

ANNEXURE-II

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

	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17
1	Name of Company		NTPC Ltd.				
2	Name of Station		Kawas Gas Power Project				
3	Installed Capacity and Configuration	MW	656.2(4*106+2*116.1)				
4	Make of Turbine		GT-GE,ST-Alstom France				
5	Rated Steam Parameters		HP: (520 Deg/ 68Bar) LP: (200Deg/6Bar)				
6	Average site ambient conditions		Amb Temp 32Deg/65%Rh				
7	Any other Site specific feature						
8	Fuels:						
8.1	Main/Primary Fuel		Natural Gas/RLNG				
8.1.1	Annual Allocation (MMSCMD)	Dom. Gas	2.01	1.63	1.09	0.8	1.03
		RLNG	0.77	1.34	1.73	1.93	1.5
		Total	2.78	2.97	2.82	2.73	2.53
8.1.2	Sources of Supply		GAIL, GSPCL				
8.1.3	Transportation Distance of the station from the sources of supply	Km	10 (GAIL HVJ Zone-1, GSPL HP/LP pipeline)				
8.1.4	Mode of Transport		Pipeline				
8.1.5	Maximum Station capability to stock main/primary fuel	Million Cubic meter or MT or Kilo Litre	N/A				
8.2	Alternate Fuel:		Naphtha				
8.2.1	Annual Allocation/ Requirement	Million Cubic meter or MT or Kilo Litre	NA				
8.2.2	Sources of Supply		HPCL Vizag				
8.2.3	Transportation Distance of the station from the sources of supply	Km	1700				
8.2.4	Mode of Transport		Road				

	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17	
8.2.5	Maximum Station capability to stock secondary fuels	Kilo Litre	8000					
9	Cost of Spares :							
9.1	Cost of Spares capitalized in the books	(Rs. Lakhs)	3749.92	2007.20	2177.38	883.64	728.75	
9.2	Cost of spares included in capital cost for the purpose of tariff	(Rs. Lakhs)	0.00	0.00	0.00	0.00	0.00	
10	Generation							
10.1	Actual Gross Generation at generator terminals	MU	2900.09	1388.98	1741.20	1212.40	1717.97	
10.1.1	Total	MU						
10.1.2	On Gas	MU	2899.85	1387.94	1740.40	1211.88	1717.24	
10.1.3	On Naptha or any other fuel	MU	0.25	1.03	0.81	0.52	0.73	
10.2	Actual Net Generation Ex-bus	MU	2837.16	1348.32	1693.93	1174.26	1672.65	
10.3	Scheduled Generation Ex-bus	MU	2609.76	1313.28	1686.68	1192.64	1694.87	
11	Average Declared Capacity (DC)	MU	5049.57	5095.80	5275.51	5646.16	5438.38	
12	Actual Auxiliary Energy Consumption excluding colony consumption	MU	62.93	40.65	44.26	35.19	42.83	
13	Actual Energy supplied to Colony from the station	MU	2.92	2.84	3.02	2.95	2.49	
14	Main / Primary Fuel:							
14.1	Consumption :	MCM/MT/ KI						
14.1.1	Natural Gas : APM Gas	SCM	602279772	292073800	367787733	258079701	366157354	
	Non-APM Gas	SCM						
14.1.2	RLNG		0.00	0.00	0.00	0.00	0.00	
14.1.3	Liquid Fuel	KL	80.51	387.13	412.39	138.49	236.97	
14.2	Weighted Gross Calorific Value (GCV)							
14.2.1	Natural Gas (As fired)	kcal/scm	9813.00	9841.67	9664.91	9695.22	9436.44	
14.2.2	RLNG (As fired)	kcal/scm	0.00	0.00	0.00	0.00	0.00	
14.2.3	Liquid Fuel (As fired)	kcal/Lt	8796.98	8210.15	8234.38	8180.65	8321.10	
14.4	Percentage of Declared Capacity	%						
14.4.1	APM Gas+PMT + NON APM GAS		61.14%	73.94	66.28	57.60	53.33	
14.4.2	NON APM		20.38%					
14.4.3	RLNG		18.31%	25.74	33.66	42.13	45.47	
14.4.4	Liquid Fuel		0.17%	0.32	0.06	0.27	1.19	
14.4	Actual Average stock maintained		NA					
15	Alternate Fuel:(RLNG/Liquid)							
15.1	Consumption	MT/ KL	80.51	387.13	412.39	138.49	236.97	
15.2	Weighted Average Gross Calorific value (As fired)	kCal/ Kg/	8796.98	8210.15	8234.38	8180.65	8321.10	
15.4	Actual Average stock maintained Naptha	MT	3526.051	3350.046	3084.594	2986.796	2830.911	

	Particulars	Units	2012-13	2013-14	2014-15	2015-16	2016-17
16	Weighted average duration of outages :						
16.1	Scheduled Outages	%	42.113	52.526	32.701	1.091	18.144
16.2	Forced Outages	%	2.414	4.301	5.178	0.06	2.414
16.3	Number of trippings	Nos	17	14	15	4	8
16.4	Number of start-ups :	Nos	103	137	117	50	46
16.4.1	Cold Start-up	Nos	9	48	25	15	10
16.4.2	Warm Start-up	Nos	8	0	4	1	1
16.4.3	Hot start-up	Nos	21	0	6	2	2
17	Cost of spares consumed		1023.50	862.70	887.69	421.43	343.56
18	Average stock of spares		4133.25	4145.98	4232.04	4325.53	4288.57
19	NOx and other particulate matter emission :						
19.1	Design value		NA				
19.2	Actual emission						
	NOX (limit-150 ppm)		48	50	78	94.5	80.2
	SOX (limit-100ppm)		8	10	9	2.8	2.53
	SPM (limit-100 ppm)		10	12	20	7.6	6.78
20	Number of employees deployed in O&M / Non O&M						
20.1	- Executive		117	114	115	102	75
20.2	- Non Executive		137	136	133	131	126
20.3	Corporate Office		3170	3051	2916	2973	2787
21	Man-MW ratio	Man/MW	0.39	0.38	0.38	0.36	0.31

Note: Allocation of stations attached at Appendix-I
Man-MW ratio computed excluding Corporate Employees

DETAILS OF OPERATION AND MAINTENANCE EXPENSES

Name of the Company: NTPC Ltd.
Name of the Power Station: Kawas Gas Plant

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
1	Consumption of stores & spares	1023.50	862.70	887.69	421.43	343.56
2	Repair & Maintenance	981.40	1110.33	1197.88	1184.84	1284.53
3	Insurance	143.91	157.90	159.14	159.10	168.74
4	Security	741.50	729.38	821.30	1001.57	1059.70
5	Water Charges	672.38	582.88	329.36	389.20	521.18
6	Administrative Expenses					
6.1	Rent	0.89	0.89	0.89	0.89	0.89
6.2	Electricity charges	195.46	172.06	154.63	160.38	135.51
6.3	Travelling & Conveyance	178.13	208.32	214.04	196.69	153.39
6.4	Communication Expenses	42.74	38.97	35.70	64.28	47.62
6.5	Advertising	2.97	9.31	5.47	14.65	6.97
6.6	Foundation Laying & Inaugration	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	8.79	10.89	19.38	19.89	20.77
6.9	Filing fee	26.25	28.87	28.87	28.87	28.87
	Subtotal (Administrative Expenses)	455.22	469.31	458.98	485.66	394.04
7.0	Employee Cost					
7.1.1	Salaries,Wages & Allowances	2541.45	2645.19	2786.71	2843.37	2965.56
7.1.2	Pension	15.93	670.79	242.54	253.70	213.62
7.1.3	Gratuity	85.13	35.13	-15.64	-11.70	491.77
7.1.4	Provident Fund	191.06	221.22	224.52	232.36	206.21
7.1.5	Leave Encashment	257.17	274.77	268.64	311.11	386.69
7.2	Staff welfare expenses					
7.2.1	-Medical expenses on superannuated employees	4.29	12.76	12.98	13.46	2.42
7.2.2	-Medical expenses on regular employees & others	219.30	213.28	211.05	295.11	64.03
7.2.3	-Uniform/Livries & safety equipment	24.17	55.81	52.14	43.49	57.21
7.2.4	-Canteen expenses	37.78	41.36	38.32	46.90	45.13
7.2.5	-Other staff welware expenses	97.14	105.04	102.55	130.11	116.00
	Subtotal (Staff welfare Expenses)	382.68	428.25	417.04	529.07	284.79
7.3	Productivity linked Incentive	113.29	104.06	53.12	38.61	0.00
7.4	Expenditure on VRS	0.00	0.00	0.00	0.00	0.00
7.5	Ex-gratia	75.70	75.04	133.51	80.71	79.64
7.6	Performance Related Pay(PRP)	190.23	105.26	185.29	215.98	211.65
	Sub Total (Employee Cost)	3852.64	4559.71	4295.72	4493.22	4839.92
8	Loss of Store	0.70	0.25	0.00	0.00	0.00
9	Provisions	641.18	112.01	89.84	97.63	11.36
10	Prior Period Expenses	0.00	0.00	0.00	-671.38	0.00
11	Corporate Office expenses allocation	1687.40	1707.33	1817.86	1867.65	1911.49
12	Others					
12.1	Rates & Taxes	68.36	72.25	65.82	67.08	64.81
12.2	Water cess	536.58	324.40	351.92	2.97	2.65
12.3	Training & recruitment expenses	19.47	16.60	17.83	17.92	25.25
12.4	Tender Expenses	6.23	8.31	32.14	15.87	13.92
12.5	Guest house expenses	15.73	15.33	16.28	16.28	12.83
12.6	Education expenses	23.06	24.23	30.04	32.02	33.26
12.7	Community Development Expenses	36.90	49.72	88.44	468.61	154.72
12.8	Ash utilisation expenses	0.00	0.00	0.00	0.00	0.00

Rs. Lakhs

Sl. No.	Items	2012-13	2013-14	2014-15	2015-16	2016-17
12.9	Books & Periodicals	0.49	0.46	0.84	0.96	0.08
12.10	Professional Charges	7.52	25.93	13.61	23.00	15.72
12.11	Legal expenses	13.29	14.78	6.97	6.14	8.96
12.12	EDP Hire & other charges	8.23	10.08	10.64	10.60	13.07
12.13	Printing & Stationery	12.28	10.76	11.20	12.51	8.23
12.14	Misc Expenses	148.74	287.10	126.07	120.40	152.18
	Sub Total (Others)	896.89	859.94	771.80	794.34	505.68
13	(Total 1 to 12)	11096.74	11151.75	10829.57	10223.27	11040.21
14	Revenue / Recoveries	-14.93	-14.59	-19.02	-16.03	-12.40
15	Net Expenses	11081.82	11137.16	10810.55	10207.24	11027.81
16	Capital spares consumed	198.17	163.10	761.16	389.68	42.90
	Total O&M Cost	11279.98	11300.26	11571.71	10596.92	11070.70

DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase: KAWAS GAS POWER PROJECT

(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	Gas Based combined cycle generation plant				
2	Type of Cooling Tower	NDCT				
3	Type of Cooling Water System	CLOSE CYCLE				
4	Any Special Features which may increase/reduce water consumption					
(B)	Quantum of Water : (Cubic Meter)					
5	Contracted Quantum	24889843	24889843	24889843	24889843	24889843
6	Allocation of Water	6000000	6000000	2000000	2800000	2000000
7	Actual water Consumption	4589443	3408086	1927535	2052580	2421563
8	Rate of Water Charges (lakhs/ cusecs)	14.64	16.1	17.72	19.49	21.44
9	Other charges/Fees , if paid as part of Water Charges Rs lakhs					
	Total water Charges Paid Rs lakhs	672.3847	582.8755	329.3624	389.1988	521.1837

Details of capital Spares

Name of Company : NTPC Limited

Name of Power station : Kawas Gas Station

Rs. Lakhs

Sl . No.	ITEM	2012-13	2013-14	2014-15	2015-16	2016-17
(A)	Details of capital spares in Opening stock	20,858.09	24,409.85	26,253.95	27,670.17	28,164.12
(B)	Details of capital spares procured during the year	3749.92	2007.20	2177.38	883.64	728.75
(C)	Details of capital spares consumed during the year	198.17	163.10	761.16	389.68	42.90
(D)	Details of capital spares closing at the end of the year	24409.85	26253.95	27670.17	28164.12	28849.98

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

Name of the Utility: NTPC Ltd														
Name of the Generating Station: Kawas Gas Project														
Station/ Stage/ Unit:														
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro): Coal														
Capacity of Plant (MW): 656.2														
COD : 01.09.1993														
25	AFC (Rs. Kwh)	0.646	0.648	0.653	0.657	0.548	0.740	0.747	0.754	0.768	0.877	0.792	0.826	0.836
26	Energy Charge (Rs./Kwh)	4.073	3.484	4.301	4.278	5.391	2.386	2.184	2.483	2.413	2.571	2.819	2.971	2.075
27	Total tariff (Rs. Kwh)	4.719	4.132	4.954	4.935	5.939	3.126	2.931	3.237	3.181	3.447	3.611	3.798	2.910
28	Revenue realisation before tax (Rs. Crore)													
29	Revenue realisation after tax (Rs. Crore)													
30	Profit/ loss (Rs. Crore)	214.25	148.79	488.61	469.75	357.63	272.14	320.85	405.49	313.38	397.76	-5.62	-50.33	416.33
31	DSM Generation (MU)													
32	DSM Rate (Ps/Kwh)													
33	Revenue from DSM (Rs. Crore)				-12.14	-18.90	-57.92	-42.50	-124.13	-70.14	-10.48	-5.52	-1.30	-3.66

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