3065	3855		
		HSD	KL	32	29	26	29	33		
		LDO	KL	353	351	224	66	73		
16	Weighted average duration of outages( unit-wise details):									
16.1	Planned Outages	Days	0.00	26.01	3.00	34.09	0.00			
16.2	Forced Outages	Days	9.52	6.76	23.24	3.22	2.04			
16.3	Number of tripping	Nos	12	6	4	5	5			
16.4	Number of start-ups:	Nos	12	6	5	5	5			
16.4.1	Cold Start-up	Nos	1	3	4	1	-			
16.4.2	Warm Start-up	Nos	5	2	-	3	2			
16.4.3	Hot start-up	Nos	6	1	1	1	3			
17	NOx , SOx ,and other particulate matter emission in :									
17.1	Design value of emission control equipment	mg/Nm3	ESP design dust outlet Conc.: 50							
17.2	Actual emission	SPM	mg/Nm3							
		SOX	mg/Nm3							
		NOX	mg/Nm3							
19	Detail of Ash utilization % of fly ash produced	%	37.55	31.93	31.10	30.45	45.03			
19.1	Conversion of value added product	%	2.85	1.82	1.89	2.62	3.84			
19.2	For making roads & embarkment	%	0.00	0.00	0.00	0.00	0.45			
19.3	Land filling	%	1.57	0.00	0.00	0.00	0.38			
19.4	Used in plant site in one or other form or used in some other	%	33.14	30.12	29.21	27.83	40.37			
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	8093.32	9791.17	9045.88	9940.69	8069.70			
21	Average stock of spares	Rs. Lakhs	10803.70	13152.23	14594.69	14869.65	14471.51			
22	Number of employees deployed in O&M									
22.1	- Executives		554	527	503	480	486			
22.2	- Non Executives		1009	931	837	759	697			
22.3	- Corporate office		3170	3051	2916	2973	2787			
23	Man-MW ratio		0.60	0.56	0.52	0.48	0.46			

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:

Korba Super Thermal Power Station (2600 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
1	Consumption of stores & spares	8093.32	9791.17	9045.88	9940.69	8069.70
2	Repair & Maintenance	5309.07	5319.42	6108.77	7864.97	6054.05
3	Insurance	783.13	827.43	827.09	711.20	680.28
4	Security	1784.39	2043.97	2218.71	2386.78	2483.91
5	Water Charges	7804.09	8780.17	10126.02	10243.14	10067.49
6	Administrative Expenses					
6.1	Rent	6.20	7.56	12.79	9.11	4.67
6.2	Electricity charges	423.71	430.67	455.21	467.70	748.70
6.3	Travelling & Conveyance	827.87	893.61	835.27	778.30	799.23
6.4	Communication Expenses	140.15	145.47	119.60	144.89	154.50
6.5	Advertising	37.76	35.53	53.58	26.97	47.20
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	34.06	34.01	55.37	73.48	83.39
6.9	Filing fee	104.00	114.40	114.40	114.40	114.40
	Subtotal (Administrative Expenses)	<b>1573.76</b>	<b>1661.26</b>	<b>1646.22</b>	<b>1614.85</b>	<b>1952.09</b>
7.0	Employee Cost					
7.1.1	Salaries, Wages & Allowances	15685.27	15299.67	15247.07	14524.73	16406.32
7.1.2	Pension	95.76	4394.71	1391.84	1401.20	1341.52
7.1.3	Gratuity	767.16	289.46	-112.70	-56.73	3438.93
7.1.4	Provident Fund	1250.73	1376.43	1316.33	1307.63	1343.18
7.1.5	Leave Encashment	1779.73	1753.95	1702.00	1895.72	2366.30
7.2	Staff welfare expenses					
7.2.1	employees	22.75	25.53	61.90	53.20	0.00
7.2.2	& others	902.75	947.63	1039.41	1308.35	885.31
7.2.3	-Uniform/Livries & safety equipment	118.55	327.63	298.23	290.71	353.55
7.2.4	-Canteen expenses	122.47	180.49	179.67	242.30	236.99
7.2.5	-Other staff welfare expenses	297.01	365.67	365.22	358.31	541.94
	Subtotal (Staff welfare Expenses)	1463.53	1846.95	1944.43	2252.87	2017.78
7.3	Productivity linked Incentive	705.20	727.55	337.55	304.25	-0.41
7.4	Expenditure on VRS	0.00	0.00	451.86	1.48	0.00
7.5	Ex-gratia	606.88	567.33	868.06	547.57	490.02
7.6	Performance Related Pay (PRP)	691.21	436.51	746.91	929.69	1258.87
	Sub Total (Employee Cost)	23045.47	26692.56	23893.36	23108.40	28662.52
8	Loss of Store	0.43	1.31	0.00	0.00	0.00
9	Provisions	83.37	104.14	200.85	381.71	162.81
10	Prior Period Expenses	0.00	-3.33	-8.54	10.63	0.00
11	Corporate Office expenses allocation	6690.99	6756.68	7191.55	7402.83	7567.85
12	Others					
12.1	Rates & Taxes	489.78	510.96	526.09	528.80	813.49
12.2	Water cess	76.43	76.99	72.47	66.46	77.20
12.3	Training & recruitment expenses	188.92	79.39	86.48	172.81	134.41
12.4	Tender Expenses	98.89	70.38	72.14	54.95	84.48
12.5	Guest house expenses	59.62	61.07	70.43	72.66	80.48
12.6	Education expenses	20.40	27.07	237.17	48.07	77.13

## DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company:

NTPC Ltd.

Name of the Power Station:

Korba Super Thermal Power Station (2600 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
12.7	Community Development Expenses	768.22	986.98	457.76	2701.17	1854.93
12.8	Ash utilisation expenses	42.76	1.59	3.33	-2.75	-5.17
12.9	Books & Periodicals	2.10	1.54	2.95	3.04	2.13
12.10	Professional Charges	89.36	67.04	41.80	42.85	61.32
12.11	Legal expenses	39.00	32.25	21.12	13.68	49.84
12.12	EDP Hire & other charges	34.66	60.48	70.58	59.29	49.04
12.13	Printing & Stationery	61.79	37.59	47.28	47.76	65.37
12.14	Misc Expenses	573.03	1082.11	1045.65	466.60	553.24
	Sub Total (Others)	<b>2544.96</b>	<b>3095.46</b>	<b>2755.26</b>	<b>4275.38</b>	<b>3897.89</b>
13	(Total 1 to 12)	<b>57712.97</b>	<b>65070.23</b>	<b>64005.17</b>	<b>67940.60</b>	<b>69598.59</b>
14	Revenue / Recoveries	-64.77	-46.19	-64.53	-64.00	-73.25
15	Net Expenses	<b>57648.19</b>	<b>65024.04</b>	<b>63940.64</b>	<b>67876.59</b>	<b>69525.35</b>
16	Capital spares consumed	1706.72	1321.82	1863.91	3182.25	449.26
	Total O&M Cost	<b>59354.92</b>	<b>66345.86</b>	<b>65804.55</b>	<b>71058.84</b>	<b>69974.60</b>

## DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase: Korba Super Thermal Power Station (2600 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	Partially Closed Cycle				
4	Any Special Features which may increase/reduce water consumption					
(B)	Quantum of Water : ( Cubic Meter)					
5	Contracted Quantum	92 MCM (Payment for 90% of allocated quantity on consumption less than 90%)				
6	Allocation of Water	92 MCM	92 MCM	92 MCM	92 MCM	92 MCM
7	Actual water Consumption	64.45	66.73	64.59	63.28	61.57
8	Rate of Water Charges	9.26	10.65	12.25	12.25	12.25
9	Other charges/Fees , if paid as part of Water Charges Rs lakhs	NIL	NIL	NIL	NIL	NIL
	Total water Charges Paid Rs lakhs	7804.09	8780.17	10126.02	10243.14	10067.49

**Annexure-VI (D)****Details of capital Spares****Name of Company : NTPC Limited****Name of Power station : Korba Super Thermal Power Station (2600 MW)**

Rs. Lakhs

<b>Sl . No.</b>	<b>ITEM</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
(A)	Details of capital spares in Opening stock	16,330	20,819	27,081	31,422	33,948
(B)	Details of capital spares procured during the year	6,196	7,583	6,205	3,021	9,211
(C)	Details of capital spares consumed during the year	(1,707)	(1,322)	(1,864)	(3,182)	(449)
(D)	Details of capital spares closing at the end of the year	20,819	27,081	31,422	31,261	42,710

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

## Annexure-XIX

Name of the Utility: NTPC Ltd															
Name of the Generating Station: Korba STPS Stage-I&II															
Station/ Stage/ Unit: 3 X 200 (Stage-I) + 3X 500(Stage-II)															
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal															
Capacity of Plant (MW): 2100 MW															
COD : 01.06.1990															
		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) (%)	92.25	86.89	89.95	97.48	97.48	98.02	93.25	79.76	90.97	95.31	88.11	90.46	91.82	
2	Plant Load Factors (PLF) (%)	92.68	86.98	89.69	96.12	96.21	97.61	93.31	79.59	89.37	91.50	87.73	89.68	88.00	
3	Scheduled Energy (MU)	15728.82	14791.99	15352.77	16555.38	16510.04	16706.90	15914.64	13638.08	15343.95	15792.61	15018.25	15380.30	15004.58	
4	Scheduled Generation (MU)	15728.82	14791.99	15352.77	16555.38	16510.04	16706.90	15914.64	13638.08	15343.95	15792.61	15018.25	15380.30	15004.58	
5	Actual Generation (MU)	15925.18	14957.98	15491.61	16655.10	16658.70	16838.69	16012.62	13737.99	15376.24	15741.80	15112.48	15509.67	15145.76	
6	Quantum of coal consumption (MT)	12387697	11627076	11787158	12496281	11960914	12736385	12689766	10559005	12268028	12321045	11689922	11581541	10478227	
7	Value of coal (Rs. Lakh)					88116	108170	123180	116329	147454	149439	160133	168673	230895	
8	Specific Coal Consumption (kg/kwh)	0.73	0.73	0.71	0.70	0.68	0.71	0.74	0.72	0.75	0.73	0.72	0.70	0.65	
9	Gross Calorific Value of Coal (Kcal/ Kg)	3304.08	3272.81	3319.31	3369.41	3504.80	3347.41	3216.19	3311.76	3196.03	3254.94	3276.24	3391.05	3697.56	
10	Heat Contribution of Coal (Kcal/ kwh)	2400.65	2378.14	2371.21	2374.62	2368.46	2374.42	2377.67	2381.75	2384.83	2382.58	2373.06	2374.20	2393.29	
11	Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$														
12	Quantum of Oil Consumption (KL) – NTPC	1835.50	1773.00	1609.50	1953.00	1512.69	1534.00	1883.00	2311.50	1523.50	1678.10	2960.00	4177.50	4028.00	
13	Value of Oil (Rs. lakh)														
14	Gross calorific value of oil (kcal/lit)	10179.1	10174.0	10180.1	10200.5	10344.3	9411.9	10182.5	9998.3	9991.5	10059.4	10086.2	10159.0	10146.5	
15	Specific Oil Consumption (ml/ kwh)	0.11	0.11	0.10	0.11	0.09	0.09	0.11	0.16	0.09	0.10	0.18	0.25	0.25	
16	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$														
17	Heat Contribution of Oil (Kcal/ kwh)	1.10	1.13	0.99	1.12	0.88	0.80	1.12	1.57	0.93	1.00	1.85	2.57	2.52	
18	Station Heat Rate (kcal/kwh)	2402	2379	2372	2376	2369	2375	2379	2383	2386	2384	2375	2377	2396	
19	Auxiliary Energy Consumption (%)	6.59	6.52	6.11	6.06	5.86	6.18	6.25	6.55	6.52	6.47	6.24	6.13	6.35	
20	Debt at the end of the year (Rs. Cr)	160.72	140.01	117.64	95.87	90.89	71.36	50.56	34.45	5.61	4.97	0.00	0.00	0.00	
21	Equity (Rs. Cr - (Average) #	847.73	851.47	855.01	857.78	863.09	861.29	861.92	863.25	865.03	868.23	870.82	871.82	870.78	
22	Working Capital (Rs. Cr) – finally admitted by CERC	309.41	313.40	317.56	322.37	326.83	439.47	448.80	458.14	468.08	480.18	568.69	578.88	590.16	
23	Capital cost (Rs. Cr) – finally admitted by CERC (Average) #	1697.63	1710.10	1721.91	1731.14	1748.83	1748.96	1751.08	1755.48	1761.44	1772.10	1780.72	1780.72	1780.58	
24	Capacity Charges/ Annual Fixed Cost (AFC) in Rs. Cr	429.63	437.22	445.44	453.40	462.99	677.82	704.33	726.59	755.52	793.13	826.19	850.19	922.23	
	(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)	118.68	119.21	119.70	120.09	120.83	202.24	200.05	198.06	198.47	203.87	170.77	171.59	171.59	
	Rate (%)	14.00	14.00	14.00	14.00	14.00	23.48	23.21	22.94	22.94	23.48	19.61	19.71	19.71	
	(b) Interest on Loan														
	Absolute value (in Rs Cr)	13.57	11.70	10.13	8.17	6.63	5.87	4.67	3.59	1.44	0.34	0.16	0.00	0.00	
	Rate (%) – Weighted Average Rate	8.06	7.78	7.86	7.65	7.10	7.32	7.67	8.45	7.17	6.34	6.25	6.13	5.93	
	(c) Depreciation (finally allowed by CERC)														
	Absolute value (in Rs Cr)	62.86	63.32	63.76	64.10	64.75	21.28	22.27	24.49	32.76	14.00	9.22	0.00	0.00	
	Rate (%)						Spread out based on the balance useful life								
	(d) Interest on working Capital														
	Absolute value (in Rs Cr)	31.7143	32.123	32.55	33.04	33.50	53.84	54.98	56.12	57.34	58.82	76.77	78.15	79.67	
	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)	202.8	210.87	219.30	228.00	237.27	304.20	321.54	339.99	359.46	380.04	383.40	407.55	433.20	

<b>Name of the Utility: NTPC Ltd</b>														
<b>Name of the Generating Station: Korba STPS Stage-I&amp;II</b>														
<b>Station/ Stage/ Unit: 3 X 200 (Stage-I) + 3X 500(Stage-II)</b>														
<b>Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal</b>														
<b>Capacity of Plant (MW): 2100 MW</b>														
<b>COD : 01.06.1990</b>														
		<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>2008-09</b>	<b>2009-10</b>	<b>2010-11</b>	<b>2011-12</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>
	<b>Water charges (finally admitted by CERC) (in Rs Cr) #</b>	Not Applicable										70.31	70.31	70.31
	<b>Rate (%)</b>	Not Applicable												
	<b>(f) Compensation Allowances (in Rs Cr)</b>	0.00	0.00	0.00	0.00	0.00	9.55	8.25	9.75	9.75	6.50	5.00	5.00	0.00
	<b>(g) Special Allowances (Rs. Cr)</b>						20.00	31.72	33.53	35.45	68.71	110.57	117.59	167.47
<b>25</b>	<b>AFC (Rs. Kwh)</b>	0.32	0.32	0.33	0.33	0.34	0.47	0.49	0.50	0.52	0.55	0.58	0.60	0.65
<b>26</b>	<b>Energy Charge (Rs./Kwh)</b>	0.51	0.55	0.56	0.59	0.64	0.66	0.79	0.88	0.99	0.97	1.05	1.08	1.40
<b>27</b>	<b>Total tariff (Rs. Kwh)</b>	0.83	0.87	0.89	0.92	0.98	1.13	1.28	1.38	1.51	1.52	1.63	1.68	2.05
<b>28</b>	<b>Revenue realisation before tax (Rs. Crore)</b>													
<b>29</b>	<b>Revenue realisation after tax (Rs. Crore)</b>													
<b>30</b>	<b>Profit/ loss (Rs. Crore)*</b>	311.37	404.21	628.85	629.02	378.40	309.77	302.97	302.35	662.15	435.37	236.00	330.54	564.48
<b>31</b>	<b>DSM Generation (MU)</b>	196.352	165.989	138.848	99.719	148.661	131.792	97.978	99.912	32.299	-50.807	94.235	129.365	141.183
<b>32</b>	<b>DSM Rate (Ps/Kwh)</b>													
<b>33</b>	<b>Revenue from DSM (Rs. Crore)</b>				-28.76	-54.10	-52.63	-34.77	-30.28	-23.41	-10.50	-25.01	-37.33	-39.06

**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: Korba STPS Stage-III														
Station/ Stage/ Unit: 1 X 500(Stage-III)														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 500 MW														
COD : 21.03.2011														
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (21.3.11 to 31.3.11)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
1	Plant Availability Factor (PAF) (%)	NA	NA	NA	NA	NA	NA	71.72	76.76	94.76	92.00	89.62	88.66	99.73
2	Plant Load Factors (PLF) (%)	NA	NA	NA	NA	NA	NA	64.00	76.24	93.20	87.23	89.54	88.51	95.35
3	Scheduled Energy (MU)							88.52	3120.78	3845.07	3616.65	3673.02	3638.86	3893.00
4	Scheduled Generation (MU)							88.52	3120.78	3845.07	3616.65	3673.02	3638.86	3893.00
5	Actual Generation (MU)							78.58	3158.96	3856.10	3611.42	3694.93	3666.50	3932.36
6	Quantum of coal consumption (MT)							73009	2406283	3037156	2750783	2799961	2662302	2676015
7	Value of coal (Rs. Lakh)							708.70	26510.02	36504.69	33363.65	38355.03	38773.61	58967.81
8	Specific Coal Consumption (kg/kwh)							0.86	0.72	0.74	0.72	0.71	0.68	0.64
9	Gross Calorific Value of Coal (Kcal/ Kg)							3217.47	3307.90	3189.17	3268.86	3284.35	3417.87	3694.22
10	Heat Contribution of Coal (Kcal/ kwh)							2780.59	2377.27	2372.89	2353.55	2344.92	2340.81	2367.12
11	Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
12	Quantum of Oil Consumption (KL)							204.50	1732.20	552.50	532.00	450.00	779.00	440.00
13	Value of Oil (Rs. lakh)													
14	Gross calorific value of oil (kcal/lit)							10201.6	10022.5	10024.3	10074.3	10118.9	10197.9	10187.7
15	Specific Oil Consumption (ml/ kwh)							2.42	0.52	0.14	0.14	0.11	0.20	0.11
16	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
17	Heat Contribution of Oil (Kcal/ kwh)													
18	Station Heat Rate (kcal/kwh)							2781	2382	2374	2355	2346	2343	2368
19	Auxiliary Energy Consumption (%)							7.32	5.11	5.36	5.50	5.74	5.61	5.73
20	Debt at the end of the year (Rs. Cr)							1554.30	1520.26	1457.67	1404.14	1282.37	1166.39	1038.75
21	Equity (Rs. Cr - (Average) #							633.05	653.97	684.20	712.16	729.35	734.14	738.00
22	Working Capital (Rs. Cr) – finally admitted by CERC							189.55	193.61	196.27	200.20	184.97	185.70	186.11
23	Capital cost (Rs. Cr) – finally admitted by CERC (Average) #							2182.51	2253.83	2355.23	2448.43	2519.37	2566.44	2613.89
24	Capacity Charges/ Annual Fixed Cost (AFC) in Rs. Cr							500.07	515.90	525.77	541.40	515.10	511.02	505.99
	(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)							146.93	150.05	156.98	167.22	143.03	144.66	145.42
	Rate (%)							23.21	22.94	22.94	23.48	19.61	19.71	19.71
	(b) Interest on Loan													
	Absolute value (in Rs Cr)							141.82	146.76	142.21	138.16	128.53	117.35	106.03
	Rate (%) – Weighted Average Rate							9.16	9.55	9.55	9.66	9.57	9.58	9.62
	(c) Depreciation (finally allowed by CERC)													
	Absolute value (in Rs Cr)							114.50	118.26	121.77	126.84	129.64	130.47	131.14
	Rate (%)							5.25	5.25	5.17	5.18	5.17	5.17	5.17
	(d) Interest on working Capital													
	Absolute value (in Rs Cr)							20.50	20.93	21.20	21.61	24.97	25.07	25.12
	Rate (%)							11.00	11.00	11.00	11.00	13.50	13.50	13.50
	(e) Operation and maintenance cost (finally admitted by CERC)													
	Absolute value (in Rs Cr)							61.83	65.38	69.12	73.08	72.00	76.54	81.36
	Water charges (finally admitted by CERC) (in Rs Cr) #	Not Applicable										16.92	16.92	16.92

<b>Name of the Utility: NTPC Ltd</b>														
<b>Name of the Generating Station: Korba STPS Stage-III</b>														
<b>Station/ Stage/ Unit: 1 X 500(Stage-III)</b>														
<b>Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal</b>														
<b>Capacity of Plant (MW): 500 MW</b>														
<b>COD : 21.03.2011</b>														
		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11 (21.3.11 to 31.3.11)	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	<b>Rate (%)</b>	Not Applicable												
	<b>(f) Compensation Allowances (in Rs Cr)</b>													
25	<b>AFC (Rs. Kwh)</b>							1.44	1.48	1.51	1.56	1.50	1.49	1.48
26	<b>Energy Charge (Rs./Kwh)</b>							0.93	0.81	0.98	0.96	1.04	1.07	1.40
27	<b>Total tariff (Rs. Kwh)</b>							2.37	2.29	2.49	2.52	2.54	2.56	2.88
28	<b>Revenue realisation before tax (Rs. Crore)</b>													
29	<b>Revenue realisation after tax (Rs. Crore)</b>													
30	<b>Profit/ loss (Rs. Crore)*</b>	311.37	404.21	628.85	629.02	378.40	309.77	302.97	302.35	662.15	435.37	236.00	330.54	564.48
31	<b>DSM Generation (MU)</b>							-9.94	38.18	11.03	-5.24	21.91	27.64	39.35
32	<b>DSM Rate (Ps/Kwh)</b>													
33	<b>Revenue from DSM (Rs. Crore)</b>							0.96	-9.02	-4.88	-3.07	-6.08	-8.36	-6.97

**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