

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 714/TT/2020

Coram:

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

Date of Order: 18.11.2021

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 the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 of **Combined Asset** comprising of **Asset-I** comprising of **Combined Elements** of (a) 30% FSC on 400 kV Bareilly-Mandola Ckt. 1 and Ckt. 2 at Bareilly, (b) 45% FSC on 400 kV D/C Unnao-Bareilly Ckt. 1 and Ckt. 2 at Unnao and (c) 30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 1 at Lucknow and **Asset-II**: 30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 2 at Lucknow under system associated with Enhancement of Transmission Capacity of East-West Corridor of Northern Region.

And in the matter of:

Power Grid Corporation of India Limited,
'SAUDAMINI', Plot No-2, Sector 29,
Gurgaon-122001 (Haryana)

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005 (Rajasthan).

2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).



3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
6. Punjab State Electricity Board,
Thermal Shed Tia, Near 22 Phatak,
Patiala-147001 (Punjab).
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula-134 109 (Haryana).
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-226001 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002,
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran Building (Near Karkardooma Courts),
Karkardooma 2nd Floor,
New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.



13. Tata Power Delhi Distribution Limited,
NDPL House, Hudson Lines Kingsway Camp,
Delhi-110009.
14. Chandigarh Administration,
Sector-9,
Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.

.....Respondent(s)

For Petitioner : Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri A. K. Verma, PGCIL
Shri Ved Prakash Rastogi, PGCIL

For Respondents : Shri Mohit Mudgal, Advocate, BYPL

ORDER

The Petitioner, Power Grid Corporation of India Limited has filed the instant petition for truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission 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 the following transmission assets forming part of Combined Asset under system associated with Enhancement of Transmission Capacity of East-



West Corridor of Northern Region (hereinafter referred to as “the transmission system”):

Asset-I comprising of Combined Elements of:

- (a) 30% FSC on 400 kV Bareilly-Mandola Ckt. 1 and Ckt. 2 at Bareilly;
- (b) 45% FSC on 400 kV D/C Unnao-Bareilly Ckt. 1 and Ckt. 2 at Unnao;
- (c) 30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 1 at Lucknow.

Asset-II: 30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 2 at Lucknow.

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

“1) Approve the tried up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 5 and 6 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 Hon’ble Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 5 and 6 above for respective block.

3) 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 beneficiaries in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

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

6) 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 6.6 above.

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

8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, 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”

3. **Backdrop of the case**

a) The Investment Approval (I.A.) for the transmission system was accorded by the Board of Directors of the Petitioner company vide C/CP/East-West Corridor NR dated 27.10.2006 for ₹10380.00 lakh, including IDC of ₹427.00 lakh (based on 2nd Quarter, 2006 Price Level) with the scope of work as follows:

- i. 30% Fixed Series Compensation (FSC) on 400 kV D/C Bareilly-Mandola at Bareilly end;
- ii. 45% FSC on 400 kV D/C Unnao-Bareilly Line at Unnao end;
- iii. 30% FSC on 400 kV D/C Gorakhpur- Lucknow Line at Lucknow end.

b) As per I.A., the transmission assets were to be put into commercial operation within 24 months from the date of issue of first letter of award that was issued on 30.7.2007. Accordingly, SCOD of the transmission assets was 1.8.2009 against which elements of Asset-I [Asset-I(a), Asset-I(b) and Asset-I(c)] and Asset-II were put under commercial operation on 1.4.2010 and 1.7.2010 respectively. Accordingly, there was a time over-run of 8 months and 11 months in the commissioning of Asset-I and Asset-II respectively.

c) The transmission tariff of Asset-I for the period from COD (1.4.2010) to 30.6.2010 and transmission tariff of Combined Asset for the period from notional COD (1.7.2010) to 31.3.2014 was allowed by the Commission vide order dated 23.10.2013 in Petition No. 314/2010. Also, the details of time over-run condoned and not condoned vide the said order with respect to the transmission assets are as follows:



Asset	Time over-run (in months)	
	Condoned	Not condoned
Asset-I(a)	NIL	-
Asset-I(b)	3	5
Asset-I(c)	4	4
Asset-II	4	7

d) The trued-up transmission tariff of elements of Asset-I [Asset-I(a), Asset-I(b) and Asset-I(c)] for the period from 1.4.2010 to 30.6.2010, trued-up transmission tariff of Combined Asset for the period from 1.7.2010 to 31.3.2014 and transmission tariff of Combined Asset for the period from 1.4.2014 to 31.3.2019 was allowed by the Commission vide order dated 14.3.2016 in Petition No. 13/TT/2015.

e) The entire scope of work covered under the transmission system is complete and is covered in the instant petition.

4. The Respondents are distribution licensees, power departments, power utilities and transmission licensees, which are procuring transmission services from the Petitioner, mainly beneficiaries of Northern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has 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. BSES Yamuna Power Limited (BYPL), Respondent No. 11, has filed its reply vide affidavit dated 16.6.2021 and has raised the issues of truing up during the 2009-14 and 2014-19 tariff periods, installation of equipment (FSCs), Additional Capital Expenditure (ACE) during the respective tariff periods, tax on transmission business, adoption of Indian Accounting Standard 101, annual truing up of grossed-up rate of RoE, annual



truing up of tariff by transmission licensees during the 2019-24 tariff period, recovery of security expenses, application filing fees, publication expenses, recovery of tax on truing-up exercise of RoE and appointment of an officer or any other person to represent consumer's interest in the proceedings before the Commission. The Petitioner vide affidavit dated 30.6.2021 has filed its rejoinder to the reply of BYPL.

6. It has been placed before us that BYPL has been raising the same issues in other petitions as well despite clear findings of the Commission rejecting the contentions of BYPL. The contentions of BYPL have been rejected by the Commission vide order dated 2.9.2021 in Petition No. 193/TT/2020. As BYPL has not challenged the findings, the same have attained finality. In view of these, the repeated contentions raised by BYPL are rejected. The repeated contentions of BYPL and the Petitioner's submissions related thereto have not been reproduced herein for the sake of brevity. The issues which are specific to the instant petition and not dealt by the Commission earlier are considered in the relevant paragraphs of this order.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 20.1.2020, additional information filed by the Petitioner vide affidavit dated 31.5.2021, BYPL's reply filed vide affidavit dated 16.6.2021 and Petitioner's rejoinder filed vide affidavit dated 30.6.2021.

8. The hearing in this matter was held on 8.6.2021 through video conference and the order was reserved. Having heard the learned counsel for BYPL and representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.



9. In addition to the submissions regarding trueing up and determination of tariff for respective tariff periods (already made in Petition No. 193/TT/2020), BYPL has submitted that in terms of Regulation 4(1) of the 2009 Tariff Regulations, the Commission can determine transmission tariff for either whole of the transmission system or the transmission line or sub-station under the above Regulation and not any specific equipment like FSCs. Further, the option whether to determine the transmission tariff either for the whole of the transmission system or the transmission line or sub-station is to be exercised by the Commission in view of the requirements of the parties concerned. Accordingly, the tariff allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015 is in clear violation of the said Regulation. BYPL has further submitted that the Commission may revisit the findings in order dated 14.3.2016 as per the APTEL's judgments dated 12.5.2015 in Appeal No. 129 and batch matters, as the same is a legal issue against which there is no estoppel and can be raised any time.

10. In response, the Petitioner has submitted that tariff of 2009-14 tariff period has already been trueed-up by the Commission vide order dated 14.3.2016 in Petition No. 13/TT/2015. In the instant petition, true up of 2014-19 tariff period is claimed as per the 2014 Tariff Regulations. The Petitioner has submitted that transmission tariff as prayed for the 2014-19 tariff period may be allowed in the instant petition.

11. We have considered the submissions of the Petitioner and BRPL. We are of the view that BYPL's contentions with regard to tariff of the 2009-14 period are in the nature of a review, which cannot be entertained in a true-up petition for a subsequent period (2014-19). Further, with regard to BYPL's contention related to



FSCs, BYPL could have been raised the issue before an appropriate forum after passing of order dated 14.3.2016 by the Commission. BYPL cannot raise it in the present proceedings, as the said order has already attained finality in the tariff proceedings of the earlier tariff periods. Hence, we reject the submissions made by BYPL on the said issue.

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

12. The details of the trued-up transmission charges as claimed by the Petitioner in respect of Combined Asset for the 2014-19 tariff period are as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	442.36	442.36	446.80	451.23	451.23
Interest on Loan	96.13	96.23	122.12	130.36	143.65
Return on Equity	326.69	328.18	332.98	337.95	338.86
Interest on Working Capital	39.90	40.60	42.10	43.21	44.27
O&M Expenses	361.80	373.80	386.22	399.06	412.26
Total	1266.88	1281.17	1330.22	1361.81	1390.27

13. The details of the trued-up Interest on Working Capital (IWC) as claimed by the Petitioner in respect of Combined Asset for the 2014-19 tariff period are as follows:

	(₹ in lakh)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	30.15	31.15	32.19	33.26	34.36
Maintenance Spares	54.27	56.07	57.93	59.86	61.84
Receivables	211.15	213.53	221.70	226.97	231.71
Total	295.57	300.75	311.82	320.09	327.91
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	39.90	40.60	42.10	43.21	44.27

Capital Cost

14. The Commission vide order dated 14.3.2016 in Petition No. 13/TT/2015 had allowed capital cost as on 31.3.2014 of ₹8378.00 lakh, projected ACE of



₹172.35 lakh and capital cost as on 31.3.2019 of ₹8550.35 lakh in respect of Combined Asset for the 2014-19 period.

Additional Capital Expenditure

15. The Petitioner has claimed, as per Regulation 14(3)(v) of the 2014 Tariff Regulations, actual ACE of ₹168.08 lakh incurred during 2016-17 on account of balance and retention payments for the works executed prior to the cut-off date. The package-wise and vendor-wise details of ACE claimed during 2016-17 along with liability flow statement has been submitted by the Petitioner vide affidavit dated 31.5.2021.

16. BYPL has submitted that the Petitioner's claim for ACE during the 2014-19 period may be disallowed.

17. In response, the Petitioner has submitted that ACE of ₹153.86 lakh and ₹14.22 lakh (during 2016-17) for Asset-I and Asset-II respectively is on account of balance and retention payments due to contractual exigencies for works executed within the cut-off date and covered under Regulation 14(3)(v) of the 2014 Tariff Regulations. The Petitioner has further submitted that liability flow statement related thereto has been submitted vide affidavit dated 31.5.2021 and accordingly has prayed to allow ACE as claimed in this petition.

18. We have considered the submissions of the Petitioner and BYPL. The actual ACE claimed of ₹153.86 lakh and ₹14.22 lakh (during 2016-17) for Asset-I and Asset-II respectively is towards balance and retention payments due to contractual exigencies for works executed within the cut-off date. Hence, it is allowed under Regulation 14(3)(v) of the 2014 Tariff Regulations and accordingly,



the details of the allowed capital cost as on 31.3.2019 *vis-à-vis* approved cost (FR) in respect of Combined Asset are as follows:

Approved Cost (FR)	Capital Cost allowed (as on 31.3.2014)	(₹ in lakh)	
		ACE allowed (2016-17)	Capital Cost allowed (as on 31.3 2019)
10380.49	8378.00	168.08	8546.08

Cost Over-run

19. The completion cost including ACE during the 2014-19 period in respect of Combined Asset is ₹8546.08 lakh which is within the approved FR cost of ₹10380.49 lakh. Therefore, there is no cost over-run in this case.

Debt-Equity Ratio

20. The Petitioner has claimed debt-equity ratio of 80.13:19.87 as on 31.3.2014. The debt-equity ratio of 80.13:19.87 has been considered for capital cost as on 1.4.2014 and debt-equity ratio of 70.00:30.00 has been considered for ACE during the 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission asset as on 1.4.2014 and 31.3.2019 are as follows:

Funding	Capital Cost (as on 1.4.2014) (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	6713.36	80.13	6831.02	79.93
Equity	1664.64	19.87	1715.06	20.07
Total	8378.00	100.00	8546.08	100.00

Depreciation

21. 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 the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been



depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out considering the depreciation rates of assets as specified in the 2014 Tariff Regulations and the trued-up depreciation in respect of Combined Asset allowed for the 2014-19 period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	8378.00	8378.00	8378.00	8546.08	8546.08
Additional Capitalisation	0.00	0.00	168.08	0.00	0.00
Closing Gross Block	8378.00	8378.00	8546.08	8546.08	8546.08
Average Gross Block	8378.00	8378.00	8462.04	8546.08	8546.08
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Elapsed useful life of the asset at the beginning of the year (Year)	3.00	4.00	5.00	6.00	7.00
Balance useful life of the asset at the beginning of the year (Year)	22.00	21.00	20.00	19.00	18.00
Aggregated Depreciable Value	7540.20	7540.20	7615.84	7691.47	7691.47
Combined Depreciation during the year	442.36	442.36	446.80	451.23	451.23
Cumulative depreciation at the end of the year	2086.57	2528.93	2975.72	3426.96	3878.19
Remaining Aggregated Depreciable Value at the end of the year	5453.63	5011.27	4640.11	4264.52	3813.28

22. Depreciation in respect of Combined Asset as allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015	446.91	451.46	451.46	451.46	451.46
Claimed by the Petitioner in the instant petition	442.36	442.36	446.80	451.23	451.23
Approved after true-up in this order	442.36	442.36	446.80	451.23	451.23



Interest on Loan (IoL)

23. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan, based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate as submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL in respect of Combined Asset for the 2014-19 tariff period is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	6713.36	6713.36	6713.36	6831.02	6831.02
Cumulative Repayments up to Previous Year	1644.21	2086.57	2528.93	2975.72	3426.96
Net Loan-Opening	5069.15	4626.79	4184.43	3855.29	3404.06
Addition due to Additional Capitalization	0.00	0.00	117.66	0.00	0.00
Repayment during the year	442.36	442.36	446.80	451.23	451.23
Net Loan-Closing	4626.79	4184.43	3855.29	3404.06	2952.83
Average Loan	4847.97	4405.61	4019.86	3629.68	3178.44
Weighted Average Rate of Interest on Loan (in %)	1.983	2.184	3.038	3.592	4.519
Interest on Loan	96.13	96.23	122.12	130.36	143.65

24. IoL allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015, claimed by the Petitioner in the instant petition and trued-up vide this order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015	97.14	89.44	80.50	71.56	62.62
Claimed by the Petitioner in the instant petition	96.13	96.23	122.12	130.36	143.65
Approved after true-up in this order	96.13	96.23	122.12	130.36	143.65

Return on Equity

25. The Petitioner has claimed RoE in respect of Combined 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 Minimum Alternate Tax (MAT)



rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(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

26. We have considered the repeated submissions of BYPL and the Petitioner (as made in BYPL's reply and the Petitioner's rejoinder in the pleadings of Petition No. 193/TT/2020 and the order was passed by the Commission on 2.9.2021). We do not find merit in the repeated submissions now made by BYPL in the instant petition and, therefore, reject the same. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same are 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

27. MAT rates considered in order dated 27.4.2020 for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations is considered in the instant case are as follows:

Year	MAT Rate (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
2014-15	20.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758



28. Accordingly, RoE is trued-up on the basis of MAT rates applicable in the respective years and is allowed for Combined Asset as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Equity	1664.64	1664.64	1664.64	1715.06	1715.06
Addition due to Additional Capitalization	0.00	0.00	50.42	0.00	0.00
Closing Equity	1664.64	1664.64	1715.06	1715.06	1715.06
Average Equity	1664.64	1664.64	1689.85	1715.06	1715.06
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	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)	326.44	328.02	332.99	337.95	338.86

29. RoE in respect of Combined Asset as allowed vide order 14.3.2016 in Petition No. 13/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015	331.51	336.58	336.58	336.58	336.58
Claimed by the Petitioner in the instant petition	326.69	328.18	332.98	337.95	338.86
Approved after true-up in this order	326.44	328.02	332.99	337.95	338.86

Operation & Maintenance Expenses (O&M Expenses)

30. The O&M Expenses are allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for the various elements covered in Combined Asset as follows:



(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays (in Numbers)					
Bareilly: 30% FSC on 400 kV Bareilly-Mandola Ckt. 1 and 2 at Bareilly	2	2	2	2	2
Unnao: 45% FSC on 400 kV D/C Unnao-Bareilly Ckt. 1 and Ckt. 2 at Unnao	2	2	2	2	2
Lucknow: 30% FSC on 400 kV Gorakhpur- Lucknow Ckt. 1	1	1	1	1	1
Lucknow: 30% FSC on 400 kV Gorakhpur- Lucknow Ckt. 2 at Lucknow	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	60.30	62.30	64.37	66.51	68.71
Total Sub-station O&M	361.80	373.80	386.22	399.06	412.26
Total O&M Expenses	361.80	373.80	386.22	399.06	412.26

31. O&M Expenses in respect of Combined Asset as approved vide order dated 14.3.2016 in Petition No. 13/TT/2015, claimed by the Petitioner in the instant petition and trued-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 14.3.2016 in Petition No. 13/TT/2015	361.80	373.80	386.22	399.06	412.26
Claimed by the Petitioner in the instant petition	361.80	373.80	386.22	399.06	412.26
Approved after true-up in this order	361.80	373.80	386.22	399.06	412.26

Interest on Working Capital

32. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed in respect of Combined Asset is as follows:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M expenses for 1 month)	30.15	31.15	32.19	33.26	34.36
WC for Maintenance Spares (15% of O&M expenses)	54.27	56.07	57.93	59.86	61.84
WC for Receivables (Equivalent to 2 months of annual fixed cost / annual transmission charges)	211.10	213.50	221.70	226.97	231.71
Total Working Capital	295.52	300.72	311.82	320.08	327.91
Rate of Interest on Working Capital (in %)	13.50	13.50	13.50	13.50	13.50
Interest of Working Capital	39.90	40.60	42.10	43.21	44.27

33. IWC in respect of Combined Asset as allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015	40.14	40.85	41.33	41.83	42.35
Claimed by the Petitioner in the instant petition	39.90	40.60	42.10	43.21	44.27
Approved after true-up in this order	39.90	40.60	42.10	43.21	44.27

Approved Annual Fixed Charges for the 2014-19 Tariff Period

34. The trued-up Annual Fixed Charges (AFC) in respect of Combined Asset approved for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	442.36	442.36	446.80	451.23	451.23
Interest on Loan	96.13	96.23	122.12	130.36	143.65
Return on Equity	326.44	328.02	332.99	337.95	338.86
O&M Expenses	361.80	373.80	386.22	399.06	412.26
Interest on Working Capital	39.90	40.60	42.10	43.21	44.27
Total	1266.62	1281.00	1330.21	1361.82	1390.27



35. Accordingly, the Annual Transmission Charges in respect of Combined Asset as allowed vide order dated 14.3.2016 in Petition No. 13/TT/2015, claimed by the 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 14.3.2016 in Petition No. 13/TT/2015	1277.50	1292.13	1296.09	1300.49	1305.28
Claimed by the Petitioner in the instant petition	1266.88	1281.17	1330.22	1361.81	1390.27
Approved after true-up in this order	1266.62	1281.00	1330.21	1361.82	1390.27

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

36. The Petitioner has claimed the transmission charges in respect of Combined Asset for the 2019-24 tariff period as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	451.23	451.23	451.23	451.23	154.49
Interest on Loan	129.69	108.63	87.20	65.86	52.54
Return on Equity	322.12	322.12	322.12	322.12	322.12
Interest on Working Capital	21.99	22.01	21.99	21.99	17.61
O&M Expenses	192.90	199.68	206.70	213.96	221.46
Total	1117.93	1103.67	1089.24	1075.16	768.22

37. The Petitioner has claimed IWC in respect of Combined Asset for the 2019-24 tariff period as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	16.08	16.64	17.23	17.83	18.46
Maintenance Spares	28.94	29.95	31.01	32.09	33.22
Receivables	137.45	136.07	134.29	132.55	94.45
Total	182.47	182.66	182.53	182.47	146.13
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	21.99	22.01	21.99	21.99	17.61



Capital Cost

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

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

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

(a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*

(b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*

(c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*

(d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*

(e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*

(f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*

(g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*

(h) *Adjustment of revenue earned by the transmission licensee by using the asset before the date of commercial operation;*

(i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*

(j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*

(k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*

(l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*

(m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*

(n) *Expenditure on account of change in law and force majeure events; and*

(o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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



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

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

(5) The following shall be excluded from the capital cost of the existing and new projects:

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

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

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

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



39. We have considered the submissions of the Petitioner. The capital cost of ₹8546.08 lakh as on 31.3.2019 as trued-up in above paragraphs is considered as the opening capital cost as on 1.4.2019 for determination of tariff of the 2019-24 tariff period in accordance with Regulation 19 of the 2019 tariff period. The Petitioner has not projected any ACE during the 2019-24 tariff period.

Debt-Equity Ratio

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

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

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019,



if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

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

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

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

41. The debt-equity in respect of Combined Asset considered for the purpose of computation of transmission tariff for the 2019-24 tariff period is as follows:

Funding	Capital Cost (as on 1.4.2019) (₹ in lakh)	(in %)	Total Capital Cost (as on 31.3.2024) (₹ in lakh)	(in %)
Debt	6831.02	79.93	6831.02	79.93
Equity	1715.06	20.07	1715.06	20.07
Total	8546.08	100.00	8546.08	100.00

Depreciation

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

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



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

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

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

43. The Combined Asset will complete 12 years of life on 31.3.2023 and, therefore, the remaining depreciable value of ₹2008.35 lakh has been spread across the balance useful life of 13 years in accordance with Regulation 33(5) of the 2019 Tariff Regulations. The Gross Block during the 2019-24 tariff period has been depreciated at WAROD. WAROD at Annexure-II has been worked out after considering the depreciation rates of assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation in respect of Combined Asset allowed for the 2019-24 period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	8546.08	8546.08	8546.08	8546.08	8546.08
Addition during the year 2019-24 due to projected Additional Capitalisation	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	8546.08	8546.08	8546.08	8546.08	8546.08
Average Gross Block	8546.08	8546.08	8546.08	8546.08	8546.08
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	2.05
Elapsed useful life at the beginning of the year (Year)	8.00	9.00	10.00	11.00	12.00
Balance useful life at the beginning of the year (Year)	17.00	16.00	15.00	14.00	13.00



Aggregated Depreciable Value	7691.47	7691.47	7691.47	7691.47	7691.47
Combined Depreciation during the year	451.23	451.23	451.23	451.23	154.49
Aggregate Cumulative Depreciation at the end of the year	4329.42	4780.65	5231.89	5683.12	5837.61
Remaining Aggregate Depreciable Value at the end of the year	3362.05	2910.82	2459.58	2008.35	1853.86

Interest on Loan

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

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

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

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

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

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

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

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

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

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



45. The Petitioner has submitted that WAROI on loan has been calculated on the basis of interest rates prevailing as on 1.4.2019 for respective loans. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL in respect of Combined Asset allowed for the 2019-24 tariff period is follows:

Particular	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	6831.02	6831.02	6831.02	6831.02	6831.02
Cumulative Repayments up to Previous Year	3878.19	4329.42	4780.65	5231.89	5683.12
Net Loan-Opening	2952.83	2501.59	2050.36	1599.13	1147.90
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Repayment during the year	451.23	451.23	451.23	451.23	154.49
Net Loan-Closing	2501.59	2050.36	1599.13	1147.90	993.41
Average Loan	2727.21	2275.98	1824.74	1373.51	1070.65
Weighted Average Rate of Interest on Loan (in %)	4.755	4.773	4.779	4.795	4.907
Interest on Loan	129.69	108.63	87.20	65.85	52.54

Return on Equity

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

“30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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



Provided further that:

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

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

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

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

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

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

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

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

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



Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50/(1-0.24) = 20.395\%$.

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

47. We have considered the repeated submissions of BYPL and the Petitioner (as already made in BYPL’s reply and the Petitioner’s rejoinder in Petition No. 193/TT/2020 and the order was passed by the Commission on 2.9.2021). We do not find merit in the repeated submissions now made by BYPL in the instant petition and, therefore, reject the same. Accordingly, RoE in respect of Combined Asset is allowed under Regulation 30 of the 2019 Tariff Regulations as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1715.06	1715.06	1715.06	1715.06	1715.06
Addition due to Additional Capitalization	0.00	0.00	0.00	0.00	0.00
Closing Equity	1715.06	1715.06	1715.06	1715.06	1715.06
Average Equity	1715.06	1715.06	1715.06	1715.06	1715.06
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity	18.782	18.782	18.782	18.782	18.782



(Pre-tax)					
Return on Equity (Pre-tax)	322.12	322.12	322.12	322.12	322.12

Operation & Maintenance Expenses

48. The O&M Expenses as claimed by the Petitioner in respect of Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV sub-station	192.90	199.68	206.70	213.96	221.46

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

“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
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
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
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
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
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
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					



<i>HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)</i>	834	864	894	925	958
<i>Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)</i>	1,666	1,725	1,785	1,848	1,913
<i>500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)</i>	2,252	2,331	2,413	2,498	2,586
<i>±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)</i>	2,468	2,555	2,645	2,738	2,834
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
 - ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
 - iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
 - iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
 - v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
 - vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*
- (b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.*
- (c) The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*



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

50. We have considered the submissions of the Petitioner. The O&M Expenses allowed in respect of the various elements covered under Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays (in Numbers)					
Bareilly: 30% FSC on 400 kV Bareilly-Mandola Ckt.1 and 2 at Bareilly	2	2	2	2	2
Unnao: 45% FSC on 400 kV D/C Unnao-Bareilly Ckt. 1 and Ckt. 2 at Unnao	2	2	2	2	2
Lucknow:30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 1	1	1	1	1	1
Lucknow:30% FSC on 400 kV Gorakhpur-Lucknow Ckt. 2 at Lucknow	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	32.15	33.28	34.45	35.66	36.91
Total Sub-station O&M	192.90	199.68	206.70	213.96	221.46
Total O&M Expenses	192.90	199.68	206.70	213.96	221.46

Interest on Working Capital

51. 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) The working capital shall cover:

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

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month.”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the



tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.”

“(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

“3. Definitions ...

(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;”

52. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. We have considered the submissions of the Petitioner regarding IWC. IWC in respect of the Combined Asset is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the components of the working capital and interest allowed thereon are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M expenses for 1 month)	16.08	16.64	17.23	17.83	18.46
WC for Maintenance Spares (15% of O&M expenses)	28.94	29.95	31.01	32.09	33.22
WC for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	137.45	135.89	133.94	132.20	94.17
Total Working Capital	182.46	182.48	182.17	182.12	145.84
Rate of Interest on Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	21.99	20.53	19.13	19.12	15.31

Annual Fixed Charges of the 2019-24 Tariff Period

53. The transmission charges allowed in respect of Combined Asset for the 2019-24 tariff period are as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	451.23	451.23	451.23	451.23	154.49
Interest on Loan	129.69	108.63	87.20	65.85	52.54
Return on Equity	322.12	322.12	322.12	322.12	322.12
Operation and Maintenance Expense	192.90	199.68	206.70	213.96	221.46
Interest on Working Capital	21.99	20.53	19.13	19.12	15.31
Total	1117.93	1102.19	1086.38	1072.29	765.92

Filing Fee and Publication Expenses

54. 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.

55. BYPL has submitted its repeated submissions regarding filing fee and publication expenses, as already made in BYPL's reply in Petition No. 193/TT/2020. In response, the Petitioner has submitted that the said submissions of BYPL have already been dealt vide affidavit dated 10.8.2020 filed in Petition No. 24/TT/2020 and further has prayed to consider the same in this petition as well.

56. We have considered the submissions of BYPL and the Petitioner's submissions related thereto made in this petition. The Petitioner shall be entitled for reimbursement of 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

57. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulation 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

58. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory Authorities, the same may be allowed to be recovered from the beneficiaries.

59. We have considered the submissions of Petitioner. Since, GST is not levied on transmission services at present, we are of the view that Petitioner's prayer is premature.

Security Expenses

60. The Petitioner has submitted that security expenses for Combined 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.

62. We have considered the submissions of BYPL regarding security expenses. The Respondent had made similar submissions in Petition No. 193/TT/2020. We have considered the submissions of the Petitioner and observe



that the Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

64. With effect from 1.11.2020, sharing of transmission charges is governed by the provisions of the 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. Billing, collection and disbursement of transmission charges for subsequent period shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.



65. To summarise:

- a) The trued-up AFC in respect of Combined Asset approved for the 2014-19 tariff period are as follows:

(₹ in lakh)				
2014-15	2015-16	2016-17	2017-18	2018-19
1266.62	1281.00	1330.21	1361.82	1390.27

- b) AFC in respect of Combined Asset allowed for the 2019-24 tariff period in this order is as follows:

(₹ in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
1117.93	1102.19	1086.38	1072.29	765.92

66. Annexure-I and Annexure-II given hereinafter shall form part of the order.

67. This order disposes of Petition No. 714/TT/2020 in terms of the above discussions and findings.

sd/-

(P. K. Singh)
Member

sd/-

(I. S. Jha)
Member

sd-

(P. K. Pujari)
Chairperson



Annexure-I

2014-19 Capital Expenditure as on 1.4.2014	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
		2016-17			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub Station	8378.00	168.08	8546.08	5.28	442.36	442.36	446.80	451.23	451.23
TOTAL	8378.00	168.08	8546.08		442.36	442.36	446.80	451.23	451.23
Average Gross Block (₹ in lakh)					8378.00	8378.00	8462.04	8546.08	8546.08
Weighted Average Rate of Depreciation (%)					5.28	5.28	5.28	5.28	5.28



Annexure-II

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
				2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub Station	8546.08	8546.08	5.28	451.23	451.23	451.23	451.23	Spreading
TOTAL	8546.08	8546.08		451.23	451.23	451.23	451.23	154.49
		Average Gross Block (₹ in lakh)		8546.08	8546.08	8546.08	8546.08	8546.08
		Weighted Average Rate of Depreciation (%)		5.28	5.28	5.28	5.28	2.05

