

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 41/TT/2022

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri P. K. Singh, Member**

Date of Order: 19.05.2024

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 transmission tariff from the COD to 31.3.2024 for Asset-I 420 kV, 1 X 80 MVAR, 3-Phase Bus Reactor in existing GIS bays at 400/220 kV Misa GIS Sub-station (Extension), Asset II-2 number 132 kV line bays at Biswanath Chariali Sub-station (for termination of Biswanath Chariyali-Itanagar (Arunachal Pradesh) 132 kV D/C (Zebra Conductor) line-line under TBCB) and Asset III-2 number 400 kV (GIS) bays at Silchar and 2 number 400 kV (GIS) bays along with 2X 80 MVAR Switchable Line Reactors at Misa for 400 kV D/C (Quad) Silchar-Misa Transmission line (Line under TBCB scope) under Project-"POWERGRID works associated with North Eastern Region Strengthening Scheme-II, Part-B (NERSS-II-B)".

And in the matter of:

Power Grid Corporation of India Limited,
'Saudamini', Plot No-2,
Sector-29, Gurgaon-122 001 (Haryana).

.....Petitioner

Versus

1. Assam Electricity Grid Corporation Limited,
(Formerly Assam State Electricity Board),
Bijulee Bhawan, Paltan Bazar,
Guwahati-781001, Assam.
2. Meghalaya Energy Corporation Limited,
(Formerly Meghalaya State Electricity Board),
Short Round Road, "Lumjingshai",
Shillong-793001, Meghalaya.



3. Government of Arunachal Pradesh,
Itanagar, Arunachal Pradesh.
4. Power and Electricity Department,
Government of Mizoram,
Aizawl, Mizoram.
5. Manipur State Power Distribution Corporation Limited,
(Formerly Electricity Department, Government of Manipur),
Keishampat, Imphal.
6. Department of Power,
Government of Nagaland,
Kohima, Nagaland.
7. Tripura State Electricity Corporation Limited,
Vidyut Bhawan, North Banamalipur,
Agartala, Tripura (W)-799001, Tripura.
8. NER II Transmission Limited,
F-1, The Mira Corporate Suites, 1 & 2 Ishwar Nagar,
Mathura Road, New Delhi-110065. **...Respondent(s)**

For Petitioner : Ms. Swapna Sheshadri, Advocate, PGCIL
Shri Utkarsh Singh, Advocate, PGCIL
Shri Saurav Kumar Jha, PGCIL
Shri S.S. Raju, PGCIL
Shri Zafrul Hasan, PGCIL

For Respondent : Shri Deep Rao Palpu, Advocate, NER-II TL
Shri Arjun Agarwal, Advocate, NER-II TL
Shri Anita Gupta, NER-II TL
Ms. Anisha Chopra NER-II TL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (PGCIL) for determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) from COD to 31.3.2024 in respect of the following assets (hereinafter called the "transmission assets”) under Project-"POWERGRID works



associated with North Eastern Region Strengthening Scheme-II, Part-B (NERSS-II-B)”
(hereinafter referred to as “transmission project”) in the North Eastern Region:

Asset I- 420 kV, 1X80 MVAR, 3-Phase Bus Reactor in existing GIS bays at 400/220 kV Misa GIS Sub-station (Extension);

Asset II- 2 number 132 kV line bays at Biswanath Chariyali Sub-station (for termination of Biswanath Chariyali-Itanagar (Arunachal Pradesh) 132 kV D/C (Zebra Conductor) line-line under TBCB); and

Asset III 2 number 400 kV (GIS) bays at Silchar and 2 number 400 kV (GIS) bays along with 2X 80 MVAR Switchable Line Reactors at Misa for 400 kV D/C (Quad) Silchar-Misa Transmission Line (Line under TBCB scope) (hereinafter referred to as the “transmission assets”).

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

“1) Approve the proposed DOCO under clause 5(2) of Tariff Regulation, 2019 as explained at para 6.20.

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 –8.40 above.

4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2019 as per para 8.40 above for respective block.

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

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

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

8) Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 8.9 above.



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

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

11) Allow interim tariff in accordance with Regulation 10 (3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice.”

Background

3. The brief facts of the case are as follows:

- (a) The Investment Approval (IA) of the transmission project was accorded by the Board of Directors of the Petitioner's Company vide Memorandum Ref.: C/CP/PA1819-02-0B-IA002 dated 25.5.2018, at an estimated cost of ₹12032.00 lakh including an IDC of ₹673.00 lakh based on the December, 2017 price level.
- (b) The scope of the scheme was discussed and agreed upon in the 5th meeting of the Standing Committee on Power System Planning in the North Eastern Region held on 8.8.2015. The same was also approved in the 15th NERPC meeting held on 21.8.2015 at Guwahati.
- (c) The entire scope of work under the transmission project has been completed and is covered in the instant petition.
- (d) The Empowered Committee on Transmission, in its 35th meeting held on 14.9.2015, decided that the transmission lines under the transmission project shall be implemented through Tariff Based Competitive Bidding (TBCB) route. The sub-station works for TBCB lines terminating at PGCIL



Sub-stations including line bays and line reactors were brought under the scope of the Petitioner.

(e) The scope of work covered under the transmission project is as follows:

Sub-station extension:

- (i) 400/132 kV Biswanath Chariyali Sub-station (Extension):
 - 132 kV Line bays: 2 numbers {for termination of Biswanath Chariyali-Iltanagar (Arunachal Pradesh) 132 kV D/C (Zebra Conductor) line-line under TBCB
- (ii) 400/220 kV Silchar GIS Sub-station (Extension):
 - 400 kV Line bays (GIS*): 2 numbers for termination of Silchar-Misa 400 kV D/C (Quad) Line -line under TBCB.
- (iii) 400/220 kV Misa GIS Sub-station (Extension):
 - 400 kV Line bays (GIS)*: 2 numbers for termination of Silchar- Misa 400 kV D/C (Quad) line-line under TBCB
 - Switchable Line Reactor (GIS): 420 kV, 2x80 MVAR, 3-phase, Switchable Line Reactors at Misa GIS end of Silchar-Misa 400 kV D/C line
 - 420 kV, 1x80 MVAR, 3-phase, Bus Reactor in existing GIS Bay[#]

**At Silchar Sub-station under DPR of NERSS-II (Part B) two complete diameters have been considered for termination of Silchar-Misa 400 kV D/C line on account of fact that as per reliability point of view, it is recommended to consider double circuit line in different diameters to ensure the availability of at least one line bay for 400 kV D/C line in case of LBB operation of TIE bay of the diameters.*

Accordingly, in order to fulfil the above requirement, provision of additional 2 nos. 400 kV GIS line bays have been considered for future use in the BOQ of subject project. Both the diameter shall be procured in one go.

**At Misa Sub-station under DPR of NERSS-II (Part-B) one complete diameter have been considered for Silchar-Misa (along with switchable line reactor). Similarly, in the DPR of NERSS-VI provision of procurement of one complete diameter has been kept for 400 kV Misa-Mariani D/C line to be terminated at Misa Sub-station.*

It may be noted that these two schemes are being implemented in the almost same time frame and hence one single GIS package has been considered comprising requirements of GIS bays at Misa Sub-station under both NERSS-II (part-B) & NERSS-VI.

Further, it may also be mentioned that considering the advantage of GIS technology from reliability point of view, it has been considered that both the diameters shall have one feeder for Silchar D/C line & one feeder for Mariani D/C



line to ensure the availability of at least one bay of both Silchar D/C & Misa D/C line in case of LBB operation of TIE bay for any of the two diameters.

Accordingly, in the BOQ 2 no. line bays and one Tie bay has been considered under both NERSS-II (part-B) & NERSS-VI.

The diameter required for the GIS bay for the bus reactor has been included under the scope of NERSS-IV (along with one GIS ICT bay at Misa) scheme, which has already been accorded investment approval.

- (f) The associated transmission lines and elements are implemented by NER-II Transmission Limited (NER-II TL), Respondent No. 8 under the Tariff Based Competitive Bidding (TBCB), which include: (a) Biswanath Chariyalli (PGCIL)-Itanagar 132 kV D/C (Zebra Conductor) Line (“BI Line”); (b) 2 number 132 kV line bays at Itanagar for termination of Biswanath Chariyalli (PGCIL)-Itanagar 132 kV D/C (Zebra Conductor) Line (“Itanagar Bays”); (c) LILO of one circuit of Biswanath Chariyalli (PGCIL)-Itanagar 132 kV D/C (Zebra Conductor) Line at Gohpur (AEGCL) (“BI LILO”); and (d) LILO of one circuit of Biswanath-Chariyalli (PGCIL)-Itanagar 132 kV D/C (Zebra Conductor) Line at Gohpur (AEGCL) (“BI LILO”).
- (g) The Assets-I and III of the Petitioner are associated with Silchar (Powergrid) Misa (Powergrid) 400 kV D/C (Quad) Line (SM) Line of NER-II TL while Asset-II with BI Line of the NER-II TL.

4. The Respondents, mainly the beneficiaries of the North Eastern Region, are distribution licensees and power departments which are procuring transmission service from the Petitioner.

5. The Petitioner has served the petition on the Respondents, and notice regarding the filing of this petition has also been published in newspapers in accordance with



Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. NER-II TL has filed its reply vide affidavit dated 18.8.2022 and has raised the issue of COD of Assets-II and III and the mismatch in COD of its transmission lines associated with Assets-II and III. The Petitioner, vide affidavit dated 9.9.2022, has filed its rejoinder to the reply of NER-II TL. The issues raised by NER-II TL and the clarifications given by the Petitioner in its rejoinder affidavit dated 9.9.2022 are considered in the relevant portions of this order.

6. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 10.6.2021, 28.4.2022 and 5.8.2022, reply of NER-II TL, reply affidavit of NER-II TL dated 18.8.2022 and rejoinder affidavit of the Petitioner dated 8.8.2022.

7. NER-II TL has submitted that its pleadings filed by it in Petition No. 134/MP/2021, including, *inter alia*, the rejoinder dated 25.2.2022 and affidavit dated 10.12.2021, may be read as part and parcel of its submissions in the instant petition.

8. The hearing in this matter was held on **22.5.2023** and the order was reserved. However, an order in the petition could not be issued before Shri I.S. Jha, Member, demitted office. Therefore, the petition was heard on 6.2.2024 and the order was reserved.

9. Having heard the learned counsels for the Petitioner, NER-II TL and having perused the material on record, we proceed to dispose of the petition.



DETERMINATION OF ANNUAL FIXED CHARGES FOR THE 2019-24 TARIFF PERIOD

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

(₹ in lakh)

Asset-I				
Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
Depreciation	35.19	49.37	49.38	49.38
Interest on Loan	33.83	44.40	40.41	37.03
Return on Equity	37.56	52.69	52.69	52.69
O&M Expenses	18.00	24.12	24.96	25.84
Interest on Working Capital	2.23	3.04	3.02	3.00
Total	126.81	173.62	170.46	167.94

(₹ in lakh)

Asset-II				
Particulars	2020-21 (Pro-rata for 275 days)	2021-22	2022-23	2023-24
Depreciation	22.32	40.68	42.44	42.44
Interest on Loan	18.44	32.12	30.68	27.58
Return on Equity	20.95	38.82	40.57	40.57
O&M Expenses	25.07	34.46	35.66	36.92
Interest on Working Capital	1.89	2.97	3.05	3.05
Total	88.67	149.05	152.40	150.56

(₹ in lakh)

Asset-III				
Particulars	2020-21 (Pro-rata for 109 days)	2021-22	2022-23	2023-24
Depreciation	113.09	416.29	441.02	441.02
Interest on Loan	101.08	353.78	345.27	313.67
Return on Equity	114.68	422.91	448.26	448.26
O&M Expenses	41.73	144.69	149.76	155.01
Interest on Working Capital	6.32	22.67	23.46	23.17
Total	376.90	1360.34	1407.77	1381.13



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

(₹ in lakh)

Asset-I				
Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
O&M Expenses	1.94	2.01	2.08	2.15
Maintenance Spares	3.50	3.62	3.75	3.88
Receivables	20.24	21.41	21.05	20.65
Total Working Capital	25.68	27.04	26.88	26.68
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	2.23	3.04	3.02	3.00

(₹ in lakh)

Asset-II				
Particulars	2020-21 (Pro-rata for 275 days)	2021-22	2022-23	2023-24
O&M Expenses	2.77	2.87	2.97	3.08
Maintenance Spares	4.99	5.17	5.35	5.54
Receivables	14.51	18.38	18.79	18.51
Total Working Capital	22.27	26.42	27.11	27.13
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	1.89	2.97	3.05	3.05

(₹ in lakh)

Asset-III				
Particulars	2020-21 (Pro-rata for 109 days)	2021-22	2022-23	2023-24
O&M Expenses	11.65	12.06	12.48	12.92
Maintenance Spares	20.97	21.70	22.46	23.25
Receivables	155.61	167.71	173.56	169.81
Total Working Capital	188.23	201.47	208.50	205.98
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	6.32	22.67	23.46	23.17



Date of Commercial Operation (“COD”)

12. The Petitioner has claimed the COD of Asset-I as 23.6.2020 and has proposed the COD of Asset-II and Asset-III as 30.6.2020 and 13.12.2020, respectively, under Regulation 5(2) of the 2019 Tariff Regulations as the associated transmission line under the scope of work of NER-II transmission limited was not ready on the COD of Asset-II and Asset-III.

13. The Petitioner has submitted that Asset-I was put into commercial operation on 23.6.2020 ahead of its scheduled COD of 1.12.2020. The Petitioner has further submitted that in the 21st TCC and NERPC meeting held on 3rd and 4th February 2021, NERLDC informed that after the studies, it was found that 400 kV Bus Voltage at Misa Sub-station was 424 kV in lean hydro and 421 kV in peak hydro season without the Bus Reactor and with the execution of 80 MVAR Bus Reactor at Misa, there would be 80 kV reduction in both the cases catering to better grid security. Accordingly, in order to reduce the voltages, early COD of the Bus Reactor at Misa Sub-station was agreed upon in the 21st TCC and NERPC meeting.

14. The Petitioner has submitted that Asset-II comprises 2 numbers of 132 kV line bays at Biswanath Chariyali Sub-station for termination of Biswanath Chariyali-Itanagar (Arunachal Pradesh) 132 kV D/C (Zebra Conductor) line (BI Line) constructed by Respondent, NER-II TL under TBCB. The Petitioner has further submitted that it was ready with Asset-II on 30.6.2020. However, power flow in the Petitioner's scope of work could not be achieved due to the non-readiness of inter-connected transmission lines of NER-II TL being executed under TBCB.



15. The Petitioner has submitted that Asset-III comprises 2 number 400 kV (GIS) bays at Silchar and 2 number 400 kV (GIS) bays along with 2X80 MVAR Switchable Line Reactors at Misa for termination of the 400 kV D/C (Quad) Silchar-Misa Transmission Line (SM Line) being constructed by NER-II TL under TBCB. The Petitioner has further submitted that it was ready with Asset-III on 13.12.2020. However, power flow in the scope of work of the Petitioner could not be achieved due to the non-readiness of inter-connected transmission lines of the NER-II TL executed under TBCB. The Petitioner has, therefore, sought approval of COD of Assets-II and III under Regulation 5(2) of the 2019 Tariff Regulations as 30.6.2020 and 13.12.2020, respectively, and allow its tariff as claimed in the petition.

16. NER-II TL has submitted that the first proviso to Regulation 5(2) of the 2019 Tariff Regulations requires the transmission licensee to provide at least one month's notice to its DICs/beneficiaries and other transmission licensees. The Petitioner did not comply with this requirement with respect to Asset-II of the instant petition.

17. In response, the Petitioner has submitted that it made various correspondences with NER-II TL intimating the progress/readiness of Asset-II and also furnished the details of the correspondences made by the Petitioner with NER-II TL, and they are as follows:

- i. Record note of discussion dated 24.12.2019 held with NER-II TL discussing the progress of Asset-II;
- ii. Letter dated 24.3.2020 intimating the readiness on 30.6.2020;
- iii. Letter dated 1.4.2020 intimating the progress of Asset-II;
- iv. Letter dated 11.6.2020 requesting to complete the NER-II TL scope at the Petitioner's Sub-station;
- v. Letter dated 23.6.2020 intimating the progress of Asset-II.

18. 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.”

19. The Respondent, NER-II TL, has made the following submissions:
- a. The Petitioner has sought an extension of the COD of the transmission assets by five months on the basis of the Ministry of Power (MoP)'s Order No. 3/1/2020-Trans dated 27.7.2020 (“2020 MoP letter”). According to the 2020 MoP letter, the extended COD of Assets-I, II, and III is 1.5.2021, 1.9.2020 and 1.5.2021, respectively.
 - b. A further extension of 3 months was granted by MoP, vide order dated 12.6.2021 (“2021 MoP order”,) for inter-State transmission project, after filing the present petition in March, 2021. Thus, collectively, an extension of 8 months has been granted by the MoP for the inter-State transmission projects that are under construction. These notifications are equally applicable to the transmission assets of the NER-II TL.
 - c. The COD of the SM Line was 1.3.2021. Thus, the purported mismatch period for Asset-III, i.e., 13.12.2020 to 1.3.2021 (76 days) and for Asset-I, i.e., 1.12.2020 (original SCOD) to 1.3.2021 (90 days) claimed/insinuated by the Petitioner are incorrect, and there is no period of mismatch between the COD of the SM Line and the extended SCODs of Assets-I and III as admitted by the Petitioner itself. Therefore, NER-II TL cannot be penalized by way of



imposition of bilateral liability of Asset-I and/or Asset-III's transmission charges/ IDC and IEDC for any time period before the admitted extended SCOD of Assets-I and III, i.e., 1.5.2021. SM Line has been executed well before its extended SCOD of 30.4.2021 (on account of the 2020 MoP Order). On this ground alone, no liability can be imposed on NER-II TL for any purported delays in the execution of the SM Line. Therefore, SM Line is not delayed and that NER-II TL cannot be made liable for the early execution of the Petitioner's Assets-I and III in any manner.

- d. Asset-I was executed early independently by the Petitioner on 23.6.2020 for better grid security and it was agreed upon in the 21st TCC & NERPC meeting held in January, 2021. All the constituents of NERPC (including PGCIL's beneficiaries/Designated ISTS Customers ("DICs")) have assented to the advancement of Asset-I, and as such, the tariff towards the same ought to be borne by the DICs/beneficiaries of the Petitioner. NER-II TL cannot be held liable in any manner to bilaterally pay transmission charges for an asset that the Petitioner has executed early with the approval of all its DICs/beneficiaries.
- e. NER-II TL has also submitted that the claimed deemed COD of Asset-II and Asset-III should not be granted as they were not put to use before the commercial operation of NER-II TL's assets. Asset-II was to interconnect with the Biswanath Chariyali-Itanagar Line (BI Line) under NER-II TL's scope of work. Similarly, Asset-III had to interconnect with the Silchar-Misa Line (SM Line) under NER-II TL's scope of work. Neither Asset-II nor Asset-III could have been put to use before the execution of the NER-II TL's corresponding



assets. In this regard, reference is made to the APTEL's common judgment dated 18.1.2018 in Appeal No. 198 of 2015 and Appeal No. 6 of 2016. In the said judgment, the APTEL has relied on the decision of the Hon'ble Supreme Court in (2016) 4 SCC 797 dated 3.3.2016 in Power Grid Corporation of India Limited v. Punjab State Power Corporation Limited & Ors.

20. In response, the Petitioner has made the following submissions:

- a. The primary error in the approach of NER-II TL is that it is assuming that the Petitioner is seeking an extension of COD for Asset-I and Asset-III based on MoP Orders dated 27.7.2020 and 12.6.2021 whereas the Petitioner is seeking approval of COD under the provisions of Regulation 5(2) of the 2019 Tariff Regulations. Further, after unilaterally declaring an extension of SCOD of its assets, i.e. BI Line and BI LILO as 30.11.2020 and SM Line as 30.4.2021, NER-II TL has submitted that no liability with respect to the tariff of Asset-I and Asset-III can be imposed on it for the period before the extended SCOD.
- b. In Petition No. 134/MP/2021, NER-II TL has contended that it had completed all the elements within its scope under the NERSS-II (Part-B Scheme) and that there was a delay on the part of the Petitioner in completing the upstream assets. NER-II TL has also claimed the SCOD of its projects in NERSS-II (Part-B) as follows:

Sr. No.	Scheme/ Transmission Works	SCOD	Actual status
NERSS-II (Part-B)			



Sr. No.	Scheme/ Transmission Works	SCOD	Actual status
1.	Biswanath Chariyali (POWERGRID)-Itanagar 132 kV D/C (Zebra Conductor) Line	31.3.2020 (36 months)	25.3.2021
2.	2 number 132 kV line bays at Itanagar for termination of Biswanath Chariyali (POWERGRID)-Itanagar 132 kV D/C (Zebra Conductor) Line	31.3.2020 (36 months)	25.3.2021
3.	LILO of one circuit of Biswanath Chariyalli (POWERGRID)-Itanagar 132 kV D/C (Zebra Conductor) Line at Gohpur (AEGCL)	31.3.2020 (36 months)	25.3.2021
4.	Silchar (POWERGRID)-Misa (POWERGRID) 400 kV D/C (Quad) Line	30.11.2020 (44 months)	27.2.2021 (Deemed COD)

c. It is clear that deemed COD is being claimed by NER-II TL only for Silchar-Misa line as 27.2.2021 on the basis that the upstream assets of the Petitioner are delayed. NER-II TL has not pointed out as to which assets of the Petitioner have been delayed. Further, in the reply to the present petition, NER-II TL is claiming that it achieved the COD of the Silchar-Misa line on 1.3.2021.

d. On the contrary, the Petitioner has implemented the following systems as part of the NERSS-II (Part-B):

Sr. No	Asset	SCOD	COD	Remarks
1	420 kV, 1 X 80MVAR, 3-Phase Bus Reactor in existing GIS bays at 400/220 kV Misa GIS Sub-station (Extension)*	1.12.2020 (as per IA) / 1.5.2021 (as per the 2020 MoP Order)	23.6.2020	Early COD to reduce the voltages, agreed upon in the 21st TCC & NERPC meeting
2	2 numbers of 132 kV line bays at the Biswanath Chariali Sub-station (for termination of Biswanath Chariyali-Itanagar (Arunachal Pradesh) 132 kV D/C (Zebra Conductor) line-line under TBCB)	1.4.2020 (as per IA) / 1.9.2020 (as per the 2020 MoP Order)	30.6.2020 (Proposed) TBCB line – 25.3.2021	Power flow could not be achieved due to the non-readiness of inter-connected transmission lines of TBCB. Accordingly, approval of COD is invoked under Regulation 5(2) of the 2019 Tariff Regulations.
3	2 number 400 kV (GIS) bays at Silchar and 2 number 400 kV (GIS) bays along with 2X80	1.12.2020 (as per IA) / 1.5.2021 (as per the 2020 MoP Order)	13.12.2020 (Proposed)	



	MVAR Switchable Line Reactors at Misa for 400 kV D/C (Quad) Silchar-Misa Transmission line (Line under TBCB scope)		TBCB line – 27.2.2021	
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- e. The 80 MVAR Bus reactor at Misa Sub-station was executed early on 23.6.2020 to reduce the voltage, as agreed upon in the 21st TCC and the NERPC Meeting. The SCOD as per the IA was 1.12.2020.
- f. In respect of Asset-II and Asset-III, even though they were ready, power flow could not be achieved due to the non-readiness of the inter-connecting transmission lines, i.e. Silchar-Misa 400 kV D/C (Quad) Line and Biswanath Chariyali-Itanagar 132 kV line of TBCB licensee which are in the scope of NER-II TL.

21. We have considered the submissions of the Petitioner. The relevant extracts of the minutes of the 21st TCC and NERPC are as follows:

“ITEM NO. B.04: CAPITALIZATION OF 1X80 MVAR 420 kV BUS REACTOR IN EXISTING GIS BAY AT MISA UNDER NERSS-II (PART-B) WITH DoCO- 23.06.2020, SCHEDULE AUG’20 – NERTS.

Under Misa GIS Substation (Extension), 01 No. 420 kV 80 MVAR 3-Ph Bus Reactor has been proposed with commissioning schedule of November 2020. As discussed in 169th OCCM, 420 kV 80 MVAR Bus Reactor has been installed and charged at 400 kV Misa S/Sn as part of Misa-Mariani line upgradation in June’20. The 220 kV line is yet to be upgraded. NERLDC informed that after detailed studies it has been found that the 400 kV Bus voltage at Misa substation was 424 kV in Lean Hydro and 421 kV in Peak Hydro season without Bus Reactor. With commissioning of 80 MVAR Bus Reactor at Misa, there is 8 kV reduction in both the cases catering to better grid security.

Placed for approval of TCC/NERPC.

Deliberation of the TCC

TCC noted and recommended for approval of RPC.

Deliberation of the RPC

The RPC noted and approved the recommendation of TCC.”



22. Taking into consideration the approval of the 21st TCC and NERPC, the early commissioning of the 1X80 MVAR 420 kV Bus Reactor in the Existing GIS bay at Misa is approved.

23. In support of the COD of Asset-I, the Petitioner has submitted a self-declaration of COD letter dated 26.6.2020, provisional CEA Energisation Certificate dated 29.5.2020, CMD Certificate and RLDC Charging Certificate dated 24.6.2020 certifying that successful trial operation was completed on 22.6.2020. Taking into consideration the CEA Energisation Certificate, RLDC Charging Certificate and CMD Certificate as required under the Grid Code, the COD of the Asset-I is approved as 23.6.2020.

24. The Petitioner has sought a declaration of COD of Asset-II as 30.6.2020 under Regulation 5(2) of the 2019 Regulations as it could not be put to regular use on account of the non-readiness of downstream assets under the scope of NER-II TL. In support of COD of Asset-II, the Petitioner has submitted a self-declaration of COD letter, provisional CEA Energisation Certificate dated 25.6.2020, CMD's Certificate and RLDC Charging Certificates dated 15.7.2020 certifying that successful trial operation was completed on 29.6.2020. The Petitioner has submitted that 2 number 132 kV line bays at Biswanath Chariyali Sub-station were charged on a 'No Load' basis as there was no power flow and the associated line was not ready. As required under Regulation 5(2) of the 2019 Tariff Regulations, the Petitioner gave prior notice to NER-II TL vide letters dated 22.1.2020, 24.3.2020 and 23.6.2020 informing that 2 number 132 kV line bays at Biswanath Chariyali Sub-station for termination of Biswanath Chariyali-Itanagar 132 kV D/C line will be ready for charging by 30.6.2020.



The Petitioner also sought approval of the COD of Asset-III as 13.12.2020 under Regulation 5(2) of the 2019 Regulations as the inter-connected transmission line, i.e. 400 kV Silchar-Misa D/C Transmission line under the scope of NER-II TL was not ready. In support of COD of Asset-III, the Petitioner has submitted a self-declaration of COD letter, CEA's Energisation Certificate dated 7.12.2020, CMD's Certificate and RLDC Charging Certificates dated 21.12.2020 certifying that successful trial operation was completed on 12.12.2020. The Petitioner has submitted that 2 number 400 kV line bays at Silchar Sub-station and Misa Sub-station were charged on a 'No Load' basis as there was no power flow and the associated line was not ready.

25. The MoP vide letter dated 27.7.2020 has extended the SCOD in respect of inter-State transmission projects under construction as on 25.3.2020 by 5 months due to the COVID-19 pandemic. The relevant portion of the letter dated 27.7.2020 is as follows:

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

Sir,

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

2. It has been, therefore, decided that;

i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD

ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020

iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months."

26. As per the I.A., the scheduled COD of Asset-II and Asset-III is 1.4.2020 and 1.12.2020, respectively. Taking into consideration the MoP's letter dated 27.7.2020, we



consider the revised scheduled COD of the Asset-II and Asset-III as 1.9.2020 and 1.5.2021, respectively.

27. The Petitioner has sought declaration of COD Asset-II as 30.6.2020 under Regulation 5(2) of the 2019 Regulations as the transmission asset could not be put to regular use on account of the non-readiness of downstream assets under the scope of NER-II TL. The Petitioner has claimed the COD of Asset-II as 30.6.2020, which is prior to the revised SCOD of 1.9.2020 as per the MoP letter. The dispensation by way of a 5 month extension in COD of the transmission projects under construction as on 25.3.2020 is applicable to the transmission projects of both the Petitioner and NER-II TL. Therefore, we are not inclined to approve the COD of Asset-II prior to the revised SCOD of 1.9.2020. Accordingly, the COD of Asset-II is approved as 1.9.2020, which is the revised SCOD of Asset-II. However, the downstream transmission system under the scope of the NER-II was not put into commercial operation even on the extended SCOD, i.e. 1.9.2020, The downstream transmission line was put into commercial operation on 06.04.2021 as approved in petition no.134/MP/2021. Therefore, we are of the considered view that NER-II TL is liable to pay the transmission charges from 1.9.2020 to 5.4.2021.

28. As per the IA dated 1.5.2018, the extension works at Silchar GIS and Misa GIS i.e, Asset-3, were scheduled to be put into commercial operation, matching with the schedule of the Silchar-Misa 400 kV D/C line i.e November 2020. The Petitioner has sought a declaration of COD Asset-III as 13.12.2020 under Regulation 5(2) of the 2019 Regulations as the transmission asset could not be put to regular use on account of the non-readiness of downstream assets under the scope of NER-II TL. For delay of 13



days , the petitioner has cited the reason as Covid-19 pandemic. In terms of MoP letter dated 27.7.2020, 5 month extension in COD of the transmission projects under construction as on 25.3.2020 is applicable to the transmission projects of both the Petitioner (Asset-III) and as well as Silchar-Misa 400 kV D/C line of M/s NER-II TL. The revised scheduled COD of the both Asset-III of the petitioner and Silchar-Misa 400 kV D/C line of M/s NER-II TL works out to be 1.5.2021. Against which , the Petitioner has claimed deemed COD of Asset-III as 13.12.2020 and the COD of Silchar-Misa 400 kV D/C line of M/s NER-II TL approved in petition no. 134/MP/2021 is 1.03.2021. Therefore, we approve the COD of Asset-III as 01.03.2021 , matching the TBCB line.

29. Accordingly, the COD of the transmission assets approved is as follows:

Asset	COD claimed by the Petitioner	COD approved
<u>Asset-I:</u>	23.6.2020	23.6.2020(actual)
<u>Asset-II:</u>	30.6.2020 (Proposed)	1.9.2020 (deemed)
Asset-III	13.12.2020 (Proposed)	01.03.2021 (actual)

Capital Cost

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan,*



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

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

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



with the beneficiaries.

- (4) The capital cost in case of existing or new hydro generating station shall also include:
- 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
 - 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:
- The assets forming part of the project, but not in use, as declared in the tariff petition;
 - De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- 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;
- Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- 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.”

31. The Petitioner has submitted Auditor's Certificates dated 28.7.2020, 13.11.2020 and 22.2.2021 for Assets-I, II and III, respectively, and has claimed the following capital cost as on proposed COD and the estimated Additional Capital Expenditure (ACE) projected to be incurred in respect of the transmission assets:

(₹ in lakh)

Assets	FR apportioned approved cost as per	Cost as on proposed COD	Actual/ projected ACE				Estimated completion cost
			2020-21	2021-22	2022-23	2023-24	
Asset-I	1077.63	819.64	115.53	-	-	-	935.17
Asset-II	791.44	345.53	312.44	62.11	-	-	720.08
Asset-III	10162.83	6654.83	480.31	820.47	-	-	7955.61



32. The above-mentioned capital cost has been considered under Regulation 19 of the 2019 Tariff Regulations for the purpose of computation of tariff for the transmission assets. Further, the Petitioner is directed to submit the revised Auditor's Certificates at the time of truing up in case of Asset-II and Asset-III as per the approved COD of the transmission assets.

32. The Petitioner has submitted that the reduction in the capital cost is due to a reduction in the IDC, IEDC and price variation of the equipment cost including civil works. The reasons given by the Petitioner for price variation are the same for all three transmission assets. The Petitioner has submitted that the decrease in IDC is attributable to a variation in the rate of interest considered in FR. While preparing FR, IDC was calculated considering the rate of interest for domestic loans @10.5%. However, in actuality, the weighted average rate of interest of loans is around 7.46%. The actual IDC accrued up to COD has been considered at the time of the claim of tariff. As regards the reduction in the IEDC, the Petitioner has submitted that in the IA, 10.75% and 3% of equipment cost and civil works have been considered for IEDC and contingency, respectively, whereas based on the actual expenditure under the subject head, IEDC has been claimed in the Auditor's Certificate. As regards the cost variation in the equipment cost, including civil works, the Petitioner has submitted that through an open competitive bidding process, the lowest possible market prices for required product/services/as per detailed designing is obtained, and contracts are awarded on the basis of the lowest evaluated eligible bidder on an overall basis. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market conditions, design and site requirements. The estimates are prepared by the Petitioner as per well-defined procedures for cost



estimate. The FR cost estimate is a broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts as a general practice. The cost estimate of the transmission project is on the basis of the December, 2017 price level.

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

34. We have considered the Petitioner's submissions in respect of the cost variation of the transmission assets. As the cost variation is beyond the control of the Petitioner, the same is allowed. It is further observed that the estimated completion cost of the transmission assets is within the FR cost, and there is no cost over-run.

Time over-run

35. As per the IA dated 1.5.2018, the extension works at Biswanath Chariyali and those at Silchar GIS and Misa GIS were scheduled to be put into commercial operation, matching the schedule of the respective TBCB lines (i.e. March, 2020 and November, 2020, respectively). Accordingly, the scheduled COD of Asset-I was 1.4.2020 and Assets-II and III was 1.12.2020, against which the Petitioner has claimed the COD of Asset-I as 1.12.2020 and has proposed/claimed the COD of Assets-II and III as



30.6.2020 and 13.12.2020, respectively. Thus, there is a time over-run of 90 days and 12 days in the case of Assets-II and Asset-III, respectively. There is no time over-run in the case of Asset-I. The Petitioner has submitted that the time over-run in the case of Assets-II and III is due to the Covid-19 pandemic.

36. The Petitioner has submitted that the Ministry of Power (MoP) vide letter dated 27.7.2020 allowed extension of SCOD by five months in case of all the inter-State transmission projects, which were under construction during Covid-19 lock-down i.e. from 25.3.2020, to mitigate the issues of disruption in supply chains and manpower caused due to outbreak of Covid-19 pandemic. The relevant portions of the letter dated 27.7.2020 of MOP are extracted as follows:

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

Sir,

I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the nationwide lockdown measures announced since 25th march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID19 pandemic.

2. It has been, therefore, decided that; i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020

iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months.”

37. It is observed that the three transmission assets covered in the instant petition were under construction on 25.3.2020, and the MoP's letter dated 27.7.2020 is applicable in the instant case. Accordingly, the details of the original scheduled COD and the scheduled COD as per the MoP's letter are given in the following table. In view of the MoP's letter, there is no time over-run in the case of the transmission assets, and



therefore, we are not going into the submissions made by the Petitioner with respect to time over-run.

Assets	Actual scheduled COD as per the IA	Revised SCOD as per MoP letter dated 27.7.2020	COD approved	Delay (in days)
Asset-I	1.12.2020	1.5.2021	23.6.2020	Nil
Asset-II	1.4.2020	1.9.2020	1.9.2020 (deemed)	Nil
Asset-III	1.12.2020	1.5.2021	01.03.2021	Nil

Interest During Construction (IDC)

38. The Petitioner has claimed Interest During Construction (IDC) of ₹29.40 lakh, ₹16.14 lakh and ₹310.50 lakh for Assets-I, II and III, respectively, up to the COD of the transmission assets and it is duly certified by the Auditor. Further, the Petitioner has submitted calculation/statement of IDC comprising dates and amount of drawl of the loans deployed for the transmission assets, rate of interest of the loans for each drawl.

39. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission assets separately on a cash basis. The loan details submitted in Form-9C for the 2019-24 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on a cash and accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. The IDC allowed for the transmission assets is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC admissible	IDC disallowed due to computational difference / time over-run not condoned	IDC discharged as on COD	IDC Un-discharged as on COD	IDC discharge during	
	A	B	C=A-B	D	E=B-D	2020-21	2021-22
Asset-I	29.40	28.59	0.81	0.03	28.56	28.56	0.00
Asset-II	16.14	16.14	0.00	0.02	16.12	15.89	0.23
Asset-III	310.50	310.50	0.00	231.13	79.37	0.00	79.37



Incidental Expenditure During Construction (IEDC)

40. The Petitioner has claimed IEDC of ₹113.84 lakh, ₹82.26 lakh and ₹871.07 lakh for Assets-I, II and III, respectively, up to their COD, and it is certified by the Auditor. The IEDC claimed by the Petitioner has been allowed.

Initial Spares

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

“(d) Transmission System

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

42. The Petitioner has claimed the following Initial Spares in respect of the transmission assets:

(₹ in lakh)					
Assets	Parts	Plant and Machinery cost for calculation of Initial Spares (A)	Initial Spares claimed by the Petitioner	Norm (in %)	Initial Spares worked out by the Petitioner
			(B)	(C)	$D = \frac{[(A-B)*C]}{100-C}$
Asset- I	Sub-station (GIS-Brownfield)	791.93	51.56	7	59.61
Asset- II	Sub-station Brownfield	561.24	27.07	6	35.82
	Communication System	60.44	13.53	3.5	2.19
Asset- III	Sub-station (GIS-Brownfield)	6469.05	467.84	7	486.92
	Communication System	304.99	53.53	3.5	11.06



Total (Project Level)	Sub-station (GIS- Brownfield)	7260.98	519.4	7	546.53
	Sub-station Brownfield	561.24	27.07	6	35.82
	Communication System	365.43	67.06	3.5	13.25

43. The Petitioner has claimed Initial Spares on PLCC under the communication system separately for Assets-II and III. The Petitioner has further submitted that the Initial Spares for the transmission project for the Sub-station are within the norms under Regulation 23 of the 2019 Tariff Regulations. Hence, the Initial Spare claim may be allowed.

44. We have considered the Petitioner's submissions . Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Therefore, Initial Spares are not allowed separately towards PLCC for Assets-II and III.

45. It is observed that there is variation in the plant and machinery cost (excluding IDC, IEDC, land cost and cost of civil works) considered for computation of Initial Spares as per the Auditor's Certificate and as per Form-13. We have considered the plant and machinery cost as per the Auditor's Certificate for the computation of Initial Spares. The Petitioner has not submitted the statement of discharge of liability of Initial Spares. Therefore, the excess Initial Spares claimed by the Petitioner have been adjusted from the capital cost as on COD, subject to adjustment at the time of true-up. Therefore, the Initial Spares allowed in respect of the transmission assets for the 2019-24 tariff period are as follows:



(₹ in lakh)

Assets	Parts	Plant and Machinery cost for calculation of initial spares (A)	Initial Spares claimed by the Petitioner	Norm (in %)	Initial Spares allowed	Excess Spares disallowed
			(B)	(C)	$D = \frac{(A-B)*C}{(100-C)}$	(E)=(B-D)
Asset- I	Sub-station (GIS-Brownfield)	791.93	51.56	7	55.73	-
Asset- II	Sub-station Brownfield +Communication System	621.68	40.6	6	37.09	3.51
Asset- III	Sub-station (GIS-Brownfield) +Communication System	6774.04	521.37	7	470.63	50.74

46. Accordingly, the capital cost, as on COD, considered for the purpose of tariff computation in respect of the transmission assets is as follows:

(₹ in lakh)

Assets	Capital cost as on COD	Less: IDC as on COD due to		Less: IEDC disallowed as on COD	Excess Initial Spares disallowed as on COD	Capital cost considered as on COD
		Time over-run/Computational difference	Un-discharged as on COD			
Asset-I	819.64	0.81	28.56	0.00	0.00	790.27
Asset-II	345.53	0.00	16.12	0.00	3.51	325.90
Asset-III	6654.83	0.00	79.37	0.00	50.74	6524.72

Additional Capital Expenditure (ACE)

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

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

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



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

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

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

48. The Petitioner has claimed the following ACE in respect of the transmission assets for the 2019-24 period in accordance with the provisions of Regulation 24 of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed and for works deferred for execution within the cut-off date:

(₹ in lakh)

Assets	Projected Expenditure	
	2020-21	2021-22
Asset-I	115.53	-
Asset-II	312.44	62.11
Asset-III	480.31	820.47

49. The Petitioner, vide affidavit dated 28.4.2022, has submitted the package-wise and vendor-wise details of the Additional Capital Expenditure (ACE) claimed during the 2019-24 period in the case of the transmission assets, and they are as follows:

(₹ in lakh)

Assets	Head wise/Part wise	Particulars	Discharged (Regulation 24(1)(a))		Addition to gross block (unexecuted work) (Regulation 24(1)(a))	
			2020-21	2021-22	2020-21	2021-22
Asset-I	JV of NHVS & KEC	Sub-station	57.50	-	58.03	-
	Sterling & Wilson Ltd	Sub-station	45.04	8.84	218.30	42.84



Asset-II	Sterling & Wilson Ltd	PLCC	0.69	0.59	41.11	8.41
	Sterling & Wilson Ltd	IT	6.56	1.36	0.16	0.07
	Godrej & Boyce Ltd	PLCC	0.00	0.00	0.58	-
Asset-III	JV of NHVS & KEC	Sub-station	-	357.49	-	418.26
	JV of NHVS & KEC	PLCC	-	27.91	-	2.56
	JV of NHVS & KEC	IT	-	12.53	-	1.72

50. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations, as it is towards undischarged liabilities recognised to be payable at a future date and the balance work deferred for execution which was part of the original scope.

(₹ in lakh)		
Particulars	2020-21	2021-22
Asset-I		
ACE as per Auditor's Certificate allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations towards undischarged liabilities recognised to be payable at a future date	57.50	-
ACE as per Auditor's Certificate allowed under Regulation 24(1)(b) of the 2019 Tariff Regulations towards balance work deferred for execution	58.03	-
Asset-II		
ACE as per Auditor's Certificate allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations towards undischarged liabilities recognised to be payable at a future date	52.29	10.79
ACE as per Auditor's Certificate allowed under Regulation 24(1)(b) of the 2019 Tariff Regulations towards balance work deferred for execution	260.15	51.32
Asset-III		
ACE as per Auditor's Certificate allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations towards undischarged liabilities recognised to be payable at a future date	-	397.93



ACE as per Auditor's Certificate allowed under Regulation 24(1)(b) of the 2019 Tariff Regulations towards balance work deferred for execution	-	902.84
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Projected Additional Capitalization

51. The IDC discharged by the Petitioner in a particular year has been considered as ACE in that year, and accordingly, the following projected ACE is allowed for the transmission assets:

(₹ in lakh)

Asset-I	2020-21	2021-22	2022-23	2023-24	Total
As per the Auditor's Certificate	115.53	-	-	-	115.53
Discharge of IDC	28.56	-	-	-	28.56
Total ACE allowed	144.09	-	-	-	144.09

(₹ in lakh)

Asset-II	2020-21	2021-22	2022-23	2023-24	Total
As per the Auditor's Certificate	312.44	62.11	-	-	374.55
Discharge of IDC	15.89	0.23	-	-	16.12
Total ACE allowed	328.33	62.34	-	-	390.67

(₹ in lakh)

Asset-III	2020-21	2021-22	2022-23	2023-24	Total
As per Auditor's Certificate	480.31	820.47	-	-	1300.78
Discharge of IDC	-	79.37	-	-	79.37
Total ACE	480.31	899.84	-	-	1380.15

52. Accordingly, the capital cost considered as on 31.3.2024 is as follows:

(₹ in lakh)

Assets	Capital cost considered as on COD	Projected Additional Capital Expenditure				Capital Cost as on 31.3.2024
		2020-21	2021-22	2022-23	2023-24	
Asset-I	790.27	144.09	-	-	-	934.36
Asset-II	325.90	328.33	62.34	-	-	716.57
Asset-III	6524.72	480.31	899.84	-	-	7904.87



53. The COD of Asset-II and Asset-III has been shifted to 1.9.2020 and 27.2.2021, and the Petitioner is directed to submit the revised Auditor's Certificates at the time of truing up in the case of Asset-II and Asset-III as per the approved COD of the transmission assets and also submit revised IDC and IEDC details as per the revised COD of Asset-II and Asset-III.

Debt-Equity ratio

54. 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.”

55. The Petitioner has claimed a debt-equity ratio of 70:30 as on COD and for ACE after COD. The debt-equity ratio of 70:30 has been considered in accordance with Regulation 18 of the 2019 Tariff Regulations. The details of the debt-equity ratio as on COD and as on 31.3.2024 in respect of the transmission assets are as follows:

Asset-I				
Funding	Capital Cost as on COD (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	553.19	70.00	654.05	70.00
Equity	237.08	30.00	280.31	30.00
Total	790.27	100.00	934.36	100.00

Asset-II				
Funding	Capital Cost as on COD (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	228.13	70.00	501.60	70.00
Equity	97.77	30.00	214.97	30.00
Total	325.90	100.00	716.57	100.00



Asset-III				
Funding	Capital Cost as on COD (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	4567.30	70.00	5533.41	70.00
Equity	1957.42	30.00	2371.46	30.00
Total	6524.72	100.00	7904.87	100.00

Depreciation

56. 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 assets of the generating station and transmission system:

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

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

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

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

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

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

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

57. The Petitioner has claimed actual depreciation as a component of Annual Fixed Charges. The depreciation has been worked out as per Regulation 33 of the 2019 Tariff



Regulations. The transmission assets in the instant petition were put into commercial operation during the years 2020-21. Accordingly, the transmission assets will complete 12 years of life beyond the years 2023-24, and thus, depreciation has been calculated annually based on the Straight Line Method and at rates specified in the regulation. Depreciation has been allowed considering the capital expenditure as on COD and approved ACE during the 2019-24 tariff period. The Gross Block during the 2019-24 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure has been worked out considering the depreciation rates of the transmission assets as prescribed in the 2019 Tariff Regulations. The depreciation allowed for the transmission assets for the 2019-24 tariff period is as follows:

(₹ in lakh)

Asset-I					
	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
A	Opening Gross Block	790.27	934.36	934.36	934.36
B	Addition during the year 2019-24 due to projected ACE	144.09	0.00	0.00	0.00
C	Closing Gross Block (A+B)	934.36	934.36	934.36	934.36
D	Average Gross Block (A+C)/2	862.31	934.36	934.36	934.36
E	Average Gross Block (90% depreciable assets)	862.31	934.36	934.36	934.36
F	Average Gross Block (100% depreciable assets)	862.31	934.36	934.36	934.36
G	Depreciable value (excluding IT equipment and software) (E*90%)	776.08	840.92	840.92	840.92
H	Depreciable value of IT equipment and software (F*100%)	0.00	0.00	0.00	0.00
I	Total Depreciable Value (G+H)	776.08	840.92	840.92	840.92
J	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
K	Lapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	25	25	24	23
M	Depreciation during the year (D*J)	35.18	49.33	49.33	49.33
N	Cumulative Depreciation at the end of the year	35.18	84.51	133.84	183.18



Asset-I

	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
O	Remaining Aggregate Depreciable Value at the end of the year	740.91	756.41	707.08	657.74

(₹ in lakh)

Asset-II

	Particulars	2020-21 (Pro-rata for 212 days)	2021-22	2022-23	2023-24
A	Opening Gross Block	325.90	654.23	716.57	716.57
B	Addition during the year 2019-24 due to projected ACE	328.33	62.34	0.00	0.00
C	Closing Gross Block (A+B)	654.23	716.57	716.57	716.57
D	Average Gross Block (A+C)/2	490.07	685.40	716.57	716.57
E	Average Gross Block (90% depreciable assets)	457.56	648.65	679.12	679.12
F	Average Gross Block (100% depreciable assets)	32.51	36.75	37.45	37.45
G	Depreciable value (excluding IT equipment and software) (E*90%)	411.80	583.78	611.21	611.21
H	Depreciable value of IT equipment and software (F*100%)	32.51	36.75	37.45	37.45
I	Total Depreciable Value (G+H)	444.31	620.54	648.66	648.66
J	Weighted average rate of Depreciation (WAROD) (in %)	6.00	5.90	5.89	5.89
K	Lapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	24	24	23	22
M	Depreciation during the year (D*J)	17.08	40.41	42.17	42.17
N	Cumulative Depreciation at the end of the year	17.08	57.49	99.66	141.83
O	Remaining Aggregate Depreciable Value at the end of the year	427.23	563.05	549.00	506.83

(₹ in lakh)

Asset-III

	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
A	Opening Gross Block	6524.72	7005.03	7904.87	7904.87



Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
B	Addition during the year 2019-24 due to projected ACE	480.31	899.84	0.00	0.00
C	Closing Gross Block (A+B)	7005.03	7904.87	7904.87	7904.87
D	Average Gross Block (A+C)/2	6764.88	7454.95	7904.87	7904.87
E	Average Gross Block (90% depreciable assets)	6603.24	7284.92	7727.03	7727.03
F	Average Gross Block (100% depreciable assets)	161.64	170.03	177.84	177.84
G	Depreciable value (excluding IT equipment and software) (E*90%)	5942.91	6556.43	6954.32	6954.32
H	Depreciable value of IT equipment and software (F*100%)	161.64	170.03	177.84	177.84
I	Total Depreciable Value (G+H)	6104.55	6726.46	7132.17	7132.17
J	Weighted average rate of Depreciation (WAROD) (in %)	5.56	5.55	5.54	5.54
K	Lapsed useful life at the beginning of the year (Year)	0	0	1	2
L	Balance useful life at the beginning of the year (Year)	25	25	24	23
M	Depreciation during the year (D*J)	34.00	413.59	438.28	438.28
N	Cumulative Depreciation at the end of the year	34.00	447.58	885.86	1324.14
O	Remaining Aggregate Depreciable Value at the end of the year	6070.56	6278.88	6246.31	5808.03

Interest on Loan (IoL)

58. 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 de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.*

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



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

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

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

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

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

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

59. The IoL for the transmission assets has been worked out as follows:

- (i) Gross amount of loan, repayment of instalments and rate of interest on actual loans have been considered as per the petition.
- (ii) The yearly repayment for the tariff period 2019-24 has been considered to be equal to the depreciation allowed for that year.
- (iii) Weighted average rate of interest on the actual average loan worked out as per (i) above is applied to the notional average loan during the year to arrive at the interest on the loan.

60. The IoL allowed in respect of the transmission assets for the 2019-24 tariff period is as follows:

(₹ in lakh)



Asset-I					
	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
A	Gross Normative Loan	553.19	654.05	654.05	654.05
B	Cumulative Repayments up to the Previous Year	0.00	35.18	84.51	133.84
C	Net Loan-Opening (A-B)	553.19	618.87	569.54	520.21
D	Additions due to ACE	100.86	0.00	0.00	0.00
E	Repayment during the year	35.18	49.33	49.33	49.33
F	Net Loan-Closing (C+D-E)	618.87	569.54	520.21	470.87
G	Average Loan (A+F)/2	586.03	594.21	544.87	495.54
H	Weighted Average Rate of Interest on Loan (in %)	7.469	7.465	7.465	7.465
I	Interest on Loan (GxH)	33.82	44.36	40.68	36.99

(₹ in lakh)

Asset-II					
	Particulars	2020-21 (Pro-rata for 212 days)	2021-22	2022-23	2023-24
A	Gross Normative Loan	228.13	457.96	501.60	501.60
B	Cumulative Repayments up to Previous Year	0.00	17.08	57.49	99.66
C	Net Loan-Opening (A-B)	228.13	440.88	444.11	401.94
D	Additions due to ACE	229.83	43.64	0.00	0.00
E	Repayment during the year	17.08	40.41	42.17	42.17
F	Net Loan-Closing (C+D-E)	440.88	444.11	401.94	359.77
G	Average Loan (A+F)/2	334.51	442.50	423.02	380.85
H	Weighted Average Rate of Interest on Loan (in %)	7.318	7.308	7.307	7.307
I	Interest on Loan (GxH)	14.22	32.34	30.91	27.83

(₹ in lakh)

Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
A	Gross Normative Loan	4567.30	4903.52	5533.41	5533.41
B	Cumulative Repayments up to Previous Year	0.00	34.00	447.58	885.86
C	Net Loan-Opening (A-B)	4567.30	4869.53	5085.83	4647.55
D	Additions due to ACE	336.22	629.89	0.00	0.00
E	Repayment during the year	34.00	413.59	438.28	438.28
F	Net Loan-Closing (C+D-E)	4869.53	5085.83	4647.55	4209.27
G	Average Loan (A+F)/2	4718.41	4977.68	4866.69	4428.41
H	Weighted Average Rate of Interest on Loan (in %)	7.179%	7.172%	7.165%	7.165%
I	Interest on Loan (GxH)	30.63	357.00	348.68	317.28



Return on Equity (RoE)

61. 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 on 7 account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%.

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*

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

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



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

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

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

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

Illustration-

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is ₹ 1,000 crore;
- (b) Estimated Advance Tax for the year on above is ₹ 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = ₹ 240 Crore / ₹ 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 trueing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”



62. The Petitioner has submitted that it is liable to pay income tax at the MAT rate prescribed under the Taxation Laws (Amendment) Ordinance, 2019. Accordingly, the MAT rate applicable in 2019-20 has been considered 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 for the transmission assets is as follows:

(₹ in lakh)

Asset-I					
	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
A	Opening Equity (A)	237.08	280.31	280.31	280.31
B	Additions (B)	43.23	0.00	0.00	0.00
C	Closing Equity (A+B)	280.31	280.31	280.31	280.31
D	Average Equity (A+B)/2	258.69	280.31	280.31	280.31
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50
F	MAT Rate for the respective year (in %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782
H	Return on Equity	37.54	52.65	52.65	52.65

(₹ in lakh)

Asset-II					
	Particulars	2020-21 (Pro-rata for 212 days)	2021-22	2022-23	2023-24
A	Opening Equity (A)	97.77	196.27	214.97	214.97
B	Additions (B)	98.50	18.70	0.00	0.00
C	Closing Equity (A+B)	196.27	214.97	214.97	214.97
D	Average Equity (A+B)/2	147.02	205.62	214.97	214.97
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782
H	Return on Equity	16.04	38.62	40.38	40.38

(₹ in lakh)

Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
A	Opening Equity (A)	1957.42	2101.51	2371.46	2371.46
B	Additions (B)	144.09	269.95	0.00	0.00
C	Closing Equity (A+B)	2101.51	2371.46	2371.46	2371.46
D	Average Equity (A+B)/2	2029.46	2236.49	2371.46	2371.46
E	Return on Equity (Base Rate) (in %)	15.50	15.50	15.50	15.50
F	MAT Rate for the respective year (in %)	17.472	17.472	17.472	17.472



Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782
H	Return on Equity	34.46	420.06	445.41	445.41

Operation & Maintenance Expenses (O&M Expenses)

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

Asset-I

Particulars	2020-21	2021-22	2022-23	2023-24
Number of Bays (GIS)	1	1	1	1
Norms (₹ lakh/Bay)*	23.296	24.115	24.962	25.837
Total O&M Expenses (₹ in lakh)	18.10	24.12	24.96	25.84

*Provided that the O&M Expenses for the GIS bays has been worked out by multiplying 0.70 of the O&M Expenses of the normative O&M expenses for bays;

Asset-II

Particulars	2020-21	2021-22	2022-23	2023-24
Number of Bays	2	2	2	2
Norms (₹ lakh/Bay)	16.64	17.23	17.83	18.46
Total O&M Expenses (₹ in lakh)	25.07	34.46	35.66	36.92

Asset-III

Particulars	2020-21	2021-22	2022-23	2023-24
Number of Bays (GIS)	6	6	6	6
Norms (₹ lakh/Bay)	23.296	24.115	24.962	25.837
Total O&M Expenses (₹ in lakh)	41.73	144.69	149.76	155.01

64. Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide 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	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

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

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

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



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

65. We have considered the submissions of the Petitioner. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations in respect of the transmission assets are as follows:

Asset-I

Particulars	2020-21 (Pro rata for 282 days)	2021-22	2022-23	2023-24
Number of Bays (GIS)	1	1	1	1
Norms (₹ lakh/Bay)*	23.296	24.115	24.962	25.837
Total O&M Expenses (₹ in lakh)	18.10	24.12	24.96	25.84

Asset-II

Particulars	2020-21 (Pro rata for 212 days)	2021-22	2022-23	2023-24
Number of Bays	2	2	2	2
Norms (₹ lakh/Bay)	16.64	17.23	17.83	18.46
Total O&M Expenses (₹ in lakh)	19.33	34.46	35.66	36.92

Asset-III

Particulars	2020-21 (Pro rata for 33 days)	2021-22	2022-23	2023-24
Number of Bays (GIS)	6	6	6	6
Norms (₹ lakh/Bay)	23.296	24.115	24.962	25.837
Total O&M Expenses (₹ in lakh)	12.64	144.69	149.76	155.01

Interest on Working Capital (IWC)

66. Regulation 34(1)(c), Regulation 34(3), Regulation 34(4) and Regulation 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;”

67. The components of the IWC are as follows:

- (i) **Receivables:** The receivables have been worked out on the basis of 45 days of annual wheeling charges.
- (ii) **Maintenance Spares:** Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.
- (iii) **O&M Expenses:** O&M Expenses have been considered as per the norms specified in the 2019 Tariff Regulations.
- (iv) **Rate of Interest on Working Capital:** Rate of interest on working capital is considered on a normative basis in accordance with Clause (3) of Regulation 34 of the 2019 Tariff Regulations.

68. Accordingly, the rate of IWC considered is 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21, and 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 and 2022-



23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.5% plus 350 basis points) for 2023-24.

The components of the working capital and interest allowed thereon in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I					
	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	1.95	2.01	2.08	2.15
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	3.51	3.62	3.74	3.88
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	20.24	21.37	21.01	20.66
D	Total Working Capital	25.71	26.99	26.84	26.69
E	Rate of Interest (in %)	11.25	10.50	10.50	12.00
F	Interest on Working Capital	2.23	2.83	2.82	3.20

(₹ in lakh)

Asset-II					
	Particulars	2020-21 (Pro-rata for 212days)	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	2.77	2.87	2.97	3.08
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	4.99	5.17	5.35	5.54
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	14.46	18.32	18.73	18.51
D	Total Working Capital	22.22	26.36	27.06	27.13
E	Rate of Interest (in %)	11.25	10.50	10.50	12.00
F	Interest on Working Capital	1.45	2.77	2.84	3.26

(₹ in lakh)



Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	11.65	12.06	12.48	12.92
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	20.97	21.70	22.46	23.25
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	154.95	167.23	173.09	169.76
D	Total Working Capital	187.58	200.99	208.04	205.93
E	Rate of Interest (in %)	11.25	10.50	10.50	12.00
F	Interest on Working Capital	1.91	21.10	21.84	24.71

Annual Fixed Charges for the 2019-24 Tariff Period

69. The transmission charges allowed for the transmission assets for the 2019-24 period are as follows:

(₹ in lakh)

Asset-I					
	Particulars	2020-21 (Pro-rata for 282 days)	2021-22	2022-23	2023-24
A	Depreciation	35.18	49.33	49.33	49.33
B	Interest on Loan	33.82	44.36	40.68	36.99
C	Return on Equity	37.54	52.65	52.65	52.65
D	O & M Expenses	18.10	24.12	24.96	25.84
E	Interest on Working Capital	2.23	2.83	2.82	3.20
F	Total	126.87	173.29	170.44	168.01

(₹ in lakh)

Asset-II					
	Particulars	2020-21 (Pro-rata for 212 days)	2021-22	2022-23	2023-24
A	Depreciation	17.08	40.41	42.17	42.17
B	Interest on Loan	14.22	32.34	30.91	27.83
	Return on Equity	16.04	38.62	40.38	40.38
	O & M Expenses	19.33	34.46	35.66	36.92
	Interest on Working Capital	1.45	2.77	2.84	3.26
	Total	68.12	148.60	151.96	150.56

(₹ in lakh)



Asset-III					
	Particulars	2020-21 (Pro-rata for 33 days)	2021-22	2022-23	2023-24
A	Depreciation	34.00	413.59	438.28	438.28
B	Interest on Loan	30.63	357.00	348.68	317.28
C	Return on Equity	34.46	420.06	445.41	445.41
D	O & M Expenses	12.64	144.69	149.76	155.01
E	Interest on Working Capital	1.91	21.10	21.84	24.71
F	Total	113.64	1356.44	1403.97	1380.69

Filing Fees and the Publication Expenses

70. The Petitioner has sought reimbursement of fees 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 present petition directly from the beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee and RLDC Fees and Charges

71. The Petitioner has sought reimbursement of the licensee fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall be entitled to reimbursement of the licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled to recovery of RLDC fees 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 future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by



the Petitioner on account of demand from Government/ Statutory authorities, 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 are of the view that the Petitioner's prayer is premature.

Security Expenses

74. The Petitioner has submitted that security expenses in respect of transmission assets are not claimed in the instant petition, and it would file a separate petition for claiming the overall security expenses and the consequential IWC as per Regulation 35(3)(c) of the 2019 Tariff Regulations.

75. We have considered the above submissions of 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 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.

Sharing of Transmission Charges

75. The NER-II TL has made the following submissions on the issue of sharing of transmission charges:

- a) Assets-I and III are interconnected with the 400 kV D/C Silchar-Misa transmission line (SM line), and Asset-II is interconnected with the 132 kV D/C



Biswanath Chariyali-Itanagar line (BI line). The Ministry of Power, vide its letter dated 27.7.2020, extended the completion schedule of under construction inter-State transmission projects by 5 months and vide its letter dated 12.6.21 granted a further extension of 3 months, . These notifications of the Ministry of Power (MoP) are equally applicable to NER-II transmission assets, and it has also prayed for an extension of SCOD and related relaxations on account of Covid-19 pandemic in Petition No. 134/MP/2021.

- b) Taking into consideration the relaxations granted by the said MoP letters for extension of SCOD of NER-II TL transmission assets, no liability of transmission charges can be imposed on NER-II TL for Assets-I and III for any period before 1.5.2021. The mismatch period for Asset-I i.e. 1.12.2020 (original SCOD) to 1.3.2021, Asset-III, i.e. 13.12.2020 to 1.3.2021 (76 days) as claimed by the Petitioner are incorrect and there is no period of mismatch between the COD of the SM Line and the extended SCODs of Assets-I and III. In the case of Asset-II, the COD of BI Line is 6.4.2021 and as such NER-II cannot be penalized by way of imposition of bilateral liability of Asset-II for transmission charges for the period before the extended SCOD of the BI Line i.e. 30.11.2020. The only mismatch period of Asset-II is from 30.11.2020 to 6.4.2021 (127 days) as against the claim of the Petitioner from 30.6.2020 to 6.4.2021 (280 days).
- c) There is no legal/contractual relationship between NER-II TL and the Petitioner and that there is no basis for NER-II TL being directed to pay the transmission charges bilaterally.



- d) The only route for bilateral payments under NER-II TL's TSA is for any delay in the form of liquidated damages under Article 6.4 of the TSA and no provision in TSA for allowing bilateral recovery.
- e) Both regulated tariff projects under section 62 of the Electricity Act, 2003 (the Act) and TBCB projects under section 63 of the Act are paid their tariff by their respective DICs through PoC pool.
- f) The period of purported mismatch claimed by the Petitioner between the deemed COD of the Petitioner's assets and execution of NER-II TL's transmission assets is squarely covered by the NER-II TL's *force majeure* claims, pending adjudication before the Commission in Petition No.134/MP/2021. It is noticed that for each of NER-II TL's delayed elements, there are various concurrent *force majeure* claims made by NER-II TL in Petition No. 134/MP/2021.
- g) The principles laid down by the APTEL in Appeal No. 17 of 2019, judgment dated 14.9.2020, NRSS XXXI (B) Transmission Ltd. v. Central Electricity Regulatory Commission & Ors. ("NRSS Judgment") are relevant in the present proceedings. The said appeal was filed against the Commission's order dated 30.11.2017 in Petition No. 60/TT/2017. As per the NRSS Judgment, no liability can be imposed on a delaying entity if the appropriate Commission has condoned the delay in commissioning the transmission assets and extended the COD on account of legitimate *Force Majeure* events. The NRSS Judgment has not been appealed and has attained finality. The APTEL has unequivocally reaffirmed the principle that a party which obtains a COD extension on account of *Force Majeure* events cannot be fastened with any liability on account of mismatch with other licensee transmission assets. This principle has also been followed by the Commission



vide order dated 13.5.2022 in Petition No. 238/MP/2017 (pursuant to remand vide Appeal No. 129/2020 judgment). In the remand order, the Commission had accepted the findings of the APTEL given vide judgment dated 3.12.2021 in Appeal No. 129/2020 and directed the Petitioner to pursue its remedies under law for recovery of tariff during the mismatch period.

- h) In terms of the NRSS Judgment and the judgment in Appeal No. 129/2020, no liability whatsoever can be fastened upon NER-II TL for any purported mismatch between NER-II TL's transmission assets and the Petitioner's transmission assets. Any cost over-run on account of delay caused by Force Majeure events suffered by NER-II TL to be socialized among various stakeholders including the Petitioner's DICs/beneficiaries to ensure that no entity is unreasonably burdened due to the impact of uncontrollable events. This would also be in line with the mechanism applied in assets covered under the regulated tariff mechanism.

76. In response, the Petitioner has made the following submissions:

- a) When the substantive provision of Regulation 5(2) of the 2019 Tariff Regulations has been satisfied by the Petitioner in respect of Assets-II and III, the deemed COD cannot be denied. NER-II TL may have reasons justifying the extension of its SCOD for the inter-connecting assets. However, these will not interfere in the powers of the Commission to grant deemed COD to the Petitioner if the provisions of Regulation 5(2) of the 2019 Tariff Regulations are satisfied.
- b) Even if NER-II TL receives an extension of its SCOD due to the MoP Notification dated 27.7.2020 and 12. 6.2021, the issue of treatment of mismatch has to be decided by the Commission in terms of the existing 2019 Tariff Regulations.



- c) With regard to Assets-I and III, it is factually incorrect on the part of NER-II TL to have claimed that its line Silchar–Misa achieved COD on 1.3.2021 which was before the date of the extended SCOD of Assets-I and III which was before 1.5.2021 . The reasons for early execution of Asset-I on 23.6.2020 have already been explained in detail in the petition. The deemed COD of Asset-III is proposed as 13.12.2020 and not as 1.5.2021 as it is being unilaterally described as “extended COD” by NER-II TL.
- d) The Petitioner has prayed for approval of COD of Assets-I and III under the provisos to Regulation 5(2) of the 2019 Tariff Regulations and consequential tariff. The Petitioner has, however, not prayed for an extended SCOD as has been asserted by NER-II TL. NER-II TL in Petition No. 134/MP/2021 has claimed to have achieved the deemed COD in respect of SM Line on 27.2.2021, while in the reply filed in the present petition, NER-II TL has claimed COD of SM Line as on 1.3.2021. This fact establishes that there is a clear mismatch in the COD of transmission assets of NER-II TL and the Petitioner.
- e) The COD of the SM line is 1.3.2021 and the COD being claimed by the Petitioner for Asset-I is 23.6.2020 and deemed COD of Asset-III as 13.12.2020.
- f) NER-II TL assumes that the Petitioner is seeking an extension of SCOD for Assets-I and III based on MoP letters dated 27.7.2020 (5 months) and 12.6.2021 (3 months), whereas the Petitioner is seeking approval of COD under the provisions of Regulation 5(2) of the 2019 Tariff Regulations. NER-II TL, after granting a unilateral extension of SCOD to its transmission assets i.e. BI Line and BI LILO as 30.11.2020 and SM Line as 30.4.2021, it claims that no liability in respect of tariff of the Petitioner’s Assets-I and III can be imposed on it for the



period before the extended SCOD. The Petitioner is only seeking recovery of tariff of its transmission assets as it has completed its scope and manner of recovery of tariff shall be decided by the Commission including for the mismatch period.

- g) SCOD of Asset-I was 1.12.2020. However, it was executed early on 23.6.2020 to reduce the voltage as agreed upon in the 21st TCC and NERPC meeting.
- h) Though Asset-II and Asset-III were ready, power flow could not be achieved due to the non-readiness of the interconnecting transmission lines, i.e. Silchar-Misa 400 kV D/C (Quad) Line and Biswanath Chariyali-Itanagar 132 kV line of TBCB licensee which are being set up by NER-II. These elements of NER-II TL have claimed to have achieved the deemed COD on 27.2.2021 and now claimed COD on 1.3.2021. As against this, the Asset-II and Asset-III of the Petitioner were ready on 30.6.2020 and 13.12.2020, respectively. It is not clear what led NER-II TL to declare deemed COD of the SM Line, especially when it was delayed, and the Petitioner's transmission assets were ready.
- i) The Petitioner in the present petition has claimed COD of its Asset-I and Asset-III in terms of Regulation 5(2) of the 2019 Tariff Regulations and consequential tariff and not claimed any bilateral billing on NER-II. Manner of tariff recovery of assets under present petition shall be decided by the Commission. The Petitioner has already submitted its detailed justification for the delay in execution of the transmission assets associated with NER-II TL in Petition No. 167/TT/2022 which were declared under deemed commercial operation by NER-II TL.
- j) The Petitioner is only praying for recovery of tariff of Assets-II and III from the date of their readiness. Asset-I was executed early pursuant to the discussions in the 21st TCC and NERPC meeting held on 3.2.2021/4.2.2021 for reducing the grid



voltage, the advancement in COD needs to be accepted. All the Members of the NERPC including the DICs had participated in the meeting and recommended this scheme for approval. The COD of the Asset-II is claimed as 30.6.2020 under Regulation 5(2) of the 2019 Tariff Regulations along with all supporting documents. Similar prayer is made for approval of COD of Asset-III as 13.12.2020 under Regulation 5(2) of the 2019 Tariff Regulations along with all the necessary documents.

- k) With regard to the contractual provisions, there is no contract between the Petitioner and NER-II TL and the same is to be considered and decided by the Commission.
- l) Reliance is placed on the judgment of the Constitutional Bench of the Hon'ble Supreme Court in *PTC India Ltd. v. CERC and Ors.*, (2010) 4 SCC 603 wherein it is observed that the Regulations framed by the Commission cannot be challenged or set aside by the Tribunal and the same can only be questioned in judicial review proceedings.
- m) The APTEL in the case of *PSPCL v. Patran Transmission Company Ltd in its judgement dated 27.3.2018 in Appeal No. 390 of 2017* ("Patran Judgement", observed that the question of sharing transmission charges under the Point of Connection ("PoC") mechanism is only applicable when the transmission asset is in service and that the respective Appellant-PSPCL had signed a Transmission Service Agreement (TSA) with the transmission licensee but its sister Company PSTCL had failed to commission the downstream system. Therefore, PSPCL was held liable to pay the transmission charges to Patran Transmission Company on



account of its responsibility for arranging inter-connection facility as per the provisions of the TSA.

- n) The APTEL in the matter of Nuclear Power Corp of India Ltd. v. CERC and Ors. in its judgment dated 18.1.2019 in Appeal No. 332 of 2016 ("RAPP Judgement"), on the question of levy of transmission charges on the generating company when the transmission assets of the TBCB licensee, RAPP Transmission Company Limited, had been declared under deemed COD, observed that in the absence of contract, whether any liability to pay the transmission charges could be imposed on the generating company. It was held that since the beneficiaries cannot be made liable to pay the PoC charges, the transmission charges have to be paid by the defaulting party, i.e., the generating company.
- o) The APTEL in its judgment dated 1.9.2020 in Appeal No. 159 of 2018 in the matter of Jindal India Thermal Power Ltd. v. CERC and Ors. held that transmission charges of the assets of PGCIL which had been declared under deemed commercial operation has to be recovered through the PoC mechanism alone and no bilateral bills or non-PoC bills is to be raised against the defaulting party i.e generating station.. The APTEL in this matter held that without completion of the entire downstream system of the generators, the distribution companies should not be burdened with the transmission charges under the PoC mechanism.
- p) The APTEL in its judgment dated 14.9.2020 in Appeal No. 17 of 2019 in the matter of *NRSS XXXI (B) Transmission Ltd. v. CERC and Ors.* (NRSS Judgement), on the specific issue whether a TBCB licensee can be asked to pay IDC and IEDC to another licensee in case time over-run in project execution had been condoned by the Commission, has carefully worded its decision and has referred to its earlier



judgements- the Patran Judgement and the RAPP Judgement. Since, this Commission had already condoned the delay by accepting *force majeure* in the case of NRSS judgement, the APTEL remanded that the issue of sharing of IDC and IEDC may be re-considered by the Commission since NRSS itself was affected by *force majeure*.

- q) Subsequently, the Commission re-considered the matter in the remand proceedings and vide order dated 26.4.2022 returned the findings that NRSS is still liable for the mismatch period despite extension of its SCOD and accordingly the Petitioner is entitled to recover IDC and IEDC from NRSS for the period of mismatch. NRSS has filed an appeal again in the instant matter.
- r) The APTEL's in its common judgement dated 3.12.2021 in Appeal No. 129 of 2020 and Appeal No. 276 of 2020 in the case of DMTCL v. CERC and Ors. (DMTCL Judgment) dwelt on the specific issue that if the Commission has extended the SCOD by accepting the case of the Appellant- DMTCL on *force majeure*, whether it could deny the recovery of amounts paid by DMTCL to the PGCIL in terms of the Commission's earlier order accepting the deemed COD of the Petitioner's assets. The APTEL opined that DMTCL would be entitled to recover the amounts paid by it to the Petitioner along with interest in its petition before the Commission. Subsequently, on the Petitioner filing an application for clarification, the Tribunal, by vide its order dated 21.2.2022 in IA No. 245 of 2022, observed as follows:

“Having heard the learned senior counsel for the Applicant/PGCIL and the learned counsel for the non-applicant/Appellant – Darbhanga Motihari Transmission Company Limited, we see no occasion for clarification or ambiguity in the observations or directions in the judgment passed on 3.12.2021, particularly in the context of Para 20.1 and the decision on Issue no.4. If the applicant/PGCIL is entitled in law to claim any relief pursuant to the directions issued in the wake of the said conclusion, nothing said in the judgment passed



by this Tribunal inhibits it from pursuit of such remedy in accordance with law. With these observations, we dispose of both the applications.”

- s) It is incorrect on the part of NER-II TL to contend that a *force majeure* event for the Petitioner and NER-II TL is to be treated at par. The determination of tariff for the Petitioner’s transmission assets is under Sections 61, 62 and 64 of the Act, NER-II TL tariff is being adopted under Section 63 of the Act. NER-II TL is seeking to rely on the provisions of Regulation 3(25) – *force majeure*, Regulation 19 – Capital Cost and Regulation 22 – Controllable and Uncontrollable Factors. These provisions are not applicable when the tariff is discovered through the process of bidding under Section 63 of the Act.
- t) Since NER-II has signed a TSA with its beneficiaries on 26.12.2016, Article 11 whereof provides for *force majeure*, the events pleaded by NER-II have to be tested in terms of Article 11 and not as per the provisions of the 2019 Tariff Regulations.

77. We have considered the submissions of the Petitioner and the Respondent, NER-II TL and have perused the record. NER-II transmission limited has filed Petition No. 134/MP/2021, *inter alia*, seeking an extension of SCOD of the transmission system by 8 months, and based on this, SCOD of BI Line and BI LILO is claimed as 30.11.2020, and that of SM Line is claimed as 30.4.2021. NER-II TL in its petition has claimed that it was prevented by *force majeure* events and has referred to the MoP’s circular dated 27.7.2020 granting extension of time for five months for under construction inter-State transmission projects and further extension of time of 3 months vide MoP’s circular dated 12.6.2021. NER-II TL has invoked Article 11 [*force majeure*] and Article 4.4 [*extension of time*] of the TSA and sought extension of SCOD for the transmission project due to delay in completion of NER-II TL assets and requested the Commission



to take into consideration the facts pleaded in Petition No. 134/MP/2021 and decide Petition No. 134/MP/2021 before deciding the present tariff petition i.e. Petition No. 41/TT/2022.

78. We would like to refer here to the Commission's order dated 26.4.2022 in Petition No. 60/TT/2017 with regard to a mismatch arising out of *force majeure* wherein the Commission observed as follows:

"67. Hence, the principle has been followed consistently that even if under Force majeure, delay is condoned or SCOD is extended by the Commission, the liability of upstream/downstream system remains on such delayed transmission licensee."

79. The Commission is of the consistent view that even if the time over-run in case of the associated upstream/ downstream elements is condoned due to *force majeure* events, the entity responsible for the delay in implementation of the associated upstream/ downstream elements is liable to bear the transmission charges for the period of mismatch. Accordingly, the Commission did not provide for any exemption from payment of transmission charges even in case of *force majeure* conditions in the 2020 Sharing Regulations.

80. It is further observed that filed Petition No.134/MP/2021 has been filed by NER-II TL for extension of SCOD due to *force majeure* events. The issues raised by the NER-II TL regarding delay in commissioning of its transmission assets shall be dealt with in Petition No. 134/MP/2021. In view of the discussion above, the sharing of transmission charges shall be as follows:

Asset-I:

81. We have approved the COD of Asset-I as approved as 23.6.2020 and the transmission charges from 23.6.2020 shall be included in the common pool.

Asset-II



82. As discussed above, the COD of Asset-II, the two 132 kV line bays at Biswanath Chariali Sub-station, is approved as 1.9.2020. Further as per commission order dated 19.05.2024 in petition no. 134/MP/2021, the COD of the associated transmission line i.e. 132 kV D/C Biswanath Chariyali-Itanagar Transmissoin Line under the scope of NER-II TL has been approved as 06.04.2021 . Therefore, NER-II is liable to pay transmission charges from 1.9.2020 to 05.04.2021 and thereafter, the transmission charges from 06.04.2021 shall be included in the common pool.

83. We have approved the COD of Asset-III, the two 400 kV line bays at Silchar and Misa Sub-station, as 01.03.2021. Accordingly, the transmission charges of Asset-III from 01.03.2021 shall be included in the common pool.

84. To summarise the AFC allowed for the transmission assets for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)			
	2020-21	2021-22	2022-23	2023-24
Asset-I	126.87	173.29	170.44	168.01
Asset-II	68.12	148.60	151.96	150.56
Asset-III	113.64	1356.44	1403.97	1380.69

85. The Annexure to this order form part of the order.

86. This order disposes of Petition No. 41/TT/2022 in terms of the above findings and discussions.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(Jishnu Barua)
Chairperson





ANNEXURE**Asset-I**

2019-24 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciati on (in %)	Annual Depreciation as per Regulations			
		2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-Station	790.27	144.09	0.00	0.00	0.00	934.36	5.28	45.53	49.33	49.33	49.33
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33	0.00	0.00	0.00	0.00
IT Equipment and software	0.00	0.00	0.00	0.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00
Total	790.27	144.09	0.00	0.00	0.00	934.36		45.53	49.33	49.33	49.33
Average Gross Block (₹ in lakh)								862.32	934.36	934.36	934.36
Weighted Average Rate of Depreciation (in %)								5.28	5.28	5.28	5.28



Asset-II

2019-24	Admitted Capital Cost as on COD (₹ in lakh)	ACE				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations			
Capital Expenditure as on COD		2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-Station	284.15	276.68	51.92	0.00	0.00	612.76	5.28	22.31	30.98	32.35	32.35
PLCC	12.79	44.55	9.02	0.00	0.00	66.36	6.33	2.22	3.91	4.20	4.20
IT Equipment and software	28.95	7.10	1.40	0.00	0.00	37.45	15.00	4.88	5.51	5.62	5.62
Total	325.90	328.33	62.34	0.00	0.00	716.57		29.40	40.41	42.17	42.17
Average Gross Block (₹ in lakh)								490.07	685.40	716.57	716.57
Weighted Average Rate of Depreciation (in %)								6.00	5.90	5.89	5.89



Asset-III

2019-24 Capital Expenditure as on COD	Admitted Capital Cost as on COD (₹ in lakh)	ACE				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciati on (in %)	Annual Depreciation as per Regulations			
		2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)			2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-Station	6079.01	453.04	850.78	0.00	0.00	7382.83	5.28	332.93	367.35	389.81	389.81
PLCC	284.64	26.12	33.43	0.00	0.00	344.19	6.33	18.84	20.73	21.79	21.79
IT Equipment and software	161.07	1.15	15.63	0.00	0.00	177.84	15.00	24.25	25.50	26.68	26.68
Total	6524.72	480.31	899.84	0.00	0.00	7904.87		376.02	413.59	438.28	438.28
Average Gross Block (₹ in lakh)								6764.88	7454.95	7904.87	7904.87
Weighted Average Rate of Depreciation (in %)								5.56	5.55	5.54	5.54



