CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 311/TT/2019

Coram:

Shri I.S. Jha, Member Shri Arun Goyal, Member

Date of Order: 27.01.2021

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 and revision of transmission tariff for 2001-04 tariff block, 2004-09 tariff block, 2009-14 tariff block and truing up of transmission tariff of 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2019 for 50 MVA Auto Transformer at Malda in Eastern Region.

And in the Matter of:

Power Grid Corporation of India Ltd. "SAUDAMINI", Plot No. 2, Sector 29, Gurgaon-122001, Haryana.

....Petitioner

Vs

- Bihar State Power (Holding) Company Ltd. Vidyut Bhavan, Bailey Road, Patna – 800 001
- West Bengal State Electricity Distribution Company Ltd. Bidyut Bhawan, Bidhan Nagar, Block DJ, Sector-II, Salt Lake City, Kolkata - 700 091
- Grid Corporation of Orissa Ltd. Shahid Nagar, Bhubaneswar – 751 007
- 4. Jharkhand State Electricity Board In front of Main Secretariat, Doranda, Ranchi - 834002
- Damodar Valley Corporation
 DVC Tower, Maniktala Civic Centre,
 VIP Road, Kolkata 700 054



Power Department,
 Government of Sikkim, Gangtok - 737 101

... Respondents

Parties present:

For Petitioner : Shri S.S. Raju, PGCIL

Shri A.K. Verma, PGCIL Shri B. Dash, PGCIL Shri V. Rastogi, PGCIL

For Respondents : None

ORDER

The present petition has been filed by Power Grid Corporation of India Ltd. (hereinafter referred to as "the Petitioner"), a deemed transmission licensee, for revision of transmission tariff for 2001-04, 2004-09 and 2009-14 tariff periods and truing up of the tariff of the period of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and for determination of the tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of "50 MVA Auto Transformer at Malda" in Eastern Region (hereinafter referred to as "the transmission project").

- 2. The Petitioner has made the following prayers in this petition:
 - "1. Approve the revised Transmission Tariff for 2001-04 block, 2004-09 block and transmission tariff for 2009-14 block for the assets covered under this petition, as per para 8 above.
 - 2. Approve the trued-up Transmission Tariff for the tariff block 2014-19 and transmission tariff for 2019-24 block for the assets covered under this petition, as per Para 9 and 10 above.
 - 3. 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 under clause 25 of the Tariff Regulations 2014 and Tariff Regulations 2019, as per Para 9 and 10 above for respective block.
 - 4. 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.

- 5. 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.
- 6. 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 respondents.
- 7. Allow the Petitioner to file a separate petition before the Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.5 above.
- 8. Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9. Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is withdrawn from negative list at any time in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

and pass such other relief as the Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

Background

- 3. The brief facts of the case are as under:
 - a. The Petitioner has installed and commissioned 50 MVA Auto Transformer at Malda Substation in Eastern Region w.e.f. 1.9.1995 and its transmission tariff for the period from 1.9.1995 to 31.3.2001 was notified by the Commission vide its order dated 31.7.2002 in petition number 67/2000 at a completion cost of ₹283.46 lakh.
 - b. The transmission tariff from 1.4.2001 to 31.3.2004 was determined vide order dated 30.6.2003 in Petition No. 64/2002; for the period from 1.4.2004 to 31.3.2009 in order dated 23.11.2005 in Petition No. 120/2004; and for the period from 1.4.2009 to 31.3.2014 vide order dated 13.4.2011 in Petition No. 103/2010. The tariff for the 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 26.11.2015 in Petition No.239/TT/2014.
 - c. The Petitioner has sought revision of transmission tariff approved for the 2001-04 and 2004-09 tariff blocks on account of change in Interest on Loan (IoL)

and Interest on Working Capital (IWC) to the extent of revision in IoL and in Maintenance Spares in terms of the Appellate Tribunal for Electricity (APTEL) judgments dated 22.1.2007 and 13.6.2007 in Appeal No. 81/2005 and 139/2006 respectively. The Petitioner has also sought consequential revision of tariff allowed for the 2009-14 tariff block, truing up of tariff of 2014-19 tariff block and determination of tariff for 2019-24 tariff block for instant transmission asset.

- d. APTEL, vide judgement dated 22.1.2007 in Appeal No.81/2005 and other related Appeals, and judgement dated 13.6.2007 in Appeal No. 139/2006 pertaining to generating stations of NTPC decided on, mainly, the following issues:-
 - (i) Computation of interest on loan
 - (ii) Consequences of refinancing of loan
 - (iii) Depreciation as deemed repayment
 - (iv) Admissibility of depreciation up to 90% of the value of the assets
 - (v) Consideration of maintenance of spares for working capital
 - (vi) Depreciation of assets.
- e. The Commission and certain beneficiaries filed Appeals against the APTEL's judgments before the Hon'ble Supreme Court in 2007. The Appeals were admitted and initially stay was granted by the Hon'ble Supreme Court. Subsequently, on an assurance by NTPC that the issues under Appeal would not be pressed for implementation during the pendency of the Appeals, the stay was vacated by the Hon'ble Supreme Court.
- f. PGCIL, based on APTEL's judgments dated 22.1.2007 and 13.6.2007, sought re-determination of tariff of its transmission assets for the tariff periods 2001-04 and 2004-09 in Petition No. 121/2007. The Commission after taking into consideration the pending Appeals before the Hon'ble Supreme Court, adjourned sine die and directed to revive the same after the disposal of the Civil Appeals by the Hon'ble Supreme Court.
- g. The Hon'ble Supreme Court, vide its judgement dated 10.4.2018, dismissed the said Civil Appeals filed by the Commission and others against the APTEL's said judgments.

- h. Consequent to the Hon'ble Supreme Court's judgment dated 10.4.2018 in NTPC matters, the Petition No. 121/2007 was listed for hearing on 8.1.2019. The Commission, vide order dated 18.1.2019 in Petition No. 121/2007, directed the petitioner to submit its claim separately for the assets at the time of filing of truing up of the petitions for the period 2014-19 in respect of concerned transmission assets.
- i. The instant petition was heard on 31.7.2020 and in view of APTEL's judgments dated 22.1.2007 and 13.6.2007 and the judgement of Hon'ble Supreme Court dated 10.4.2018, tariff is being revised. Although tariff period-wise tariff is being reworked based on the applicable Tariff Regulations for the respective tariff periods, suitable assumptions at certain places, if any, are being applied which are being indicated.
- 4. Further, as provided under Regulation 8(1) of the 2014 Tariff Regulations, the tariff allowed for the period from 1.4.2014 to 31.3.2019 is trued-up and the tariff for the 2019-24 period is determined under Regulation 8 of the 2019 Tariff Regulations.
- 5. The respondents are distribution licensees and power utilities/ departments, who are procuring transmission service from the Petitioner, mainly beneficiaries of Eastern Region.
- 6. The Petitioner has served the petition on the Respondents and notice of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No suggestions or objections have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Notice dated 14.1.2020 directing the beneficiaries/ Respondents to file reply in the matter was also published on Commission's website. Further, none of the respondents have filed any reply in the matter.
- 7. The hearing in this matter was held on 31.7.2020 and the order was reserved.

- 8. This order is issued considering the submissions made by the Petitioner in the petition dated 20.8.2019 and submissions of the Petitioner's representative during the hearing in this matter, held on 31.7.2020 and recorded in the RoP of hearing dated 31.7.2020.
- 9. Having heard the representatives of the Petitioner and having perused the materials on record, we proceed to dispose of the petition.
- 10. The Petitioner has sought revision of the computation of the interest on loan, maintenance spares for working capital and depreciation allowed for the 2001-04 and 2004-09 period on the basis of the judgements of APTEL dated 22.1.2007 in Appeal No.81 of 2005 and dated 13.6.2007 in Appeal No.139/2006. APTEL while dealing with the issue of computation of interest on loan, in judgement dated 22.1.2007, observed that interest on loan for the period from 1.4.1998 to 31.3.2001 shall be computed only on normative loan repayment as per its judgement dated 14.11.2006 in Appeal Nos. 94 and 96 of 2005. APTEL in its judgement dated 14.11.2006 set aside the Commission's methodology of computation of loan on the actual repayment basis or normative repayment whichever is higher. The relevant portions of the judgement of 14.11.2006 is as follows:-
 - "12. We have heard the arguments of the Senior Counsel(s) of appellant and respondents. We notice that the appellant has not challenged the formula for computing the annual repayment amount as provided in Appeal No. 96 of 2005 & IA No.117 of 2006 in Appeal No. 94 of 2005 para-22 of the impugned order and has only challenged the provisions at para 23 specifying that the amount of annual repayment for calculation of interest on loan is chosen higher of the normative debt and actual debt.
 - 13. As mentioned earlier the servicing of the capital (equity or debt) is financed by the recovery of interest on debt capital and through earning of return on equity capital. The actual loan repayment has been normalized to 50% of the total capital by the formula in para 22 of the impugned order given in para 11 above. Once it has been decided and agreed that the financing plan would be based on normative debt–equity ratio of 50:50 and not the actual debt-equity ratio, the same normative basis should be adopted for recovery of cost of servicing the capital.
 - 14. In the instant case since the normative debt-equity ratio of 50:50 has been adopted in the financing plan, the loan repayment should be computed based on normative debt. This

is to ensure that whatever normative debt has been considered, tariff should ensure the recovery of the same normative debt and interest thereon.

- 18. In its Tariff Regulation of 2004 the Central Commission perhaps recognizing the aforesaid anomaly has dispensed with the practice of adopting higher of actual or normative repayment and has corrected the method of determination of quantum of debt repayment only on the basis of the normative debt with effect from 01.04.2004
- 19. In view of the above, the Central Commission is required to adopt normative debt repayment methodology for working out the interest on loan liability for the period 01.04.1998 to 31.03.2001."

In view of the above, the interest allowed for the 2001-04 and 2004-09 periods is revised on the basis of the normative debt repayment methodology.

11. APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 and others held that additional capitalisation after the date of commercial operation should also be considered for computation of maintenance spares as under:-

"Analysis and Decision

We are not inclined to agree with the contention of the respondents that escalation of 6% will take care of the additional capitalization. Escalation is meant to factor inflation and is allowed as per CERC Regulations whether or not additional capitalization takes place. Question before us is that: can the historical cost be frozen with the Commissioning of the station. It is quite normal and prudent to ensure earliest operation of the plant without necessarily 100% completion of plants and works, of course not at the cost of safety of the plant. Adding some of the plants and works after the commercial operation will reduce interest during construction. If technically it is possible to delay some of the plants or works, it is only prudent to do so. For example it is common to build redundancies in the plant at a little later stage. CERC's own regulations rightly recognized additional capitalization. It is pertinent to set out excerpts pertaining to additional capitalization from CERC (Terms & Conditions of Tariff) Regulation, 2004 Clause 18 as below:-

"Additional capitalization (1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities
- (ii) Works deferred for execution
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17.
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) On account of change in law.

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff.

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the generating station."

It is clear from the abovementioned Clause 18 of the CERC Regulations that additional capitalization after the date of commercial operation is recognized as part of the capital expenditure Historical cost does not literally mean that the cost on the date of the commercial operation. The term historical cost is used so as to distinguish it from 'book value' or 'the replacement cost'. The cost of maintenance spares limited to 1% of the historical cost corresponds to the plant and equipment and installations which are required to be maintained. If the cost of additional equipment is not included in the historical cost, how spares for the additional equipment be procured for maintenance of the additional equipment. In this view of the matter, the CERC needs to examine afresh in the light of the aforesaid observations."

- 12. In view of the above, the maintenance spares to be considered for computation of working capital for the 2001-04 and 2004-09 periods are also required to be revised taking into consideration the additional capitalisation after the date of commercial operation.
- 13. As regards depreciation, APTEL in its judgement dated 13.6.2007 in Appeal No.139 of 2006 observed that depreciation is an expense and it cannot be deployed for deemed repayment of loan and accordingly directed the Commission to compute the outstanding loan afresh. The relevant portion of the judgement is as under:-

"Analysis and Decision

In the orders of this Tribunal dated November 14, 2006 and January 24, 2007 it has been laid down that the computation of outstanding loan will be on normative basis only (instead of normative or actual whichever is higher). In view of this there is no question of any adjustment of the depreciation amount as deemed repayment of loan.

It is to be understood that the depreciation is an expense and not an item allowed for repayment of loan. If a corporation does not borrow, it would not mean that the corporation will not be allowed any depreciation. Depreciation is an expense it represents a decline in the value of asset because of use, wear or obsolescence. The Accounting Principles Board of USA defines depreciation as under:-

"The cost of a productive facility is one of the costs of the service it renders during its useful economic life. Generally accepted accounting principles require that this cost be spread over the expected useful life of the facility in such a way as to allocate it as equitably as possible to the periods during which services are obtained from the use of the facility. This procedure is known as depreciation accounting, a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation"

It is well established that the depreciation is an expense and therefore, it cannot be deployed for deemed repayment of loan. In this view of the matter the CERC shall need to make a fresh computation of outstanding loan in the light of the aforesaid observations."

- 14. In view of the above directions, the outstanding loan allowed for the instant transmission asset for the 2001-04 and 2004-09 periods is revised in the instant order.
- 15. The revision of tariff allowed for 2001-04 and 2004-09 tariff periods necessitates the revision of tariff allowed for the 2009-14 period, which is also allowed in the instant order. The implementation of the directions of APTEL in case of the Petitioner was been kept pending in view of the Civil Appeals filed before the Hon'ble Supreme Court. Taking into consideration the facts of the case and keeping in view the interest of the consumers, we are of the view that the beneficiaries should not be burdened with the carrying cost for the difference in the tariff allowed earlier and allowed in the instant order for the period 2001-04, 2004-09 and 2009-14 tariff periods. Therefore, the Petitioner will neither claim nor pay any carrying cost from/ to the beneficiaries for the difference in the tariff allowed *vide* earlier orders and that allowed in the instant order. Further, the said difference in tariff shall be recovered over a period of six months from the date of issue of this order.

REVISION OF TRANSMISSION CHARGES ALLOWED FOR THE 2001-04, 2004-09 and 2009-14 TARIFF PERIODS

2001-04 Period

16. The Commission in order dated 30.6.2003 in Petition No. 64/2002 had approved the following transmission charges for the instant assets for the 2001-04 period:

Particulars	2001-02	2002-03	2003-04
Depreciation	10.20	7.40	7.40
Interest on Loan	1.88	0.00	0.00
Return on Equity	20.90	20.90	20.90
Advance Against Depreciation	0.68	0.00	0.00
Interest on Working Capital	2.01	1.98	2.07
O&M Expenses	31.65	33.55	35.56
Total	67.32	63.83	65.92

17. The Petitioner has claimed the following revised transmission charges for the instant transmission assets for the 2001-04 period in this petition:

(₹ in lakh)

Particulars	2001-02	2002-03	2003-04
Depreciation	10.20	7.40	7.40
Interest on Loan	0.00	0.00	0.00
Return on Equity	20.90	20.90	20.90
Advance Against Depreciation	0.69	0.00	0.00
Interest on Working Capital	1.97	1.98	2.07
O&M Expenses	31.65	33.55	35.56
Total	65.41	63.83	65.93

- 18. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
 - a) Admitted capital cost of ₹283.86 lakh as on 1.4.2001.
 - b) The Commission, vide order dated 30.6.2003 in petition no. 64/2002, had approved Debt-Equity Ratio of 50:50 as on 1.4.2001 based on the Net Fixed Asset of ₹261.24 lakh as on 1.4.1997. There was no additional capitalisation during 2001-04. Accordingly, ₹130.62 lakh each for Debt and Equity as on 1.4.2001 and 31.3.2004 had been approved by the Commission vide order dated 30.6.2003 in petition no. 64/2002.
 - c) Weighted Average Rate of Interest on actual loan, as applied in tariff, has been derived/adopted from the said Order dated 30.6.2003 in petition no. 64/2002.
 - d) Entire actual loan had been repaid during 2001-02 and remaining depreciable value was spread over from 2002-03 onwards the balance useful life of the asset.
 - e) Weighted Average Rate of Depreciation, Rate of Interest for Working Capital and O&M Expenses as per order dated 30.6.2003 in petition no. 64/2002.
- 19. In view of the above, the revised transmission charges allowed for the instant assets for the 2001-04 tariff period is as follows:

Particulars	2001-02	2002-03	2003-04
Depreciation	10.20	7.40	7.40
Interest on Loan	1.88	0.00	0.00
Return on Equity	20.90	20.90	20.90
Advance Against Depreciation	0.68	0.00	0.00

Interest on Working Capital	2.01	1.98	2.07
O&M Expenses	31.65	33.55	35.56
Total	67.32	63.83	65.92

2004-09 Period

20. The Commission in order dated 23.11.2005 in Petition No. 120/2004 had approved the following transmission charges for the instant transmission asset for the 2004-09 period:

(₹ in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	7.40	7.40	7.40	7.40	7.40
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	18.29	18.29	18.29	18.29	18.29
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.40	2.49	2.58	2.68	2.78
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Total	84.33	86.68	89.11	91.63	94.27

21. The Petitioner has claimed the following revised transmission charges for the instant transmission assets for the 2004-09 period in this petition:

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	7.40	7.40	7.40	7.40	7.40
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	18.29	18.29	18.29	18.29	18.29
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.36	2.44	2.53	2.63	2.73
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Total	84.29	86.63	89.06	91.58	94.22

- 22. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
 - a) Admitted capital cost as on 31.3.2004 was ₹283.46 lakh and ₹130.62 lakh each for Debt and Equity as on 31.3.2004 was approved by the Commission vide order dated 30.6.2003 in petition no. 64/2002. There was no additional capitalisation during 2004-09. Accordingly, admitted capital cost of ₹283.46 lakh and ₹130.62 lakh each for Debt and Equity as on 31.3.2009 was approved by the Commission vide order dated 23.11.2005 in Petition No.120/2004.
 - b) Entire loan had been repaid during 2001-02 and the remaining depreciable value was spread over from 2002-03 onwards for the balance useful life of the

instant transmission asset. Accordingly, the Commission vide order dated 23.11.2005 in petition no. 120/2004 had allowed 'NIL' interest on loan during 2004-09.

- c) Weighted average rate of depreciation, rate of interest for Working Capital and O&M data is considered as per order dated 23.11.2005 in Petition No. 120/2004.
- 23. In view of the above, the revised transmission charges allowed for the instant transmission asset for the 2004-09 tariff period is as follows:

					(₹ in lakh
Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	7.40	7.40	7.40	7.40	7.40
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	18.29	18.29	18.29	18.29	18.29
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.36	2.44	2.53	2.63	2.73
O&M Expenses	56.24	58.50	60.84	63.26	65.80
Total	84.28	86.63	89.06	91.57	94.21

2009-14 Period

24. The Commission in order dated 13.4.2011 in Petition No. 103/2010 had approved the following transmission charges for the instant transmission asset for the 2009-14 period:

					(₹ in lakh
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	7.39	7.39	7.39	7.39	7.39
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	22.83	22.83	22.83	22.83	22.83
Interest on Working Capital	3.78	3.96	4.15	4.35	4.56
O&M Expenses	62.88	66.48	70.28	74.30	78.55
Total	96.88	100.66	104.65	108.87	113.34

25. The Commission, vide order dated 26.11.2015 in Petition No. 239/TT/2014 had trued up the tariff allowed for the 2009-14 period and the same is as follows:

					(₹ in iakn)
Particulars	2009-10	2010-11	2011-12	2012-13	2013-14
Depreciation	7.39	7.39	7.39	7.39	7.39
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	24.39	25.29	25.31	25.31	25.61
Interest on Working Capital	3.81	4.01	4.20	4.40	4.62
O&M Expenses	62.88	66.48	70.28	74.30	78.55

Total	98.47	103.17	107.18	111.40	116.17

- 26. The Petitioner in this petition has claimed revised transmission charges for the instant transmission assets for the 2009-14 period as was allowed in order dated 26.11.2015 in Petition number 239/TT/2014 and depicted in table in para 25 above
- 27. We have considered the Petitioner's claim. The tariff is allowed for the instant assets on the basis of the following:
 - a) Admitted Capital cost as on 1.4.2009 was ₹283.46 lakh and ₹130.62 lakh each for Debt and Equity as on 1.4.2009 was approved by the Commission vide order dated 26.11.2015 in Petition No.239/TT/2014. There was no additional capitalisation during 2009-14. Accordingly, admitted capital cost of ₹283.46 lakh and ₹130.62 lakh each for Debt and Equity as on 31.3.2014 was approved by the Commission vide true-up order dated 26.11.2015 in Petition No. 239/TT/2014.
 - b) Entire loan had been repaid during 2001-02 and remaining depreciable value was spread over from 2002-03 onwards for the balance useful life of the instant transmission asset. Accordingly, the Commission vide order dated 26.11.2015 in petition no. 239/TT/2014 had considered 'NIL' interest on loan during 2009-14.
 - c) Weighted average rate of depreciation, rate of interest for Working Capital and O&M data is considered as per order dated 26.11.2015 in petition no. 239/TT/2014.
- 28. In view of the above, the revised transmission charges now allowed for the instant assets for the 2009-14 tariff period does not undergo any change and remains the same as depicted in Table in Para 25 above:

Truing Up of Annual Fixed Charges for the 2014-19 Tariff Period

29. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for 2014-19 period. The tariff for 2014-19 period has been trued up as discussed in the subsequent paragraphs.

30. The details of the trued-up transmission charges claimed by the Petitioner in respect of the instant transmission asset are as under:-

					(₹ in lakh
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	6.34	6.34	6.34	6.34	6.33
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	25.63	25.75	25.74	25.74	25.81
Interest on Working Capital	4.73	4.87	5.01	5.15	5.29
O&M Expenses	72.36	74.76	77.24	79.80	82.46
Total	109.06	111.72	114.33	117.03	119.89

31. The details of trued up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the instant assets are as under:-

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	10.85	11.21	11.59	11.97	12.37
O & M Expenses	6.03	6.23	6.44	6.65	6.87
Receivables	18.18	18.62	19.05	19.50	19.98
Total	35.06	36.06	37.08	38.12	39.22
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	4.73	4.87	5.01	5.15	5.29

Capital Cost as on 1.4.2014

32. The capital cost of the instant transmission asset has been calculated in accordance with the Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 26.11.2015 in Petition No. 239/TT/2014 had approved the transmission tariff for the instant transmission asset for the 2014-19 period based on admitted capital cost of ₹283.46 lakh as on 31.3.2014/1.4.2014. The Petitioner has not claimed any additional capital expenditure during the 2014-19 tariff period. Accordingly, the capital cost of ₹283.46 lakh has been considered for the purpose of truing up of the tariff of the 2014-19 tariff period.

Debt-Equity Ratio

33. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of 2014 Tariff Regulations. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period

ending on 31.3.2014 shall be considered. The Petitioner has not claimed any additional capital expenditure during the 2014-19 tariff period. Accordingly, ₹130.62 lakh each for Debt and Equity as on 31.3.2014, approved by the Commission vide order dated 26.11.2015 in Petition No. 239/TT/2014 and considered for the purpose of determination of tariff of the 2014-19 tariff period has also been considered for the purpose of truing up of the tariff of the instant transmission asset for the 2014-19 tariff period.

Interest on Loan (IoL)

34. The Petitioner has not claimed any IoL for the tariff period 2014-19 as entire loan had been repaid during 2001-02. Accordingly, the Commission vide order dated 26.11.2015 in petition no. 239/TT/2014 had considered 'NIL' interest on loan during 2014-19 tariff period. No IoL has been approved in this order also.

Return on Equity (RoE)

35. The Petitioner is entitled to RoE for the instant assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:-

Year	Claimed effective tax (%)	Grossed up ROE [Base Rate/(1-t)] (%)
2014-15	21.02	19.625
2015-16	21.38	19.715
2016-17	21.34	19.705
2017-18	21.34	19.705
2018-19	21.55	19.758

36. We have considered the submissions of the Petitioner. The Commission in order dated 27.4.2020 in Petition No.274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. The relevant extracts of the order dated 27.4.2020 in Petition No.274/TT/2019 is as under:

"26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.

27. Accordingly, following effective tax rates based on notified MAT rates are considered for the purpose of grossing up of rate of return on equity:

Year	Notified MAT rates (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.9605	20.9605
2015-16	21.3416	21.3416
2016-17	21.3416	21.3416
2017-18	21.3416	21.3416
2018-19	21.5488	21.5488

37. The same MAT rates as considered in order dated 27.4.2020 in Petition No.274/TT/2019 are considered in the instant Petition for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations as under:-

Year	MAT Rate (%)	Grossed up ROE (Base Rate/1-t) (%)
2014-15	20.9605	19.610
2015-16	21.3416	19.705
2016-17	21.3416	19.705
2017-18	21.3416	19.705
2018-19	21.5488	19.758

38. The Petitioner has claimed ROE for the 2014-19 period after grossing up the ROE of 15.50% with Effective Tax rates (based on MAT rates) each year. ROE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as follows:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Net Opening Equity	130.62	130.62	130.62	130.62	130.62
Increase in Equity due to	0.00	0.00	0.00	0.00	0.00
addition during the year					
Closing Equity	130.62	130.62	130.62	130.62	130.62
Average Equity	130.62	130.62	130.62	130.62	130.62
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Applicable ROE Rate (%)	19.610	19.705	19.705	19.705	19.758
Return on Equity for the year	25.61	25.74	25.74	25.74	25.81

39. Accordingly, RoE allowed *vide* order dated 26.11.2015 in Petition No. 239/TT/2014, RoE claimed by the Petitioner in the instant petition and trued-up RoE in respect of instant transmission asset is shown in the table below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed <i>vide</i> order dated	25.61	25.61	25.61	25.61	25.61
26.11.2015 in Petition					
No.239/TT/2014					
As claimed by the Petitioner in the	25.63	25.75	25.74	25.74	25.81
instant petition					
Approved in this order	25.61	25.74	25.74	25.74	25.81

Depreciation

40. The instant assets were put into commercial operation w.e.f. 1.9.1995. Entire loan had been repaid during 2001-02 and the remaining depreciable value was spread over from 2002-03 onwards for the balance useful life of the instant transmission asset. The depreciation has been worked out as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. The Gross Block during the tariff period 2014-19 has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is given in Annexure-1. The Weighted Average of Depreciation (WAROD) has been worked out after taking into account the depreciation rate as prescribed in Regulation 27 of the 2014 Tariff Regulations and the trued-up depreciation allowed for the 2014-19 tariff period is as under:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Opening Gross Block	283.46	283.46	283.46	283.46	283.46	
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00	
Closing Gross Block	283.46	283.46	283.46	283.46	283.46	
Average Gross Block	283.46	283.46	283.46	283.46	283.46	
Freehold Land	0.00	0.00	0.00	0.00	0.00	
Weighted average rate of Depreciation (WAROD) (%)	SPREADING (loan repaid in 2001-02)					
Balance useful life of the asset at the beginning of the year (years)	6	5	4	3	2	
Elapsed life	19	20	21	22	23	
Aggregate Depreciable Value	255.11	255.11	255.11	255.11	255.11	
Combined Depreciation during	7.40	7.40	7.40	7.40	7.40	
the year						
Remaining Aggregate Depreciable Value at the end of year	44.37	36.98	29.58	22.19	14.79	

41. Accordingly, the depreciation allowed *vide* order dated 26.11.2015 in Petition No. 239/TT/2014, depreciation claimed by the Petitioner in the instant petition and trued-up depreciation in respect of instant transmission asset is shown in the table below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated	7.39	7.39	7.39	7.39	7.39
26.11.2015 in Petition No.					
239/TT/2014					
As claimed by the Petitioner in	6.34	6.34	6.34	6.34	6.33
the instant petition					
Approved in this order	7.40	7.40	7.40	7.40	7.40

Operation & Maintenance Expenses (O&M Expenses)

42. The details of the O&M Expenses claimed by the Petitioner in respect of instant transmission asset covered in the instant petition and allowed under Regulation 29(3) of the 2014 Tariff Regulations for purpose of tariff are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19			
50 MVA 220/132 kV ICT at Malda with associated bays:								
No. of 132 kV Bay	1	1	1	1	1			
Norms (₹ lakh/Bay)	30.15	31.15	32.18	33.25	34.36			

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	30.15	31.15	32.18	33.25	34.36
(Claimed) (a)					
No. of 220 kV Bay	1	1	1	1	1
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.10
O&M Expenses	42.21	43.61	45.06	46.55	48.10
(Claimed). (b)					
Total O&M Expenses	72.36	74.76	77.24	79.80	82.46
claimed	12.30	74.70	11.24	79.00	02.40
Total O&M Expenses (Approved)	72.36	74.76	77.24	79.80	82.46

Interest on Working Capital (IWC)

43. The Petitioner is entitled to claim IWC as per Regulation 28 of the 2014 Tariff Regulations as under:-

i. Maintenance spares:

Maintenance spares have been worked out based on 15% of O&M Expenses specified in Regulation 29.

ii. O&M Expenses:

O&M Expenses have been considered for one month of the allowed O&M Expenses.

iii. Receivables:

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

iv. Rate of Interest on Working Capital:

Rate of Interest on Working Capital is considered on normative basis in accordance with Regulation 28(3) of the 2014 Tariff Regulations.

44. IWC allowed for the instant assets is shown as under:-

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Maintenance Spares	10.85	11.21	11.59	11.97	12.37
O&M Expenses	6.03	6.23	6.44	6.65	6.87
Receivables	18.35	18.80	19.23	19.68	20.16
Total Working Capital	35.24	36.24	37.26	38.30	39.40
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	4.76	4.89	5.03	5.17	5.32

45. Accordingly, IWC allowed *vide* order dated 26.11.2015 in Petition No. 239/TT/2014, IWC claimed by the Petitioner in the instant petition and trued-up IWC in respect of instant transmission asset is shown in the table below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated	4.76	4.89	5.03	5.17	5.32
22.11.2015 in Petition					
No.239/TT/2014					
As claimed by the Petitioner in	4.73	4.87	5.01	5.15	5.29
the instant petition					
Approved in this order	4.76	4.89	5.03	5.17	5.32

Approved Annual Fixed Charges for the 2014-19 Tariff Period

46. The trued up Annual Fixed Charges for the instant transmission assets for the 2014-19 tariff period are as under:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	7.40	7.40	7.40	7.40	7.40
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	25.61	25.74	25.74	25.74	25.81
Interest on Working Capital	4.76	4.89	5.03	5.17	5.32
O & M Expenses	72.36	74.76	77.24	79.80	82.46
Total	110.13	112.79	115.40	118.11	120.98

47. Accordingly, annual transmission charges approved *vide* order dated 26.11.2015 in Petition No. 239/TT/2014, claimed by the Petitioner in the instant petition and trued up in respect of instant transmission asset is shown in the table below:-

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated	110.12	112.66	115.27	117.98	120.78
26.11.2015 in Petition					
No.261/TT/2015					
As claimed by the Petitioner in	109.06	111.72	114.33	117.03	119.89
the instant petition					
Approved in this order	110.13	112.79	115.40	118.11	120.98

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

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	6.34	6.33	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	25.81	25.81	16.80	16.80	16.80
Interest on Working Capital	2.70	2.78	2.63	2.71	2.80
O&M Expenses	50.84	52.64	54.50	56.39	58.40
Total	85.69	87.56	73.93	75.90	78.00

49. The Petitioner has claimed the following IWC for the Combined Asset for the 2019-24 tariff period:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	7.63	7.90	8.18	8.46	8.76
O&M expenses	4.24	4.39	4.54	4.70	4.87
Receivables	10.54	10.80	9.11	9.36	9.59
Total	22.41	23.09	21.83	22.52	23.22
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.70	2.78	2.63	2.71	2.80

Capital Cost as on 1.4.2019

- 50. Regulations 19(3) and (5) of the 2019 Tariff Regulations provide as follows:-
 - "19 Capital Cost:
 - (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.
 - (5) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 51. The capital cost of ₹283.46 lakh has been considered by the Commission for the instant transmission asset as on 31.3.2019. The Petitioner has not claimed any additional capital expenditure during 2019-24 period. Therefore, the capital cost of ₹283.46 lakh as on 31.3.2019 has been considered for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

Debt-Equity Ratio

- 52. Regulation 18(3) of the 2019 Tariff Regulations provides as under:-
 - "18. Debt-Equity Ratio:
 - (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."
- 53. In view of the above, the Return on Equity for the FY 2020-21 onwards is being allowed based on the 30% of Net Fixed Asset of ₹261.24 lakh approved earlier by the Commission and the same is considered for Debt-Equity as on COD and 1.4.2019.

Return on Equity (RoE)

- 54. Regulation 30 and 31 of the 2019 Tariff Regulations provide as under:-
 - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
 - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding Additional Capitalization due to Change in Law, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system;

Provided further that:

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

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



- iii. in case of a thermal generating station, with effect from 1.4.2020:
- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

- (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."
- The Petitioner has submitted that MAT rate is applicable on it. Accordingly, the MAT rate applicable during the 2019-20 period has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31 (3) of the 2019 Tariff Regulations. However, in the instant petition, the Petitioner has

claimed the RoE on the basis of MAT rate of 21.55% whereas the Petitioner in Petition No.244/TT/2019 has claimed the RoE based on the MAT rate of 17.472% on account of taxation laws (Amendment) ordinance 2019 published in the Gazette dated 20.9.2019. Accordingly, based on the submissions made by the Petitioner in Petition No.244/TT/2019, the RoE has been allowed for the instant transmission assets considering the applicable MAT rate of 17.472% as under:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	130.62	78.37	78.37	78.37	78.37
Addition due to Additional	0.00	0.00	0.00	0.00	0.00
Capitalization					
Closing Equity	130.62	78.37	78.37	78.37	78.37
Average Equity	130.62	78.37	78.37	78.37	78.37
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (Pretax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	24.53	14.72	14.72	14.72	14.72

Interest on Loan (IoL)

- 56. Regulation 32 of the 2019 Tariff Regulations provides as under:-
 - "32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.
 - (2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.
 - (3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization 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.

- (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".
- 57. The Petitioner has not claimed any IoL for the tariff period 2019-24 as entire loan had been repaid during 2001-02. Accordingly, interest on loan has been considered as 'NIL' for the purpose of tariff during 2019-24.

Depreciation

- 58. Regulations 33(1), (2) and (5) of the 2019 Tariff Regulations provide as under:-
 - "33. Depreciation:
 - (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

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

59. The instant transmission asset was put into commercial operation w.e.f. 1.9.1995. Entire loan had been repaid during 2001-02 and the remaining depreciable value was spread over from 2002-03 onwards for the balance useful life of the instant transmission asset. The depreciation has been worked out as per the methodology provided in Regulation 33 of the 2019 Tariff Regulations. The Gross Block during the 2019-24 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD has been allowed (refer Annexure-2 to this order) after taking into account the depreciation rates of assets as prescribed in 2019 Tariff Regulations. The depreciation allowed for the instant transmission asset is as follows:

(₹ in lakh)

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Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Opening Gross Block	283.46	283.46	283.46	283.46	283.46	
Additional Capitalisation	0.00	0.00	0.00	0.00	0.00	
Closing Gross Block	283.46	283.46	283.46	283.46	283.46	
Average Gross Block	283.46	283.46	283.46	283.46	283.46	
Freehold Land	0.00	0.00	0.00	0.00	0.00	
Weighted Average Rate of Depreciation (WAROD)	SPREADING (loan repaid in 2001-02)					
Balance useful life of the asset at the beginning of the year	1	0	0	0	0	
Elapsed life	24	25	26	27	28	
Aggregated Depreciable Value	255.11	255.11	255.11	255.11	255.11	
Combined Depreciation during	7.39	0.00	0.00	0.00	0.00	
the Year						
Remaining Aggregate Depreciable Value	7.39	0.00	0.00	0.00	0.00	

Operation & Maintenance Expenses (O&M Expenses)

60. Regulation 35(3) and (4) of the 2019 Tariff Regulations provide as under:

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

Particulars	2019- 20	2020- 21	2021- 22	2022- 23	2023- 24
Norms for sub-station Bays (₹ 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)					

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

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);



- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW)shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.
- (c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:

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

- (4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up."
- 61. The O&M Expenses claimed by the Petitioner for the instant transmission asset are as follows:

Particulars	2019-20	2020-21	201-22	2022-23	2023-24				
1x50 MVA 220/132 kV ICT at Malda with associated bays:									
No. of 132 kV Bay	1	1	1	1	1				
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.46				
O&M Expenses (Claimed) (a)	16.08	16.64	17.23	17.83	18.46				
No. of 220 kV Bay	1	1	1	1	1				
Norms (₹ lakh/Bay)	22.51	23.30	24.12	24.96	25.84				
O&M Expenses (Claimed) (b)	22.51	23.30	24.12	24.96	25.84				
MVA of 220/132 ICT	50	50	50	50	50				
Norms (₹ lakh/MVA)	0.245	0.254	0.263	0.272	0.282				
O&M Expenses (Claimed) (c)	12.250	12.700	13.150	13.600	14.100				
Total O&M Expenses claimed (a+b+c)	50.840	52.640	54.500	56.390	58.400				
Total O&M Expenses (Approved)	50.84	52.64	54.50	56.39	58.40				

62. The O&M Expenses claimed by the Petitioner are in accordance with Regulation 35(3) of the 2019 Tariff Regulations. Hence, they are allowed as claimed.

Interest on Working Capital (IWC)

- 63. Regulation 34(1)(c), Regulation 34(3), (4) and Regulation 3(7) of the 2019 Tariff Regulations respectively 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. **Definition** 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;"
- 64. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the bank rate as on 1.4.2019.
- 65. IWC is allowed in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, Rate of Interest for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.2.2020

of 7.75% plus 350 basis points). The components of working capital and interest allowed for the instant transmission asset for the 2019-24 tariff period are as follows:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Maintenance Spares	7.63	7.90	8.18	8.46	8.76
O & M Expenses	4.24	4.39	4.54	4.70	4.87
Receivables	10.51	8.59	8.83	9.08	9.31
Total Working Capital	22.37	20.88	21.55	22.23	22.93
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	2.70	2.35	2.42	2.50	2.58

Annual Fixed Charges for the 2019-24 Tariff Period

66. The transmission charges allowed for the instant transmission asset for the 2019-24 tariff period are as under: -

(₹ in lakh)

					/ · · · · · · · · · · · · · · · · · · ·
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	7.39	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	24.53	14.72	14.72	14.72	14.72
Interest on Working Capital	2.70	2.35	2.42	2.50	2.58
O&M Expenses	50.84	52.64	54.50	56.39	58.40
Total	85.46	69.71	71.64	73.61	75.70

Filing Fee and the Publication Expenses

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

Licence Fee and RLDC Fees and Charges

68. The Petitioner shall be entitled for reimbursement of 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 for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

69. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. GST is not levied on transmission service at present and we are of the view that Petitioner's prayer is premature.

Security Expenses

- 70. The Petitioner has submitted that security expenses for the instant 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. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 period for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on yearly basis.
- 71. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed Petition No.260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No.260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

Capital Spares

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

Sharing of Transmission Charges

Transmission Asset

- 73. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 tariff period.
- 74. To summarise, revised transmission charges for tariff periods 2001-04, 2004-09 and 2009-14, trued up AFC allowed for the 2014-19 tariff period and AFC allowed for the Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)

Transmission Asset	2001-02	2002-03	2003-04
Annual Fixed Charges	67.32	63.83	65.92

(₹ in lakh)

Hallollission Asset	200 1 -03	2003-00	2000-01	2007-00	2000-03
Annual Fixed Charges	84.28	86.63	89.06	91.57	94.21
				(₹	in lakh)
Transmission Asset	2009-10	2010-11	2011-12	2012-13	2013-14
Annual Fixed Charges	98.48	103.17	107.18	111.40	116.18

2004-05 2005-06 2006-07 2007-08 2008-09

(₹ in lakh)

Transmission Asset	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	110.13	112.79	115.40	118.11	120.98

Transmission Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	85.46	69.71	71.64	73.61	75.70

75. This order disposes of Petition No.311/TT/2019.

Sd/(Arun Goyal) (I.S. Jha)
Member Member

ANNEXURE-1

DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD) FOR THE 2014-19 TARIFF PERIOD

2014-19	Admitted Capital Cost	Projected Additional Capitalisation	Admitted Capital Cost	Rate of Depreciation as per	A	Annual Depreciation as per Regulations	ciation as pe	r Regulatior	St
Capital Expenditure	as on 1.4.2014	during tariff period 2014-19	as on 31.3.2019	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19
Land-Freehold	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	00.0	00.00
Land-Lease hold	00.00	00:00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Building, Civil	0.00		0.00	3.34%	00.00	0.00	0.00	00.00	00.00
Works & Colony		0.00							
Transmission Line	00.00	0.00	0.00	5.28%	0.00	0.00	0.00		-
Substation	283.46	00.0	283.46	5.28%			Spreading		
PLCC	00.0	0.00	0.00	6.33%	00.00	0.00	0.00	-	-
IT Equipment (Incl. Software)	0.00	00:00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	283.46	0.00	283.46	Total	7.40	7.40	7.40	7.40	7.40
	Average G	Average Gross Block (₹ in lakh)	n lakh)		283.46	283.46	283.46	283.46	283.46
Weighte	d Average	Weighted Average Rate of Depreciation (WAROD)	iation (WAI	ROD)			*)		
(*) Since the Ioan has been paid in 2001-02, the remaining depreciable value of 2002-03 has been spread across the balance useful life (total useful life: 25 years) in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The annual depreciation from 2002-03 onwards is ₹7.40 lakh.	ın has beer ıl useful lii ım 2002-03	n paid in 2001-C fe: 25 years) ii onwards is ₹7.	12, the rem n accorda 40 lakh.	aining depreci nce with Regi	able value c ulation 27(5	of 2002-03 ha of the 201	is been spre 4 Tariff Re	ad across tl gulations. T	ne balance he annual

ANNEXURE-2

DETAILS OF WEIGHTED AVERAGE RATE OF DEPRECIATION (WAROD) FOR THE 2019-24 TARIFF PERIOD

2019-24	Admitted Capital Cost	Projected Additional Capitalisation	Admitted Capital Cost	Rate of Depreciation as per	Ā	nnual Depre	ciation as pe	Annual Depreciation as per Regulations	<u>s</u>
Capital Expenditure	as on 1.4.2019	during tariff period 2019-24	as on 31.3.2024	Regulations	2019-20	2020-21	2021-22	2022-23	2023-24
Land-Freehold	0.00	0.00	0.00	0.00%	0.00	00.0	00.0	0.00	0.00
Land-Lease hold	00.00	0.00	00:00	3.34%	0.00	0.00	0.00	00.00	0.00
Building, Civil	0.00		0.00	3.34%	0.00	00.00	00.00	0.00	0.00
Works & Colony		0.00							
Transmission Line	00:00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
Substation	283.46	00.0	283.46	5.28%		Spreading (Spreading (Loan repaid in 2001-02)	in 2001-02)	
PLCC	0.00	00.0	0.00	6.33%	0.00	00.0	00:00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	283.46	00.0	283.46	Total	7.39	00.0	0.00	0.00	0.00
	Average G	Average Gross Block (₹ in lakh)	n lakh)		283.46	283.46	283.46	283.46	283.46
We	ighted Ave	Weighted Average Rate of Depreciation	preciation				*		
((*) Since the Ioan has been paid in 2001-02, the remaining depreciable value of 2002-03 has been spread across the balance useful life (total useful life: 25 years) in accordance with Regulation 27(5) of the 2014 Tariff Regulations. The annual depreciation from 2002-03 onwards is ₹7.40 lakh. For 2019-20 the depreciation is ₹7.39 lakh.	an has bee Il useful lii m 2002-03	n paid in 2001-(ie: 25 years) ii onwards is ₹7.)2, the rem η accordaι 40 lakh. Fo	aining depreci nce with Regu r 2019-20 the c	able value o ulation 27(5 lepreciation	of 2002-03 ha) of the 201 is ₹7.39 lak	as been spre 4 Tariff Re h.	ad across th gulations. T	ne balance he annual