

Annexure-II

Pro-forma for furnishing Actual annual performance/operational data for the Gas/Liquid Fuel based thermal generating stations for the 5 year period from 2017-18 to 2021-22

S.N	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22
1	Name of Company		NTPC Ltd.				
2	Name of Station		ANTA GAS POWER STATION				
3	Installed Capacity and Configuration	MW	Capacity : 419.33 MW (88.71 x 3 GTs + 153.2 x 1 STG)				
	Stage						
3.1	Date of Commercial Operation - Unit Wise		GT#1-01.04.1989, GT#2-01.05.1989, GT#3-01.07.1989, STG-01.08.1990,				
3.2	Effective COD		01.08.1990				
4	Make of Turbine		ABB Make 13D2				
5	Rated Steam Parameters		WHRB O/L Steam parameters : (From HBD) Pressure Temp. Flow HP : 67.3 ATA 488°C 153 T/HR LP : 5.91 ATA 210°C 39.1 T/HR				
6	Average site ambient conditions		Ambient Temperature 27°C, Ambient Pr. 0.983 bar and Ambient Relative Humidity 60%				
7	Any other Site specific feature						
8	Fuels :						
8.1	Main/Primary Fuel		Natural Gas/RLNG				
8.1.1	Annual Allocation/ Requirement(MMSCMD)	Domestic gas	0.12	0.15	0.11	0.16	0.10
		RLNG	0.94	1.67	2.00	1.04	0.66
		Total	1.06	1.82	2.11	1.20	0.67
8.1.2	Sources of supply		GAIL , GSPCL,SHELL,BPCL, HPCL				
8.1.3	Transportation Distance of the station from the Sources of supply	KM	1000 (GAIL HVJ/DVPL pipeline)				
8.1.4	Mode of Transport		Pipeline network for gas stations				
8.2	Alternate Fuel :		Naptha				
8.2.1	Annual Allocation/ Requirement	Million Cubic meter or MT or Kilo Litre	Not Applicable				
8.2.2	Sources of supply		HPCL, Mumbai				
8.2.3	Transportation Distance of the station from the Sources of	KM	1600				
8.2.4	Mode of Transport		Road				
8.2.5	Maximum Station capability to stock secondary fuels	KL	3000 KL				
9	Cost of Spares :						
9.1	Cost of Spares capitalized in the books	(Rs. Lakhs)	1,006.3	398.4	95.7	3,318.3	3,854.0
9.2	Cost of spares included in capital cost for the purpose of	(Rs. Lakhs)	0	0	0	0	0
10	Generation :						
10.1	Actual Gross Generation at generator terminals	MU					
10.1.1	Total	MU	451.0	550.7	302.1	364.3	106.2
10.1.2	On Gas	MU	446.5	543.5	302.1	364.1	93.9
10.1.3	On Naptha or any other liquid fuel	MU	4.5	7.2	0.1	0.3	12.2

10.2	-Actual Net Generation Ex-bus	MU	430.0	528.3	279.9	345.1	94.0
10.3	-Scheduled Generation Ex-bus	MU	446.1	546.5	302.6	363.5	107.3
11	Average Declared Capacity (DC)	MW	390.4	385.1	352.5	389.0	353.4
12	Actual Auxiliary Energy Consumption excluding colony consumption & agency power	MU	18.77	20.44	20.46	17.55	10.54
13	Actual Energy supplied to Colony from the station and Agency Power	MU	2.23	1.96	1.82	1.70	1.59
14	Main/Primary Fuel :						
14.1	Consumption	(MSCM, MT or KL) - Specify					
14.1.1	Natural Gas	APM Gas SCM	4,39,92,874	5,53,00,369	3,80,62,618	5,63,16,599	56,09,702
		Non-APM Gas SCM					
14.1.2	RLNG	SCM	6,05,09,351	7,50,01,869	3,84,96,030	3,17,42,372	2,36,07,473
14.1.3	Liquid Fuel	KL	1,331	2,173	30	134	4,673
14.2	Weighted Gross Calorific Value (GCV)						
14.2.1	Natural Gas (as received)	kCal/SCM	9,208	9,217	9,263	9,233	9,315
14.2.2	RLNG (as received)	kCal/SCM	9,211	9,159	9,270	9,219	9,210
14.2.3	Liquid fuel (as received)	kCal/Lt.	8,179	7,910	7,960	7,964	7,972
14.3	Weighted Average Landed Price						
14.3.1	APM Gas	Rs./1000 SCM	11,071.85	13,997.94	14,457.81	10,664.44	-
14.3.2	Non-APM Gas	Rs./1000 SCM			14,214.11	11,460.03	-
14.3.3	RLNG	Rs./1000 SCM	26,227.42	38,110.42	35,088.57	23,036.74	44,138.14
14.3.4	Liquid Fuel	Rs./KL	59,483.85	72,281.15	67,996.83	67,996.83	84,840.26
14.4	Percentage of Declared Capacity						
14.4.1	APM Gas	%	6.45	7.96	4.81	6.64	0.82
14.4.2	Non-APM Gas	%					
14.4.3	RLNG	%	44.69	78.80	92.27	45.86	41.29
14.4.4	Liquid Fuel	%	48.85	13.23	2.91	47.49	57.88
14.5	Actual Average stock maintained for liquid fuel	(KL)	2,862	2,958	2,930	2,798	1,878
15	Alternate Fuel : RLNG/Liquid						
15.1	Consumption	KL/SCM					
	Weighted Average Gross Calorific value (As received)	(kCal /Lt. or SCM)					Mentioned above
15.3	Weighted Average Landed Price	(Rs per KL/SCM)					
15.4	Actual Average stock maintained	KL					
16	Weighted average duration						
16.1	Planned Outages	(Days)	2.7	1.0	15.4	9.8	21.8
16.2	Forced Outages	(Days)	0.5	0.1	26.7	-	0.3
16.3	Number of tripping	Nos.	2.0	1.0	6.0	-	8.0
16.4	Number of start-ups	Nos.	69.0	68.0	176.0	36.0	147.0
16.4.1	Cold Start-up(Steam Turbine)	Nos.	9.0	9.0	12.0	2.0	6.0
16.4.2	Warm Start-up(Steam Turbine)	Nos.	2.0	2.0	4.0	-	4.0

16.4.3	Hot start-up(Steam Turbine)	Nos.	3.0	2.0	4.0	1.0	3.0
17	Cost of spares consumed	Rs. Lakhs	25.3	24.5	126.5	83.5	74.3
18	Average stock of spares	Rs. Lakhs	3,286.3	3,324.9	2,812.5	2,855.1	2,974.3
19.	NOx and other particulate matter		Details as per Annexure-A				
19.1	Design value	mg/Nm ³					
19.2	Actual emission	mg/Nm ³					
20	Number of employees deployed in		159	143	126	119	113
20.1	- Executive	Nos.	60	43	37	39	37
20.2	- Non Executive	Nos.	99	100	89	80	76
20.3	Corporate Office	Nos.	2,568	2,241	2,016	1,815	1,728
21	Man-MW ratio	Man/MW	0.38	0.34	0.30	0.28	0.27

DETAILS OF WATER CHARGES

Name of the Company:

NTPC Ltd

Name of the Power Station and Stage/Phase:

ANTA GAS POWER STATION

(Rs. In Lakhs)

Sl.No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
(A)	Plant					
1	Type of Plant	Combined cycle Power Plant				
2	Type of Cooling Tower	Induced draft cells				
3	Type of Cooling Water System	Open Cycle (Once Through) & Closed Cycle (Through Cooling Tower)				
4	Any Special Features which may increase/reduce water consumption					
(B)	Quantum of Water :					
5	Contracted Quantum(mcft)	2990939	2990939	2990939	2990939	2947784
6	Allocation of Water(mcft)	2990939	2990939	2990939	2990939	2947784
7	Actual water Consumption(m3)	1133138	1424732	1518750	1500000	1768750
8.	Rate of Water Charges (Rs/1000 cubic feet)	20	20	20	250	250
9	Other charges/Fees , if paid as part of Water Charges					
10	Total water Charges Paid (Rs Lakhs)	44.87	56.05	55.45	371.60	141.37

DETAILS OF OPERATIONS AND MAINTENANCE EXPENSES

Name of the Company:
Name of the Power Station

NTPC Ltd
Anta GPS (419.33 MW)

(Rs. In Lakhs)

Sl. No.	ITEM	2017-18	2018-19	2019-20	2020-21	2021-22
1	2	3	4	5	6	7
(A)	Details of Capital Spares in opening Stock	21,353.57	22,334.61	22,708.51	22,677.78	25,912.56
(B)	Details of Capital Spares procured during the	1,006.32	398.37	95.73	3,318.28	3,853.95
(C)	Details of capital spares consumed during the	25.27	24.47	126.47	83.49	74.30
(D)	Details of capital spares closing at the end of the	22,334.61	22,708.51	22,677.78	25,912.56	29,692.21

Name of Utility:		NTPC Ltd																		
Name of Generating Station:		Anta Gas Station																		
Station Configuration:		419.33 MW (88.71 x 3 GTs + 153.2 x 1 STG)																		
Capacity (MW):		419.33 MW																		
COD:		01.08.1990																		
S.N	Particulars	Unit	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	2017-18	2018-19	2019-20 *	2020-21 *	2021-22 *
1	Plant Availability Factor (PAF)	%	86.26	91.34	87.65	84.90	83.17	89.36	89.59	94.09	93.61	98.34	94.20	94.96	93.53	98.96	96.06	88.20	97.01	89.31
2	Plant Load Factors (PLF)	%	75.82	76.47	80.07	74.07	68.48	81.72	67.73	73.10	59.25	53.50	45.02	25.57	18.93	12.28	14.99	8.20	9.92	2.89
2a	Loading Factor ^	%														69.08	64.10	57.72	62.76	57.16
3	Scheduled Energy	MU	2,785.29	2,809.11	2,941.16	2,728.32	2,515.57	3,001.77	2,487.88	2,692.59	2,176.42	1,965.33	1,653.84	941.95	695.17	446.07	546.47	302.57	363.46	107.26
4	Scheduled Generation	MU	2,705.82	2,713.72	2,860.81	2,618.04	2,350.76	2,586.84	2,359.79	2,582.41	2,125.56	1,954.41	1,641.56	947.32	686.91	446.07	546.47	302.57	363.46	107.26
5	Actual Generation (Gross)	MU													450.97	550.69	302.13	364.35	106.16	
6	Actual Generation (ex-bus)	MU													429.97	528.28	279.86	345.10	94.03	
7	Actual energy supplied to beneficiaries (Long Term, Medium Term and Short Term)	MU	2,705.82	2,713.72	2,860.81	2,618.04	2,350.76	2,586.84	2,359.79	2,582.41	2,125.56	1,954.41	1,641.56	947.32	686.91	285.88	326.08	264.38	358.66	41.74
8	Quantum of Gas consumption	MSCM	551.78	515.33	563.11	525.48	503.76	637.86	549.49	603.30	496.54	435.46	374.99	219.24	158.40	104.50	130.30	76.56	88.06	29.22
9	Value of Gas	Rs. Lakh																		
10	Specific Gas Consumption (smc/kwh)	SMC/kWh	0.23	0.22	0.21	0.21	0.23	0.22	0.22	0.22	0.23	0.22	0.23	0.23	0.23	0.23	0.24	0.25	0.24	0.31
11	Gross Calorific Value of Gas (Kcal/ Kwh)	(Kcal/ Kg)	9,049	9,506	9,767	9,768	9,124	9,275	9,408	9,101	9,111	9,259	9,142	9,096	9,176	9,208	9,190	9,265	9,226	9,228
12	Heat Contribution of Gas (Kcal/ kwh)	(Kcal/ kWh)	2,062	2,076	2,030	2,066	2,067	2,041	2,082	2,042	2,080	2,052	2,073	2,117	2,091	2,155	2,201	2,348	2,232	2,870
13	Cost Of Specific Coal Consumption - Finally admitted by CERC (Ex-Bus)	(Rs./kWh)																		
14	Quantum of Oil Consumption (KL)	(KL)	91,639	1,11,215	58,713	62,897	75,631	26,209	1,272	924	381	14	-	15	-	1,331	2,173	30	134	4,673
15	Value of Oil (Rs. lakh)	(Rs. lakh)																		
16	Gross calorific value of oil (kcal/lit)	(kcal/lit)	8,056	8,171	8,091	8,051	8,013	8,025	7,961	8,030	8,003	8,067	-	7,960	-	8,179	7,910	7,960	7,964	7,972
17	Specific Oil Consumption (lit/ kwh)	(ml/kWh)	0.25	0.25	0.25	0.26	0.26	0.25	0.25	0.26	0.28	0.27	-	0.27	-	0.30	0.30	0.56	0.48	0.38
18	Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC	(Rs./kWh)																		
19	Heat Contribution of Oil (Kcal/ kwh)	(Kcal/ kWh)	2,026	2,024	2,045	2,074	2,076	2,039	2,028	2,096	2,218	2,154	-	2,155	-	2,421	2,381	4,434	3,799	3,045
20	Station Heat Rate (kcal/kwh)	(Kcal/ kWh)	2,058	2,067	2,032	2,067	2,068	2,041	2,082	2,042	2,080	2,052	2,073	2,117	2,091	2,158	2,205	2,348	2,233	2,890
21	Auxiliary Energy Consumption (%)	(%)	2.69	2.51	2.12	1.96	2.36	2.27	2.70	2.04	2.36	2.31	2.34	3.22	3.70	4.13	3.69	6.73	4.78	9.85
22	Debt at the end of the year	(Rs. Crore)	-	-	3.00	-	144.75	265.89	248.68	221.64	195.34	168.55	146.88	128.61	100.48	67.38	34.28	2.34	-	-
23	Equity - Average	(Rs. Crore)	230.57	230.90	233.63	238.10	273.35	317.92	332.32	332.92	332.92	333.04	334.56	338.57	342.06	342.98	342.98	339.78	341.19	251.92
24	Working Capital – finally admitted by CERC	(Rs. Crore)	128.79	129.53	130.70	132.68	134.10	199.02	202.20	204.77	206.41	208.90	273.19	276.26	278.58	281.12	283.67	400.61	403.13	399.63
25	Capital cost – finally admitted by CERC	(Rs. Crore)	461.48	462.58	471.69	486.58	604.09	751.98	799.99	801.99	802.11	802.39	807.47	820.81	832.46	835.52	835.52	824.85	829.57	839.74
26	Capacity Charges/ Annual Fixed Cost (AFC)	(Rs. Crore)	105.45	99.35	93.43	103.81	125.71	187.42	198.34	202.79	205.86	211.11	194.54	201.67	208.58	213.75	218.36	235.51	242.97	201.53
27	(a) Return on equity – post tax (admitted by CERC upto 2009) and Pre Tax post 2009																			
28	Absolute value	(Rs. Crore)	32.28	32.33	32.71	33.33	38.27	74.65	77.13	76.38	76.39	78.20	65.61	66.71	67.40	67.58	67.58	63.82	64.08	47.32
29	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%	19.71%	19.71%	18.78%	18.78%	18.78%
30	(b) Interest on Loan																			
31	Absolute value	(Rs. Crore)	0.18	-	0.12	0.09	2.92	5.13	4.20	4.53	3.37	2.18	1.88	1.63	1.32	0.09	0.54	1.42	0.10	-
32	Rate – Weighted Average Rate	(%)	8.08%	8.06%	8.10%	5.80%	4.04%	2.17%	1.63%	1.93%	1.62%	1.20%	1.19%	1.18%	1.16%	1.10%	1.06%	7.68%	8.45%	8.45%
33	(c) Depreciation (finally allowed by CERC)																			
34	Absolute value	(Rs. Crore)	7.50	7.68	9.43	14.01	11.34	21.20	26.62	27.43	27.46	27.61	28.31	30.31	32.41	33.10	33.10	33.25	37.50	9.15
35	AAD																			
36	Rate	(%)																		
37	(d) Interest on working Capital																			
38	Absolute value	(Rs. Crore)	13.20	13.28	13.40	13.60	13.75	24.38	24.77	25.08	25.29	25.59	36.88	37.29	37.61	37.95	38.30	48.27	48.58	48.16
39	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%	13.50%	13.50%	12.05%	12.05%	12.05%
40	(e) Operation and maintenance cost (finally admitted by CERC)																			
41	Absolute value	(Rs. Crore)	32.71	34.01	35.39	36.78	38.24	62.06	65.63	69.36	73.34	77.53	61.52	65.37	69.48	74.19	78.85	88.74	92.71	96.90
42	Rate	(%)																		
43	(f) Compensation Allowances	(Rs. Crore)																		
44	(g) Special Allowance	(Rs. Crore)																		
45	(h) Supplementary Tariff - Emission Control																			
46	Absolute value	(Rs. Crore)																		
47	Rate	(%)																		
48	(i) Ash Utilisation Expenses	(Rs. Crore)																		
49	AFC	(Rs./ kWh)	0.37	0.35	0.33	0.36	0.44	0.62	0.65	0.67	0.68	0.70	0.64	0.66	0.69	0.70	0.72	0.78	0.80	0.66
50	Energy Charge	(Rs./kWh)	1.48	2.10	2.16	2.26	2.24	2.20	2.72	3.38	3.66	2.92	3.23	3.36	2.55	3.98	4.92	5.67	3.76	5.71
51	Supplemental Energy Charges - Emission Control	(Rs./kWh)																		
52	Total tariff	(Rs. kWh)	1.85	2.45	2.49	2.62	2.68	2.82	3.37	4.05	4.34	3.62	3.87	4.02	3.24	4.68	5.64	6.45	4.56	6.37
53	Revenue realisation before tax	(Rs. Crore)																		
54	Revenue realisation after tax	(Rs. Crore)																		
55	Profit/ loss	(Rs. Crore)	35	89	134	174	120	159	153	216	213	122	42	7	91	113	75	180	85	45
56	DSM Generation	(MU)	4.4	24.7	24.1	58.2	105.4	346.7	61.0	55.2	(0.5)	(34.5)	(29.4)	(38.7)	(20.5)	(16.1)	(18.2)	(22.7)	(18.4)	(13.2)

57	DSM Rate	(Rs/kWh)																		
58	Revenue from DSM	(Rs. Crore)				(24.90)	(71.34)	(136.60)	(29.43)	(31.33)	(15.34)	1.65	1.07	5.75	2.17	3.46	4.59	5.90	4.01	3.66
59	Compensation received for operation below NAPAF	(Rs Crore)														0.18	3.50	6.13	2.22	-
60	Part load Compensation received from beneficiaries	(Rs Crore)														0.18	3.50	6.13	2.22	-
61	Amount received from SCED	(Rs Crore)														-	-	-	-	-

* Tariff related details for 2019-22 period is based on Tariff Petition filed before CERC

^ Additional data related to Loading factor (%) submitted

DSM Revenue (-)Received / (+) Paid