

**Central Electricity Regulatory Commission
New Delhi**

Petition No. 351/TT/2023

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member**

Date of Order: 01.11.2024

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 the COD to 31.3.2024 for transmission asset, namely, 1x500 MVA , 400/220 kV 3rd ICT along with its associated 400 kV and 220 kV bays at 400/220 kV Ranchi Sub-station under “Eastern Region Expansion Scheme - XXVI” in the 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

...Respondents



Parties Present : Shri Mohd. Mohsin, PGCIL
Shri Zafrul Hasan, PGCIL
Shri Amit Yadav, PGCIL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant Petition 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 the date of commercial operation (COD) to 31.3.2024 for the transmission asset, namely, 1x500 MVA, 400/220 kV 3rd ICT along with its associated 400 kV and 220 kV bays at 400/220 kV Ranchi Sub-station (hereinafter referred to as “the transmission asset”) under “Eastern Region Expansion Scheme - XXVI” in the 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 asset covered under this petition, as per **para –8.3** above*

2) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred/projected to be incurred.

3) Approve the COD for the subject Asset-I and allow full tariff as claimed under instant petition.

4) 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.

5) 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 the petition.

6) 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.



7) Allow the petitioner to bill and adjust the 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.

8) 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.

9) Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the 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 submitted by the Petitioner are as follows:

a) The Petitioner was entrusted with implementing work covered under “Eastern Region Expansion Scheme—XXVI.” The Petitioner's Competent Authority accorded the Investment Approval (IA) for the transmission scheme vide Memorandum No. C/CP/PA2122-10-0AW-IA028 dated 25.1.2022 for an estimated cost of ₹3210 lakh, including an Interest During Construction (IDC) of ₹92 lakh based on the September 2021 price level.

b) The scope of work covered under the transmission scheme is as follows:

Broad Scope:

- 1X500 MVA, 400/220 kV 3rd ICT along with associated bays at Ranchi (PG) Sub-station.\s

400 kV

- Transformer bays: 1 No.
- 500 MVA, 400/220 kV ICT: 1 No.

220 kV

- Transformer bays: 1 No.

c) The transmission scheme was initially discussed in the 2nd Eastern Region Power Committee (Transmission Planning) (ERPCTP)



meeting on 30.9.2020. The following was discussed in the said meeting:

“ 220 kV Ranchi (PGCIL) S/s is having the transformation capacity of 630 MVA (2x315MVA ICT). From the load pattern of both ICTs, it has been observed that the power flow through both the transformers exceeds more than 400-450 MW during peak hours, thereby not meeting the N-1 reliability criteria. Further, from system studies it was observed that with the delay in implementation of PVUNL and its associated system, the ICTs at Ranchi gets loaded to about 310 MVA per ICT in the base case. In view of above, he proposed to augment the transformation capacity at Ranchi S/s with additional 400/220 kV, 500 MVA ICT along with associated bays in ISTS...”

- d) The transmission scheme was ratified and approved in the 3rd ERPCTP meeting held on 9.2.2021. The relevant extract is as follows:

“.....ERLDC stated that considering the load growth in the Jharkhand capital city and incoming additional 220 kV connectivity from Mejia-A and Ramgarh of DVC to Ranchi, one additional 400/220 kV ICT is required at Ranchi...”

- e) As per the Ministry of Power (MoP) order dated 28.10.2021, the ISTS projects costing up to ₹10000 lakh will be approved by the Central Transmission Utility (now Central Transmission Utility of India Limited [CTUIL]) along with the mode on implementation under intimation to the National Committee on Transmission (NCT) and MoP. Also, no prior consent of the Regional Power Committees (RPCs) shall be required for the project proposals costing up to ₹50000 lakh. In line with the MoP order dated 28.10.2021, CTUIL, vide its Office Memorandum (OM) dated 16.11.2021, approved the implementation of the transmission scheme under the Regulated Tariff Mechanism (RTM) mode with an implementation schedule of 15 months from the date of its OM. Further, the scope of works stated by the CTUIL vide its OM dated 16.11.2021 was noted in the agenda of the 7th NCT meeting.

4. We have considered the submissions of the Petitioner. It is noted that the estimated cost considered by the CTUIL while approving the scheme is ₹2700 lakh, and IA approved



by the Petitioner's Board is ₹3210 lakh. Thus, there is a variation of about ₹510 lakh (18.88%) compared with the estimated cost of CTUIL. We, accordingly, direct the Petitioner to submit the reasons for cost variation compared to the CTUIL estimated cost at the time of truing-up of the 2019-24 tariff period.

5. The Commission observes that a number of transmission schemes with estimated costs up to Rs. 100 Crore are being approved by the CTUIL to be implemented through the RTM route. These transmission schemes are being awarded to the existing Transmission Licensees (POWERGRID as well as other TBCB Licensees) along with the estimated cost and implementation timeframe. After the award, the licensees obtain investment approval from their board. It is desirable that the variation in the investment approval cost as compared to the estimated cost by CTUIL, which should be a minimum. In the instant case there is a variation of 18.8% in the IA cost of PGCIL as compared to the cost estimated by CTUIL. This cost variation may be due to some additional scope of work and/or on account of the estimated cost of the items under the scope of work.

6. Accordingly, the commission directs CTUIL to put in place a procedure in consultation with NCT for ratification/approval of the schemes in case of the following (1) variation of IA cost beyond 10% of CTUIL's estimated cost, (2) Where the IA cost arrived at by the implementing agency exceeds 100 cr for a transmission scheme awarded by CTUIL.

7. The entire scope of the transmission scheme has been completed and covered in the instant Petition.

8. The details of the scheduled date of commercial operation (SCOD), COD, and the time over-run of the transmission asset are as follows:



Name of Asset	SCOD as per IA	COD	Delay
1x500 MVA , 400/220 kV 3 rd ICT along with its associated 400 kV and 220 kV bays at 400/220 kV Ranchi Sub-station	15.2.2023	1.6.2023	106 days

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

10. 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 1.12.2023, has filed its reply and has raised the issues of time over-run, cost over-run, and on the components of annual fixed charges claimed by the Petitioner. The Petitioner has filed its rejoinder to the reply of BSPHCL vide affidavit dated 5.4.2024. The issues raised by BSPHCL and the clarifications given by the Petitioner are considered in the subsequent paragraphs of this order.

11. This order is being issued considering the submissions made by the Petitioner in the Petition dated 17.8.2023 and subsequent affidavits dated 7.5.2024 and 14.5.2024, BSPHCL's reply filed affidavit dated 1.12.2023, and the Petitioner's rejoinder dated 5.4.2024.

12. The final hearing in this matter was held on 16.7.2024, and the order was reserved.

13. Having heard the representatives of the Petitioner and after perusing the material on record, we proceed to dispose of the Petition.

Determination of Annual Fixed Charges For The 2019-24 Tariff Period

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



(₹ in lakh)	
Particulars	2019-20 (pro-rata for 305 days)
Depreciation	96.63
Interest on loan	92.18
Return on equity	101.40
Interest on working capital	14.05
O&M expenses	223.54
Total AFC	527.80

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

(₹ in lakh)	
Particulars	2019-20 (pro-rata for 305 days)
O&M Expenses	22.35
Maintenance Spares	40.24
Receivables	77.87
Total Working Capital	140.46
Rate of Interest (in %)	12.00
Interest on Working Capital	16.86
Pro rata Interest on Working Capital	14.05

Date of Commercial Operation (COD)

16. The Petitioner has claimed the COD of the transmission asset as 1.6.2023. In support of the COD claimed the Petitioner has furnished a Central Electricity Authority (CEA) Energization Certificate dated 29.5.2023, an Eastern Regional Load Despatch Centre (ERLDC) Charging Certificate dated 14.6.2023, a self-declared COD letter dated 1.6.2023 and the CMD's certificate.

17. Regulation 5 of the 2019 Tariff Regulations provides as follows:

“5. Date of Commercial Operation: (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition*



before the Commission for approval of the date of commercial operation of such transmission system or element thereof:

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- (a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- (b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- (c) Implementation Agreement, if any, executed by the parties;*
- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
- (e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;*
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.”*

18. We have considered the Petitioner’s submissions and taking into consideration the CEA Energization Certificate dated 29.5.2023, the ERLDC Certificate dated 14.6.2023 certifying the successful completion of the trial run on 31.5.2023, a self-declaration of COD letter dated 1.6.2023 and the CMD’s Certificate, the COD of the transmission asset is approved as 1.6.2023.

Capital Cost

19. 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 tried 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.”*

20. The Petitioner has submitted the Auditor’s Certificate dated 7.7.2023 and has claimed the following capital cost incurred as on the COD and has projected additional capitalisation to be incurred in respect of the transmission asset as below:

Approved cost as per FR	Admitted cost as on COD	Additional Capitalization				Estimated completion cost	(₹ in lakh)
		2023-24	2024-25	2025-26	2026-27		Estimated completion cost as on 31.3.2024
3210.00	1975.50	385.69	274.23	254.92	300.91	3191.25	2361.19

21. The Petitioner has submitted that the estimated completion cost is ₹3191.25 lakh, and the estimated capital cost as on 31.3.2024 is ₹2361.19 lakh, which is within the approved FR cost of ₹3210 lakh. Hence, there is no cost overrun.

22. The Petitioner has further submitted that the reason for cost variation was mainly due to Price Variation (PV), which was on account of the price difference from the time of approval of the transmission scheme till the award of various contracts which were based on the competitive prices received as per the competitive bidding. The contracts for various packages under the transmission scheme were awarded to the lowest evaluated and responsive bidder and, therefore, the award prices represented the lowest prices offered at the time of bidding of various packages. The cost variation was mainly due to differences in the awarded rate and other associated factors that were beyond the control of the Petitioner. Hence, the Petitioner has prayed before the Commission that marginal cost variation be



allowed in the transmission asset on its merit as the estimated completion cost is within the approved FR cost. (Which transmission asset – the current one or all such cases in future?)

23. BSPHCL, in its reply, has submitted that the cost overrun in the cost is due to the price variation. Therefore, it may be rejected.

24. In response, the Petitioner has submitted that there is no cost overrun with respect to the approved FR cost and that the transmission tariff may be allowed on the estimated completion cost of ₹2361.19 lakh until 31.3.2024.

25. We have considered the submissions of the Petitioner and BSPHCL. Considering that the estimated capital cost of ₹2361.19 lakh and the estimated completion cost of ₹3191.25 lakh up to 31.3.2024 and FY 2026-27, respectively, are less than the FR cost amounting to ₹3210.00 lakh, there is no cost overrun with respect to the transmission asset.

Time over-run

26. The Petitioner has submitted that, as per the IA dated 25.1.2022, the transmission scheme was scheduled to be put into commercial operation by February 2023. Further, since the CTUIL, vide its OM dated 16.11.2021, approved the transmission scheme under the Regulated Tariff Mechanism (RTM) with an implementation schedule of 15 months from the date of its OM, the SCOD of the transmission asset was 15.2.2023. However, the transmission asset was put into commercial operation on 1.6.2023 with a time over-run of 106 days. The detailed reasons for the time over-run submitted by the Petitioner are as follows:

Delay Due to Belated Award of Packages (LOA)

27. The Petitioner has submitted that the works under the transmission scheme were awarded under the substation package on 4.5.2022 and the transformer package on 19.5.2022. With regard to the transmission scheme, the date of approval of CTUIL's OM is 16.11.2021, and the IA is 25.1.2022. The award of works could be made only after four



months (approximately) from the date of the IA, which had a cascading effect on the execution of works leading to the eventual completion of the transmission scheme beyond SCOD, with a delay of 106 days.

Delay due to requisite shutdown approvals

28. The Petitioner has submitted that the transmission asset was required to be commissioned in the existing 400/220 Ranchi (Namkum) Substation. Therefore, it was necessary to obtain multiple shutdowns for terminal and pre-commissioning works. After completion of the erection works associated with the transmission asset, the request for approval of shutdowns was made to Eastern Regional Load Despatch Centre (ERLDC) and Jharkhand Urja Sancharan Nigam Limited (JUSNL) as site works were progressing at the desired pace, and such shutdowns were applied for to carry out the necessary works like erection, bus stringing, and bus-bar stability, etc. The Petitioner has further submitted that it approached the concerned authorities/STUs to avail the requisite shutdowns. However, the requests for requisite shutdowns were denied a few times owing to various system/ grid/ availability constraints. The Petitioner has provided the following details of the shutdowns (SD) that were applied for but not approved:

	Shutdown applied		Shutdown (SD) status	Remark(s)
1	7.4.2023	14.4.2023	SD required for erection and bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC and JUSNL
2	26.4.2023	26.4.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC and JUSNL
3	2.5.2023	2.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC and JUSNL
4	8.5.2023	10.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Approved and availed</i>	Approved in 4 th request. Delay of 31 days
5	12.5.2023	13.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC in view of high loading and demand.



	Shutdown applied		Shutdown (SD) status	Remark(s)
6	17.5.2023	17.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC in view of high loading and demand.
7	18.5.2023	19.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Approved and availed</i>	Approved. Partial work done. Delay of 6 days
8	20.5.2023	21.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC in view of Load shedding and public agitation.
9	23.5.2023	25.5.2023	SD required for bus stringing for 220 kV side of ICT <i>Denied</i>	Not approved by ERLDC in view of the visit of the Hon'ble President of India from 24.5.2023 to 26.5.2023.
10	27.5.2023	27.5.2023	SD required for testing bus bar stability <i>Approved and availed</i>	Approved in 2 nd request. Delay of 7 days

29. The Petitioner has submitted that it needed to avail of shutdowns continuously, as the secured and continuous shutdowns would have helped in better planning and speedy execution of the transmission scheme. The Petitioner has further submitted that it is evident from the above deliberations that the shutdowns were not provided continuously for the desired period and that the shutdowns were approved intermittently, that too with the various returning conditions. The Petitioner has furnished the relevant e-mail exchanged substantiating its claim for a total delay of 44 days towards the delay in the approval of the shutdowns. Based on this, the Petitioner has submitted that the delay was beyond its control and that the events associated with the delay were unforeseen. The Petitioner has further submitted that though various problems occurring concurrently could have delayed the transmission scheme enormously, the experience and expertise of the Petitioner in project planning and execution curtailed the delay through its efficient and relentless efforts. Therefore, the Petitioner has prayed to condone the delay in completing the transmission asset as it was beyond its control.



30. BSPHCL, with regard to the delay in the award of packages, has submitted that the delay in the award of the transmission scheme by the Petitioner shows the Petitioner's lack of efficiency in the implementation of the transmission scheme. Therefore, the delay may not be condoned, and financial implications may not be considered in accordance with Regulation 22(1) of the 2019 Tariff Regulations. BSPHCL has further submitted that there is no specific data and certificate provided by the Petitioner on this account, and as such, the delay may not be condoned by the Commission.

31. As regards the delay attributed to availing shutdown approvals, BSPHCL has submitted that the email exchanged for the concerned shutdown (SD), as submitted by the Petitioner in the Petition, is not relevant. BSPHCL has further submitted that the emails related to SD requests for the dates 26.4.2023, 2.2.2023, and 18.5.2023 have not been enclosed. Therefore, the Petitioner's claim for condonation of the delay of 44 days on account of availing SD is not maintainable and may be rejected.

32. In response, the Petitioner has submitted that the reasons for the time overrun on account of the belated award of packages and delay in requisite shutdown approvals, along with justification and relevant documentary evidence, have been provided in the Petition. Thus, the Petitioner has prayed for condonation of delay owing to factors classified as uncontrollable and unforeseen.

Analysis and Decision for Time Overrun

33. On perusal of the record, we note that as per the IA dated 25.1.2022, the transmission scheme was scheduled to be commissioned by February 2023. The CTUIL, vide its OM dated 16.11.2021, approved the transmission scheme under the RTM with an implementation schedule of 15 months from the date of OM, i.e., by 15.2.2023, against which the transmission scheme was put into commercial operation on 1.6.2023, i.e., with a delay of 106 days.



34. On consideration of the submissions of the Petitioner and BSPHCL on the issue of time overrun, we are not agreeable with the contention of the Petitioner that the four months' time after the date of the IA dated 25.1.2022 had a cascading effect on the execution of works due to which the transmission scheme was completed beyond its SCOD that led to a delay of 106 days delay. In our view, the time taken for the award of work must be considered in the total time period of scheduled commissioning approved vide IA dated 25.1.2022. The Petitioner has given no convincing reasons to substantiate the delay in awarding the packages, which affected the execution of the transmission asset and can be considered uncontrollable. For the reasons mentioned above, we do not find any justifiable reasons to condone the delay because of the delayed award of the packages against the transmission scheme. Accordingly, all the Petitioner's contentions on this count are rejected.

35. The Petitioner also contended that after the erection works associated with the transmission asset were completed, the requests for shutdowns were made to ERLDC and JUSNL as site works were progressing at the desired pace. The shutdowns were applied for to carry out the necessary works like erection, bus stringing, bus-bar stability, etc. Contending such, the Petitioner has stated that the requests for requisite shutdowns were denied a few times owing to various system/ grid/ availability constraints.

36. Per contra, BSPHCL has contended that the details of emails with reference to shutdown requests for 26.4.2023, 2.2.2023, and 18.5.2023 have not been enclosed and, as such, the Petitioner's claim for the delay of 44 days on account of it has to be rejected.

37. We have considered the above contentions of the Petitioner and have perused the record. The Petitioner has contended that a 44-day delay occurred due to the denial of the requisite shutdowns needed to complete the work for various system/grid/availability constraints. However, the supporting documents concerning the denial of shutdowns applied for on 26.4.2023, 2.5.2023, 17.5.2023, 20.5.2023 to 21.5.2023, and from 23.5.2023 to



25.5.2023 have not been furnished by the Petitioner. We also note that the delay claimed by the Petitioner, along with the reason furnished above, is after the SCOD.

38. In the absence of any corroborating documentary evidence in support of the 44-day shutdown delay, we are not inclined to condone the delay as claimed by the Petitioner on account of the delay in availing of requisite shutdown approvals. However, the Petitioner is granted the liberty to furnish the time overrun reasons qua shutdown of 44 days when truing up the tariff Petition for the 2019-24 period is filed along with supporting data/communications.

39. Accordingly, the summary of time over-run claimed by the Petitioner in respect of the transmission asset condoned/not condoned is as follows:

Name of Asset	SCOD	COD	Time over-run claimed	Time over-run condoned	Time over-run not condoned
1x500 MVA, 400/220 kV 3 rd ICT along with its associated 400 kV and 220 kV bays at 400/220 kV Ranchi sub-station	15.2.2023	1.6.2023	106 days	Nil	106 days

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

40. The Petitioner has submitted that out of a total IDC of ₹17.71 lakh, 'nil' IDC has been discharged up to COD, and the same was discharged in the financial year (FY) 2023-24. The Petitioner has further submitted that the entire IEDC amounting to ₹264.46 lakh covered under the instant Petition has been discharged up to the COD.

41. We have considered the Petitioner's submissions. The IDC of ₹1.48 lakh and ₹16.23 lakh claimed for Bond LXXI and Bond LXXII, respectively, has been disallowed as the respective drawls of the loans were after the SCOD, i.e., 15.2.2023.



42. IEDC amounting to ₹56.98 lakh has been disallowed proportionately as the delay has not been condoned. Accordingly, the details of IDC and IEDC allowed and disallowed for the transmission asset are as follows:

(₹ in lakh)					
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
17.71	17.71	0.00	264.46	56.98	207.48

Initial Spares

43. The Petitioner has claimed the following Initial Spares in respect of the transmission asset:

(₹ in lakh)				
Head	Plant and Machinery Cost	Initial Spares claimed		Ceiling as per Regulations (in%)
		Amount	Percentage (in%)	
Sub-station (Brown-field)	2860.83	117.65	4.29	6
TL	-	-	-	1
PLCC	-	-	-	3.5

44. The Petitioner has submitted the following details of the discharge of Initial Spares in respect of the transmission asset:

(₹ in lakh)									
Total Initial Spares in Auditor's Certificate		Initial Spares Discharge (₹ in lakh)							
		COD		2023-24 (est.)		2024-25 (est.)		2025-26 (est.)	
TL	SS	TL	SS	TL	SS	TL	SS	TL	SS
-	117.65	-	25.65	-	50.85	-	34.39	-	6.77

45. Regulation 23(d) of the 2019 Tariff Regulations provides that the Initial Spares shall be capitalized 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%”

46. The Initial Spares for the transmission asset are allowed as a percentage of the plant and machinery cost. The Initial Spares allowed as per Regulation 23(d) of the 2019 Tariff Regulations in respect of the transmission asset are as follows:

(₹ in lakh)

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)	Initial Spares allowed
Sub-station (Brown-field)	2860.83	117.65	6	175.10	117.65

Capital cost allowed as on COD

47. The capital cost allowed in respect of the transmission asset as on COD is as follows:

(₹ in lakh)

Capital cost claimed till COD	Less: IDC disallowed as on COD	Less: IEDC disallowed as on COD	Capital cost approved as on COD
1975.50	17.71	56.98	1900.81

Additional Capital Expenditure (ACE)

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

49. Regulation 24 of the 2019 Tariff Regulations provides as follows:

“24. Additional Capitalisation within the original scope and up to 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.”

50. The ACE incurred/projected to be incurred in respect of the transmission asset is mainly on account of the balance/ retention payments and works deferred for execution. 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 asset in Form-7.

51. BSPHCL, in its reply, has submitted that the Petitioner’s claim with respect to the ACE may be considered in accordance with the definition of the cut-off date given in Regulation 24 of the 2019 Tariff Regulations subject to a prudence check and further Regulation 24(2) of the 2019 Tariff Regulations may be kept in view by the Commission.

52. The details of ACE claimed by the Petitioner for the 2019-24 tariff period, as well as the liability flow statement for the transmission asset, are as follows:

(₹ in lakh)

Head/Party wise	Particulars	Outstanding liability as on COD/ 1.6.2023	Discharged amount			Additional liability recognized			Outstanding liability as on 31.3.2024
			2022-23	2023-24	Total (19-24)	2022-23	2023-24	Total (19-24)	
Jackson Ltd/Hitachi Energy India Ltd	Sub-station	1195.75	0.00	385.69	385.69	0.00	0.00	0.00	810.06



(₹ in lakh)

Head/Party	Particulars	Outstanding liability as on 31.3.2024	Discharged amount				Additional liability recognized		
			2024-25	2025-26	2026-27	Total (2024-29)	2024-25	2025-26	Total (2024-29)
Jackson Ltd/Hitachi Energy India Ltd	Sub-station	810.06	264.23	244.92	300.91	810.06	10	10	20

53. The Petitioner has submitted that the ACE claimed is mainly on account of ICT and other miscellaneous work, which are a part of the scope and are based on actual payments made to the contractor after receipt of final invoices from the contractor and incorporating the amendments. The Petitioner has also submitted that the payment was made after the invoice submission and after reconciliation under the contracts' provisions. The Petitioner has also submitted that the actual expenditure for the FY 2023-24 will be provided during the truing-up.

54. We have gone through the submissions of the Petitioner and BSPHCL. The COD of the transmission asset is 1.6.2023. Accordingly, the cut-off date of the transmission asset is 30.6.2026. The ACE claimed by the Petitioner for the 2019-24 tariff period is allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has projected ACE in the FY 2024-25, FY 2025-26, and FY 2026-27. However, it has not been considered as the same shall be dealt with separately as per the applicable Tariff Regulations for the 2024-29 tariff period. Accordingly, the ACE allowed in respect of the transmission asset is as follows:

(₹ in lakh)

Particulars	Regulations	ACE allowed
		2023-24
Balance and retention payments for liabilities other than IDC	24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	385.69
Total ACE		385.69

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



(₹ in lakh)		
Capital cost considered as on COD	ACE 2023-24	Capital cost as on 31.3.2024
1900.81	385.69	2286.50

Debt-Equity Ratio

56. 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 modernization 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.”

57. The Petitioner has claimed a debt-equity ratio of 70:30, and the same has been considered by the Commission in accordance with Regulation 18 of the 2019 Tariff Regulations and the same is as follows:

Funding	Capital cost as on 1.6.2023 (₹ in lakh)	(in %)	Capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1330.57	70.00	1600.55	70.00
Equity	570.24	30.00	685.95	30.00
Total	1900.81	100.00	2286.50	100.00

Depreciation

58. 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.”

59. The depreciation is worked out considering the admitted capital expenditure as on the COD. The Weighted Average Rate of Depreciation (WAROD) has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations and has been placed as Annexure-I. The depreciation allowed in respect of the transmission asset for the 2019-24 tariff period is as follows:

		(₹ in lakh)
	Particulars	2023-24 (pro-rata for 305 days)
A	Opening Gross Block	1900.81
B	Addition during the year 2019-24 due to projected ACE	385.69
C	Closing Gross Block (A+B)	2286.50
D	Average Gross Block (A+C)/2	2093.66
E	Average Gross Block (90% depreciable assets)	2074.43
F	Average Gross Block (100% depreciable assets)	19.23
G	Depreciable value (excluding IT equipment and software) (E*90%)	1866.98
H	Depreciable value of IT equipment and software (F*100%)	19.23
I	Total Depreciable Value (G+H)	1886.22
J	Weighted average rate of Depreciation (WAROD) (in %)	5.37%
K	Lapsed useful life at the beginning of the year (Year)	0
L	Balance useful life at the beginning of the year (Year)	25
M	Depreciation during the year (D*J)	93.68
N	Cumulative Depreciation at the end of the year	93.68
O	Remaining Aggregate Depreciable Value at the end of the year	1792.54

Interest on Loan (IoL)

60. 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”.

61. The Weighted Average Rate of Interest on Loan (WAROI) has been considered based on the prevailing rates on COD of the transmission asset 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 interest rate, if any, shall be considered when truing-up.

62. BSPHCL, in its reply, has submitted that the 2019 Tariff Regulations do not permit the change in interest rate due to the floating interest rate applicable, if any.

63. 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 asset is as follows:

		(₹ in lakh)
	Particulars	2023-24 (pro-rata for 305 days)
A	Gross Normative Loan	1330.57
B	Cumulative Repayments up to Previous Year	0.00
C	Net Loan-Opening (A-B)	1330.57
D	Addition due to ACE	269.98



	Particulars	2023-24 (pro-rata for 305 days)
E	Repayment during the year	93.68
F	Net Loan-Closing (C+D-E)	1506.87
G	Average Loan (C+F)/2	1418.72
H	Weighted Average Rate of Interest on Loan (in %)	7.56%
I	Interest on Loan (G*H)	89.38

Return on Equity (RoE)

64. 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:

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.”



65. The Petitioner has submitted that the MAT rate applies to it. The applicable MAT rate has been considered for RoE, which shall be trued up in accordance with Regulation 31(3) of the 2019 Tariff Regulations. BSPHCL, in its reply, has submitted that RoE and tax on RoE as contemplated under Regulations 30 and 31 of the 2019 Tariff Regulations may only be taken into consideration.

66. In response, the Petitioner has submitted that the contention of BSPHCL that no proper exercise was carried out by the Petitioner in calculating the MAT rate or RoE is incorrect. The Petitioner has submitted that the data with regard to the actual tax paid will be submitted at the time of truing-up.

67. Considering the submissions of the Petitioner, RoE allowed with respect to the transmission asset is as follows:

		(₹ in lakh)
	Particulars	2023-24 (pro-rata for 305 days)
A	Opening Equity	570.24
B	Addition due to ACE	115.71
C	Closing Equity (A+B)	685.95
D	Average Equity (A+C)/2	628.10
E	Return on Equity (Base Rate) (in %)	15.50
F	Tax Rate applicable (in %)	17.472
G	Rate of Return on Equity (in %)	18.782
H	Return on Equity (D*G)	98.31

Operation & Maintenance Expenses (O&M Expenses)

68. 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
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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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.”

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

(₹ in lakh)		
Sr. No.	Particulars	2023-24 (pro-rata for 305 days)
1	1 No. 400 kV Transformer Bay	30.76
2	1 No. 220 kV Transformer Bay	21.53
3	500 MVA , 400/220 kV ICT	171.25
	Total O&M Charges Claimed	223.54

70. BSPHCL has submitted that O&M Expenses may be considered as per Regulation 35(3) (a) of the 2019 Tariff Regulations.

71. We have considered the submissions of the Petitioner and BSPHCL and have perused the record. The following O&M Expenses are allowed as per the norms specified in the 2019 Tariff Regulations in respect of the transmission asset:

(₹ in lakh)				
Sr. No.	Particulars	Norms as per Regulation 35(3)(a) of the 2019 Tariff Regulations	O&M Charges Claimed	O&M Charges Allowed for FY 2023-24 (pro-rata for 305 days)
1	1 No. 400 kV Transformer Bay	36.91	30.76	30.76
2	1 No. 220 kV Transformer Bay	25.84	21.53	21.53
3	500 MVA , 400/220 kV ICT	0.411	171.25	171.25
	Total O&M Charges		223.54	223.54

Interest on Working Capital (IWC)

72. 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;”

73. The Petitioner has submitted that it has computed IWC for the 2019-24 period, considering the SBI Base Rate plus 350 basis points on the transmission scheme's COD.

The Petitioner has considered the IWC rate as 12.00% for FY 2023-24.

74. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations.

The Rate of Interest (RoI) considered is 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 are as follows:

Particulars	(₹ in lakh)
	2023-24 (pro-rata for 305 days)
Working Capital for O&M Expenses (O&M Expenses for one month)	22.35
Working Capital for Maintenance Spares (15% of O&M Expenses)	40.24
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	76.55
Total Working Capital	139.14
Rate of Interest for working capital (in %)	12.00
Interest on working capital	13.91



Annual Fixed Charges for the 2019-24 Tariff Period

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

Particulars	(₹ in lakh)
	2023-24 (pro-rata for 305 days)
Depreciation	93.68
Interest on Loan	89.38
Return on Equity	98.31
O&M Expenses	223.54
Interest on Working Capital	13.91
Total	518.82

Filing Fee and Publication Expenses

76. The Petitioner has sought reimbursement of the fee paid by it for filing the Petition and incurred towards publication expenses.

77. BSPHCL has submitted that the grant of filing fees and expenses incurred is at the discretion of the Commission and need not necessarily be allowed in all cases.

78. In response, the Petitioner has submitted that the filing fee and publication expenses have been sought in accordance with Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner has further submitted that the Commission, in its order dated 28.3.2016 in Petition No. 137/TT/2015 for the determination of tariff for the 2014-19 tariff period, has allowed the recovery of Petition filing fee and publication of notices from the beneficiaries on a pro-rata basis.

79. We have considered the submissions of the Petitioner and BSPHCL. We are of the view that the Petitioner is 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. Therefore, the contention of the BSPHCL that the filing fee and expenses incurred are at the discretion of the Commission and need not be allowed is misconceived, and the same is accordingly rejected.



Licence Fee and RLDC Fees and Charges

80. The Petitioner has sought reimbursement of the licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations. 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

81. The Petitioner has 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.

82. BSPHCL has submitted that Regulation 56 of the 2019 Tariff Regulations contemplates recovery of statutory charges by the generating company and not by the transmission licensee. Therefore, the Petitioner's claim in this regard is premature and liable to be rejected.

83. 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

84. The Petitioner has submitted that security expenses in respect of transmission assets are not claimed in the instant Petition, and it would file a separate Petition for claiming the



overall security expenses and the consequential IWC as per Regulation 35(3)(c) of the 2019 Tariff Regulations.

85. We have considered the Petitioner's and BSHPCL's submissions. The Petitioner has claimed consolidated security expenses 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, vide its order dated 3.8.2021 in Petition No. 260/MP/2020, has approved security expenses from 1.4.2019 to 31.3.2024. Therefore, the Petitioner's prayer in the instant Petition for allowing it to file a separate Petition for claiming the overall security expenses has become infructuous.

Capital Spares

86. The Petitioner has sought reimbursement of capital spares at the end of the tariff period. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

Sharing of Transmission Charges

87. 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

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



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

90. To summarize, Annual Fixed Charges (AFC) allowed in respect of the transmission asset for the 2019-24 tariff period in this order are as follows:

Particulars	(₹ in lakh)
	2023-24 (pro-rata for 305 days)
AFC	518.82

91. The Annexure-I to this order forms part of the order.

92. This order disposes of Petition No. 351/TT/2023 in terms of the above findings and discussions.

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



Annexure-I

(₹ in lakh)

Particulars	Admitted capital cost as on COD	Projected ACE 2023-24	Admitted capital cost as on 31.3.2024	Depreciation rate	Annual depreciation 2023-24
Substation	1884.43	380.00	2264.43	5.28%	109.53
IT Equipment	16.39	5.69	22.08	15.00%	2.88
Total	1900.81	385.69	2286.50		112.41
				Average Gross Block	2093.66
				WAROD	5.37%

