CENTRAL ELECTRICITY REGULATORY COMMISSION **NEW DELHI**

Petition No. 470/TT/2020

Coram:

Shri P. K. Pujari, Chairperson Shri I. S. Jha, Member Shri Arun Goyal, Member Shri P. K. Singh, Member

Date of Order: 14.10.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Transmission System Associated with URI Hydroelectric Project (4x120 MW) in Northern Region.

And in the matter of:

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

....Petitioner

Vs.

- 1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Vidyut Bhawan, Vidyut Marg, Jaipur - 302 005.
- 2. Ajmer Vidyut Vitran Nigam Limited, 132 kV, GSS RVPNL Sub-Station Building, Caligiri Road, Malviya Nagar, Jaipur-302 017.
- 3. Jaipur Vidyut Vitran Nigam Limited, 132 kV, GSS RVPNL Sub-Station Building, Caligiri Road, Malviya Nagar, Jaipur – 302 017.
- 4. Jodhpur Vidyut Vitran Nigam Limited, 132 kV, GSS RVPBL Sub-Station Building, Caligiri Road, Malviya Nagar, Jaipur – 302 017.



- Himachal Pradesh State Electricity Board, 5. 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 (Haryana) - 134 109.
- 8. Power Development Department, Government of Jammu & Kashmir, Mini Secretariat, Jammu.
- 9. Uttar Pradesh Power Corporation Limited, (Formerly Uttar Pradesh State Electricity Board), Shakti Bhawan, 14, Ashok Marg, Lucknow - 226 001.
- 10. Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi - 110 002.
- 11. BSES Yamuna Power Limited, BSES Bhawan, Nehru Place, New Delhi.
- 12. BSES Rajdhani Power Limited, BSES Bhawan, Nehru Place, New Delhi.
- 13. Tata Power Delhi Distribution Limited, 33 kV Sub-station Building, Hudson Lane Kingsway Camp, North Delhi - 110 009.
- 14. Chandigarh Administration, Sector -9, Chandigarh.
- 15. Uttarakhand Power Corporation Limited, Urja Bhawan, Kanwali Road, Dehradun.
- 16. North Central Railway,



Allahabad.

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

Shri D.K. Biswal, PGCIL

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

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 of 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 for the period 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 Transmission System for URI Hydroelectric Project (4x120 MW) (hereinafter referred to as "the transmission asset") in the Northern Region.

- 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 fresh add- cap projected during 2019-24 and unrecovered depreciation as part of the Tariff of 2019-24.
 - 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 in Tariff regulations 2014 and tariff regulation'19 as per para 7 & 8 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 allow to recover the deferred tax liability materialised directly without making any application before the commission as provided in the regulation.

- 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 recover FERV on the foreign loans deployed as provided under clause 68 of the Tariff Regulations,2019
- 8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 8.5 & 8.6 above.
- 9) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is 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

- 3. The brief facts of the case are as follows:
 - a) Approval of the Central Government for the transmission asset was accorded by Ministry of Power vide letter dated 30.6.1989 for a total capital investment of ₹8610 lakh, including Interest During Construction (IDC) of ₹915 lakh. Revised Cost Estimate (RCE) was approved by the Ministry of Power vide letter dated 4.9.1998 for an amount of ₹25017 lakh including IDC of ₹2220 lakh.



b) As per the Investment Approval (IA), the scope of work covered under the transmission project is as follows:

A. Transmission Lines

- i. 400 kV D/C Uri-Wagoora transmission line – 189.98 ckt-km
- ii. 220 kV D/C Wagoora-Pampore transmission line – 20.58 ckt-km

B. Sub-station

- 400/220 kV Sub-station at Wagroora.
- c) The entire scope of the work as per IA is covered in the instant petition.
- d) The transmission asset was put under commercial operation on 1.4.1997.
- e) The transmission tariff in respect of the transmission asset from COD to 31.3.2001 was allowed by the Central Government vide notification dated 16.11.1998 which was revised by notification dated 7.5.1999. The tariff notified by the Ministry of Power was valid upto 31.3.2002. However, as the terms and conditions for determination of tariff notified by the Commission came into effect on 1.4.2001, the transmission charges approved by the Ministry of Power were rendered valid up to 31.3.2001.
- f) The transmission tariff from 1.4.2001 to 31.3.2004 was decided by the Commission vide order dated 5.8.2003 in Petition No. 18/2002.
- g) The transmission tariff in respect of the transmission asset for 2004-09 tariff period was determined vide order dated 23.11.2005 in Petition No. 100/2004.
- The transmission tariff for 2009-14 tariff period was determined vide h) order dated 16.12.2010 in Petition No.107/2009. The tariff for 2009-14 period was trued up and tariff for the period from 1.4.2014 to 31.3.2019 was approved vide order dated 31.3.2016 in Petition No. 190/TT/2014.

- 4. The Respondents are the distribution licensees, transmission utilities and power departments, who are procuring transmission services from the Petitioner and are mainly beneficiaries of the Northern Region.
- 5. The Petitioner has served the petition on the 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 notice published in the newspapers by the Petitioner. BSES Rajdhani Power Ltd (BRPL), Respondent No. 12, has filed its reply vide affidavit dated 19.4.2021 and has raised issues of Additional Capital Expenditure (ACE), Optical Ground Wire (OPGW), adoption of Indian Accounting Standards (IAS), tax on transmission business, grossing up of RoE, deferred tax liability and over-payment of Income Tax, Security Expenses, Capital Spares, GST, filing fee and engagement of agency to represent consumers. In response, the Petitioner has filed its rejoinder dated 3.5.2021. The issues raised by BRPL and the clarifications given by the Petitioner are considered in the relevant portions of this order.
- 6. Before we proceed to dispose of the issues raised by BRPL in the present petition, it is germane to mention here that no findings are being given on the issues of Indian Accounting Standards, tax on transmission business, deferred tax liability and over-payment of income tax etc. as these issues of BRPL have repeatedly been dealt by the Commission in numerous petitions. Suffice it is to say that the Commission vide its order dated 11.2.2021 in Petition No. 24/TT/2020 and vide order dated 17.5.2021 in Petition No. 8/TT/2020 has deliberated upon the above issues of BRPL and as such we refrain from making any fresh observations on these issues in

the present petition. However, the issues which are specific to the instant petition and have not been dealt by us earlier or are required to be considered in the present petition, they are considered in the relevant paragraphs of this order taking into consideration the submissions of the Respondent and the Petitioner.

- 7. The hearing in this matter was held on 20.4.2021 through video conference and order was reserved.
- Having heard the representatives of the Petitioner, learned counsel for BRPL 8. and having perused the material on record, we proceed to dispose of the petition.
- 9. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 14.1.2020, the Petitioner's affidavit dated 23.12.2020, BRPL's reply filed vide affidavit dated 19.4.2021 and the Petitioner's rejoinder dated 3.5.2021.

Re: Information on OPGW

- 10. BRPL has submitted that information regarding usage of Optical Ground Wire (OPGW) as earth wire on the transmission asset is to be provided by the Petitioner. BRPL has further submitted that OPGW is being used by the Petitioner in the newly constructed transmission lines besides replacing the earth wire with OPGW in the existing lines.
- In response, the Petitioner has submitted that earth wire is being used in the transmission asset covered under the instant petition.
- 12. On consideration of the submissions of the Petitioner and BRPL, we deem it appropriate not to go further in this issue.

Re: Consumer Representation

- 13. BRPL has submitted that an entity may be instructed to represent the consumer's interest in the instant case and the same is also provided for in section 94(3) of the Electricity Act, 2003.
- 14. The Petitioner vide affidavit dated 8.5.2020 has carried out the publication of the tariff petition in the newspapers on 6.2.2020 as per Regulation 3(6) and Regulation 3(8) of the Central Electricity Regulatory Commission (Procedure for Making of Application for Determination of Tariff, Publication of Application and Other Related Matters) Regulations, 2004. The Petitioner has also uploaded the petition on its website. No suggestions/ objections with regard to present tariff petition were received by the Commission before listing of the present petition for hearing. Therefore, we are of the view that there is no need in the present case to engage any agency to represent the consumer's interest.

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

15. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	523.02	523.02	523.01	523.02	523.01
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1809.94	1818.24	1817.32	1817.32	1822.20
Interest on Working Capital	80.46	81.55	82.44	83.39	84.48
O&M Expenses	484.48	500.60	517.21	534.36	552.09
Total	2897.90	2923.41	2939.98	2958.09	2981.78

16. The details of trued-up IWC claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	40.37	41.72	43.10	44.53	46.01
Maintenance Spares	72.67	75.09	77.58	80.15	82.81
Receivables	482.98	487.24	490.00	493.02	496.96
Total	596.02	604.05	610.68	617.70	625.78
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	80.46	81.55	82.44	83.39	84.48

Capital Cost as on 1.4.2014

17. The capital cost of the transmission asset has been calculated in accordance with Regulation 9(3) and Regulation 9(6) of the 2014 Tariff Regulations. The Commission vide order dated 31.3.2016 in Petition No. 190/TT/2014 had approved the transmission tariff in respect of the transmission asset for 2014-19 period based on admitted capital cost of ₹22956.61 lakh as on 1.4.2014. The Petitioner has not claimed any ACE during 2014-19 tariff period. Accordingly, capital cost of ₹22956.61 lakh in respect of the transmission asset has been considered for the purpose of truing up of the tariff for 2014-19 period.

Debt-Equity Ratio

- 18. 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, debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. Accordingly, the admitted debt-equity ratio of 59.83:40.17 for the period ending on 31.3.2014 has been considered for the purpose of truing up of tariff of 2014-19 period.
- 19. Accordingly, the details of debt-equity ratio as on 1.4.2014 and 31.3.2019 in respect of the transmission asset is as follows:

	As on 1.4	1.2014	As on 31.3.2019		
Funding	Capital cost (₹ in lakh)	(in %)	Capital cost (₹ in lakh)	(in %)	
Debt	13734.00	59.83	13734.00	59.83	
Equity	9222.61	40.17	9222.61	40.17	
Total	22956.61	100.00	1501.42	100.00	

Depreciation

20. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. The transmission asset has already completed 12 years of life as on 31.3.2009. The remaining depreciable value has been spread across the balance useful life of the transmission asset. Depreciation allowed during 2014-19 period in respect of the transmission asset is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	22956.61	22956.61	22956.61	22956.61	22956.61
Addition during 2014-19 due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	22956.61	22956.61	22956.61	22956.61	22956.61
Average Gross Block	22956.61	22956.61	22956.61	22956.61	22956.61
Weighted Average Rate of Depreciation (%)	2.28	2.28	2.28	2.28	2.28
Balance useful life of the asset at the beginning of the year (Year)	15.00	14.00	13.00	12.00	11.00
Lapsed life at the beginning of the year (Year)	17.00	18.00	19.00	20.00	21.00
Aggregated Depreciable Value	20660.95	20660.95	20660.95	20660.95	20660.95
Depreciation during the year	523.01	523.01	523.01	523.01	523.01
Cumulative Depreciation at the end of the year	13338.86	13861.86	14384.87	14907.88	15430.88
Remaining Aggregate Depreciable Value at the end of the year	7322.09	6799.09	6276.08	5753.07	5230.07

21. The details of depreciation allowed *vide* order dated 31.3.2016 in Petition No. 190/TT/2014 in respect of the transmission asset, as claimed by Petitioner in the instant petition and trued-up depreciation allowed in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 31.3.2016 in Petition No. 190/TT/2014	523.01	523.01	523.01	523.01	523.01
Claimed by the Petitioner in the instant petition	523.02	523.02	523.01	523.02	523.01
Approved after true-up in this order	523.01	523.01	523.01	523.01	523.01

Interest on Loan (IoL)

22. The Petitioner has not claimed IoL for 2014-19 Tariff period as the entire loan has been repaid prior to 1.4.2014. Accordingly, IoL has not been allowed for 2014-19 tariff period.

Return on Equity (RoE)

23. The Petitioner has claimed RoE in respect of the transmission asset in terms of Regulation 24 and Regulation 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 (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.624
2016-17	21.338	19.715
2017-18	21.337	19.704
2018-19	21.549	19.704

24. The Commission *vide* 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 and the same is as follows:

Year	Notified MAT rates (in %) (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

25. The MAT rates as considered vide 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 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations and the same is as follows:

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	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

26. Accordingly, RoE allowed in respect of the transmission asset is as follows:

(₹ in lakh)

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Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	9222.61	9222.61	9222.61	9222.61	9222.61
Addition due to ACE	0.00	0.00	0.00	0.00	0.00
Closing Equity	9222.61	9222.61	9222.61	9222.61	9222.61
Average Equity	9222.61	9222.61	9222.61	9222.61	9222.61
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT rate for the respective Financial year (%)	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)	1808.55	1817.32	1817.32	1817.32	1822.20

27. The details of RoE allowed *vide* order dated 31.3.2016 in Petition No. 190/TT/2014 in respect of the transmission asset, as claimed by Petitioner in the instant petition and trued-up RoE allowed in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 31.3.2016 in Petition No. 190/TT/2014	1808.55	1808.55	1808.55	1808.55	1808.55
Claimed by the Petitioner in the instant petition	1809.94	1818.24	1817.32	1817.32	1822.20
Approved after true-up in this order	1808.55	1817.32	1817.32	1817.32	1822.20

Operation & Maintenance Expenses (O&M Expenses)

28. O&M Expenses claimed by the Petitioner are within the norms specified under the 2014 Tariff Regulations. O&M Expenses approved in respect of the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Sub-station Bays (Numbers)						
220 kV Bays of Pampore Ckt I &						
II at Wagoora Sub-station (AIS)	2	2	2	2	2	
Numbers						
220 kV ICT I & II Bays at						
Wagoora Sub-station (AIS) –	2	2	2	2	2	
Numbers						
400 kV Bays of Uri Ckt I & II at						
Wagoora Sub-station (AIS) –	2	2	2	2	2	
Numbers						
400 kV ICT I & II Bays at						
Wagoora Sub-station (AIS) –	2	2	2	2	2	
Numbers						
Norm (₹ lakh/bay)						
220 kV Bay (AIS)	42.210	43.610	45.060	46.550	48.100	
400 kV Bay (AIS)	60.300	62.300	64.370	66.510	68.710	
Total Sub-station O&M	410.04	423.64	437.72	452.24	467.24	
Expenses (₹ in lakh) (A)	410.04	423.04	437.72	432.24	407.24	
Transmission Lines (kms)						
220 kV D/C Twin Sub-conductor	10.29	10.29	10.29	10.29	10.29	
Wagoora-Pampore T/L (kms)	10.29	10.29	10.29	10.29	10.29	
400 kV D/C Twin Sub-conductor	94.99	94.99	94.99	94.99	94.99	
Uri-Wagoora T/L (kms)	94.99	94.99	34.33	34.33	94.99	
Norm (₹ lakh/km)						
D/C Twin Sub conductor	0.707	0.731	0.755	0.780	0.806	
Total Transmission Line O&M	74.43	76.96	79.49	82.12	84.86	
Expenses (₹ in lakh) (B)	74.43	70.30	13.43	02.12	04.00	
Total O&M Expenses	484.47	500.60	517.21	534.36	552.10	
(₹ in lakh) (C=A+B)	707.71	300.00	317.21	JJ7.JU	332.10	

29. The details of O&M Expenses allowed *vide* order dated 31.3.2016 in Petition No. 190/TT/2014 in respect of the transmission asset, as claimed by Petitioner in the instant petition and trued-up O&M Expenses allowed in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 31.3.2016 in Petition No. 190/TT/2014	484.47	500.60	517.21	534.36	552.10
Claimed by the Petitioner in the instant petition	484.48	500.60	517.21	534.36	552.09
Approved after true-up in this order	484.47	500.60	517.21	534.36	552.10

Interest on Working Capital (IWC)

- 30. The Petitioner has claimed IWC as per Regulation 28 of the 2014 Tariff Regulations.
- 31. The trued-up IWC allowed in respect of the transmission asset for 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for O&M					
Expenses	40.37	41.72	43.10	44.53	46.01
(O&M Expenses for one Month)					
Working Capital for Maintenance					
Spares	72.67	75.09	77.58	80.15	82.81
(15% of O&M Expenses)					
Working Capital for Receivables					
(Equivalent to two months of	482.74	487.07	489.99	493.01	496.96
annual transmission charges)					
Total Working Capital	595.79	603.88	610.68	617.70	625.79
Rate of Interest on working capital	13.50	13.50	13.50	13.50	13.50
(in %)	13.50	13.50	13.50	13.50	13.50
Interest of working capital	80.43	81.52	82.44	83.39	84.48

The details of IWC allowed vide order dated 31.3.2016 in Petition No. 32. 190/TT/2014 in respect of the transmission asset, as claimed by Petitioner in the instant petition and trued-up IWC allowed in the instant order are as follows:

(₹ in lakh)

Dorticulors	2014 15	2045 46	2016-17	2017-18	2018-19
Particulars	2014-15	2015-16	2010-17	2017-10	2010-19
Allowed vide order dated					
31.3.2016 in Petition No.	80.43	81.32	82.24	83.19	84.17
190/TT/2014					
Claimed by the Petitioner in the	80.46	81.55	82.44	83.39	84.48
instant petition	00.40	61.55	02.44	03.39	04.40
Approved after true-up in this	80.43	81.52	82.44	83.39	84.48
order	00.43	01.52	02.44	03.39	04.40

Approved Annual Fixed Charges for 2014-19 Tariff Period

33. Accordingly, Annual Transmission Charges approved after truing up for 2014-19 period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	523.01	523.01	523.01	523.01	523.01
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1808.55	1817.32	1817.32	1817.32	1822.20
O&M Expenses	484.47	500.60	517.21	534.36	552.10
Interest on Working Capital	80.43	81.52	82.44	83.39	84.48
Total	2896.46	2922.45	2939.97	2958.07	2981.79

34. The details of Annual Transmission Charges allowed vide order dated 31.3.2016 in Petition No. 190/TT/2014 in respect of the transmission asset, as claimed by Petitioner in the instant petition and approved after truing-up in the instant order are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 31.3.2016 in Petition No. 190/TT/2014	2896.46	2913.48	2931.01	2949.11	2967.83
Claimed by the Petitioner in the instant petition	2897.90	2923.41	2939.98	2958.09	2981.78
Approved after true-up in this order	2896.46	2922.45	2939.97	2958.07	2981.79

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	523.02	580.95	646.72	695.32	693.67
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1732.19	1726.46	1721.07	1719.65	1717.87
Interest on Working Capital	57.33	58.66	60.45	62.33	63.14
Operation and Maintenance	537.22	556.34	575.86	596.36	616.64
Total	2849.76	2922.41	3004.10	3073.66	3091.32

36. The details of the IWC claimed by the Petitioner in respect of the transmission asset for 2019-24 period are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	44.77	46.36	47.99	49.70	51.39
Maintenance Spares	80.58	83.45	86.38	89.45	92.50
Receivables	350.38	357.02	367.29	378.09	380.08
Total	475.73	486.83	501.66	517.24	523.97
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	57.33	58.66	60.45	62.33	63.14

Capital Cost

- 37. Regulations 19 of the 2019 Tariff Regulations provide as follows:
 - "19. Capital Cost (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.
 - (2) The Capital Cost of a new project shall include the following:
 - The expenditure incurred or projected to be incurred up to the date of (a) commercial operation of the project;
 - Interest during construction and financing charges, on the loans (i) being (b) 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;
 - Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
 - Interest during construction and incidental expenditure during construction (d) as computed in accordance with these regulations;
 - Capitalised initial spares subject to the ceiling rates in accordance with (e) these regulations:
 - Expenditure on account of additional capitalization and de-capitalisation (f) determined in accordance with these regulations;
 - 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;
- Capital expenditure incurred towards railway infrastructure and its (i) 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;
- Capital expenditure on account of biomass handling equipment and (k) facilities, for co-firing;
- (1)Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- Expenditure on account of fulfilment of any conditions for obtaining (m) environment clearance for the project;
- Expenditure on account of change in law and force majeure events; and (n)
- Capital cost incurred or projected to be incurred by a thermal generating *(*0) 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;
 - Additional capitalization and de-capitalization for the respective year of tariff (b) as determined in accordance with these regulations;
 - Capital expenditure on account of renovation and modernisation as (c) admitted by this Commission in accordance with these regulations;
 - Capital expenditure on account of ash disposal and utilization including (d) 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
 - Capital cost incurred or projected to be incurred by a thermal generating (f) 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
 - cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.
- (5) The following shall be excluded from the capital cost of the existing and new projects:
 - The assets forming part of the project, but not in use, as declared in the (a) tariff petition;



De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- In case of hydro generating stations, any expenditure incurred or committed (c) to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;
- Proportionate cost of land of the existing project which is being used for (d) generating power from generating station based on renewable energy; and
- Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."
- 38. The admitted capital cost of ₹22956.61 lakh as on 31.3.2019 in respect of the transmission asset has been considered as opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

39. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

"24. Additional Capitalization within the original scope and up to the cut-off date:

- (1) The Additional Capital Expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:
 - (a) Undischarged liabilities recognized to be payable at a future date;
 - (b) Works deferred for execution;
 - (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
 - (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
 - (e) Change in law or compliance of any existing law; and
 - (f) Force Majeure events:



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

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

25. Additional Capitalisation within the original scope and after the cut-off date:

- (1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:
 - (a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;
 - (b) Change in law or compliance of any existing law;
 - (c) Deferred works relating to ash pond or ash handling system in the original scope of work:
 - (d) Liability for works executed prior to the cut-off date;
 - (e) Force Majeure events;
 - (f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
 - (g) Raising of ash dyke as a part of ash disposal system.
- (2) In case of replacement of Asset deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed Asset and the cumulative depreciation, subject to prudence check on the following grounds:
 - (a) The useful life of the Asset is not commensurate with the useful life of the project and such Asset have been fully depreciated in accordance with the provisions of these regulations;
 - (b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
 - (c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
 - (d) The replacement of such asset or equipment has otherwise been allowed by the Commission.
- 40. BRPL has submitted that the Petitioner has failed to point out the provision under which ACE for 2019-24 tariff period has been claimed. BRPL has further submitted that ACE has been claimed on account of deterioration of some component/ equipment due to which the Petitioner apprehends sudden failure. However, the Petitioner has failed to provide proper justification for such apprehension. The Petitioner has not furnished any ground affecting stability and

reliability of the grid by citing that it is not able to claim full annual fixed charges. BRPL has submitted that the Petitioner is not only getting the full annual fixed charges but also the incentive for operating the system much above 98.5% of the Normative Annual Transmission Availability Factor (NATAF). BRPL has further submitted that claim of the Petitioner for ACE is liable to be rejected.

- 41. In response, the Petitioner has submitted that ACE during 2019-24 has been claimed under Regulation 25(2)(a) and Regulation 25(2)(c) of the 2019 Tariff Regulations for which the Petitioner has provided sufficient justification in the petition itself.
- 42. The Petitioner in Auditor's Certificate has projected net ACE of ₹201.73 lakh in respect of the transmission asset after making the following adjustment of decapitalisation during 2019-24 tariff period:

 (₹ in lakh)

 Particulars
 Amount

 ACE in 2020-21
 307.00

 ACE in 2021-22
 765.00

 ACE in 2022-23
 459.00

 De-Capitalization in 2020-21
 380.15

 De-Capitalization in 2021-22
 560.36

 De-Capitalization in 2022-23
 388.76

43. The Petitioner has submitted that the projected ACE during 2019-24 period is for replacement of some of the component/ equipment in the system which have deteriorated due to ageing and may affect the stability and reliability of the Grid in case of sudden failure and is covered under Regulation clause 25(2) of the 2019 Tariff regulations. The Petitioner vide Auditor's Certificate dated 12.12.2019 has submitted the following cost details of ACE/ de-capitalization proposed during 2019-24 tariff period:

(₹ in lakh)

	1 ,
Particulars	Amount
Particulars	Sub-station
Proposed ACE in 2020-21	307.00
Proposed De-capitalisation in 2020-21	(380.15)
Proposed ACE in 2021-22	765.00
Proposed De-capitalisation in 2021-22	(560.36)
Proposed ACE in 2022-23	459.00
Proposed De-capitalisation in 2022-23	(388.76)
Net ACE	201.73

44. The Petitioner has submitted equipment-wise details of the proposed ACE as follows:

A) 420 kV & 245 kV Circuit Breaker (14 sets)

- 400/220 kV Wagoora sub-station was commissioned in 1996 under Uri
 Transmission System project. Circuit breakers commissioned under above
 project are nearing completion of 25 years of service.
- ABB make Pneumatic Circuit Breakers with model ELF SL 6-2, EL(V) F 6-2 and ELF SL 4-2 have been declared obsolete by ABB and it is not able to provide spares and timely service and support.
- As per original design, these CBs were having individual compressors for providing pressurized air for operation of the Circuit Breakers. However, due to extreme climatic conditions in the valley during the winter period, the individual compressors were unable to perform due to freezing of air moisture in pneumatic system. Later on, a centralised air compressor plant (CAP) with heatless dryer was commissioned by ABB at Wagoora for providing dry pressurized air for all the CBs. All the Pneumatic Circuit Breakers are connected to CAP through a network of copper pipelines passing through the switchyard.
- With the passage of time, the said CAP has turned obsolete and it is extremely difficult to get the spares & service support for CAP. ABB has expressed its inability to provide service for said CAP in future. Copy of MOM

with ABB has been submitted vide affidavit dated 23.12.2020. Development of defect in CAP can affect all the connected Circuit Breakers which can lead to major operational issues if no timely action is taken.

- Multiple air leakages are also observed from pipes of pneumatic operating systems. Many times, ABB has to be called to attend leakage but it has not ceased completely and leakage problem is still prevalent in these breakers with pneumatic pipeline system.
- Further, in above circuit breakers, frequent adjustment of auxiliary contact is also required due to ageing of mechanisms.
- It is pertinent to mention here that at present, all the manufacturers are supplying circuit breakers with spring based mechanism and pneumatic based mechanism is no longer in use and is obsolete.
- In view of the above, it is proposed to replace 6 sets of 420 kV CB and 8 sets of 245 kV CBs at Wagoora.

B) 420 kV & 245 kV Isolators (3-ph: 49 sets & 1 ph: 24 sets)

- These Isolators are of S&S Power and AMIE make and they were installed during 1994 to 1998. Many of them have already completed 25 years of service or are going to complete it in 2019-24 tariff period.
- These isolators are mainly of horizontal centre break type and frequent problem of misalignment are being faced. Current transfer assembly on isolator top and other spares are now no more available in most of the cases due to old make of isolators and there are problems in maintaining these old isolators. Due to these constraints in maintaining isolators, sometimes isolators are getting opened in live line condition which is dangerous to system as well as to the operating personnel.

- In one incident, BPI of bus isolator got broken and it led to outage of 220 kV Bus.
- Due to rusting, many MOM boxes got damaged and operation of motors has become difficult. Due to ageing, TBs inside MOM boxes have become brittle and many times, DC cables come in contact with boxes thereby creating DC earth fault, which is detrimental to the system.
- Further, as these isolators have become obsolete, neither timely support from OEM nor spares are available. AMIE has closed its business. S&S has also shown their inability for service support for these old isolators and advised for replacement. Communication details have been submitted vide affidavit dated 23.12.2020.
- In view of above, it is proposed to replace 420 kV (3ph): 21 Sets; 420 kV (1 ph): 12 numbers; 245 kV (3-ph): 28 sets and 245 kV (1 ph): 12 numbers of Isolators at Wagoora.

C) Surge Arresters (38 numbers)

- All the installed SAs are old and completing 25 years of useful life in 2019-24 period. These SAs are of gapped type. The condition of gapped type surge arresters cannot be ensured online as there is no provision of carrying out THRC measurement. Due to non-reliability of these type of surge arresters, gapped type SAs are required to be replaced with gap-less type of Surge Arresters.
- Since specification of 400 kV class surge arrestor has been changed to 336 kV from the earlier rating of 390 kV along with change in energy class (class-IV presently), it is suggested to replace all old 390 kV rating LAs with 336 kV SAs.

• In view of above, it is proposed to replace 16 numbers of 390 kV & 22 numbers 216 kV Surge arresters at Wagoora with SAs of latest specification.

D) Indoor & Outdoor illumination at Wagoora Sub-station

- Existing illumination at Wagoora Sub-station are of following types:
 - a) Switchyard area: High Power Sodium Vapour Lamps (HPSVL) with wattage ranging from 250 W to 800 W per fitting.
 - b) Indoor Area: Fluorescent tube light fittings [Concealed / Surface Mount] of size 2x2 Ft / 1x4 ft with wattage of around 72 W per fitting.
- Most of these outdoor HPSVL fittings after serving a period of more than 23 years have turned defective and need frequent maintenance. A huge amount of energy is consumed by these lights and in addition, considerable amount of energy gets dissipated in the form of heat from these light fittings resulting in energy loss and damage to ballast, ignitor, condenser & bulbs etc.
- Nowadays, for outdoor and indoor applications, LED luminaries are available which have advantages over the conventional HPSVL/ Fluorescent fittings in terms of being highly energy efficient as compared to HPSVL/ Fluorescent fittings resulting in huge saving of energy and money; no associated accessories like ballast, ignitor, condenser etc. and, hence, have very low maintenance cost; and very long life as compared to HPSVL/ Fluorescent fittings.
- Based on the latest technical specification for lighting system, it is proposed to use ≤ 250 / 150 W LED Flood Lights for switchyard & ≤ 40 W LED Panels for indoor lighting. By this retrofitting, it is estimated that there will be significant saving of energy expenses.

• It is proposed to replace the existing HPSVL/ Fluorescent fittings with LED fittings for both outdoor and indoor areas of sub-station at Wagoora.

E) Power & Control Cables

- The power & control cables at Wagoora sub-station were installed in 1996. Due to extreme climatic condition, large numbers of cables in the cable trenches have got damaged over a period of time at Wagoora. At many places, the outer sheath/ armour of the cables has got damaged. An unhealthy cable in addition to being a source of DC Earth fault can also lead to mal-operation/ spurious signalling etc. which is not desirable in a healthy power system. Cable is also required during retrofitting of circuit breakers and isolators to be carried at Wagoora under ACE for 2019-24 period. It is, therefore, proposed to replace inter-pole power and control cable for retrofitting of equipment and damaged cables in cable trenches at Wagoora.
- 45. The Petitioner has also submitted the Minutes of Meeting between the Petitioner and ABB India Limited at Wagoora Sub-station dated 8.12.2018. The Petitioner has also submitted letter dated 11.12.2020 to the Commission regarding approval of replacement/ retrofitting of equipment under the transmission asset.
- 46. Further, the Petitioner has submitted that there is no life defined by the manufacturer for the individual equipment. However, the life of individual equipment may be considered as 25 years in accordance with sub-station life as mentioned in the 2019 Tariff Regulations. The Petitioner has submitted that life of the project shall be completed in 2028-29 and no further life extension has been proposed for fresh ACE. The Petitioner has further submitted that it carries out periodic maintenance of sub-station equipment as per the standard practice. The Petitioner has submitted that

there is advancement in technology and new design equipment are being used in the transmission system with time. In many cases, either the manufacturers close the manufacturing units or migrate to the new design equipment. Service support for the old equipment either becomes not available, or available with very high cost and high lead time. The Petitioner has further submitted that the reliability of old equipment also becomes poor due to ageing, wear and tear and prone to safety risk for O&M staff. In order to address above concerns, and to achieve better reliability and security of system, replacement of the equipment is planned under ACE.

- 47. We have considered the submissions of the Petitioner and BRPL. The proposed ACE is towards replacement of circuit breakers, isolators, surge arresters and power and control cables due to obsolescence of technology. These items are of critical nature and their failure may affect the stability and reliability of the grid. Therefore, the replacement of these obsolete equipment and the consequent ACE is approved, subject to true-up on actual basis. We observe that though the sub-station associated with the transmission asset is completing its useful life in the year 2022, the same is likely to be kept in use and the old and obsolete equipment of the substation would continue to be replaced. Therefore, it is not possible to ascertain the exact life of the proposed equipment being capitalized and we are of the opinion that during the 2019-24 period, the depreciation at a uniform rate of 5.28% per year may be allowed considering it as sub-station equipment.
- 48. The Petitioner has claimed ACE towards indoor and outdoor Illumination at Wagoora sub-station but the same is not allowed under ACE which is in the nature of O&M Expenses and, therefore, the same shall be met from the O&M Expenses.

- 49. The Commission observes that the Petitioner has clubbed the ACE for Indoor and Outdoor Illumination at Wagoora Sub-station with the ACE towards replacement of circuit breakers, isolators, surge arresters and power and control cables. Therefore, the ACE towards replacement of circuit breakers, isolators, surge arresters and power and control cables is allowed subject to the condition that segregated cost towards replacement of circuit breakers, isolators, surge arresters and power and control cables is provided by the Petitioner at the time of truing up after deducting the cost towards indoor and outdoor illumination at Wagoora sub-station.
- 50. ACE and de-capitalisation allowed for 2019-24 tariff period is as follows:

(₹ in lakh) SI. No. **Particulars** 2020-21 2021-22 2022-23 ACE 307.00 765.00 459.00 (1)(2)Decapitalization 380.15 560.36 388.76 (3)Net ACE (1)-(2) (73.15)204.64 70.24

51. Accordingly, capital cost of the transmission asset as on 31.3.2024 is approved as follows:

(₹ in lakh)

Capital cost allowed		Capital cost		
as on 1.4.2019	2020-21	2021-22	2022-23	as on 31.3.2024
22956.61	(73.15)	204.64	70.24	23158.34

Debt-Equity Ratio

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

Provided that:

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

- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

- (2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.
- (3). In case of the generating station and the transmission project including communication, project 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 project including communication project 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 project including communication project 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."
- Debt-equity ratio for 2019-24 period is allowed as per Regulation 18(3) of the 53. 2019 Tariff Regulations. The details of debt-equity ratio considered for the purpose of tariff for 2019-24 tariff period are as follows:

Funding	Capital cost as on 1.4.2019 (₹ lakh)	(in %)	Total capital cost as on 31.3.2024 (₹ lakh)	(in %)
Debt	13734.00	59.83	14011.99	60.51
Equity	9222.61	40.17	9146.35	39.49
Total	22956.61	100.00	23158.34	100.00

Depreciation

- 54. Regulations 33 of the 2019 Tariff Regulations provide 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 project or element thereof including communication project. In case of the tariff of all the units of a generating station or all elements of a transmission project including communication project 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 project 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 project, 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 project, weighted average life for the generating station of the transmission project shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.
- (3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

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

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

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

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

- 4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.
- (5) Depreciation shall be calculated annually based on Straight Line Method and at



rates specified in Appendix-I to these regulations for the Asset of the generating station and transmission project:

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

- 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.
- The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.
- (8) In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."
- 55. We have considered the submissions of the Petitioner. The transmission asset was put under commercial operation on 1.4.1997, accordingly the asset has already completed 12 years of life on 31.3.2009. Consequently, depreciation has been calculated based on the remaining depreciable value (up to 90% of existing gross block of assets) to be recovered over the balance useful life. As discussed above, the Petitioner has proposed ACE towards replacement of sub-station equipment, hence, depreciation corresponding to ACE (new additions) claimed for 2020-21 onwards is allowed at normative rate of depreciation as specified in the 2019 Tariff Regulations. The depreciation allowed in respect of the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Existing Assets	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	22956.61	22956.61	22576.46	22016.10	21627.34
De-capitalisation	0.00	380.15	560.36	388.76	0.00
Closing Gross Block	22956.61	22576.46	22016.10	21627.34	21627.34
Average Gross Block	22956.61	22766.54	22296.28	21821.72	21627.34
Depreciable Value	20660.95	20489.88	20066.65	19639.55	19464.61
Cumulative Depreciation at the					
beginning of the year	15430.88	15953.89	16142.30	16153.50	16308.57

Remaining depreciable value at the beginning of the year	5230.07	4535.99	3924.35	3486.05	3156.04
Remaining life at the beginning of the year	10.00	9.00	8.00	7.00	6.00
Depreciation during the year	523.01	504.00	490.54	498.01	526.01
Depreciation adjustment on account of de-capitalisation	0.00	315.59	479.34	342.94	0.00
Cumulative Depreciation at the end of the year	15953.89	16142.30	16153.50	16308.57	16834.58
Remaining depreciable value at the end of the year	4707.06	4347.58	3913.15	3330.98	2630.03

(₹ in lakh)

New Additions	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block		0.00	307.00	1072.00	1531.00
Addition during the year		307.00	765.00	459.00	0.00
Closing Gross Block		307.00	1072.00	1531.00	1531.00
Average Gross Block		153.50	689.50	1301.50	1531.00
WAROD		5.28%	5.28%	5.28%	5.28%
Depreciable Value		138.15	620.55	1171.35	1377.90
Cumulative Depreciation at the					
beginning of the year		0.00	8.10	44.51	113.23
Depreciation		8.10	36.41	68.72	80.84
Cumulative Depreciation at the					
end of the year		8.10	44.51	113.23	194.07
Remaining Depreciation at the end					
of the year		130.05	576.04	1058.12	1183.83

Interest on Loan (IoL)

56. The Petitioner has not claimed IoL during 2019-24 tariff period. The entire loan has been paid prior to 1.4.2004. Accordingly, no loL has been allowed for 2019-24 tariff period.

Return on Equity (RoE)

- 57. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as follows:
 - "30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
 - (2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission project including communication project 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 project;

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 project 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 project up to load dispatch centre or protection project 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.

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%:

Rate of return on equity = 15.50/(1-0.24) = 20.395%

- (3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee, as the case may be. Any underrecovery 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."
- 58. BRPL has submitted that as per Regulation 31(3) of the 2019 Tariff Regulations, the Petitioner has a statutory duty to undertake the true-up of the grossed-up rate of RoE at the end of every financial year based on actual tax paid.
- 59. In response, the Petitioner has submitted that similar issue has been raised by BRPL in several other petitions. The Petitioner vide affidavit dated 10.8.2020 in Petition No. 24/TT/2020 and vide affidavit dated 25.3.2021 in Petition No. 8/TT/2020 has responded to the above submissions of BRPL in detail and prayed that same reply may be considered in the present petition.
- We have considered the above submissions of the Petitioner and BRPL. The 60. Commission in numerous petitions including vide order dated 11.2.2021 in Petition

- No. 24/TT/2020 has dealt with the above submissions of BRPL. In view of our findings given vide order dated 11.2.2021 in Petition No. 24/TT/2020, the said submissions of BRPL do not require fresh any consideration.
- 61. Accordingly, MAT rate applicable during 2019-20 period has been considered for the purpose of RoE which shall be trued up with actual tax rate in accordance of Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed in respect of the transmission asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)

					(\ III Iaikii
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	9222.61	9222.61	9161.55	9165.28	9146.35
Net Addition due to ACE/Decapitalization	0.00	(61.06)	3.73	(18.93)	0.00
Closing Equity	9222.61	9161.55	9165.28	9146.35	9146.35
Average Equity	9222.61	9192.08	9163.42	9155.82	9146.35
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)	1732.19	1726.46	1721.07	1719.65	1717.87

Operation & Maintenance Expenses (O&M Expenses)

62. Regulation 35(3) and Regulation 35(4) of the 2019 Tariff Regulations specify the norms for O&M Expenses for the transmission project as:

"35 Operation and Maintenance Expenses:

(3) Transmission system:

(a) The following normative operation and maintenance expenses shall be admissible for the transmission system:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24					
Norms for sub-station Bays (Rs Lakh per bay)										
765 kV	45.01	46.60	48.23	49.93	51.68					
400 kV	32.15	33.28	34.45	35.66	36.91					
220 kV	22.51	23.30	24.12	24.96	25.84					
132 kV and below	16.08	16.64	17.23	17.83	18.46					
Norms for Transformers (Rs Lakh per MVA)										
765 kV	0.491	0.508	0.526	0.545	0.564					
400 kV	0.358	0.371	0.384	0.398	0.411					

Deutlandone	0040.00	0000 04	0004.00	0000 00	0000 04
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (Rs	Lakh per kn	1)			
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 (Rs. 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.
- 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.
- 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 iustification.

- (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."
- O&M Expenses claimed by the Petitioner in respect of the transmission asset 63. are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
220 kV Bays of Pampore Ckt I &					
II at Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
220 kV ICT I & II Bays at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV Bays of Uri Ckt I & II at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
400 kV ICT I & II Bays at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
Norm (₹ lakh/bay)					
220 kV Bay (AIS)	22.510	23.300	24.120	24.960	25.840
400 kV Bay (AIS)	32.150	33.280	34.450	35.660	36.910
Total Sub-station O&M					
Expenses (₹ in lakh)	218.64	226.32	234.28	242.48	251.00
Transformer (MVA)					
400 kV ICT I & II Bays at	630	630	630	630	630
Wagoora Sub-station	030	030	030	030	030
Norms (₹ lakh/MVA)					
400 kV	0.358	0.371	0.384	0.398	0.411
Total Transformer (₹ in lakh)	225.54	233.73	241.92	250.74	258.93
Transmission Lines					
220 kV D/C Twin Sub-conductor	10.29	10.29	10.29	10.29	10.29
Wagoora-Pampore T/L (kms)	10.29	10.29	10.29	10.29	10.29
400 kV D/C Twin Sub-conductor	94.99	94.99	94.99	94.99	94.99
Uri-Wagoora T/L (kms)	34.33	34.99	34.99	34.33	34.99
Norm (₹ lakh/km)					
D/C Twin Sub-conductor	0.881	0.912	0.944	0.977	1.011
Total Transmission Line O&M					
Expenses (₹ in lakh)	92.75	96.02	99.38	102.86	106.44
Communication System					
PLCC (₹ in lakh)	14	14	14	14	14
Norms (%)	2	2	2	2	2
Total Communication System	0.28	0.28	0.28	0.28	0.28
Total O&M Expenses (₹ in lakh)	537.21	556.35	575.86	596.36	616.65

64. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the substation in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

65. O&M Expenses approved in respect of the transmission asset for 2019-24 tariff period are as follows:

(₹ in lakh)

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays (Numbers)					
220 kV Bays of Pampore Ckt I &					
II at Wagoora Sub-station (AIS)	2	2	2	2	2
- Numbers					
220 kV ICT I & II Bays at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
400 kV Bays of Uri Ckt I & II at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
400 kV ICT I & II Bays at					
Wagoora Sub-station (AIS) –	2	2	2	2	2
Numbers					
Norm (₹ lakh/bay)					
220 kV Bay (AIS)	22.510	23.300	24.120	24.960	25.840
400 kV Bay (AIS)	32.150	33.280	34.450	35.660	36.910
Total Sub-station O&M					
Expenses (₹ in lakh) (A)	218.64	226.32	234.28	242.48	251.00
Transformer (MVA)					
400 kV 315 MVA ICT I & II	630	630	630	630	630
Bays at Wagoora Sub-station	000	000	000	000	000
Norms (₹ lakh/MVA)					
400 kV	0.358	0.371	0.384	0.398	0.411
Total Transformer (₹ in lakh)					
(B)	225.54	233.73	241.92	250.74	258.93
Transmission Lines (km)					
220 kV D/C Twin Sub-conductor	10.29	10.29	10.29	10.29	10.29
Wagoora-Pampore T/L (km)	10.25	10.25	10.25	10.25	10.25
400 kV D/C Twin Sub-conductor	94.99	94.99	94.99	94.99	94.99
Uri-Wagoora T/L (km)	34.55	34.55	J4.55	34.55	04.00
Norm (₹ lakh/km)					
D/C Twin Sub-conductor	0.881	0.912	0.944	0.977	1.011
Total Transmission Line O&M					
Expenses (₹ in lakh) (C)	92.75	96.02	99.38	102.86	106.44
Total O&M Expenses	536.93	556.07	575.58	596.08	616.37
(₹ in lakh) (D=A+B+C)	330.33	330.07	373.30	330.00	010.37

Interest on Working Capital (IWC)

- Regulation 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 66. 3(7) of the 2019 Tariff Regulations provide as follows:
 - Interest on Working Capital: (1) The working capital shall cover: "34.



(c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission Project:

- (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 project including communication project 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;"
- 67. 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 IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed thereon in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M					
Expenses	44.74	46.34	47.97	49.67	51.36
(O&M Expenses for one month)					



Working Capital for Maintenance Spares (15% of O&M Expenses)	80.54	83.41	86.34	89.41	92.46
Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	350.34	351.21	354.44	361.86	368.22
Total Working Capital	475.63	480.96	488.75	500.94	512.04
Rate of Interest of working capital (%)	12.05	11.25	10.50	10.50	10.51
Interest of working capital	57.31	54.11	51.32	52.60	53.76

Annual Fixed Charges for 2019-24 Tariff Period

68. The detailed computation of the various components of Annual Fixed Charges (AFC) in respect of the transmission asset for 2019-24 tariff period is as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	523.01	512.10	526.95	566.73	606.84
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	1732.19	1726.46	1721.07	1719.65	1717.87
O&M Expenses	536.93	556.07	575.58	596.08	616.37
Interest on Working Capital	57.31	54.11	51.32	52.60	53.76
Total	2849.44	2848.73	2874.92	2935.05	2994.84

Filing Fee and Publication Expenses

- 69. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 70(1) of the 2019 Tariff Regulations.
- 70. BRPL has submitted that though the Commission can allow filing fee and publication expenses at discretion under Regulation 70(1) of the 2019 Tariff Regulations, but the exercise of such discretion is a judicial discretion in the adjudication of tariff for which no justification has been filed by the Petitioner. BRPL has further submitted that the Commission vide order dated 11.9.2009 in Petition No. 129 of 2005 has declined the Petitioner's claim for reimbursement of the application fee.

71. We have considered the submissions of the 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 and RLDC Fees and Charges

72. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for 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 2019 Tariff Regulations for 2019-24 tariff period.

Goods and Services Tax

- 73. 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. However, BRPL has objected to the prayer of the Petitioner regarding GST as transmission of electricity is exempted from GST.
- 74. 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

75. The Petitioner has submitted that security expenses in respect of the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

- 76. BRPL has submitted that the approach adopted by the Petitioner towards claim of security expenses does not warrant the need for IWC as the same is claimed in advance. BRPL has also submitted that the Petitioner should clarify under which Regulations the claim has been made.
- 77. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

- 78. The Petitioner has sought reimbursement of capital spares at the end of tariff period. BRPL has submitted that capital spares may be allowed separately after prudence check.
- 79. We have considered the submissions of the Petitioner and BRPL. The Petitioner's claim for capital spares, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations.

Sharing of Transmission Charges

80. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system were governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2010. With effect from 1.11.2020, sharing of transmission charges are governed by the Central Electricity

Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, "2020 Sharing Regulations"). Accordingly, the liabilities of the DICs for arrears of transmission charges determined through this order shall be computed DIC- wise in accordance with the provisions of respective Tariff Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. The billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

81. To summarise:

a. The trued-up AFC allowed in respect of the transmission asset for 2014-19 tariff period are as follows:

					(₹ in lakh)
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	2896.46	2922.45	2939.97	2958.07	2981.79

b. AFC allowed in respect of the transmission asset for 2019-24 tariff period are as follows:

				(₹	in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	2849.44	2848.73	2874.92	2935.05	2994.84

82. This order disposes of Petition No. 470/TT/2020 in terms of the above discussion and findings.

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