

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 193/TT/2022**

**Coram:**

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

**Date of Order: 09.01.2024**

**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 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for Asset-1(a): Associated bays of "315 MVA, 400/220 kV ICT" at Fatehabad Sub-station (ICT to be shifted from Ballabgarh) and Asset-1(b): 315 MVA ICT at Fatehabad Sub-station (Only ICT shifted from Ballabgarh Sub-station under ICT-IV at Ballabgarh) under "Augmentation of Transformation capacity at Fatehabad (PG)" in Northern Region.

**And in the matter of:**

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

**....Petitioner**

**Vs.**

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



4. Himachal Pradesh State Electricity Board Limited,  
Vidyut Bhawan, Kumar House Complex Building II,  
Shimla-171004 (Himachal Pradesh).
5. Punjab State Power Corporation Limited,  
The Mall, PSEB Head Office,  
Patiala-147001 (Punjab).
6. Haryana Power Purchase Centre,  
Shakti Bhawan, Sector-6,  
Panchkula-134109 (Haryana).
7. Power Development Department,  
Government of Jammu & Kashmir,  
Mini Secretariat, Jammu.
8. Uttar Pradesh Power Corporation Limited,  
Shakti Bhawan, 14, Ashok Marg,  
Lucknow-226001 (Uttar Pradesh).
9. BSES Yamuna Power Limited,  
B-Block, Shakti Kiran, Building (Near Karkadooma Court),  
Karkadooma 2nd Floor,  
New Delhi-110092.
10. BSES Rajdhani Power Limited,  
BSES Bhawan, Nehru Place,  
New Delhi-110019.
11. Tata Power Delhi Distribution Limited,  
NDPL house, Hudson Lines Kingsway Camp,  
Delhi-110009.
12. Chandigarh Administration,  
Sector-9, Chandigarh.
13. Uttarakhand Power Corporation Limited,  
Urja Bhawan,  
Kanwali Road, Dehradun (Uttarakhand).
14. North Central Railway,  
DRM Office, Nawab Yusuf Road,  
Prayagraj, Uttar Pradesh-211011.
15. New Delhi Municipal Council,  
Palika Kendra, Sansad Marg,  
New Delhi-110002.

....Respondent(s)



**For Petitioner** : Shri Ved Prakash Rastogi, PGCIL  
Shri D.K. Biswal, PGCIL  
Shri Ashish Alankar, PGCIL

**For Respondents** : None

### ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing up of transmission tariff for the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “ the 2014 Tariff Regulations”) and 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 **Asset-1 (a)**: Associated bays of “315 MVA, 400/220 kV ICT” at Fatehabad Sub-station (ICT to be shifted from Ballabgarh); and **Asset-1 (b)**: 315 MVA ICT at Fatehabad Sub-station (Only ICT shifted from Ballabgarh Sub-station under ICT-IV at Ballabgarh) (hereinafter referred to as the “transmission assets”) under “Augmentation of Transformation capacity at Fatehabad (PG)” in Northern Region (hereinafter referred to as the “transmission project”).

2. The Petitioner has made the following prayers in the instant 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 8 and 9 above.*

*2) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 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 respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.

5) Allow the petitioner to 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.

6) Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately as mentioned at para 9.10 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 respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

9) Condone the delay in filing the present petition caused due to prevailing Covid-19 pandemic.

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

## **Background**

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

(a) The Investment Approval (IA) for the transmission project was accorded by the Competent Authority of the Petitioner on 23.3.2017 at an estimated cost of ₹1135 lakh including IDC of ₹72 lakh based on October, 2016 price level (communicated vide Memorandum Ref no. C/CP/IA/ICT at Fatehabad dated 24.3.2017).

(b) The scope of the work covered under the transmission project was discussed and agreed in the 36<sup>th</sup> meeting of Standing Committee on Power System Planning of Northern Region held on 13.7.2015. Subsequently, the project was also discussed and agreed in the 36<sup>th</sup> meeting of Northern Regional Power Committee held on 24.12.2015.



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

**Sub-stations:**

(i) Extension of 400/220 kV Fatehabad Sub-station.

- a) 315 MVA 400/220 kV Transformer : 1 number\*
- b) 400 kV ICT Bays : 1 number
- c) 220 kV ICT Bays : 1 number

*\*(The ICT at Fatehabad is to be provided from the 400/220 kV, 315 MVA ICTs at Ballabgarh which are being replaced by 500 MVA, 400/220 ICTs).*

(d) The entire scope of work under the transmission project has been completed and is covered under the instant petition.

(e) The transmission project consists of two parts, i.e. the 315 MVA 400/220 kV ICT, which was shifted from Ballabgarh sub-station to Fatehabad sub-station (hereinafter referred to as “Asset-1(b)”) and associated bays and equipment (one 400 kV ICT bay and one 220 kV ICT bay) (hereinafter referred to as “Asset-1(a)”).

(f) The transmission assets were scheduled to be put into commercial operation within 30 months from the date of IA which is 24.3.2017. Accordingly, the transmission project was scheduled to be put into commercial operation (SCOD) by 24.9.2019. Asset-1(a) was put into commercial operation on 31.12.2018 and Asset-1(b) was initially put into commercial operation on 1.7.2002. However, Asset-1(b) was re-capitalized on 31.12.2018 alongwith Asset-1(a) at Ballabgarh Sub-station. The shifting of the ICT from Ballabgarh Sub-station to Fatehabad Sub-station was agreed in the 36<sup>th</sup> Stading Committee Meeting on Power System Planning on Northern Region (NR) held on 13.7.2015 and the 36<sup>th</sup> NRPC and 32<sup>nd</sup> TCC Meeting held on 23.12.2015.

(g) The Commission in order dated 30.4.2021 in Petition No. 210/TT/2020 has already dealt with the issue of de-capitalisation of Asset-1(b) at Ballabgarh Sub-station. The Commission in order dated 30.4.2021 considered the date of de-capitalisation of Asset-1(b) as 12.6.2017 and the Commission vide order dated 7.7.2021 in Petition No. 485/TT/2019 considered the date of its re-capitalisation as 31.12.2018.



(h) The transmission tariff for Asset-1(a) and Asset-1(b) from COD to 31.3.2019 was determined by Commission vide order dated 7.7.2021 in Petition No. 485/TT/2019.

4. The Respondents are distribution licensees, power departments, power utilities and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the 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 (hereinafter referred to as “the Act”). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Uttar Pradesh Power Corporation Limited (UPPCL), Respondent No. 8, has filed its reply vide affidavit dated 20.7.2022 raising the issue of RoE, IDC and IEDC, Additional Capital Expenditure (ACE), Initial Spares and cost of shifting Asset-1(b). The Petitioner vide affidavit dated 25.10.2022 has filed its rejoinder to the reply of UPPCL.

6. This order is issued considering the submissions made by the Petitioner in the petition and subsequent affidavit dated 4.8.2022, UPPCL’s reply vide affidavit dated 20.7.2022 and the Petitioner’s rejoinder vide affidavit dated 25.10.2022.

7. The hearing in this matter was held on 27.10.2022 and the order was reserved.

8. Having heard the representatives of the Petitioner and having perused the material on record, we proceed to dispose of the petition.

9. There is delay in filing of the true-up petition by the Petitioner. The Petitioner has



prayed to condone the delay in filing of the instant petition due to prevailing Covid-19 pandemic.

10. We have considered the submissions of the Petitioner. As per Regulation 9(2) of the 2019 Tariff Regulations, the Petitioner was required to file the truing up petition in case of the existing transmission project or element thereof by 31.10.2019. The Petitioner filed Petition No. 331/MP/2019 seeking extension of time by 180 days to file the tariff petition in case of the existing assets where orders have already been issued and 180 days extension in cases where final tariff orders for 2014-19 period are yet to be issued. The Commission, vide order dated 28.10.2019, granted time upto 31.1.2020 to file truing up petitions in cases where final orders have already been issued and three months from the date of issue of the final order, where final orders for 2014-19 period are yet to be issued. Later, NTPC and NHPC made representations seeking further extension of time. Taking into consideration their representations and the outbreak of Covid-19 pandemic and the subsequent declaration of lockdown by the Central Government, the Commission extended the date of filing of truing up petitions of 2014-19 period in case of the existing generating stations and transmission licensees up to 30.6.2020 vide suo-motu orders dated 6.7.2020 and 7.7.2020 in Petition No. 7/SM/2020. The period was further extended upto 30.9.2020 in case of NHPC and Teesta Urja Ltd., on an application filed by them, vide order dated 6.7.2020 in Petition No.7/SM/2020 and in case of Teesta valley Power Transmission Ltd. vide order dated 23.7.2020 in Petition No.7/SM/2020.

11. Accordingly, the Commission has already granted time upto 30.9.2020 in cases where tariff orders have already been issued and 180 days from the date of issue of the



order where tariff orders are yet to be issued. The tariff for the instant transmission assets for the 2014-19 tariff period was approved vide order 7.7.2021 in Petition No. 485/TT/2019, and, accordingly the Petitioner should have filed the truing up petition by 2.1.2022. However, the Petitioner has filed the instant petition on 14.3.2022. Thus, there is a delay of 71 days in filing of the instant petition. Taking into consideration the Covid-19 pandemic and the consequent lockdown, the delay of 71 days in filing of the instant petition is condoned.

12. UPPCL has submitted that there is no logic to carve out two assets, as the transmission project as a whole may be considered for truing up. In response, the Petitioner has submitted that the Commission in its various tariff orders has directed that in case of shifting of assets from one transmission project to another transmission project, the replaced asset should be de-capitalized in the books of the account of the transmission project from where it has been transferred and should be capitalised in the books of accounts of the transmission project where it has been shifted. The Commission, vide order dated 30.4.2021 in Petition No. 210/TT/2020 has de-capitalized the entire capital cost of ICT-IV at Ballabgarh Sub-station claimed by the Petitioner in respect of Asset-1(b). Accordingly, “315 MVA ICT at Fatehabad Sub-station (Only ICT shifted from Ballabgarh Sub-station under ICT-IV at Ballabgarh)” is being re-capitalized in the instant petition. Further, the Petitioner has submitted that transmission tariff of Asset-1(b) has been claimed separately due to difference in asset life and depreciation. However, during 2019-24 tariff period, Asset-1(a) and Asset-1(b) (transmission assets) has been merged on effective COD and combined transmission tariff has been being claimed for 2019-24 tariff period.





13. We have considered the submission of the Petitioner and UPPCL. Asset-1(b) has been shifted and re-capitalised in the instant order and its 15 years of life has already elapsed. Therefore, the tariff of the transmission assets is allowed in this order separately.

**Truing up of Annual Fixed Charges for 2014-19 Tariff Period**

14. The details of the trued up transmission charges claimed by the Petitioner are as follows:

Particulars	(₹ in lakh)	
	Asset-1(a) 2018-19 (Pro-rata for 91 days)	Asset-1(b) 2018-19 (Pro-rata for 91 days)
Depreciation	6.88	11.65
Interest on Loan	7.52	0.64
Return on Equity	7.72	6.34
Interest on working capital	1.91	0.39
O&M Expenses	29.12	0.00
<b>Total</b>	<b>53.15</b>	<b>19.02</b>

15. The details of the Interest on Working Capital (IWC) claimed by the Petitioner are as follows:

Particulars	(₹ in lakh)	
	Asset-1(a) 2018-19 (Pro-rata for 91 days)	Asset-1(b) 2018-19 (Pro-rata for 91 days)
O&M Expenses	9.73	0.00
Maintenance Spares	17.52	0.00
Receivables	35.53	12.71
<b>Total</b>	<b>62.78</b>	<b>12.71</b>
Rate of Interest (in %)	12.20	12.20
<b>Interest on Working Capital</b>	<b>1.91</b>	<b>0.39</b>



## **Capital Cost**

16. The Commission vide order dated 7.7.2021 in Petition No 485/TT/2019 has approved the capital cost from COD and ACE up to 31.3.2019 for Asset-1(a) and Asset-1(b). The details are as follows:

(₹ in lakh)

Assets	Capital cost allowed as on COD	ACE	Total Capital cost as on 31.3 2019
		2018-19	
Asset-1(a)	402.67	442.11	844.78
Asset-1(b)	428.91*	0.00	428.91

*\*Gross Block Value as on the date of re-capitalisation*

17. The Petitioner in the instant true up petition has claimed the capital cost as on COD and ACE incurred upto 31.3.2019 for Asset-1(a) and Asset-1(b) and has submitted the Auditor's Certificate in support of the same. The details of the capital cost claimed are as follows:

(₹ in lakh)

Assets	Capital cost claimed as on COD	ACE	Total capital cost as on 31.3 2019
		2018-19	
Asset-1(a)	455.11	166.90	622.01
Asset-1(b)	428.91	0.00	428.91

18. The total completion cost including ACE as on 31.3.2019 in respect of Asset-1(a) and Asset-1(b) is ₹1050.92 lakh and the FR apportioned approved cost of ₹1134.65 lakh. Hence, the completion cost as on 31.3.2019 in respect of the transmission assets is within the FR apportioned approved cost and therefore, there is no cost over-run with respect to FR cost.

19. The transmission assets were scheduled to be put into commercial operation within 30 months from the date of IA which is 24.3.2017. Accordingly, the transmission project was scheduled to be put into commercial operation by 24.9.2019. The COD of



the transmission assets is 31.12.2018. Therefore, there is no time over-run.

**Interest During Construction (IDC) and Incidental Expenditure during Construction (IEDC)**

20. The Petitioner has claimed IDC for the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted the computation of IDC along with the year-wise details of the IDC discharged.

21. The allowable IDC has been worked out considering the information submitted by the Petitioner for the individual assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

22. UPPCL has submitted that the Petitioner has not submitted Form-12 and Form-12A. Further, UPPCL has submitted that including incidence of IDC as ACE would mean that beneficiary shall end up paying higher IDC and this should not be allowed.

23. In response, the Petitioner has submitted Form-12 and 12A alongwith the rejoinder. The Petitioner has further submitted that accrued IDC as on COD was not considered while calculating the tariff as the same was undischarged upto COD. The accrued IDC has been taken out of COD expenditure and added in the ACE, when it has been discharged. The Petitioner has submitted that IDC claimed in full and IDC calculation has been submitted along with the IDC statement. The statement of cash IDC along with calculation has been submitted along with the petition. The Petitioner has further submitted that claiming the transmission tariff after adjustment/deduction of



accrual IDC on its COD leads less liability of transmission tariff as on COD. Therefore, the contentions raised by UPPCL is baseless and wrong and has prayed to allow IDC on the basis of cash outflow.

24. We have considered the submission of the Petitioner and UPPCL. Based on the information furnished by the Petitioner, IDC considered for Asset-1(a) is as follows:

(₹ in lakh)

Asset	IDC as per Auditor's Certificate	IDC admissible	IDC disallowed due to computational difference	IDC Discharged as on COD	IDC undischarged as on COD	IDC discharge during 2018-19
	A	B	C=A-B	D	E=B-D	
Asset-1 (a)	0.14	0.14	0.00	0.00	0.14	0.14

25. IEDC allowed for Asset-1(a) is as follows:

(₹ in lakh)

Asset	IEDC claimed	IEDC disallowed due to computational difference	IEDC allowed as on COD
Asset-1 (a)	11.36	0.00	11.36

### **Initial Spares**

26. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalized as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:

**“(d) Transmission system**

- (i) Transmission line – 1.00%
  - (ii) Transmission Sub-station (Green Field) – 4.00%
  - (iii) Transmission Sub-station (Brown Field) – 6.00%
  - (iv) Series Compensation devices and HVDC Station – 4.00%
  - (v) Gas Insulated Sub-station (GIS) – 5.00%
  - (vi) Communication system – 3.5%
- .....”



27. The Petitioner in the instant petition has claimed the following Initial Spares and has also submitted the details of discharge of Initial Spares and the same is as follows:

**Sub-station:**

Asset	Plant & machinery cost up to cut-off date (excluding IDC and IEDC)	Initial Spares claimed	Ceiling limit (in %)	Discharge of Initial Spares		
				As on COD	2018-19	2019-20
Asset-1 (a)	997.13	77.02	6.00	45.03	25.59	6.40

(₹ in lakh)

28. The Petitioner has further deducted the excess Initial Spares while calculating the transmission tariff of Asset-1(a).

29. UPPCL has submitted that the Petitioner has not submitted Form-5 and Form-13. UPPCL has further submitted that the excess Initial Spares of ₹18.29 lakh may not be allowed to the Petitioner.

30. In response, the Petitioner has submitted that it has claimed Initial Spares of ₹77.02 lakh in case of Asset-1(a) and has submitted the details of Initial Spares discharge summary along with the petition. The Petitioner has submitted that the actual capital cost discharged against the Initial Spares is included in the capital cost as shown in the Auditor's Certificate for respective period i.e. cost discharged up to COD is included in the COD cost and cost discharged in the subsequent period is added in the ACE. The Petitioner has further submitted that ACE has been claimed for the works completed before the cut-off date and the liability flow statement along with ACE details has already been submitted vide affidavit dated 4.8.2022. The Petitioner has submitted the calculation of allowable Initial Spares as per the prescribed ceiling limits and



deducted the excess Initial Spares of ₹18.29 lakh while claiming the transmission tariff of Asset-1(a). Form-5 and Form-13 has been submitted vide affidavit dated 4.8.2022.

31. We have considered the submissions of the Petitioner and UPPCL. The details of Initial Spares allowed in respect of Asset-1(a) for 2014-19 tariff period are as follows:

(₹ in lakh)						
Asset	Plant & machinery cost up to cut-off date (excluding IDC and IEDC)	Initial Spares Claimed	Ceiling Limit (in %)	Initial Spares allowable	Initial Spares allowed	Excess Initial Spares
<b>Sub-station</b>						
Asset-1(a)	997.13	77.02	6	58.73	58.73	18.29

32. The discharge of Initial Spares allowed is as follows:

(₹ in lakh)			
Asset	Initial Spares Claimed	Discharge of Initial Spares	
		As on COD	2018-19
Asset-1(a)	58.73	45.03	13.70

### Capital Cost allowed as on COD

33. Accordingly, capital cost allowed in respect of the transmission asset as on COD is as follows:

(₹ in lakh)					
Assets	Capital cost claimed in Auditor's Certificate as on COD (A)	Less: IDC disallowed due to computational difference (B)	Less: Un-discharged IDC as on COD (C)	Less: Shifting and Transportation cost (D)	Capital cost allowed as on COD (D) = (A-B-C-D)
Asset-1 (a)	445.11	0.00	0.14	11.30	433.67
Asset-1 (b)*	428.91	0.00	0.00	0.00	428.91

\*Gross Block Value as on the date of re-capitalisation

34. UPPCL has submitted that increase in refurbishment cost from ₹181.47 lakh to ₹212.47 lakh cannot be allowed in view of the fact that the Commission has already allowed a refurbishment cost in the previous order. Further, UPPCL has submitted that the Petitioner is claiming change in shifting-transportation cost from ₹42.30 lakh to



₹11.30 lakh. In response, the Petitioner has submitted that to consider the shifting and transportation cost as ₹11.30 lakh as there was an inadvertent error in submission of shifting and Transportation cost as ₹42.30 lakh.

35. We have considered the submission of the Petitioner and UPPCL. As the Commission in earlier orders has decided that the transportation and shifting cost is in the nature of revenue expenditure and, therefore, the same will not be capitalised and will be allowed to be recovered as one-time exercise directly from the beneficiaries. Accordingly, ₹11.30 lakh is allowed to be recovered on one-time basis.

### **Additional Capital Expenditure (“ACE”)**

36. The Petitioner has claimed the following ACE in respect of the transmission assets covered in the instant petition:

Assets	(₹ in lakh)
	ACE 2018-19
Asset-1(a)	166.90
Asset-1(b)	0.00

37. The Petitioner has submitted that ACE has been claimed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has submitted Auditor Certificate in support of the same. The Petitioner vide affidavit dated 4.8.2022 has submitted the liability flow statement. The details are as follows:

(₹ in lakh)			
Asset-1(a)			
Head wise/ Party wise	Particulars	Discharge (Regulation 14(1)(i))	Unexecuted Work (Regulation 14(1)(ii))
		2018-19	2018-19
KEC Limited	Sub-station	11.89	155.01
<b>Total</b>		<b>11.89</b>	<b>155.01</b>



38. UPPCL has submitted that balance/ retention of payment means that all electrical and civil works have been completed but full payment to suppliers/contractor has not been made or some money retained for reasons attributable to them. Hence, the entire ACE during 2018-19 is attributable either to the Petitioner or its suppliers/contractors and the beneficiary has no liability to pay IDC. Further, UPPCL has submitted that the Petitioner is considering Initial Spares of ₹58.73 lakh for ACE which is already included in ₹166.90 lakh and the same is being considered for ACE during 2018-19. Initial Spare of ₹58.73 lakh is attributable to supplies not made in time, as such the Petitioner cannot be allowed to load IDC on this account and force the beneficiaries to pay for it.

39. In response, the Petitioner has submitted that the claimed ACE of ₹166.90 lakh for 2018-19 period is as per Regulation 14(1)(i) of the 2014 Tariff Regulations and the details of ACE has been submitted vide affidavit dated 4.8.2022.

40. We have considered the submissions of Petitioner and UPPCL. The undischarged IDC and IEDC as on COD have been allowed as ACE during the year of discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations which pertain to un-discharged liabilities recognized to be payable at a future date respectively. Accordingly, ACE allowed for 2014-19 tariff period are as follows:

<b>(₹ in lakh)</b>	
<b>Asset-1(a)</b>	
<b>Particulars</b>	<b>ACE 2018-19</b>
ACE allowed under Regulation 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations	166.90
Add: IDC discharge	0.14
Less: Excess Initial Spares disallowed	11.89
<b>Total</b>	<b>155.15</b>





41. The capital cost allowed as on 31.3.2019 after inclusion of ACE in respect of the transmission assets is as follows:

(₹ in lakh)

Assets	Capital cost allowed as on COD	ACE	Total capital cost as on 31.3 2019
		2018-19	
Asset-1(a)	433.67	155.15	588.82
Asset-1(b)	428.91	0.00	428.91

### **Debt-Equity Ratio**

42. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for ACE. Debt-equity ratio of 70:30 has been considered as provided under Regulation 19 of the 2014 Tariff Regulations and the same is as follows:

Asset-1(a)	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	303.57	70.00	412.17	70.00
Equity	130.10	30.00	176.65	30.00
<b>Total</b>	<b>433.67</b>	<b>100.00</b>	<b>588.82</b>	<b>100.00</b>
Asset-1(b)	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	300.24	70.00	300.24	70.00
Equity	128.67	30.00	128.67	30.00
<b>Total</b>	<b>428.91</b>	<b>100.00</b>	<b>428.91</b>	<b>100.00</b>

### **Depreciation**

43. The Gross Block during 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD). WAROD, at Annexure-I, has been worked out after taking into account the depreciation rates of the transmission assets as prescribed in the 2014 Tariff Regulations. Depreciation allowed during 2014-19 tariff period is as follows:



(₹ in lakh)

Particulars	Asset-1(a)	Asset-1(b)
	2018-19 (Pro-rata for 91 days)	2018-19 (Pro-rata for 91 days)
A Opening Gross Block	433.67	428.91
B ACE	155.15	0.00
C Closing Gross Block (A+B)	588.82	428.91
D Average Gross Block (A+C)/2	511.25	428.91
E Weighted average rate of Depreciation (WAROD) (in %)	5.28	0.66
F Depreciable Value	460.12	386.02
<b>G Combined Depreciation during the year (D*E)</b>	<b>6.73</b>	<b>2.83</b>
H Cumulative depreciation at the end of the year	6.73	275.21
I Remaining Depreciable Value at the end of the year	453.39	110.81

44. The details of depreciation allowed for the transmission assets in previous order, claimed by the Petitioner in the instant petition and allowed after true up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2018-19
Asset-1(a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	8.21
	Claimed by the Petitioner in the instant petition	6.88
	Approved after true-up in this order	6.73
Asset-1(b)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	2.83
	Claimed by the Petitioner in the instant petition	11.65
	Approved after true-up in this order	2.83

### Interest on Loan (“IoL”)

45. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of IoL allowed are as follows:

(₹ in lakh)

Particulars	Asset-1(a)	Asset-1(b)
	2018-19 (Pro-rata for 91 days)	2018-19 (Pro-rata for 91 days)
A Opening Normative Loan	303.57	300.24
B Cumulative Repayments up to Previous Year	0.00	272.38



C	Net Loan-Opening (A-B)	303.57	27.86
D	Addition due to ACE	108.61	0.00
E	Repayment during the year	6.73	2.83
F	Net Loan-Closing (C+D-E)	405.44	25.02
G	Average Loan (C+F)/2	354.51	26.44
H	Weighted Average Rate of Interest on Loan (in %)	8.33	10.33
I	<b>Interest on Loan (G*H)</b>	<b>7.36</b>	<b>0.68</b>

46. The details of IoL allowed for the transmission assets in the previous order, claimed by the Petitioner in the instant petition and allowed after true up in the instant order are as follows:

		(₹ in lakh)
Assets	Particulars	2018-19
Asset-1(a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	8.95
	Claimed by the Petitioner in the instant petition	7.52
	Approved after true-up in this order	7.36
Asset-1(b)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	0.68
	Claimed by the Petitioner in the instant petition	0.64
	Approved after true-up in this order	0.68

### **Return on Equity (“RoE”)**

47. The Petitioner has claimed RoE for the transmission assets 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 following effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

48. 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 is as follows:



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

49. MAT rates as allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019 for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period, in terms of the provisions of the 2014 Tariff Regulations, are considered in the instant case and the same is as follows:

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

50. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE @15.50% with effective tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued-up on the basis of MAT rates applicable in the respective years and is approved for the transmission project for the 2014-19 tariff period as follows:

		(₹ in lakh)	
Particulars		Asset-1(a)	Asset-1(b)
		2018-19 (Pro-rata for 91 days)	2018-19 (Pro-rata for 91 days)
A	Opening Equity	130.10	128.67
B	Addition due to ACE	46.55	0.00
C	Closing Equity(A+B)	176.65	128.67
D	Average Equity(A+C)/2	153.37	128.67
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	Tax Rate applicable (in %)	21.549	21.549
G	Applicable RoE Rate (in %)	19.758	19.758
H	<b>Return on Equity for the year(D*G)</b>	<b>7.56</b>	<b>6.34</b>



51. The details of RoE for the transmission assets as allowed in the previous order, claimed by the Petitioner in the instant petition and allowed after true up in the instant order are as follows:

		(₹ in lakh)
Assets	Particulars	2018-19
Asset-1(a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	9.22
	Claimed by the Petitioner in the instant petition	7.72
	Approved after true-up in this order	7.56
Asset-1(b)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	6.34
	Claimed by the Petitioner in the instant petition	6.34
	Approved after true-up in this order	6.34

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

52. The Petitioner has not claimed any O&M Expenses for Asset-1(b). The details of the O&M Expenses claimed by the Petitioner for Asset-1(a) and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations are as follows:

		(₹ in lakh)
Particulars	2018-19 (Pro-rata for 91 days)	
<b>Sub-station Bays</b>		
Fatehabad:400 kV Bays	1	
Fatehabad:220 kV Bays	1	
<b>Norm (₹ lakh/bay)</b>		
400 kV	68.71	
220 kV	48.10	
<b>Total Sub-station O&amp;M</b>	<b>116.81</b>	
<b>Total O&amp;M Expenses</b>	<b>29.12</b>	

53. The details of O&M Expenses allowed for the transmission assets in previous order, claimed by the Petitioner in the instant petition and allowed after true up in the instant order are as follows:

		(₹ in lakh)
Asset	Particulars	2018-19
Asset-1(a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	29.00
	Claimed by the Petitioner in the instant petition	29.12
	Approved after true-up in this order	29.12



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

54. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed for the transmission assets are as follows:

		(₹ in lakh)	
Particulars		Asset-1(a)	Asset-1(b)
		2018-19 (Pro-rata for 91 days)	2018-19 (Pro-rata for 91 days)
A	Working Capital for O&M Expenses (O&M Expenses for one Month)	9.73	0.00
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	17.52	0.00
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	35.21	6.72
D	<b>Total Working Capital (A+B+C)</b>	<b>62.46</b>	<b>6.72</b>
E	Rate of Interest on working capital (in %)	12.20	12.20
F	<b>Interest of working capital (D*E)</b>	<b>1.90</b>	<b>0.20</b>

55. The details of IWC allowed for the transmission assets in previous order, claimed by the Petitioner in the instant petition and allowed after true up in the instant order are as follows:

		(₹ in lakh)
Assets	Particulars	2018-19
Asset-1 (a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	1.99
	Claimed by the Petitioner in the instant petition	1.91
	Approved after true-up in this order	1.90
Asset-1 (b)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	0.20
	Claimed by the Petitioner in the instant petition	0.39
	Approved after true-up in this order	0.20

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

56. The trued-up Annual Fixed Charges (AFC) allowed for the transmission assets for the 2014-19 tariff period are as follows:



		(₹ in lakh)	
Particulars		Asset-1(a)	Asset-1(b)
		2018-19 (Pro-rata for 91 days)	2018-19 (Pro-rata for 91 days)
A	Depreciation	6.73	2.83
B	Interest on Loan	7.36	0.68
C	Return on Equity	7.56	6.34
D	O&M Expenses	29.12	0.00
E	Interest on Working Capital	1.90	0.20
F	<b>Total</b>	<b>52.67</b>	<b>10.06</b>

57. Accordingly, the Annual Transmission Charges as allowed in the previous order, claimed by the Petitioner in the instant petition and allowed after true-up in the instant order are as follows:

		(₹ in lakh)	
Assets	Particulars	2018-19	
Asset-1(a)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	57.37	
	Claimed by the Petitioner in the instant petition	53.15	
	Approved after true-up in this order	52.67	
Asset-1(b)	Allowed vide order dated 7.7.2021 in Petition No. 485/TT/2019	10.06	
	Claimed by the Petitioner in the instant petition	19.02	
	Approved after true-up in this order	10.06	

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

58. The Petitioner has combined both the assets in 2019-24 and has claimed the transmission tariff for the combined asset.

59. The details of the transmission charges claimed by the Petitioner for the 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	64.63	74.94	74.94	74.94	74.94	
Interest on Loan	43.80	48.57	42.54	36.51	30.45	
Return on Equity	68.98	79.97	79.97	79.97	79.97	
Interest on Working Capital	9.96	10.63	10.81	11.00	11.16	
O&M Expenses	167.43	173.45	179.53	185.99	192.22	
<b>Total</b>	<b>354.80</b>	<b>387.56</b>	<b>387.79</b>	<b>388.41</b>	<b>388.74</b>	



60. The details of IWC claimed by the Petitioner for the combined asset for the 2019-24 period is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	13.95	14.45	14.96	15.50	16.02
Maintenance Spares	25.11	26.02	26.93	27.90	28.83
Receivables	43.62	47.78	47.81	47.89	47.80
<b>Total Working Capital</b>	<b>82.68</b>	<b>88.25</b>	<b>89.70</b>	<b>91.29</b>	<b>92.65</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>9.96</b>	<b>10.63</b>	<b>10.81</b>	<b>11.00</b>	<b>11.16</b>

61. We have considered the submission of the Petitioner. Asset-1(b) has been re-capitalised as on 31.12.2018 and the remaining useful life of the Asset-1(b) is 10 years. Therefore, as stated earlier, separate tariff is allowed for the assets in this order.

### **Capital Cost**

62. 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 up to the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of 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 GrameenVidyutikaranYojana (RGGVY) and DeendayalUpadhyaya Gram JyotiYojana (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.”*

63. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e. land, building, transmission line, Sub-station and PLCC) as admitted by the Commission as on 31.3.2019 in respect of the transmission assets has been considered as capital cost of the transmission assets as on 1.4.2019 as per the following details:

(₹ in lakh)		
Elements	Asset-1(a)	Asset-1(b)
Sub-station	588.82	428.91
<b>Total</b>	<b>588.82</b>	<b>428.91</b>

64. The trued-up capital cost of ₹588.82 lakh and ₹428.91 lakh for Asset-1(a) and Asset-1(b) are considered as admitted capital cost as on 31.3.2019 for working out tariff for 2019-24 tariff period.

### **Additional Capital Expenditure (“ACE”)**

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

#### ***“24. Additional Capitalisation within the original scope and upto the cut-off date:***

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

*(a) Undischarged liabilities recognized to be payable at a future date;*

*(b) Works deferred for execution;*



- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events:

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

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

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

(1) The ACE 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 cutoff 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 assets 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 assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets 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.”

66. The Petitioner has claimed ACE of ₹396.62 lakh in the year 2019-20 for Asset-

1(a). The Petitioner vide affidavit dated 4.8.2022 has submitted the liability flow statement. The details of the same are as follows:



(₹ in lakh)

Asset-1 (a)			
Head wise/ Party wise	Particulars	Discharge (Regulation 24(1)(a))	Unexecuted Work (Regulation 24(1)(b))
		2019-20	2019-20
KEC Limited	Sub-station	208.34	188.28
<b>Total</b>		<b>208.34</b>	<b>188.28</b>

67. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner is towards undischarged liability upto cut-off date and the same is allowed under Regulation 24(1)(a) of the 2019 Tariff Regulations and unexecuted work completed before COD and claimed after cut-off date is allowed under Regulation 24(1)(b) of the 2019 Tariff Regulations.

68. The details of the proposed ACE allowed in respect of the Asset- 1(a) are as follows:

Particulars	Proposed ACE
	2019-20
Proposed ACE allowed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations	396.62
Less: Excess Initial Spares disallowed	6.40
<b>Total</b>	<b>390.22</b>

69. Capital cost approved for the transmission assets for the 2019-24 tariff period are as follows:

Assets	Capital cost as on 1.4.2019	ACE	Capital cost as on 31.3.2024
		2019-20	
Asset-1(a)	588.82	390.22	979.04
Asset-1(b)	428.91	0.00	428.91

### **Debt-Equity Ratio**

70. 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.*

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

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

*Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*

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

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

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

*(6) Any expenditure incurred for the emission control system during the tariff period as may be admitted by the Commission as additional capital expenditure for determination of supplementary tariff, shall be serviced in the manner specified in clause (1) of this Regulation.”*

71. The debt-equity ratio for 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period for the transmission assets are as follows:



Asset-1(a)	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	412.17	70.00	685.33	70.00
Equity	176.65	30.00	293.71	30.00
<b>Total</b>	<b>588.82</b>	<b>100.00</b>	<b>979.04</b>	<b>100.00</b>
Asset-1(b)	Capital cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	300.24	70.00	300.24	70.00
Equity	128.67	30.00	128.67	30.00
<b>Total</b>	<b>428.91</b>	<b>100.00</b>	<b>428.91</b>	<b>100.00</b>

## Depreciation

72. Regulation 33 of the 2019 Tariff Regulations provides as follows:

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

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

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

(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the asset 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 asset 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 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.*

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

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

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

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

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

*a) twenty five years, in case the generating station or unit thereof is in operation for fifteen years or less as on the date of operation of the emission control system; or*

*b) balance useful life of the generating station or unit thereof plus fifteen years, in case the generating station or unit thereof is in operation for more than fifteen years as on the date of operation of the emission control system; or*



c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

73. We have considered the submissions of the Petitioner. The IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-II has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e. IT asset has been considered as 100% depreciable. 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 allowed in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-1(a)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	588.82	979.04	979.04	979.04	979.04
B	ACE	390.22	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	979.04	979.04	979.04	979.04	979.04
D	Average Gross Block (A+C)/2	783.93	979.04	979.04	979.04	979.04
E	Depreciable Value	705.54	881.14	881.14	881.14	881.14
F	Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
G	Remaining life at the beginning of the year (Year)	25.00	24.00	23.00	22.00	21.00
H	Lapsed life at the beginning of the year (Year)	0.00	1.00	2.00	3.00	4.00
K	<b>Depreciation during the year (D*F)</b>	<b>41.39</b>	<b>51.69</b>	<b>51.69</b>	<b>51.69</b>	<b>51.69</b>
M	Cumulative Depreciation at the end of the year	48.12	99.81	151.51	203.20	254.89
N	Remaining depreciable value at the end of the year	657.42	781.32	729.63	677.93	626.24

(₹ in lakh)

Asset-1(b)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	428.91	428.91	428.91	428.91	428.91
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	428.91	428.91	428.91	428.91	428.91
D	Average Gross Block (A+C)/2	428.91	428.91	428.91	428.91	428.91

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<b>Asset-1(b)</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
E	Depreciable Value	386.02	386.02	386.02	386.02	386.02
F	Weighted average rate of Depreciation (WAROD) (in %)	2.87	2.87	2.87	2.87	2.87
G	Remaining life at the beginning of the year (Year)	9.00	8.00	7.00	6.00	5.00
H	Lapsed life at the beginning of the year (Year)	16.00	17.00	18.00	19.00	20.00
K	<b>Depreciation during the year (D*F)</b>	<b>12.31</b>	<b>12.31</b>	<b>12.31</b>	<b>12.31</b>	<b>12.31</b>
M	Cumulative Depreciation at the end of the year	287.52	299.84	312.15	324.46	336.77
N	Remaining depreciable value at the end of the year	98.49	86.18	73.87	61.56	49.25

### **Interest on Loan (“IoL”)**

74. 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 up to 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 project, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or*



*in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.*

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

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

75. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. 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. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the transmission assets is follows:

(₹ in lakh)

<b>Asset-1(a)</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Gross Normative Loan	412.17	685.33	685.33	685.33	685.33
B	Cumulative Repayments upto Previous Year	6.73	48.12	99.81	151.51	203.20
C	Net Loan-Opening (A-B)	405.44	637.21	585.51	533.82	482.13
D	Addition due to ACE	273.15	0.00	0.00	0.00	0.00
E	Repayment during the year	41.39	51.69	51.69	51.69	51.69
F	Net Loan-Closing (C+D-E)	637.21	585.51	533.82	482.13	430.43
G	Average Loan (C+F)/2	521.33	611.36	559.67	507.97	456.28
H	Weighted Average Rate of Interest on Loan (in %)	8.16	8.05	8.05	8.05	8.04
<b>I</b>	<b>Interest on Loan (G*H)</b>	<b>42.56</b>	<b>49.21</b>	<b>45.05</b>	<b>40.89</b>	<b>36.71</b>

(₹ in lakh)

<b>Asset-1(b)</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Gross Normative Loan	300.24	300.24	300.24	300.24	300.24
B	Cumulative Repayments upto Previous Year	275.21	287.52	299.84	300.24	300.24
C	Net Loan-Opening (A-B)	25.02	12.71	0.40	0.00	0.00
D	Addition due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	12.31	12.31	0.40	0.00	0.00
F	Net Loan-Closing (C+D-E)	12.71	0.40	0.00	0.00	0.00
G	Average Loan (C+F)/2	18.87	6.56	0.20	0.00	0.00



Asset-1(b)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
H	Weighted Average Rate of Interest on Loan (in %)	8.16	8.05	8.05	8.05	8.04
I	Interest on Loan (G*H)	1.54	0.53	0.02	0.00	0.00

### Return on Equity (“RoE”)

76. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as follows:

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

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

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%;

Provided further that:

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

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

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

a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp



rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

**“31. Tax on Return on Equity:**(1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rates 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 follows:

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

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

**Illustration-**

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

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

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

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

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

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

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

(3) The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit



*of tax amount shall not be claimed by the generating company or the transmission licensee, 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.”*

77. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate specified under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued-up 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 IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Petitioner. Any under-recovery or over-recovery of grossed-up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

78. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which will be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. RoE allowed for the transmission assets for 2019-24 tariff period is as follows:



(₹ in lakh)

Asset-1(a)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	176.65	293.71	293.71	293.71	293.71
B	Additions due to ACE	117.07	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	293.71	293.71	293.71	293.71	293.71
D	Average Equity (A+C)/2	235.18	293.71	293.71	293.71	293.71
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>44.17</b>	<b>55.16</b>	<b>55.16</b>	<b>55.16</b>	<b>55.16</b>

(₹ in lakh)

Asset-1(b)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	128.67	128.67	128.67	128.67	128.67
B	Additions due to ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	128.67	128.67	128.67	128.67	128.67
D	Average Equity (A+C)/2	128.67	128.67	128.67	128.67	128.67
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	<b>Return on Equity (D*G)</b>	<b>24.17</b>	<b>24.17</b>	<b>24.17</b>	<b>24.17</b>	<b>24.17</b>

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

79. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations are 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
<b>Norms for sub-station Bays (₹ Lakh per bay)</b>					
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
<b>Norms for Transformers (₹ Lakh per MVA)</b>					
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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
132 kV and below	0.245	0.254	0.263	0.272	0.282
<b>Norms for AC and HVDC lines (₹ Lakh per km)</b>					
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
<b>Norms for HVDC stations</b>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

- 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;
- the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;
- 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);
- 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,



- v. *Bishwanath-Agra HVDC bi-pole scheme; the O&M expenses of  $\pm 800$  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  $\pm 800$  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.”*

80. O&M Expenses claimed by the Petitioner for Asset-1(a) are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station	167.43	173.45	179.53	185.99	192.22
<b>Total</b>	<b>167.43</b>	<b>173.45</b>	<b>179.53</b>	<b>185.99</b>	<b>192.22</b>

81. The Petitioner has not claimed O&M Expenses for Asset-1(b). O&M Expenses allowed for Asset-1(a) are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station Bays</b>					
Fatehabad:400 kV Bays	1	1	1	1	1
Fatehabad:220 kV Bays	1	1	1	1	1
<b>Norm (₹ lakh/bay)</b>					
400 kV	32.15	33.28	34.45	35.66	36.91
200 kV	22.51	23.30	24.12	24.96	25.84
<b>Total Sub-station O&amp;M Expenses</b>	<b>54.66</b>	<b>56.58</b>	<b>58.57</b>	<b>60.62</b>	<b>62.75</b>
<b>Sub-station ICT (MVA Capacity)</b>					
400 kV: Fatehabad:315 MVA	315	315	315	315	315
<b>Norms</b>					
400kV	0.358	0.371	0.384	0.398	0.411
<b>Total O&amp;M Expenses (315 MVA ICT at Fatehabad)</b>	<b>112.77</b>	<b>116.87</b>	<b>120.96</b>	<b>125.37</b>	<b>129.47</b>
<b>Total O&amp;M Expenses allowed</b>	<b>167.43</b>	<b>173.45</b>	<b>179.53</b>	<b>185.99</b>	<b>192.22</b>





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

82. Regulation 34(1)(c), Regulation 34(3) and Regulation 34(4) and Regulation 3(7) of the 2019 Tariff Regulations specify as follows:

### **“34. Interest on Working Capital**

(1)...

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

- i. Receivables equivalent to 45 days of fixed cost;
- ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- iii. Operation and maintenance expenses, including security expenses for one month”

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

“3.Definitions ...

(7) **‘Bank Rate’** means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;”

83. 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. 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 Interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points).



84. We have considered the submissions of the Petitioner and, accordingly, IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the components of the working capital and interest allowed thereon for the transmission assets for the 2019-24 tariff period are as follows:

(₹ in lakh)

Asset-1(a)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	13.95	14.45	14.96	15.50	16.02
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	25.11	26.02	26.93	27.90	28.83
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	37.47	41.77	41.95	42.25	42.41
<b>D</b>	<b>Total Working Capital (A+B+C+D)</b>	<b>76.54</b>	<b>82.24</b>	<b>83.84</b>	<b>85.65</b>	<b>87.26</b>
E	Rate of Interest of working capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>9.22</b>	<b>9.25</b>	<b>8.80</b>	<b>8.99</b>	<b>9.16</b>

(₹ in lakh)

Asset-1(b)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	4.74	4.63	4.56	4.56	4.54
<b>D</b>	<b>Total Working Capital (A+B+C+D)</b>	<b>4.74</b>	<b>4.63</b>	<b>4.56</b>	<b>4.56</b>	<b>4.54</b>
E	Rate of Interest of working capital (in %)	12.05	11.25	10.50	10.50	10.50
<b>F</b>	<b>Interest of working capital (D*E)</b>	<b>0.57</b>	<b>0.52</b>	<b>0.48</b>	<b>0.48</b>	<b>0.48</b>

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

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

(₹ in lakh)

Asset-1(a)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	41.39	51.69	51.69	51.69	51.69
Interest on Loan	42.56	49.21	45.05	40.89	36.71
Return on Equity	44.17	55.16	55.16	55.16	55.16
O&M Expenses	167.43	173.45	179.53	185.99	192.22



Interest on Working Capital	9.22	9.25	8.80	8.99	9.16
<b>Total</b>	<b>304.77</b>	<b>338.76</b>	<b>340.23</b>	<b>342.72</b>	<b>344.94</b>

(₹ in lakh)

<b>Asset-1(b)</b>					
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Depreciation	12.31	12.31	12.31	12.31	12.31
Interest on Loan	1.54	0.53	0.02	0.00	0.00
Return on Equity	24.17	24.17	24.17	24.17	24.17
Interest on Working Capital	0.57	0.52	0.48	0.48	0.48
O&M Expenses	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>38.59</b>	<b>37.54</b>	<b>36.98</b>	<b>36.96</b>	<b>36.96</b>

### **Filing Fee and Publication Expenses**

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

### **Licence Fee & RLDC Fees and Charges**

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

### **Security Expenses**

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

89. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission asset 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 said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Goods and Services Tax ("GST")**

90. The Petitioner has submitted that GST is levied at any rate and at any point of time in future on 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, paid by the Petitioner on account of demand from Government / Statutory authorities, may also be allowed to be recovered from the beneficiaries.

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

### **Capital Spares**

92. 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**

93. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems will be governed by the provisions of the 2010 Sharing



Regulations. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the billing, collection, and disbursement of transmission charges approved in this order shall be governed as per the applicable Sharing Regulations as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations.

94. To summarise:

- a. The trued-up AFC allowed for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

	<b>Asset-1(a)</b>	<b>Asset-1(b)</b>
<b>Particulars</b>	<b>2018-19 (Pro-rata for 91 days)</b>	<b>2018-19 (Pro-rata for 91 days)</b>
Total	52.67	10.05

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

(₹ in lakh)

<b>Assets</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Asset-1(a)	304.77	338.76	340.23	342.72	344.94
Asset-1(b)	38.59	37.54	36.98	36.96	36.96

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

96. This order disposes of Petition No. 193/TT/2022 in terms of the above discussions and findings.

**sd/-  
(Arun Goyal)  
Member**

**sd/-  
(I. S. Jha)  
Member**



## Annexure – I

<b>Asset-1(a)</b>					
<b>2014-19</b>	<b>Admitted capital cost as on COD</b>	<b>ACE</b>	<b>Admitted capital cost as on 31.3.2019</b>	<b>Rate of depreciation</b>	<b>Annual depreciation as per Regulations</b>
<b>Capital expenditure as on 1.4.2019</b>	<b>(₹ in lakh)</b>	<b>2014-19</b>	<b>(₹ in lakh)</b>	<b>(in %)</b>	<b>2018-19</b>
Sub-station	433.67	155.15	588.82	5.28	26.99
<b>TOTAL</b>	<b>433.67</b>	<b>155.15</b>	<b>588.82</b>		<b>26.99</b>
			<b>Average Gross Block</b>		
			<b>(₹ in lakh)</b>		<b>511.25</b>
			<b>Weighted Average Rate of Depreciation (in %)</b>		<b>5.28</b>



## Annexure – I

<b>Asset-1(b)</b>					
<b>2014-19</b>	<b>Admitted capital cost as on COD (₹ in lakh)</b>	<b>ACE</b>	<b>Admitted capital cost as on 31.3.2019 (₹ in lakh)</b>	<b>Rate of depreciation (in %)</b>	<b>Annual depreciation as per Regulations</b>
<b>Capital expenditure as on 1.4.2019</b>		<b>2014-19</b>			<b>2018-19</b>
Sub-station	428.91	0.00	428.91	5.28	<b>Spread over</b>
<b>TOTAL</b>	<b>428.91</b>	<b>0.00</b>	<b>428.91</b>		<b>2.83</b>
<b>Average Gross Block (₹ in lakh)</b>					<b>428.91</b>
<b>Weighted Average Rate of Depreciation (in %)</b>					<b>0.66</b>



## Annexure – II

Asset-1(a)									
2019-24	Admitted capital cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of depreciation (in %)	Annual depreciation as per Regulations				
Capital expenditure as on 1.4.2019		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	588.82	390.22	979.04	5.28	41.39	51.69	51.69	51.69	51.69
<b>TOTAL</b>	<b>588.82</b>	<b>390.22</b>	<b>979.04</b>		<b>41.39</b>	<b>51.69</b>	<b>51.69</b>	<b>51.69</b>	<b>51.69</b>
			<b>Average Gross Block (₹ in lakh)</b>		783.93	979.04	979.04	979.04	979.04
			<b>Weighted Average Rate of Depreciation (in %)</b>		5.28	5.28	5.28	5.28	5.28





## Annexure – II

Asset-1(b)									
2019-24	Admitted capital cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted capital cost as on 31.3.2024 (₹ in lakh)	Rate of depreciation (in %)	Annual depreciation as per Regulations				
Capital expenditure as on 1.4.2019		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	428.91	0.00	428.91	5.28	Spread over				
<b>TOTAL</b>	<b>428.91</b>	<b>0.00</b>	<b>428.91</b>		<b>12.31</b>	<b>12.31</b>	<b>12.31</b>	<b>12.31</b>	<b>12.31</b>
			<b>Average Gross Block (₹ in lakh)</b>		428.91	428.91	428.91	428.91	428.91
			<b>Weighted Average Rate of Depreciation (in %)</b>		2.87	2.87	2.87	2.87	2.87

