Annexure-III
SH 1/3

Pro-forma for furnishing Actual annual performance/operational data for the Hydro Electric generating stations period 2022-23

	Particulars	Units	2022-23
1	Name of Company		NHPC LTD
2	Name of Station		BAIRASIUL POWER STATION
3	Installed Capacity and Configuration	(MW)	180 MW
3.1	Date of Commercial Operation - Unit Wise		After R&M Unit-I 07.11.2020 Unit-II 29.12.2019 Unit-III 31.08.2021
3.2	Effective COD		31.08.2021
4	Station Location	Under ground or Surface	Surface
5	Type of Excitation System		Static
6	Live Storage Capacity	(Million Cubic)	0.66
7	Rated Head	Metres	238.1
8	Head at Full Reservoir Level (FRL)	Metres	282.21
9	Head at Minimum Draw down Level (MDDL)	Metres	275.8
10	MW Capability at FRL	MW	180
11	MW Capability at MDDL	MW	175.9
12	**Cost of spares :**		
12.1	Cost of spares capitalized in books of accounts	(Rs. Lakhs)	96.82
12.2	Cost of spares included in the capital cost for the purpose of	(Rs. Lakhs)	
13	**Generation :**		
13.1	Actual Gross Generation at Generator Terminals	(MU)	627.87
13.2	Actual Net Generation Ex-bus including free power	(MU)	621.62
13.3	Scheduled generation Ex-bus including free power	(MU)	609.08
14	Actual Auxiliary Energy Consumption excluding colony	(MU)	7.46
15	Actual Energy supplied to Colony from the station	(MU)	NIL
16	**Average Declared Capacity (DC) during the year**		
16.1	Actual Declared Capacity (DC) during the year	(MW)	156.59
16.2	Deemed Declared Capacity	(MW)	0.00
16.3	Actual energy supplied to beneficiaries	(MU)	609.08
16.4	Actual energy supplied in DSM	(MU)	12.55
16.5	Actual energy supplied in exchange	(MU)	0.00
	Period	**Units**	
17	Weighted Average duration of outages		
17.1	Scheduled outages	(Days)	AS PER **APPENDIX-A**
17.2	Forced outages	(Days)	
17.2.a	Within the control of generator	MU	6.87
17.2.b	Beyond the control of generator	MU	61.82
17.2.c	Shortfall in energy claimed / allowed *	MU	61.82
18	Cost of spares actually consumed	(Rs. Lakhs)	213.00
19	Average stock of spares	(Rs. Lakhs)	992.09

*** Shortfall energy claim is tentative and filing of shortfall petition is under process.**

Annexure-III
SH 2/3

Month wise Design Energy (Existing)

Month	Period	Design Energy as approved by CEA (MU)	Month	Period	Design Energy as approved by CEA (MU)
April	1-10	30.50	October	1-10	12.91
	11-20	33.63		11-20	11.14
	21-30	33.72		21-31	11.34
May	1-10	35.15	November	1-10	9.12
	11-20	32.63		11-20	8.33
	21-31	38.22		21-30	7.77
June	1-10	31.84	December	1-10	7.05
	11-20	30.35		11-20	7.11
	21-30	30.61		21-31	8.05
July	1-10	32.13	January	1-10	7.47
	11-20	35.61		11-20	7.84
	21-31	41.50		21-31	8.50
August	1-10	40.89	February	1-10	8.57
	11-20	37.57		11-20	10.28
	21-31	36.62		21-28	10.58
September	1-10	23.60	March	1-10	16.28
	11-20	19.69		11-20	18.81
	21-30	16.57		21-31	27.30
			Total		**779.28**

Storage Hydro plants shall also furnish actual monthly average peaking generation in MW achieved during the period 2017-18 to 2022-23 against the monthly average peaking capability approved by CEA as per following format:

Month	Expected Avg. of daily 3-hour peaking capacity as approved by CEA	Actual monthly average of daily 3-hour peaking (MW) for the period 2017-18 to 2022-23
April	177.84	139.33
May	177.84	137.22
June	177.84	129.58
July	177.84	145.18
August	177.84	140.45
September	177.84	133.53
October	177.84	126.70
November	177.84	120.64
December	177.84	115.87
January	177.84	120.50
February	177.84	129.25
March	177.84	121.11

Annexure III
SH 3/3

1 List of beneficiaries/customers along with allocation by GoI including (allocation of unallocated share) / capacity as contracted should also be furnished separately for each generating station.

As per APPENDIX - B

2 Declared Capacity should be as per Regulation of CERC Tariff Regulations for the period including month wise information may be furnished.

3 Any relevant point or a specific fact having bearing on performance or operating parameters may also be highlighted or brought to the notice of the Commission.

Month wise Design Energy (Post R&M)

Month	Period	Design Energy as approved by CEA (MU)	Month	Period	Design Energy as approved by CEA (MU)
April	1-10	17.25	October	1-10	14.66
	11-20	23.22		11-20	13.39
	21-30	30.23		21-31	13.38
May	1-10	26.84	November	1-10	10.47
	11-20	25.46		11-20	9.19
	21-31	23.83		21-30	8.63
June	1-10	28.56	December	1-10	7.71
	11-20	30.13		11-20	7.40
	21-30	37.21		21-31	7.75
July	1-10	34.56	January	1-10	6.69
	11-20	36.96		11-20	6.02
	21-31	45.14		21-31	7.55
August	1-10	41.04	February	1-10	6.86
	11-20	41.04		11-20	6.48
	21-31	37.24		21-28	5.34
Septembe	1-10	28.31	March	1-10	6.53
	11-20	21.42		11-20	6.94
	21-30	19.10		21-31	16.07
			Total		**708.60**

Annexure –IV

PLANT AVAILABILITY/SCHEDULED PLANT LOAD FACTOR ACHIEVED

Generating company: NHPC LTD.
Name of Generating station: Bairasiul Power Station
Installed Capacity (MW) : 180 MW
Normative Annual Plant Availability Factor (%) approved by Commission :
1. 2014-19: 90%
2. 2019-24: 90%

Plant Availability Factor Achieved (%)		
Month	**2022-23**	Reasons for shortfall in PAF achieved vis-a-vis NAPAF
April	89.87	LESS PAF DUE TO 1. OUTAGE DUE TO HIGH SILT/FLUSHING 2. LESS INFLOW. 3. OUTAGE OF U#2 DUE TO REPLACEMENT OF INSULATION SHEET OF RUNNER DISC W.E.F. 22.02.2023 TO 21.03.2023.
May	99.33	
June	100.00	
July	78.71	
August	84.59	
September	92.23	
October	99.12	
November	83.84	
December	73.86	
January	81.05	
February	95.55	
March	79.67	
Annual	**88.05**	

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Month	**2022-23**	Reasons for shortfall in PLF achieved vis-a-vis Target PLF
April	NOT APPLICABLE	
May		
June		
July		
August		
September		
October		
November		
December		
January		
February		
March		
Annual		

Annexure-XIX

Name of the Utility		**NHPC LTD.**
Name of the Generating Station		**Bairasiul Power Station**
Station/ Stage/ Unit		**3x60 MW**
Fuel Type (Coal/ Lignite/ Gas/ Liquid Fuel/ Nuclear/ Hydro		
Capacity of Plant (MW)		**180 MW**
COD		
		2022-23
1	**Plant Availability Factor (PAF) (%)**	88.05
2	**Plant Load Factors (PLF) (%)**	
3	**Scheduled Energy (MU)**	609.08
4	**Scheduled Generation (MU)**	
5	**Actual Generation (MU)**	627.87
	Actual Generation Ex-bus (MU)	621.62
	Actual energy supplied to beneficiaries	609.08
6	**Quantum of coal consumption (MT)**	NOT APPLICABLE
7	**Value of coal (Rs. Lakh)**	
8	**Specific Coal Consumption (kg/kwh)**	
9	**Gross Calorific Value of Coal (Kcal/ Kg)**	
10	**Heat Contribution of Coal (Kcal/ kwh)**	
11	**Cost Of Specific Coal Consumption (Rs./Kwh) – Finally admitted by CERC**	
12	**Quantum of Oil Consumption (Lit.)**	
13	**Value of Oil (Rs. lakh)**	
14	**Gross calorific value of oil (kcal/lit)**	
15	**Specific Oil Consumption (ml/ kwh)**	
16	**Cost Of Specific Oil Consumption (Rs./Kwh) – Finally admitted by CERC**	
17	**Heat Contribution of Oil (Kcal/ kwh)**	
18	**Station Heat Rate (kcal/kwh)**	
19	**Auxiliary Energy Consumption (%)**	1.19
20	**Debt at the end of the year (Rs. Crore)**	
21	**Equity - Average (Rs. Crore)**	
22	**Working Capital (Rs. Crore) – finally admitted by CERC**	
23	**Capital cost (Rs. Crore) – finally admitted by CERC**	
24	**Capacity Charges/ Annual Fixed Cost (AFC)**	
	(a) Return on equity – post tax (admitted by CERC up to 2009) and Pre Tax post 2009	
	Absolute value	
	Rate (%)	
	(b) interest on Loan	
	Absolute value	
	Rate (%) – Weighted Average Rate	
	(c) Depreciation (finally allowed by CERC)	
	Absolute value	
	ADD	
	Rate (%)	
	(d) Interest on working Capital	
	Absolute value	
	Rate (%)	
	(e) Operation and maintenance cost (finally admitted by CERC)	
	Absolute value	
	Rate (%)	
	(f) Compensation Allowances	
	(g) Special Allowance	
25	**AFC (Rs. Kwh)**	
26	**Energy Charge (Rs./Kwh)**	
27	**Total tariff (Rs. Kwh)**	
28	**Revenue realisation before tax (Rs. Crore)**	210.30
29	**Revenue realisation after tax (Rs. Crore)**	
30	**Profit/ loss (Rs. Crore0**	123.87
31	**DSM Generation (MU)**	12.55
32	**DSM Rate (Ps/Kwh)**	
33	**Revenue from DSM (Rs. Crore)**	2.21

Note: Generating Companies are required to submit data for all generating stations.
This is a general format. Plants of different fuel users have to fill the cells as applicable to them. Tariff for the Hydro may be understood as composite tariff.

The data provided for the corresponding years need to mention as Actual or provisional.
Data for each Unit and Stage is required to be submitted in additional sheets as per the format.
AFC for period 2019-24 has not yet been determined by Hon'ble CERC.