

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 20/TT/2022

Coram:

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

Date of Order: 28.10.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and true-up of transmission tariff of 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset 1:** 1 number 400 kV Line bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-I of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line, **Asset 2:** 1 number 400 kV Line bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-II of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line and **Asset 3:** 2 Numbers 220 kV Line bays at 765/400/220 kV Fatehpur Sub-station under "Line bays associated with various Regional Strengthening Schemes in the Northern Region".

And in the matter of:

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

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005 (Rajasthan).
2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,



Caligiri Road, Malviya Nagar, Jaipur-302017 (Rajasthan).

5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
6. Punjab State Electricity Board,
Thermal Shed Tia,
Near 22 phatak, Patiala-147001 (Punjab).
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula -134109 (Haryana).
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran Building (Near Karkadooma Court),
Karkadooma 2nd Floor, New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited,
NDPL house, Hudson Lane,
Kingsway Camp, Delhi-110009.
14. Chandigarh Administration,
Sector -9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan,
Kanwali Road, Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,



Palika Kendra, Sansad Marg,
New Delhi-110002.

18. Uttar Pradesh Power Transmission Corporation Limited,
11th Floor, Shakti Bhawan, 14-Ashok Marg,
Lucknow-226001.

...Respondent(s)

For Petitioner : Shri Mukesh Khanna, PGCIL
Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL

For Respondents : None

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the instant petition for truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets covered under “Line bays associated with various Regional Strengthening Schemes in the Northern Region” (hereinafter referred to as “the transmission project”) in the Northern Region:

Asset-1: 1 number 400 kV Line Bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-I of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line;

Asset-2: 1 number 400 kV Line Bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-II of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line; and

Asset-3: 2 Numbers 220 kV Line bays at 765/400/220 kV Fatehpur Sub-station (hereinafter referred to as “the transmission assets/ Combined Asset”).

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



- 1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 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 implementation of the transmission project was accorded by the Board of Directors of the Petitioner in its 339th meeting held on 29.3.2017 (communicated vide Memorandum No. C/CP/Line bays in Northern Region, dated 30.3.2017) at an estimated cost of ₹5588 lakh including IDC of ₹324 lakh based on October, 2016 price level.
 - b) The scheme was discussed and agreed in the 37th and 38th meetings of Standing Committee on Power System Planning of Northern Region held on



20.1.2016 and 30.5.2016 respectively. Subsequently, the scheme was also discussed and agreed in the 38th meeting of Northern Regional Power Committee held on 25.10.2016.

c) The scope of the transmission project is as follows:

Sub-station:

- a. Extension of 400/220 kV Bhinmal Sub-station
400 kV Line Bays : 2 numbers
- b. Extension of 400/220 kV Sikar Sub-station
400 kV Line Bays : 2 numbers
Line Reactors (50 MVAR, 420 kV, 3 Ph) : 2 numbers
- c. Extension of 765/400/220 kV Fatehpur Sub-station
220 kV Line Bays : 2 numbers

d) As per IA, the scope of work covered under the transmission project is complete and the details are as follows:

Name of Assets	COD	Petition details
Asset-1: 1 number 400 kV Line Bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-I of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line;	2.12.2017	Covered in instant Petition
Asset-2: 1 number 400 kV Line Bay (at POWERGRID, Sikar end) along with 50 MVAR Non-Switchable line reactor for Circuit-II of 400 kV D/C Bikaner (RVPNL)- Sikar (PG) line;	3.12.2017	
Asset-3: 2 numbers 220 kV Line bays at 765/400/220 kV Fatehpur Sub-station	28.5.2018	
Asset-4: 2 Numbers 400 kV Line bays of 400 kV D/C Barmer (RRVPNL)-Bhinmal (PG) line at Bhinmal Sub-station*	23.5.2019	Petition No. 8/TT/2022 (filed under 2019 Tariff Regulations)

**The Commission shifted COD of Asset-4 to 23.5.2019. At para 23 of tariff order dated 21.2.2021 in Petition No. 86/TT/2019, the Commission directed to file the fresh petition for Asset-4 as the approved COD (23.5.2019) of the asset falls under 2019-24 tariff period.*

e) The details of COD of the transmission assets covered in the instant petition are as follows:



Nomenclature of the asset in previous orders	Nomenclature of the asset in current petition	SCOD	COD	Time over-run
CERC order dated 3.1.2019 in Petition No. 161/TT/2018				
Asset-1	Asset-1	29.3.2019	2.12.2017	None
Asset-2	Asset-2	29.3.2019	3.12.2017	None
CERC order dated 21.2.2021 in Petition No. 86/TT/2019				
Asset-1	Asset-3	29.12.2018	28.5.2018	None

- f) With respect to Asset-3 (in the instant petition), the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019 observed as follows:

“15. In support of COD of Asset-1, the Petitioner has submitted CEA energisation certificates dated 27.4.2018 under Regulation 43 of CEA (measures relating to Safety and Electric Supply) Regulations, 2010 (hereinafter referred to as ‘the 2010 CEA Regulations’) and corrigendum dated 24.5.2018, RLDC Certificate dated 12.6.2018 in accordance with Regulation 6.3(A)(5) of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to as ‘the Grid Code’) and CMD Certificate as required under the Grid Code. We note from the CEA certificate dated 27.4.2018 that Petitioner had not complied with certain provisions/ stipulations of the 2010 CEA Regulations and that the Petitioner was required to comply within the same within 30 days of the letter. We do not find anything on record suggesting that the Petitioner has complied with requirements stated in the aforesaid CEA certificate.

16. We have considered the submission of Petitioner. Taking into consideration the CEA Energisation Certificate, RLDC Certificate and CMD Certificate, the COD of Asset-1 is approved as 28.5.2018. This approval is subject to compliance with requirements of CEA certificate dated 27.4.2018. The Petitioner is directed to submit the same at the time of truing up for 2014-19 tariff period.”

- g) Accordingly, the Petitioner has submitted the CEA energisation certificate dated 1.5.2018 under Regulation 43 of Central Electricity Authority (measures relating to Safety and Electric Supply) Regulations, 2010 and the corrigendum dated 24.5.2018. The Commission has considered the same and approved the COD of Asset-3 as 28.5.2018.
- h) The transmission tariff of Asset-1 and Asset-2 from their respective COD of 2.12.2017 and 3.12.2017 to 31.3.2019 was allowed by the Commission vide order dated 3.1.2019 in Petition No. 161/TT/2018. The transmission tariff of Asset-3 from COD of 28.5.2018 to 31.3.2019 was allowed by the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019.



4. The Respondents are distribution licensees, transmission licensees, power utilities and power departments, which 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. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers. None of the Respondents have filed reply in the petition.

6. The hearing in this matter was held on 14.9.2022 and the order was reserved.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavits dated 30.9.2021, 28.4.2022 and 4.10.2022.

8. Having heard the representatives of the Petitioner and after perusal of the materials on record, we proceed to dispose of the petition.

9. The Petitioner has submitted that there is delay in filing of the instant petition due to Covid-19 pandemic and has requested to condone the same.

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 trueing up petition in case of the existing transmission system 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 upto 30.6.2020 vide suo-motu order dated 6.4.2020 in Petition No. 7/SM/2020 and for transmission licensees up to 30.6.2020 vide suo-motu addendum order dated 7.4.2020 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 I.A. No. 39/IA/2020 and I.A. No. 40/IA/2020 in Petition No. 7/SM/2020 and in case of Teesta Valley Power Transmission Ltd. vide order dated 23.7.2020 in I.A. No. 44/IA/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. As stated above, the tariff for Asset-3 was approved vide order dated 21.2.2021 in Petition No. 86/TT/2019 and accordingly, as per the Commission's order dated 28.10.2019 in Petition No. 331/MP/2019, the Petitioner should have filed the truing up petition by 21.8.2021. However, the Petitioner has filed the instant petition on 30.9.2021. Thus, there is a delay of 40 days in filing of the instant petition. Taking into consideration the Covid-19 Pandemic and the consequent lockdown, the delay of 40 days in filing of the instant petition is condoned.



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

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

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Depreciation	9.40	53.25
Interest on Loan	9.38	52.79
Return on Equity	10.48	59.44
O&M Expenses	21.87	68.71
Interest on Working Capital	1.75	7.09
Total	52.88	241.28

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Depreciation	9.36	53.47
Interest on Loan	9.24	52.37
Return on Equity	10.44	59.68
O&M Expenses	21.68	68.71
Interest on Working Capital	1.74	7.09
Total	52.46	241.32

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Depreciation	18.05
Interest on Loan	18.62
Return on Equity	19.98
O&M Expenses	81.18
Interest on Working Capital	5.22
Total	143.05

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



(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
O&M Expenses	5.54	5.73
Maintenance Spares	9.98	10.31
Receivables	26.81	40.21
Total Working Capital	42.33	56.25
Rate of Interest (in %)	12.60	12.60
Interest on Working Capital	1.75	7.09

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
O&M Expenses	5.54	5.73
Maintenance Spares	9.98	10.31
Receivables	26.82	40.22
Total Working Capital	42.34	56.26
Rate of Interest (in %)	12.60	12.60
Interest on Working Capital	1.74	7.09

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
O&M Expenses	8.02
Maintenance Spares	14.43
Receivables	28.26
Total Working Capital	50.71
Rate of Interest (in %)	12.20
Interest on Working Capital	5.22

Capital Cost

14. The Commission had allowed the capital cost as on COD and the Additional Capital Expenditure (ACE) for the 2014-19 tariff period for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019. The details are as follows:



(₹ in lakh)

Assets	FR Apportioned approved cost	Capital cost allowed as on COD	ACE allowed in 2017-18	ACE allowed in 2018-19	Capital cost allowed as on 31.3.2019
Asset-1	1523.61	191.98*	321.30	1004.46*	1517.74
Asset-2	1523.61	191.97*	321.29	1003.63*	1516.89
Asset-3	736.74	242.81*	NA	253.09*	495.90

* Accrual IDC adjusted from COD and added in respective year of discharge and computational difference in IDC is disallowed from COD

15. The Petitioner in the instant true-up petition has submitted the details of the revised approved apportioned capital cost along with capital cost as on COD, actual ACE for 2014-19 tariff period claimed by the Petitioner vide Auditor's Certificate as follows:

(₹ in lakh)

Assets	FR Apportioned approved capital cost	Revised apportioned approved capital cost	Capital Cost claimed as on COD	ACE allowed		Total estimated completion cost claimed as on 31.3.2019
				2017-18	2018-19	
Asset-1	1523.61	1785.02	196.55	695.01	227.12	1118.68
Asset-2	1523.61	1785.02	195.68	699.50	227.12	1122.30
Asset-3	736.74	736.74	243.73	--	312.38	556.11
Total	3783.96	4306.78	635.96	1394.51	766.62	2797.09

16. In response to the Commission's query regarding the justification for revised apportionment cost for Asset-1 and Asset-2, the Petitioner vide affidavit dated 4.10.2022 has submitted the details as follows:

(₹ in lakh)

Name of the Assets	Apportioned approved cost (submitted in original petition)	Apportioned approved cost (revised)	Completed cost
Asset-1:	1523.61	1785.02	1248.37
Asset-2:	1523.61	1785.02	1252.00
Asset-3:	736.74	736.74	651.21
Asset-4:	1280.82	1280.82	856.94
Total	5064.78	5587.6	4008.52



17. The Petitioner has further submitted that the overall FR apportionment cost of ₹522.82 lakh submitted in earlier petition was less than the IA cost. The Petitioner has further submitted that there was an inadvertent error in the apportionment of Asset-1 and Asset-2 due to the typographical/ calculation error with respect to IDC and IEDC. Details of capital cost excluding IDC and IEDC is as follows:

(₹ in lakh)				
Asset	Hard Cost	IDC	IEDC	Total Cost
Asset-I (Apportionment as per original petition)	1521.02	1.05	1.59	1523.66
Asset-I (Revised apportionment as per instant true up petition)	1521.02	105	159	1785.02
asset-II (Apportionment as per original petition)	1520.96	1.05	1.59	1523.60
Asset-II (Revised apportionment as per instant true up petition)	1521.02*	105	159	1785.02

*Minor variation of ₹0.06 Lakh due to rounding off

18. The Petitioner has further submitted that the Commission vide order dated 3.1.2019 in Petition No. 161/TT/2018 had disallowed IDC to the tune of ₹0.11 lakh and ₹0.06 lakh and adjusted IDC to the tune of ₹4.46 lakh and ₹3.62 lakh from capital cost as on COD in case of Asset-1 and Asset-2 respectively and added in respective year of discharge. The Petitioner has further submitted that in case of Asset-3, the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019 had adjusted IDC to the tune of ₹0.92 lakh from capital cost as on COD and added in respective year of discharge. The capital cost as on COD and actual ACE during the 2014-19 period claimed by the Petitioner after adjusting IDC on cash discharge basis are as follows:

(₹ in lakh)				
Assets	Capital cost (as on COD)	ACE claimed		Total capital cost (as on 31.3.2019)
		2017-18	2018-19	
Asset-1	191.98	695.01	231.69	1118.68
Asset-2	191.99	699.50	230.81	1122.30
Asset-3	242.81	NA	313.30	556.11



Assets	Capital cost (as on COD)	ACE claimed		Total capital cost (as on 31.3.2019)
		2017-18	2018-19	
Total	626.78	1394.51	775.80	2797.09

19. We have considered the submissions and claims of the Petitioner and have given our findings on the capital cost and ACE in the relevant portions of this order.

Cost over-run

20. The Petitioner in the instant true-up petition has reapportioned the FR approved cost due to calculation error with respect to IDC and IEDC. The Petitioner shall take proper due diligence while filing the petitions in future and avoid this type of errors.

21. As compared with revised apportioned approved capital cost, the estimated completion cost of Asset-1, Asset-2 and Asset-3 is within the revised apportioned approved capital cost.

22. It is further observed that the total estimated completion cost of the transmission project as on 31.3.2019 is ₹2797.09 lakh against approved apportioned cost of ₹4306.78 lakh. Therefore, there is no cost over-run as on 31.3.2019.

Interest During Construction (“IDC”) and Incidental Expenditure During Construction (“IEDC”)

23. The Commission vide order dated 3.1.2019 in Petition No. 161/TT/2018 had disallowed and adjusted IDC from capital cost as on COD in case of Asset-1 and Asset-2 and added in respective year of discharge. In case of Asset-3, the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019 had adjusted IDC from capital cost as on COD and added in respective year of discharge. The details of IDC disallowed and discharged on cash basis are as follows:



(₹ in lakh)

Assets	IDC (as per Auditor's Certificate)	IDC Admissible	IDC disallowed due to computational difference	IDC discharged as on COD	IDC discharged during 2018-19
Asset-1	4.57	4.46	0.11	0.00	4.46
Asset-2	3.69	3.63	0.06	0.00	3.63
Asset-3	1.83	1.83	0.00	0.91	0.92

24. The Petitioner has claimed IDC in respect of the transmission assets and requested the Commission to allow IDC on the basis of cash out flow. The Petitioner has submitted statement showing computation of IDC along with year-wise details of IDC discharged and the same is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC discharged up to COD	IDC undischarged Up to COD	IDC discharged in 2018-19
Asset-1	4.57	0.00	4.57	4.57
Asset-2	3.69	0.00	3.69	3.69
Asset-3	1.83	0.91	0.92	0.92

25. We have considered the submissions of the Petitioner. The Petitioner has submitted the additional details of IDC in respect of the transmission assets. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form-9C. IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificates	IDC dis-allowed as on COD due to computational error	IDC allowed	IDC discharged up to COD	IDC discharged during the year 2018-19
1	2	3	4=2-3	5	6
Asset-1	4.57	0.11	4.46	0.00	4.46
Asset-2	3.69	0.06	3.63	0.00	3.63
Asset-3	1.83	0.00	1.83	0.91	0.92



26. Further, the Commission vide order dated 3.1.2019 in Petition No. 161/TT/2018 had considered the negative IEDC for Asset-1 and Asset-2 as part of capital cost and vide order dated 21.2.2021 in Petition No. 86/TT/2019 has allowed the entire IEDC of ₹28.45 lakh for Asset-3 as submitted in the Auditor's Certificate.

27. The Petitioner vide Auditor's Certificates has claimed IEDC in respect of the transmission assets and has submitted that the entire IEDC amount mentioned in the Auditor's Certificate is on cash basis and is paid up to COD for all the transmission assets. The Petitioner has further submitted that the Commission vide order dated 21.2.2021 in Petition No. 86/TT/2019 has observed as follows:

"32. IEDC allowed for the Asset-I will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018, at the time of truing up."

28. We have considered the submissions of the Petitioner. It is observed that all the transmission assets have been put into commercial operation during 2014-19 period. As regards restricting IEDC on basis of capital cost of individual asset, the Commission (on basis of APTEL's judgement dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018) vide order dated 4.2.2020 in Petition No. 1/TT/2019, had observed as follows:

"24. The Appellate Tribunal for Electricity (APTEL), vide its judgment dated 2nd December 2019 in Appeal Nos. 95 of 2018 and 140 of 2018 on the issue of "IEDC to be considered in tariff" has held that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations. Further, vide para 7.12 of the judgment, ATE has, inter alia, observed that ".....without prejudice to the contention that hard costs should not be considered, even if hard cost is to be seen then, at least IEDC including contingencies should be applied".

25. As per the APTEL judgment, computation of IEDC of the Project is to be made on actual basis after applying due prudence. The Petitioner files tariff petitions for individual assets and Commission decides tariff for these assets, which are subsequently combined when all the assets of the Project are brought under commercial operation. Thus, prudence can only be applied with reference to the combined IEDC as per FR Cost /RCE on completion of the Project. The present petition is a true up (2009-14) petition, and as mentioned in para 23, all the assets of the Project have been



commissioned and their tariff determined on individual basis. As a part of prudence exercise, the IEDC allowed as per respective tariff orders for all the assets of the Project has been compared with the IEDC (including contingencies) for the Project as per RCE. We observe that the IEDC allowed for the Project, except that for the eight assets of the present petition, is Rs 7424.85 lakh which is well within the IEDC limit of Rs 13959.00 lakh as per RCE. The actual IEDC (as claimed) against the eight assets of the present petition is Rs 2604.12 lakh. After disallowing an amount of ₹4.50 lakh, ₹3.13 lakh and ₹33.03 lakh, in case of Asset-3, Asset-7 and Asset 8 respectively due to time over run, ₹2563.56 lakh is being allowed as IEDC.

26. We reiterate that Commission has applied prudence in the above manner in the present case as all the assets of the Project have been commissioned. For asset-wise tariff determination, Commission intends to continue with the existing practice of IEDC and prudence shall be applied on IEDC, once the Project is fully commissioned.”

29. We have considered the submissions of the Petitioner. IEDC claimed in the instant petition along with that allowed by the Commission in the said two orders are within the limits of the transmission project (including contingencies), IEDC as claimed in the instant petition is allowed.

30. IEDC considered as on COD for the purpose of tariff determination is as follows:

(₹ in lakh)		
Assets	IEDC as per Auditor's Certificates	IEDC allowed
Asset-1	-7.69	-7.69
Asset-2	-7.68	-7.68
Asset-3	28.45	28.45

Initial Spares

31. Regulation 13(d) of the 2014 Tariff Regulations provides that Initial Spares shall be capitalised 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%”



32. The Petitioner has submitted that Initial Spares for Sub-station and transmission lines are within the norms and are as follows:

Assets	Particulars	Plant and machinery cost (excluding IDC/IEDC, land cost and cost of civil works (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling Limit (in %) (C)	Initial Spares worked out $D = [(A-B)*C / (100-C)]$ (₹ in lakh)	Excess [B-D] If B>D (₹ in lakh)
Asset-1	Sub-station	1251.49	47.90	6.00	76.82	0.00
Asset-2	Sub-station	1255.99	47.91	6.00	77.11	0.00
Asset-3	Sub-station	620.93	23.41	6.00	38.14	0.00

33. We have considered the submissions of the Petitioner. The cut-off date for Asset-1 and Asset-2 is 31.3.2020 and for Asset-3 is 31.3.2021. The Plant & Machinery cost upto the cut-off date excluding IDC, IEDC, land cost and cost of civil works is ₹1205.76 lakh, ₹1210.25 lakh and ₹620.93 lakh for Asset-1, Asset-2 and Asset-3 respectively and the same is submitted by the Petitioner in Form-13 vide affidavit dated 28.4.2022. Accordingly, the Initial Spares allowed in respect of the transmission assets as per percentage specified in the 2014 Tariff Regulations are as follows:

Assets	Particulars	Plant and Machinery cost (excluding IDC, IEDC, land cost & cost of civil works) upto cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations (in %)	Initial Spares allowable (₹ in lakh)	Excess initial Spares (₹ in lakh)	Initial spares allowed (₹ in lakh)
		A	B	D	$E = (A-B)*C / (100-C)$	B-E	
Asset-1	Sub-station (Brownfield)	1205.76	47.90	6.00	73.91	NA	47.90
Asset-2	Sub-station (Brownfield)	1210.25	47.91	6.00	74.19	NA	47.91
Asset-3	Sub-station (Brownfield)	620.93	23.41	6.00	38.14	NA	23.41



Capital Cost as on COD

34. The capital cost of the transmission project has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations. Accordingly, the details of the capital cost now approved as on COD after adjustment of IDC are as follows:

(₹ in lakh)

Assets	Capital cost claimed as on COD as per Auditor's Certificates (A)	Un-discharged IDC (B)	IDC disallowed due to computational error (C)	Capital Cost allowed as on COD (D) = (A-B-C)
Asset-1	196.55	4.46	0.11	191.98
Asset-2	195.68	3.63	0.06	191.99
Asset-3	243.73	0.92	0.00	242.81

Additional Capital Expenditure ("ACE")

35. The Commission had allowed ACE for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019 under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The entitled un-discharged IDC as on COD was allowed as ACE during the year of its discharge.

36. ACE allowed earlier by the Commission in respect of the transmission assets are as follows:

(₹ in lakh)

Assets	ACE	
	2017-18	2018-19
Asset-1	321.30	1004.46
Asset-2	321.29	1003.63
Asset-3	NA	253.09



37. The Petitioner has claimed the following ACE in respect of the transmission assets up to the cut-off date in accordance with Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and the same are as follows:

(₹ in lakh)

Asset-1			
Particulars	Regulation	ACE claimed	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	280.90	205.23
Accrual IDC	14(1)(i)	0.00	4.57
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	414.11	21.89
Total ACE		695.01	231.69

(₹ in lakh)

Asset-2			
Particulars	Regulation	ACE claimed	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	276.43	206.20
Accrual IDC	14(1)(i)	0.00	3.69
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	423.07	20.92
Total ACE		699.50	230.81

(₹ in lakh)

Asset-3		
Particulars	Regulation	ACE claimed
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	80.71
Accrual IDC	14(1)(i)	0.92
Addition in Gross block (Balance Work/ O&M ACE)	14(1)(ii)	231.67
Total ACE		313.30

38. The Petitioner vide affidavit dated 28.4.2022 has submitted the package-wise break-up for all the transmission assets.

39. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. Accordingly, ACE allowed is as follows:



(₹ in lakh)

Asset-1			
Particulars	Regulation	ACE allowed	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	280.90	205.23
Accrual IDC	14(1)(i)	0.00	4.46
Addition in Gross block (Balance Work)	14(1)(ii)	414.11	21.89
Total ACE		695.01	231.58

(₹ in lakh)

Asset-2			
Particulars	Regulation	ACE allowed	
		2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	276.43	206.20
Accrual IDC	14(1)(i)	0.00	3.63
Addition in Gross block (Balance Work)	14(1)(ii)	423.07	20.92
Total ACE		699.50	230.75

(₹ in lakh)

Asset-3		
Particulars	Regulation	ACE allowed
		2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	80.71
Accrual IDC	14(1)(i)	0.92
Addition in Gross block (Balance Work)	14(1)(ii)	231.67
Total ACE		313.30

40. Accordingly, the capital cost considered for truing up of transmission tariff for 2014-19 period are as follows:

(₹ in lakh)

Assets	Capital cost allowed as on COD)	ACE allowed		Capital cost allowed as on 31.3.2019
		2017-18	2018-19	
Asset-1	191.98	695.01	231.58	1118.57
Asset-2	191.99	699.50	230.75	1122.24
Asset-3	242.81	NA	313.30	556.11
Total	626.78	1394.51	775.63	2796.91

Debt-Equity Ratio

41. The Petitioner has claimed debt-equity ratio of 70:30 as on COD of the transmission assets. Debt-equity ratio has been considered in accordance with



Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio as on COD and 31.3.2019 in respect of the transmission assets considered for the purpose of truing up of tariff for 2014-19 tariff period is as follows:

Asset-1						
Funding	Capital cost (as on COD) (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost (as on 31.3.2019) (₹ in lakh)	(in %)
Debt	134.39	70.00	648.61	70.00	783.00	70.00
Equity	57.59	30.00	277.98	30.00	335.57	30.00
Total	191.98	100.00	926.59	100.00	1118.57	100.00
Asset-2						
Debt	134.39	70.00	651.17	70.00	785.57	70.00
Equity	57.60	30.00	279.07	30.00	336.67	30.00
Total	191.99	100.00	930.25	100.00	1122.24	100.00
Asset-3						
Debt	169.97	70.00	219.31	70.00	389.27	70.00
Equity	72.84	30.00	93.99	30.00	166.83	30.00
Total	242.81	100.00	313.30	100.00	556.11	100.00

Depreciation

42. The Petitioner's claim towards depreciation in respect of the transmission assets was found to be higher than the depreciation allowed for the transmission assets vide order dated 3.1.2019 in Petition No. 161/TT/2018 and order dated 21.2.2021 in Petition No. 86/TT/2019. The Petitioner has neither given any justification for claiming the higher depreciation than that allowed in earlier order nor made any specific prayer for allowing higher depreciation in the instant petition. Similar issue had come up in Petition No. 19/TT/2020, wherein the Commission vide order dated 9.5.2020 held as follows:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations (the period during which COD of assets was



achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations."

43. In line with the above decision, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period for the instant transmission assets. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I, Annexure-II and Annexure-III for Asset-1, Asset-2 and Asset-3 respectively has been worked out after considering the depreciation rates of transmission assets as specified in Regulation 27 of the 2014 Tariff Regulations and the trued-up depreciation allowed for the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)			
Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
A	Opening Gross Block	191.98	886.99
B	ACE	695.01	231.58
C	Closing Gross Block (A+B)	886.99	1118.57
D	Average Gross Block (A+C)/2	539.49	1002.78
E	Freehold land	0.00	0.00
F	Weighted Average Rate of Depreciation (in %)	5.30	5.31



Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
G	Balance useful life of the asset (Year)	25	25
H	Lapsed life at the beginning of the year (Year)	0	0
I	Aggregate Depreciable Value	485.54	902.50
J	Combined Depreciation during the year	9.40	53.25
K	Aggregate Cumulative Depreciation	9.40	62.65
L	Remaining Depreciable Value (I-K)	476.13	839.85

(₹ in lakh)

Asset-2			
	Particulars	2017-18 (pro-rata for 119 days)	2018-19
A	Opening Gross Block	191.99	891.49
B	ACE	699.50	230.75
C	Closing Gross Block (A+B)	891.49	1122.24
D	Average Gross Block (A+C)/2	541.74	1006.86
E	Freehold land	0.00	0.00
F	Weighted Average Rate of Depreciation (in %)	5.30	5.31
G	Balance useful life of the asset (Year)	25	25
H	Lapsed life at the beginning of the year (Year)	0	0
I	Aggregate Depreciable Value	487.57	906.18
J	Combined Depreciation during the year	9.36	53.46
K	Aggregate Cumulative Depreciation	9.36	62.83
L	Remaining Depreciable Value (I-K)	478.20	843.35

(₹ in lakh)

Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
	Depreciation	
A	Opening Gross Block	242.81
B	ACE	313.30
C	Closing Gross Block (A+B)	556.11
D	Average Gross Block (A+C)/2	399.46
E	Freehold land	0.00
F	Weighted Average Rate of Depreciation (in %)	5.36
G	Balance useful life of the asset (Year)	24
H	Lapsed life at the beginning of the year (Year)	0
I	Aggregate Depreciable Value	359.51
J	Combined Depreciation during the year	18.05
K	Aggregate Cumulative Depreciation	18.05
L	Remaining Depreciable Value (I-K)	341.46



44. The details of depreciation allowed for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	6.18	54.48
Claimed by the Petitioner in the instant petition	9.40	53.25
Approved after true-up in this order	9.40	53.25

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	6.13	54.45
Claimed by the Petitioner in the instant petition	9.36	53.47
Approved after true-up in this order	9.36	53.46

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	16.69
Claimed by the Petitioner in the instant petition	18.05
Approved after true-up in this order	18.05

Interest on Loan (“IoL”)

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



(₹ in lakh)

Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
A	Gross Normative Loan	134.39	620.89
B	Cumulative Repayments upto Previous Year	0.00	9.40
C	Net Loan-Opening (A-B)	134.39	611.49
D	Additions	486.51	162.11
E	Repayment during the year	9.40	53.25
F	Net Loan-Closing (C+D-E)	611.49	720.35
G	Average Loan (C+F)/2	372.94	665.92
H	Weighted Average Rate of Interest on Loan (in %)	7.6494	7.9262
I	Interest on Loan (G*H)	9.38	52.78

(₹ in lakh)

Asset-2			
	Particulars	2017-18 (pro-rata for 119 days)	2018-19
A	Gross Normative Loan	134.39	624.04
B	Cumulative Repayments upto Previous Year	0.00	9.36
C	Net Loan-Opening (A-B)	134.39	614.68
D	Additions	489.65	161.52
E	Repayment during the year	9.36	53.46
F	Net Loan-Closing (C+D-E)	614.68	722.74
G	Average Loan (C+F)/2	374.54	668.71
H	Weighted Average Rate of Interest on Loan (in %)	7.5680	7.8313
I	Interest on Loan (G*H)	9.24	52.37

(₹ in lakh)

Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
A	Gross Normative Loan	169.97
B	Cumulative Repayments upto Previous Year	0.00
C	Net Loan-Opening (A-B)	169.97
D	Additions	219.31
E	Repayment during the year	18.05
F	Net Loan-Closing (C+D-E)	371.22
G	Average Loan (C+F)/2	270.59
H	Weighted Average Rate of Interest on Loan (in %)	8.1540
I	Interest on Loan (G*H)	18.62

46. The details of IoL allowed for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No.



86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	5.85	49.45
Claimed by the Petitioner in the instant petition	9.38	52.79
Approved after true-up in this order	9.38	52.78

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	5.75	49.02
Claimed by the Petitioner in the instant petition	9.24	52.37
Approved after true-up in this order	9.24	52.37

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	16.63
Claimed by the Petitioner in the instant petition	18.62
Approved after true-up in this order	18.62

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 Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [(Base Rate)/(1-t)]
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. We have considered the submission of the Petitioner. The Commission, vide 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 given in the table below. The relevant portion of the order dated 27.4.2020 is as follows:

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

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

Year	Notified MAT rates (inclusive of surcharge & cess)	Effective tax (in %)
2014-15	20.961	20.961
2015-16	21.342	21.342
2016-17	21.342	21.342
2017-18	21.342	21.342
2018-19	21.549	21.549

49. The same MAT rates as considered in the above-mentioned order in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

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



Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2018-19	21.549	15.50	19.758

50. The Petitioner has claimed RoE for 2014-19 tariff 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 allowed in respect of the transmission assets as follows:

(₹ in lakh)

Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
A	Opening Equity	57.59	266.10
B	Additions	208.50	69.47
C	Closing Equity (A+B)	266.10	335.57
D	Average Equity (A+C)/2	161.85	300.83
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.758
H	Return on Equity (D*G)	10.48	59.44

(₹ in lakh)

Asset-2			
	Particulars	2017-18 (pro-rata for 119 days)	2018-19
A	Opening Equity	57.60	267.45
B	Additions	209.85	69.22
C	Closing Equity (A+B)	267.45	336.67
D	Average Equity (A+C)/2	162.52	302.06
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.758
H	Return on Equity (D*G)	10.44	59.68

(₹ in lakh)

Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
A	Opening Equity	72.84
B	Additions	93.99
C	Closing Equity (A+B)	166.83



Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
D	Average Equity (A+C)/2	119.84
E	Return on Equity (Base Rate) (in %)	15.500
F	MAT Rate for respective year (in %)	21.549
G	Rate of Return on Equity (in %)	19.758
H	Return on Equity (D*G)	19.98

51. The details of RoE allowed for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	6.82	59.74
Claimed by the Petitioner in the instant petition	10.48	59.44
Approved after true-up in this order	10.48	59.44

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	6.76	59.71
Claimed by the Petitioner in the instant petition	10.44	59.68
Approved after true-up in this order	10.44	59.68

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	18.47
Claimed by the Petitioner in the instant petition	19.98
Approved after true-up in this order	19.98

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

52. O&M Expenses claimed by the Petitioner for the transmission assets are as follows:



Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
400 kV bays of: Sikar: Bays of 400 kV Sikar -Bikaner Transmission line		
400 kV Bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
O&M Expenses (₹ in lakh)	21.87	68.71

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
400 kV bays of: Sikar: Associated Bays of Bikaner- Sikar Transmission line		
400 kV Bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
O&M Expenses (₹ in lakh)	21.68	68.71

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
220 kV line bays at 765/400/220 kV Fatehpur Sub-station	
220 kV Bays	2
Norms (₹ lakh/Bay)	48.10
O&M Expenses (₹ in lakh)	81.18

53. We have considered the submissions of the Petitioner. The O&M Expenses allowed for the transmission assets as per norms specified in the 2014 Tariff Regulations are as follows:

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
400 kV bays of: Sikar: Bays of 400 kV Sikar -Bikaner Transmission line		
400 kV Bays	1	1
Norms (₹ lakh/Bay)	66.51	68.71
O&M Expenses (₹ in lakh)	21.87	68.71

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
400 kV bays of: Sikar: Associated Bays of Bikaner -Sikar Transmission line		
400 kV Bays	1	1



Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Norms (₹ lakh/Bay)	66.51	68.71
O&M Expenses (₹ in lakh)	21.68	68.71

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
2 numbers of 220 kV line bays at 765/400/220 kV Fatehpur Sub-station:	
220 kV Bays	2
Norms (₹ lakh/Bay)	48.10
O&M Expenses (₹ in lakh)	81.18

54. The details of O&M Expenses allowed for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	21.99	68.71
Claimed by the Petitioner in the instant petition	21.87	68.71
Approved after true-up in this order	21.87	68.71

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	21.81	68.71
Claimed by the Petitioner in the instant petition	21.68	68.71
Approved after true-up in this order	21.68	68.71

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	81.17
Claimed by the Petitioner in the instant petition	81.18
Approved after true-up in this order	81.18



Interest on Working Capital (“IWC”)

55. 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)

Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for one month)	5.54	5.73
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	9.98	10.31
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	26.81	40.21
D	Total Working Capital (A+B+C)	42.33	56.24
E	Rate of Interest (in %)	12.60	12.60
F	Interest of working capital (D*E)	1.75	7.09

(₹ in lakh)

Asset-2			
	Particulars	2017-18 (pro-rata for 119 days)	2018-19
A	Working Capital for O&M Expenses (O&M Expenses for one month)	5.54	5.73
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	9.98	10.31
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	26.82	40.22
D	Total Working Capital (A+B+C)	42.34	56.25
E	Rate of Interest (in %)	12.60	12.60
F	Interest of working capital (D*E)	1.74	7.09

(₹ in lakh)

Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
A	Working Capital for O&M Expenses (O&M Expenses for one month)	8.02
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	14.43
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost)	28.25



D	Total Working Capital (A+B+C)	50.70
E	Rate of Interest (in %)	12.20
F	Interest of working capital (D*E)	5.22

56. IWC allowed for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	1.54	7.05
Claimed by the Petitioner in the instant petition	1.75	7.09
Approved after true-up in this order	1.75	7.09

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	1.52	7.04
Claimed by the Petitioner in the instant petition	1.74	7.09
Approved after true-up in this order	1.74	7.09

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	5.12
Claimed by the Petitioner in the instant petition	5.22
Approved after true-up in this order	5.22

Approved Annual Fixed Charges for the 2014-19 Tariff Period

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



(₹ in lakh)

Asset-1			
	Particulars	2017-18 (pro-rata for 120 days)	2018-19
A	Depreciation	9.40	53.25
B	Interest on Loan	9.38	52.78
C	Return on Equity	10.48	59.44
D	O&M Expenses	21.87	68.71
E	Interest on Working Capital	1.75	7.09
F	Total (A+B+C+D+E)	52.88	241.27

(₹ in lakh)

Asset-2			
	Particulars	2017-18 (pro-rata for 119 days)	2018-19
A	Depreciation	9.36	53.46
B	Interest on Loan	9.24	52.37
C	Return on Equity	10.44	59.68
D	O&M Expenses	21.68	68.71
E	Interest on Working Capital	1.74	7.09
F	Total (A+B+C+D+E)	52.46	241.31

(₹ in lakh)

Asset-3		
	Particulars	2018-19 (pro-rata for 308 days)
A	Depreciation	18.05
B	Interest on Loan	18.62
C	Return on Equity	19.98
D	O&M Expenses	81.18
E	Interest on Working Capital	5.22
F	Total (A+B+C+D+E)	143.05

58. Accordingly, the Annual Transmission Charges approved for Asset-1 and Asset-2 vide order dated 3.1.2019 in Petition No. 161/TT/2018 and for Asset-3 vide order dated 21.2.2021 in Petition No. 86/TT/2019, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)

Asset-1		
Particulars	2017-18 (pro-rata for 120 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	42.38	239.43
Claimed by the Petitioner in the instant petition	52.88	241.28
Approved after true-up in this order	52.88	241.27

(₹ in lakh)

Asset-2		
Particulars	2017-18 (pro-rata for 119 days)	2018-19
Allowed vide order dated 3.1.2019 in Petition No. 161/TT/2018	41.98	238.93
Claimed by the Petitioner in the instant petition	52.46	241.32
Approved after true-up in this order	52.46	241.31

(₹ in lakh)

Asset-3	
Particulars	2018-19 (pro-rata for 308 days)
Allowed vide order dated 21.2.2021 in Petition No. 86/TT/2019	138.08
Claimed by the Petitioner in the instant petition	143.05
Approved after true-up in this order	143.05

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

59. The Petitioner has combined the transmission assets in 2019-24 period and has submitted tariff form for the Combined Asset. The details of the transmission charges claimed by the Petitioner in respect of the Combined Asset for the 2019-24 tariff period in the instant petition are as follows:

(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	160.57	170.90	173.96	173.96	173.96
Interest on Loan	146.78	143.16	132.59	118.52	104.38
Return on Equity	164.32	174.31	177.58	177.58	177.58
O&M Expenses	109.32	113.16	117.14	121.24	125.50
Interest on Working Capital	11.86	12.30	12.41	12.38	12.33
Total	592.85	613.83	613.68	603.68	593.75

60. The details of IWC for Combined Asset for the 2019-24 tariff period as claimed by the Petitioner in this the instant petition are as follows:



(₹ in lakh)

Combined Asset					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	9.11	9.43	9.76	10.10	10.46
Maintenance Spares	16.40	16.97	17.57	18.19	18.83
Receivables	72.89	75.68	75.66	74.43	73.00
Total Working Capital	98.40	102.08	102.99	102.72	102.29
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	11.86	12.30	12.41	12.38	12.33

Effective Date of Commercial Operation (E-COD) of the Combined Asset

61. The Petitioner has claimed E-COD of the Combined Asset as 7.1.2018. However, based on the trued-up capital cost and COD of Asset-1, Asset-2 and Asset-3, E-COD of Combined Asset has been worked out as follows:

Assets	Admitted capital cost as on 31.3.2019 (₹ in lakh)	COD	Number of days from last COD	Weightage of cost (in %)	Weighted Days	E-COD (Latest COD – Total Weighted Days)
Asset-1	1118.57	2.12.2017	117	39.99	70.79	6.1.2018
Asset-2	1122.24	3.12.2017	176	40.12	70.62	
Asset-3	556.11	28.5.2018	0	19.88	0.00	
Total	2796.91			100.00	141.41	

62. E-COD is used to determine the lapsed life of the project as a whole, which works out as 1 (one) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (“WAL”)

63. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

64. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of



life. Therefore, the concept of WAL has been used as the useful life of the transmission project as a whole.

65. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. Accordingly, WAL of the Combined Asset has been worked out as 24 years as follows:

Particulars	Capital cost as on 31.3.2019 (₹ in lakh) (1)	Life (in years) (2)	Weighted cost (₹ in lakh) (3) = (1)x(2)	WAL (in years) (4) = (3)/(1)
Building & Civil Works	0.00	25	0.00	24.2702 (rounded off to 24 years)
Transmission Line	0.00	35	0.00	
Sub Station	2629.82	25	65745.52	
PLCC	122.65	15	1839.68	
IT Equipment (Including Software)	44.45	6.67	296.32	
Total	2796.91		67881.52	

66. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 6.1.2018 and the lapsed life of the transmission project as a whole works out as one (1) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 23 years.

Capital Cost

67. 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 assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (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 renovation and modernisation as admitted by this Commission in accordance with these regulations;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its*



augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and

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

(4) *The capital cost in case of existing or new hydro generating station shall also include:*

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

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

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

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

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

- (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."*

68. The Petitioner has claimed capital cost of ₹2797.09 lakh as on 31.3.2019 for the Combined Asset. The Petitioner has submitted that the estimated completion cost is within the FR approved apportioned cost.

69. The capital cost of ₹2796.91 lakh as admitted for the Combined Asset as on 31.3.2019 has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.



Additional Capital Expenditure (“ACE”)

70. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides 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 capitalisation shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalisation.

(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 cut-off date may be admitted by the Commission, subject to prudence check:*

- a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- b) *Change in law or compliance of any existing law;*
- c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) *Liability for works executed prior to the cut-off date;*
- e) *Force Majeure events;*
- f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
- g) *Raising of ash dyke as a part of ash disposal system.*

(2) *In case of replacement of 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.”

71. The Petitioner has claimed ACE of ₹354.49 lakh in respect of the Combined Asset for the 2019-24 period under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations on account of undischarged liability towards final payment for works executed prior to the cut-off date/ works deferred for execution. The same is as follows:

Assets	ACE Claimed	
	2019-20	2020-21
Asset-1	83.96	45.73
Asset-2	83.96	45.74
Asset-3	70.57	24.53
Combined Asset	238.49	116.00

72. The Petitioner has submitted the asset wise justification for ACE claimed during 2019-24 tariff period and the same is as follows:

Asset 1:

Year	ACE	Party Name	Package	Balance and retention payment/ Deferred work
2019-20	60.93	KEC International Ltd.	Sub-station	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	9.10	KEC International Ltd.	Sub-station	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	4.23	KEC International Ltd.	PLCC	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	0.63	KEC International Ltd.	PLCC	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	7.89	KEC International Ltd.	IT	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations



	1.18	KEC International Ltd.	IT	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
2020-21	45.50	KEC International Ltd.	Sub-station	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	0.21	KEC International Ltd.	PLCC	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	0.02	KEC International Ltd.	IT	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations

Asset 2:

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention payment/ Deferred work
2019-20	61.06	KEC International Ltd.	Sub-station	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	8.97	KEC International Ltd.	Sub-station	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	4.24	KEC International Ltd.	PLCC	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	0.62	KEC International Ltd.	PLCC	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	7.91	KEC International Ltd.	IT	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	1.16	KEC International Ltd.	IT	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	83.96			
2020-21	45.51	KEC International Ltd.	Sub-station	Balance and Retention payment as per Regulation 24(1)(a) of tariff Regulations
	0.21	KEC International Ltd.	PLCC	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	0.02	KEC International Ltd.	IT	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	45.74			



Asset-3:

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention payment/ Deferred work
2019-20	60.42	KEC International Ltd.	Sub-station	Balance and Retention payment as per Regulation 24(1)(a) of the Tariff Regulations
	2.42	KEC International Ltd.	Sub-station	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
	7.73	KEC International Ltd.	PLCC	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations
TOTAL	70.57			
2020-21	24.53	KEC International Ltd.	Sub-station	Deferred work liability as per Regulation 24(1)(b) of the Tariff Regulations

73. We have considered the submissions of the Petitioner. E-COD of the Combined Asset has been worked out as 7.1.2018. Accordingly, the cut-off date is 31.3.2021. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations, as it is towards undischarged liability towards final payment for works executed prior to the cut-off date/ works deferred for execution. Accordingly, ACE for 2019-24 tariff period and the capital cost as on 31.3.2024 considered for the Combined Asset are as follows:

Capital cost admitted as on 1.4.2019 (A)	ACE allowed		Capital cost allowed as on 31.3.2024 (E)=(A)+(B)+(C)
	2019-20 (B)	2020-21 (C)	
2796.91	238.49	116.00	3151.40

Debt-Equity Ratio

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

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

Provided that:



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

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

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

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

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

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

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

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

(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.”



75. Debt-equity ratio considered for the purpose of computation of tariff of the Combined Asset for 2019-24 tariff period is as follows:

Combined Asset						
Funding	Capital cost (as on 1.4.2019) (₹ in lakh) (A)	(in %)	ACE in 2019-24 (₹ in lakh) (B)	(in %)	Capital cost (as on 31.3.2024) (₹ in lakh) (C)	(in %)
Debt	1957.84	70.00	248.14	70.00	2205.98	70.00
Equity	839.07	30.00	106.35	30.00	945.42	30.00
Total	2796.91	100.00	354.49	100.00	3151.40	100.00

Depreciation

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

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

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

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

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

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

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

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



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

(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

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

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

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

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

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



77. The IT equipment has been considered as part of the Gross Block and depreciated using WAROD (as placed at Annexure-IV). WAROD has been worked out after considering 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 as NIL, i.e. IT asset has been considered as 100 per cent depreciable. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed for the Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	2796.91	3035.40	3151.40	3151.40	3151.40
B	ACE	238.49	116.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	3035.40	3151.40	3151.40	3151.40	3151.40
E	Average Gross Block (A+C)/2	2916.16	3093.40	3151.40	3151.40	3151.40
D	Freehold Land	0.00	0.00	0.00	0.00	0.00
F	Weighted average rate of Depreciation (WAROD) (in %)	5.51	5.52	5.52	5.52	5.52
G	Balance useful life of the asset (Year)	23	22	21	20	19
H	Aggregate Depreciable Value	2629.89	2790.32	2842.53	2842.53	2842.53
I	Depreciation during the year	160.55	170.89	173.96	173.96	173.96
J	Cumulative Depreciation	304.08	474.97	648.93	822.89	996.84
K	Remaining Depreciable Value (H-J)	2325.81	2315.35	2193.60	2019.64	1845.68

Interest on Loan (“IoL”)

78. 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 assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalisation of such asset.

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

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

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

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

(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.”

79. WAROI on loan has been considered on the basis of rate 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. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset for the 2019-24 tariff period is as follows:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	1957.84	2124.78	2205.98	2205.98	2205.98



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
B	Cumulative Repayments upto Previous Year	143.53	304.08	474.97	648.93	822.89
C	Net Loan-Opening (A-B)	1814.31	1820.70	1731.01	1557.05	1383.10
D	Additions	166.94	81.20	0.00	0.00	0.00
E	Repayment during the year	160.55	170.89	173.96	173.96	173.96
F	Net Loan-Closing (C+D-E)	1820.70	1731.01	1557.05	1383.10	1209.14
G	Average Loan (C+F)/2	1817.51	1775.86	1644.03	1470.08	1296.12
H	Weighted Average Rate of Interest on Loan (in %)	8.0753	8.0609	8.0648	8.0620	8.0526
I	Interest on Loan (G*H)	146.77	143.15	132.59	118.52	104.37

Return on Equity (“RoE”)

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

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope, excluding additional capitalization 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 rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

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

Illustration-

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;



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

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

81. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, MAT rate applicable for 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 Combined Asset for the 2019-24 tariff period is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	839.07	910.62	945.42	945.42	945.42
B	Additions	71.55	34.80	0.00	0.00	0.00
C	Closing Equity (A+B)	910.62	945.42	945.42	945.42	945.42
D	Average Equity (A+C)/2	874.85	928.02	945.42	945.42	945.42
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	Return on Equity (D*G)	164.31	174.30	177.57	177.57	177.57

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

82. O&M Expenses claimed by the Petitioner for the Combined Asset for 2019-24 tariff period are as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV bays of:					
(i) Sikar: Bays of 400 kV Sikar- Bikaner Transmission line					



Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
(ii) Sikar: Associated Bays of Bikaner Sikar Transmission line					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ in lakh)	64.30	66.56	68.90	71.32	73.82
220 kV line bays of 765/400/220 kV Fatehpur Sub-station					
220 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
O&M Expenses (₹ in lakh)	45.02	46.60	48.24	49.92	51.68
Total O&M Expenses (₹ in lakh)	109.32	113.16	117.14	121.24	125.50

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

“35. Operation and Maintenance Expenses:

... ”

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011



Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

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

iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and



vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year

(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.

84. O&M Expenses have been worked out for various elements covered under the Combined Asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are allowed as follows:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV bays of:					
(iii) Sikar: Bays of 400 kV Sikar Bikaner Transmission line					
(iv) Sikar: Associated Bays of Bikaner Sikar Transmission line					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ in lakh)	64.30	66.56	68.90	71.32	73.82
220 kV line bays of 765/400/220 kV Fatehpur Sub-station					
(i)					
220 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	22.51	23.3	24.12	24.96	25.84
O&M Expenses (₹ in lakh)	45.02	46.60	48.24	49.92	51.68
Total O&M Expenses allowed (₹ in lakh)	109.32	113.16	117.14	121.24	125.50

Interest on Working Capital (“IWC”)

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

“34. Interest on Working Capital: (1) The working capital shall cover:



.....

i. For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:

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

.....

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

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

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

“3. Definitions. - In these regulations, unless the context otherwise requires:-

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

86. 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%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) 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 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon is as follows:



		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	9.11	9.43	9.76	10.10	10.46
B	Working Capital for Maintenance Spares (15% of O&M expenses)	16.40	16.97	17.57	18.19	18.83
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	72.89	75.57	75.46	74.22	72.80
D	Total Working Capital (A+B+C)	98.39	101.98	102.79	102.51	102.08
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on working capital (D*E)	11.86	11.47	10.79	10.76	10.72

Annual Fixed Charges of the 2019-24 Tariff Period

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

		(₹ in lakh)				
Combined Asset						
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Depreciation	160.55	170.89	173.96	173.96	173.96	
Interest on Loan	146.77	143.15	132.59	118.52	104.37	
Return on Equity	164.31	174.30	177.57	177.57	177.57	
O&M Expenses	109.32	113.16	117.14	121.24	125.50	
Interest on Working Capital	11.86	11.47	10.79	10.76	10.72	
Total	592.81	612.97	612.05	602.05	592.12	

Filing Fee and Publication Expenses

88. The Petitioner has prayed for reimbursement of fee paid by it for filing the Petition and publication expenses.

89. We have considered the submissions of the Petitioner. 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

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

Goods and Services Tax

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

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

Security Expenses

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

94. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated



3.8.2021. The security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. 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.

Capital Spares

95. 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

96. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of the transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations.

97. To summarise:

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

Particulars	Asset-1	
	2017-18 (pro-rata for 120 days)	2018-19
AFC	52.88	241.27

(₹ in lakh)



Particulars	Asset-2	
	2017-18 (pro-rata for 119 days)	2018-19
AFC	52.46	241.31

Particulars	Asset-3
	2018-19 (pro-rata for 308 days)
AFC	143.05

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

Particulars	2019-24				
	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	592.81	612.97	612.05	602.05	592.12

98. Annexure-I to Annexure-IV given hereinafter form part of the order.

99. This order disposes of Petition No. 20/TT/2022 in terms of above discussions and findings.

sd/
(P. K. Singh)
Member

sd/
(Arun Goyal)
Member

sd/
(I. S. Jha)
Member



Asset-1

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)	
		2017-18	2018-19	Total			2017-18	2018-19
Sub Station	184.51	665.46	205.36	870.82	1055.33	5.28%	27.31	50.30
PLCC	4.85	11.59	24.57	36.16	41.02	6.33%	0.67	1.82
IT Equipment (Incl. Software)	2.62	17.96	1.65	19.61	22.23	5.28%	0.61	1.13
Total	191.98	695.01	231.58	926.59	1118.57		28.60	53.25
Average Gross Block (₹ in lakh)							539.49	1002.78
Weighted Average Rate of Depreciation (in %)							5.30%	5.31%



Asset-2

2014-19	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)	
		2017-18	2018-19	Total			2017-18	2018-19
Capital Expenditure								
Sub Station	184.49	669.95	204.56	874.51	1059.00	5.28%	27.43	50.51
PLCC	4.88	11.59	24.55	36.14	41.02	6.33%	0.68	1.82
IT Equipment (Incl. Software)	2.62	17.96	1.64	19.60	22.22	5.28%	0.61	1.13
Total	191.99	699.50	230.75	930.25	1122.24		28.72	53.46
Average Gross Block (₹ in lakh)							541.74	1006.86
Weighted Average Rate of Depreciation (in %)							5.30%	5.31%



Asset-3

2014-19	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)
		2018-19	Total			2018-19
Capital Expenditure						
Sub Station	226.26	289.23	289.23	515.50	5.28%	19.58
PLCC	16.55	24.06	24.06	40.61	6.33%	1.81
Total	242.81	313.30	313.30	556.11		21.39
Average Gross Block (₹ in lakh)						399.46
Weighted Average Rate of Depreciation (in %)						5.36%



Combined Asset

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	2629.82	202.90	115.54	318.44	2948.26	5.28%	144.21	152.62	155.67	155.67	155.67
PLCC	122.65	17.45	0.42	17.87	140.52	6.33%	8.32	8.88	8.89	8.89	8.89
IT Equipment (Incl. Software)	44.45	18.14	0.04	18.18	62.63	15.00%	8.03	9.39	9.39	9.39	9.39
Total	2796.91	238.49	116.00	354.49	3151.40		160.55	170.89	173.96	173.96	173.96
Average Gross Block (₹ in lakh)							2916.16	3093.40	3151.40	3151.40	3151.40
Weighted Average Rate of Depreciation (in %)							5.51%	5.52%	5.52%	5.52%	5.52%

