#### CENTRAL ELECTRICITY REGULATORY COMMISSION

#### **NEW DELHI**

#### Petition No. 359/TT/2019

Coram:

Shri P. K. Pujari, Chairperson Shri I. S. Jha. Member Shri Arun Goval. Member Shri Pravas Kumar Singh, Member Shri P. S. Mhaske, Member (Ex-officio)

Date of order: 25.04.2021

#### In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff for the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 220 kV Anta Transmission System in the Northern Region.

#### And in the matter of:

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

.....Petitioner

#### Versus

- Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Vidyut Bhawan, Vidyut Marg, Jaipur - 302 005.
- 2. Ajmer Vidyut Vitran Nigam Ltd., 132 kV, GSS RVPNL Sub-station Building, Caligiri Road, Malviya Nagar, Jaipur - 302 017.
- 3. Jaipur Vidyut Vitran Nigam Ltd., 132 kV, GSS RVPNL Sub-station Building. Caligiri Road, Malviya Nagar, Jaipur - 302 017.
- 4. Jodhpur Vidyut Vitran Nigam Ltd., 132 KV, GSS RVPNL Sub-station Building,



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Caligiri Road, Malviya Nagar, Jaipur - 302 017.

- 5. Himachal Pradesh State Electricity Board, Vidyut Bhawan, Kumar House Complex Building II, Shimla - 171 004.
- 6. Punjab State Electricity Board, The Mall, Patiala - 147 001.
- 7. Haryana Power Purchase Centre, Shakti Bhawan, Sector - 6. Panchkula - 134 109.
- 8. Power Development Dept., Govt. of Jammu & Kashmir, Mini Secretariat, Jammu.
- 9. Uttar Pradesh Power Corporation Ltd., (Formerly Uttar Pradesh State Electricity Board), Shakti Bhawan, 14, Ashok Marg, Lucknow - 226 001.
- 10. Delhi Transco Ltd., Shakti Sadan, Kotla Road, New Delhi - 110 002.
- 11. BSES Yamuna Power Ltd... BSES Bhawan, Nehru Place, New Delhi.
- 12. BSES Rajdhani Power Ltd., BSES Bhawan, Nehru Place, New Delhi.
- 13. TATA Power Delhi Distribution Ltd., 33 kV Sub-station, Building, Hudson Lane, Kingsway Camp, North Delhi - 110009.
- 14. Chandigarh Administration, Sector - 9, Chandigarh.
- 15. Uttarakhand Power Corporation Ltd., Urja Bhawan, Kanwali Road, Dehradun.
- 16. North Central Railway, Allahabad.



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17. New Delhi Municipal Council, Palika Kendra, Sansad Marg, New Delhi - 110 002.

...Respondents

For Petitioner : Shri S. S. Raju, PGCIL

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

Shri Ved Prakash Rastogi, PGCIL

For Respondents: Shri R. B. Sharma, Advocate, BRPL

Shri Mohit Mudgal, Advocate, BYPL

Ms. Megha Bajpeyi, BRPL

## **ORDER**

The instant petition has been filed by the Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of transmission tariff for 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 tariff from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") in respect of 220 kV D/C Anta Transmission System in Northern Region (hereinafter referred to as "the transmission asset")

- 2. The Petitioner has made the following prayers in this petition:
  - "1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 7 and 8 above.
  - 2) 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 regulations 2014 and tariff regulation'19 as per para 9.0 & 10 above for respective block.

Further it is submitted that deferred tax liability before 01.04.2009 shall be recoverable from the beneficiaries or long term customers /DIC as the case may be, as and when



the same is materialized as per regulation 49 of 2014 and regulation 67 of 2019 tariff regulation. The petitioner may be allowed to recover the deferred tax liability materialized directly without making any application before the commission as provided in the regulation.

- 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.
- 4) 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.
- 5) 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 9.5 above.
- 6) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 7) 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 Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice."

## **Background**

- The brief facts of the case are as under:
  - a) The approval for Revised Cost Estimate (RCE) for the transmission asset was accorded by the Ministry of Power vide its letter dated 10.3.1995 for an amount of ₹6541.00 lakh, including an IDC of ₹591.00 lakh and Foreign Exchange Revaluation Component of ₹485.00 lakh.
  - b) The tariff for the period up to 31.3.2001 was approved by the Central Government under its notification dated 16.11.1998 which was revised vide notification dated 14.5.1999 at a cost of ₹5759.32 lakh.
  - c) The annual transmission charges for the period from 1.4.2001 to 31.3.2004 was approved by the Commission vide order dated 31.7.2003 in Petition No. 6/2002 at the gross block of ₹6534.18 lakh which included FERV of



₹774.86 lakh over the gross block of ₹5759.32 lakh earlier considered by the Ministry of Power.

d) Various elements of the transmission system were put under commercial operation progressively from 1989 to 1991 and complete scope of the work under the aforesaid revised cost estimate approved by the Ministry of Power is covered in the instant petition. The dates of commercial operation of the respective transmission lines and substations under the transmission asset are as follows:

## Transmission lines

- (i) 220 kV D/C Anta- Bhilwara transmission line Ckt-I (COD: 20.5.1989)
- (ii) 220 kV D/C Anta- Bhilwara transmission line Ckt-II (COD: 20.12.1989)
- (iii) 220 kV D/C Anta-Dausa transmission line-Ckt-I (COD: 20.3.1990)
- (iv) 220 kV D/C Anta-Dausa transmission line-Ckt-II (COD: 11.1.1991)
- (v) 220 kV D/C Dausa(Bassi)-Heerapura transmission line Ckt-I (COD:20.3.1990)
- (vi) 220 kV D/C Dausa(Bassi)-Heerapura transmission line Ckt-II (COD:11.1.1991)

## Sub-station

- (i) 2 number of 220 kV bays at Anta (COD: 20.5.1989)
- (ii) 2 number of 220 kV bays at Dausa (Bassi) (COD: 11.1.1991
- Tariff for the transmission asset for the period from 1.4.2004 to e) 31.3.2009 was determined by the Commission vide order dated 15.12.2005 in Petition No. 98/2004 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 which was later amended vide common order dated 29.2.2008 in Petition No. 96/2004, Petition No. 98/2004, Petition No. 105/2004 and Petition No. 109 of 2004.
- f) Tariff of the transmission asset for 2009-14 period was allowed vide order dated 14.11.2011 in Petition No. 89/2009 based on admitted cost of ₹6696.69 lakh as on 31.3.2009 in accordance with the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as the "2009 Tariff Regulations").

- g) Tariff for 2009-14 period was trued up and tariff for the period 2014-19 was determined vide order dated 25.1.2016 in Petition No. 430/TT/2014.
- h) Transmission tariff allowed for 2014-19 period vide order dated 25.1.2016 and transmission tariff claimed in the present petition in respect of the transmission asset based on truing up is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges approved vide order dated 25.1.2016 in Petition No. 430/TT/2014	1039.21	1050.17	1061.85	1073.20	1085.81
AFC claimed by the Petitioner based on truing up in the instant Petition	1039.64	1053.26	1064.65	1076.00	1090.16

- 4. The Respondents are distribution licensees, transmission utilities and power departments, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Northern Region.
- 5. The Petitioner has served the petition on Respondents and notice regarding filing of this petition has also been published in the 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 notices published in the newspapers. Uttar Prdesh Power Corporation Ltd. (UPPCL) i.e. Respondent No. 9 has filed its reply vide affidavit dated 21.11.2019 and has raised issues of Weighted Average Life, cumulative depreciation and debt:equity ratio. BSES Rajdhani Power Ltd. (BRPL), Respondent No. 12 has filed its reply vide affidavit dated 6.2.2020 and has raised issues of deferred tax liability, effective tax rate considered for calculation of RoE, security expenses, capital spares and petition filing fees. In response to the issues raised by UPPCL and BRPL, the Petitioner has filed rejoinder vide affidavits dated 23.12.2020.

- 6. The hearing in this matter was held on 10.3.2021 through video conference and order was reserved.
- 7. Having heard the representatives of the parties and perused the material on record, we proceed to dispose of the petition.
- 8. This order is issued considering the submissions made by the Petitioner in its affidavits dated 27.8.2019 and 20.7.2020, reply affidavits of UPPCL and BRPL and the rejoinder affidavits thereto by the Petitioner.

## TRUING UP OF ANNUAL FIXED CHARGES FOR THE 2014-19 TARIFF PERIOD

9. The Commission vide order dated 25.1.2016 in Petition No. 430/TT/2014 has approved tariff for the 2014-19 period as below:

(₹ in lakh)

					(
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	127.18	127.18	127.18	127.18	127.18
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	564.70	564.70	564.70	564.70	564.70
Interest on Working Capital	33.27	33.85	34.46	35.05	35.71
O&M Expenses	314.05	324.44	335.51	346.26	358.21
Total	1039.21	1050.17	1061.85	1073.20	1085.81

- 10. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for the 2014-19 period. Tariff for the 2014-19 period has been trued up as discussed in the subsequent paragraphs.
- 11. The details of trued-up transmission charges claimed by the Petitioner are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	127.18	127.18	127.18	127.18	127.18
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	565.13	567.72	567.44	567.44	568.96
Interest on Working Capital	33.28	33.92	34.52	35.12	35.81



O&M Expenses	314.05	324.44	335.51	346.26	358.21
Total	1039.64	1053.26	1064.65	1076.00	1090.16

12. The details of trued-up Interest on Working Capital (IWC) claimed by the Petitioner are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	26.17	27.04	27.96	28.86	29.85
Maintenance Spares	47.11	48.67	50.33	51.94	53.73
Receivables	173.27	175.54	177.44	179.33	181.69
Total	246.55	251.25	255.73	260.13	265.27
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	33.28	33.92	34.52	35.12	35.81

## Capital Cost as on 1.4.2014

13. The Commission vide order dated 25.1.2016 in Petition No. 430/TT/2014 had approved the capital cost of ₹6696.69 lakh as on 31.3.2014 for the transmission asset. The Petitioner has not claimed any Additional Capital Expenditure (ACE) for 2014-19 tariff period. Accordingly, capital cost of ₹6696.69 lakh has been considered for the purpose of truing up of tariff for 2014-19 tariff period.

# **Debt-Equity Ratio**

- 14. UPPCL in its reply has submitted that Petitioner has considered debt-equity ratio of 57:43 as admitted vide order dated 25.1.2016 in Petition No. 430/TT/2014 which has enabled Petitioner to overcharge the beneficieries by ₹858.16 lakh on Return on Equity during 2014-19 period. UPPCL further submitted that the Commission may consider debt-equity ratio of 70:30 instead of 57:43.
- 15. In response, the Petitioner has submitted that debt-equity ratio has been considered as admitted vide order dated 25.1.2016 in Petition No. 430/TT/2014.



16. We have considered the submissions of UPPCL and Petitioner. The debt-equity ratio has been allowed in accordance with Regulation 19(3) of the 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. Accordingly, the debt-equity ratio of 57:43 for the period ending on 31.3.2014, has been considered for the purpose of truing up of the tariff of the transmission asset for 2014-19 tariff period. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 of the transmission asset are as follows:

Funding	Capital cost as on 1.4.2014 (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	3817.03	57.00	3817.03	57.00
Equity	2879.66	43.00	2879.66	43.00
Total	6696.69	100.00	6696.69	100.00

## **Depreciation**

- 17. UPPCL has submitted that Petitioner has considered Weighted Average Life (WAL) for the transmission asset as 33 years instead of 35 years. UPPCL further submitted that Petitioner has not provided any justifications while claiming the cumulative depreciation of ₹4628.01 lakh as on 31.3.2014. UPPCL has urged to direct the Petitioner to submit justifications in respect of the same. In response, the Petitioner has submitted that value of ₹4628.01 lakh of cumulative depreciation as on 1.4.2014 has been considered as per the order dated 25.1.2016 in Petition No. 430/TT/2014.
- 18. We have considered the above submisssions of UPPCL and Petitioner. It is observed that Petitioner has rightly considered WAL of 33 years and the value of

cumulative depreciation as on 1.4.2014 in respect of the transmission asset as per the Commission's order dated 25.1.2016 in Petition No. 430/TT/2014.

19. Depreciation has been allowed as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering the capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. Gross Block during 2014-19 tariff period with regard to transmission asset has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is attached as Annexure-1. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 tariff period for the transmission asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
Average Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
Weighted average rate of Depreciation (WAROD) (%)	Spread	Spread	Spread	Spread	Spread
Balance useful life of the asset at the beginning of the year (Year)	11.00	10.00	9.00	8.00	7.00
Aggregated Depreciable Value	6027.02	6027.02	6027.02	6027.02	6027.02
Remaining Depreciable value at the end of the year	1271.83	1144.65	1017.46	890.28	763.10
Depreciation during the year	127.18	127.18	127.18	127.18	127.18

20. Accordingly, depreciation approved earlier vide order dated 25.1.2016 in Petition No. 430/TT/2014, claimed in the instant petition for 2014-19 tariff period and allowed after truing up of tariff for 2014-19 period with respect to transmission asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier vide	127.18	127.18	127.18	127.18	127.18



order dated 25.1.2016 in Petition No. 430/TT/2014					
As claimed by the Petitioner in the instant Petition	127.18	127.18	127.18	127.18	127.18
Allowed after truing-up	127.18	127.18	127.18	127.18	127.18

# **Interest on Loan (IoL)**

21. The Petitioner has not claimed any interest on loan for 2014-19 tariff period as the entire loan has already been repaid prior to 1.4.2004. Accordingly, loL has been considered as NIL for the purpose of truing up of tariff.

## Return on Equity (RoE)

22. The Petitioner is entitled to RoE for the transmission asset 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 the following effective tax rates for 2014-19 tariff period:

Year	Claimed effective tax (%)	Grossed up RoE [Base Rate/(1-t)] (%)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

- 23. UPPCL has submitted that Petitioner in the instant petition has over-charged RoE by ₹858.16 lakh during 2014-19 tariff period by considering the debt-equity ratio of 57:43 instead of normative debt-equity of 70:30. UPPCL has further submitted that the Commission may consider debt-equity ratio of 70:30 instead of 57:43.
- 24. BRPL has submitted that deferred tax liability is being billed by transmission company post 2009 and that the transmission companies are entitled to bill deferred tax liability only upto 31.3.2009 as per Regulation 49 of the 2014 Tariif Regulations. BRPL further submitted that details regarding deferred tax liability are not being

shared and that the Petitioner may be directed to submit details of deferred tax liability claimed during 2014-19 tariff period in respect of the transmission asset. BRPL has also submitted that Petitioner should clarify that deferred tax liability beyond 31.3.2009 has not been considered in the computation of effective tax rate and in case it has been considered, the same may be refunded as Regulation 49 of the 2014 Tariif Regulations restricts deferred tax liability upto 31.3.2009. BRPL has submitted that the Petitioner has provided effective tax rate only for 2014-15 and 2015-16 periods and the Petitioner has claimed the effective tax rate based on its consolidated income. However, income from other business activities of the Petitioner like consulting, communication, planning and design of projects etc. need to be excluded from the computation of effective rate.

- 25. In response, the Petitioner has submitted that debt-equity ratio has been considered as admitted by the Commission vide its order dated 25.1.2016 in Petition No. 430/TT/2014.
- 26. In response to submissions of BRPL, the Petitioner has submitted that it is eligible for claiming deferred tax liabilities for the period up to 31.3.2009 on materialization of subsequent period i.e. financial year 2009-10 onwards. The Petitioner is only claiming reimbursement of income tax liability discharged as per the provisions of the Income Tax Act, 1961. The Petitioner further submitted that the materialized deferred tax liability has not been considered while computing the effective tax rate. The Petitioner has also submitted that all the supporting documents along with Auditor's Certificate have been submitted with bills for deferred tax liability. The Petitioner also submitted that it does not file income tax return for transmission business in respect of a particular region as Company has a single PAN and there is

no provision under Income Tax Act, 1961 to file separate returns on the basis of nature of business being undertaken by any entity. The Auditor's Certificate clearly shows income from transmission and income from other segments along with copy of assessment order/ income return which are relevant to arrive the effective tax rate and the details have already been submitted in Petition No. 24/TT/2020. The Petitioner has submitted that it has computed effective tax rate based on actual tax paid pursuant to assessment orders for the years 2014-15, 2015-16 and 2016-17. The income tax for 2017-18 and 2018-19 has been deposited and tax returns have already been filed and the Petitioner is yet to receive assessment orders. Further, effective rate of tax considered for 2017-18 and 2018-19 is based on the Income Tax returns filed for the purpose of grossing up the RoE rate of respective years. The Petitioner has submitted that it has computed effective tax rate based on the actual tax paid in respective Financial Year in line with the provisions of the relevant Fianance Acts.

We have considered the submissions of BRPL, UPPCL and the Petitioner. 27. BRPL has contended that details of income tax submitted by the Petitioner are of Petitioner's Company as a whole and it does not pertain to transmission business in Northern Region. The Petitioner has clarified that every registered Company has only single PAN number and it has to file one single return and as such the Petitioner cannot file income tax return separately for each region. The Petitioner has further clarified that it has paid actual tax as per the provisions of the Income Tax Act, 1961. On appreciation of material placed on record, we are of the view that the Petitioner has acted prudently and has complied with the provisions of the Income Tax Act, 1961 as well as the provisions of the tariff regulations.

- 28. As regards the UPPCL's contention that normative debt-equity ratio of 70:30 may be considered instead of 57:43, it is observed that debt-equity ratio of 57:43 as on 31.3.2009 in respect of transmission asset was admitted by the Commisssion after due prudence check vide order dated 25.1.2016 in Petition No. 430/TT/2014 while truing up the tariff of 2009-14 period. Further, as per Regulation 19(3) of the 2014 Tariff Regulations, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, debt-equity ratio of 57:43 for the period ending on 31.3.2014, has been considered for the purpose of computation of RoE for 2014-19 tariff period.
- 29. The Commission in its order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at effective tax rate for the Petitioner based on the notified MAT rates. The relevant portion of the order dated 27.4.2020 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	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

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

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up ROE [Base Rate/(1-t)] (in %)
2014-15	20.961	15.50	19.610
2015-16	21.342	15.50	19.705
2016-17	21.342	15.50	19.705
2017-18	21.342	15.50	19.705
2018-19	21.549	15.50	19.758

31. Accordingly, RoE allowed for the transmission asset is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	2879.66	2879.66	2879.66	2879.66	2879.66
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	2879.66	2879.66	2879.66	2879.66	2879.66
Average Equity	2879.66	2879.66	2879.66	2879.66	2879.66
Return on Equity (Base Rate) (%)	15.50	15.50	15.50	15.50	15.50
Tax Rate applicable (%)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (Pre-tax)	19.610	19.705	19.705	19.705	19.758
Return on Equity (Pre-tax)	564.70	567.44	567.44	567.44	568.96

32. Accordingly, RoE approved earlier vide order dated 25.1.2016 in Petition No. 430/TT/2014, claimed in the instant petition for 2014-19 period and allowed after true up of the 2014-19 period with respect to transmission asset is as under:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier vide order dated 25.1.2016 in Petition No. 430/TT/2014	564.70	564.70	564.70	564.70	564.70
As claimed by the Petitioner in the instant Petition	565.13	567.72	567.44	567.44	568.96
Allowed after truing-up	564.70	567.44	567.44	567.44	568.96

# **Operation & Maintenance Expenses (O&M Expenses)**

33. The O&M Expenses claimed by the Petitioner and allowed as per Regulation 29(4)(a) of the 2014 Tariff Regulations for the purpose of computation of tariff are same and are as under:

(₹ in lakh)

Asset-	Α	SS	et	-1
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## **O&M** Expenses claimed for:

## **Transmission Line**

- 220 kV Dausa-Heerapura I & II D/C transmission line 76.86 Kms.
- 220 kV Anta-Bhilwara I & II D/C transmission line 186.67 Kms.
- 220 kV Anta-Dausa I & II D/C transmission line 215.70 Kms.

## 220 kV AIS Sub-station Bays

- Anta-I Bay 1 Bay
- Anta-II Bay 1 Bay
- Dausa-I (Now Bassi-I) Bay 1 Bay
- Dausa-II (Now Bassi-II) Bay 1 Bay

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norm (₹ lakh/bay)					
220 kV Bay (AIS)	42.21	43.61	45.06	46.55	48.10
Number of bays					
220 kV Bay (AIS)	168.84	174.44	180.24	186.20	192.40
O&M for HV and DC Lines (₹ la	kh/km)				
Double Circuit (Single	0.303	0.313	0.324	0.334	0.346
Conductor) Transmission Line	0.303	0.515	0.324	0.334	0.340
Line Length in km.					



Order in Petition No. 359/TT/2019

i. ii. iii.	220 kV Dausa-Heerapura – I & II D/C transmission line – 76.86 Kms. 220 kV Anta-Bhilwara – I & II D/C transmission line – 186.67 Kms. 220 kV Anta-Dausa – I & II D/C transmission line – 215.70 Kms.	145.21	150.00	155.27	160.06	165.81
To	tal O&M Expense (Claimed)	314.05	324.44	335.51	346.26	358.21
	tal O&M Expense oproved)	314.05	324.44	335.51	346.26	358.21

34. There is no deviation in the O&M Expenses approved vide order dated 25.1.2016 in Petition No. 430/TT/2014, claimed in the instant petition and trued up in this order.

# **Interest on Working Capital (IWC)**

35. The Petitioner is entitled to claim IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations as under. Components of the working capital and Petitioner's entitlement to interest thereon are discussed hereunder:

## (i) Maintenance Spares:

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses specified in Regulation 28.

## (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 Clause (3) of Regulation 28 of the 2014 Tariff Regulations.



36. The trued up IWC has been worked out for transmission asset as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses (O&M expenses for 1 month)	26.17	27.04	27.96	28.86	29.85
Maintenance Spares (15% of O&M expenses)	47.11	48.67	50.33	51.94	53.73
Receivables (Equivalent to 2 months of annual fixed cost / annual transmission charges)	173.20	175.50	177.44	179.33	181.70
Total Working Capital	246.48	251.20	255.73	260.13	265.28
Rate of Interest on working capital(%)	13.50	13.50	13.50	13.50	13.50
Interest of working Capital	33.27	33.91	34.52	35.12	35.81

37. Accordingly, IWC approved earlier vide order dated 25.1.2016 in Petition No. 430/TT/2014, claimed in the instant petition for 2014-19 period and allowed after true up of 2014-19 period with respect to transmission asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier vide order dated 25.1.2016 in Petition No. 430/TT/2014	33.27	33.85	34.46	35.05	35.71
As claimed by the Petitioner in the instant Petition	33.28	33.92	34.52	35.12	35.81
Allowed after truing-up	33.27	33.91	34.52	35.12	35.81

# **Approved Annual Fixed Charges for the 2014-19 Tariff Period**

38. The trued up annual fixed charges for asset for the 2014-19 tariff period are summarised below:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017–18	2018-19
Depreciation	127.18	127.18	127.18	127.18	127.18
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	564.70	567.44	567.44	567.44	568.96
Interest on Working Capital	33.27	33.91	34.52	35.12	35.81



Particulars	2014-15	2015-16	2016-17	2017–18	2018-19
Operation and Maintenance	314.05	324.44	335.51	346.26	358.21
Total	1039.21	1052.97	1064.65	1076.00	1090.17

39. The Annual Transmission Charges allowed vide order dated 25.1.2016 in Petition No. 430/TT/2014, claimed in the instant petition for 2014-19 period and allowed after true up of 2014-19 period with respect to transmission asset are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Approved earlier vide order					
dated 25.1.2016 in	1039.21	1050.17	1061.85	1073.20	1085.81
Petition No. 430/TT/2014					
As claimed by the Petitioner	1039.64	1053.26	1064.65	1076.00	1090.16
in the instant Petition	1039.04	1033.20	1004.03	1070.00	1090.10
Allowed after truing-up	1039.21	1052.97	1064.65	1076.00	1090.17

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

40. The transmission tariff claimed by the Petitioner for transmission asset for 2019-24 period is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	127.19	127.18	127.19	127.18	127.19
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	568.96	568.96	568.96	568.96	568.96
Interest on Working Capital	22.27	22.74	23.15	23.61	24.02
Operation and Maintenance	270.71	280.58	290.08	300.63	310.87
Total	989.13	999.46	1009.38	1020.38	1031.04

41. The details of the Interest on Working Capital claimed by the Petitioner are as under:

(₹ in lakh)

					,
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	22.56	23.38	24.17	25.05	25.91
Maintenance Spares	40.61	42.09	43.51	45.09	46.63
Receivables	121.61	123.22	124.45	125.80	126.77



Total	184.78	188.69	192.13	195.94	199.31
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	22.27	22.74	23.15	23.61	24.02

## **Capital Cost**

- 42. Regulation 19 of the 2019 Tariff Regulations provides as follows:
  - "(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;
  - (I) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
  - (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project:
  - (n) Expenditure on account of change in law and force majeure events; and
  - (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.



- (3) The Capital cost of an existing project shall include the following:
- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."
- (4) The capital cost in case of existing or new hydro generating station shall also include:
- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
- (a) The 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."



43. The capital cost of ₹6696.69 lakh has been considered by the Commission for the transmission asset as on 31.3.2019. The Petitioner has not claimed any ACE during 2019-24 period. Therefore, the capital cost of ₹6696.69 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**

- 44. Regulation 18 of the 2019 Tariff Regulations provides as under:
  - "18. Debt-Equity Ratio: (1) For new projects, the debt;equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

#### Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- the equity invested in foreign currency shall be designated in Indian ii. rupees on the date of each investment:
- any grant obtained for the execution of the project shall not be iii. 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."
- 45. The debt-equity ratio for 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. Details of the debt-equity ratio considered for the purpose of tariff for 2019-24 period are as follows:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	(%)	Capital cost as on 31.3.2024 (₹ in lakh)	(%)
Debt	3817.03	57.00	3817.03	57.00
Equity	2879.66	43.00	2879.66	43.00
Total	6696.69	100.00	6696.69	100.00

## **Depreciation**

46. 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 31<sup>st</sup> 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.

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."



47. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019 and Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out and placed as Annexure-2 after taking into account the depreciation rates as prescribed in the 2019 Tariff Regulations. Depreciation allowed for the transmission asset is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
Average Gross Block	6696.69	6696.69	6696.69	6696.69	6696.69
Weighted average rate of Depreciation (WAROD)(%)	Spread	Spread	Spread	Spread	Spread
Balance useful life at the beginning of the year (Year)	6.00	5.00	4.00	3.00	2.00
Aggregated Depreciable Value	6027.02	6027.02	6027.02	6027.02	6027.02
Remaining Aggregate Depreciable Value at the end of the year	635.91	508.73	381.55	254.37	127.18
Combined Depreciation during the year	127.18	127.18	127.18	127.18	127.18
Aggregate Cumulative Depreciation	5391.11	5518.29	5645.47	5772.66	5899.84

## Interest on Loan (IoL)

48. The Petitioner has not claimed any interest on loan for 2019-24 tariff period as the entire loan has already been repaid prior to 1.4.2004. Accordingly, loL has been considered as NIL for the purpose of truing up of tariff.

## **Return on Equity (RoE)**

- 49. Regulations 30 and Regulation 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;

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.

#### Illustration-

- (i) In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:Rate of return on equity = 15.50/(1-0.2155) = 19.758%(ii) In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:(a)Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;(b)Estimated Advance Tax for the year on above is Rs 240 crore;(c)Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;(d)Rate of return on equity = 15.50/(1-0.24) = 20.395%.
- (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be, on year to year basis."
- 50. UPPCL has submitted that Petitioner in the instant petition has over-charged RoE by ₹892.90 lakh during 2019-24 period by considering the debt-equity ratio of 57:43 instead of normative debt-equity of 70:30. UPPCL has further submitted that Commission may consider debt-equity ratio of 70:30 instead of 57:43.
- 51. In response, the Petitioner has submitted that debt-equity ratio has been considered as admitted vide order dated 25.1.2016 in Petition No. 430/TT/2014.
- 52. The Petitioner has submitted that MAT rate is applicable to its Company. We have considered the submissions of UPPCL and Petitioner. As regards UPPCL's contention that normative debt-equity ratio of 70:30 may be considered instead of 57:43, it is observed that debt-equity ratio of 57:43 as on 31.3.2009 in respect of

transmission asset was admitted by the Commisssion after due prudence check vide order dated 25.1.2016 in Petition No. 430/TT/2014 while truing up the tariff of 2009-14 period. Further, as per Regulation 18(3) of the 2019 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2019 shall be considered. Accordingly, the debt-equity ratio of 57:43 for the period ending on 31.3.2019, has been considered for the purpose of computation of RoE for the 2019-24 tariff period. MAT rate applicable in 2019-20 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. RoE allowed for transmission asset under Regulation 30 of the 2019 Tariff Regulations is as under:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2879.66	2879.66	2879.66	2879.66	2879.66
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	2879.66	2879.66	2879.66	2879.66	2879.66
Average Equity	2879.66	2879.66	2879.66	2879.66	2879.66
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 (Pre-tax)	18.782	18.782	18.782	18.782	18.782
Return on Equity (Pre-tax)	540.86	540.86	540.86	540.86	540.86

## Operation & Maintenance Expenses (O&M Expenses)

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

"(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 b	ay)				
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	١)				



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 pe	r km)	l.		•	•
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 prorata 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."
- 54. The Petitioner has claimed O&M Expenses for the following transmission elements for 2019-24 period:

## I. <u>Transmission Line</u>

- (1) 220 kV Dausa-Heerapura I & II D/C transmission line 76.86 Kms.
- (2) 220 kV Anta-Bhilwara I & II D/C transmission line 186.67 Kms.
- (3) 220 kV Anta-Dausa I & II D/C transmission line 215.70 Kms.

## II. 220 kV AIS Sub-stations:

- (1) Anta-I Bay 1 Bay
- (2) Anta-II Bay 1 Bay



- (3) Dausa-I (Now Bassi-I) Bay 1 Bay
- (4) Dausa-II (Now Bassi-II) Bay 1 Bay
- 55. The O&M Expenses claimed by the Petitioner for the transmission asset are as follows:

HV and DC Lines (₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
08	M for AC Lines					
(as	s per norms)					
i. ii. iii.	220 kV Dausa-Heerapura – I & II D/C transmission line – 76.86 Kms. 220 kV Anta-Bhilwara – I & II D/C transmission line – 186.67 Kms. 220 kV Anta-Dausa – I & II D/C transmission line – 215.70 Kms.	180.67	187.38	193.61	200.80	207.51
То	tal O&M Expenses	180.67	187.38	193.61	200.80	207.51

**Sub-station Bays** 

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M for Sub-station bays (as per norms)					
220 kV AIS	90.04	93.20	96.48	99.84	103.36
Total O&M Expenses	90.04	93.20	96.48	99.84	103.36

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Claimed	270.71	280.58	290.08	300.63	310.87

56. The O&M Expenses approved for the transmission asset are as under:

AC Line (₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/km)					
D/C Single Conductor	0.377	0.391	0.404	0.419	0.433
Line Length in km.					
<ul> <li>i. 220 kV Dausa-Heerapura – I &amp; II D/C transmission line – 76.86 kms.</li> <li>ii. 220 kV Anta-Bhilwara – I &amp; II D/C transmission line – 186.67 kms.</li> <li>iii. 220 kV Anta-Dausa – I</li> </ul>	479.23	479.23	479.23	479.23	479.23



Order in Petition No. 359/TT/2019

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
& II D/C transmission					
line – 215.70 kms.					
Total O&M Expenses	180.67	187.38	193.61	200.80	207.51
Sub-station Bays					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norm (₹ lakh/bay)					
220 kV AIS	22.51	23.30	24.12	24.96	25.84
Number of bays					
220 kV AIS	4	4	4	4	4
O&M Expense for 220 kV	90.04	93.20	96.48	99.84	103.36
AIS	90.04	93.20	90.40	99.04	103.30
Total O&M Expenses	90.04	93.20	96.48	99.84	103.36

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses Allowed	270.71	280.58	290.09	300.64	310.87

# **Interest on Working Capital (IWC)**

- 57. Regulations 34(1)(c), 34(3), 34(4) and 3(7) of the 2019 Tariff Regulations provide as follows:
  - "34. Interest on Working Capital
  - (1)...
  - (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:
    - i. Receivables equivalent to 45 days of 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 ...



- (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;"
- 58. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05%.
- 59. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest on working capital is considered as 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 1.4.2020 of 7.75% plus 350 basis points). Components of working capital and interest allowed thereon is as under:

/∌ in lakh\

					(× III Iakii
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	22.56	23.38	24.17	25.05	25.91
(O&M expenses for 1 month)	22.56	23.30	24.17	25.05	25.91
Maintenance Spares	40.61	42.09	43.51	45.10	46.63
( 15% of O&M expenses)	10.01	12.00	10.01	10.10	10.00
Receivables					
(Equivalent to 45 days of	118.11	119.52	120.74	122.09	123.06
annual fixed cost / annual	110.11	119.52	120.74	122.09	123.00
transmission charges)					
Total	158.71	161.61	164.25	167.19	169.69
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
Interest of working capital	21.84	20.81	21.20	21.63	22.00

## **Annual Fixed Charges for 2019-24 Tariff Period**

60. The annual fixed charges for the transmission asset for 2019-24 tariff period are summarized below:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	127.18	127.18	127.18	127.18	127.18
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	540.86	540.86	540.86	540.86	540.86
Interest on Working Capital	21.84	20.81	21.20	21.63	22.00
O & M Expenses	270.71	280.58	290.09	300.64	310.87



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total	960.59	969.43	979.33	990.31	1000.91

## Filing Fee and Publication Expenses

- 61. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses.
- 62. BRPL in its reply has submitted that though the Commission can allow filing fee and publication expenses at its discretion under Regulation 70(1) of the 2019 Tariff Regulations, but exercise of such discretion is a judicial discretion in the adjudication of tariff for which no justification has been given by the Petitioner. BRPL has also referred to the Commission's order dated 11.9.2008 in Petition No. 129 of 2005 wherein it declined the claim of Central Power Sector undertakings for allowing the reimbursement of the application filing fee.
- 63. We have considered the submissions of Petitioner and BRPL. 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 & RLDC Fees and Charges

- 64. The Petitioner has requested to allow it to bill and recover license fee and RLDC fees and charges, separately from the Respondents.
- 65. UPPCL in its reply has submitted that licence fee is onus of the Petitioner. In response, the Petitioner has submitted that recovery of license fees may be allowed as per Regulation 70 of 2019 Regulations.

66. We have considered the submisssions of UPPCL and Petitioner. The Petitioner shall be entitled for reimbursement of licence fee, RLDC fees and charges in accordance with Regulation 70(3) and (4) of the 2019 Tariff Regulations.

## **Goods and Services Tax**

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

## **Security Expenses**

69. The Petitioner has submitted that security expenses for the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential Interest on Working Capital. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 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 based on the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that 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 a yearly basis. BRPL in its reply has submitted that approach adopted

by the Petitioner towards claim of security expenses does not warrant the need for Interest on Working Capital as the same is claimed in advance.

70. We have considered the submissions of Petitioner and BRPL. We are of the view that Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that Petitioner has already filed Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period based on 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

- The Petitioner has sought reimbursement of capital spares at the end of tariff 71. period.
- 72. BRPL has submitted that Petitioner is required to specify the Regulation under which its relief for capital spares can be entertained.
- 73. In response, the Petitioner has submitted that as per Regulation 35(3) (c) of the 2019 Tariff Regulations, Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check.
- 74. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

## **Sharing of Transmission Charges**

75. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission



(Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of the 2014 Tariff Regulations for 2014-19 tariff period and Regulation 57 of the 2019 Tariff Regulations for 2019-24 tariff period.

76. To summarise, trued-up Annual Fixed Charges allowed for the transmission asset for 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	1039.21	1052.97	1064.65	1076.00	1090.17

77. The Annual Fixed Charges allowed for the transmission asset for 2019-24 tariff period in this order are as under:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	960.59	969.43	979.33	990.31	1000.91

- 78. Both the annextures given hereinafter form part of the order.
- 79. This order disposes of Petition No. 359/TT/2019.

sd/- sd/- sd/- sd/- sd/- (P. S. Mhaske) (Pravas Kumar Singh) (Arun Goyal) (I.S. Jha) (P.K. Pujari)
Member Member Member Chairperson

Petition No.:	359/TT/2019
Period	2014-19 True-up

Annexure - 1

2014-19	Admitted Capital Cost	Admitted Capital	Depreciation		nnual Depre	nual Depreciation as per Regulations			
Capital Expenditure as on 1.4.2014	as on 1.4.2014 (₹ in lakh)	as on 31.3.2019 (₹ in lakh)	9 as per Regulations (%)	2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)	
Transmission Line	6414.72	0.00	5.28						
Sub Station	281.97	0.00	5.28						
TOTAL	6696.69	0.00							
		Average Gross BI	ock (₹ in lakh)	6696.69	6696.69	6696.69	6696.69	6696.69	
		Weighted Average Rate of Depreciation		Spread	Spread	Spread	Spread	Spread	

Petition No.:	359/TT/2019
Period	2019-24 Tariff

Annexure - 2

2019-24	Combined Admitted Capital	Admitted Capital Cost	Rate of Depreciation	Annual Depreciation as per Regulations				
Capital Expenditure as on 1.4.2019	Cost as on 1.4.2019 (₹ in lakh)	as on 31.3.2024 (₹ in lakh)	as per Regulations	2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Transmission Line	6414.72	0.00	5.28					
Sub Station	281.97	0.00	5.28					
TOTAL	6696.69	0.00						
		Average Gross Bl	ock (₹ in lakh)	6696.69	6696.69	6696.69	6696.69	6696.69
		Weighted Average Rate of Depreciation		Spread	Spread	Spread	Spread	Spread