

**Central Electricity Regulatory Commission
New Delhi**

Petition No. 93/TT/2023

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V, Member
Shri Harish Dudani, Member**

Date of Order: 20.01.2025

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the determination of transmission tariff from COD to 31.3.2024 of Asset 1: Shifting of 400 kV, 125 MVA Bus Reactor to Patna end in 400 kV Barh-II Line at Patna Sub-station as switchable line reactor along-with associated bay and Asset 2: Installation of 1 No. 315 MVA, 400/220 kV ICT at Farakka along with associated bays under "Eastern Region Strengthening Scheme-XII" in Eastern Region.

And in the matter of:

**Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001 (Haryana)**

...Petitioner

Vs.

1. **Bihar State Power (Holding) Company Limited,**
Vidyut Bhawan, Bailey Road,
Patna-800001
2. **West Bengal State Electricity Distribution Company Limited,**
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake City,
Calcutta-700091
3. **Grid Corporation of Orissa Limited,**
Shahid Nagar, Bhubaneswar-751007
4. **Damodar Valley Corporation,**
DVC Tower, Maniktala,
Civic Centre, VIP Road, Calcutta-700054
5. **Power Department,**
Government of Sikkim, Gangtok-737101



6. **Jharkhand Bijli Vitran Nigam Limited,**
Engineering Building, H.E.C., Dhurwa
Ranchi-834004
7. **NTPC Limited,**
NTPC Bhawan, Core-7, Scope Complex,
7, Institutional Area, Lodhi Road, New Delhi-110003

...Respondents

Parties Present : Shri Anup Jain, Advocate, BSPHCL
Shri Mohd. Mohsin, PGCIL
Shri Zafrul Hasan, PGCIL
Shri Arjun Malhotra, PGCIL

ORDER

The instant Petition has been filed by the Petitioner, Power Grid Corporation of India Limited, for the determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) from COD to 31.3.2024 in respect of **Asset 1:** Shifting of 400 kV, 125 MVAr Bus Reactor to Patna end in 400 kV Barh-II Line at Patna Sub-station as switchable line reactor along-with associated bay and **Asset 2:** Installation of 1 No. 315 MVA, 400/220 kV ICT at Farakka along with associated bays (hereinafter referred to as “the transmission assets”) under “Eastern Region Strengthening Scheme-XII” in Eastern Region (hereinafter referred to as “the transmission scheme”).

2. The Petitioner has made the following prayers in the instant Petition:

- “1) Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per para –8.3 above.*
- 2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred/projected to be incurred.*
- 3) Approve the DOCO for the subject Assets as claimed and allow full tariff as claimed under instant petition.*
- 4) Approve the initial spares as claimed in the instant petition.*
- 5) Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.*
- 6) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the*



- respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 as per para 8.3 above for respective block.*
- 7) *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
 - 8) *Allow the petitioner to bill and recover Licensee fees and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
 - 9) *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.*
 - 10) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*
 - 11) *Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.*
and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

Background

3. The brief facts of the case are as follows:
 - a. The Petitioner was entrusted with implementing the transmission scheme. The Investment Approval (IA) of the transmission scheme was accorded by the Petitioner's Board of Directors in its 301st meeting held on 13.5.2014 and communicated vide Memorandum Ref. No. C/CP/ERSS-XII dated 19.5.2014, with an estimated cost of ₹52229 lakh, including an Interest During Construction (IDC) of ₹3324 lakh based on the February 2014 price level.
 - b. As per the IA, the broad scope of work is as follows:
 - (i) Reactive Compensation at 400 kV Sub-stations
 - Installation of 1X125 MVar Bus Reactor at Baripada with GIS bay.
 - Installation of 1X125 MVar Bus Reactor at Maithon with GIS bay.
 - Conversion of 50 MVar Line Reactor presently installed at Jeerat end of Baharampur – Jeerat 400 kV line as Bus Reactor in parallel with existing Bus Reactor at Jeerat.
 - (ii) Augmentation of Transformation Capacity



- Addition of 1x500 MVA, 400/220 kV ICT with GIS bays at Baripada 400/220/132 kV Sub-station of POWERGRID
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Purnea #
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Pusauli #
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Patna #
- Shifting of 1x315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1x500 MVA ICT) and install it at Jamshedpur 400/220 kV Sub-station as 3rd ICT along with associated bays.
- Shifting of 1x315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1x500 MVA ICT) and install it at Farakka 400/220 kV Sub-station as 2nd ICT along with associated bays.

out of the 6 Nos. 315 MVA ICTs released from Purnea, Patna and Pusauli Sub-stations, one each would be kept as spare at Patna and Pusauli Sub-station, one each would be diverted to Jamshedpur and Farakka Sub-station for installation as and remaining 2x315 MVA, 400/220 kV ICTs would be utilized as Regional Spare.

- Replacement of 1X100 MVA (3rd ICT), 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Purnea 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system.
- Replacement of existing 100 MVA, 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Siliguri 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system.
- Replacement of existing 100 MVA, 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Birpara 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system.

100 MVA ICTs thus released from Purnea, Siliguri and Birpara shall be kept in the regional pool of spare ICTs

- (iii) 2 Nos. 500 MVA single phase spare unit of 765/400 kV ICT for Eastern Region.
 - Procurement of two 500 MVA single phase spare unit of 765/400 kV ICT for Eastern Region to be stationed at Angul and Jharsuguda Sub-station.
- (iv) Spare 1 No. unit of 765 kV, 110 MVA Single Phase Reactor to be stationed at Sasaram.
- (v) Modification of 132 kV bus arrangement at 220/132 kV Siliguri and Purnea Sub-station with GIS bays.
- (vi) Construction of 4 Nos. 220 kV GIS line bays at Kishanganj Sub-station of POWERGRID.



c. The Revised Cost Estimate-I (RCE-I) of the transmission scheme was accorded by the Board of Directors of the Petitioner on 24.3.2017, vide Memorandum Ref. No. C/CP/PA1617-03-0AE-RCE019 dated 30.3.2017, for an estimated cost of ₹55018 lakh, including an IDC of ₹1700 lakh based on the December 2016 price level.

d. The Petitioner has submitted that the system requirements for the Eastern Region (ER) were agreed upon in the 25th TCC, the Eastern Regional Power Committee (ERPC) Meeting, and the Standing Committee Meeting (SCM) on Power System Planning in ER held on 27.8.2013. Due to urgent system requirements, the modified scope of works was discussed and agreed upon in the 19th SCM of ER, and the 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively.

e. The revised scope of work covered under the transmission scheme is as follows:

(i) Reactive Compensation at 400 kV Sub-stations

- Installation of 1X125 MVA Bus Reactor at Baripada with GIS bay.
- Installation of 1X125 MVA Bus Reactor at Maithon with GIS bay.
- Conversion of 50 MVA Line Reactor presently installed at Jeerat end of Baharampur – Jeerat 400 kV line as Bus Reactor in parallel with existing Bus Reactor at Jeerat.

(ii) Augmentation of Transformation Capacity

- Addition of 1x500 MVA, 400/220 kV ICT with GIS bays at Baripada 400/220/132 kV sub-station of POWERGRID
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Purnea #
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Pusauli #
- Replacement of 2X315 MVA, 400/220 kV ICTs with 2X500 MVA, 400/220 kV ICTs at Patna #

#As per the approved scope of works, it was envisaged that out of the 6 nos. 315 MVA ICTs released from Purnea, Patna, and Pusauli Sub-stations, one each would be kept as spare at Patna and Pusauli Sub-station, one each would be diverted to Jamshedpur and Farakka Sub-station for installation as ICT-3 and ICT-2 respectively and remaining 2x315 MVA, 400/220 kV ICTs would be utilized as Regional Spare. However, in the 19th meeting of the Standing Committee on Power System Planning for ER and the 1st meeting of the Eastern Region Standing



Committee on Transmission (erstwhile Standing Committee on Power System Planning for ER) held on 1.9.2017 and 16.7.2018, respectively, the following modification in regard to 315 MVA ICTs released after a replacement has been approved:

Original ICT Location	New ICT Location	Scheme	Remarks
Purnea (ICT-1)	-	ERSS-XII	ICT is very old. Stationed at Muzaffarpur as a regional spare.
Purnea (ICT-2)	Jamshedpur (ICT-3)	ERSS-XII	Originally planned to be diverted to Durgapur as ICT-3. Now being diverted to Jamshedpur as ICT-3.
Pusauli (ICT-1)	Durgapur (ICT-3)	ERSS-XVII (Part-B)	Originally, it was planned to be diverted to Farakka as ICT -2. It is now being diverted to Durgapur as ICT-3.
Pusauli (ICT-2)	Jeypore (ICT-4)	ERSS-XVII (Part-B)	-
Patna (ICT-1)	Farakka (ICT-2)	ERSS-XII	Originally diverted to Jamshedpur. ICT got burnt. New ICT to be procured through an insurance claim and to be installed as Farakka ICT-2
Patna (ICT-2)	Jeypore (ICT-3)	ERSS-XVII (Part-B)	-

- Replacement of 1X100 MVA (3rd ICT), 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Purnea 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system.
- Replacement of existing 100 MVA, 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Siliguri 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system
- Replacement of existing 100 MVA, 220/132 kV ICTs with 1X160 MVA, 220/132 kV ICT at Birpara 220/132 kV Sub-station of POWERGRID, along with necessary bay equipment /protection system.

- 100 MVA ICTs thus released from Purnea, Siliguri, and Birpara shall be kept in the regional pool of spare ICTs.

- 1 No. 500 MVA single-phase spare unit of 765/400 kV ICT for Eastern Region stationed at Angul Sub-station.
- 1 No. 500 MVA single-phase spare unit of 765/400 kV ICT for Eastern Region stationed at Sundargarh (Jharsuguda) Sub-station.
- Spare 1 No. unit of 765 kV, 110 MVAR Single Phase Reactor to be stationed at Sasaram.
- Modification of 132 kV bus arrangement at 220/132 kV Siliguri and Purnea Sub-station with GIS bays.
- Construction of 4 Nos. 220 kV GIS line bays at Kishanganj Sub-station of POWERGRID.



- (viii) Installation of 3rd 500 MVA, 400/220 kV ICT at Patna along with associated bays**
- (ix) Shifting of 420 kV, 125 MVAr bus reactor to Patna end of one of the circuits of Barh- Patna line as a switchable reactor to create space for installation of 3rd 500 MVA /CT at Patna****

** Subsequent to RCE-I approval, due to urgent system requirement, it was decided in the 19th SCM of ER & 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively, to include above mentioned scope of works at (viii) & (ix) under the ERSS-XII. The same was also approved by MoP vide its letter dated 10.1.2018.

- f. The Revised Cost Estimate-II (RCE-II) of the transmission scheme was accorded by the Board of Directors of the Petitioner on 8.3.2019, vide Memorandum Ref. No. C/CP/PA1819-12-0AT-RTE018 conveyed on 14.3.2019 for an estimated cost of ₹54636 lakh, including an IDC of ₹2403 lakh based on the October 2018 price level.
- g. There is a change in the scope of work in RCE-II compared to the IA, and one new asset, i.e., Asset-(ix), as mentioned above, has been added to the transmission scheme at the RCE-II stage due to urgent system requirements. Asset-1 in the instant Petition is Asset-(ix) added in the revised scope of work mentioned above. Since Asset-1 was not a part of the IA and was added later in the RCE-II scope of work, the schedule of Asset-1 is considered as per the schedule provided in RCE-II.
- h. The scope of the work covered in the instant tariff petition is as follows:

Name of Asset	COD	Petition No.
Asset-1: Shifting of 400 kV, 125 MVAr Bus Reactor to Patna end in 400 kV Barh-II Line at Patna Sub-station as switchable line reactor along with associated bay	2.4.2020	Covered under the instant Petition
Asset-2: Installation of 1 No. 315 MVA, 400/220 kV ICT at Farakka, along with associated bays	25.4.2022	



- i. The balance scope of the work as per Investment approval is covered in various tariff petitions and the same is as follows:

Assets as per the current Petition	Name of Asset	COD	Petition No.
Asset-I	Asset-I: Replacement of existing 100 MVA, 220/132 ICT with 1 No. 1X160 MVA ICT at 220/132 kV Birpara Sub-station along with associated bays at Birpara Sub-station	1.1.2016	Covered under Petition No. 69/TT/2016 for the 2014-19 tariff period
Asset-II	Asset-II: Replacement of existing 100 MVA, 220/132 ICT with 1X160 MVA, 220/132 kV ICT at 220/132 kV Siliguri Sub-station along with necessary bay equipment/ protection system at Siliguri Sub-station	2.2.2016	
Asset-III	Asset III: Replacement of 315 MVA 400/220 kV ICT I with 500 MVA 400/220 kV ICT at Patna Sub-station	24.9.2016	
Asset-IV	Asset IV: Replacement of 315 MVA 400/220 kV ICT II with 500 MVA 400/220 kV ICT at Patna Sub-station	17.2.2019	
Asset-V	Asset V: Replacement of 315 MVA 400/220 kV ICT I with 500 MVA 400/220 kV ICT at Pusauli Sub-station	3.4.2016	
Asset-VI	Asset-VI: Replacement of 315 MVA 400/220 kV ICT II with 500 MVA 400/220 kV ICT at Purnea	30.9.2016	
Asset-VII	Asset-VII: Replacement of 1X100 MVA (3rd) ICT with 1X160 MVA 220/132 kV ICT at Purnea Sub-station	29.2.2016	
Asset-VIII	Asset-VIII: 1 No. of 1X125 MVAr Bus Reactor at Baripada Sub-station with GIS bay	2.10.2016	
Asset-IX	Asset-IX: 1 No. of 1X500 MVA, 400/220/132 kV ICT at 400/220/132 kV Baripada Sub-station along with GIS bays	2.10.2016	
Asset-I	Asset I: Conversion of 50 MVAr Line Reactor (presently installed at Jeerat end of 400 kV Baharampur – Jeerat TL) as Bus Reactor in parallel with existing Bus Reactor at Jeerat	29.8.2016	Covered under Petition No. 233/TT/2016 for the 2014-19 tariff period
Asset-II	Asset II: Installation of 1 No. 125 MVAr Bus Reactor at Maithon Sub-station with GIS bays	6.10.2016	
Asset-III	Asset III(a): 2 Nos. 220 kV GIS Line Bays at Kishanganj Sub-station	20.10.2016	
Asset-IV	Asset III(b): 2 Nos. 220 kV GIS Line Bays at Kishanganj Sub-station	10.3.2017	
Asset-V	Asset IV(a): Modification of 132 kV Bus arrangement at 220/132 kV Siliguri Sub-station with GIS bays	30.11.2016	
Asset-I	Asset I: Shifting of 1X315 MVA, 400/220 kV ICT from any suitable location (after replacement by 1X500 MVA ICT) and install it at Jamshedpur	16.12.2017	Covered under Petition No. 277/TT/2018

Assets as per the current Petition	Name of Asset	COD	Petition No.
	400/220 kV Sub-station as 3rd ICT along-with associated bays*		for the 2014-19 tariff period
Asset-II	Asset II: Modification of 132 kV Bus arrangement with GIS bays at 220/132 kV Purnea Sub-station	12.3.2018	
Asset-III	Asset-III: Spare 1 No. unit of 765 kV,110 MVA Single Phase Reactor to be stationed at Sasaram	29.3.2018	
Asset-IV	Asset-IV: 3rd 500 MVA, 400/220 kV ICT at Patna (POWERGRID) Sub-station along with associated bay#	14.2.2018	
Asset-V	Asset-V: 1 No. 500 MVA Single phase spare unit of 765/400 kV ICT at Angul Sub-station	25.9.2017	
Asset-VI	Asset-VI: 1 No. 500 MVA Single phase spare unit of 765/400 kV ICT at Sundergrah Sub-station	30.9.2018	
Asset-I	Asset-XXI: Replacement of 315 MVA 400/220 kV ICT I with 500 MVA 400/220 kV ICT at Purnea Sub-station	13.7.2015	Covered under Petition No. 232/TT/2015
Asset-I	*Replacement of existing 315 MVA, 400/220 kV ICT II with 500 MVA, 400/220 kV ICT-II at Pusauli Sub-station	18.1.2020	Covered under Petition No. 666/TT/2020

- j. The instant Petition seeks approval of transmission tariff based on the actual expenditure incurred up to the COD and additional capitalisation projected to be incurred from the COD to 31.3.2024 in respect of the following transmission assets:

(₹ in lakh)

Asset No.	Apportioned approved cost as per FR	Apportioned approved cost as per RCE-II	Cost as on COD	Actual/ Projected ACE				Estimated completion cost
				2020-21	2021-22	2022-23	2023-24	
Asset-1	NA	264.24	207.97	35.6	10.17	5.09	0.00	258.83
Asset-2	645.07	1354.04	1294.27	0.00	0.00	17.36	0.00	1311.63
Total	645.07	1765.08	1502.24	35.6	10.17	22.45	0.00	1570.46

4. The Respondents, mainly beneficiaries of the Eastern Region, are Distribution Licensees, Transmission Licensees, and Power Departments procuring transmission services from the Petitioner.



5. The Petitioner has served a copy of the Petition on the Respondents, and notice regarding the filing of this Petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice. Respondent No. 1, Bihar State Power (Holding) Company Limited (BSPHCL), vide affidavit dated 29.4.2024, has inter alia raised the issues on delay in commissioning of the transmission assets, Initial Spares claimed Return on Equity, Interest on Loan, additional capitalization, GST, reimbursement of filing fees and related expenses like licence fee and RLDC charges. The Petitioner has filed its rejoinder, vide affidavit dated 3.6.2024, to the reply of BSPHCL. The submissions of BSPHCL and the clarifications thereto given by the Petitioner have been dealt with in the relevant portions of this order.

6. The hearing in this matter was held on 31.1.2024. Thereafter, the order in the matter was reserved on 29.4.2024. However, the order could not be issued before a former Member, who formed part of the coram, demitted the office. Accordingly, the matter was heard again on 30.9.2024, and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the Petition dated 16.12.2022 and subsequent affidavit dated 8.4.2024, BSPHCL's reply vide affidavit dated 29.4.2024, and the Petitioner's rejoinder vide affidavit dated 3.6.2024.

8. Having heard the Petitioner's representatives and the learned counsel for BSPHCL and perused the material on record, we proceed to dispose of the Petition.

Determination of Annual Fixed Charges for the 2019-24 Tariff Period

9. The Petitioner has claimed the following transmission charges in respect of the transmission assets for the 2019-24 tariff period:



(₹ in lakh)

Asset-1				
Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
Depreciation	11.68	13.13	13.53	13.67
Interest on loan	11.79	12.29	11.64	10.71
Return on equity	12.47	14.01	14.44	14.58
Interest on working capital	1.85	1.96	2.01	2.05
O&M Expenses	33.19	34.45	35.66	36.91
Total AFC	70.98	75.84	77.28	77.92

(₹ in lakh)

Asset-2		
Particulars	2022-23 (pro-rata for 341 days)	2023-24
Depreciation	63.73	69.25
Interest on loan	59.93	60.10
Return on equity	68.02	73.90
Interest on working capital	9.11	9.94
O&M Expenses	173.77	192.22
Total AFC	374.56	405.41

10. The Petitioner has claimed the following Interest on Working Capital (IWC) in respect of the transmission assets for the 2019-24 tariff period:

(₹ in lakh)

Asset-1				
Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
O&M Expenses	2.77	2.87	2.97	3.08
Maintenance Spares	4.99	5.17	5.35	5.54
Receivables	8.77	9.35	9.53	9.58
Total Working Capital	16.53	17.39	17.85	18.20
Rate of Interest (In %)	11.25	11.25	11.25	11.25
Interest on Working Capital	1.86	1.96	2.01	2.05
Pro rata Interest on Working Capital	1.85	1.96	2.01	2.05

(₹ in lakh)

Asset-2		
Particulars	2022-23 (pro-rata for 341 days)	2023-24
O&M Expenses	15.50	16.02
Maintenance Spares	27.90	28.83
Receivables	49.43	49.85
Total Working Capital	92.83	94.70
Rate of Interest (In %)	10.50	10.50
Interest on Working Capital	9.75	9.94
Pro rata Interest on Working Capital	9.11	9.94



Date of Commercial Operation (COD)

11. The details of SCOD, COD, and delay in commissioning of the transmission assets, as claimed by the Petitioner, are as follows:

Asset No.	SCOD	COD	Delay
Asset-1	31.12.2019 (as per RCE-II)	2.4.2020	92 days
Asset-2	12.11.2016 (as per IA)	25.4.2022	1989 s

12. The Petitioner has submitted that the entire scope of the transmission scheme has been completed. The Petitioner has further submitted that, as per the IA, the SCOD of the transmission scheme was 30 months from the date of the IA. Further, Asset-1 was not a part of the IA and was included in the scope of the transmission scheme in RCE-II due to urgent system requirements after ratification in the 19th SCM of ER and the 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively. The date of RCE-II for Asset-1 is 14.3.2019, therefore, as per RCE-II, Asset-1 was to be commissioned by 9 months, i.e., 31.12.2019. The date of IA is 13.5.2014; therefore, Asset-2 was to be commissioned by 30 months, i.e., 12.11.2016. The delay with respect to Assets 1 and 2 is 92 days and 1989 days, respectively.


13. In support of the COD of the transmission assets, the Petitioner has submitted a copy of the Central Electricity Authority (CEA) energisation certificates, Regional Load Despatch Centre (RLDC) certificates, self-declared COD letters, and CMD certificates in respect of the transmission assets, as per the following details:

Asset	Date of CEA energization certificate	Date of successful completion of trial run	Date of RLDC certificate	Date of self-declared COD certificate
Asset-1	9.3.2020	1.4.2020	16.7.2020	27.7.2020
Asset-2	19.4.2022	24.4.2022	31.5.2022	16.6.2022

14. We have considered the Petitioner's submissions. Taking into consideration the CEA energization certificates, RLDC certificates, self-declaration certificates, and CMD certificates, the COD for Assets 1 and 2 is approved as 2.4.2020 and 25.4.2022, respectively.



15. However, in support of COD of Asset-2, the Petitioner has submitted the following CEA energization certificate dated 19.4.2022:


ASSET-2, CEA

**भारत सरकार
GOVERNMENT OF INDIA
विद्युत मंत्रालय, केन्द्रीय विद्युत प्राधिकरण
MINISTRY OF POWER, CENTRAL ELECTRICITY AUTHORITY
क्षेत्रीय निरीक्षण संगठन
REGIONAL INSPECTORIAL ORGANISATION**

No. RIO/ER/Approval/Powergrid-Farakka/2022-23/ 37 **Dated: 19th April, 2022**

**Shri. Mukulendu Pandey,
DGM, POWERGRID
400KV Berhampore Switching Station, Dakshingram
Polsanda, Murshidabad, West Bengal -742238**

Subject: Approval for energisation of 315MVA ICT and 220KV Bay at NTPC Farakka under Reg.43 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulation 2010


**Ref: i) Your application no. A/2022/09534 Dated: 25/03/2022
ii) Inspection Report issued vide letter: RIO/ER/Ins. Report/Powergrid-Farakka/2022-23/06 Dated: 04/04/2022
iii) Compliance uploaded in Application portal.**

Whereas the inspection of 315MVA ICT and 220KV Bay at NTPC Farakka was carried out by the undersigned on 29/03/2022 and inspection report was issued vide letter at Ref.(ii). Now compliance of our observations have been received vide your letter at Ref.(iii).

Approval is hereby granted to energize 315MVA ICT and 220KV Bay Equipment at NTPC Farakka. The approval is subject to Consistent compliance of relevant provisions of CEA (Measures relating to Safety and Electric Supply) Regulations 2010 as amended till date.

Equipment Details enclosed in Annexure-I

The above installation shall be due for periodical inspection under Reg. 30 within two years from the date of issue of this approval.


**29/04/22
(S.R. Tudu)
19/04/2022**
**Electrical Inspector
to The Government Of India**

Copy To:

1. Chief Electrical Inspector(CEI), NRPC Building, 3rd Floor, Katwarisara, New Delhi – 110016
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16. On perusing the above CEA energization certificate dated 19.4.2022, it is observed that the Petitioner has not submitted the CEA energization certificate for the 400 kV associated bay of 1 No. 315 MVA 400/220 kV ICT installed at Farakka. Therefore, the Petitioner is directed to submit the same at the time of truing-up.

Capital cost

17. Regulation 19 of the 2019 Tariff Regulations provides as follows:

“19 Capital Cost: (1) *The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*

(2) *The Capital Cost of a new project shall include the following:*

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway.*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) *Expenditure on account of change in law and force majeure events; and*
- (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

(3) *The Capital cost of an existing project shall include the following:*



- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
 - (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
 - (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
 - (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;
 - (b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:
- Provided that in case replacement of transmission Asset-is recommended by Regional Power Committee, such Asset-shall be decapitalised only after its redeployment;*
- Provided further that unless shifting of an Asset-from one project to another is of permanent nature, there shall be no de-capitalization of the concerned asset.*
- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
 - (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
 - (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

18. The Petitioner has submitted the Auditor's Certificate and has claimed the following capital cost incurred as on COD and has projected Additional Capital Expenditure (ACE) to be incurred in respect of the transmission assets:



(₹ in lakh)

Asset	Apportio ned approved cost as per FR	Apportio ned approve d cost as per RCE-II	Cost as on COD	Actual/ Projected Additional Capitalization				Estimated completi on Cost
				2020-21	2021-22	2022-23	2023-24	
Asset-1	NA	264.24	207.97	35.6	10.17	5.09	0.00	258.83
Asset-2	645.07	1354.04	1294.27	0.00	0.00	17.36	0.00	1311.63
Total	645.07	1765.08	1502.24	35.6	10.17	22.45	0.00	1570.46

19. The Petitioner has submitted that against the apportioned approved cost of ₹645.07 lakh for Asset 2, its estimated completion cost is ₹1570.46 lakh. This, according to the Petitioner, is partly because Asset-1 was not part of the FR cost. Against the apportioned approved cost of ₹1765.08 lakh for the transmission assets as per RCE-II, the estimated completion cost is ₹1570.46 lakh. The Petitioner has, therefore, submitted that there is no cost overrun with respect to the apportioned approved cost as per RCE-II

20. The Petitioner has further submitted that the cost variation with FR was mainly due to actual site conditions, the awarded rate, and other factors beyond the Petitioner's control.

21. BSPHCL, in its reply, has submitted that the reasons cited by the Petitioner for the cost variation with FR were primarily controllable in nature in accordance with the 2019 Tariff Regulations and, therefore, the Petitioner's claim in this regard is liable to be rejected.

22. In response, the Petitioner has reiterated its submissions mentioned in the Petition.

23. We have considered the submissions of the Petitioner, BSPHCL, and have gone through the documents placed on record. We are not convinced with the submission of the petitioner that the estimated completion cost has increased due to the inclusion of Asset-1 in FR. Without the inclusion of Asset-1 also, the completion cost had increased from FR cost of ₹645.07 lakh to ₹1311.63 lakh, which is about ₹666.56 lakh. It is observed that the estimated completion cost of ₹258.83 lakh for Asset-1 is within the apportioned approved cost as per the RCE-II, i.e., ₹264.24 lakh. Therefore, there is no cost overrun with respect to Asset 1.



24. Further, the Petitioner has submitted that the estimated completion cost of ₹1311.63 lakh for Asset-2 is within the apportioned approved cost of RCE-II, i.e., ₹1354.04 lakh. However, it is observed that the estimated completion cost of ₹1311.63 lakh of Asset-2 is more than the apportioned approved cost as per FR, i.e., ₹645.07 lakh. On perusal of Form-5 for Asset-2 as submitted by the Petitioner, the following major variations of certain individual items(s) were noticed, and the same are as follows:

(₹ in lakh)			
Particulars	As per the original estimate	As per the actual expenditure	Variation
Switchgear (CT, PT, Circuit Breaker, Isolator, etc.)	154.39	280.50	126.11
Emergency DG set	59.00	410.17	351.17
Structure for switchyard	72.00	85.75	13.75
IDC	41.05	303.20	262.15

25. Further, it is observed that, as per Form-5, the cost of different components of the substation is considered in the original estimate and on the actual completion cost, which includes taxes and duties. However, the details of the rate/amount of taxes and duties considered in the original estimate vis-a-vis actual completion cost have not been submitted by the Petitioner. Therefore, the Petitioner is directed to submit a detailed justification along with the supporting documents with respect to the above-mentioned items as well as taxes and duties incurred, and the same shall be reviewed at the time of truing up.

26. Further, the Petitioner, vide affidavit dated 8.4.2024, has submitted that the finalization of Liquidated Damages (LD) for Asset-1 is under process. Therefore, the details of the same will be submitted at the time of truing-up. With respect to Asset-2, the Petitioner has submitted that the LD of ₹93140 was levied. However, the treatment of LD recovered for Aseet-2, if any, will be submitted at the time of truing-up. Accordingly, the Petitioner is directed to submit the details along with the supporting documents as to how the LD amount was adjusted in the capital cost, and the same shall be reviewed at the time of truing-up.



27. The record shows that Asset-1 involves shifting the 400 kV, 125 MVA Bus Reactor to the Patna end. We further note that the Petitioner has submitted that Asset-1 is a shifted asset and was commissioned in the same sub-station (400/220 kV Patna Sub-station), and as such, it has yet to be de-capitalised. Accordingly, we direct the Petitioner, while filing the truing-up Petition for the 2019-24 period, to claim the capital cost of Asset-1 herein as on COD and the actual ACE for FY 2020-21, FY 2021-22, and FY 2022-23 in the original Petition wherein the Commission had earlier approved its tariff for the 2014-19 period. As regards Asset-2, we note that as per the IA, it was decided that the 1x315 MVA, 400/220 kV ICT be shifted from Pusauli to Farakka. However, due to transportation hurdles, bridge damage, and the decline of permission for the movement from the Farakka Barrage, the said ICT was stationed and utilised at Durgapur. Afterwards, it was decided that the 1x315 MVA, 400/220 kV ICT from New Purnea, which was initially decided to be installed at Durgapur, would be transported to the Farakka sub-station. However, due to the failure of the 315 MVA ICT (which was shifted from Patna) during commissioning at the Jamshedpur sub-station, the 1x315 MVA, 400/220 kV ICT of New Purnea was diverted to Jamshedpur and commissioned in December 2017. Afterwards, it was decided that the new 1x315 MVA, 400/220 kV ICT, which is being procured to replace the burnt ICT at Jamshedpur against the insurance, will be transported/diverted to Farakka. Accordingly, the tender for procurement and transportation of new ICT was awarded to CGL on 5.4.2019, and after obtaining permission for the construction of a temporary jetty and depositing the requisite Bank Guarantee (BG) amount, the ICT main tank was transported directly from the CGL Power Factory, Bhopal to Farakka Sub-station.

28. It is observed that the 1x315 MVA, 400/220 kV ICTs from Pusauli and New Purnea, which were originally decided to be installed at Farakka, were diverted to Durgapur and Jamshedpur due to hurdles in transportation and system requirements. Finally, the new



1x315 MVA, 400/220 kV ICT, procured to replace the burnt ICT at Jamshedpur, was shifted directly from the manufacturer's factory to Farakka and was installed at the site. In this regard, it is observed that the Petitioner has not submitted any supporting documents to substantiate whether the entire cost of shifting of the 1x315 MVA, 400/220 kV ICT was considered in the instant Petition. Therefore, the Petitioner is directed to submit a detailed justification and supporting documents, which will be reviewed at the time of truing-up to ascertain whether the cost of shifting the respective 1x315 MVA, 400/220 kV ICT from Pusauli to Durgapur and from New Purnea to Jamshedpur has been included in the instant Petition or not, as the said ICTs were initially decided to be shifted from the respective location to Farakka Sub-station. Further, the Petitioner is directed to submit the details along with documentary evidence whether the complete cost of the 1x315 MVA, 400/220 kV ICT, along with transportation up to Farakka, was recovered from the insurance or not. Therefore, subject to the submission of detailed justifications along with the supporting documents by the Petitioner, the capital cost of Asset-2 as claimed by the Petitioner is provisionally allowed subject to a prudence check at the time of truing-up.

Time over-run

29. The Petitioner has submitted that, as per the IA dated 13.5.2014, the SCOD of the transmission scheme was 30 months from the date of the IA. Initially, Asset-1 was not a part of the said IA, and it was included in the scope of the transmission scheme at the stage of issuance of RCE-II due to urgent system requirements after ratification in the 19th SCM of ER and 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively. Accordingly, Asset-2, as per the said IA, was scheduled to be commissioned by 12.11.2016. As per the Revised Cost Estimate (RCE)-II dated 14.3.2019, the asset is scheduled to be commissioned within 9 months, and the scheduled date of commissioning of Asset-1 was 31.12.2019.



According to the Petitioner, the transmission assets were commissioned and declared under commercial operation as per the following details:

Asset	SCOD	COD	Delay
Asset-1	31.12.2019 (as per RCE-II)	2.4.2020	92 days
Asset-2	12.11.2016 (as per the IA)	25.4.2022	1989 days

30. The Petitioner has submitted that there is a delay of 92 days and 1989 days in the commissioning of Assets 1 and 2, respectively. The detailed reasons and justifications for the delay, as claimed by the Petitioner, are as follows:

Asset-1

A. Non-availability of Sand in Bihar

Due to the urgent system requirements, it was decided in the 19th SCM of ER and 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively, to include the subject scope of works and installation of the 3rd 500 MVA ICT at Patna under the transmission scheme. The Ministry of Power (MoP) letter dated 10.1.2018 also approved the same. As per the RCE-II, the transmission scheme was to be commissioned by 31.12.2019. According to the Petitioner, modification of the foundation was required for the execution of subject works. However, the non-availability of sand in Bihar affected the progress of the work. The State Sand Policy, 2013 was repealed vide Bihar Gazette (Extraordinary) Notification dated 16.8.2019, thereby imposing a ban on sand mining with immediate effect. Further, the allocation of the sand mines was decided to be done through the bidding process, and the operation of the sand ghats was scheduled to commence with effect from 1.1.2020. In view of the same, due to the non-operation of the sand ghats and the unavailability of the sand, the construction work of Asset-1 remained at a complete standstill for the period from 16.8.2019 to 1.1.2020 (138 days).



Asset-2

A. Delay due to availability of ICT from Pusauli as the 315 MVA ICT was available to use only after commissioning of the 500 MVA ICT (13.5.2014 to 4.4.2016 - 693 days)

According to the Petitioner, due to the system requirements, the 315 MVA ICT at Pusauli could not be dismantled until the 500 MVA ICT at Pusauli was charged. The 500 MVA ICT was charged/commissioned on 3.4.2016, and after the commissioning of 1x500 MVA ICT at Pusauli, 1X315 MVA ICT was dismantled and loaded onto a trailer in the first week of April 2016. As such, the delay that occurred during the period from the date of the IA dated 13.5.2014 to the charging of the new 500 MVA ICT at Pasauli, 1X315 MVA ICT, was purely due to the system requirement and beyond the Petitioner's control.

B. Delay in Obtaining Railway Block Approval (4.4.2016 to 16.5.2016 - 43 days)

The ICT was held up at Pusauli from 4.4.2016 to 16.5.2016 due to a delay in obtaining the Railway Block approval from the East Central Railway, Mughal Sarai office.

C. Damaged Bridge near Durgapur (3.6.2016 to 25.7.2016 - 53 days)

The trailer reached Durgapur (West Bengal) in the first week of June 2016. However, the trailer had to stop at Muchipada, Distt. Durgapur due to heavy monsoon rains. The bridge at Ilambazar on Ajoy River was severely damaged, and the same was under repair and remained closed for normal traffic. Although the transporter explored alternative routes, none were feasible, considering the size and weight of the shipment. After the completion of the repair work, the bridge was re-opened for traffic in the last week of July 2016, and only then was the trailer able to cross the Ilambazar Bridge.

D. Damaged Shankerpur bridge near Farakka and transportation obstruction of 315 MVA ICT main tank diverted from Pusauli (Sasaram Sub-station) at Bagmari Syphon Bridge of Farakka feeder canal and deletion of scope of installation of Sasaram (Pusauli) 400/220 kV, 315 MVA ICT-1 (released after replacement) as 2nd 400/220 kV, 315 MVA ICT at Farakka generation switchyard from ERSS-XII (28.7.2016 to 9.11.2017 - 470 days)



On 28.7.2016, when the trailer reached Dhulian, near Farakka, it was found that a bridge at Shankerpur was badly damaged and unsuitable for onward movement. This was completely unexpected as all shipments in the past were normally moved through the Shankerpur bridge. The only feasible alternate route for road movement was crossing the Farakka feeder canal through the Pokhi More bridge leading to Pakur and then to the NTPC site via Malancha village, which falls just adjacent to the Farakka feeder canal. Accordingly, the trailer moved onwards from Dhulian to Malancha village. When the trailer crossed Malancha village, CISF personnel stopped the trailer at nearly 15 km from the destination. The CISF personnel sought permission from the Farakka Barrage senior personnel to pass through the underground Bagmari siphon. A request for permission from General Manager, Farakka Barrage, was sought on 19.8.2016, but it was declined on the same day due to the sensitivity of the siphon structure owing to the presence of the International Waters as Bangladesh is close to Farakka. The issue was then escalated to the government officials, and a request for permission was made to the Secretary of the Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India, New Delhi, on 8.9.2016. On 23.9.2016, the permission was declined, and the Ministry of Water ordered the Petitioner to find an alternate route. Accordingly, the other options available for transportation of the ICT to Farakka were found to be through waterways only, i.e., through the Farakka feeder canal at an additional cost. Therefore, with no other transportation options available, the subject ICT was diverted and stationed at the Durgapur Sub-station of the Petitioner. Accordingly, the matter was taken up with the constituents in the 19th SCM on Power System Planning for Eastern Region held on 1.9.2017, wherein it was agreed that the subject ICT, stationed at Durgapur, would be installed as 3rd 400/220 kV, 315 MVA ICT at Durgapur under ERSS-XVII (Part-B) instead of earlier envisaged 400/220 kV, 315



MVA ICT-2 from New Purnea (released after replacement). In addition, the said 400/220 kV, 315 MVA ICT-2 from New Purnea was to be installed as the 2nd 400/220 kV, 315 MVA ICT at the Farakka generation switchyard under ERSS-XII. Further, it was also decided that in view of the transportation constraints to Farakka, the said ICT may be transported through the Farakka feeder canal waterways at an additional cost under the transmission scheme.

E. Decision for procurement of new ICT and finalization of contract for procurement and transportation of new ICT for installation at Farakka as 2nd ICT (2.9.2017 to 5.4.2019 - 581 days)

Earlier, it was envisaged that the replaced 400/220 kV, 315 MVA ICT-2 from New Purnea would be installed as the 2nd 400/220 kV, 315 MVA ICT at Farakka Generation Switchyard under ERSS-XII as a 2nd ICT. However, due to the failure of 315 MVA ICT at Jamshedpur (shifted from Patna) during commissioning, the above-mentioned 315 MVA ICT from New Purnea was shifted to Jamshedpur and was commissioned in December 2017. In the 19th SCM held on 1.9.2017 at Kolkata, this issue of ICT transportation was discussed in detail. In the 1st Meeting of the Eastern Region Standing Committee on Transmission (ERSCT) held on 16.7.2018 at Kolkata, the issue was reviewed, and after deliberations, some modifications in ERSS-XII were agreed upon with an extension in the completion schedule by 18 months from the SCOD. Accordingly, tendering activities for procuring and transporting new ICT through waterways were taken up. The same was awarded to CGL on 5.4.2019 with a completion schedule of 12 months, i.e., by April 2020. In the 2nd ERSCT meeting held on 5.7.2019, considering the shutdown constraint at Farakka (NTPC) and commissioning activities of bays and ICT, the constituents agreed that the completion schedule of the subject asset to be extended till June 2020. Accordingly, the SCOD was shifted to 30.6.2020.



F. Delay due to approval from the Farakka Barrage projects for construction of a temporary jetty for transportation of New ICT at Farakka Feeder Canal (30.5.2019 to 11.8.2021 - 805 days)

The works were further delayed because of a delay in getting approval from the concerned authority for the construction of a jetty for the transportation of the said ICT. A number of communications (dated 30.5.2019, 25.9.2019, 23.9.2020, and 5.11.2020) were written by the executing agency and the Petitioner to the Farakka Barrage Project seeking approval for the construction of a temporary jetty. The Petitioner, vide letter dated 30.9.2020, approached the Commissioner, the Ministry of Water Resources, to construct a temporary Jetty in the Farakka feeder canal. However, in a letter dated 3.11.2020, the Farakka Barrage Project denied permission to construct the jetty. In a meeting held on 27.11.2020 between the Farakka Barrage Project and the Petitioner, it emerged that NTPC was also facing the transportation problems of large consignments for new and repair work. Accordingly, NTPC and the Petitioner planned to jointly approach the Ministry of Water Resource for the construction of a permanent jetty infrastructure suitable to handle large equipments. In this regard, the Petitioner, vide letter dated 9.2.2021, requested NTPC to convene a meeting with the executing agency and Farraka Barrage Authority to finalise modalities for the construction of the jetty. On 8.3.2021, a joint meeting was held at Farakka among CGL, the Petitioner, and the transportation agency. During the visit, the surveyors identified two locations (RD-7.0 and RD-18.5) for the construction of the temporary jetty along the banks of the Farakka feeder canal. The same was also discussed with the General Manager of the Farakka Barrage Project. After a number of discussions, RD-18.5 was found to be more suitable for the construction of a temporary jetty and further transportation of the ICT main tank to NTPC, Farakka. The General Manager of the Farakka Barrage Project was also asked to submit a detailed drawing/proposal for the construction of the temporary jetty



at the Farakka feeder canal. Subsequently, a detailed drawing for constructing a temporary jetty at RD-18.5 was submitted to the Farakka Barrage authorities on 12.7.2021. Subsequently, approval for the construction of a temporary jetty was obtained by the Farakka Barrage Projects on 11.8.2021 after a good deal of persuasion along with various terms and conditions. The Farakka Barrage Projects, vide approval letter, asked the Petitioner for submission of security deposit/Bank Guarantee (BG) amounting to ₹25 lakhs to cope with any damages caused to canal banks, roads, etc. The Petitioner has submitted the BG amounting to ₹25 lakh on 19.10.2021 vide letter dated 19.10.2021. After submission of the aforesaid BG to the Farakka Barrage Projects, the jetty construction work was commenced by the agency, and parallely, the ICT main tank was dispatched from the CG Power factory, Bhopal, after necessary inspections. The ICT main tank was transported from the CG Power factory, Bhopal, to Kolaghat Port, Kolkata, through roadways, where it was loaded onto a Barge and subsequently transported to the Farakka feeder canal through waterways. The main tank was unloaded at the temporary jetty constructed at RD-18.5 of the Farakka feeder canal. It was then successfully transported to NTPC, Farakka, on 24.12.2021 after facing a lot of hurdles.

G. Delay due to Covid-19 pandemic

The World Health Organization identified Covid-19 as a global pandemic and a force majeure event across all segments/ verticals of the global business/ industry. This situation, by definition, was of an unforeseen/unplanned nature. As such, global business and production took a multiple-fold hit. The projects undertaken by the Petitioner were no exception, facing a multitude of challenges. The nationwide lockdowns in India in various phases owing to the Covid-19 pandemic affected the critical supply chain, transportation, and worker/labour absenteeism due to



illness/quarantine/migrations, etc., which resulted in the complete halting of ongoing projects. The sites were either closed or access was largely restricted as a result of measures to contain the Covid-19 outbreak. The contractors could not carry out the work as a result of government action to prevent the spread of the outbreak. Also, the lack of engineering and technical support and supply chain disruptions were the major factors impacting project schedules and implementation. Therefore, various projects, including the subject project, faced delays due to the squeezing of supply lines and construction activities. When construction work resumed, additional delays and inefficiencies pushed back the completion dates. The biggest hurdle was that of the supply chain, which was not fully restored. Besides, considering if anybody got infected on the construction site after the work starts, the area had to be sealed, and all related people were to be quarantined for 14-28 days. The construction pace came to a grinding halt. Also, administrative action/FIR would be lodged against the sub-contractors, adding to the lethargic progress pace. With the halting of various line construction activities, the work came to a standstill for almost 4 to 5 months (i.e., from the end of March 2020 to July 2020) and gradually gathered speed in line with the Government directives.

In view of the above, the MoP, vide Circular dated 27.7.2020, stated that all inter-State projects that are under construction with SCOD coming after 25.3.2020 shall get an extension of 5 months in respect of the SCOD due to various measures taken by the State/UT Governments to contain the Covid-19 pandemic. Also, in April 2021, the same situation arose, and the State/UT Governments took similar measures to curb the Covid-19 pandemic, which disrupted the supply chain and manpower. For this reason, the MoP, vide Circular dated 12.6.2021, stated that all inter-State projects that are under construction with SCOD coming after 1.4.2021 shall get an extension of 3 months in



respect of the SCOD due to various measures taken by the State/UT Governments to contain the Covid-19 pandemic such as night curfew, imposition of Section 144 of CrPC, and complete lockdown to contain the spread of Covid-19 pandemic second wave. Further, in January 2022, the Government of West Bengal declared a lockdown from 2.1.2022 to 15.1.2022 due to the rise in the Omicron variant of the coronavirus cases. This also led to the stoppage of works during the fag end of the completion of the transmission scheme. Based on the abovementioned unforeseen delay reasons and also considering the MoP letters dated 27.7.2020 and 12.6.2021 and the Government of West Bengal Notification dated 2.1.2022, the Petitioner has prayed to condone the delay in the commissioning of the transmission assets on merits as the same being out of the Petitioner's control in accordance with Regulation 22(2) of the 2019 Tariff Regulations as 'uncontrollable factors.'

31. BSPHCL, in its reply, vide affidavit dated 29.4.2024, has mainly submitted as follows:

Asset-1

Regulation 22 of the 2019 Tariff Regulations provides for a prudence check by the Commission for deciding the time overrun, cost escalation, IDC, and IEDC of the project, and any delay on account of each reason should be quantified and substantiated with the necessary documents. However, the Petitioner has not submitted the status of sand availability before 16.8.2019 and has not provided documents supporting its alleged contention regarding the claim. Therefore, the said claims, in the absence of any documentary evidence for the prudence check, fall under the category of 'controllable factors' under Regulation 22 of the 2019 Tariff Regulations.

Asset-2

The *prima facie* responsibility to mitigate the procedural delay was on the Petitioner. The reasons for the delay mentioned by the Petitioner, such as the non-availability of the ICT and delay in obtaining approval, etc., should have been anticipated at the time



of planning as due diligence had to be done by the Petitioner. The Petitioner had also completely failed to assert what mitigating steps were undertaken by it in order to substantiate that the delay was not on account of the fault on its part. Further, the reasons for delay mentioned in the present Petition are operational and commercial risks involved in project implementation, and the reasons cited by the Petitioner are not tenable. Therefore, such delay may not be allowed, merely based on pleading in the present Petition, without substantiating the same with the supporting documents, thereby reflecting the uncontrollable factor on the part of the Petitioner. Further, the Petitioner has failed to demonstrate how the Covid-19 pandemic impacted the project in question, and the same cannot serve as a blanket justification. Rather, the documents brought on record by the Petitioner have reflected that the project could not be delayed due to the Covid-19 pandemic. Further, the MoP, after considering all the impacts of Covid-19, has already granted several relaxations and exemptions. Therefore, the prayer of the Petitioner in the present Petition, claiming the additional period on the pretext of the Covid-19 pandemic, is not justified without any proof of reasonable efforts on the part of the Petitioner to mitigate the effects of the events. The lackadaisical approach of the Petitioner in planning, following up, and accumulating the raw materials and accessories parts for the project has caused the said delay. The reasons for the delay, as cited by the Petitioner, are controllable in nature, and, therefore, the Petitioner's claim in this regard is liable to be rejected, especially when the period of delay is huge in nature, thereby impacting the increase in tariff.

32. In response, the Petitioner refuted BSPHCL's submissions and reiterated its submissions as made in the Petition. The Petitioner has, however, submitted that justification on account of sand availability and supporting documents have been provided in the Petition.



33. The Petitioner, vide affidavit dated 8.4.2024, has submitted that for Asset-1, all the supplies, including installation, were completed (100%) before the Covid-19 pandemic. For Asset-2, 95% of the work had been completed before the Covid-19 pandemic, and after the Covid-19 pandemic, the remaining work (5%) was completed.

Analysis and Decision on Time Over-run

34. On perusal of the record, we find that as per the IA dated 13.5.2014, Asset-2 was scheduled to be commissioned within 30 months from the date of the IA, i.e., by 12.11.2016 and as per RCE-II, Asset-1 was scheduled to be commissioned by December 2019, against which Assets 2 and 1 were put into commercial operation on 25.4.2022 and 2.4.2020 respectively with the time over-run as per the following details:

Asset No.	SCOD	COD	Time over-run
Asset-1	31.12.2019 (as per RCE-II)	2.4.2020	93 days
Asset-2	12.11.2016 (as per IA)	25.4.2022	1990 days

Asset-1

35. The Petitioner has contended that in the 19th SCM of ER & 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively, it was decided to include the Asset-1 herein, i.e. shifting of 400 kV, 125 MVAR Bus Reactor to Patna end in 400 kV Barh-II Line at Patna Sub-station as switchable line reactor along-with associated bay and installation of 3rd 500 MVA ICT at Patna under the transmission scheme. The Petitioner has further contended that the MoP, vide its letter dated 10.1.2018, approved the said decision. The Petitioner has contended that as per the RCE-II, the transmission scheme was to be commissioned by December 2019. The Petitioner has contended that there was non-availability of sand in Bihar due to the State Sand Policy being repealed vide Bihar Gazette Notification 16.18.2019 as a result of which the construction work came to a complete standstill for the period from 16.8.2019 to 1.1.2020.



36. *Per contra*, BSPHCL has contended that the Petitioner has not stated the status of sand availability before 16.8.2019 and has not provided any documents supporting its claim.

37. We have considered the contentions of the Petitioner and BSPHCL and have gone through the record.

38. On perusal of the record, we find that as per the RCE-II dated 14.3.2019, Asset-1 was scheduled to be commissioned by December 2019. However, it was commissioned on 2.4.2020 with a delay of 93 days. On perusal of the record, we find that the Petitioner has attributed the delay from 16.8.2019 to 1.1.2020 (138 days) in the commissioning on Asset-1 due to the non-operation of the sand ghat and unavailability of sand on account of the Bihar Sand Mining Policy, 2013 being repealed vide Gazette (Extraordinary) Notification dated 16.8.2019. According to the Petitioner, the Government of Bihar decided that the allocation of the sand mines was to be done through the bidding process, and the operation of the sand ghats commenced with effect on 1.1.2020.

39. A perusal of the record further reveals that Asset-1 was approved in the 19th SCM of ER and 36th ERPC meeting held on 1.9.2017 and 14.9.2017, respectively. The Ministry of Power vide letter dated 10.01.2018 also approved the scheme. The relevant extracts of the Minutes of the 19th Standing Committee Meeting on Power System Planning of ER are as follows:

“30. To provide one additional 400/220kV, 500MVA ICT at Patna (POWERGRID)

30.1 Director, BSPTCL informed that the power demand of Patna and surrounding areas is increasing at faster rate. The load requirement of central and eastern Patna is substantial due to presence of various commercial, institutional & educational establishments, and dense urban population. The load demand is largely fed by Patna (POWERGRID) S/s with the transformation capacity of 1X500 MVA + 1X315 MVA (to be replaced with 500MVA). The connected load to the above GSS is as follows:-

(a) 220/132kV GSS Gaurichak– 1X160 + 2X150 MVA= 460 MVA

(b) 220/132/33kV GSS Khagaul – 4X100 MVA = 400 MVA

(c) 220/132/33kV GSS Fatuha – 5X100 MVA = 500 MVA

(d) 220/132/33kV Bihta (New) – 2X160 MVA = 320 MVA (Likely to be commissioned at the end of 2017).

30.2 To cater the growing demand of state capital, three new 400/220kV intra-state substations (Bihta, Gaighat and Fathua) with 2x500MVA transformation capacity were planned around Patna area in 2010-11 for completion in 12th plan However, due to non-



availability of land at these locations the substations could not be taken up for implementation. Accordingly, revised joint studies were carried out with CEA, CTU and BSPTCL in 2016 considering new substations at Naubatpur, Bakhtiyarpur and Jakkanpur in place of Bihta, Gaihat and Fatuha respectively. Due to the delay in implementation of three new intra-state substations, there is an urgent requirement of a new ICT at Patna (POWERGRID) S/s.

30.3 Further, he stated that loading of Patna (POWERGRID) S/s is very critical. The average load at present on ICTs is about 550MW and the peak load is about 650MW, which may increase to 820MW in the coming year so it is not fulfilling the N-1 reliability criteria. On 03-07-2017, one 500MVA ICT tripped on fault, as a result another 315 MVA ICT also tripped on overload and the major part of the state capital faced total blackout on that day.

30.4 Accordingly, he requested for installation of an additional 400/220kV, 500MVA ICT at Patna (POWERGRID) S/s for meeting N-1 reliability and in turn ensuring uninterrupted power to state capital in the event of outage of one of the ICTs.

30.5 Representative of CTU stated that Patna 400/220kV sub-station earlier had 2x315 MVA, 400/220kV ICTs. One 315MVA ICT has already been replaced with 500MVA ICT. The 2nd 315MVA ICT is to be replaced with 2nd 500 MVA ICT which has already been awarded and is expected in next few months. Now, 3rd 500 MVA ICT is proposed to be installed, however, there is a space constraint for this 3rd ICT. The space for the 3rd ICT could be created by shifting one of the existing 420 kV, 125 MVAR bus reactor and installing it in one of the circuits of Patna – Barh lines as a switchable line reactor at Patna end to be utilised as bus reactor. In case of line outage, the reactor would be connected to bus as bus reactor. In regard to requirement of NGR, representative of CTU replied that NGR is not required as the Patna – Barh line is a short line.

30.6 Members approved the following:

(a) Shifting of one of the existing 420kV, 125MVAR bus reactors at Patna and installation of the same in one of the circuit of Barh-Patna lines as switchable line reactor, which can be used as bus reactor in case of outage of line.

(b) Space created by shifting of bus reactor would be utilised for placement of 500 MVA ICT.

(c) Additional 400/220kV, 500MVA ICT (3rd) along with associated bays at Patna.”

40. The Relevant extracts of the letter dated 10.01.2018 of the Ministry of Power (MoP) are as follows:

No. 152/2017 (Part-I)-Trans
Government of India
Ministry of Power
Shram Sakthi Bhawan, Rafi Marg
New Delhi - 110001

Date : 10.01.2018

To : CMD,
Power Grid Corporation of India Ltd.,
"Saudamin" Plot No.2, Sector-29, Gurgaon,
Haryana-122001

Sub : Augmentation of 500MVA, 400/220kV ICT-3 at Patna (POWERGRID) Substation

Ref : 1) POWERGRID letter No. C/CTU/00/E/Pig dated 23.11.2017
2) CEA letter No. 59/1/2017-PSPA-II/1597 dated 12.12.2017

Sir,
I am directed to refer to the POWERGRID letter under reference on the above cited subject and to say that the competent authority in the Ministry of Power has approved the implementation of following project as part of ERSS-XII scheme, alongwith the broad scope of implementation, by Power Grid Corporation of India Ltd., the CTU, through regulated tariff mechanism.

Sl. No.	Name of the Schema/Project
1	Augmentation of 500MVA, 400/220kV ICT-3 at Patna(POWERGRID) Substation under ERSS-XII
	Scope <ul style="list-style-type: none"> - Installation of 3rd 500MVA, 400/220kV transformer at Patna (POWERGRID) sub-station along with associated bays. - Shifting of 420kV, 125 MVAR bus reactor to Patna end of one of the circuits of Barh-Patna line as switchable line reactor to create space for installation of above transformer

It is requested that necessary action be taken accordingly. Further, the financial aspect of the scope of the above work may also please be shared with the Ministry.

Yours faithfully,
(Signature)
(Bharati Lal)

Under Secretary to the Govt. of India
Telefax : 2332 5242
E-mail : transdesk-mop@nic.in

Copy to : Member (PS), CEA, New Delhi: with their ID Note under reference for information.



41. As per the above approval of the 19th SCM of ER and approval of MoP vide letter dated 10.1.2018, the Petitioner has taken about 13 months 29 days for inclusion of the above-modified scheme in RCE-II. We are of the view that taking 13 months to 29 days for the inclusion of modified items under the Revised cost Estimate is not acceptable. The Petitioner should have taken steps to implement the scheme in time to avoid additional costs. As a special case, in view of the recommendation of the 19th SCM of ER and 36th ERPC meeting held on 1.9.2017 and 14.9.2017 and approval of MoP vide letter dated 10.01.2018, we are allowing RCE-II to include the Shifting of one of the existing 420 kV, 125 MVA bus reactors at Patna and installation of the same in one of the Circuit of Barh-Patna lines as a switchable line reactor, which can be used as bus reactor in case of outage of line.

42. A perusal of RCE-II shows that Asset-1 was included under it (RCE-II), for which approval was accorded by the competent authority of the Petitioner on 8.3.2019, with the implementation schedule of the transmission scheme to be commissioned by December 2019.

43. On perusal of Bihar Sand Mining Policy, 2019 (2019 Sand Policy), we note that it was promulgated vide Gazette Notification (Extraordinary) dated 16.8.2019. The 2019 Sand Policy repealed the Sand Policy 2013 of the Bihar Government. On examination of the 2019 Policy, we find that the operation of sand ghats settled under the 2019 Policy started with effect from 1.1.2020. Further, it is observed that as per Form-12, submitted by the Petitioner, the foundation and erection work was targetted to be completed by 3.6.2019 as per the original schedule, against which the same was completed on 28.2.2020. On perusal of the Petitioner's submissions, we note that the Sand Policy 2013 was repealed with effect from 16.8.2019.

44. On appreciation of the material on record, we are of the view that the Petitioner has failed to submit any supporting documents to substantiate how much quantity of foundation



work remained unexecuted at the time of implementation of the 2019 Sand Policy and how were the ongoing construction activities affected due to the 2019 Sand Policy. It is expected that during the construction work, the respective contractual agencies were supposed to retain sufficient stock of the raw material to avoid any delay due to the non-availability of the material. Further, we are of the view that had the Petitioner completed the foundation and erection work as per its original schedule, i.e., by 3.6.2019, the progress of work would not have been affected due to the implementation of the 2019 Sand Policy on 16.8.2019 by the Government of Bihar.

45. For the reasons mentioned above in detail, we are not inclined to condone the delay of 93 days on account of the non-submission of any justification by the Petitioner for not completing the foundation work as per the original schedule, i.e., 3.6.2019. Accordingly, the claim for a delay of 93 days, as claimed by the Petitioner, is hereby rejected.

46. Therefore, the summary of time overrun claimed and Time delay condoned/not condoned in respect of Asset-1 is as follows:

Asset No.	SCOD as per RCE-II	COD	Time overrun claimed	Time overrun worked out	Time overrun condoned	Time overrun not condoned
Asset-1	31.12.2019	2.4.2020	92 days	93 days	Nil	93 days

Asset-2

47. The Petitioner, in its affidavit dated 8.4.2024, has furnished the event-wise and date-wise correspondence/communication details held amongst the Petitioner, contractors, and other concerned parties, justifying the delay of 1990 days, and the same are as follows:

S. No.	Delay reason	Date from	Date to	Event/Date-wise communication reference	Date of meeting/ letter/ e-mail correspondence
1	After the commissioning of 1X500 MVA ICT at Pusauli, 1X315 MVA ICT was dismantled and loaded on a trailer	13.5.2014	4.4.2016	Minutes of the 15 th SCM meeting	
				Minutes of the 19 th SCM meeting	
				COD of 500 MVA Pusauli ICT	



S. No.	Delay reason	Date from	Date to	Event/Date-wise communication reference	Date of meeting/ letter/ e-mail correspondence
	in the first week of April 2016				
2	Delay in obtaining railway block approval for transportation of ICT	11.4.2016	16.5.2016	E-mail correspondence from the transporter M/s Kataria Carriers dated 2.5.2016	2.5.2016
3	Delay in transportation due to damaged Illambazar bridge on Ajoy river at Muchipada, Durgapur	3.6.2016	25.7.2016	E-mail correspondence from the transporter M/s Kataria Carriers enclosed dated 16.6.2016	30.6.2016
4	Transportation obstruction of 315 MVA ICT main tank diverted from Pusauli (Sasaram Sub-station) at Sankarpur bridge Bagmari Syphon bridge of Farakka feeder canal and deletion of scope of installation of Sasaram (Pusauli) 400/200 kV, 315 MVA ICT-1 (released after replacement) as 2 nd 400/200 kV, 315 MVA ICT at Farakka generation switchyard from the transmission scheme	28.7.2016	1.9.2017		
4	Finalisation of contract for procurement of new ICT for installation at Farakka as 2 nd ICT awarded to M/s CG Power	2.9.2017	5.4.2019	Minutes of the 1 st ERSCT meeting held on 16.7.2018	16.7.2018
				Copy of NOA awarded to M/s CG Power dated 5.4.2019	5.4.2019
				Minutes of the 2 nd ERSCT meeting held on 5.7.2019 for new SCOD to 30.6.2020	5.7.2019
5	Delay due to approval from Farakka barrage projects for construction of temporary jetty at Farakka Feeder Canal	30.5.2019	11.8.2021	Letter dated 30.5.2019 request from CGL to FBP for construction of Jetty-1 st request	30.5.2019
				Letter dated 25.9.2019 request	25.9.2019



S. No.	Delay reason	Date from	Date to	Event/Date-wise communication reference	Date of meeting/ letter/ e-mail correspondence
				from CGL to FBP for construction of Jetty-2 nd request	
				Mail correspondence from M/s CG Power dated 15.10.2019 to the Petitioner for support in getting approval from FBP	15.10.2019
				Letter from M/s CG Power to the Petitioner dated 20.7.2020 regarding non-response of FBP	20.7.2020
				Mail communication between M/s CG Power and the Petitioner dated 8.9.2020	8.9.2020
				Letter dated 23.9.2020 request from CGL to FBP for construction of Jetty-3 rd request	23.9.2020
				Letter from CGM(Projects), ER-II to Ministry of Water Resources dated 30.9.2020 regarding transportation of ICT	30.9.2020
				Mail correspondence between M/s CG Power and the Petitioner for exploring feasibility for unloading of ICT at Jindal jetty near NTPC dated 15.10.2020	15.10.2020
				Letter from FBP dated 3.11.2020 denying permission for jetty construction at the proposed location.	3.11.2020
				Letter dated 5.11.2020 from CGL to FBP-4 th request for jetty construction	5.11.2020
				MOM for meeting with FBP, the	27.11.2020



S. No.	Delay reason	Date from	Date to	Event/Date-wise communication reference	Date of meeting/ letter/ e-mail correspondence
				Petitioner and M/s CG Power dated 27.11.2020 for transportation of ICT main tank	
				Sharing of RNOD of the meeting to GM, FBP	1.12.2020
				Letter from the Petitioner to IWAI dated 23.2.2021 regarding the transportation of ICT main tank through the river	23.2.2021
				Letter from the Petitioner to NTPC for joint meeting dated 9.2.2021 for transportation of the main tank	9.2.2021
				MOM for meeting with FBP, Petitioner, M/s CG Power and Transporter dated 8.3.2021	8.3.2021
				Final request letter from the Petitioner to FBP for jetty construction approval dated 12.7.2021	12.7.2021
				Approval for construction of jetty by FBP dated 11.8.2021	11.8.2021
6	Delay due to the first wave of the Covid-19 lockdown	25.3.2020	24.8.2020	MoP Circular dated 27.7.2020	
7	Delay due to second wave of Covid-19 lockdown	1.4.2021	30.6.2021	MoP Circular dated 12.6.2021	
8	Delay due to additional requirement of submission of BG amounting to ₹25 lakh to Farakka Barrage projects before commencement of jetty construction work	12.8.2021	19.10.2021	Letter to FBP dated 13.8.2021 for submission of BG in lieu of DD/Cheque	13.8.2021
				Confirmation mail received from FBP dated 17.8.2021	17.8.2021
				Letter to FBP from the Petitioner seeking	9.9.2021



S. No.	Delay reason	Date from	Date to	Event/Date-wise communication reference	Date of meeting/ letter/ e-mail correspondence
				bank A/C details dated 9.9.2021	
				Reply letter from FBP dated 17.9.2021	17.9.2021
				BG submitted to FBP dated 19.10.2021	19.10.2021
9	Delay due to the third wave of Covid-19 due to the rise in the Omicron variant in January 2022	2.1.2022	15.1.2022	Government of West Bengal Notification dated 2.1.2022	2.1.2022
10	Delay due to obstruction in dragging activities of ICT main tank due to several trees falling in the dragging path of ICT to the foundation main block	22.1.2022	27.1.2022	Letter to NTPC dated 22.1.2022	22.1.2022
				Mail from NTPC dated 27.1.2022	27.1.2022

48. The Petitioner has contended that the delay in the commissioning of Asset-2 was mainly attributable to (i) availability of ICT from Pusauli, (ii) delay in obtaining railway block approval, (iii) damaged bridge near Durgapur, (iv) damaged Shankerpur Bridge near Farakka and transportation obstruction of 315 MVA ICT, (v) procurement of new ICT and finalization of contract for procurement and transportation of new ICT for installation at Farakka as 2nd ICT, (vi) delay due to approval from Farakka Barrage Projects for construction of a temporary jetty for transportation of new ICT at the Farraka Feeder Canal, and (vii) the Covid-19 pandemic.

49. As against this, BSPHCL has mainly contended that the Petitioner should have resorted to due diligence in planning the transmission scheme. All the reasons cited by the Petitioner involve commercial and operation risks that are untenable, and as such, the delay as claimed by the Petitioner may not be condoned.

50. We have considered the contentions of the Petitioner and BSPHCL and perused the material available on record. The subsequent paragraphs analyse the issue of time overrun

in respect of Asset-2, the reasons cited by the Petitioner, and the replies thereto given by BSPHCL.

51. On perusal of the record, it is noticed that due to the damaged bridge at Shankerpur, it was decided in the 19th meeting of the Standing Committee on Power System Planning for Eastern region held on 1.9.2017 that the subject ICT stationed at Durgapur shall be installed as 3rd 400/220 kV, 315 MVA ICT at Durgapur under ERSS-XVII (Part-B) instead of earlier envisaged 400/220 kV, 315 MVA ICT-2 from New Purnea (released after replacement). And the said 400/220 kV, 315 MVA ICT -2 from New Purnea Shall be installed as the 2nd 400/220 kV, 315 MVA ICT at Farakka generation switchyard under ERSS-XII.

52. However, the 400/220 kV, 315 MVA ICT-2 from New Purnea, which was agreed to be installed as 2nd ICT at Farakka, was diverted to Jamshedpur due to failure of the 315 MVA ICT at Jamshedpur (which was shifted from Patna) during the commissioning. Accordingly, the issue was reviewed in the 1st Eastern Region Standing Committee on Transmission meeting held on 16.7.2018, and the proposal of shifting of New ICT, which was being procured to replace the burnt ICT at Patna, to Farakka NTPC for installation as ICT-2, was approved with the extension in the completion schedule by 18 months from the SCOD. Accordingly, the tender for procurement and transportation of new ICT through waterways was awarded on 5.4.2019 with a completion schedule of 12 months, i.e., commissioning by April 2020. The relevant extracts of the 1st ERSCT meeting held on 16.7.2018 are as follows:



5. Modifications in the scope of works under the on-going ERSS-XII and ERSS-XVII (Part-B) schemes

5.1 Director, CEA informed that the ERSS-XII and ERSS-XVII (Part-B) schemes inter alia includes following scope of works:

ERSS-XVII (Part-B):

(a) Sasaram ICT-1 (released after replacement) may be diverted to Durgapur instead of Farakka

ERSS-XII:

(a) New Purnea ICT-2 (released after replacement) may be diverted to Farakka instead of Durgapur

(b) Patna ICT-1 (released after replacement) may be diverted to Jamshedpur as ICT-3

5.2 Representative of CTU stated that Sasaram ICT-1 (released after replacement) has been diverted to Durgapur. However, Patna ICT-1 (released after replacement), which was diverted to Jamshedpur, burnt after installation. Accordingly, New Purnea ICT-2 (released after replacement) has been sent to Jamshedpur instead of Farakka. A new ICT, which was under procurement process to replace the burnt Patna ICT-1, is now proposed to be installed at Farakka as ICT-2. As delivery and installation of new ICT would take about 15-18 months time, CTU requested for extension in completion schedule of ERSS-XII by about 18 months.

5.3 Director, CEA enquired about the funding for procurement of the new ICT to replace the burnt ICT. Representative of CTU clarified that the new ICT would be procured through the insurance claim against burnt ICT.

5.4 Chief Engineer, CEA stated that there is only one transmission line in Farakka, therefore, the ICT may not be required on urgent basis. He suggested that the new ICT may be utilized at some other location, where immediate requirement can be met. It is opined that the necessity of ICT at Farakka has already been agreed in the previous Standing Committee meeting.

5.5 After deliberations, following modifications in ERSS-XII scheme was agreed with extension in completion schedule by 18 months from the scheduled COD:

(a) New Purnea ICT-2 (released after replacement) to be diverted to Jamshedpur for installation as ICT-3.

(b) New ICT, which is being procured to replace the burnt ICT at Patna, to be diverted to Farakka for installation as ICT-2.



53. Further, from the perusal of the record pertaining to the 2nd ERSCT meeting dated 5.7.2019, we find that considering the shutdown constraints at NTPC and commissioning activities of the bays and ICT, the completion schedule of installation of the 400/220 kV, 315 MVA ICT-2 at Farakka NTPC under ERSS-XII was further extended till June 2020. The relevant extracts of the 2nd ERSCT meeting held on 5.7.2019 are as follows:

29. Extension of completion schedule for installation of ICT-2 at Farakka (NTPC) under ERSS-XII

29.1 Representative of CTU(POWERGRID) stated that in 19th meeting of SCPSPER held on 01.09.2017, constraint in transportation of ICT-II at Farakka (NTPC) under ERSS-XII were discussed and it was recorded that:

"In case of transportation constraint at Farakka Switch Yard, the ICT may be transported through Farakka Feeder Cannel waterways at additional cost under ERSS-XII scheme".

29.2 Subsequently in first meeting of ERSCT held on 16.07.2018 following was decided:

"After deliberation, following modification in ERSS-XII was agreed with extension in completion schedule by 18 months from the schedule COD".

"... New ICT which is being procured to replace the burnt ICT, Patna to be diverted to Farakka for installation of ICT-II".

29.3 Based on decision on ERSCT meeting held on 26.07.2018, POWERGRID took procurement action for ICT and NOA for supplying new ICT for Farakka was placed in April 2019 with completion schedule of 12 months i.e up to. April 2020.

29.4 However, considering shutdown constraint at NTPC and commission activities of bays & ICT, completion schedule of Installation of ICT-2 at Farakka (NTPC) under ERSS-XII may need to be extended till June 2020.

29.5 After deliberations, members agreed for extension of completion schedule of installation of ICT-2 (400/220kV, 315MVA) at Farakka (NTPC) under ERSS-XII till June 2020.

54. Therefore, in view of the above facts and the decisions taken in the 1st and 2nd ERSCT meetings held on 16.7.2018 and 5.7.2019, respectively, we intend to consider 30.6.2020 as the revised SCOD of Asset-2.

55. As per the revised SCOD of the asset, i.e., 30.6.2020, Asset-2 is commissioned on 25.4.2022 with a time overrun of 664 days.



56. As discussed above, the SCOD of the asset is considered as 30.6.2020, the time overrun prior to this period, i.e., the time delay from actual SCOD (12.11.2016) to 30.6.2020 due to various other reasons submitted by the Petitioner, i.e., delay in availability of 315 MVA ICT from Pusauli, delay in obtaining Railway Block approval, due to damaged bridge near Durgapur, due to damaged Shankerpur Bridge near Farakka, the decision for procurement of new ICT and Finalization of Contract for procurement & transportation for the instant transmission asset in respect of Asset-2 is not dealt with here, and the same is subsumed in the Revised SCOD of the asset. Therefore, the time over-run is analysed from 30.6.2020 to COD of Asset-2.

A. Delay due to approval from Farakka Barrage projects for construction of temporary jetty for transportation of New ICT at Farakka feeder canal (30.5.2019 to 11.8.2021 - 804 days)

57. The Petitioner has submitted that the works were delayed due to a delay in getting the approval from the concerned authority for the construction of the jetty required for the transportation of the abovementioned ICT. A number of communications were made by the executing agency and the Petitioner to the Farakka Barrage Project seeking approval for the construction of a temporary jetty. The Petitioner, vide letter dated 30.9.2020, also approached the Commissioner, the Ministry of Water Resources, to construct a temporary jetty in the Farakka feeder canal. However, in a letter dated 3.11.2020, the Farakka Barrage Project denied permission to build the jetty. In a meeting held on 27.11.2020 between the Farakka Barrage Project and the Petitioner, it emerged that NTPC is also facing transportation problems of dispatching large consignments for new and repair work. Accordingly, NTPC and the Petitioner jointly approached the Ministry of Water Resources to construct a permanent jetty infrastructure suitable to handle large equipments.

58. The Petitioner has further submitted that on 8.3.2021, a joint meeting was held at Farakka among M/s CGL, Petitioner, and the transportation agency. During the visit, the



surveyors identified two locations (RD-7.0 and RD-18.5) for the construction of a temporary jetty along the banks of the Farakka feeder canal. The same was also discussed with the General Manager of the Farakka Barrage Project. After discussions, RD-18.5 was found to be more suitable for constructing a temporary jetty and further transporting the main tank to NTPC. Subsequently, a detailed drawing for the construction of a temporary jetty at RD-18.5 was submitted to Farakka Barrage vide letter dated 12.7.2021. Subsequently, approval for constructing a temporary jetty was obtained from the Farakka Barrage Projects on 11.8.2021, along with various terms and conditions.

59. The Petitioner has further submitted that after the submission of the necessary BG to the Farakka Barrage Project, the agency commenced the jetty construction work and parallelly, the ICT main tank was dispatched from the CG Power factory, Bhopal. The ICT main tank was transported from the CG Power factory, Bhopal, to Kolaghat port, Kolkata, through roadways, where it was loaded onto a barge and subsequently transported to the Farakka feeder canal through waterways. The main tank was then unloaded at the temporary jetty constructed at RD-18.5 of the Farakka feeder canal. It was successfully transported to NTPC, Farakka on 24.12.2021 after facing a lot of hurdles.

60. We have considered the submissions of the Petitioner and have also gone through the material placed on record by the Petitioner. It is observed that the Petitioner approached the concerned authorities of the Farakka barrage seeking permission to construct a temporary jetty to facilitate the transportation of ICT to Farakka NTPC through various correspondences. The said permission was granted by the Farakka barrage authorities on 11.8.2021. The Petitioner vide letter dated 13.8.2021 had communicated to SE, Farakka barrage project, and requested that a bank guarantee be accepted in lieu of a DD/Bankers cheque. Further, after obtaining approval and subsequently with the depositing of BG amount vide letter dated 19.10.2021, the Petitioner commenced the construction of a temporary jetty. Finally, the main



tank of ICT was successfully transported to NTPC Farakka on 24.12.2021. The Petitioner, vide letter dated 19.10.2021 referred to letters dated 17.8.2021, 9.9.2021, and 17.9.2021, but the Petitioner has not placed on record these letters. We are of the view that the time taken from 11.8.2021 to 19.10.2021 towards depositing the BG in lieu of DD/ Banker's cheque seems to be much more than required. The petitioner has also not submitted when the temporary jetty was completed. We are of the view that the delay from 11.8.2021 to 24.12.2021 in depositing of BG & transportation of ICT to NTPC Farakka is not condoned.

61. In view of the above discussion, it is held that the time overrun due to the delay in permission accorded by the Farakka Barrage authorities up to 11.8.2021 was beyond the control of the Petitioner. However, the time delay from 11.8.2021 to 24.12.2021 in depositing the BG and transportation, the Petitioner has taken about two months and another two months for transportation after receipt of permission from Farakka Barrage Authority, which is solely on account of Petitioner's failure to implement the operations in a timely manner and thus falls under controllable factors.

62. Further, it is observed that as per the 2nd ERSCT meeting held on 5.7.2019, the SCOD has been revised from 12.11.2016 to 30.6.2020, which has already been accepted by the Commission. Hence, the time delay from 30.6.2020 up to 11.8.2021 (407 days) is on account of getting approval for the construction of a temporary jetty which in the Commission's view is beyond the control of the Petitioner, and therefore a delay of 407 days for the aforementioned reasons is hereby condoned.

B. Delay due to Covid-19 pandemic

63. The Petitioner has submitted that MoP, vide Circular dated 27.7.2020, stated that all inter-State projects which are under construction with SCOD coming after 25.3.2020 shall get an extension of 5 months in respect of the SCOD due to various measures taken by the State/UT governments to contain the Covid-19 pandemic including the imposition of complete



lockdown. The Petitioner has further contended that in April 2021, the same situation arose, and similar measures were taken by the State/UT governments to curb the Covid-19 pandemic, which disrupted the supply chain and manpower. For this reason, the MoP, vide Circular dated 12.6.2021, stated that all inter-State projects which are under construction with SCOD coming after 1.4.2021 shall get an extension of 3 months in respect of the SCOD due to various measures taken by the State/UT governments to contain the Covid-19 pandemic. The Petitioner has further contended that in January 2022, due to the rise in the Omicron variant of Covid-19, the Government of West Bengal declared a lockdown from 2.1.2022 to 15.1.2022. This also led to the stoppage of work during the fag end of the transmission scheme.

64. BSPHCL has contended that the Petitioner has failed to show how the project in question was impacted by the Covid-19 pandemic, which cannot serve as a blanket justification. Rather, the documents brought on record by the Petitioner have reflected that the project could not be delayed due to the Covid-19 pandemic. Further, the MoP, considering all the impacts of the Covid-19 pandemic, has already granted several relaxations and exemptions. Therefore, the Petitioner's prayer in the present Petition, claiming the additional period on account of the Covid-19 pandemic, is not justified without any proof of reasonable efforts on the Petitioner's part to mitigate the effects of the events. BSPHCL has further contended that the Petitioner's lack of an administrative approach in planning, following up, and accumulating the project's raw materials and accessories parts has caused the delay. The reasons for the delay, as cited by the Petitioner, are evidently controllable in nature, and, therefore, the Petitioner's claim in this regard is liable to be rejected.

65. We have considered the submissions of the Petitioner and BSPHCL and have also gone through the supporting documents submitted by the Petitioner. It is observed that the Petitioner has relied on the extensions granted by the MoP letters dated 27.7.2020 and



12.6.2021. The relevant extracts of the MoP letters dated 27.7.2020 and 12.6.2021 are as follows:

Dated 27.7.2020

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects – reg.

Sir,

I am directed to state that transmission utilities have pointed out that construction activity at various transmission projects sites have been severely affected by the nationalised lockdown measures announced since 25th March 2020 to contain outbreak of COVID -19 have requested for extension of Scheduled Commercial Operation Date (SCOD) for to mitigate the issues of disruption in supply chains and manpower, caused due to COVID-19 pandemic.

2. It has been therefore decided that;

- i. All inter-state transmission projects, which were under construction as on date of lockdown i.e. 25th March 2020, shall get an extension of five months in respect of their SCOD;*
- ii. This order shall not apply to those projects, whose SCOD dates was prior to 25th March 2020. ...”*

Dated 12.6.2021

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects – reg.

Sir,

I am directed to state that transmission utilities have approached this Ministry stating that construction activity at various transmission projects sites have been severely affected by the current second wave of COVID-19 pandemic and various measures taken by State/UT Governments to contain the pandemic; such as night curfew, imposition of section 144, weekend lockdown and complete lockdown. In this regard they have requested for extension of Scheduled Commercial Operation Date (SCOD) for the undergoing Transmission projects to mitigate the issues of disruption in supply chains and manpower, caused due to COVID-19 pandemic.

2. The matter has been examined in the Ministry and it has been noted that unlike last year complete lock-down in the entire country, this time different States/UTs have ordered lock-down in their State/UTs as per their own assessments. Therefore, after due consideration, it has been decided that;

- i. All inter-state transmission projects, which are under construction with SCOD coming after 01 April 2021 shall get an extension of three (3) months in respect of their SCOD;*
- ii. The commencement date of Long Term Access (LTA) to a generator by CTU based on completion of a transmission line, whose SCOD is extended by three (3) months due to COVID19 as mentioned above at point(i), shall also be extended by three (3) months.*

3. This issue with the approval of the Competent Authority.”

66. As per the 2nd ERSCT meeting held on 5.7.2019, the revised SCOD of Asset-2 has been considered and approved as 30.6.2020 and thus as per the MoP letter dated 27.7.2020, the extension of 5 months in SCOD, i.e., up to 30.11.2020, is applicable in the instant case.



However, the said period has already been subsumed in the delay condoned up to 11.8.2021 on account of delay in getting approval for the construction of a temporary jetty.

67. Further, as the revised SCOD of Asset-2 does not fall after 1.4.2021, the extension of 3 months is not applicable as per the MoP letter dated 12.6.2021 in the instant case.

C. Delay from 24.12.2021 to 25.4.2022 in Commissioning of Asset-2

68. On perusal of documents submitted by the Petitioner, it is observed that Asset-2 was put into commercial operation on 25.4.2022. However, the Petitioner has not submitted any documentary evidence in respect of the time delay from 24.12.2021 to 25.4.2022, i.e., time taken by the Petitioner after receipt of ICT at Farakka to the final commissioning of Asset-2.

69. In this context, it is observed that as per Form-12 submitted by the Petitioner, 89 days (from 6.1.2020 to 4.4.2020) have been stipulated in the original schedule for the supply, erection, testing, and commissioning activities. However, as per the actual implementation, 256 days (from 12.8.2021 to 25.4.2022) were utilized by the petitioner for the completion of the supply, erection, testing, and commissioning activities. Therefore, in view of the lack of documentary evidence, we are not in a position to analyse the matter and come to a conclusion. Therefore, in view of the above facts and considering the time allotted for the supply, erection, testing, and commissioning activities in the original schedule, the time delay of 89 days out of 256 days, i.e., from 11.8.2021 to 8.11.2021 is hereby condoned and balance of 167 days has not been condoned.

70. Therefore, the summary of the time over-run claimed by the Petitioner and time over-run condoned/not condoned in respect of the Asset-2 is as follows:

Asset No.	SCOD as per IA	SCOD as per 2 nd ERCT meeting and considered in instant order	COD	Time over-run w.r.t. SCOD as per IA	Time over-run w.r.t. SCOD considered in the instant order	Time over-run condoned	Time over-run not condoned
Asset-2	12.11.2016	30.6.2020	25.4.2022	1990 days	664 days	496 days	168 days



Interest During Construction (IDC) and Incidental Expenditure During Construction (IEDC)

71. The Petitioner has submitted that for Asset-1, the total IDC as per the Auditor's Certificate is ₹38.89 lakh, out of which ₹30.95 lakh has been discharged up to COD and the balance IDC of ₹7.94 lakh has been discharged in FY 2020-21. For Asset-2, the total IDC as per the Auditor's Certificate is ₹303.20 lakh, out of which ₹281.70 lakh has been discharged up to COD, and the balance IDC of ₹21.36 lakh and ₹0.14 lakh has been discharged in FY 2022-23 and FY 2023-24 respectively.

72. The Petitioner has submitted that the entire IEDC incurred has been discharged up to COD for Assets 1 and 2, amounting to ₹20.27 lakh and ₹24.28 lakh, respectively.

73. As discussed above in this order, we have partially condoned the time overrun in the commissioning of Asset-2. Therefore, IDC on a cash basis up to the COD has been worked out based on the loan details given in the statement showing the discharge of IDC and Form-9C for the transmission assets.

74. We have considered the Petitioner's submissions. For Asset-1, the time overrun is not condoned. Accordingly, IDC of ₹3.08 lakh and IEDC of ₹4.90 lakh have been disallowed.

75. For Asset-2, IDC on a cash basis up to the COD is worked out based on the time overrun allowed. As the time overrun for Asset-2 is partially condoned, IDC of ₹28.40 lakh and IEDC of ₹1.40 lakh are disallowed.

76. The allowable IDC and IEDC have been tabulated subject to their truing-up:

(₹ in lakh)

Asset	IDC claimed	IDC disallowed due to time over-run not condoned	IDC allowed	IEDC claimed	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-1	38.89	3.08	35.81	20.27	4.90	15.37
Asset-2	303.20	28.40	274.80	24.28	1.40	22.88



Initial Spares

77. The Petitioner has not claimed any Initial Spares for Asset-1. The Petitioner has submitted that complete Initial Spares claimed for Asset-2 have been discharged up to COD.

The details of the Initial Spares claimed by the Petitioner for Asset-2 are as follows:

(₹ in lakh)				
Asset No.	Head	Plant and Machinery cost for calculation of Initial Spares	Ceiling as per Regulations (In %)	Initial Spares claimed
Asset-1	Sub-station	199.67	6	0.00
Asset-2	Sub-station	984.15	6	58.26

78. Regulation 23(d) of the 2019 Tariff Regulations provides that the Initial Spares shall be capitalised as a percentage of plant and machinery cost up to the cut-off date, subject to the following ceiling norms.

“(d) Transmission System

- (i) Transmission line: 1.00%
- (ii) Transmission sub-station
 - (Green Field): 4.00%
 - (Brown Field): 6.00%
- (iii) Series Compensation devices and HVDC Station: 4.00%
- (iv) GIS Insulated Sub-station
 - (Green Field): 5.00%
 - (Brown Field): 7.00%
- (v) Communication System: 3.50%
- (vi) Static Synchronous Compensator: 6.00%”

79. We have considered the submissions of the Petitioner and BSPHCL. It is observed that the Petitioner has not claimed any Initial Spares with respect to Asset-1. For Asset-2, as per Regulation 23(d) of the 2019 Tariff Regulations, the Initial Spares allowed are as follows.

(₹ in lakh)							
Asset No.	Head	Plant and Machinery cost for calculation of Initial Spares (A)	Initial Spares claimed (B)	Ceiling as per Regulations (In %) (C)	Allowable Initial Spares $D = (A - B) * C / (100 - C)$	Excess Initial Spares claimed (E=B-D)	Initial Spares allowed
Asset-2	Sub-station	984.15	58.26	6	59.10	Nil	58.26



Capital cost allowed as on COD

80. Accordingly, the capital cost allowed in respect of the transmission assets as on COD is as follows:

(₹ in lakh)					
Asset No.	Capital cost claimed till COD	Less: IDC disallowed	Less: IEDC disallowed	Less: Undischarged IDC	Capital cost as on COD
Asset-1	207.97	3.08	4.90	4.86	195.13
Asset-2	1294.27	28.40	1.40	21.38	1243.09

Additional Capital Expenditure (ACE)

81. The Petitioner has submitted that the admissibility of ACE incurred after COD is to be dealt with in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations.

82. Regulations 24 of the 2019 Tariff Regulations provides as follows:

“24. Additional Capitalisation within the original scope and upto the cut-off date

(1) *The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) *Change in law or compliance of any existing law; and*
- (f) *Force Majeure events:*

Provided that in case of any replacement of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization.

(2) *The generating company or the transmission licensee, as the case may be shall submit the details of works asset wise/work wise included in the original scope of work along with estimates of expenditure, liabilities recognized to be payable at a future date and the works deferred for execution.”*

83. The Petitioner has submitted that the ACE incurred/projected to be incurred in respect of the transmission assets is mainly on account of the balance/ retention payments and, therefore, the same may be allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019



Tariff Regulations. The Petitioner has submitted the details of underlying reasons for additional capitalisation of the transmission assets in Form 7.

84. The Petitioner has submitted the following details of the liability flow statement for the transmission assets:

(₹ in lakh)

Asset No.	Head/Part wise	Particulars	Outstanding liability as on COD	Discharged Amount		
				2020-21	2021-22	2022-23
Asset-1	GE T&D India Limited	Sub-station	50.86	35.60	10.17	5.09
	Total			35.60	10.17	5.09
Asset-2	CG Power & etc.	Sub-station	17.36	0.00	0.00	17.36
	Total					17.36

85. The COD of Asset-1 is 2.4.2020 and of Asset-2 is 25.4.2022, accordingly the cut-off dates of Assets 1 and 2 are 30.4.2023 and 30.4.2025 respectively.

86. We have gone through the submissions of the Petitioner and BSPHCL. We hereby approve the same as it was envisioned in the original scope of work and is allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The ACE allowed with respect to the transmission assets is as follows:

Asset-1

(₹ in lakh)

Particulars	Regulations	ACE allowed		
		2020-21	2021-22	2022-23
Balance and retention payments for liabilities other than IDC	24(1)(a) and 24(1)(b)	35.60	10.17	5.09
IDC Discharged after COD		4.86	0.00	0.00
	Total ACE	40.46	10.17	5.09

Asset-2

(₹ in lakh)

Particulars	Regulations	ACE allowed		
		2020-21	2021-22	2022-23
Balance and retention payments for liabilities other than IDC	24(1)(a) and 24(1)(b)	0.00	0.00	17.36
IDC Discharged after COD		0.00	0.00	21.38
	Total ACE	0.00	0.00	38.74



87. Accordingly, the capital cost considered in respect of the transmission assets for the 2019-24 tariff period is as follows:

						(₹ in lakh)
Asset No.	Capital cost as on COD	2020-21	2021-22	2022-23	2023-24	Capital cost as on 31.3.2024
Asset-1	195.13	40.46	10.17	5.09	0.00	250.85
Asset-2	1243.09	0.00	0.00	38.74	0.00	1281.83

Debt-Equity Ratio

88. Regulation 18 of the 2019 Tariff Regulations provides as follows:

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered: *Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending



31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”

89. The Petitioner has claimed the debt-equity ratio of 70:30. We have considered the same in accordance with Regulation 18 of the 2019 Tariff Regulations. The details of the debt-equity ratio as on COD and as on 31.3.2024 in respect of the transmission assets are as follows:

Asset No.	Funding	Capital cost as on COD (₹ in lakh)	(In %)	Capital cost as on 31.3.2024 (₹ in lakh)	(In %)
Asset-1	Debt	136.59	70.00	175.59	70.00
	Equity	58.54	30.00	75.25	30.00
	Total	195.13	100.00	250.85	100.00
Asset-2	Debt	870.16	70.00	897.28	70.00
	Equity	372.93	30.00	384.55	30.00
	Total	1243.09	100.00	1281.83	100.00

Depreciation

90. Regulation 33 of the 2019 Tariff Regulations provides as follows:

“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

(2) The value base for the purpose of depreciation shall be the capital cost of the Asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of



commercial operation. In case of commercial operation of the Asset-for part of the year, depreciation shall be charged on pro rata basis.

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the Asset-of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the asset

(6) In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

(8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the



date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of

- a) twenty-five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or*
- b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or*
- c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”*

91. We have considered the submissions of the Petitioner. The depreciation has been worked out considering the admitted capital cost as on COD, and ACE admitted during the 2019-24 tariff period. The Weighted Average Rate of Depreciation (WAROD) has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations and is placed as Annexure to this order. The depreciation allowed in respect of the transmission assets for the 2019-24 tariff period is as follows:

Asset-1

(₹ in lakh)					
	Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
A	Opening Gross Block	195.13	235.59	245.76	250.85
B	Addition during the year 2019-24 due to projected ACE	40.46	10.17	5.09	0.00
C	Closing Gross Block (A+B)	235.59	245.76	250.85	250.85
D	Average Gross Block (A+C)/2	215.36	240.67	248.30	250.85
E	Average Gross Block (90% depreciable assets)	215.36	240.67	248.30	250.85
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	193.83	216.61	223.47	225.76
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	193.83	216.61	223.47	225.76
J	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28	5.28	5.28



	Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
K	Lapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	25	25	24	23
M	Depreciation during the year (D*J)	11.34	12.71	13.11	13.24
N	Cumulative Depreciation at the end of the year	11.34	24.05	37.16	50.40
O	Remaining Aggregate Depreciable Value at the end of the year	182.49	192.56	186.32	175.36

Asset-2

(₹ in lakh)

	Particulars	2022-23 (pro-rata for 341 days)	2023-24
A	Opening Gross Block	1243.09	1281.83
B	Addition during the year 2019-24 due to projected ACE	38.74	0.00
C	Closing Gross Block (A+B)	1281.83	1281.83
D	Average Gross Block (A+C)/2	1262.46	1281.83
E	Average Gross Block (90% depreciable assets)	1262.46	1281.83
F	Average Gross Block (100% depreciable assets)	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	1136.21	1153.65
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00
I	Total Depreciable Value (G+H)	1136.21	1153.65
J	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28
K	Lapsed useful life at the beginning of the year (Year)	0	1
L	Balance useful life at the beginning of the year (Year)	25	24
M	Depreciation during the year (D*J)	62.27	67.68
N	Cumulative Depreciation at the end of the year	62.27	129.96
O	Remaining Aggregate Depreciable Value at the end of the year	1073.94	1023.69

Interest on Loan (IoL)

92. Regulation 32 of the 2019 Tariff Regulations provides as follows:

“32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.



(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of asset, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered;

Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing”.

93. The Weighted Average Rate of Interest on Loan (WAROI) has been considered based on the rates prevailing as on COD for the respective loans. The Petitioner has prayed that the change in the interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing up.



94. BSPHCL has submitted that the 2019 Tariff Regulations do not permit the change in the interest rate due to the floating interest rate applicable, if any, to be adjusted/claimed over the tariff block of 5 years directly from the beneficiaries.

95. We have considered the submissions of the Petitioner and BSPHCL. The IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed in respect of the transmission assets is as follows:

Asset-1

(₹ in lakh)					
	Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
A	Gross Normative Loan	136.59	164.91	172.03	175.59
B	Cumulative Repayments up to Previous Year	0	11.34	24.05	37.16
C	Net Loan-Opening (A-B)	136.59	153.57	147.98	138.44
D	Addition due to ACE	28.32	7.12	3.56	0.00
E	Repayment during the year	11.34	12.71	13.11	13.24
F	Net Loan-Closing (C+D-E)	153.57	147.98	138.44	125.19
G	Average Loan (C+F)/2	145.08	150.78	143.21	131.81
H	Weighted Average Rate of Interest on Loan (In %)	7.91	7.89	7.87	7.87
I	Interest on Loan (G*H)	11.45	11.89	11.27	10.38

Asset-2

(₹ in lakh)			
	Particulars	2022-23 (pro-rata for 341 days)	2023-24
A	Gross Normative Loan	870.16	897.28
B	Cumulative Repayments up to Previous Year	0.00	62.27
C	Net Loan-Opening (A-B)	870.16	835.01
D	Addition due to ACE	27.12	0.00
E	Repayment during the year	62.27	67.68
F	Net Loan-Closing (C+D-E)	835.01	767.33
G	Average Loan (C+F)/2	852.58	801.17
H	Weighted Average Rate of Interest on Loan (In %)	7.35	7.33
I	Interest on Loan (G*H)	58.55	58.74

Return on Equity (RoE)

96. Regulations 30 and 31 of the 2019 Tariff Regulations provide as follows:

“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro



generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

Provided that return on equity in respect of Additional Capitalization after cutoff date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

iii. in case of a thermal generating station, with effect from 1.4.2020:

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019.

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;

31. Tax on Return on Equity:*(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.*

(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)



Where “t” is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration-

(i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2155) = 19.758\%$$

(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

97. The Petitioner has submitted that the MAT rate is applicable to it. The applicable MAT rate has been considered for the purpose of RoE, which shall be trued up in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE allowed in respect of the transmission assets is as follows:

Asset-1

		(₹ in lakh)			
	Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
A	Opening Equity	58.54	70.68	73.73	75.25
B	Addition due to ACE	12.14	3.05	1.53	0.00
C	Closing Equity (A+B)	70.68	73.73	75.25	75.25
D	Average Equity (A+C)/2	64.61	72.20	74.49	75.25
E	Return on Equity (Base Rate) (In %)	15.50	15.50	15.50	15.50



	Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
F	Tax Rate applicable (In %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	12.10	13.56	13.99	14.13

Asset-2

(₹ in lakh)

	Particulars	2022-23 (pro-rata for 341 days)	2023-24
A	Opening Equity	372.93	384.55
B	Addition due to ACE	11.62	0.00
C	Closing Equity (A+B)	384.55	384.55
D	Average Equity (A+C)/2	378.74	384.55
E	Return on Equity (Base Rate) (In %)	15.50	15.50
F	Tax Rate applicable (In %)	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782
H	Return on Equity (D*G)	66.46	72.22

Operation & Maintenance Expenses (O&M Expenses)

98. The O&M Expenses claimed by the Petitioner in respect of the transmission assets for the 2019-24 tariff period are as follows:

Asset-1

(₹ in lakh)

Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
O&M Expenses	33.19	34.45	35.66	36.91

Asset-2

(₹ in lakh)

Particulars	2022-23 (pro-rata for 341 days)	2023-24
O&M Expenses	173.76	192.22

99. Regulation 35(3)(a) of the 2019 Tariff Regulations provides as follows:

“35 (3) Transmission system: (a) The following normative operation and maintenance expenses shall be admissible for the combined transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.26	0.27	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

Provided that the O&M expenses for the GIS bays shall be allowed as worked out by multiplying 0.70 of the O&M expenses of the normative O&M expenses for bays;

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;



- v. the O&M expenses of ± 800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ± 800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

(c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

Provided that the transmission licensee shall submit the assessment of the security requirement and estimated security expenses, the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification.”

100. We have considered the Petitioner's submissions. As per Regulation 35(3) of the 2019 Tariff Regulations, the O&M Expenses for the transmission assets are allowed as follows:

Asset-1

(₹ in lakh)

Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
O&M Expenses claimed	33.19	34.45	35.66	36.91
O&M Expenses as per Regulation 35(3) of the 2019 Tariff Regulations	33.28	34.45	35.66	36.91
O&M Expenses approved	33.19	34.45	35.66	36.91

Asset-2

(₹ in lakh)

Particulars	2022-23 (pro-rata for 341 days)	2023-24
400 kV Bays		
O&M Expenses claimed	33.32	36.91
O&M Expenses as per Regulation 35(3) of the 2019 Tariff Regulations	35.66	36.91
O&M Expenses approved	33.32	36.91
220 kV Bays		
O&M Expenses claimed	23.32	25.84
O&M Expenses as per Regulation 35(3) of the 2019 Tariff Regulations	24.96	25.84
O&M Expenses approved	23.32	25.84
315 MVA ICT		
O&M Expenses claimed	117.13	129.47
Per MVA O&M Expenses as per Regulation 35(3) of the 2019 Tariff Regulations	0.398	0.411
O&M Expenses approved	117.13	129.47



Interest on Working Capital (IWC)

101. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations specify as follows:

“34. Interest on Working Capital: (1) *The working capital shall cover:*

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019- 24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3. Definitions. - *In these regulations, unless the context otherwise requires:-*

(7) ‘Bank Rate’ *means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;”*

102. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period, considering the SBI Base Rate plus 350 basis points as on the COD of the transmission scheme. The Petitioner has considered the IWC rate as 10.50%.

103. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 10.50% for the FY 2022-23 (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points), and for the FY 2023-24 RoI is considered as 12.00% (SBI 1-year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points). The components of the working capital and interest allowed thereon for the transmission assets are as follows:



Asset-1

(₹ in lakh)

Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	2.77	2.87	2.97	3.08
Working Capital for Maintenance Spares (15% of O&M Expenses)	4.99	5.17	5.35	5.54
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	8.64	9.18	9.36	9.45
Total Working Capital	16.41	17.21	17.68	18.06
Rate of Interest for working capital (In %)	11.25	10.50	10.50	12.00
Interest on working capital	1.84	1.81	1.86	2.17

Asset-2

(₹ in lakh)

Particulars	2022-23 (pro-rata for 341 days)	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	15.50	16.02
Working Capital for Maintenance Spares (15% of O&M Expenses)	27.90	28.83
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	48.84	49.45
Total Working Capital	92.24	94.30
Rate of Interest for working capital (In %)	10.50	12.00
Interest on working capital	9.05	11.32

Annual Fixed Charges for the 2019-24 tariff period

104. The transmission charges allowed for the 2019-24 tariff period in respect of the transmission assets are as follows:

Asset-1

(₹ in lakh)

Particulars	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
Depreciation	11.34	12.71	13.11	13.24
Interest on Loan	11.45	11.89	11.27	10.38
Return on Equity	12.10	13.56	13.99	14.13
O&M Expenses	33.19	34.45	35.66	36.91
Interest on Working Capital	1.84	1.81	1.86	2.17
Total	69.92	74.42	75.89	76.83



Asset-2

(₹ in lakh)

Particulars	2022-23 (pro-rata for 341 days)	2023-24
Depreciation	62.27	67.68
Interest on Loan	58.55	58.74
Return on Equity	66.46	72.22
O&M Expenses	173.76	192.22
Interest on Working Capital	9.05	11.32
Total	370.09	402.18

Filing Fee and Publication Expenses

105. The Petitioner has sought reimbursement of its fee for filing the Petition and publication expenses. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the instant Petition directly from the beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

106. The Petitioner shall be entitled to reimbursement of the licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled to recovery of RLDC fees and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

107. The Petitioner has submitted that under the Central Goods and Services Tax Act, 2017 implemented with effect from 1.7.2017, the Government of India has exempted the charges of transmission of electricity, vide Notification No. 12/2017- Central Tax (Rate) dated 28.6.2017 at Serial No. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility," by giving applicable GST rate as NIL. Hence, the transmission charges, as claimed by the Petitioner in the instant Petition, are exclusive of GST. The Petitioner has further submitted that if GST is levied at any rate and at any point of time in the future on charges of transmission of electricity, the same shall be borne and



additionally paid by the Respondent(s) to the Petitioner, and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ statutory authorities, and the same may be allowed to be recovered from the beneficiaries.

108. BSPHCL has submitted that transmission lines are exempted from the implication of GST and related taxes.

109. We have considered the submissions of the Petitioner and BSPHCL. Since GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer in this regard is premature.

Security Expenses

110. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant Petition, and it would file a separate Petition for claiming the overall security expenses and consequential IWC.

111. We have considered the Petitioner's submissions. The Petitioner has claimed consolidated security expenses for all its transmission assets on a projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in the FY 2018-19 in Petition No. 260/MP/2020. The Commission has already disposed of the said Petition vide its order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant Petition for allowing it to file a separate Petition for claiming the overall security expenses and consequential IWC has become infructuous.

Sharing of Transmission Charges

112. With effect from 1.11.2020, the sharing of transmission charges is governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (the 2020 Sharing Regulations). Accordingly, the



billing, collection, and disbursement of transmission charges shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

Interim Tariff

113. The Petitioner has prayed to allow an interim tariff, in accordance with Regulation 10(3) of the 2019 Tariff Regulations, to be included in the point-of-connection charges.

114. We have considered the Petitioner's submissions. Since we have determined the transmission tariff for the transmission assets in this order, the prayer for the interim tariff becomes redundant. Therefore, we have not considered it in this order.

115. To summarise, AFC allowed in respect of the transmission assets for the 2019-24 tariff period in this order are as follows:

Asset-1

Particulars	(₹ in lakh)			
	2020-21 (pro-rata for 364 days)	2021-22	2022-23	2023-24
AFC	69.92	74.42	75.89	76.83

Asset-2

Particulars	(₹ in lakh)	
	2020-21 (pro-rata for 341 days)	2021-22
AFC	370.09	402.18

116. The Annexures to this order form part of the order.

117. This order disposes of Petition No. 93/TT/2023 in terms of the above findings and discussions.

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



Asset-1

(₹ in lakh)

Capex	Admitted Capital Cost as on COD	Projected ACE				Admitted Capital Cost as on 31.3.2024	Depreciation Rate	Annual Depreciation			
		2020-21	2021-22	2022-23	2023-24			2020-21	2021-22	2022-23	2023-24
Building	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Sub-station	195.13	40.46	10.17	5.09	0.00	250.85	5.28%	11.37	12.71	13.11	13.24
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	195.13	40.46	10.17	5.09	0.00	250.85		11.37	12.71	13.11	13.24
							Average Gross Block	215.36	240.67	248.30	250.85
							WAROD	5.28%	5.28%	5.28%	5.28%



Asset-2

(₹ in lakh)

Capex	Admitted Capital Cost as on COD	Projected ACE			Admitted Capital Cost as on 31.3.2024	Depreciation Rate	Annual Depreciation		
		2021-22	2022-23	2023-24			2021-22	2022-23	2023-24
Building	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00
Sub-station	1243.09	0.00	38.74	0.00	1281.83	5.28%	0.00	66.66	67.68
PLCC	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00
IT Equipment	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00
Total	1243.09	0.00	38.74	0.00	1281.83		0.00	66.66	67.68
						Average Gross Block	0.00	1262.46	1281.83
						WAROD	0.00	5.28%	5.28%

