

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		Kahalgaon Super Thermal Power Station Stage-I (pit-head)																													
3	Installed Capacity and Configuration	MW	4 X 210 = 840 MW																													
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		Steam Parameters 170kc , 537 Deg C																													
5	Type of BFP		Electric Driven																													
6	Circulating water system		Closed Cycle																													
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 16.09.2011 with ECL for Kahalgaon -I - 3.65 MMT Annual allocation through modified FSA dated 11.07.2013 with ECL forKahalgaon -II -6.66 MMT Additional Annual allocation through modified FSA dated 31.08.2016 with ECL forKahalgaon -II - 1.00 MMT Annual allocation through additional supply of higher grade coal FSA dated 31.08.2016 with Kahalgaon- I & II-3.69 MMT Annual Requirement : 15.49 MMT					Annual requirement based on PLF of 90% of 2340 MW																								
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		<table border="1"> <thead> <tr> <th colspan="6">ECL</th> </tr> <tr> <th>8.00</th> <th>10.31</th> <th>10.31</th> <th>10.31</th> <th>10.31</th> <th>15.00</th> </tr> </thead> <tbody> <tr> <td colspan="6">ECL: G13 & above (ACQ 11.31 MMTPA)</td> </tr> <tr> <td colspan="6">ECL: G5 & above (ACQ 3.69 MMTPA)</td> </tr> </tbody> </table>					ECL						8.00	10.31	10.31	10.31	10.31	15.00	ECL: G13 & above (ACQ 11.31 MMTPA)						ECL: G5 & above (ACQ 3.69 MMTPA)						For the station of 2340 MW
ECL																																
8.00	10.31	10.31	10.31	10.31	15.00																											
ECL: G13 & above (ACQ 11.31 MMTPA)																																
ECL: G5 & above (ACQ 3.69 MMTPA)																																
8.1.2.1	FSA	LOA	12.45	12.88	12.36	12.13	12.43																									
		MoU	0.00	0.00	0.00	0.00	0.00																									
8.1.2.2	Imported	MMT	1.05	1.16	1.08	0.54	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	Min. 30 Km (ECL-Lalmatia) Max. 311 Km (ECL-Jambad Colly Sdng)																													
8.1.4	Mode of Transport		Indian Railways /MGR																													
8.1.5	Maximum Station capability to stock primary fuel	Days & MT	25 / 0.98																													
8.1.6	Maximum stock maintained for primary fuel	MT	222640	905000	983000	1073000	1003000																									
8.1.7	Minimum Stock maintained for primary fuel	MT	3333	85828	91000	11308	291000																									
8.1.8	Average stock maintained for primary fuel	MT	82288	438284	529071	640611	611323																									
8.2	Secondary Fuel :																															
8.2.1	Annual Allocation/ Requirement		9224																													

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology	
8.2.2	Sources of supply		IOCL, Haldia Refinery						For the station of 2340 MW
8.2.3	Transportation Distance of the station from the sources of supply	KM	500						
8.2.4	Mode of Transport		Indian Railways						
8.2.5	Maximum Station capability to stock secondary fuels	KL	8000						
		HFO	6000.00						
		HFO	3000.00						
		HFO	4500.00						
9	Cost of Spares :								
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs	3085.56	4414.50	3022.89	3754.27	5607.70	For the station of 2340 MW	
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	5803.71	5705.13	6002.48	5536.10	5941.43		
10.2	-Actual Net Generation Ex-bus	MU	5222.94	5135.06	5421.10	5001.66	5355.13		
10.3	-Scheduled Generation Ex-bus	MU	5465.68	5450.40	5468.75	5109.75	5494.89		
11	Average Declared Capacity (DC)	MW	654.40	722.98	703.42	689.72	724.34		
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU	574.12	563.45	573.17	527.85	578.73		
13	Actual Energy supplied to Colony from the station	MU	6.81	7.30	7.09	6.59	7.57		
14	Primary Fuel :								
14.1	Consumption :	MT	5360610	5153902	5219615	4610563	4893540		
14.1.1	Domestic coal	From linked mines	MT	5001120	4762477	4831419	4411773	4893540	
		Non-linked mines	MT						
14.1.2	Imported coal	MT	359490	391425	388196	198790	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		3573	3600	3773	3772	
		(As Received) (TM Basis)	kCal/kg	NA	NA	2785	2913	2975	
		(As Fired) (TM Basis)	kCal/kg	NA	NA	NA	NA	NA	
14.2.2	Imported Coal	(As Billed) (AD Basis)	kCal/kg	5653	5558	5040	4659	-	
		(As Received) (AD Basis)	kCal/kg	5653	5558	5040	4659	-	
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	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
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	2782	2907	2963	
14.2.6	Weighted Average Gross Calorific value (As Fired)	kCal/kg	2608	2676	NA	NA	NA	
14.3	Price of coal :							
14.3.1	Weighted Average Landed price of Domestic coal		1778.44	2324.05	2319.33	2301.39	2706.30	For the station of 2340 MW
14.3.2	Weighted Average Landed Price of Imported coal		7278.54	6986.96	5529.82	5183.44	-	
14.3.3	Weighted Average Landed Price of Spot market/e-auction coal							
14.3.4	Weighted Average Landed Price of all the Coals		2215.73	3772.59	2578.26	2425.51	2706.30	
14.4	Blending :	% and MT (of the total coal consumed)	6.71%	7.59%	7.44%	4.31%	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	82288	438284	529071	640611	611323	For the station of 2340 MW
		Days	2.10	11.20	13.52	16.37	15.62	
14.5	Actual Transit & Handling Losses for coal/Lignite							
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines		0.13	0.18	0.18	0.19	0.19	
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.							
14.5.1.3	Transit loss of imported coal		0.09	0.12	0.11	0.19	0.00	
14.5.2	Non-Pit Head station							
14.5.2.1	Transit loss from linked mines	MT						
		%	0.71	0.73	0.79	0.79	0.8	
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.							
14.5.2.3	Transit loss of imported coal		0.17	0.18	0.18	0.18	0.18	
15	Secondary Fuel Oil : (If more than one fuel used then give details of all the fuels							
15.1	Consumption	HFO	4039	3819	1567	2977	2598	
		LDO	0	0	0	0	0	
15.2	Weighted Average Gross Calorific value (As received)	HFO	9908	9859	9844	9866	9913	
		LDO	NA	NA	NA	NA	NA	
15.3	Weighted Average Price	HFO	50923.5	54881.0	50808.3	27830.3	29689.6	
		LDO	72458.5	74345.6	0.0	45055.6	47208.4	
15.4	Actual Average stock maintained	KL	5300	5000	5100	6100	5500	
16	Weighted average duration of outages:							
16.1	Planned Outages	Days	9.92	15.08	14.827	28.438	12.31	
16.2	Forced Outages	Days	7.59	4.21	4.36	3.99	3.4	
16.3	Number of tripping	Nos	10	7	4	9	19	
16.4	Number of start-ups:	Nos	29	21	20	25	27	

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology	
16.4.1	Cold Start-up	Nos	4	2	2	3	1		
16.4.2	Warm Start-up	Nos	20	13	15	13	11		
16.4.3	Hot start-up	Nos	5	6	3	9	15		
17	NOx , SOx ,and other particulate matter emission in :								
17.1	Design value of emission control equipment	mg/Nm3							
17.2	Actual emission	SPM	137	137	138	138	140		
		SOX	504	654	624	561	497		
		NOX	632	683	692	666	642		
19	Detail of Ash utilization % of fly ash produced	%	22.40	22.72	29.87	41.02	44.08		For the station of 2340 MW
19.1	Conversion of value added product	%	6.91	9.49	9.06	17.47	16.49		
19.2	For making roads & embarkment	%	0.18	0.42	0.00	1.52	0.90		
19.3	Land filling	%	6.32	2.95	0.28	2.71	11.04		
19.4	Used in plant site in one or other form or used in some other site	%	9.00	9.86	20.52	19.32	15.65		
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	8448.25	10070.88	8898.75	9850.73	9669.62	For the station of 2340 MW	
21	Average stock of spares	Rs. Lakhs	14854.90	17535.12	19319.88	20326.96	19532.06		
22	Number of employees deployed in O&M							Manpower as on last date of FY. Man-MW ratio computed for the station	
22.1	- Executives		504	489	491	484	454		
22.2	- Non Executives		623	615	679	655	616		
22.3	- Corporate office		3170	3051	2916	2973	2787		
23	Man-MW ratio		0.48	0.47	0.50	0.49	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																								
1	Name of Company		NTPC Ltd.																													
2	Name of Station/ Pit head or Non- Pit head		Kahalgaon Super Thermal Power Station Stage-II (pit-head)																													
3	Installed Capacity and Configuration	MW	3 X 500 = 1500 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		Electric Driven																													
6	Circulating water system		Closed Cycle																													
7	Any other Site specific feature																															
8	Fuels :																															
8.1	Primary Fuel :		Coal					Annual requirement based on PLF of 90% of 2340 MW																								
8.1.1	Annual Allocation or/and Requirement		Annual allocation through FSA dated 16.09.2011 with ECL for Kahalgaon -I - 3.65 MMT Annual allocation through modified FSA dated 11.07.2013 with ECL forKahalgaon -II -6.66 MMT Additional Annual allocation through modified FSA dated 31.08.2016 with ECL forKahalgaon -II - 1.00 MMT Annual allocation through additional supply of higher grade coal FSA dated 31.08.2016 with Kahalgaon- I & II-3.69 MMT Annual Requirement : 15.49 MMT																													
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		<table border="1"> <thead> <tr> <th colspan="6">ECL</th> </tr> <tr> <th>8.00</th> <th>10.31</th> <th>10.31</th> <th>10.31</th> <th>15.00</th> <th></th> </tr> </thead> <tbody> <tr> <td colspan="6">ECL: G13 & above (ACQ 11.31 MMTPA)</td> </tr> <tr> <td colspan="6">ECL: G5 & above (ACQ 3.69 MMTPA)</td> </tr> </tbody> </table>					ECL						8.00	10.31	10.31	10.31	15.00		ECL: G13 & above (ACQ 11.31 MMTPA)						ECL: G5 & above (ACQ 3.69 MMTPA)						For the station of 2340 MW
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ECL: G13 & above (ACQ 11.31 MMTPA)																																
ECL: G5 & above (ACQ 3.69 MMTPA)																																
8.1.2.1	FSA	LOA MoU	MMT	12.45 0.00	12.88 0.00	12.36 0.00	12.13 0.00	12.43 0.00																								
8.1.2.2	Imported		MMT	1.05	1.16	1.08	0.54	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	Min. 30 Km (ECL-Lalmatia) Max. 311 Km (ECL-Jambad Colly Sdng)																													
8.1.4	Mode of Transport		Indian Railways /MGR																													
8.1.5	Maximum Station capability to stock primary fuel	Days & MT	25 / 0.98																													
8.1.6	Maximum stock maintained for primary fuel	MT	222640	905000	983000	1073000	1003000																									
8.1.7	Minimum Stock maintained for primary fuel	MT	3333	85828	91000	11308	291000																									
8.1.8	Average stock maintained for primary fuel	MT	82288	438284	529071	640611	611323																									

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
8.2	Secondary Fuel :							
8.2.1	Annual Allocation/ Requirement				9224			For the station of 2340 MW
8.2.2	Sources of supply				IOCL, Haldia Refinery			
8.2.3	Transportation Distance of the station from the sources of supply	KM	500					
8.2.4	Mode of Transport				Indian Railways			
8.2.5	Maximum Station capability to stock secondary fuels	KL			8000			
		HFO			6000			
		HFO			3000			
		HFO			4500			
9	Cost of Spares :							
9.1	Cost of Spares capitalized in the books of accounts	Rs. Lakhs	3085.56	4414.50	3022.89	3754.27	5607.70	For the station of 2340 MW
9.2	Cost of spares included in capital cost for the purpose of tariff	Rs. Lakhs	591.36	0	0	0	0	
10	Generation :							
10.1	-Actual Gross Generation at generator terminals	MU	8903.72	8871.52	9616.89	9738.93	10006.32	
10.2	-Actual Net Generation Ex-bus	MU	8337.34	8292.54	9049.80	9190.64	9479.66	
10.3	-Scheduled Generation Ex-bus	MU	8508.32	8437.14	9026.96	9248.20	9619.83	
11	Average Declared Capacity (DC)	MW	1052.55	1247.60	1238.47	1324.96	1305.79	
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU	555.94	568.92	553.84	536.76	516.28	
13	Actual Energy supplied to Colony from the station	MU	10.60	11.11	11.26	11.53	10.37	
14	Primary Fuel :							
14.1	Consumption :	MT	8061353	7857698	8194288	7933989	8072081	
14.1.1	Domestic coal	From linked mines	MT	7356563	7113565	7473787	7584472	8068535
		Non-linked mines	MT					
14.1.2	Imported coal*		MT	704790	744133	720501	349517	3546
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	NA	3573	3600	3773	3772
		(As Received) (TM Basis)	kCal/kg	NA	NA	2785	2913	2975
		(As Fired) (TM Basis)	kCal/kg	NA	NA	NA	NA	NA
14.2.2	Imported Coal	(As Billed) (ADB Basis)	kCal/kg	5653	5558	5040	4659	-
		(As Received) (ADB Basis)	kCal/kg	5653	5558	5040	4659	-
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

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
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	2782	2907	2963	
14.2.6	Weighted Average Gross Calorific value (As Fired)	kCal/kg	2609	2667	NA	NA	NA	
14.3	Price of coal :							
14.3.1	Weighted Average Landed price of Domestic coal	Rs/MT	1778.44	2324.05	2319.33	2301.39	2706.30	For the station of 2340 MW
14.3.2	Weighted Average Landed Price of Imported coal	Rs/MT	7278.54	6986.96	5529.82	5183.44		
14.3.3	Weighted Average Landed Price of Spot market/e-auction coal	Rs/MT						
14.3.4	Weighted Average Landed Price of all the Coals	Rs/MT	2215.73	3772.59	2578.26	2425.51	2706.30	
14.4	Blending :	% and MT (of the total coal consumed)	8.74%	9.47%	8.79%	4.41%	0.04%	
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	82288.17	438284.25	529070.58	640610.58	611322.75	For the station of 2340 MW
		Days	2.10	11.20	13.52	16.37	15.62	
14.5	Actual Transit & Handling Losses for coal/Lignite							
14.5.1	Pit- Head Station							
14.5.1.1	Transit loss from linked mines	%	0.13	0.18	0.18	0.19	0.19	
14.5.1.2	Transit loss from non-linked mines including e-auction coal							
14.5.1.3	Transit loss of imported coal		0.09	0.12	0.11	0.19	0.00	
14.5.2	Non-Pit Head station							
		%	0.71	0.73	0.79	0.79	0.8	
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.		NIL	NIL	NIL	NIL	NIL	
14.5.2.3	Transit loss of imported coal		0.17	0.18	0.18	0.18	0.18	
15	Secondary Fuel Oil : (If more than one fuel used then give details of all the fuels							
15.1	Consumption	HFO	KL	5376	5183	2377	3689	3528
		LDO	KL	260	108	70	71	93
15.2	Weighted Average Gross Calorific value (As received)	HFO	kCal/kg	9915	9846	9836	9873	9899
		LDO	kCal/kg	9550	9534	9539	9550	9569
15.3	Weighted Average Price	HFO	Rs/KL	50923	54881	50808	27830	29690
		LDO	Rs/KL	72458	74346	0	45056	47208

Sl.No.	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	Basis of Information/ Methodology
16	Weighted average duration of outages:							
16.1	Planned Outages	Days	26.14	9.296	19.3	8.57	21.144	
16.2	Forced Outages	Days	10.858	6.75	4.317	6.626	4.354	
16.3	Number of tripping	Nos	4	7	6	10	3	
16.4	Number of start-ups:	Nos	20	20	14	22	15	
16.4.1	Cold Start-up	Nos	12	5	3	2	3	
16.4.2	Warm Start-up	Nos	3	9	5	11	9	
16.4.3	Hot start-up	Nos	5	6	6	9	3	
17	NOx , SOx ,and other particulate matter emission in :							
17.1	Design value of emission control equipment	mg/Nm3						
17.2	Actual emission	SPM	45	45	43	45	43	
		SOX	518	676	596	567	492	
		NOX	652	679	698	679	625	
19	Detail of Ash utilization % of fly ash produced	%	22.40	22.72	29.87	41.02	44.08	For the station of 2340 MW
19.1	Conversion of value added product	%	6.91	9.49	9.06	17.47	16.49	
19.2	For making roads & embarkment	%	0.18	0.42	0.00	1.52	0.90	
19.3	Land filling	%	6.32	2.95	0.28	2.71	11.04	
19.4	Used in plant site in one or other form or used in some other site	%	9.00	9.86	20.52	19.32	15.65	
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	8448.25	10070.88	8898.75	9850.73	9669.62	For the station of 2340 MW
21	Average stock of spares	Rs. Lakhs	14854.90	17535.12	19319.88	20326.96	19532.06	
22	Number of employees deployed in O&M							Manpower as on last date of FY. Man-MW ratio computed for the station
22.1	- Executives		504	489	491	484	454	
22.2	- Non Executives		623	615	679	655	616	
22.3	- Corporate office		3170	3051	2916	2973	2787	
23	Man-MW ratio		0.48	0.47	0.50	0.49	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: Kahalgaon Super Thermal Power Station (2340 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
1	Consumption of stores & spares	8448.25	10070.88	8898.75	9850.73	9669.62
2	Repair & Maintenance	9507.48	8537.18	9674.03	10444.54	10846.32
3	Insurance	823.41	874.77	873.73	714.51	651.81
4	Security	1855.18	1899.14	2198.98	2687.54	3116.29
5	Water Charges	695.35	674.38	698.31	717.51	708.57
6	Administrative Expenses					
6.1	Rent	14.48	16.60	18.04	20.27	28.22
6.2	Electricity charges	353.24	500.68	468.45	409.98	421.88
6.3	Travelling & Conveyance	669.63	702.46	754.05	728.02	641.16
6.4	Communication Expenses	109.88	92.32	102.82	138.45	144.78
6.5	Advertising	20.92	16.88	40.04	15.27	22.79
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	10.56	24.44	50.53	58.96	69.59
6.9	Filing fee	93.60	102.96	102.96	99.96	102.96
	Subtotal (Administrative Expenses)	1272.31	1456.34	1536.89	1470.90	1431.38
7.0	Employee Cost					
7.1.1	Salaries,Wages & Allowances	11042.20	11114.05	11904.54	12268.39	14911.12
7.1.2	Pension	72.63	2911.15	1042.22	1135.20	1088.65
7.1.3	Gratuity	384.53	135.05	-68.76	-53.59	2354.11
7.1.4	Provident Fund	832.50	929.54	943.07	1000.81	1030.09
7.1.5	Leave Encashment	1216.84	1222.68	1129.90	1273.29	2005.67
7.2	Staff welfare expenses					
7.2.1	-Medical expenses on superannuated employees	7.01	8.23	5.76	9.83	0.00
7.2.2	-Medical expenses on regular employees & others	866.90	943.33	1155.58	1602.71	656.36
7.2.3	-Uniform/Livries & safety equipment	88.66	271.57	227.76	226.53	304.69
7.2.4	-Canteen expenses	234.50	230.20	202.49	237.84	209.54
7.2.5	-Other staff welfare expenses	125.18	170.20	226.35	171.25	365.68
	Subtotal (Staff welfare Expenses)	1322.26	1623.53	1817.93	2248.17	1536.27
7.3	Productivity linked Incentive	289.70	373.95	217.98	201.32	-0.53
7.4	Expenditure on VRS	0.00	0.00	0.00	1.15	0.00
7.5	Ex-gratia	347.17	342.88	654.39	394.28	377.67
7.6	Performance Related Pay(PRP)	695.46	580.43	636.14	881.81	1094.22
	Sub Total (Employee Cost)	16203.28	19233.27	18277.42	19350.82	24397.28
8	Loss of Store	0.00	0.00	2.42	0.66	4.81
9	Provisions	26.28	24.53	631.56	18.02	23.32
10	Prior Period Expenses	17.36	0.00	0.00	181.41	0.00
11	Corporate Office expenses allocation	6019.72	6082.39	6472.31	6663.35	6813.07
12	Others					
12.1	Rates & Taxes	19.47	19.08	16.87	20.49	37.45
12.2	Water cess	83.22	81.43	83.26	84.74	83.13

Annexure-VI (A)

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company: NTPC Ltd.
Name of the Power Station: Kahalgaon Super Thermal Power Station (2340 MW)

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
12.3	Training & recruitment expenses	53.71	57.26	32.89	26.70	32.03
12.4	Tender Expenses	55.16	240.54	237.49	299.18	257.18
12.5	Guest house expenses	78.32	71.98	80.81	110.27	146.62
12.6	Education expenses	50.51	29.75	251.30	217.16	-53.00
12.7	Community Development Expenses	1217.35	463.34	378.87	4101.82	1772.37
12.8	Ash utilisation expenses	132.90	50.66	99.41	-43.01	-17.99
12.9	Books & Periodicals	7.67	8.95	2.72	2.25	4.41
12.10	Professional Charges	63.87	56.49	42.91	44.69	52.55
12.11	Legal expenses	22.64	27.00	98.84	144.09	57.34
12.12	EDP Hire & other charges	62.01	53.55	47.40	42.02	31.29
12.13	Printing & Stationery	68.04	46.50	47.29	45.01	57.61
12.14	Misc Expenses	1239.84	2483.01	1081.26	3790.77	1264.87
	Sub Total (Others)	3154.73	3689.57	2501.34	8886.19	3725.86
13	(Total 1 to 12)	48023.35	52542.46	51765.72	60986.19	61388.35
14	Revenue / Recoveries	-49.80	-42.46	-36.29	-47.46	-62.07
15	Net Expenses	47973.55	52500.00	51729.43	60938.73	61326.28
16	Capital spares consumed	433.84	542.55	617.76	743.06	853.14
	Total O&M Cost	48407.39	53042.54	52347.19	61681.79	62179.42
	No. of Emp. Applied for VRS	1	No. VRS scheme was in operational			

DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase: Kahalgaon Super Thermal Power Station (2340 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	Ash Water Re-circulation System				
(B)	Quantum of Water : (Cubic Meter)					
5	Contracted Quantum					
6	Allocation of Water	13400 Cubic Meter per hour				
7	Actual water Consumption	612.567	593.508	610.506	627.29	619.48
8	Rate of Water Charges	Rs 5.20 per thousand gallons				
9	Other charges/Fees , if paid as part of Water Charges Rs Cr.	6.95	6.79	6.98	7.18	7.09
	Total water Charges Paid Rs lakhs					

No water charges bills is being raised by Govt. of Bihar as on date

Details of capital Spares

Name of Company : NTPC Limited

Name of Power station : Kahalgaon Super Thermal Power Station (2340 MW)

in Rs.

Sl . No.	ITEM	2012-13	2013-14	2014-15	2015-16	2016-17
(A)	Details of capital spares in Opening stock	1836969189	2102140958	2489336374	2729849382	3030970132
(B)	Details of capital spares procured during the year	308555840	441450199	302288622	375426641	560770377
(C)	Details of capital spares consumed during the year	-43384071	-54254783	-61775613	-74305891	-85313843
(D)	Details of capital spares closing at the end of the year	2102140958	2489336374	2729849382	3030970132	3506426665

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

Annexure-XIX

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Kahalgaon STPS Stage-I														
Station/ Stage/ Unit: 4 x 210														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 840 MW														
COD : 01.08.1996														
		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) (%)	84.06	91.65	91.70	91.10	79.34	68.83	75.09	80.19	85.61	94.58	92.02	90.23	94.76
2	Plant Load Factors (PLF) (%)	82.66	89.32	89.41	91.69	81.77	69.44	74.24	75.46	78.87	77.53	81.57	75.03	80.74
3	Scheduled Energy (MU)	5467.79	5800.40	5921.24	6083.93	5355.49	4584.93	4929.03	5179.77	5465.68	5450.40	5468.75	5109.75	5494.89
4	Scheduled Generation (MU)	5467.79	5800.40	5921.24	6083.93	5355.49	4584.93	4929.03	5179.77	5465.68	5450.40	5468.75	5109.75	5494.89
5	Actual Generation (MU)	5546.04	6013.05	6014.72	6137.54	5501.36	4637.24	4958.99	5000.59	5222.94	5135.06	5421.10	5001.66	5355.13
6	Quantum of coal consumption (MT)	5520235	5831194	5574807	5475062	5053694	4481007	4674973	4875330	5360610	5153902	5218666	4610561	4893540
7	Value of coal (Rs. Lakh)					72894	83947	103046	133574	118777	194435	134551	111830	132434
8	Specific Coal Consumption (kg/kwh)	0.908	0.887	0.847	0.809	0.84	0.877	0.856	0.875	0.92	0.9	0.87	0.833	0.824
9	Gross Calorific Value of Coal (Kcal/ Kg)	2697	2750	2864	2988	2872	2751	2830	2753	2613	2676	2780	2906	2970
10	Heat Contribution of Coal (Kcal/ kwh)	2448.87	2439.25	2425.808	2417.29	2412.48	2412.63	2422.48	2408.87	2403.96	2408.40	2418.60	2420.69	2447.28
11	Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
12	Quantum of Oil Consumption (Lit.)	3233.49	2719.51	4032.49	1222.41	4109.84	3852.56	2709.15	6158.55	4039.45	3818.69	1567.36	2977.14	2597.57
13	Value of Oil (Rs. lakh)													
14	Gross calorific value of oil (kcal/lit)	9934	9927	9970	9950	9946	9924	9922	9923	9908	9859	9844	9866	9912.56
15	Specific Oil Consumption (ml/ kwh)	0.53	0.41	0.61	0.18	0.68	0.75	0.50	1.11	0.70	0.67	0.26	0.54	0.44
16	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC (Ex Bus) \$													
17	Heat Contribution of Oil (Kcal/ kwh)	5.27	4.07	6.08	1.79	6.76	7.44	4.96	11.01	6.94	6.61	2.56	5.33	4.36
18	Station Heat Rate (kcal/kwh)	2453	2444	2433.00	2420.00	2418.00	2420.00	2427.00	2421.30	2420.50	2423.70	2419.90	2425.20	2450.70
19	Auxiliary Energy Consumption (%)	8.82	8.41	8.34	8.3	8.57	9.24	9.22	10.19	10.01	9.99	9.68	9.535	9.74
20	Debt at the end of the year (Rs. Cr)	72.37	56.80	42.22	26.84	12.61	0.00	0.00	12.72	0.00	0.00	10.50	1.61	19.21
21	Equity (Rs. Cr - (Average) #	1014.88	1016.30	1016.66	1017.13	1017.58	1016.44	1015.77	1027.07	1043.41	1049.30	1051.96	1054.55	1059.01
22	Working Capital (Rs. Cr) – finally admitted by CERC	265.89	268.47	271.08	274.32	276.78	447.31	450.98	456.88	462.08	468.33	487.17	494.39	500.18
23	Capital cost (Rs. Cr) – finally admitted by CERC (Average) #	2031.56	2036.31	2037.50	2039.08	2040.56	2036.77	2034.54	2072.21	2126.68	2146.31	2155.15	2163.80	2178.67
24	Capacity Charges/ Annual Fixed Cost (AFC) in Rs. Cr	341.79	344.30	346.15	348.24	350.28	498.07	505.22	518.68	538.46	559.27	527.85	546.23	564.79
	(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)	142.08	142.28	142.33	142.40	142.46	238.67	235.76	235.65	239.40	246.39	206.29	207.81	208.68
	Rate (%)	0.14	0.14	14%	14%	14%	23.481%	23.210%	22.944%	22.944%	23.481%	19.611%	19.706%	19.706%
	(b) Interest on Loan													
	Absolute value (in Rs Cr)	10.31	8.64	6.53	4.38	2.10	0.38	0.00	0.24	0.17	0.00	0.00	0.00	0.00
	Rate (%) – Weighted Average Rate	13.56%	13.38%	13.19%	12.67%	10.64%	6.15%	5.14%	3.79%	2.61%	2.34%	2.34%	2.34%	2.34%
	(c) Depreciation (finally allowed by CERC)													
	Absolute value (in Rs Cr)	74.79	74.96	75.01	75.07	75.12	37.89	38.31	42.16	47.44	49.43	50.83	52.02	54.43
	Rate (%)	3.68	3.68											
	(d) Interest on working Capital													
	Absolute value (in Rs Cr)	27.25	27.52	27.79	28.12	28.37	54.80	55.25	55.97	56.61	57.37	65.77	66.74	67.52

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Kahalgaon STPS Stage-I														
Station/ Stage/ Unit: 4 x 210														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 840 MW														
COD : 01.08.1996														
		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
	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)	87.36	90.888	94.50	98.28	102.23	152.88	161.61	170.86	180.68	191.02	200.76	213.36	226.80
	Water charges (finally admitted by CERC) (in Rs Cr) #	Not Applicable										NIL		
	Rate (%)	Not Applicable												
	(f) Compensation Allowances (in Rs Cr)	0.00	0.00	0.00	0.00	0.00	1.26	2.10	2.52	2.94	2.94	4.20	6.30	7.35
25	AFC (Rs. Kwh)	0.64	0.64	0.65	0.65	0.65	0.88	0.89	0.91	0.95	0.98	0.95	0.98	1.02
26	Energy Charge (Rs./Kwh)	1.17	1.27	1.30	1.36	1.48	1.82	2.08	2.70	2.32	2.78	2.56	2.30	2.40
27	Total tariff (Rs. Kwh)	1.81	1.91	1.95	2.01	2.13	2.70	2.97	3.61	3.27	3.76	3.51	3.28	3.42
28	Revenue realisation before tax (Rs. Crore)													
29	Revenue realisation after tax (Rs. Crore)													
30	Profit/ loss (Rs. Crore)*	391.68	32.76	157.92	163.22	153.44	390.97	631.55	592.33	845.50	1008.61	776.77	839.80	955.11
31	DSM Generation (MU)				53.61	145.87	52.31	29.97	-179.18	-242.74	-315.34	-47.65	-108.10	-139.76
32	DSM Rate (Ps/Kwh)													
33	Revenue from DSM (Rs. Crore)				-8.65	-20.57	-30.42	-25.78	34.39	36.64	44.81	5.09	17.70	22.93

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

	2004-05	2005-06	2006-07	2007-08	2008-09 1.8.2008 TO 29.12.2008	2008-09 30.12.2008 TO 31.03.2009	2009-10 1.4.2009 to 19.3.2010	2009-10 20.03.2010 TO 31.03.2010	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Rate (%)					3.61	3.62	5.17	5.16	5.16	5.15	5.15	5.11	5.11	5.11	5.11
(d) Interest on working Capital															
Absolute value (in Rs Cr)					23.71	42.70	62.31	94.85	95.86	97.54	98.38	99.48	116.64	117.40	117.91
Rate (%)					12.25	12.25	12.25	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)					54.75	109.50	130.00	188.50	199.23	210.69	222.72	235.48	232.00	246.65	262.16
Water charges (finally admitted by CERC) (in Rs Cr) #															
Rate (%)															
(f) Compensation Allowances (in Rs Cr)															
25 AFC (Rs. Kwh)					0.92	0.99	1.05	1.06	1.09	1.14	1.17	1.20	1.12	1.12	1.13
26 Energy Charge (Rs./Kwh)					1.59	1.59	1.72	1.72	1.96	2.46	2.23	2.63	2.43	2.19	2.29
27 Total tariff (Rs. Kwh)					2.51	2.58	2.77	2.78	3.05	3.60	3.40	3.83	3.55	3.31	3.42
28 Revenue realisation before tax (Rs. Crore)															
29 Revenue realisation after tax (Rs. Crore)															
30 Profit/ loss (Rs. Crore)*	391.68	32.76	157.92	163.22	153.44		390.97		631.55	592.33	845.50	1008.61	776.77	839.80	955.11
31 DSM Generation (MU)								66.32	39.41	-78.07	-170.98	-144.60	22.85	-57.56	-140.16
32 DSM Rate (Ps/Kwh)															
33 Revenue from DSM (Rs. Crore)									15.01	24.67	21.13	-8.78	4.74	9.22	

Note:

- 1 \$ "Ex-Bus" word is additionally inserted.
- 2 # "Average" word is additionally inserted.
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- 4 # Additional Row 24(e) inserted
- 5 DSM Revenue (-)Received / (+) Paid
- 6 * For the whole station as an when the units were declared COD