Central Electricity Regulatory Commission
New Delhi

Petition No. 67/TT/2023

Coram:

Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member

Date of Order: 02.08.2024

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for determination of the transmission tariff from the proposed COD to 31.3.2024 for asset 1 No. 230 kV line bay at Tuticorin-II GIS PS under "Implementation of 1 No. 230 kV bay at Tuticorin-II GIS PS" in Southern Region.

And

In the matter of:

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

Vs.

1. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO),
   NPKRR Maaligai, 800, Anna Salai, Chennai-600002.

2. Kerala State Electricity Board (KSEB),
   Vaidyuthi Bhavanam, Pattom, Thiruvananthapuram-695004.

3. Electricity Department,
   Government of Goa,
   Vidyuti Bhawan, Panaji, Goa-403001.

4. Electricity Department**,**
   Government of Pondicherry,
   Pondicherry-605001.

5. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL),
   APEPDCL, P&T Colony, Seethmmadhara, Vishakhapatnam,
   Andhra Pradesh.

6. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL), Srinivasasa Kalyana Mandapam Backside, Tiruchanoor Road, Kesavayana Gunta, Tirupati-517501, Chittoor District, Andhra Pradesh.

7. Southern Distribution Company of Telangana Limited (TSSPDCL), 6-1-50, Corporate Office, Mint Compound, Hyderabad-500063.

8. Northern Power Distribution Company of Telangana Limited (TSNPDCL), H.No. 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta, Hanamkonda, Warangal-506001.

9. Bangalore Electricity Supply Company Limited (BESCOM), Corporate Office, K.R Circle, Bangalore-560001, Karnataka.

10. Gulbarga Electricity Supply Company Limited (GESCOM), Station Main Road, Gulbarga, Karnataka.

11. Hubli Electricity Supply Company Limited (HESCOM), Navanagar, PB Road, Hubli, Karnataka.

12. MESCOM Corporate Office, Paradigm Plaza, AB Shetty Circle, Mangalore-575001, Karnataka.

13. Chamundeshwari Electricity Supply Corporation Limited (CESC), 927, L J Avenue, Ground Floor, New Kantharaj Urs Road, Sarawatipuram, Mysore-570009, Karnataka.

14. NTPC Limited, NTPC Bhawan, SCOPE Complex, Institutional Area, Lodhi Road, New Delhi- 110003.

15. NTPC Green Energy Limited (NGEL), E-3, Ecotech-I, Udyog Vihar, Greater Noida, Uttar Pradesh-201306.

…Respondents

Parties Present:

Shri Zafrul Hasan, PGCIL
Shri Mohd. Mohsin, PGCIL
Shri Arjun Malhotra, PGCIL
Shri A. Naresh Kumar, PGCIL
Shri S. Vallinayagam, Advocate, TANGEDCO
Shri M. Sethuraman, TANGEDCO
Ms. Mandakini Ghosh, Advocate, NGEL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant Petition for the determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") from the proposed COD to 31.3.2024 in respect of its Asset 1 No. 230 kV line bay at Tuticorin-II GIS Pooling Station (hereinafter referred to as "the transmission asset") under the "Implementation of 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station" (hereinafter referred to as "the transmission project") in the Southern Region.

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

"1) Approve the proposed DOCO as 19.08.2022 for Asset-1 under clause 5(2) of Tariff Regulation, 2019 as explained at para 6.

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

3) Approve the Transmission Tariff for the tariff block 2019-24 block for the asset covered under this petition, as per para –8.4 above.

4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to a 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.

5) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on the publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of the petition.

6) Allow the petitioner to bill and recover Licensee fees and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

7) Allow the petitioner to bill and adjust the impact on Interest on Loan due to a change in the Interest rate on account of the floating rate of interest applicable during the 2019-24 period, if any, from the beneficiaries.

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 the future. Further, any taxes including GST and duties including cess, etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

11) Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the 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 follows:

(a) The Ettayapuram Solar Project was to be connected to the Tuticorin-II GIS Pooling Station (ISTS) through the 230 kV Single Circuit (S/C) dedicated transmission line. Accordingly, 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station under ISTS was envisaged for termination of the dedicated transmission line. The Petitioner was entrusted with the "Implementation of 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station". The Investment Approval (IA) of the transmission project was accorded by the competent authority of the Petitioner at an estimated cost of ₹756 lakh, including IDC of ₹17 lakh at–June 2021 price level on 25.10.2021 and the same was communicated vide Memorandum Ref.: C/CP/PA2122-07-0T-IA019 dated 26.10.2021. The scope of the work covered under the transmission project is the implementation of a 230-kV bay at Tuticorin-II GIS Pooling Station: 230-kV - line bays: 1 No.

(b) The transmission project was agreed upon in the 2nd meeting of SRPC (TP) held on 1.10.2020. The transmission project was recommended for implementation through the TBCB/RTM route in the 4th meeting of the National Committee on Transmission (NCT) held on 20.1.2021 and on 28.1.2021. Subsequently, the Ministry of Power (MoP), Government of India (GoI), vide Office Memorandum (OM) dated 16.7.2021, awarded the transmission project to the Central Transmission Utility of India Limited (CTUIL) for implementation under the Regulated Tariff Mechanism by the Petitioner (implementing agency).

(c) As per the IA, the transmission project was scheduled to be put into commercial operation within 9 months from the date of the IA, that is, by July 2022 or in the matching time frame of the 230 MW Solar Project of NTPC at Ettayapuram Tuticorin, Tamil Nadu, whichever is later. The transmission asset was ready, and the Central Electricity Authority (CEA) clearance under Regulation 43 of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, was received on 28.7.2022. However, due to a delay in the commissioning of the above-said generation project and the associated transmission line, the said 230 kV line bay at Tuticorin-II GIS Pooling Station could not be utilized and put under commercial operation. The scope of the transmission project has been completed and is covered in the instant Petition.

4. The Respondents are Distribution Licensees, Generation Utility, and Power Departments that procure the transmission service from the Petitioner, mainly beneficiaries of the Southern Region.

5. The Petitioner has served a copy of the Petition on the Respondents, and notice regarding the filing of this Petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (the Act). No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Respondent No. 1, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), vide its reply affidavit dated 19.1.2024 inter-alia, has raised the issue of sharing the transmission charges. Respondent No. 15, NTPC Green

Energy Limited (NGEL), has filed its reply vide affidavit dated 18.1.2024 and has raised the issue of the proposed COD and delay in commissioning of the transmission asset. The Petitioner has filed its rejoinders vide separate affidavits dated 29.1.2024 to the replies of TANGEDCO and NGEL.

6. The hearing in this matter was concluded on 29.4.2024, and order in the matter was reserved.

7. After hearing the representatives of the Petitioner and learned counsels for the Respondents and having perused the material on record, we proceed to dispose of the Petition. This order is issued considering the submissions made by the Petitioner in the Petition with affidavit dated 13.12.2022 and subsequent affidavit dated 4.1.2024, NGEL's reply filed vide affidavit dated 18.1.2024, TANGEDCO's reply filed vide affidavit dated 19.1.2024, and the Petitioner's rejoinders vide separate affidavits dated 29.1.2024. NGEL and the Petitioner have also filed their Written Submissions dated 15.5.2024 and 16.5.2024, respectively.

8. The Petitioner, in the instant Petition, has prayed for a grant of interim tariff under Regulation 10(3) of the 2019 Tariff Regulations. Since in the instant Petition, the tariff is being determined from COD to 31.3.2024, the Petitioner's prayer for the grant of an interim tariff as contemplated under Regulation 10(3) of the 2019 Tariff Regulations is not being considered.

<u>Determination of Annual Fixed Charges (AFC) for the 2019-24 Tariff Period</u>

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

(₹ in lakh)

Particulars	2022-23 (pro-rata for 225 days)	2023-24
Depreciation	18.55	38.00
Interest on Loan	14.23	28.61
Return on Equity	16.40	35.06
Interest on Working Capital	1.05	2.01
O&M Expenses	10.77	18.09
Total AFC	**61.00**	**121.77**

10. 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	2022-23 (pro-rata for 225 days)	2023-24
O&M Expenses	1.46	1.51
Maintenance Spares	2.62	2.71
Receivables	12.20	14.97
Total Working Capital	**16.28**	**19.19**
Rate of Interest (in %)	10.50	10.50
Interest on Working Capital	**1.71**	**2.01**
Interest on Working Capital	**1.05**	**2.01**

<u>Date of Commercial Operation ("COD")</u>

11. The Petitioner has claimed the COD of the transmission asset as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations as the associated transmission line connecting with the Petitioner's Pooling Station with the generating station being executed by NGEL was not ready. The Petitioner has submitted that as per the IA, the Scheduled Date of Commercial Operation (SCOD) of the transmission asset was July 2022 or in the matching time frame of the 230 MW Solar Project of NTPC at Ettayapuram Tuticorin, whichever is later. The Petitioner has further submitted that the transmission asset was ready, and the CEA clearance under Regulation 43 of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010, was received on 28.7.2022. However, due to the delay in the commissioning of the associated generating station and the associated transmission line under the scope of NGEL, the transmission asset could not be utilized and declared under commercial operation. The Petitioner has, therefore, requested the approval

of COD as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations as the 230 MW Solar Project of NGEL along with transmission lines was delayed.

12. NGEL, in its reply, mainly, has submitted as follows:

a) On 16.7.2021, the MoP approved and awarded the implementation of 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station. The transmission project was approved and awarded the implementation under the Regulated Tariff Mechanism (RTM) mode by the MoP. As per the approval dated 16.7.2021, the transmission project was required to be implemented in the matching time frame of the 230 MW generation asset, which is being developed by NGEL. The relevant extract of the approval is as follows:

> "*Implementation timeframe: In matching timeframe of 230 MW solar project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu or 12 months from the date of MoP OM allocating the scheme, whichever is later*."

b) The Detailed Project Report (DPR) for the transmission asset specifies the COD/ time frame for implementation of the transmission asset to be July 2022; the implementation time frame for the transmission asset must match the timeframe of the 230 MW Solar Project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu or 12 months from the date of the MoP OM allocating the scheme, whichever is later. Hence, from a combined reading of the MoP approval dated 16.7.2021, the IA submitted by the Petitioner, and the DPR of the transmission asset, it is clear that the transmission asset was to be put into commercial operation in the matching time frame of the 230 MW Solar Project and not by July 2022.

c) In terms of Regulation 13 (3) of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 (hereinafter referred to as 'the 2020 Sharing Regulations'), a generator is not liable to pay the charges if the transmission asset is commissioned prior to its SCOD.

d) The generation asset was to be commissioned on 28.9.2021. However, due to the Covid-19 pandemic and shortage of supply of domestic content modules, SECI, vide its letter dated 23.6.2022, granted an extension in SCOD for the project up to 12.11.2022 and subsequently, vide its various letters extended the SCOD up to 15.12.2022. Therefore, the Petitioner's transmission asset could only be put into commercial operation on or around 15.12.2022 as envisaged in the approval granted by the MoP and as envisaged in the IA.

e) NGEL has executed the Power Usage Agreement with the Telangana Discoms for the power to be generated from the Solar Project. As per the provisions of the Agreement, Telangana Discoms were required to apply for the grant of the LTA. Accordingly, Telangana Discoms had applied for the 162.27 MW and 67.73 MW LTA. CTUIL granted the LTA with a start date of 19.8.2022 or availability of the common transmission system, whichever was later. The common transmission system was for ICT-4 and ICT- 5, which were under the scope of ISTS. The aforementioned ICTs were allotted to the Petitioner under the RTM route. As per the MoM dated 5.5.2022 of the 37th meeting of the Joint Coordination Committee, Southern Region, the LTA transmission system for the aforesaid project through ICT-4 and ICT-5 was expected by March/April 2023.

f) NGEL, vide its letter dated 6.10.2022, requested CTUIL to commission the ICT-4 and ICT-5, i.e., the associated transmission system in the matching timeframe of the 230 MW Ettayapuram Solar PV Project, and prepone the commissioning of the associated transmission system from March 2023 to November 2022. Accordingly, CTUIL, vide its letter dated 19.10.2022, issued a meeting notice for 2.11.2022 indicating that it would discuss operationalization of the LTAs for the associated transmission system at Tuticorin. Subsequently, CTUIL, vide intimation letter dated

7.12.2022, has operationalized 162.27 MW LTA for TSSPDCL w.e.f. 9.12.2022. NGEL declared the COD of 162.27 MW w.e.f. 10.12.2022.

g) CTUIL vide letter dated 13.12.2022 operationalized the 54.73 MW out of 63.73 MW LTA for TSNPDCL w.e.f. 15.12.2022, and NGEL declared 67.73 MW COD w.e.f. 15.12.2022. The balance 13 MW capacity was scheduled through Short Term Open Access (STOA) due to the non-operationalization of the LTA. Further, CTUIL, vide intimation letter dated 14.2.2023, operationalized a balance of 13 MW LTA for TSNPDCL w.e.f. 16.2.2023 and CTUIL vide invoice dated 7.2.2023 raised invoice for transmission charges due to a delay of one day for an amount of ₹179640/- and NGEL paid the same.

h) Therefore, the Petitioner was duty-bound to commission the transmission asset only in tandem with the commissioning of the Solar Project in December 2022. Hence, the COD of the transmission asset now cannot be considered as 19.8.2022. Further, the associated transmission system was to be put into commercial operation in March 2023. Therefore, there was no possibility of commissioning the bay before the commissioning of the associated transmission system. Further, at the request of NGEL, CTUIL preponed the operationalization of the LTA through existing margins available in the system in December 2022. Accordingly, the transmission project was commissioned, and the COD was declared. Therefore, NGEL cannot be affixed with any liability for commissioning the generation asset in December 2022.

13. In response, the Petitioner vide affidavit dated 29.1.2024 has submitted as follows:

a) NGEL has erred in understanding the MoP OM dated 16.7.2021 and IA dated 26.10.2021. Since the commissioning schedule of the 230 MW Solar Project of NGEL at Ettayapuram, Tuticorin, Tamil Nadu was 1.9.2021, which was very close to the date of the MoP letter dated 16.7.2021 and 12 months were required for the implementation of the transmission asset under ISTS scope. Accordingly, it was approved in the matching timeframe of the 230 MW Solar Project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu, or 12 months from the date of MoP OM allocating the scheme, whichever was later, considering the bay would come at a later date in comparison to generating station. Further, NGEL has conveniently interpreted MoP OM in its favour, stating that the transmission licensee shall match the time frame of the generating station in spite of the fact that the commissioning schedule of generation has been shifted multiple times.

b) As a matter of principle, any extension that NGEL may have received for the completion of its projects by SECI, MoP, or any other authority, cannot be pleaded as a defence not to pay the transmission charges of the Petitioner for the period of mismatch in terms of the 2020 Sharing Regulations read with the 2019 Tariff Regulations. The only implication of such an extension is that NGEL may be able to avoid the payment of liquidated damages or other penalties to its beneficiaries, such as SECI and the ultimate purchaser.

c) Further, any extension granted to NGEL does not, in any manner, alter the schedule of the Petitioner's transmission asset, as the Petitioner is not privy to the contractual obligations between NGEL and its procurers.

d) As per the IA read with the MoP OM dated 16.7.2021, the SCOD of the transmission asset, i.e., 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station, in July 2022. However, NGEL vide letter dated 15.2.2022 requested the Petitioner to expedite the bay implementation works much ahead of July 2022. The Executive Director (RE) NTPC, vide letter dated 15.2.2022, communicated to the Director (Projects) of the Petitioner that the Solar Project commissioning is expected by March/April 2022 and requested the Petitioner to expedite the bay implementation works. In response to the said letter dated 15.2.2022, the Executive Director (CMG) of the Petitioner vide letter dated 22.2.2022 communicated to NGEL as follows:

> "*Implementation of 1 no. of 230 kV bay at Tuticorin-II GIS PS was allotted to POWERGRID vide MOP OM Dated 16.07.21 under RTM with matching timeframe of 230 MW solar project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu or 12 months from date of MoP OM whichever is later. But keeping in view requests of NTPC for early readiness of required bay, POWERGRID has already approved the diversion of HGIS line bay module to Tuticorin-II GIS PS and supply is expected by end of March 2022. POWERGRID will make all efforts to complete the said works by May'22/June'*22."

e) In view of the above, it is apparent that the bay implementation schedule is later than the generating station. However, the Petitioner has tried all its means to make the bay ready at the earliest as per NIGEL's request . Therefore, NGEL cannot take the plea that its schedule was changed to 15.12.2022 and, thus, is not liable to pay the transmission charges.

f) In order to avoid the charges, NGEL is trying to deviate from the matter by linking to the commissioning of the 4th and 5th ICTs at Tuticorin-II GIS Pooling Station, which were commissioned in September 2023 and December 2023, respectively. In this regard, the Petitioner has stated the implementation of 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station is linked with Stage-II connectivity and nowhere linked with any LTA. Further, on the request of NGEL, CTUIL has preponed the operationalization of LTA (much before the commissioning of the said ICTs) through existing margins available in the system in December 2022 when the generating station was ready. Therefore, the contention of NGEL linking to LTA and commissioning of the said ICTs is devoid of merits as the said bay is meant for Stage-II connectivity.

g) The Petitioner had put all its efforts into keeping the requests of NGEL and made the bay ready at the earliest possible time, i.e., by July 2022. The power flow in the Petitioner's scope of work could not be achieved due to the non-readiness of generation assets and the associated dedicated transmission line under the scope of

NGEL. Accordingly, the Petitioner is seeking approval of COD of the transmission asset as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations and requests to allow full tariff in the instant Petition.

14. TANGEDCO, in its reply, has submitted that the commissioning of 1 No. 230 kV bay at Tuticorin GIS Pooling Station-II by the Petitioner without commissioning the generation and its associated 230 kV line by NGEL has no benefit for the beneficiaries. Regulation 13(3) of the 2020 Sharing Regulations, provides that the generator is liable to pay the transmission charges till the COD of the generating station.

15. TANGEDCO has further prayed to direct the Petitioner to recover the transmission charges for the transmission asset from the generator (NGEL) for the period from 19.8.2022 (COD of 1 No. 230 kV bay at Tuticorin Pooling Station-II) to the COD of the generator and its associated transmission system. TANGEDCO has also requested CTUIL to share the information regarding the actual COD of the RE generator and its associated line.

16. In response, the Petitioner, vide affidavit dated 29.1.2024, has submitted that a 230 kV downstream inter-connection transmission system is being implemented by NGEL and the power flow in the Petitioner's scope of work could not be achieved due to the non-readiness of the downstream system at Tuticorin-II GIS Pooling Station. Accordingly, the Petitioner has prayed for approval of COD of the transmission asset under Regulation 5(2) of the 2019 Tariff Regulations. The Petitioner has submitted that the transmission charges are to be shared as per the 2020 Sharing Regulations.

17. In support of the claimed COD of the transmission asset, the Petitioner has submitted a copy of the CEA certificate dated 28.7.2022, the SRLDC certificate dated 29.8.2022 and the CMD certificate. The Petitioner has also placed on record a copy of the notice dated

29.7.2022 sent to all the Respondents as contemplated under Regulation 5(2) of the 2019 Tariff Regulations.

18. Based on the pleadings of the parties and material available on record, the following issue arise for our consideration:

Issue No.1. Whether the COD of the transmission asset can be approved under Regulation 5(2) of the 2019 Tariff Regulations?

Analysis and Decision

19. The Petitioner has submitted that as per the IA dated 26.10.2021, the transmission asset was scheduled to be put into commercial operation within 9 months from the date of the IA, i.e., by July 2022 or in the matching time-frame of 230 MW Solar Project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu, whichever was later. The Petitioner has claimed the COD of the transmission asset as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations as the associated transmission line connecting the Petitioner's Pooling Station with the generating station being executed by NGEL was not ready.

20. NGEL has submitted that the transmission asset was scheduled to be put into commercial operation matching with the timeframe of the 230 MW Solar Project of NTPC or 12 months from the date of the MoP OM allocating the scheme, whichever was later. The NGEL's Solar Project was delayed due to the Covid-19 pandemic, and SECI extended the COD of its Solar Project. Accordingly, the project was put into commercial operation on 10.12.2022 in line with the SECI's extension. According to NGEL, the Petitioner cannot claim the COD of its transmission asset prior to 10.12.2022, which is the COD of the 230 MW solar project of NTPC.

21. TANGEDCO has submitted that the Petitioner has claimed the COD of its transmission asset as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations. TANGEDCO has

further submitted that the beneficiaries should not be made liable for the payment of transmission charges for the mismatch period between the transmission asset of the Petitioner and the associated asset of NGEL.

22. We have considered the rival submissions of the Petitioner, NGEL, and TANGEDCO and have perused the record. It is observed that the proposal of the 1 No. 230 kV bay at Tuticorin-II GIS Pooling Station to be implemented for termination of the dedicated transmission line from the NTPC's Tuticorin Solar Generation project had been agreed upon in the 2nd SRPC (TP) meeting and subsequently, NCT approved the same in its 4th meeting held on 20.1.2020 and 28.1.2020. Accordingly, MoP vide OM dated 16.7.2021 approved the implementation of said transmission project under the RTM mode by the Petitioner. As per the MoP approval dated 16.7.2021, the implementation time of the transmission asset was in the matching time frame of the 230 MW Solar Project being developed by NGEL or 12 months from the date of MoP's OM allocating the scheme, whichever is later. The relevant extract of the approval is as follows:

> "*Implementation timeframe: In matching timeframe of 230 MW solar project of NTPC at Ettayapuram, Tuticorin, Tamil Nadu or 12 months from the date of MoP OM allocating the scheme, whichever is later*."

23. We note that the IA was accorded by the Petitioner's Company on 25.10.2021 with the transmission project scheduled to be commissioned in 9 months from the date of IA, i.e., by July 2022 or in the matching timeframe of the 230 MW Solar Project of NTPC at Ettayapuram Tuticorin, Tamil Nadu, whichever is later. It is observed that Stage-II connectivity had already been granted by CTUIL to NTPC in September 2020, with the start date of Stage-II connectivity on 1.9.2021. Thus, at the time of the grant of the connectivity, the commissioning of the 230 MW Solar Project at Ettayapuram, Tamil Nadu, was expected before September 2021.

24. According to NGEL, the transmission asset of the Petitioner was to be executed in the matching time frame of the 230 MW Solar Project, which was further extended up to 12.11.2022 and 15.12.2022 by SECI on account of the Covid-19 pandemic and shortage of supply of domestic content modules. On consideration of the above contention of NGEL, we note that NGEL, vide its letter dated 15.2.2022, intimated to the Petitioner that the Ettayapuram Solar Power Project was likely to be commissioned by March/April 2022 and requested the Petitioner to further expedite the work of line bay at Tuticorin -II Pooling Station. In order to comply with the request of NGEL, the Petitioner also diverted the HGIS line bay to the Tuticorin-II GIS Pooling Station and planned to supply power by March 2022. In view of this, we note that NGEL had no objection to the time frame approved for the line bay, and it was expected that the Solar Power project would be executed well before the availability of the associated line bay at Tuticorin -II Pooling Station. However, with the delayed execution of the Solar Power Project with respect to its SCOD on 28.9.2021, the claim of NGEL that the line bay should be executed in the matching time frame of the Solar Power Project is itself contradictory to the request made by the NGEL for early completion of work associated with line bay at Tuticorin-II Pooling Station. Hence, the same is hereby rejected.

25. NGEL has also contended that the associated transmission system (i.e., 4th and 5th ICTs) was to be executed in March 2023. Therefore, there was no possibility for the execution of the bay before the execution of the associated transmission system. NGEL requested CTUIL to prepone the execution of the associated transmission system from March 2023 to November 2022, and subsequently, CTUIL operationalized 162.27 MW LTA for TSSPDCL with effect from 9.12.2022, 54.73 MW out of 63.73 MW LTA with effect from 15.12.2022 and balance 13 MW LTA with effect from 16.2.2023.

26. CTUIL conducted a meeting on 2.11.2022 regarding the operationalization of the LTAs granted at Tuticorin PS-II. The relevant extracts of the minutes are as follows:

"Minutes of meeting held on 02.11.2022 regarding operationalization of LTAs granted at Tuticorin-II GIS Pooling Station on existing margins in ISTS

1. *---*
2. *Dy. COO (CTU) welcomed the participants to the meeting and informed that NTPC has requested to operationalize the LTA granted to TSSPDCL & TNSPDCL from its Solar generation project of 230 MW capacity at Tuticorin prior to the commissioning of associated 4th & 5th 500 MVA ICTs at Tuticorin-II GIS PS. Accordingly, this meeting have been convened with various RE developers to discuss the matter regarding allocation of the margins available in the existing transmission system.*
3. *---*
4. *---*
5. *---*
6. *NTPC on behalf of its beneficiaries (TSSPDCL & TSNPDCL) have requested for early operationalization of LTA, all RE developers having higher priority were requested for realistic commissioning schedule of the RE generation projects.*
7. *---*
8. *Subsequently, NTPC vide email dated 11.11.2022 has confirmed the commissioning schedule as given below:*

Sl. No.	***Capacity***	***Date of power evacuation into the Grid***
1	*100*	*28.11.2022*
2	*67.5*	*04.12.2022*
3	*62.5*	*08.12.2022*

9. *Since LTA application of JSW for 540 MW project is having higher priority and 108 MW quantum of the project is getting commissioned by Feb'23 (before SCOD of 4th ICT), accordingly 108 MW margins out of total 325 MW margins available in the existing transmission system at Tuticorin-II PS may be allocated to M/s JSW Renew Energy Ltd. Further, balance margins of 217 MW, 162.27 MW may be allocated to M/s TSSPDCL and 54.73 MW may be allocated to M/s TNPDCL.*

10. *CTU shall operationalize the LTA to M/s JSW Renew Energy Ltd, M/s TSSPDCL and M/s TNPDCL after receipt of the consent to operationalize the LTA with the margins available in the existing transmission system. LTA grantees shall be liable for payment of transmission charges from the start date of LTA, in case of any delay in commissioning of the generation capacity."*

27. CTUIL vide letter dated 13.5.2020 has granted the Stage-II connectivity to NTPC. The relevant extract of the same is as follows:

FORMAT-RCON-IIA

Intimation for Grant of Stage-II Connectivity

1.	Intimation No	:	C/CTU/St-II/S/1200002503
	Date	:	13.05.2020
2.	Ref. Application No.	:	1200002503
	Date	:	29.02.2020
3.	Name of the Applicant	:	NTPC Limited
4.	Address for Correspondence	:	Engineering Office Complex, A-8A, Sector-24, Noida - 201301
5.	Location of the Generating Station		Navalakkapatti, Ettayapuram Taluk Tuticorin, Tamil Nadu
	Latitude		9.61 N
	Longitude	:	77.98 E
6.	Nature of the Applicant	:	Generator (Solar)
7.	**Details for Stage-II Connectivity granted**		
7a	Capacity (MW) for which connectivity is granted	:	230
7b	ISTS sub-station and bay at which Connectivity is granted	:	Tuticorin-II (GIS) Bay Type: Hybrid GIS Bay No : 211 **SLD enclosed**
7c	Connectivity Transmission System	:	NTPC Limited – Tuticorin-II 230kV S/c line (high capacity conductor enabling at least 380 MW power transfer at nominal voltage) – Dedicated line including bay at generator end shall be under the scope of applicant whereas bay at ISTS end shall be under the scope of ISTS.
7d	Date from which Connectivity is granted	:	01.09.2021

28. Telangana Discoms applied for the LTA of 162.27 MW and 67.73 MW. CTUIL, vide its letter dated 6.12.2021, granted an LTA of 162.27 MW and, vide letter dated 3.2.2022, granted an LTA of 67/73 MW. The relevant extracts of the same are as follows:

Intimation for Grant of Long Term Access (LTA) to RSPPL

1	**Intimation No.** **Date :**	C/CTU/S/07/1200003420 06.12.2021
2	**Ref. Application No.** **Date :**	1200003420 01.09.2021
3	**Name of the Applicant**	M/s Southern Power Distribution Company of Telangana Limited
4	**Address for Correspondence**	: Southern Power Distribution Company of Telangana Limited 6-1-50, Corporate Office Mint Compound, Hyderabad, Telangana, India
5	**Nature of the Applicant** Normal Generator (other than captive) Captive Generator Bulk Consumer Electricity Trader Distribution Licensee Others	: Distribution Licensee
6	**Details for Long Term Access (LTA)**	
6a	Quantum (MW) for which LTA is granted	162.27 MW
7	**Injection of Power (more than one only in case of single Drawl)**	
	Entity-1 State/Region Quantum-1	M/s NTPC Limited Tamil Nadu / Southern Region 162.27 MW
	Connectivity with the Grid	Tuticorin-II GIS, Tamil Nadu
8	**Drawl of Power (more than one only in case of single Injection)**	
	Entity-1 State/Region Quantum-1 Connectivity with the Grid	Southern Power Distribution Company of Telangana Limited Telangana / Southern Region 162.27 MW Through STU network
9	Transmission System for LTA	**Common Transmission System for LTA under ISTS:** • 1X500 MVA, 400/230kV ICT (4th) at Tuticorin-II PS
9a	Date from which LTA is granted	19.08.2022 or availability of Common Transmission System for LTA, whichever is later. *Expected Commissioning schedule of Common Transmission System for LTA - March'23.*
9b	Date upto which LTA is granted	18.08.2047
9c	Implementing Agency for transmission system required for LTA	POWERGRID
9d	Agencies between which agreement is to be signed for implementation of transmission system	M/s Southern Power Distribution Company of Telangana Limited & CTUIL
9e	Amount (in Rupees) for which Bank Guarantee is to be provided by the applicant	N.A.
10	Transmission Charges Applicable	Transmission charges as per applicable CERC Sharing of Inter-State Transmission Charges and Losses Regulations.

9a	Date from which LTA is granted	01.04.2023
9b	Date upto which LTA is granted	09.03.2048
9c	Implementing Agency for transmission system required for LTA	Power Grid Corporation of India Ltd.
9d	Agencies between which agreement is to be signed for implementation of transmission system	M/s Northern Power Distribution Company of Telangana Limited & CTUIL
9e	Amount (in Rupees) for which Bank Guarantee is to be provided by the applicant	NA
10	**Transmission Charges Applicable**	Transmission charges as per CERC Sharing of Inter-State Transmission Charges and Losses Regulations, 2020.

Intimation No. C/CTU/S/07/1200003537

FORMAT-LTA-5

Intimation for Grant of Long-Term Access (LTA)

1	**Intimation No.** **Date :**	:	C/CTU/S/07/1200003563 03.02.2022
2	**Ref. Application No.** **Date :**	:	1200003563 29.11.2021
3	**Name of the Applicant**	:	M/s Northern Power Distribution Company of Telangana Limited
4	**Address for Correspondence**	:	Corporate Office # 2-5-31/2, Vidyuth Bhavan, Nakkalagutta, Hanamkonda Warangal Urban Telangana.
5	**Nature of the Applicant** Normal Generator (other than captive) Captive Generator Bulk Consumer Electricity Trader Distribution Licensee Others	:	Distribution Licensee
6 6a	**Details for Long Term Access (LTA)** Quantum (MW) for which LTA is granted	:	67.73 MW
7	**Injection of Power (more than one only in case of single Drawl)**		
	Entity-1	:	M/s NTPC Limited
	State/Region	:	Tamil Nadu / SR
	Quantum-1	:	67.73 MW
	Connectivity with the Grid	:	**Dedicated Connectivity Tr. system:** • NTPC Limited - Tuticorin-II 230kV S/c line (high-capacity conductor enabling atleast 380 MW power transfer at nominal voltage) along with 230kV bay at generation end - under the scope of applicant • 230 kV line bay at Tuticorin-II GIS PS for termination of dedicated line - under the scope of ISTS
8	**Drawl of Power (more than one only in case of single Injection)**		
	Entity-1	:	M/s Northern Power Distribution Company of Telangana Limited
	State/Region	:	Telangana / SR
	Quantum-1	:	67.73 MW
	Connectivity with the Grid	:	Through interconnection of Telangana STU with ISTS network
9	**Transmission System for LTA**		**Common Transmission System for LTA under ISTS:** • Transmission System for "**Augmentation of transformation capacity by 1x500 MVA, 400/230kV ICT (5th) at Tuticorin-II**"

29. It is observed that Stage-II connectivity has been granted to NTPC with the implementation of the 230-kV bay at Tuticorin under ISTS, whose COD has been claimed by the Petitioner under Regulation 5(2) of the 2019 Tariff Regulations in the instant Petition. Further, the LTA has been granted a common transmission system, i.e., augmentation of transformation capacity 1X500 MVA (ICT-4) and 1X500 MVA (ICT-5). Accordingly, the

commissioning of the ICTs cannot be linked with the commissioning of the 230 kV bay at Tuticorin-II Pooling Station.

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

> *"**5. Date of Commercial Operation:** (1) The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*
> *(2) In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*
> *Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:*
> *Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:*
> *(a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
> *(b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
> *(c) Implementation Agreement, if any, executed by the parties;*
> *(d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
> *(e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;*
> *(f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.*
> *(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."

31. In support of the claimed COD of the transmission asset, the Petitioner has submitted the copy of the CEA Energization Certificate dated 28.7.2022, SRLDC certificate dated 29.8.2022 certifying the completion of the No-Load Trial run operation on 30.7.2022, and CMD Certificate. Petitioner vide letter dated 29.7.2022 gave the notice to all the Respondents under Regulation 5(2) of the 2019 Tariff Regulations. Taking into consideration the CEA Energization Certificate, the SRLDC certificate certifying the completion of No-Load Trial run operation on 30.7.2022, and the CMD certificate, the COD of the 1 No. 230 kV line bay at Tuticorin-II Pooling Station is hereby approved as 19.8.2022 in terms of Regulation 5(2) of the 2019 Tariff Regulations.

<u>Capital Cost</u>

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

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

(2) The Capital Cost of a new project shall include the following:
- *(a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- *(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- *(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- *(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- *(e) Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- *(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- *(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*

(h) Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;
(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway.
(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
(n) Expenditure on account of change in law and force majeure events; and
(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(3) The Capital cost of an existing project shall include the following:
(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
(c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

(4) The capital cost in case of existing or new hydro generating station shall also include:
(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:
(a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

Provided that in case replacement of transmission Asset-is recommended by Regional Power Committee, such Asset-shall be decapitalised only after its redeployment;

Provided further that unless shifting of an Asset-from one project to another is of permanent nature, there shall be no de-capitalization of the concerned asset.

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."

33. The Petitioner has claimed the following capital cost in respect of the transmission asset, and the same is supported by the Auditor's Certificate dated 8.11.2022:

(₹ in lakh)

FR approved cost	Expenditure up to COD	ACE			Estimated completion cost
		2022-23	2023-24	2024-25	
756.00	363.77	218.39	80.38	25.00	687.54

<u>Cost overrun</u>

34. The Petitioner has submitted that as against the FR-approved cost of ₹756.00 lakh, the estimated completion cost of the transmission asset is ₹687.54 lakh. Therefore, there is no cost overrun for the transmission asset with respect to the FR-approved cost. The item-wise variation for the transmission project is as follows:

(₹ in lakh)

Sr. No	Description	FR Cost	Estimated capital cost	Variation (-decrease, +increase)
		a	b	c = b - a
A	**Sub-stations**			
1	Land, site preparation, design and Engg.	20.00	0.00	-20.00
2	Control Room and Office Building, including HVAC	55.12	50.00	-5.12
3	Switchgear (CT, PT, Circuit Breaker, Isolator etc)	149.13	251.54	102.41
4	Control and relay panel	97.94	75.24	-22.70
5	Sub-station Auxiliaries, Bus Bars/ conductors / Insulators, Grounding System	72.00	55.98	-16.02
6	Structure for switchyard	122.50	103.53	-18.97
7	Spares	37.8	10.37	-27.43
8	Taxes and Duties	96.51	87.48	-9.03
B	Over heads	88.00	49.99	-38.01
C	Interest During Construction (IDC)	17.00	3.42	-13.58
	Grand Total	**756.00**	**687.55**	**-68.45**

35. The Petitioner has submitted the following reasons for the cost variation vis-à-vis FR cost:

i. **Variation in Equipment cost:**

The Petitioner, being a Government enterprise, has the obligation to indigenous development of manufacturers as well as adhering to the Government of India (GoI) guidelines in vogue. Accordingly, it has been following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. Further, the route of the Domestic Competitive Bidding (DCB) process has been followed to award this transmission project. Through this process, the lowest possible market prices for required product/services as per the detailed design is obtained, and contracts are awarded on the basis of the lowest evaluated eligible bidder. The Petitioner has further submitted that depending upon the prevailing market conditions, the best competitive bid prices against the tenders may vary as compared to the cost estimate, design, and site requirements. Further, the estimates are prepared by the Petitioner as per well-defined procedures for cost estimate, and the FR cost estimate is a broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts/general practice. Further, the cost estimate of the project is on the basis of June, 2021 price level. Quantities considered in FR also vary , due to the actual site conditions.

ii. **Variation in IDC cost:**

The Petitioner has submitted that the decrease in IDC is attributable to the variation in rate of interest considered in the FR as against actuals. In the FR cost, IDC is calculated considering the rate of interest for the domestic loans @10.5%. However, in actuality, the Weighted Average Rate of Interest (WAROI) of loans is around 6.50-7.50%. The actual IDC accrued up to COD has been considered while claiming the tariff.

iii. Variation in IEDC cost:

The Petitioner has submitted that the estimation was done at the rates of 3% and 10.75% of the equipment cost towards contingency and IEDC, respectively. The actual amount of IEDC has been taken for claiming the tariff.

36. We have considered the submissions of the Petitioner. As compared with the FR cost of ₹756.00 lakh, the estimated completion cost of the transmission asset is ₹687.55 lakh, which is within the approved FR cost. Therefore, there is no cost overrun.

Time overrun

37. As per the IA dated 26.10.2021, the transmission asset was scheduled to be commissioned within 9 months from the date of the IA (by July 2022) or in the matching time frame of the 230 MW Solar Project at NTPC at Ettayapuram, Tuticorin Tamil Nadu, whichever is later. As against this, the Petitioner declared the COD of the transmission asset on 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations. Therefore, the time overrun in respect of the transmission asset is as follows:

Asset	SCOD	COD (as per Regulation 5(2) of the 2019 Tariff Regulations)	Time overrun
1 No. 230 kV Bay at Tuticorin-II GIS Pooling Station	24.7.2022	19.8.2022	26 days

38. On perusal of the record, we note that the Petitioner has not submitted any justification for time overrun in the implementation of the transmission asset as against its SCOD. Therefore, in the absence of any justification for time overrun, we are not inclined to condone the delay of 26 days. The details of time over-run condoned/not condoned are as follows:

Asset	SCOD	COD (as per Regulation 5(2) of the 2019 Tariff Regulations)	Time over-run	Time over-run Condoned	Time over-run not Condoned
1 No. 230 kV Bay at Tuticorin-II GIS Pooling Station	24.7.2022	19.8.2022	26 days	Nil	26 days

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

39. The Petitioner has claimed an amount of ₹3.43 lakh as IDC, out of which ₹1.97 lakh was discharged up to the COD and ₹1.46 lakh was discharged after the COD.

40. We have considered the Petitioner's submissions . As the time over-run in case of the transmission asset is not condoned, the IDC claimed by the Petitioner for the period beyond the SCOD has accordingly been disallowed.

41. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission asset on a cash basis. The loan details submitted in Form 9C for the 2019-24 tariff period and IDC computation provided by the Petitioner have been considered for the purpose of IDC calculation on cash and on an accrued basis. The undischarged IDC has been considered as ACE during the year in which it has been discharged. Therefore, the total amount of IDC allowed for the transmission asset is as follows:

(₹ in lakh)

IDC claimed	IDC disallowed due to time over-run not condoned	IDC allowed
3.43	1.13	2.29

42. The Petitioner has claimed IEDC of ₹49.99 lakh for the transmission asset as per the Auditor's Certificate. According to the Petitioner, the entire amount of IEDC for the transmission asset has been discharged up to COD. As the entire time over-run in the case of the transmission asset has been disallowed, the IEDC for the transmission asset has been allowed in proportion to the date of the IA to the SCOD. Accordingly, the IEDC claimed as per the Auditor's Certificate, IEDC considered and discharged up to the COD as follows:

(₹ in lakh)

IEDC claimed a per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
49.99	4.36	45.63

43. We have computed the allowable IDC and IEDC in respect of the transmission asset and the same are as follows:

(₹ in lakh)

IDC claimed	IDC disallowed	IDC allowed	IEDC claimed	IEDC disallowed due to time over-run not condoned	IEDC allowed
3.43	1.13	2.29	49.99	4.36	45.63

Initial Spares

44. Initial Spares, as claimed by the Petitioner in respect of the transmission asset, are as follows:

(₹ in lakh)

Head	Plant and Machinery cost for calculation of Initial Spares	Ceiling as per Regulations (in %)	Allowable Initial Spares	Initial Spares claimed	Excess Initial Spares
Sub-station (Brown-field)	584.14	6	36.62	10.37	Nil

45. The Petitioner has submitted that the Initial Spares claimed under the sub-station are within the allowable limits as per the 2019 Tariff Regulations.

46. Regulation 23(d) of the 2019 Tariff Regulations provides that the 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) GIS Insulated Sub-station
- (Green Field): 5.00%
- (Brown Field): 7.00%
(v) Communication System: 3.50%
(vi) Static Synchronous Compensator: 6.00%"

47. We have considered the submissions of the Petitioner. The Initial Spares claimed by the Petitioner are within the ceiling of 7%. The Initial Spares allowed in respect of the transmission asset, as per Regulation 23(d) of the 2019 Tariff Regulations, are as follows:

(₹ in lakh)

Head	Plant and Machinery cost for calculation of initial spares (A)	Initial Spares Claimed (B)	Ceiling limit as per Regulations (in %) (C)	Allowable Initial Spares D= (A-B) *C/(100-C)	Excess Initial Spare Claimed E=B-D	Initial Spares Allowed
Sub-station (Brown-field)	584.14	10.37	7	43.19	0.00	10.37

Capital cost allowed as on COD

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

(₹ in lakh)

Capital cost claimed till COD	Less: IDC disallowed	Less: IEDC disallowed	Less: Undischarged IDC	Capital cost allowed as on COD
363.77	1.13	4.36	1.46	356.82

Additional Capital Expenditure ("ACE")

49. The Petitioner has submitted that the admissibility of ACE incurred after COD is to be dealt with in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations. The Petitioner has submitted that element-wise details of ACE claimed have already been submitted in Form-7. The Petitioner has further submitted that the ACE incurred in respect of the transmission asset is on account of the undischarged liability towards the final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations.

50. The Petitioner has submitted the following details of the liability flow statement:

(₹ in lakh)

Head/Part wise	Particulars	Outstanding liability as on COD	Discharged Amount			Additional Liability Recognized			
			2022-23	2023-24	Total (19-24)	2022-23	2023-24	2024-25	Total (19-24)
M/s Linxon India Pvt. Ltd.	Sub-station	51.36	0.00	51.36	51.36	218.28	0.00	0.00	218.28
M/s Linxon India Pvt. Ltd.	IT Equipment including software	4.02	0.00	4.02	4.02	0.11	0.00	0.00	0.11
Misc. Contracts	Building and Civil	0.00	0.00	0.00	0.00	0.00	25.00	25.00	50.00
Total		**55.38**	**0.00**	**55.38**	**55.38**	**218.39**	**25.00**	**25.00**	**268.39**

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

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

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

(a) Undischarged liabilities recognized to be payable at a future date;
(b) Works deferred for execution;
(c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23of 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."

52. The COD of the transmission asset is approved as 19.8.2022, and the cut-off date of the transmission project is 31.8.2025. The Petitioner has projected ACE in the financial year 2024-25, which has not been considered in the instant order, and the same will be dealt with in the 2024-29 tariff period as per the applicable Tariff Regulations.

53. We have considered the submissions of the Petitioner and have approved ACE under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations as they are towards undischarged liabilities recognized to be payable at a future date and the balance work deferred for execution.

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

(₹ in lakh)

Particulars	2022-23	2023-24	Total (2019-2024)
ACE	219.87*	80.38	300.25

**This is inclusive of discharged IDC in FY 2022-23.*

Capital cost allowed as on 31.3.2024.

55. The capital cost allowed as on 31.3.2024 is as follows:

(₹ in lakh)

FR approved cost	Capital cost allowed as on COD	ACE allowed		Capital cost allowed as on 31.3.2024
		2022-23	2023-24	
756.00	356.82	219.87	80.38	657.07

Debt Equity Ratio

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

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

Provided that:

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

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

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

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or

proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

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

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

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and 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."

57. The Petitioner has claimed a debt-equity ratio of 70:30 as on COD, and the same has been considered in accordance with Regulation 18 of the 2019 Tariff Regulations. The details of the debt-equity ratio as on the COD and as on 31.3.2019 are as follows:

Funding	Capital cost as on COD (₹ in lakh)	(in %)	Capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	249.77	70.00	459.95	70.00
Equity	107.04	30.00	197.12	30.00
Total	**356.82**	**100.00**	**657.07**	**100.00**

Depreciation

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

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

commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of

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

59. The IT equipment has been considered as a part of the gross block and depreciated using the Weighted Average Rate of Depreciation (WAROD) (placed as an Annexure to this order). The WAROD has been worked out after considering the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of the IT equipment has been considered as Nil, i.e., IT assets have been considered as 100% depreciable. Depreciation allowed in respect of the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

	Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
A	Opening Gross Block	356.82	576.69
B	Addition during the year due to projected ACE	219.87	80.38
C	Closing Gross Block (A+B)	576.69	657.07
D	Average Gross Block (A+C)/2	466.75	616.88
E	Average Gross Block (90% depreciable assets)	414.53	562.59
F	Average Gross Block (100% depreciable assets)	52.22	54.29
G	Depreciable value (excluding IT equipment and software) (E*90%)	373.08	506.33

	Particulars	2022-23 (pro-rata for 225 days)	2023-24
H	Depreciable value of IT equipment and software (F*100%)	52.23	54.29
I	Total Depreciable Value (G+H)	425.30	560.62
J	Weighted average rate of Depreciation (WAROD) (in %)	6.37	6.10
K	Lapsed useful life at the beginning of the year (Year)	0	00
L	Balance useful life at the beginning of the year (Year)	25	25
M	**Depreciation during the year (D*J)**	**18.32**	**37.61**
N	Cumulative Depreciation at the end of the year	18.32	55.93
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	406.98	504.70

<u>Interest on Loan ("IoL")</u>

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

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

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

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

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

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

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

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

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

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

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

61. The IoL has been considered on the basis of the rates prevailing as on the COD for the respective loans. 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 may be adjusted. Accordingly, the floating rate of interest, if any, will be considered at the time of truing-up. Therefore, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission asset is as follows:

(₹ in lakh)

	Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
A	Gross Normative Loan	249.77	403.68
B	Cumulative Repayments up to Previous Year	0.00	18.32
C	Net Loan-Opening (A-B)	249.77	385.36
D	Addition due to ACE	153.91	56.27
E	Repayment during the year	18.32	37.61
F	Net Loan-Closing (C+D-E)	385.36	404.02
G	Average Loan (C+F)/2	317.56	394.69
H	Weighted Average Rate of Interest on Loan (in %)	7.18	7.19
I	**Interest on Loan (G*H)**	**14.06**	**28.37**

<u>Return on Equity ("RoE")</u>

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

*"**30. Return on Equity:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.*
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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

Provided further that:

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

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

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

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

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

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

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

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

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

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

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

Illustration-

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

Rate of return on equity = 15.50/(1-0.2155) = 19.758%

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
(b) Estimated Advance Tax for the year on above is Rs 240 crore;
(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
(d) Rate of return on equity = 15.50/ (1-0.24) = 20.395%.

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

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

(₹ in lakh)

	Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
A	Opening Equity	107.04	173.01
B	Addition due to ACE	65.96	24.11
C	Closing Equity (A+B)	173.00	197.12
D	Average Equity (A+C)/2	140.02	185.06
E	Return on Equity (Base Rate) (in %)	15.50	15.50
F	MAT Rate applicable (in %)	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782
H	**Return on Equity (D*G)**	**16.21**	**34.76**

<u>Operation & Maintenance Expenses ("O&M Expenses")</u>

64. The Petitioner has claimed the following O&M Expenses for the transmission asset:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
O&M Expenses (1 No. 230 kV line bay at Tuticorin-II GIS Pooling Station)	10.77	18.09

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

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

Particulars	***2019-20***	***2020-21***	***2021-22***	***2022-23***	***2023-24***
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	*45.01*	*46.60*	*48.23*	*49.93*	*51.68*
400 kV	*32.15*	*33.28*	*34.45*	*35.66*	*36.91*
220 kV	*22.51*	*23.30*	*24.12*	*24.96*	*25.84*
132 kV and below	*16.08*	*16.64*	*17.23*	*17.83*	*18.46*
Norms for Transformers (₹ Lakh per MVA)					
765 kV	*0.491*	*0.508*	*0.526*	*0.545*	*0.564*
400 kV	*0.358*	*0.371*	*0.384*	*0.398*	*0.411*
220 kV	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
132 kV and below	*0.245*	*0.254*	*0.263*	*0.272*	*0.282*
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Single Circuit (Bundled conductor with four sub-conductors)	*0.755*	*0.781*	*0.809*	*0.837*	*0.867*
Single Circuit (Twin & Triple Conductor)	*0.503*	*0.521*	*0.539*	*0.558*	*0.578*
Single Circuit (Single Conductor)	*0.252*	*0.26*	*0.27*	*0.279*	*0.289*
Double Circuit (Bundled conductor with four or more sub-conductors)	*1.322*	*1.368*	*1.416*	*1.466*	*1.517*
Double Circuit (Twin & Triple Conductor)	*0.881*	*0.912*	*0.944*	*0.977*	*1.011*
Double Circuit (Single Conductor)	*0.377*	*0.391*	*0.404*	*0.419*	*0.433*
Multi Circuit (Bundled Conductor with four or more sub-conductor)	*2.319*	*2.401*	*2.485*	*2.572*	*2.662*
Multi Circuit (Twin & Triple Conductor)	*1.544*	*1.598*	*1.654*	*1.713*	*1.773*
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	*834*	*864*	*894*	*925*	*958*
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	*1,666*	*1,725*	*1,785*	*1,848*	*1,913*
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	*2,252*	*2,331*	*2,413*	*2,498*	*2,586*
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	*2,468*	*2,555*	*2,645*	*2,738*	*2,834*
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	*1,696*	*1,756*	*1,817*	*1,881*	*1,947*
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	*2,563*	*2,653*	*2,746*	*2,842*	*2,942*

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

Provided further that:

i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and

vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years

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

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

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

66. We have considered the submissions of the Petitioner. The O&M Expenses have been allowed for the transmission asset as per Regulation 35(3)(a) of the 2019 Tariff Regulations, and the same are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
1 No. 230 kV line Bay at Tuticorin-II GIS Pooling Station	10.77*	18.09*

**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.*

Interest on Working Capital ("IWC")

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

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

(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
(i) Receivables equivalent to 45 days of annual fixed cost;
(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
(iii) Operation and maintenance expenses, including security expenses for one month."
"(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019- 24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:
Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.
(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."
*"**3. Definitions.** - In these regulations, unless the context otherwise requires:-*
***(7) 'Bank Rate'** means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"*

68. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on COD of the transmission project. The Petitioner has considered the rate of IWC as 10.50%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 10.50% for the financial year 2022-23 (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points), and for the financial 2023-24, as 12.00% (SBI 1-year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
Working Capital for O&M Expenses (O&M Expenses for one month)	1.46	1.51
Working Capital for Maintenance Spares (15% of O&M Expenses)	2.62	2.71
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost /annual transmission charges)	12.08	14.89
Total Working Capital	16.16	19.11
Rate of Interest for working capital (in %)	10.50	12.00
Interest on working capital	**1.05**	**2.29**

Annual Fixed Charges (AFC) for the 2019-24 Tariff Period

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

(₹ in lakh)

Particulars	2022-23 (pro-rata for 225 days)	2023-24
Depreciation	18.32	37.61
Interest on Loan	14.06	28.37
Return on Equity	16.21	34.76
O&M Expenses	10.77	18.09
Interest on Working Capital	1.05	2.29
Total	**60.41**	**121.12**

Filing Fee and Publication Expenses

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

Licence Fee and RLDC Fees and Charges

71. The Petitioner has sought reimbursement of the licensee fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations. The Petitioner shall be entitled to the 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 the 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

72. The Petitioner has submitted that if GST is levied at any rate and at any point of time in the future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed

separately by the Petitioner. Further, additional taxes, if any, are to be paid by the Petitioner on account of the demand from the Government/Statutory Authorities; the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

74. 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.

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

Capital Spares

76. The Petitioner has sought reimbursement of the 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

77. With regard to sharing of the transmission charges, NGEL in its affidavit dated 19.1.2024, has submitted that in terms of Regulation 13 (3) of the 2020 Sharing Regulations, a generator is not liable to pay the transmission charges if the transmission asset is commissioned prior to its SCOD. The relevant portion of the said regulation is extracted as follows:

> *"Where COD of a generating station or unit(s) thereof is delayed and the Associated Transmission System has achieved COD, **which is not earlier than its SCOD**, the generating station shall pay Yearly Transmission Charges for the Associated Transmission System corresponding to Long Term Access granted for the generating station or unit(s) thereof, which have not achieved COD:"*

78. NGEL has contended that the transmission asset was required to be commissioned in the matching timeframe of the generating station and not before its SCOD.

79. TANGEDCO, in its reply, has submitted that commissioning of one 230 kV bay at Tuticorin GIS PS -II by the Petitioner without commissioning of the generator and its associated 230 kV line by NGEL has no benefit for the beneficiaries. Regulation 13(3) of the 2020 Sharing Regulations provides that a generator is liable to pay the transmission charges till COD of the generating station.

80. We have considered the submissions of Petitioner, NGEL, and TANGEDCO. As stated above, the COD of the transmission asset has been approved as 19.8.2022 under Regulation 5(2) of the 2019 Tariff Regulations as the associated transmission line connecting the Petitioner's Pooling Station with the generating station being executed by NGEL was not ready. Regulation 13(12) of the 2020 Sharing Regulations provides as follows:

> *"13. Treatment of transmission charges and losses in specific cases*
>
> *(12) In case of a transmission system where COD has been approved in terms of proviso (ii) of Clause (3) of Regulation 4 of the Tariff Regulations, 2014 or Clause (2) of Regulation 5 of the Tariff Regulations, 2019 or where deemed COD has been declared in terms of Transmission Service Agreement under Tariff based Competitive Bidding, the Yearly Transmission Charges for the transmission system shall be:*

(a) paid by the inter-State transmission licensee whose transmission system is delayed till its transmission system achieves COD, or

(b) paid by the generating company whose generating station or unit(s) thereof is delayed, till the generating station or unit thereof, achieves COD, or

(c) shared in the manner as decided by the Commission on case to case basis, where more than one inter-State transmission licensee is involved or both transmission system and generating station are delayed."

81. As per Regulation 13(12) of the 2020 Sharing Regulations, if the COD of the asset is approved under Clause (2) of Regulation 5 of the Tariff Regulations, 2019, the defaulting party is liable to pay transmission charges. In the instant case, the COD of the asset is approved as 19.8.2022 under Clause (2) of Regulation 5 of the 2019 Tariff Regulations, as the associated generation under the control of NGEL was not ready. It is observed that the RE generation of 230 MW under the control of NGEL achieved COD on different dates. As the solar generation of 230 MW achieved COD on different dates, the only issue that arises for our consideration is what proportion of transmission charges will be included in the common pool and what proportion of transmission charges are to be paid by the NGEL. The COD of the asset covered in the instant petition is approved as 19.8.2022, and no generation had been commissioned as on 19.8.2012. The generation of 162.27 MW achieved COD on 10.12.2022, and the generation of 67.73 MW achieved COD on 15.12.2022. Therefore, NGEL is liable to pay the transmission charges as per the details given below:

COD of the transmission asset	**RE Generation capacity (MW) commissioned**	**Date of commissioning of the Solar generation capacity**	**Liability of the transmission charges**
19.8.2022	NIL	-	From **19.8.2022 to 9.12.2022:** Transmission charges of 230 MW shall be borne by NEGL
	162.27 MW	10.12.2022	**From 10.12.2022 to 14.12.2022:** Transmission charges proportionate to 162.27 MW out of 230 MW shall be included in the common pool and the

			balance 67.73 MW shall be borne by NGEL
	67.73	15.12.2022	Transmission charges of 230 MW shall be included in the common pool.

82. To summarize, the AFC allowed in respect of the transmission asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

Particulars	**2022-23 (pro-rata for 225 days)**	**2023-24**
AFC	**60.41**	**121.12**

83. The Annexure to this order forms part of the order.

84. This order disposes of Petition No. 67/TT/2023 in terms of the above findings and discussions.

sd/-	**sd/-**
(Arun Goyal)	**(Jishnu Barua)**
Member	**Chairperson**

Annexure

(₹ in lakh)

Capex	Admitted capital cost as on COD	Projected ACE		Admitted capital cost as on 31.3.2024	Depreciation Rate (in %)	Annual Depreciation	
		2022-23	2023-24			2022-23	2023-24
Building	0.00	0.00	25.00	25.00	3.34	0.00	0.42
Sub-station	304.65	219.76	51.36	575.77	5.28	21.89	29.04
PLCC	0.00	0.00	0.00	0.00	6.33	0.00	0.00
IT Equipment	52.17	0.11	4.02	56.30	15.00	7.83	8.14
Total	**356.81**	**219.87**	**80.38**	**657.07**		**29.72**	**37.61**
					Average Gross Block	**466.75**	**616.88**
					WAROD (in %)	**6.37%**	**6.09%**