

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

PETITION NO. 446/TT/2024

Coram:

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

Date of Order: 31.12.2025

In the matter of:

Petition for 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 determination of the transmission tariff from the COD to 31.3.2024 for an asset 500 MVAR Thyristor Controlled Reactor (TCR) at Kurukshetra under “Implementation of 500 MVAR Thyristor Controlled Reactor at Kurukshetra 400 kV bus” in the Northern Region.

And in the matter of:

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

.....Petitioner

Versus

- 1. Uttar Pradesh Power Corporation Limited,
Shakti Bhawan, 14, Ashok Marg,
Lucknow - 226001.**
- 2. Ajmer Vidyut Vitran Nigam Limited,
Corporate Office, Vidyut Bhawan,
Panchsheel Nagar, Makarwali Road,
Ajmer-305004 (Rajasthan).**
- 3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).**



- 4. Jodhpur Vidyut Vitran Nigam Limited,**
New Power House, Industrial Area,
Jodhpur – 342003 (Rajasthan).
- 5. Himachal Pradesh State Electricity Board Limited,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004.
- 6. Punjab State Power Corporation Limited,**
The Mall, PSEB Head Office,
Patiala - 147001.
- 7. Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).
- 8. Jammu Kashmir Power Corporation Limited,**
220/66/33 kV Gladni SS SLDC Building,
Narwal, Jammu.
- 9. BSES Yamuna Power Limited,**
B-Block, Shakti Kiran, Building,
2nd Floor, Near Karkadooma Court,
Karkadooma, New Delhi-110092.
- 10. BSES Rajdhani Power Limited,**
BSES Bhawan, Nehru Place,
New Delhi.
- 11. Tata Power Delhi Distribution Limited,**
33 kV Substation Building,
Hudson Lane, Kingsway Camp,
North Delhi – 110009.
- 12. Chandigarh Administration,**
Sector -9, Chandigarh.
- 13. Uttarakhand Power Corporation Limited.**
Urja Bhawan, Kanwali Road,
Dehradun.
- 14. North Central Railway,**
Allahabad.



15.New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.

...Respondents

For Petitioner: Shri Zafrul Hasan, PGCIL
Shri Arjun Malhotra, PGCIL
Ms. Supriya Singh, PGCIL
Shri Vishal Sagar, PGCIL
Shri Piyush Awasthi, PGCIL
Shri Ashish Alankar, PGCIL
Shri Yatin Kalra, PGCIL
Shri A. Naresh Kumar, PGCIL
Ms. Suchitra, PGCIL
Shri Amit Yadav, PGCIL

For Respondents: None

ORDER

The instant Petition has been filed by Power Grid Corporation of India Limited (PGCIL), the Petitioner, a 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”) from the Date of Commercial Operation (COD) to 31.3.2024 in respect of an asset, namely, 500 MVar Thyristor Controlled Reactor at Kurukshetra (hereinafter referred to as “the transmission asset”) under “Implementation of 500 MVar Thyristor Controlled Reactor (TCR) at Kurukshetra 400 kV bus” (hereinafter referred to as “the transmission project”) in the Northern Region. The Petitioner has made the following prayers in the instant Petition.

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

2) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –9 above.

3) 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.



4) Condone the delay and allow IDC/IEDC as claimed in the petition.

5) 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 above for respective block.

6) 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.

7) 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.

8) Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.

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

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

2. The brief facts of the case are as under:

- a) The Investment Approval (the IA) of the transmission project was accorded by the Board of Directors of the Petitioner in its 360th meeting held on 3.1.2019, circulated vide Memorandum dated 24.1.2019, with an estimated cost of ₹26733.12 lakh, including an Interest During Construction (IDC) of ₹1675 lakh, at the June 2018 price level.



- b) The scope of work covered under the transmission project is as follows:
- (i) 500 MVar Thyristor Controlled Reactor (TCR) at 400 kV Kurukshetra – 1 No.
- c) The transmission project scheme was discussed and approved during the 39th meeting of the Standing Committee on Power System Planning of Northern Region held from 29.5.2017 to 30.5.2017, as well as in the 37th meeting of the Empowered Committee on Transmission (ECT) on 20.9.2017. Subsequently, the scheme was discussed further in detail and ratified in the 40th NRPC meeting on 20.10.2017.
- d) The details of the transmission asset, including scheduled date of commercial operation (SCOD), COD, and time over-run are as follows:

Name of Asset	SCOD	COD	Delay (in days)
500 MVar TCR at Kurukshetra in the Northern Region	2.7.2021	16.12.2023	897

- e) The entire scope of the project is completed and is covered under the present Petition.

3. The Respondents are the Distribution Licensees and Power Departments, mainly beneficiaries of the Northern Region, which are procuring transmission services from the Petitioner.

4. The Petitioner has served a copy of the Petition on the Respondents, and notice of this Petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as “the Act”). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner.



5. None of the Respondents has filed their reply and raised any issue pertaining to the instant Petition.

6. The matter was heard on 20.6.2025 and 26.8.2025, and the order was reserved on 26.8.2025.

7. This order is being issued considering the submissions made by the Petitioner vide affidavits dated 12.6.2024, 15.5.2025 and 10.7.2025. Having heard the representatives of the Petitioner and perused the material available on record, we proceed to dispose of the Petition.

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

8. The Petitioner has claimed the following transmission charges for the transmission asset for the 2019-24 tariff period:

(₹ in lakh)	
Particulars	2023-24 (pro-rata 107 days)
Depreciation	196.65
Interest on Loan	193.70
Return on Equity	209.85
Interest on Working Capital	12.47
O&M Expenses	80.26
Total	692.93

9. 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	2023-24 (pro-rata 107 days)
O&M Expenses	22.88
Maintenance Spares	41.18
Receivables	291.42
Total Working Capital	355.48
Rate of Interest (in %)	12.00
Interest on Working Capital	12.47



Date of Commercial Operation (COD)

10. The Petitioner, vide affidavit dated 12.6.2024, has claimed the COD of the transmission asset as 16.12.2023. In support of the COD of the transmission asset, the Petitioner has submitted the Central Electricity Authority (CEA) Energisation Certificate dated 19.12.2022, NRLDC Trial Run Certificate dated 15.3.2024 certifying that a successful trial operation was completed on 15.12.2023, self-declaration COD letter dated 10.1.2024 and the CMD Certificate as required under the Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 (hereinafter referred to as “the Grid Code”).

11. 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.”

12. Therefore, taking into consideration the CEA Energisation Certificate 19.12.2022, NRLDC Certificate 15.3.2024 for the successful completion of the trial operation on 15.12.2023, self-declared COD letter 10.1.2024 and the CMD Certificate, the COD of the transmission asset is hereby approved as 16.12.2023 for the purpose of computation of tariff.

Capital Cost

13. 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."

14. The Petitioner, through an affidavit dated 12.6.2024, has claimed the capital cost incurred as on COD and the Additional Capital Expenditure (ACE) projected to be incurred for the transmission asset, and has submitted a copy of the Auditor's Certificates dated 5.3.2024 in support of the same. The capital cost claimed by the Petitioner for the transmission asset is as follows:



(₹ in lakh)

Approved Cost as per FR	Capital Cost claimed as on COD	Projected ACE				Estimated Completion Cost
		2023-24	2024-25	2025-26	2026-27	
26733.12	12692.60	174.83	1048.98	437.08	87.42	14440.91

Cost Overrun

15. The Petitioner has submitted that the total estimated completion cost of ₹14440.91 lakh is within the approved Feasibility Report (FR) cost of ₹26733.12 lakh as per the IA dated 24.1.2019, and hence, there is no cost overrun in respect of the transmission asset.

16. The Commission, through its Record of Proceedings (RoP) for the hearing dated 20.6.2025, directed the Petitioner to justify the difference between the cost approved at the 37th Meeting of the ECT and the cost approved as per FR. In response to the RoP dated 20.6.2025, the Petitioner, by affidavit dated 10.7.2025, stated that initially, during the 37th meeting of the ECT held on 20.9.2017, the transmission project titled "Reactive Power Compensation in Northern Region" was recommended for implementation through the Regulated Tariff Mechanism (RTM). The estimated project cost approved by the ECT was approximately ₹8000 lakh (excluding incidental expenditure during construction and contingency) for a 500 MVar TCR at Kurukshetra.

17. However, since the TCR technology was new and the first of its kind in the Indian Grid, the cost estimate in the FR was based on a budgetary quotation at the price level of June 2018. The cost approved in the FR was ₹26733.12 lakh, inclusive of IDC, Incidental Expenditure During Construction (IEDC), and contingency. The transmission project was then awarded at a cost of ₹10838.49 lakh (excluding taxes and duties, IDC,



and IEDC) through an international competitive bidding process, with an estimated completion cost of ₹14441.91 lakh.

18. The Petitioner vide ROP dated 20.6.2025 was directed to provide a comparison between the award cost and the completion cost as per Form 5A. In response, the Petitioner, through an affidavit dated 10.7.2025, stated that while the awarded cost was ₹10838.49 lakh, the estimated completion cost was ₹14440.91 lakh. The difference between these costs is attributed to factors such as changes in actual quantities during execution, IDC, and IEDC. The Petitioner adheres to the government guidelines, ensuring transparency and competitiveness through a clearly defined procurement policy. Furthermore, the transmission project was awarded following an open competitive bidding process, ensuring procurement of the lowest market prices for products and services. The contract was awarded to the lowest evaluated eligible bidder on an overall basis. Cost estimates are prepared in accordance with established procedures, using broad indicative costs from recently awarded contracts and standard practices.

19. The Petitioner has further submitted the details of the total completion cost, and the same are as follows:

Description	Amount (₹ in lakh)
First contract (Ex-works contract) - A	
Ex-works price of Plant and Equipment	10838.49
Other Taxes & Duties, F&I	1950.93
IDC	820.90
IEDC	698.08
FERV	132.51
Total Estimated Completion Cost	14440.91

20. We have considered the Petitioner's submissions. It is observed that the estimated completion cost of ₹14440.91 lakh is within the approved FR cost of ₹26733.12 lakh, and thus, there is no cost overrun.



Time overrun

21. As per the IA dated 24.1.2019, accorded on 3.1.2019, the transmission asset was scheduled to be commissioned within 30 months from the date of IA, i.e., by 2.7.2021, but it was put into commercial operation on 16.12.2023. The details of SCOD, COD, and time overrun concerning the transmission asset are as follows:

Date of I.A.	SCOD	COD	Time over-run
3.1.2019	2.7.2021	16.12.2023	897

22. The detailed reasons submitted by the Petitioner for the time overrun are as follows:

A. COVID-19:

23. Covid-19 was identified by the World Health Organisation (WHO) as a global pandemic and a force majeure event across all segments and verticals of the global business and industry. This situation, by definition, was unforeseen and unplanned, and as a result, global business and production suffered multiple-fold impacts.

24. The projects undertaken by the Petitioner were no exception, facing numerous challenges as they navigate largely uncharted territory, with projects and supply lines encountering highly unique and increasing risks leading to delays in execution due to the nationwide lockdown in India caused by the Covid-19 pandemic.

- Phase 1: 25th March, 2020 – 14th April, 2020 (21 days)
- Phase 2: 15th April, 2020 – 3rd May, 2020 (19 days)
- Phase 3: 4th May, 2020 – 17th May, 2020 (14 days)
- Phase 4: 18th May, 2020 – 31st May, 2020 (14 days)



Unlock:

- Unlock 1.0: 1st June, 2020 – 30th June, 2020 (30 days)
- Unlock 2.0: 1st July, 2020 – 31st July, 2020 (31 days)
- Unlock 2.0: 1st August, 2020 – 31st August, 2020 (31 days)

25. The Petitioner has submitted that the lockdown imposed due to the Covid-19 pandemic led to widespread restrictions across India, halting transportation services and suspending educational, industrial, and hospitality operations. International flight operations and offshore equipment movement were stopped, resulting in delays in deploying the Taikai (GIS OEM) engineer at the site. Only essential services, such as food shops, banks, and fuel stations, remained operational, and violating lockdown rules could result in up to 1 year of imprisonment. The restrictions severely disrupted supply chains, transportation, and workforce availability, causing delays in ongoing construction projects. Unforeseen challenges, including supplier delivery issues, worker absenteeism due to illness, travel restrictions, and job-site social distancing requirements, further impacted project schedules. The lockdown led to a voluntary withdrawal of construction workers, the closure or restriction of site access, and the halting of construction activities for approximately 4-5 months from late March 2020 to July 2020. These force majeure circumstances caused global supply chain disruptions and project execution delays.

26. The Petitioner has further submitted that the Ministry of Power (MoP), recognizing the impact of the pandemic, granted a five (5) months extension for the SCOD of the inter-State transmission projects under construction as on 25.3.2020, highlighting the unforeseen nature of the situation. Later, the MoP provided an additional three (3) months extension to the transmission projects under construction with SCOD



after 1.4.2021. The Petitioner, vide affidavit dated 10.7.2025, has also submitted that the following reasons led to a further delay in the commissioning of the transmission asset:

B. Delay due to Global Geo-political issues / Russia – Ukraine War:

27. It is submitted that the invasion of Ukraine by Russia in 2022 led to widespread sanctions against Russia that affected the global energy markets. The supply of the necessary components originated in Finland, which was disrupted by the Russia-Ukraine war, causing delays in receiving critical equipment and adversely impacting the execution of the transmission project. It is further submitted that the Petitioner navigated these bilateral challenges with suppliers and contractors, even though these may not be entirely considered part of the contractual obligations. The Petitioner has prayed to acknowledge the complexities of the global situation and has sought a lenient approach from the Commission, emphasising that even after major disruptions, the Petitioner has remained committed to ensuring the continued progress of crucial infrastructure projects and fostering a stable energy future for India.

Analysis and decision:

28. We have considered the Petitioner's submissions. We have also gone through the documentary evidence provided by the Petitioner to justify the delay. As per the IA accorded on 3.1.2019, the transmission asset was scheduled to be commissioned within 30 months from the date of the IA, i.e., by 2.7.2021, against which it was commissioned on 16.12.2023. Therefore, there is a 897-day delay in the transmission of the asset. The Petitioner has submitted that the delay is mainly due to Covid-19 pandemic, geopolitical issues, and the Russia-Ukraine war. The details of SCOD, COD, and the time overrun concerning the transmission asset are as follows.



Date of I.A.	SCOD	COD	Time overrun
3.1.2019	2.7.2021	16.12.2023	897

29. The detailed analysis of the reasons for time overrun, as submitted by the Petitioner, is as follows:

A. Due to Covid-19 Pandemic (First Wave from 25.3.2020 to 24.8.2020 and Second Wave from 1.4.2021 to 30.6.2021)

30. The Petitioner has submitted that COVID-19 was identified by the WHO as a global pandemic and a force majeure event across all segments and verticals of the global business industry. The projects undertaken by the Petitioner were no exception, facing numerous challenges as they navigated through largely uncharted territory, with projects and supply lines experiencing highly unique and increasing risks, leading to delays in execution due to COVID-19. The restrictions imposed due to COVID-19 severely disrupted supply chains, transportation, and workforce availability, resulting in delays in ongoing construction projects. The lockdown led to a voluntary withdrawal of construction workers, site closures or restricted access, and the halting of construction activities. The Petitioner has relied on the MoP letters dated 27.7.2020 and 12.6.2021, which granted five (5) months and three (3) months extensions of SCOD, respectively, on account of the Covid-19 pandemic, for all inter-State transmission projects under construction.

31. The relevant portion of the letter dated 27.7.2020 is as follows:

Letter dated 27.7.2020

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-state transmission projects

Sir,

I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the



nationwide lockdown measures announced since 25th March, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation Date (SCOD) to mitigate the issues of disruption in supply chains and man power, caused due to outbreak of COVID19 pandemic.

2. It has been, therefore, decided that;

- i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD*
- ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020*
- iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months.”*

32. In the letter dated 27.7.2020, the MoP, taking into account the construction activities at the various transmission project sites having been severely affected by the nationwide lockdown measures announced since 25.3.2020 to contain the outbreak of Covid-19 and the request of the transmission utilities for extension of the SCOD to mitigate the issues of disruption in the supply chains and manpower caused due to the outbreak of Covid-19, decided that all inter-State transmission projects which were under construction as on the date of lockdown, i.e. 25.3.2020 shall get an extension of five (5) months in respect of the SCOD provided that the SCOD of these transmission projects was post 25.3.2020. It is relevant to note that the said letter of the MoP is in the nature of a generic order/blanket order applicable to all the transmission licensees whose projects fall under the criteria specified therein, and as such does not require the individual licensee to substantiate/ make out its case for availing the dispensation provided under the said letter.

33. It is observed that as per Form-12 submitted by the Petitioner, the transmission asset was in the construction stage as on the date of lockdown, i.e., 25.3.2020, and the SCOD of the transmission project was 2.7.2021, i.e., post 25.3.2020 and, therefore, the



dispensation provided by the MoP vide letter dated 27.7.2020 is applicable in the instant case.

34. Therefore, in view of the above, we are inclined to consider the extension of 5 months in the SCOD of the transmission asset. Accordingly, the SCOD of the transmission asset is hereby revised to 2.12.2021.

35. Further, the relevant portion of the MoP letter dated 12.6.2021 is as follows:

Letter dated 12.6.2021

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

Sir,

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

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

i. All inter-state transmission projects which are under construction with SCOD coming after 01 April, 2021 shall get an extension of three (3) months in respect of their SCOD;

ii. The commencement date of Long Term Access (LTA) to a generator by CTU based on completion of a transmission line, whose SCOD is extended by three (3) months due to COVID-19 as mentioned above at point (i), shall also be automatically extended by three (3) months.”

36. In the letter dated 12.6.2021, the MoP considered that construction activities at different transmission project sites were significantly affected by the ongoing second wave of the COVID-19 pandemic. Therefore, to address this situation, the MoP decided that all inter-State transmission projects under construction as on 12.6.2021 would



receive a three (3) month extension for the SCOD, provided that the SCOD of these projects was after 1.4.2021.

37. As per Form-12, the transmission asset was constructed with the original SCOD as on 2.7.2021, i.e., post 1.4.2021 and, therefore, the dispensation provided by the MoP vide letter dated 12.6.2021 is also applicable in the instant case. Accordingly, we are inclined to consider the further extension of three (3) months for the SCOD of the transmission asset as well, and the SCOD of the transmission asset is further revised to 2.3.2022 accordingly.

38. The details of the original SCOD, revised SCOD, COD and the time overrun concerning the transmission asset are summarised as follows:

SCOD as per the IA	Revised SCOD as per the MOP letter dated 27.7.2020	Revised SCOD as per the MOP letter dated 12.6.2021	COD	Time Overrun w.r.t. the revised SCOD
2.7.2021	2.12.2021	2.3.2022	16.12.2023	654 days

B. Delay due to Global Geo-political issues/ Russia-Ukraine War

39. The Petitioner has submitted that the transmission project faced major setbacks due to the COVID-19 pandemic, and further delays were caused by subsequent global geopolitical issues, particularly the Russia-Ukraine war. The 2022 Russian invasion of Ukraine led to extensive sanctions against Russia, affecting global energy markets and supply chains, especially the procurement of critical components from Finland. Despite the Petitioner's efforts to resolve bilateral challenges with suppliers and contractors, the disruptions exceeded typical contractual expectations. Therefore, the Petitioner has sought leniency, citing the complex international circumstances that have affected the timely completion of the transmission project. The request emphasises the Petitioner's



dedication to advancing vital infrastructure projects essential for a stable energy future for India.

40. It is observed that the Petitioner has attributed the time overrun to global political issues and the Russia-Ukraine war. However, the Petitioner has failed to provide the documentary evidence showing how these factors specifically affected the erection and commissioning activities of the transmission asset, particularly the procurement of equipment from Finland.

41. Further, as per the CEA Energisation Certificate dated 19.12.2022, the Petitioner submitted the online application on 12.10.2022 for approval of energisation of the electrical installation associated with the transmission asset, indicating that all erection activities were completed as on 12.10.2022. However, as per Form-12, the erection activities are reported to have been completed as of 1.11.2023, which presents a contradiction.

42. Therefore, in view of the above facts, we are not inclined to condone the time overrun of 654 days claimed by the Petitioner due to global political issues and the Russia-Ukraine war. The details of the revised SCOD, COD, and time over-run condoned/not condoned regarding the transmission asset are summarised as follows:

SCOD as per the IA	Revised SCOD as per the MOP letter dated 27.7.2020	Revised SCOD as per the MOP letter dated 12.6.2021	COD	Time Overrun with respect to the revised SCOD	Time over-run condoned	Time over-run not condoned
2.7.2021	2.12.2021	2.3.2022	16.12.2023	654 days	NIL	654 days



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

43. The Petitioner has claimed the IDC for the transmission asset and submitted a statement showing the computation of IDC and discharge of IDC liability as on the COD, and thereafter as follows:

(₹ in lakh)			
IDC as per the Auditor's Certificate	IDC Discharged up to COD	IDC discharged during the year 2023-24	IDC discharged during the year 2024-25
820.90	763.51	33.75	23.64

44. We have considered the Petitioner's submissions. As discussed above, the time overrun regarding the transmission asset has not been condoned. Accordingly, the IDC, on a cash basis, up to the COD, has been calculated based on the loan details provided in the statement showing the discharge of IDC and Form-9C for the transmission asset. The details of the IDC claimed and considered as on COD, and a summary of the discharge of IDC liability up to the COD, and thereafter, for the purpose of tariff determination concerning the transmission asset, subject to revision at the time of truing-up, are as follows:

(₹ in lakh)				
IDC as per the Auditor's Certificate (A)	IDC disallowed due to time over-run not condoned (B)	IDC Allowed (C)=(A)-(B)	Undischarged IDC (D)	IDC allowed on COD (E)=(C)-(D)
820.90	694.09	126.81	0.00	126.81

45. The Petitioner has claimed the IEDC for the transmission asset amounting to ₹698.08 lakh. The Petitioner has submitted that the entire amount of the IEDC for the transmission asset has been discharged up to the COD. Since the time overrun for the transmission asset has not been condoned, the IEDC has been disallowed on a pro-



rata basis. The details of the IEDC claimed as per the Auditor's Certificate, IEDC disallowed, and the amount discharged up to the COD concerning the transmission asset are as follows:

(₹ in lakh)

IEDC as per the Auditor's Certificate (A)	IEDC disallowed due to time overrun, not condoned (B)	IEDC allowed (C) = (A-B)
698.08	252.51	445.57

Initial Spares

46. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of the 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) *Gas Insulated Sub-station (GIS)*
 - *Green Field- 5.00%*
 - *Brown Field- 7.00%*
- (v) *Communication system- 3.50%*
- (vi) *Static Synchronous Compensator- 6.00%”*

47. The Petitioner has claimed Initial Spares for the transmission asset, and the details of the same are as follows:

(₹ in lakh)

Particulars	Plant and Machinery Cost	Initial Spares claimed	Ceiling (in %)	Allowable	Excess Spare
Sub-station	12921.93	478.83	6	794.24	(315.41)



48. We have considered the Petitioner's submissions. We allow the Initial Spares concerning the transmission asset in accordance with the norms specified in the 2019 Tariff Regulations as follows:

(₹ in lakh)

Particulars	Plant and Machinery Cost up to the cut-off date, excluding IDC and IEDC (A)	Initial Spares claimed (B)	Ceiling Limit (in %) (C)	Allowable Initial Spares $(D=C*(A-B)/(100-C))$	Initial Spares Allowed	Excess Initial Spares $(E=B-D)$
Sub-station	12921.93	478.83	6	794.24	478.83	0.00

49. The capital cost allowed as on COD for the transmission asset is as follows:

(₹ in lakh)

Capital Cost claimed as on COD (as per the Auditor's Certificate) (A)	IDC disallowed due to time over-run not condoned (B)	IDC discharged after COD (C)	IEDC Disallowed (D)	Capital Cost as on COD $(E)=(A-B-C-D)$
12692.60	694.09	0.00	252.51	11746.00

Additional Capital Expenditure (ACE)

50. Regulation 24 of the 2019 Tariff Regulations provides 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.”

51. The details of the ACE claimed by the Petitioner regarding the transmission asset are as follows:

Sr. No.	Additional Capital Expenditure				Total ACE
	2023-24	2024-25	2025-26	2026-27	
1	174.83	1048.98	437.08	87.42	1748.31

52. It is observed that the Petitioner has also claimed the ACE for the FYs 2024-25, 2025-26, and 2026-27, and the same will be addressed in the future Petition according to the prevalent regulations of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2024, for the 2024-29 tariff period.

53. Further, it is observed that the ACE claimed by the Petitioner primarily relates to the balance or retention of payments, and therefore, is claimed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. According to the Auditor's Certificate, the Petitioner has claimed the following capital cost concerning the transmission asset as on 31.3.2024.

(₹ in lakh)				
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
26733.12	12692.60	174.83	33.75	12843.79

54. The Petitioner, vide RoP dated 20.6.2025, was directed to submit the Liability Flow Statement for the ACE claimed during the 2019-24 tariff period for the transmission



asset. The Petitioner, vide affidavit dated 10.7.2025, has submitted the following details of works for the ACE during the year 2023-24:

(₹ in lakh)			
Year	Nature of Work	Amount	Claimed under Regulation
2023-24	Towards M/s Grid Solutions Oy. M/s GE T&D India Limited	145.47	24(1)(a) of the 2019 Tariff Regulations
2023-24	Towards M/s Grid Solutions Oy. M/s GE T&D India Limited	29.36	24(1)(b) of the 2019 Tariff Regulations

55. The Petitioner has further submitted that because the ACE claim for the transmission asset falls within the original scope of work, it has been claimed against previously recognised liabilities that remain undischarged.

56. We have considered the Petitioner's submissions. The ACE claimed by the Petitioner mainly relates to the balance/retention of payments and deferred unexecuted works. As per Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations, the ACE allowed for the 2019-24 tariff period concerning the transmission asset, on account of undischarged liabilities and works deferred for execution, is as follows:

(₹ in lakh)	
Particulars	2023-24
ACE, as per the Auditor's Certificate, is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations towards undischarged liabilities recognised to be payable at a future date and Regulation 24(1)(b) of the 2019 Tariff Regulations towards works deferred for execution.	174.83
Add: Undischarged IDC	0.00
ACE allowed in the instant order	174.83

57. Accordingly, the details of the capital cost allowed in respect of the transmission asset during the 2019-24 tariff period are as follows:

(₹ in lakh)		
Capital Cost as on COD	ACE allowed	Capital Cost as on 31.3.2024
	2023-24	
11746.00	174.83	11920.83



Debt-Equity ratio

58. 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.”

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

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	8222.20	70.00	122.38	70.00	8344.58	70.00
Equity	3523.80	30.00	52.45	30.00	3576.25	30.00
Total	11746.00	100.00	174.83	100.00	11920.83	100.00

Depreciation

60. 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.”

61. The depreciation has been worked out considering the admitted capital cost as on the COD. The Weighted Average Rate of Depreciation (WAROD) has been worked out as per the depreciation rates specified in the 2019 Tariff Regulations, and the WAROD table is attached as Annexure-I to this order. The depreciation allowed for the transmission asset is as follows:

		(₹ in lakh)
Sl. No.	Particulars	2023-24 (Pro-rata 107 days)
A	Opening Capital Cost	11746.00
B	Addition during the year 2019-24 due to ACE	174.83
C	Closing Capital Cost (A+B)	11920.83
D	Average Capital Cost (A+C)/2	11833.41
E	Average Capital Cost (90% depreciable assets)	11833.41
F	Average Capital Cost (100% depreciable assets)	0.00
G	Depreciable Value (excluding IT equipment and software) (E*90%)	10650.07
H	Depreciable Value of IT equipment and software (F*100%)	0.00
I	Total Depreciable Value (G+H)	10650.07
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28
K	Balance useful life at the beginning of the year (Year)	25
L	Elapsed useful life at the beginning of the year (Year)	0
M	Aggregate Depreciable Value	10650.07
N	Depreciation during the year (D*J)	182.66
O	Cumulative Depreciation at the end of the year	182.66
P	Remaining Aggregate Depreciable Value at the end of the year (I-O)	10467.41



Interest on Loan (IoL)

62. 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.”

63. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) on loans, based on its actual loan portfolio and the rate of interest (RoI). Accordingly, the



Interest on Loan (IoL) has been calculated based on the actual interest rate provided by the Petitioner, in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed for the transmission asset is as follows:

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 107 days)
	Interest on Loan	
A	Gross Normative Loan	8222.20
B	Cumulative Repayments up to the Previous Year	0.00
C	Net Loan-Opening (A-B)	8222.20
D	Additions	122.38
E	Repayment during the year	182.66
F	Net Loan-Closing (C+D-E)	8161.92
G	Average Loan (C+F)/2	8192.06
H	Weighted Average Rate of Interest on Loan (in %)	7.5125
I	Interest on Loan (G*H)	179.92

Return on Equity (RoE)

64. 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, excluding additional capitalization on account of emission control system, 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:

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

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."

65. The Petitioner has submitted that the MAT rate applies to it. Therefore, the MAT rate from FY 2019-20 has been considered for the purpose of Return on Equity (RoE), which will be trued-up with the actual tax rate under Regulation 31(3) of the 2019 Tariff Regulations. The RoE for the transmission asset has been worked out and allowed as follows:

(₹ in lakh)		
	Particulars	2023-24 (Pro-rata 107 days)
	Return on Equity	
A	Opening Equity	3523.80
B	Additions	52.45
C	Closing Equity (A+B)	3576.25
D	Average Equity (A+C)/2	3550.02
E	Return on Equity (Base Rate) (in %)	15.5
F	MAT Rate for respective year (in %)	17.472
G	Rate of Return on Equity (in %)	18.782
H	Return on Equity (D*G)	194.93

Operation and Maintenance Expenses (O&M Expenses)

66. The Operation and Maintenance Expenses (O&M Expenses) claimed by the Petitioner for the transmission asset for the 2019-24 tariff period are as under:



(₹ in lakh)

2023-24 (Pro-rata 107 days)
80.26

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

“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
Norms for sub-station Bays (Rs 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 (Rs 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
Norms for AC and HVDC lines (Rs 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	0.260	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
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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Gazuwaka HVDC Back-to-Back station (Rs. Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	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.”*

68. We have considered the Petitioner's submissions and perused the documents on record. It is noted that, according to Form-2 submitted by the Petitioner, the O&M Expenses claimed by the Petitioner are against the 4 Nos., 400/33 kV single-phase Coupling Transformers at the 400 kV Kurukshetra Substation.

69. As per the IA dated 24.1.2019, the scope of work under the transmission project is “1 No. 500 MVAR Thyristor Controlled Reactor (TCR) at 400 kV Kurukshetra Substation”. Further, as per the CEA Energisation Certificate dated 19.12.2022, the coupling transformers are part of the internal arrangement along with other equipment associated with the 500 MVAR TCR. Therefore, we are of the view that some internal part of the transmission asset cannot be considered for allowing the O&M Expenses instead of the transmission asset. Consequently, the consideration of 04 Nos. 167 MVA, 400/33 kV Coupling Transformers for the calculation of O&M Expenses are hereby disallowed/rejected.

70. Further, it is observed that Regulation 35(3) of the 2019 Tariff Regulations does not specify any norms for O&M Expenses for Reactors. Therefore, according to



Regulation 35(3) of the 2019 Tariff Regulations, we are not inclined to approve any O&M Expenses for the transmission asset; hence, the O&M Expenses for the 2019-24 tariff period are “NIL”.

Interest on Working Capital (IWC)

71. 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;”

72. The Petitioner has submitted that it has computed the IWC for the 2019-24 tariff 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%.



73. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The 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 allowed thereon concerning the transmission asset are as follows:

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 107 days)
	Interest on Working Capital	
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.00
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00
C	Working Capital for Receivables (Equivalent to 45 days of Annual Fixed Cost / Annual Transmission Charges)	237.98
D	Total Working Capital (A+B+C)	237.98
E	Rate of Interest (in %)	12.00
F	Interest on Working Capital (D*E)	8.35

Annual Fixed Charges for the 2019-24 Tariff Period

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

		(₹ in lakh)
	Particulars	2023-24 (Pro-rata 107 days)
	Annual Transmission Charges	
	Depreciation	182.66
	Interest on Loan	179.92
	Return on Equity	194.93
	O & M Expenses	0.00
	Interest on Working Capital	8.35
	Total	565.86

Filing Fee and the Publication Expenses

75. The Petitioner has sought reimbursement for the fee paid for filing the Petition and publication expenses.



76. We have considered the Petitioner's submissions. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses related to 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 and RLDC Fees and Charges

77. The Petitioner has sought reimbursement of the RLDC fees and charges and the licensee fee in accordance with Regulations 70(3) and 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall be entitled to reimbursement of the license 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

78. The Petitioner has submitted that under the Central Goods and Services Tax (CGST) Act, 2017, implemented w.e.f. 1.7.2017, the Government of India has exempted charges for the 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 applying a GST rate of NIL. Therefore, the Annual Fixed Charges (AFC) claimed by the Petitioner are exclusive of GST.

79. The Petitioner has submitted that if GST is levied at any rate and at any point in the future on charges for transmitting electricity, the Respondents shall bear and additionally pay the same to the Petitioner. Furthermore, the Petitioner shall charge and bill this separately. Additionally, any other taxes, if applicable, that arise from demands



by Government or Statutory Authorities, are to be paid by the Petitioner and may be recovered from the beneficiaries.

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

Security Expenses

81. The Petitioner has submitted that security expenses in respect of the transmission asset 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.

82. It is further submitted that a separate Petition No. 260/MP/2020 was filed by the Petitioner before the Commission claiming the overall security expenses and consequential IWC on the basis of the actual security expenses incurred by the Petitioner for the FY 2018-19 after escalating the same at 3.51% per annum and estimated additional security expenses for the new substations to be commissioned in future, for arriving at the estimated security expenses for the FYs 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24. The Commission vide its order dated 3.8.2021 allowed the Petitioner to recover the estimated security expenses from the beneficiaries as per the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 (hereinafter referred to as "the 2020 Sharing Regulations"). The difference, if any, between the estimated security expenses and the actual security expenses calculated as per the audited accounts, on a year-to-year basis, may be recovered/refunded from and to the beneficiaries.



83. We have considered the Petitioner's submissions. The Petitioner has claimed consolidated security expenses on a projected basis for the 2019-24 tariff period based on the actual security expenses incurred in FY 2018-19 in Petition No. 260/MP/2020. The Commission, vide its order dated 3.8.2021 in Petition No. 260/MP/2020, approved the security expenses from 1.4.2019 to 31.3.2024. Therefore, the Petitioner's prayer in the instant Petition to allow it to file a separate Petition to claim the overall security expenses and consequential IWC has become infructuous.

Capital Spares

84. 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

85. 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 shall be recovered on a monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and shall be shared by the beneficiaries and long-term transmission customers in terms of the 2020 Sharing Regulations, or as amended from time to time.

86. We have considered the Petitioner's submissions. The COD of the transmission asset as approved in the instant order is 16.12.2023. Accordingly, the billing, collection, and disbursement of transmission charges shall be governed by the provisions of the 2020 Sharing Regulations, as provided in terms of Regulation 57 of the 2019 Tariff Regulations.



Interim Tariff

87. 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.

88. We have considered the Petitioner's submissions. Since we have determined the transmission tariff for the transmission asset in this order, the prayer for the interim tariff becomes redundant.

89. To summarise:

- a. The AFC claimed and allowed for the 2019-24 tariff period for the transmission asset in this order are as follows:

(₹ in lakh)	
Particulars	2023-24 (Pro-rata 107 days)
AFC claimed	692.93
AFC allowed	565.86

90. Annexure-I to this order forms an integral part of the order.

91. This order disposes of Petition No. 446/TT/2024 in terms of the above findings and discussions.

sd/-
(Ravinder Singh Dhillon)
Member

sd/-
(Harish Dudani)
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 the Regulations	Annual Depreciation as per the Regulations (₹ in lakh)
Capital Expenditure		2023-24	Total			2023-24
Sub-station	11746.00	174.83	174.83	11920.83	5.28%	624.80
Total	11746.00	174.83	174.83	11920.83		624.80
				Average Gross Block (₹ in lakh)		11833.41
				Weighted Average Rate of Depreciation (in %)		5.28%

