

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 447/TT/2024

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Ravinder Singh Dhillon, Member**

Date of Order: 19.07.2025

In the matter of:

Approval under Section 62 read with Section 79(1)(d) of the Electricity Act, 2003 and under Regulation 15(a) & Regulation 23 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and the CERC (Terms and Conditions of Tariff) Regulations, 2019 for the determination of transmission tariff from COD to 31.3.2024 for one number of asset under “Establishment of State-of-the-Art Unified Centralized Network Management System UNMS for ISTS and State Utility Communication Network” 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

Versus

- 1. Bihar State Power (Holding) Company Limited,**
Vidyut Bhawan, Bailey Road,
Patna - 800021, Bihar
- 2. West Bengal State Electricity Distribution Company Limited,**
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake City,
Kolkata - 700091, West Bengal
- 3. Grid Corporation of Orissa Limited,**
Shahid Nagar,
Bhubaneswar - 751007, Odisha



4. Damodar Valley Corporation

DVC Tower, Maniktala
Civic Centre, VIP Road,
Kolkata - 700054, West Bengal

5. Power Department, Government of Sikkim,

Gangtok – 737101, Sikkim

6. Jharkhand Bijli Vitran Nigam Limited,

Engineering Building, H.E.C., Dhurwa,
Ranchi – 834004, Jharkhand

...Respondent(s)

Parties Present: Shri Mohd. Moshin, PGCIL
Shri Amit Yadav, PGCIL
Ms. Ashita Chauhan, PGCIL

ORDER

The instant Petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for the determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from COD to 31.3.2024 in respect of the following asset under “Establishment of State-of-the-Art Unified Centralized Network Management System UNMS for ISTS and State Utility Communication Network” (hereinafter referred to as “the transmission project”) in the Eastern Region:

Asset	Asset Name	COD
Asset-I	Establishment of UNMS (Unified Network Management System) for ISTS and State Utility Communication Network in the Eastern Region	25.12.2023



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

“a) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / projected to be incurred.

b) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para 28 of the Petition.

c) 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 28 above for 2019-24 block.

d) 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.

e) Allow the petitioner to bill and recover Licensee fee 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.

f) 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.

g) Allow the petitioner to claim the overall security expenses and consequential IOWC on that security expenses as mentioned at para 28 above.

h) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

i) 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.

j) 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 the 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 under:

- a) The Investment Approval (the IA) of the project was accorded by the Chairman and Managing Director of the Petitioner's Company on 27.1.2022, vide Memorandum No. C/CP/PA2122-10-0AX-IA029 dated 28.1.2022 with an estimated cost of ₹9191.00 lakh including an IDC of ₹429.00 lakh, at the September 2021 price level.
- b) The scope of work covered under the transmission project "Establishment of State-of-the-Art Unified Centralized Network Management System UNMS for ISTS and State Utility Communication Network" in the Eastern Region is as follows:
 - (i) Main & Back-up UNMS software and hardware along with required application software, including firewall and IDPS.
 - (ii) Remote Workstations for SLDCs.
 - (iii) Video Projection System (VPS), Printer, furniture, etc., at main & back-up U-NMS location.
 - (iv) Integration of existing NMS/NEs of ISTS and State Utility in a region in the proposed U-NMS.
 - (v) Integration of upcoming U-NMS for National & other regions and upcoming NMS/NEs of ISTS and State Utility in a region during implementation and AMC period of the project.
 - (vi) Operational support, training & maintenance for proposed UNMS software and hardware.
 - (vii) Auxiliary Power System for U-NMS System.



- c) The scope of the scheme was initially discussed and agreed by all regional constituents in the 5th TEST (Telecommunication, SCADA and Telemetry) subcommittee meeting held on 24.2.2020. Thereafter, the scheme was agreed 'in-principle' in the 42nd ERPC & TCC meeting held on 12.12.2020 and 13.12.2020 respectively. Further, the scheme was discussed in detail and agreed and ratified in the 43rd ERPC & TCC meeting held on 23.3.2021 & 26.3.2021 respectively.
- d) The Petitioner has submitted the brief and objective of the scheme as follows:
- i. CTUIL proposed the 'Establishment of State-of-the-Art U-NMS System for Centralized Supervision for ISTS and State Utility Communication in a unified manner' to the concerned RPC forums. The proposed U-NMS was envisaged to be taken up in a unified manner for implementing centralized supervision of the communication Network for transmission systems of Cross Border, Inter-Regional, Inter-State, and Intra-State Systems.
 - ii. The proposed U-NMS was discussed and deliberated in the 42nd & 43rd TCC and ERPC meetings, wherein approval was accorded for the execution of the project by POWERGRID and sharing of tariff for investment made by all constituents as per the CERC notification. The Centralized Monitoring of Communication Network is essential for quick fault detection and restoration. Among other requirements, using U-NMS will enable effective monitoring, provisioning, and configuration of channels through multiple nodes of different make



equipment, timely maintenance support, and SMS alerts, ensuring availability, etc.

The objective of the project is to provide Centralized Supervision and monitoring for the ISTS Communication and State Utility Communication System within the region, and the Inter-Regional Communication System. Further, U-NMS is being integrated with existing NMSs/NEs of ISTS Communication and State Sector Communication to facilitate the centralized supervision of the communication network at the National, Regional, and State levels.

- e) The details of the transmission asset, including scheduled commercial operation date (SCOD), date of commercial operation (COD), and time overrun are as follows:

Name of Asset	SCOD	COD	Delay (in days)
Asset-I: Establishment of UNMS (Unified Network Management System) for ISTS and State Utility Communication Network in the Eastern Region	26.1.2024	25.12.2023	Nil

- f) The entire scope of the project is completed and covered under the current Petition.

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

5. The Petitioner has served a copy of the Petition on the Respondents, and notice of this Petition has been published in the newspaper 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 published in the newspaper by the Petitioner.

6. The Respondent(s) has not filed their replies despite notice.

7. The hearing in this matter was held on 29.5.2025, and the order was reserved.

8. This order is issued considering the submissions made by the Petitioner vide affidavits dated 12.6.2024 and 26.5.2025.

9. Having heard the representatives of the Petitioner and perused the material on record, we proceed to dispose of the Petition.

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

10. The Petitioner has claimed the following transmission charges for the Asset-I for the 2019-24 tariff period:

(₹ in lakh)	
Particulars	2023-24 (pro-rata 98 days)
Depreciation	173.10
Interest on Loan	61.13
Return on Equity	65.02
Interest on Working Capital	5.93
O&M Expenses	33.33
Total	338.51

11. The Petitioner has claimed the Interest on Working Capital (IWC) for the Asset-I for the 2019-24 tariff period as follows:

(₹ in lakh)	
Particulars	2023-24 (pro-rata 98 days)
O&M Expenses	10.37
Maintenance Spares	18.67
Receivables	155.44
Total Working Capital	184.48
Rate of Interest (%)	12.00%
Interest on Working Capital	5.93



Data of Commercial Operation (COD)

12. The Petitioner, vide affidavit dated 12.6.2024, has claimed the COD of Asset-I as 25.12.2023. In support of the COD of the transmission asset, the Petitioner has submitted the ERLDC's Commissioning Certificate dated 5.4.2024 in accordance with Regulation 27(1)(d) of the CERC (Indian Electricity Grid Code) Regulations, 2023 (hereinafter referred to as 'the 2023 Grid Code'), certifying that the successful commissioning of the transmission asset was completed on 25.12.2023, and self-declaration of COD Certificate dated 8.4.2024. The Petitioner, vide technical validation letter dated 7.5.2025, was directed to provide a copy of the CMD Certificate regarding the approval for COD of the transmission asset claimed under the instant Petition.

13. In response, the Petitioner, vide affidavit dated 26.5.2025, has submitted that as per relevant provisions of the 2023 Grid Code, notified by the Commission vide Notification dated 29.5.2023, which came into effect w.e.f. 1.10.2023, the CMD certified that the completion of an asset/element is not required for communication-based assets/elements.

14. The Petitioner has further submitted that since the enforcement of the above-mentioned 2023 Grid Code Notification, the Petitioner has not submitted the CMD Certificate(s) for the communication-based systems, i.e., OPGW, SCADA, EMS, RTU, SAS, URTDSM, and NMS, etc. The Petitioner is directed to submit the CMD Certificate as per Regulation 26(3)(a) of the 2023 Grid Code at the time of truing-up.

15. 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) Energization 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.*

(3) The date of commercial operation in case of integrated mine(s), shall mean the earliest of —

- a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or*
- b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or*
- c) the date of two years from the date of commencement of production:*

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one-week prior intimation to the beneficiaries of the end-use or associated generating station(s);

Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the



declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.”

16. We have considered the Petitioner’s submission. Taking into consideration the ERLDC Commissioning Certificate in accordance with Regulation 27(1)(d) of the 2023 Grid Code and self-declaration of the COD Certificate, the COD of Asset-I is approved as of 25.12.2023. However, the Petitioner is directed to submit the CMD Certificate as per Regulation 26(3)(a) of the 2023 Grid Code 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 assets 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 renovation and modernisation as admitted by this Commission in accordance with these regulations;
- (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 upto 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 assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets 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 de-capitalised 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 assets.

- (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, vide affidavit dated 12.6.2024, has claimed the capital cost incurred as on COD and ACE projected to be incurred in respect of the transmission asset and has placed on record a copy of the Auditor's Certificates dated 28.5.2024 in support of the same. Further, the Petitioner has also claimed Notional IDC of ₹38.42 lakh in accordance with Regulation 19(2)(b) of the 2019 Tariff Regulations. The capital cost claimed by the Petitioner vide affidavit dated 12.6.2024 is as under:

Asset	Approved Cost as per FR	Capital Cost claimed as on COD	Projected ACE			Capital Cost claimed as on 31.3.2026
			2023-24	2024-25	2025-26	
Asset-I	9191.00	3450.04*	1723.90#	1021.57#	28.41	6223.93

**Includes Notional IDC & Accrual IDC discharged after COD in FY 2023-24*

#Includes IDC discharged incurred/projected to be incurred during FY 2023-24 & FY 2024-25, respectively

19. Further, the Petitioner, vide affidavit dated 26.5.2024, has revised the claim of Notional IDC from ₹38.42 lakh to ₹36.32 lakh and accordingly, submitted the revised tariff forms for the instant transmission asset. The Petitioner has submitted that the change in Notional IDC is due to an inadvertent arithmetic error in the earlier methodology used for the computation of Notional IDC.



20. The revised capital cost claimed by the Petitioner, vide affidavit dated 26.5.2025 as on COD and ACE projected to be incurred in respect of the transmission asset is as under:

Asset	Approved Cost as per FR	Capital Cost claimed as on COD	Projected ACE			Capital Cost claimed as on 31.3.2026
			2023-24	2024-25	2025-26	
Asset-I	9191.00	3447.95*	1723.90#	1021.57#	28.41	6221.83

*Includes Notional IDC & Accrual IDC discharged after COD in FY 2023-24

#Includes IDC discharged incurred/projected to be incurred during FY 2023-24 & FY 2024-25 respectively

Cost Overrun

21. The Petitioner has submitted that the total estimated completion cost of ₹6221.83 lakh is within the approved FR Cost of ₹9191.00 lakh and hence, there is no cost overrun in the instant transmission asset.

22. The detailed justification of the variation in cost as submitted by the Petitioner vide affidavit dated 12.6.2024 is as follows:

- (a) Through an open competitive bidding process, the lowest possible market prices for required product/services/as per detailed design, is obtained and contracts are awarded on the basis of the lowest evaluated eligible bidder on an overall basis. The best competitive bid prices against tenders may vary as compared to the cost estimate, depending on prevailing market conditions, design, and site requirements. Whereas the estimates are prepared by the Petitioner as per well-defined procedures for cost estimate.
- (b) The FR Cost Estimate is a broad, indicative cost worked out generally on the basis of average unit rates of recently awarded contracts as a general practice. The cost estimate of the project is based on the June 2022 price level.



(c) Regarding variation in the cost of individual items in Sub-station packages, the packages under the subject scope of works comprise a large number of items, and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package. Further, the lowest bidder can be arrived at/evaluated on an overall basis only. Hence, the item-wise unit prices in contracts and their variation over unit rate considered in FR Estimates are beyond the Petitioner`s control.

23. We have considered the submission of the Petitioner. It is observed that the estimated completion cost of ₹6221.83 lakh is within the approved FR cost of ₹9191.00 lakh, and thus, there is no cost overrun.

Time overrun

24. As per the IA dated 27.1.2022, the transmission project was scheduled to be commissioned within 24 months of the IA, i.e., 26.1.2024. However, the Petitioner has claimed that the instant transmission asset was commissioned on 25.12.2023, which is well before the SCOD.

25. We have considered the submissions made by the Petitioner. We have observed that, according to the IA, the SCOD was 26.1.2024, and the instant transmission asset was commissioned on 25.12.2023. Therefore, there is no time overrun with regard to the instant transmission asset.



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

26. The Petitioner has claimed the IDC in respect of Asset-I and has submitted the statement showing computation of IDC, discharge of IDC liability as on the date of commercial operation, and thereafter as under:

(₹ in lakh)				
Asset	IDC as per the Auditor Certificate	IDC Discharged up to COD	IDC discharged during 2023-24	IDC discharged during 2024-25
Asset-I	32.99	16.18	3.02	13.78

27. Further, the Petitioner, vide affidavit dated 12.6.2024, has claimed a Notional IDC of ₹38.42 lakh in accordance with Regulation 19(2)(b) of the 2019 Tariff Regulations.

28. The Commission, vide technical validation letter dated 7.5.2025, sought the details of the computation of Notional IDC claimed for the Asset-I. In response, vide affidavit dated 26.5.2025, the Petitioner has revised the Notional IDC from ₹38.42 lakh to ₹36.32 lakh and submitted the detailed computation of the revised claimed notional IDC. Further, the Petitioner has submitted that the change was due to an inadvertent arithmetic error in the earlier methodology used for the computation of Notional IDC.

29. We have considered the submissions of the Petitioner. The IDC claimed and considered as on the COD and summary of discharge of IDC liability up to COD and thereafter, for the purpose of tariff determination, subject to its revision at the time of truing up, is as follows:



(₹ in lakh)

Asset	IDC as per the Auditor Certificate (A)	IDC disallowed due to time-overrun not condoned (B)	IDC Allowed (C)=(A)-(B)	Undischarged IDC (D)	IDC allowed on COD (E)=(C)-(D)
Asset-I	32.99	0.00	32.99	16.81	16.18

30. We have considered the submissions made by the Petitioner regarding the claim of Notional IDC. Regulation 19(2)(b) of the 2019 Tariff Regulations provides as follows:

“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;

31. We have observed that the Petitioner has proposed the Notional IDC of ₹36.32 lakh on normative debt funded through equity which is as per Regulation 19(2)(b) of the 2019 Tariff Regulations, Therefore, the Notional IDC of ₹36.32 lakh has been allowed for the 2019-24 tariff period subject to true-up.

32. The Petitioner has claimed IEDC for the transmission asset amounting to ₹402.63 lakh. The Petitioner has submitted that the entire amount of IEDC for the transmission asset has been discharged up to COD. We have considered the submission of the Petitioner. As there is no time overrun in the commissioning of the instant transmission asset, the entire IEDC of ₹402.63 lakh has been allowed. Accordingly, the details of IEDC claimed as per the Auditor’s Certificate, IEDC disallowed, and IEDC allowed are as under:

(₹ in lakh)

Asset	IEDC as per Auditor Certificate (A)	IEDC disallowed due to time overrun, not condoned (B)	IEDC allowed (C) = (A-B)
Asset-I	402.63	0.00	402.63



Initial Spares

33. The Petitioner has not claimed Initial Spares for the instant transmission asset.

34. The capital cost allowed as on COD for Asset-I is as follows:

(₹ in lakh)							
Asset	Capital Cost claimed as on COD (Auditor Certificate) (A)	Notional IDC (B)	IDC disallowed (C)	Undischarged IDC as on COD (D)	IEDC Disallowed (E)	Initial Spares Disallowed as on COD (F)	Capital Cost as on COD (G)=(A+B-C-D-E-F)
Asset-I	3428.43	36.32	0.00	16.81	0.00	0.00	3447.94

Additional Capital Expenditure (ACE)

35. Regulation 24 of the 2019 Tariff Regulations provide as under:

“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”

36. The Petitioner has claimed the following projected ACE in respect of Asset-I:



(₹ in lakh)

Asset	Projected ACE		
	2023-24	2024-25	2025-26
Asset-I	1723.90#	1021.57#	28.41

*Includes Notional IDC & Accrual IDC discharged after COD in FY 2023-24

#Includes IDC discharged incurred/projected to be incurred during FY 2023-24 & FY 2024-25 respectively

37. The Petitioner has claimed that the ACE incurred is mainly on account of balance/retention payments, and hence the same is claimed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed the following capital cost as on 31.3.2024:

(₹ in lakh)

Asset	Approved Cost as per FR	Capital Cost as on COD	ACE (in FY 2023-24)	IDC discharge in FY 2023-24	Capital Cost as on 31.3.2024
Asset-I	9191.00	3447.95	1720.88	3.02	5171.84

38. The Petitioner, vide technical validation letter dated 7.5.2025, was directed to submit the Liability Flow Statement for the ACE claimed during the 2019-24 tariff period for the transmission asset. In response, vide affidavit dated 26.5.2025, the Petitioner has submitted the details of works for the ACE during 2023-24 as follows:

(₹ in lakh)

Asset	Nature of Work	Particulars	Outstanding Liability as on COD	Discharge	Amount	Claimed under Regulation
				2023-24		
Asset-I	Towards retention payment against UNMS/IT Equipment M/s NMS Works Software Private Limited, M/s Integrated Technology Group, M/s Dhoon Audio	UNMS ER-II Portion	1407.74	933.71	1720.88	24(1)(a)
		UNMS – ER I Portion	1266.52	782.53		
		UNMS – Odisha Portion	53.05	4.64		



Asset	Nature of Work	Particulars	Outstanding Liability as on COD	Discharge	Amount	Claimed under Regulation
				2023-24		
	Visual Private Limited, etc.					
Total			2727.31	1720.88		

39. The Petitioner has further submitted that since the ACE claimed for Asset-I is within the original scope of work, the same has been claimed against undischarged previously recognised liabilities.

40. We have considered the submissions made by the Petitioner. The Petitioner has projected ACE for FY 2024-25. It is observed that the instant tariff Petition is for the determination of the tariff for the 2019-24 tariff period, and the proposed ACE for FY 2024-25 falls under the 2024 Tariff Regulations, and the same shall be dealt with as per the 2024 Tariff Regulations. The ACE claimed by the Petitioner for the 2019-24 tariff period has been allowed under 24(1)(a) of the 2019 Tariff Regulations on account of works deferred for execution. Accordingly, the ACE allowed for the 2019-24 period is as follows:

Asset-I

(₹ in lakh)	
Particulars	2023-24
ACE as per Auditor's Certificate	1720.88
Add: Undischarged IDC discharged in 2023-24	3.02
ACE allowed in the instant order	1723.90

41. Accordingly, the ACE allowed in respect of the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)			
Asset	Capital Cost as on COD	ACE allowed	Capital Cost as on 31.3.2024
		2023-24	
Asset-I	3447.94	1723.90	5171.84



Debt-Equity ratio

42. Regulation 18 of the 2019 Tariff Regulations provides as under:

“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.”

43. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the transmission asset is as follows:

Asset-I

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	2413.56	70.00	1206.73	70.00	3620.29	70.00
Equity	1034.38	30.00	517.17	30.00	1551.55	30.00
Total	3447.94	100.00	1723.90	100.00	5171.84	100.00

Depreciation

44. Regulation 33 of the 2019 Tariff Regulations provides as under:

“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 assets 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 assets.

(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.”

45. The depreciation has been worked out considering the admitted capital cost as on COD. The weighted average rate of depreciation (WAROD) at Annexure-I has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the transmission asset is as follows:

Asset-I

(₹ in lakh)		
Sl. No.	Particulars	2023-24 (Pro-rata 98 days)
A	Opening Capital Cost	3447.94
B	Addition during the year 2019-24 due to ACE	1723.90
C	Closing Capital Cost (A+B)	5171.84
D	Average Capital Cost (A+C)/2	4309.89
E	Average Capital Cost (90% depreciable assets)	0.00
F	Average Capital Cost (100% depreciable assets)	4309.89
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00
H	Depreciable value of IT equipment and software (F*100%)	4309.89
I	Total Depreciable Value (G+H)	4309.89
J	Weighted average rate of Depreciation (WAROD) (in %)	15.00
K	Balance useful life at the beginning of the year (Year)	7.00
L	Elapsed useful life at the beginning of the year (Year)	0.00
M	Aggregate Depreciable Value	4309.89
N	Depreciation during the year (D*J)	173.10



Sl. No.	Particulars	2023-24 (Pro-rata 98 days)
O	Cumulative Depreciation at the end of the year	173.10
P	Remaining Aggregate Depreciable Value at the end of the year (I-O)	4136.79

Interest on Loan (IoL)

46. Regulation 32 of the 2019 Tariff Regulations provides as under:

“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 de-capitalization of assets, 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.”

47. The weighted average rate of IoL has been considered as claimed by the Petitioner. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing up.

48. The IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations as under:

Asset-I

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 98 days)
	Interest on Loan	
A	Gross Normative Loan	2413.56
B	Cumulative Repayments up to the Previous Year	0.00
C	Net Loan-Opening (A-B)	2413.56
D	Additions	1206.73
E	Repayment during the year	173.10
F	Net Loan-Closing (C+D-E)	3447.19
G	Average Loan (C+F)/2	2930.37
H	Weighted Average Rate of Interest on Loan (in %)	7.7904
I	Interest on Loan (G*H)	61.13

Return on Equity (RoE)

49. Regulations 30 and 31 of the 2019 Tariff Regulations provide as under:

“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 cut-off date beyond the original scope shall be computed at the weighted average rate of interest



on actual loan portfolio of the generating station or the transmission system

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.”

“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:*

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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."

50. The Petitioner has submitted that the MAT rate is applicable to the Petitioner's Company. Accordingly, the MAT rate applicable has been considered for the purpose of RoE, which will be trued-up with the actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE in respect of the transmission asset has been worked out and allowed as follows:

Asset-I

(₹ in lakh)		
	Particulars	2023-24 (Pro-rata 98 days)
	Return on Equity	
A	Opening Equity	1034.38
B	Additions	517.17
C	Closing Equity (A+B)	1551.55
D	Average Equity (A+C)/2	1292.97
E	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	17.472
G	Rate of Return on Equity (in %)	18.782
H	Return on Equity (D*G)	65.03



Operation & Maintenance Expenses (O&M Expenses)

51. The O&M Expenses claimed by the Petitioner for the transmission asset for the 2019-24 period are as under:

(₹ in lakh)	
Particulars	2023-24 (Pro-rata 98 days)
Asset-I	33.33

52. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provides that:

“35. Operation and Maintenance Expenses:

...

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
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	0.260	0.270	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



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

(4) **Communication system:** The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”

53. Further, Regulation 3(46) of the 2019 Tariff Regulations provides as follows:

“Original Project Cost’ means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date, and as admitted by the Commission;”

54. We have considered the submissions of the Petitioner. The estimated completion cost of the project is ₹6221.82 lakh, and the same is assumed as the original project cost for the purpose of calculation of O&M Expenses. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations as follows:

Asset-I

Particulars	(₹ in lakh)
	2023-24 (Pro-rata 98 days)
Original Project Cost up to cut-off date	6221.82
Normative rate as per Regulation 35(4) of 2019 Tariff Regulations	2%
O&M Expenses	124.44
Pro-rata O&M Expense	33.32
Total O&M Expenses allowed	33.32



55. The Petitioner is directed to submit actual operation and maintenance expenses at the time of truing up which will be reviewed at that time in accordance with law.

Interest on Working Capital (IWC)

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

“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;”

57. The Petitioner has submitted that it has computed IWC for the 2019-24 period, considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.00%.



58. The 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) for FY 2023-24. The components of the working capital and interest thereon allowed are as follows:

Asset-I

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 98 days)
	Interest on Working Capital	
A	Working Capital for O&M Expenses (O&M expenses for one month)	10.37
B	Working Capital for Maintenance Spares (15% of O&M expenses)	18.67
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	155.43
D	Total Working Capital (A+B+C)	184.47
E	Rate of Interest (in %)	12.00
F	Interest on working capital (D*E)	5.93

Annual Fixed Charges for the 2019-24 Tariff Period

59. The transmission charges allowed in respect of Asset-I for the 2019-24 tariff period are as follows:

Asset-I

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 98 days)
	Annual Transmission Charges	
	Depreciation	173.10
	Interest on Loan	61.13
	Return on Equity	65.03
	O & M Expenses	33.32
	Interest on Working Capital	5.93
	Total	338.51



Filing Fee and the Publication Expenses

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

61. We have considered the submissions of the Petitioner. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

62. The Petitioner has sought reimbursement of the licensee fee in accordance with Regulation 70(3) & 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. 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 fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

63. The Petitioner has submitted that under the Central Goods and Services Tax (CGST) Act, 2017, implemented w.e.f. 1.7.2017, the Govt. 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 AFC claimed by the Petitioner is exclusive of GST.

64. 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 will be borne and additionally paid by the Respondent(s) to the Petitioner and the same will 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.

65. We have considered the submissions of the Petitioner. Since the GST is not levied on transmission service at present, we are of the view that the Petitioner's prayer is premature.

Security Expenses

66. 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.

67. In this regard, a separate Petition No. 260/MP/2020 was filed by the Petitioner before the Commission for claiming the overall Security Expenses and consequential Interest on Working Capital (IOWC) on the same wherein it was proposed to consider actual Security Expense incurred by the Petitioner for the FY 2018-19 after escalating the same at 3.51% per annum and estimated additional Security Expenses for new substations to be commissioned in future, for arriving at the Estimated Security Expense for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23 and FY 2023-24.

68. The Petitioner further submitted that the Commission, vide order dated 3.8.2021, allowed the Petitioner to recover the estimated Security Expenses from beneficiaries as per provisions of the 2020 Sharing Regulations. The difference, if any, between the Estimated Security Expenses and Actual Security Expenses calculated as per audited accounts, on a year-to-year basis, may be allowed to be recovered /refund from beneficiaries.



69. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on a projected basis for the FY 2019-24 tariff period on the basis of actual security expenses incurred in FY 2018-19 in Petition No. 260/MP/2020. The Commission, vide order dated 3.8.2021 in Petition No. 260/MP/2020, 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 and consequential IWC has become infructuous.

Capital Spares

70. 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

71. With regard to the Sharing of Transmission Charges, the Petitioner has submitted that the transmission tariff as claimed by the Petitioner for the 2019-24 tariff period will be recovered on monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and will be shared by the beneficiaries and long-term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, as amended from time to time.

72. We have considered the submission of the Petitioner. The COD of the transmission asset as approved in the instant order is 25.12.2023. In the 43rd ERPC Meeting, the following was decided:



EM NO. A.5:	<i>Establishment of State-of-the-Art Unified Centralized Network Management System U-NMS for ISTS and State Utility 43rd ERPC Meeting Minutes 10 Communication Network in Eastern Region</i>
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Deliberation in the TCC meeting

POWERGRID clarified that previous estimation of Rs. 2.6 Crs. was per annum basis and the same was estimated based on their Telecom support contract. The proposed AMC cost has been 43rd ERPC Meeting Minutes 12 increased to Rs. 5.63 Cr per annum due to additional provision of annual cyber security audit, 24x7 manning for managing the system (in MCC as well as BCC) and availability of engineers from contractor on round the clock basis. POWERGRID further informed that the above price is for 1 yr. of warranty period and 6 yrs of AMC.

GRIDCO impressed that the features and facilities of UNMS of State Sector shall be at par with that of Central Sector.

Further on query POWERGRID clarified that the above UNMS project would be implemented exclusively for ULDC network. POWERGRID also proposed that since the cost for State Sector UNMS is meager the same may be merged with the cost of Regional U-NMS.

TCC recommended for approval for following proposals:

- 1) Regional U-NMS (Including State sector U-NMS) with a cost of ₹ 99.93 Cr.*
- 2) AMC of UNMS with a cost of Rs. 5.63 Cr per annum for 7 years (1 yr. of warranty period and 6 yrs beyond warranty period)*

TCC referred it to ERPC for financial concurrence.

ERPC approved the above proposal of U-NMS for Eastern Region along with its cost implication as per the recommendation of TCC.”

73. Based on the 43rd ERPC minutes, it is noted that the instant U-NMS project is implemented for the Eastern Region, and the Eastern Region`s beneficiaries agreed to the same. Therefore, the communication system expenses shall be borne by ER beneficiaries.

74. Since the instant U-NMS project is implemented for the Eastern Region, the Communication charges of U-NMS shall be borne by the ER beneficiaries that will form part of the Regional Component under Regulation 7(b) of the 2020 Sharing Regulations.



Interim Tariff

75. 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.

76. 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.

77. To summarise:

- a. The Annual Fixed Charges (AFC) allowed for the 2019-24 tariff period for the transmission asset in this order are as follows:

(₹ in lakh)	
Particulars	2023-24 (Pro-rata 98 days)
AFC claimed	338.51
AFC allowed	338.51

78. Annexure-I to this order forms part of the order.

79. This order disposes of Petition No. 447/TT/2024 in terms of the above findings and discussions.

sd/-
(Ravinder Singh Dhillon)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



ANNEXURE-I

2019-24	Admitted Capital Cost as on 1.4.2019 / COD (₹ in lakh)	ACE (in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)
Capital Expenditure		2023-24	Total			2023-24
IT Equipment (Incl. Software)	3447.94	1723.90	1723.90	5171.84	15.00%	173.10
Total	3447.94	1723.90	1723.90	5171.84		173.10
				Average Gross Block (₹ in lakh)		4309.89
				Weighted Average Rate of Depreciation (%)		15.00

