

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22
1	Name of Company		NTPC NABINAGAR (50:50 JV NTPC & Bihar (w.e.f. 01.08.2022 NTPC Nabinagar became part of NTPC)		
2	Name of Station/ Pit head or Non- Pit head		NABINAGAR SUPER THERMAL POWER		
	Stage		ONLY 1 STAGE EXISTING		
3	Installed Capacity and Configuration	MW	1980/ 660*3		
3.1	Date of Commercial Operation - Unit Wise		U-I : 06.09.2019, U-II : 23.07.2021, U-III : 01.06.2022		
3.2	Effective COD		01.06.2022		
	Make of Turbine		GE ALSTOM		
4	Rated Steam Parameters (Also state the type of Steam turbine and Boiler)		MS: Temp: -565 Deg C/ Throttle PR-247 ata , HRH: Temp:-593 Deg C/ 58.25 ksc, Super Critical Boiler (BHEL Make), Multi stage Reaction turbine, throttle Electrical Driven or Steam driven (BOTH)		
5	Type of BFP		(2 MDBFP & 2 TDBFP)		
	Quantity		Closed Cycle		
6	Circulating water system				
7	Any other Site specific feature				
	Unit heat rate		2145		
	Boiler efficiency		85.42		
	Turbine cycle heat rate		1832		
8	Fuels :				
8.1	Primary Fuel :		Coal		
8.1.1	Annual Allocation under FSA	MT		2346300	3971000
	Annual Consumption	MT	1567210	2838554	4720323
	Annual Requirement at NAPAF	MT	1684716	2971310	4914631
8.1.2	Sources of supply/ procurement along with contracted quantity and grade of coal		CCL (G8-G13), BCCL (G5-G17, Washed Coal)		
8.1.2.1	FSA	LoA	MT	0	2346300
		MoU	MT	200000	0
8.1.2.2	Imported*		MT		0
8.1.2.	Spot Market/e-auction*		MT		0
8.1.3	Transportation Distance of the station from the sources of supply	KM	CC: 240-260 KM, BCCL: 240-280 Km		
8.1.4	Mode of Transport		Road, Rail		
8.1.5	Maximum Station capability to stock primary fuel (for days consider availability as NAPAF)	Days & MT	21 Days & 6 Lakh MT		
8.1.6	Maximum stock maintained for primary fuel	MT	269671.78	302870.367	413046.13
	Date		04-09-2019	28-02-2021	18-03-2022
8.1.7	Minimum Stock maintained for primary fuel	MT	21133.88	44241.47	15668.791

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22
	Date		31-10-2019	04-10-2020	17-10-2021
8.1.8	Average stock maintained for primary fuel	MT	113214.7	144173.9	167407.0
8.2	Secondary Fuel :				
8.2.1	Annual Allocation/ Requirement	KL		7370	
8.2.2	Sources of supply			IOCL/BPCL/HPCL	
8.2.3	Transportation Distance of the station from the sources of supply	KM		VIZAG-1120, MATHURA-902, BUDGE BUDGE-	
8.2.4	Mode of Transport			Road	
8.2.5	Maximum Station capability to stock secondary fuels	KL		7000	
8.2.6	Maximum Stock of secondary oil actually maintained	KL	5494.84	8101.89	5710.86
8.2.7	Minimum Stock of secondary oil actually maintained	KL	2187.31	3711.32	2736.51
8.2.8	Average Stock of secondary oil actually maintained	KL	4425.21	5058.88	4575.08
9.	Cost of Spares :				
9.1	Cost of Spares capitalized in the books of accounts	(Rs. Lakh)			
9.2	Cost of spares included in capital cost for the purpose of tariff	(Rs. Lakh)	17164.61	409.89	922.14
9.3	Initial spares-list, quantity and cost	(Rs. Lakh)			
9.4	Maintenance spares - cost	(Rs. Lakh)			
9.5	Other spares procured with high lead procurement time	(Rs. Lakh)	894.7	212.23	437.57
10	Generation :				
10.1	-Actual Gross Generation at generator terminals	MU	2564.94	4639.69	7921.50
10.2	-Actual Net Generation Ex-bus	MU	2433.11	4391.82	7679.14
10.3	-Scheduled Generation Ex-bus	MU	2442.34	4445.65	7497.40
11	Average Declared Capacity (DC)	MW	310.69	569.42	954.87
	DC Peak HD %	%		102.27	99.57
	DC Off Peak HD %	%		102.94	99.55
	DC Peak LD %	%		88.46	94.36
	DC Off Peak LD %	%		88.39	88.97
	Actual Declared Capacity	MU	2721.67	4988.16	8364.66
	Deemed Declared Capacity				
12	Actual Auxiliary Energy Consumption excluding colony	MU	131.83	247.87	242.36
13	Actual Energy supplied to Colony from the station	MU		4.03	4.16
	Actual energy supplied to construction activities				
	Actual energy supplied to long term and medium term beneficiaries	MU	2699.93	4383.67	7547.27
	Actual energy supplied in short term				
	Energy supplied under bilateral arrangements				
	Energy supplied through excahnges				
	Energy supplied under DSM	MU	-9.23	-53.83	181.74
	Energy supplied SCED	MU	-18.22	57.52	117.25
14	Primary Fuel :				
14.1	Consumption :				

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22	
14.1.1	Domestic coal	From Linked Mines	MT	1567210	2838554	4720323
		From Non-Linkd Mines	MT			
		From Integerated Mines	MT			
14.1.2	Imported coal	MT	0	0	0	
14.1.3	Spot market/e-auction coal	MT				
14.2	Gross Calorific Value (GCV) :					
14.2.1	Domestic Coal (for each type)	(As Billed) - EM Basis as per third party	kCal/kg	4509	4395	4597
		(As Received) - TM Basis as per third party	kCal/kg	3825	3710	3856
14.2.2	Imported Coal	(As Billed) - ADB Basis	kCal/kg	NA	NA	NA
		(As Received) - ADB Basis	kCal/kg	NA	NA	NA
14.2.3	Spot market/e- auction coal	(As Billed)	kCal/kg	NA	NA	NA
		(As Received)	kCal/kg	NA	NA	NA
14.2.4	Weighted Average Gross Calorific value (Domestic+Imported+Spot/e-auction) (As Billed)	kCal/kg	4509	4395	4597	
14.2.5	Weighted Average Gross Calorific value (Domestic+Imported+Spot/e-auction) (As Received)	kCal/kg	3825	3710	3856	
	Ash content in coal (%)		34.78	34.05	33.15	
14.3	Price of coal :					
	Billed Cost (including adjustments)					
	Amount Charged by transporting agency upto delivery point					
14.3.1	Weighted Average Landed price of Domestic coal	(Rs/MT)	3254	3171	3321	
	Components of landed cost and break up					
		1. Cost of coal,	(Rs/MT)	2227	2343	2487
		2. Transportation	(Rs/MT)	985	775	805
		3. Other charges	(Rs/MT)	42	53	29
14.3.2	Weighted Average Landed Price of Imported coal	(Rs/MT)				
	Components of landed cost and break up					
14.3.3	Weighted Average Landed Price of Spot market / e-auction coal	(Rs/MT)				
	Components of landed cost and break up					
14.3.4	Weighted Average Landed Price of all the Coals	(Rs/MT)	3254	3171	3321	
14.4	Blending :	% and MT (of the total coal consumed)	NA			
	Blending ratio of imported coal with domestic coal	Equivalent to domestic coal				
14.4.2	Proportion of e-auction coal in the blending	% & MT				

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22	
	Coal stockyard capacity		4.59 LMT			
14.5	Actual daily Average Coal stock maintained	MT	113215	144174	167407	
		Days	24.5	17.7	12.4	
14.5	Actual Transit & Handling Losses for coal/Lignite					
14.5.1	Pit- Head Station		NA			
14.5.1.1	Transit loss from linked mines	%				
14.5.1.2	Transit loss from non-linked mines including e-auction coal mines.	%				
14.5.1.3	Transit loss of imported coal	%				
14.5.2	Non-Pit Head station					
14.5.2.1	Transit loss from linked mines	%	0.721	0.781	0.79	
14.5.2.2	Transit loss from non-linked mines including e-auction coal mines.	%				
14.5.2.3	Transit loss of imported coal	%				
15	Secondary Fuel Oil :					
15.1	Consumption	HFO	KL			
		HSD	KL	2347.63	2744.72	2797.49
15.2	Weighted Average Gross Calorific value (As received)	HFO	(kCal / Lit.)			
		HSD	(kCal / Lit.)	9376	9197	9205
15.3	Weighted Average Price	HFO	(Rs / KL)			
		LDO	(Rs / KL)	52143	55515	69381
15.4	Actual Average stock maintained	HFO	KL	NIL	NIL	NIL
		HSD	KL	4462	4902	4559
16	Weighted average duration of outages(unit-wise details):					
16.1	Planned Outages	(Days)	7.35	16.16	16.46	
16.2	Forced Outages	(Days)	11.65	25.05	19.33	
	Within control of generator					
	beyond control of generator					
16.3	Number of tripping	Nos.	8	9	14	
16.4	Number of start-ups:	Nos.	13	10	17	
16.4.1	Cold Start-up	Nos.	5	7	7	
16.4.2	Warm Start-up	Nos.	4	1	2	
16.4.3	Hot start-up	Nos.	4	2	8	
17	NOx , SOx , and other particulate matter emission in : at conditions specified by MoEF&CC		ECS system under installation.			
17.1	Design value of emission control equipment (specify conditions)					
	FGD installation date					
	NOX Control system installation date					
17.2	Actual emission (Stage-I)	SPM	mg/Nm ³	Attached as Annexure-A		
		NOX	mg/Nm ³			

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22
		SOX	mg/Nm ³		
	Actual emission (Stage-II)	SPM	mg/Nm ³		
		NOX	mg/Nm ³		
		SOX	mg/Nm ³		
		Ash dyke capacity as on 31st March	MT		
	Ash pond capacity as on 31st March	MT			
	Fund available in Ash Fund Account as on 31st March	Rs Lakh		Attached as Annexure-B	
	Amount utilized from Ash Fund Account	Rs Lakh			
	Ash available as on 31st March	LMT	6.44	10.43	16.84
	Ash utilized for construction of ash dyke	LMT	0	0	0
	Ash utilized within plant premise, other than construction of ash dyke	LMT	0	0	0
	Ash transported	LMT	0	0	0
	Average Distance	km	0	0	0
19	Detail of Ash utilization % of fly ash produced	(%)	51.40	51.58	50.89
19.1	Conversion of value added product	(%)	51.40	51.58	50.71
19.2	For making roads & embankment	(%)	0.00	0.00	0.00
19.3	Land filling	(%)	0.00	0.00	0.18
19.4	Used in plant site in one or other form or used in some other site	(%)	0.00	0.00	0.00
19.5	Any other use , Please specify	(%)	0.00	0.00	0.00
20	Cost of spares actually consumed	(Rs. Lakh)	15.64	409.89	922.14
21	Average stock of spares	(Rs. Lakhs)			
22	Number of employees deployed in O&M	Nos.			
22.1	- Executives	Nos.	244	247	249
22.2	- Non Executives	Nos.	7	6	6
22.3	- Corporate office	Nos.	2016	1815	1728
23	Man-MW ratio	Man/MW	0.38	0.38	0.19
	Total billed amount				
	Total received amount within due date		Attached As Annexure-C		
	Total amount received beyond due date				
	Total amount pending				
	Total amount under dispute				
	Total rebate given				
	Total LPSC recovered				
24	Generation Switchyard Details				
	No. of Bays voltages wise		400kV:-24	132kV-11	
	ICT - nos and rating		200MVA-2nos		

Annexure-I

S.N	Particulars	Units	2019-20	2020-21	2021-22
	Dedicated transmission line - voltage and length		Patna-1 &2 :400kV 139kmGaya-1&2: 400kV 79.31km		

Note: Ash available on 31st March indicated is total ash generated during the FY and distance indicated is Weighted average distance of ash transportation.

Annexure-VI (C)

DETAILS OF WATER CHARGES

Name of the Company: NTPC Ltd.

Name of the Power Station and Stage/Phase:

(Rs. In Lakhs)

Sl.No.	ITEM	2019-20	2020-21	2021-22
1	2	5	6	7
(A)	Plant			
1	Type of Plant	Closed Cycle		
2	Type of Cooling Tower	Induced Draft		
3	Type of Cooling Water System	Closed Cycle		
4	Any Special Features which may increase/reduce water			
(B)	Quantum of Water : (Cubic Meter)			
5	Contracted Quantum			
6	Allocation of Water	125 cusec	125 cusec	125 cusec
7	Actual water Consumption	4081342		11863965
8.	Rate of Water Charges	Water Charges @Rs 18/- per 1000 gallons Capital cost recovery charges @ 317000/- per month for 2017-18 with an escalation of @10% per year		
9	Other charges/Fees , if paid as part of Water Charges			
10	Total water Charges Paid			

Note:

Annexure-XIX					
	Name of Utility:	NTPC Ltd.			
	Name of Generating Station:	Nabinagar			
	Station Configuration:	3*660			
	Capacity (MW):	1980			
	COD:	01.06.2022			
S.N	Particulars	Unit	2019-20	2020-21	2021-22
	h) Supplementary Tariff - Emission				
	Absolute value	(Rs. Crore)			
	Rate	(%)			
	i) Ash Utilisation Expenses	(Rs. Crore)			
25	AFC	(Rs./ kWh)	3.25	3.23	2.72
26	Energy Charge	(Rs./kWh)	2.09	2.10	2.10
26.1	Supplemental Energy Charges - Emission Control	(Rs./kWh)	0	0	0
27	Total tariff	(Rs. kWh)	5.34	5.33	4.82
28	Revenue realisation before tax	(Rs. Crore)			
29	Revenue realisation after tax	(Rs. Crore)			
30	Profit/ loss	(Rs. Crore)			
31	DSM Generation	(MU)	-9.23	-53.83	181.74
32	DSM Rate	(Rs/kWh)			
33	Revenue from DSM	(Rs. Crore)	0.88	-3.03	-3.62
34	Compensation received for operation below NAPAF	(Rs Crore)			
35	Part load Compensation received from beneficiariaes	(Rs Crore)			
36	Amount received from SCED	(Rs Crore)			

Note Note : Tariff order to be issued data as per petition filed.

DSM Revenue (-)Received / (+) Paid

2a Extra Row inserted .

Gross calorific value indicated for 2019-20,2020-21,2021-22 here after adjusting 85 kcal storage loss

DETAILS OF EMISSION CONTROL SYSTEM

Generating company:
Name of Generating station:
Installed Capacity (MW) :
Type of Emission Control System:
Under Operation/Anticipated Operation Date:

S.No.	Particulars	Units	2017-18	2018-19	2019-20	2020-21	2021-22	
A								
1	Gross Generation	MU						
2	Auxiliary Consumption - emission control	MU	ECS system under installation.					
	Auxiliary Consumption - emission control	%						
3	Auxiliary Consumption (Normative)	%						
4	Hours of Operation	Hrs						
5	O&M Expenses (Actual) with Breakup as per	Rs. Crore						
6	Other maintenace spares consumed^	Rs. Crore						
7	Initial Spares consumed*	Rs. Crore						

Pls. Note: Where the system is yet not operational guaranteed parameter along with spares cost as per awarded contract to be furnished

* Not part of O&M expenses and Pls specify list of the same

S.No.	Particulars	Units										
			Investment Approval	Approved*	Investment Approval	Approved*	Investment Approval	Approved*	Investment Approval	Approved*	Investment Approval	Approved*
1	Capital Cost of Emission Control System											
1.1	Hard Cost	Rs. Crore	838.96									
1.1.1	Civil Works	Rs. Crore										
1.1.2	Plant and Machinery and others	Rs. Crore										
1.1.3	Initial Spares procured	Rs. Crore										
1.2	IDC	Rs. Crore										
1.3	IEDC	Rs. Crore										
1.4	Others. Pls specify	Rs. Crore										
1.4	Completed Cost	Rs. Crore										

* Wherever cost is yet to be approved by CERC and for which petition has been filed the actual claimed shall be submitted.

* Where the work is still under execution utility to submit the details of awarded cost