

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 23/TT/2021**

**Coram:**

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

**Date of Order: 30.06.2022**

**In the matter of:**

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 under “System Strengthening-XX” in Southern Region.

**And in the matter of:**

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

**....Petitioner**

**Vs**

1. Karnataka Power Transmission Corporation Limited (KPTCL),  
Kaveri Bhavan, Bangalore-560009 (Karnataka).
2. Transmission Corporation of Andhra Pradesh Limited (APTRANSCO),  
Vidyut Soudha, Gunadala, Eluru Road,  
Vijayawada– 520004 (Andhra Pradesh).
3. Kerala State Electricity Board (KSEB),  
Vaidyuthi Bhavanam, Pattom,  
Thiruvananthapuram – 695004 (Kerala).
4. Tamil Nadu Generation and Distribution Corporation Limited,  
(Formerly Tamil Nadu Electricity Board -TNEB),  
NPKRR Maaligai, 800, Anna Salai,  
Chennai – 600002 (Tamil Nadu).



5. Electricity Department,  
Government of Pondicherry,  
Pondicherry – 605001 (Pondicherry).
6. Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL),  
P&T Colony,  
Seethmmadhara, Vishakhapatnam (Andhra Pradesh).
7. Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL),  
D. No: 19-13-65/A, Srinivasapuram, Corporate Office,  
Chittoor District, Tiruchanoor Road  
Tirupati–517503 (Andhra Pradesh).
8. Southern Power Distribution Company of Telangana Limited (TSSPDCL),  
6-1-50, Corporate Office, Mint Compound,  
Hyderabad–500063, (Telangana).
9. Northern Power Distribution Company of Telangana Limited (TSNPDCL),  
H. No 2-5-3 1/2, Vidyut Bhawan, Corporate Office, Nakkal Gutta,  
Hanamkonda, Warangal-506001 (Telangana).
10. Bangalore Electricity Supply Company Limited (BESCOM),  
Corporate Office, K. R. Circle,  
Bangalore–560001 (Karnataka).
11. Gulbarga Electricity Supply Company Limited (GESCOM),  
Station Main Road, Gulbarga, (Karnataka).
12. Hubli Electricity Supply Company Limited (HESCOM),  
Navanagar, PB Road, Hubli, (Karnataka).
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore–575001, (Karnataka).
14. Chamundeswari Electricity Supply Corporation Limited (CESC),  
927, L J Avenue, Ground Floor, New Kantharaj Urs Road.  
Saraswatipuram,  
Mysore–570009, (Karnataka).
15. Electricity Department,  
Government of Goa  
Vidyuti Bhawan, Panaji, 403001 (Goa).
16. Transmission Corporation of Telangana Limited,  
Vidhyut Sudha, Khairatabad  
Hyderabad-500082 (Andhra Pradesh).



17. Tamil Nadu Transmission Corporation (TANTRANSCO),  
NPKRR Maaligai, 800, Anna Salai,  
Chennai-600002.

...Respondents

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

**For Respondents** : Shri S. Vallinayagam, Advocate, TANGEDCO  
Dr. R. Kathiravan, TANGEDCO  
Shri R. Ramalakshmi, TANGEDCO  
Shri R. Srinivasan, TANGEDCO

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing-up of the transmission tariff of the period from COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and 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 (hereinafter referred to as “Transmission Assets/Combined Asset”) under “System Strengthening-XX” in Southern Region (hereinafter referred to as the “the transmission project”):

**Asset-I:** 1x500 MVA, 400/220 kV ICT at Malekuttaiyur Sub-station along with associated bays and equipment;

**Asset-II:** 1x500 MVA, 400/220 kV ICT at Somanahalli Sub-station along with associated bays and equipment;



**Asset-III:** 1x500 MVA, 400/220 kV ICT at Mysore Sub-station along with associated bays and equipment;

**Asset-IV:** 01x125 MVAr 400 kV Bus Reactor-3 along with associated bays and equipment at Vijayawada Sub-station, 01x500 MVA 400/220 kV ICT-3 along with associated bays and equipment each at Hyderabad (Ghanapur) and Vijayawada Sub-station;

**Asset-V:** 01x125 MVAr 400 kV Bus Reactor-4 along with associated bays at Vijayawada Sub-station;

**Asset-VI:** 1x500 MVA,400/220 kV ICT along with associated bays and equipment at Pugalur Sub-station;

**Asset-VII:** Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad)–Madakathara (North Trissur) 400 kV D/C line into switchable reactors by providing necessary switching arrangement.

**Asset-VIII:** Replacement of existing 1x315 MVA 400/220 kV transformer with 1x500 MVA transformer and utilize the replaced 1x315 MVA transformer as regional spare at Narendra Sub-station;

**Asset-IX:** Replacement of existing 1x315 MVA 400/220 kV transformer with 1x500 MVA transformer and utilize the replaced 1x315 MVA transformer as regional spare at Narendra Sub-station;

**Asset-X:** 01x500 MVA, 400/220/33 kV ICT and associated bays each at Warangal Sub-station, Khammam Sub-station;

**Asset-XI:** 01x500 MVA, 400/220/33 kV ICT and associated bays each at Gooty Sub-station;



**Asset-XII:** 01x500 MVA, 400/220/33 kV ICT and associated bays each at Kadapa Sub-station; and

**Asset-XIII:** 1x500 MVA, 400/220 kV ICT along with associated bays at Trichy Sub-station

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 11.2 and 12.0 above.*

*2) Approve the Completion cost and additional capitalization incurred during 2014-19 and allow the actual/projected additional capitalization during 2019-24.*

*3) Allow the Petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 11.2 and 12.0 above for respective block.*

*4) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*

*5) Allow the Petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*

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

*7) Allow the Petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.*

*8) Allow the Petitioner to claim the capital spares at the end of tariff block as per actual.*

*9) Allow the Petitioner to claim the value of De-capitalizaion of assets in Original petition and allow the tariff on the total capital cost of the replaced assets.*

*10) 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.*

*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”*

### **Backdrop of the case**

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

A. The investment approval (IA) for the project was accorded by Board of Directors of the Petitioner vide Memorandum No. C/CP/SRSS-XX dated 8.8.2014 with an estimated cost of ₹28849 lakh including Interest During Construction of ₹1733 lakh based on June 2014 price level.

B. Further, the revised cost estimate (RCE) of the project was accorded by the Board of Directors of the Petitioner vide the Memorandum No. C/CP/PA1617-01-0R-RCE006 dated 13.1.2017 with an estimated cost of ₹37609 lakh including Interest During Construction of ₹1896 lakh based on April 2016 price level.

C. The scope of work covered under “System Strengthening-XX” in Southern Region is as follows:

#### **Sub-stations:**

- a) Extension of 400/220 kV Sub-station at Hyderabad (Ghanapur)
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
- b) Extension of 400/220 kV Sub-station at Warangal
  - i. 1x 500MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer



- c) Extension of 400/220 kV Sub-station at Khammam
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
  
- d) Extension of 400/220 kV Sub-station at Vijayawada
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
  - iv. 2x125 MVAR, 400 kV Bus reactors
  - v. 2 numbers 400 kV Bus reactor bays
  
- e) Extension of 400/220 kV Sub-station at Gooty
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x500 MVA transformer
  
- f) Extension of 400/220 kV Sub-station at Cuddapah
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
  
- g) Extension of 400/230 kV Sub-station at Malekuttaiyur
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 230 kV transformer bay for 1x 500 MVA transformer
  
- h) Extension of 400/220 kV Sub-station at Somanahalli
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
  
- i) Extension of 400/220 kV Sub-station at Mysore
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer



- iii. 1 number 220 kV transformer bay for 1x 500 MVA transformer
- j) Extension of 400/230 kV Sub-station at Pugalur
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 230 kV transformer bay for 1x 500 MVA transformer
- k) Extension of 400/230 kV Sub-station at Trichy
  - i. 1x 500 MVA, 400/220/33 kV ICT
  - ii. 1 number 400 kV transformer bay for 1x 500 MVA transformer
  - iii. 1 number 230 kV transformer bay for 1x 500 MVA transformer
- l) Extension of 400/220 kV Sub-station at Narendra
  - i. Replacement of existing 2x315 MVA 400/220 kV transformers with 2x 500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare; location to keep the spare shall be decided later
- m) Extension of 400/220 kV Sub-station at Trissur
  - i. Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad)–Madakathara (North Trissur) 400 kV D/C line into switchable reactors by providing necessary switching arrangement.

**Reactive Compensation (already covered above):**

- i. Conversion of 50 MVAR line reactors at Madakathara end on both circuits of Ellapally (Palakkad)–Madakathara (North Trissur) 400 kV D/C line into switchable reactors by providing necessary switching arrangement
- ii. 2x125 MVAR Bus reactors at Vijayawada 400 kV Sub-station

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





E. The transmission assets were scheduled to be put into commercial operation within 30 months from the date of the IA i.e. 4.8.2014. Accordingly, the transmission project was scheduled to be put into commercial operation by 4.2.2017.

F. The details of scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run (days) are as follows:

Asset Name in current petition	Asset Name in Previous Petition	SCOD	COD	Time over-run (days)	Time over-run (Not condoned)
Asset-I	Asset-1	4.2.2017	22.6.2016*	-	-
Asset-II	Asset-2		31.8.2016*	-	-
Asset-III	Asset-3		23.9.2016*	-	-
Asset-IV	Asset-I		27.3.2017	51 days	51 days
Asset-V	Asset-II		2.4.2017	57 days	57 days
Asset-VI	Asset-III		31.3.2017	55 days	55 days
Asset-VII	Asset-IV		28.3.2017	52 days	52 days
Asset-VIII	Asset-VI(A)		14.12.2017	313 days	162 days
Asset-IX	Asset-VI(B)		16.4.2018	436 days	285 days
Asset-X	Asset-I (a)		28.6.2018	509 days	509 days
Asset-XI	Asset-I (b)		1.7.2018	513 days	513 days
Asset-XII	Asset-I (c)		1.10.2018	605 days	605 days
Asset-XIII	Asset		10.6.2017**	126 days	126 days

\*The tariff was determined considering anticipated COD of 30.6.2016, 30.6.2016 and 31.7.2016 for Asset-I, II and III respectively.

\*\* The COD of Asset-XIII was approved as 10.6.2017 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations.

G. The transmission tariff in respect of the Asset-I, Asset-II and Asset-III was approved by the Commission vide order dated 28.6.2016 in Petition No. 23/TT/2016, transmission tariff in respect of Assets-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX was approved by the Commission vide order dated 18.9.2018 in Petition No.176/TT/2017, transmission tariff in respect of Asset-X, Asset-XI and Asset-XII was approved by the Commission vide order dated 25.6.2019 in Petition No. 253/TT/2018 and transmission tariff in respect of Asset-XIII was approved by the Commission vide order dated 30.4.2020 in Petition No. 35/TT/2019 respectively, for the period from their respective COD to 31.3.2019.



H. The Annual Fixed Charges (AFC) approved by the Commission in the above said orders and trued-up tariff claimed by the Petitioner in the instant petition for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	Asset-I		
	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
AFC allowed vide order dated 28.6.2018 in Petition No. 23/TT/2016	349.54	460.04	455.19
AFC claimed by the Petitioner based on truing up in the instant petition	341.99	492.70	523.37

(₹ in lakh)

Particulars	Asset-II		
	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
AFC allowed vide order dated 28.6.2018 in Petition No. 23/TT/2016	333.70	444.63	440.49
AFC claimed by the Petitioner based on truing up in the instant petition	235.34	454.07	479.66

(₹ in lakh)

Particulars	Asset-III		
	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
AFC allowed vide order dated 28.6.2018 in Petition No. 23/TT/2016	323.99	498.80	493.20
AFC claimed by the Petitioner based on truing up in the instant petition	224.59	457.49	474.27

(₹ in lakh)

Particulars	Asset-IV		
	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
AFC allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	15.38	1253.86	1394.55
AFC claimed by the Petitioner based on truing up in the instant petition	15.49	1187.71	1291.44



(₹ in lakh)

Particulars	Asset-V		Asset-VI		
	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017- 18	2018-19
AFC allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	209.41	238.23	0.97	407.73	461.36
AFC claimed by the Petitioner based on truing up in the instant petition	209.79	245.31	0.99	400.26	439.72

(₹ in lakh)

Particulars	Asset-VII			Asset-VIII		Asset-IX
	2016-17 (Pro-rata for 4 days)	2017-18	2018- 19	2017-18 (Pro-rata for 108 days)	2018- 19	2018-19 (Pro-rata for 350 days)
AFC allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	1.95	191.22	203.00	51.67	188.90	167.54
AFC claimed by the Petitioner based on truing up in the instant petition	1.98	189.30	197.76	52.23	192.20	213.23

(₹ in lakh)

Particulars	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
AFC allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	752.46	387.02	277.63
AFC claimed by the Petitioner based on truing up in the instant petition	770.26	399.42	283.07

(₹ in lakh)

Particulars	Asset-XIII	
	2017-18 (Pro-rata for 295 days)	2018-19
AFC allowed vide order dated 30.4.2020 in Petition No. 35/TT/2019	336.19	452.51
AFC claimed by the Petitioner based on truing up in the instant petition	330.42	439.44



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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Tamil Nadu Generation and Distribution Corporation (TANGEDCO), Respondent No. 1 has filed its reply vide affidavit dated 27.8.2021 and has raised issues of apportionment of cost, capital cost of the transmission project, time over-run, IDC and IEDC, cost over-run, excess Initial Spares, ACE and sharing of transmission charges. In response, the Petitioner has filed a rejoinder vide affidavit dated 3.9.2021.

6. This order is issued considering the submissions made by the Petitioner in the petition, affidavit dated 1.7.2021, reply by TANGEDCO and the Petitioner's rejoinder thereto.

7. The hearing in this matter was held on 29.10.2021 through video conference and the order was reserved. However, the order could not be issued before Shri P.K. Pujari, former Chairperson, demitted the office. Therefore, the matter was heard again on 23.6.2022 and the representative of the Petitioner submitted all the required information has already been filed. The learned counsel for



TANGEDCO submitted that the reply filed may be considered. After hearing the parties, the order was reserved.

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

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

9. The details of the trued-up transmission charges claimed by the Petitioner for the transmission assets are as follows:

(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 283 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	78.81	119.23	130.66
Interest on Loan	81.47	114.61	116.24
Return on Equity	87.03	131.91	145.01
O&M Expenses	9.83	13.89	14.65
Interest on Working Capital	84.85	113.06	116.81
<b>Total</b>	<b>341.99</b>	<b>492.70</b>	<b>523.37</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 213 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	51.94	105.61	115.05
Interest on Loan	54.45	104.1	104.92
Return on Equity	58.16	118.24	129.16
O&M Expenses	6.93	13.06	13.72
Interest on Working Capital	63.86	113.06	116.81
<b>Total</b>	<b>235.34</b>	<b>454.07</b>	<b>479.66</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 190 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	50.89	106.82	113.47
Interest on Loan	53.26	104.87	102.99
Return on Equity	56.98	119.6	127.39
O&M Expenses	6.49	13.14	13.61
Interest on Working Capital	56.97	113.06	116.81
<b>Total</b>	<b>224.59</b>	<b>457.49</b>	<b>474.27</b>



(₹ in lakh)

Asset-IV			
Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
Depreciation	3.48	273.08	310.19
Interest on Loan	3.78	281.56	293.51
Return on Equity	3.90	306.36	348.83
O&M Expenses	0.45	34.08	36.58
Interest on Working Capital	3.88	292.63	302.33
<b>Total</b>	<b>15.49</b>	<b>1187.71</b>	<b>1291.44</b>

(₹ in lakh)

Particulars	Asset-V		Asset-VI		
	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
Depreciation	43.35	54.73	0.21	88.71	102.13
Interest on Loan	45.22	53.27	0.22	88.89	95.02
Return on Equity	48.54	61.43	0.23	97.68	112.89
O&M Expenses	6.35	7.17	0.03	11.92	12.87
Interest on Working Capital	66.33	68.71	0.30	113.06	116.81
<b>Total</b>	<b>209.79</b>	<b>245.31</b>	<b>0.99</b>	<b>400.26</b>	<b>439.72</b>

(₹ in lakh)

Particulars	Asset-VII			Asset-VIII	
	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
Depreciation	0.15	15.42	17.03	16.39	61.20
Interest on Loan	0.16	15.59	15.87	16.39	58.25
Return on Equity	0.17	17.26	19.12	18.35	68.71
O&M Expenses	0.08	8.01	8.32	1.10	4.04
Interest on Working Capital	1.42	133.02	137.42	0.00	0.00
<b>Total</b>	<b>1.98</b>	<b>189.30</b>	<b>197.76</b>	<b>52.23</b>	<b>192.20</b>

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
Depreciation	66.33	182.7	96.63	67.8
Interest on Loan	68.11	186.32	96.02	73.51
Return on Equity	74.46	203.25	108.47	76.11
O&M Expenses	4.33	20.71	10.61	7.41



Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
Interest on Working Capital	0	177.28	87.69	58.24
<b>Total</b>	<b>213.23</b>	<b>770.26</b>	<b>399.42</b>	<b>283.07</b>

(₹ in lakh)

Asset-XIII		
Particulars	2017-18 (Pro-rata for 295 days)	2018-19
Depreciation	73.1	100.43
Interest on Loan	74.48	96.79
Return on Equity	81.84	112.75
O&M Expenses	9.63	12.66
Interest on Working Capital	91.37	116.81
<b>Total</b>	<b>330.42</b>	<b>439.44</b>

10. The details of the Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets are as follows:

(₹ in lakh)

Asset-I			
Particulars	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	73.52	82.12	87.23
<b>Total Working Capital</b>	<b>99.05</b>	<b>108.5</b>	<b>114.48</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>9.83</b>	<b>13.89</b>	<b>14.65</b>

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	67.21	75.68	79.94
<b>Total Working Capital</b>	<b>92.74</b>	<b>102.06</b>	<b>107.19</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>6.93</b>	<b>13.06</b>	<b>13.72</b>



(₹ in lakh)

Asset-III			
Particulars	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
O&M Expenses	9.12	9.42	9.73
Maintenance Spares	16.41	16.96	17.52
Receivables	71.91	76.25	79.05
<b>Total Working Capital</b>	<b>97.44</b>	<b>102.63</b>	<b>106.3</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>6.49</b>	<b>13.14</b>	<b>13.61</b>

(₹ in lakh)

Asset-IV			
Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
O&M Expenses	23.6	24.39	25.19
Maintenance Spares	42.48	43.89	45.35
Receivables	188.42	197.95	215.24
<b>Total Working Capital</b>	<b>254.5</b>	<b>26.23</b>	<b>285.78</b>
Rate of Interest (in %)	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>0.45</b>	<b>34.08</b>	<b>36.58</b>

(₹ in lakh)

Asset-V			Asset-VI		
Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
O&M Expenses	5.54	5.73	9.12	9.42	9.73
Maintenance Spares	9.98	10.31	16.41	16.96	17.52
Receivables	35.06	40.89	60.22	66.71	73.29
<b>Total Working Capital</b>	<b>50.58</b>	<b>56.93</b>	<b>85.75</b>	<b>93.09</b>	<b>100.54</b>
Rate of Interest (in %)	12.60	12.60	12.80	12.80	12.80
<b>Interest on Working Capital</b>	<b>6.35</b>	<b>7.17</b>	<b>0.99</b>	<b>11.92</b>	<b>12.87</b>

(₹ in lakh)

Asset-VII				Asset-VIII	
Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
O&M Expenses	10.73	11.09	11.45	0.00	0.00
Maintenance Spares	19.31	19.95	20.61	0.00	0.00
Receivables	30.04	31.55	32.96	29.42	32.03
<b>Total Working Capital</b>	<b>60.08</b>	<b>62.59</b>	<b>65.02</b>	<b>29.42</b>	<b>32.03</b>
Rate of Interest (in %)	12.80	12.80	12.80	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.08</b>	<b>8.01</b>	<b>8.32</b>	<b>1.10</b>	<b>4.04</b>





(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
O&M Expenses	0.00	19.47	9.73	9.73
Maintenance Spares	0.00	35.04	17.52	17.52
Receivables	37.06	169.16	88.68	94.62
<b>Total Working Capital</b>	<b>37.06</b>	<b>223</b>	<b>115.93</b>	<b>121.87</b>
Rate of Interest (in %)	12.20	12.20	12.20	12.20
<b>Interest on Working Capital</b>	<b>4.33</b>	<b>20.71</b>	<b>10.61</b>	<b>7.41</b>

(₹ in lakh)

Asset-XIII		
Particulars	2017-18 (Pro-rata for 295 days)	2018-19
O&M Expenses	9.42	9.73
Maintenance Spares	16.96	17.52
Receivables	68.14	73.24
<b>Total Working Capital</b>	<b>94.52</b>	<b>100.49</b>
Rate of Interest (in %)	12.60	12.60
<b>Interest on Working Capital</b>	<b>9.63</b>	<b>12.66</b>

### Date of Commercial Operation (COD)

11. The Commission vide order dated 28.6.2016 in Petition No. 23/TT/2016 approved the COD of the Asset-I, Asset-II and Asset-III on anticipated basis as 30.6.2016, 30.6.2016 and 31.7.2016 respectively. The Petitioner in the instant true-up petition has claimed the actual COD of the Asset-I, Asset-II and Asset-III as 22.6.2016, 31.8.2016 and 23.9.2016 respectively. In support of actual COD of Asset-I, Asset-II and Asset-III, the Petitioner has submitted self-declaration COD certificate, CEA energisation certificate and RLDC charging certificate.

12. Taking into consideration of self-declaration COD certificate, CEA energisation certificate and RLDC charging certificate, the COD of the Asset-I, Asset-II and Asset-III is approved as 22.6.2016, 31.8.2016 and 23.9.2016 respectively.



## Capital Cost

13. The Commission vide order dated 28.6.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No. 176/TT/2017 in respect of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII has approved the following capital cost and ACE for the transmission assets:

(₹ in lakh)

Assets	Approved apportioned cost as per FR	Approved apportioned cost as per RCE	Admitted Cost as on COD	ACE			Admitted Cost as on 31.3.2019
				2016-17	2017-18	2018-19	
Asset-I	2056.68	2814.59	2056.68	0.00	0.00	0.00	2056.68
Asset-II	1991.53	2760.18	1933.43	58.10	0.00	0.00	1991.53
Asset-III	2303.26	2895.44	2090.63	212.63	0.00	0.00	2303.26
Asset-IV	5394.61	6939.78	4806.42	0.00	1494.91	331.64	6632.97
Asset-V	858.19	1120.61	696.99	0.00	252.58	94.85	1044.42
Asset-VI	2347.62	2442.69	1415.28	0.00	559.26	110.25	2084.79
Asset-VII	179.90	411.73	263.90	0.00	76.91	23.34	364.15
Asset-VIII	1378.86	1845.31	976.53	0.00	135.00	72.08	1183.61
Asset-IX	1346.77	1845.31	940.35	0.00	0.00	185.84	1126.19
Asset-X	4358.31	5742.16	4112.28	0.00	0.00	564.15	4676.43
Asset-XI	2321.16	3195.94	2137.85	0.00	0.00	429.15	2567.00
Asset-XII	2321.16	3139.44	2518.94	0.00	0.00	31.88	2550.82
Asset-XIII	1990.84	2455.82	1555.75	0.00	396.44	70.50	2022.70
<b>Total</b>	<b>28848.89</b>	<b>37609.00</b>	<b>25505.03</b>	<b>270.73</b>	<b>2915.10</b>	<b>1913.68</b>	<b>30604.55</b>

14. The Petitioner in the instant true up petition has submitted capital cost as on COD and ACE incurred for Asset-I to Asset-XIII as per Auditor's Certificates dated 30.7.2019 as follows:

(₹ in lakh)

Assets	Approved apportioned cost as per FR	Approved apportioned, cost as per RCE	Capital Cost (as on COD)	ACE			Total Capital Cost as on 31.3.2019
				2016-17	2017-18	2018-19	
Asset-I	2056.68	2814.59	1745.38	343.48	287.38	140.46	2516.70
Asset-II	1991.53	2760.18	1539.33	325.63	283.17	61.72	2209.85



Asset-III	2303.26	2895.44	1771.05	206.83	113.45	115.61	2206.94
Asset-IV	5394.61	6930.78	5083.17	-	612.12	683.47	6378.76
Asset-V	858.19	1129.61	769.66	-	221.32	173.77	1164.75
Asset-VI	2347.62	2442.69	1462.44	-	441.55	34.63	1938.62
Asset-VII	179.90	411.73	273.65	-	49.17	5.35	328.17
Asset-VIII	1378.86	1845.31	1323.31	-	143.66	72.00	1538.97
Asset-IX	1346.77	1845.31	1335.09	-	-	94.92	1430.01
Asset-X	4358.31	5742.16	4403.64	-	-	812.17	5215.81
Asset-XI	2321.16	3195.94	2302.22	-	-	600.04	2902.26
Asset-XII	2321.16	3139.44	2714.67	-	-	112.46	2827.13
Asset-XIII	1990.84	2455.82	1594.65	-	292.76	79.45	1966.86
<b>Total</b>	<b>28848.89</b>	<b>37609.00</b>	<b>26318.26</b>	<b>875.94</b>	<b>2444.58</b>	<b>2986.05</b>	<b>32624.83</b>

15. In case of Asset-IV and Asset-V, the apportioned cost as per RCE in para 13 is ₹6939.78 lakh and ₹1120.61 lakh, respectively. However, in the present petition the Petitioner has claimed apportioned cost as per RCE as ₹6930.78 lakh and ₹1129.61 lakh respectively (para14). Hence, there is a mismatch. The Petitioner has not provided any explanation regarding the change in apportioned cost as per RCE. Accordingly, we have considered the apportioned cost as provided in para-14 above and computed the tariff.

### **Cost Over-Run**

16. The capital cost of Asset-I, Asset-II and Asset-III was restricted to the FR apportioned approved cost in order dated 28.6.2016 in Petition No. 23/TT/2016 and directed the Petitioner to submit RCE along with detailed reasons for cost increase at the time of truing up.

17. The cost variation in case of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VII and Asset-IX was allowed in order dated 18.9.2018 in Petition No. 176/TT/2017.

18. The cost variation in case of Asset-X, Asset-XI and Asset-XII was allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018. However, the Commission directed the Petitioner to submit the Form-5 based on the actual cost



at the time of true-up and the cost over-run in case of the individual assets for review.

19. The cost variation in case of Asset-XIII was allowed by the Commission in order dated 30.4.2020 in Petition No. 35/TT/2019.

20. TANGEDCO has submitted that there is cost over-run in case of Asset-I, Asset-II, Asset-X, Asset-XI and Asset-XII *vis-a-vis* the FR apportioned cost. As regards the variation in cost of individual item in sub-station packages, the Petitioner has submitted that the packages under subject scope of works comprise of a large number of items and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package. Therefore, the Petitioner is inconsiderate in its approach and as usual submitted casually that the overall completion cost is within the RCE apportioned approved cost. The reason submitted by the Petitioner is not acceptable. If the individual component cost is too high as compared to recent orders/ benchmark rates, then it is the duty of the Petitioner to negotiate the rates with the lowest bidder. Such huge variation in civil works is not prudent and, hence, liable to be restricted.

21. In response, the Petitioner has reiterated its submissions and also submitted that the contracts for various packages were awarded to the lowest responsive bidder on the basis of competitive bidding after publication of NIT in local newspapers. Thus, the award prices represent the lowest prices available at the time of bidding of various packages. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon

prevailing market conditions. PV incurred/ likely to be incurred under the said contracts is mainly due to variation in indices of various major raw materials during execution of the transmission system. Further, the completion cost of the assets is within the RCE cost.

22. We have considered the submissions of the Petitioner and TANGEDCO. It is observed that the estimated completion cost of Asset-I, Asset-II, Asset-X, Asset-XI and Asset-XII is more than the FR apportioned approved cost by ₹460.02 lakh, ₹218.32 lakh, ₹857.5 lakh, ₹581.10 lakh and ₹505.97 lakh, respectively. The Petitioner has submitted the RCE of the transmission project duly approved by the Board of Directors of the Petitioner with an estimated cost of ₹37609 lakh including IDC of ₹1896 lakh based on April, 2016 price level. The Petitioner has re-apportioned the cost (RCE cost) of Asset-I, Asset-II, Asset-X, Asset-XI and Asset-XII as ₹2814.59 lakh, ₹2760.18 lakh, ₹5742.16 lakh, ₹3195.94 lakh, ₹3139.44 lakh, respectively. As per the table provided in para-13 of the subject petition, the estimated completion cost of Asset-I, Asset-II, Asset-X, Asset-XI and Asset-XII is within RCE cost.

23. It is observed that the estimated completion cost of Asset-V is more than the FR apportioned approved cost by ₹306.56 lakh and more than the RCE apportioned approved cost by ₹44.14 lakh. Hence, we restrict the capital cost of Asset-V to RCE apportioned approved cost of ₹1120.61 lakh.

### **Time Over-run**

24. As per the IA, the transmission assets were scheduled to be put under commercial operation within 30 months from the date of IA i.e. 4.2.2017. The



scheduled date of commercial operation (SCOD) of the transmission assets, the actual COD and time over-run of the transmission assets are as follows:

Particulars	SCOD	COD	Time over-run	Time over-run (Not condoned)
Asset-I	4.2.2017	22.6.2016	-	-
Asset-II		31.8.2016	-	-
Asset-III		23.9.2016	-	-
Asset-IV		27.3.2017	51 days	51 days
Asset-V		2.4.2017	57 days	57 days
Asset-VI		31.3.2017	55 days	55 days
Asset-VII		28.3.2017	52 days	52 days
Asset-VIII		14.12.2017	313 days	162 days
Asset-IX		16.4.2018	436 days	285 days
Asset-X		28.6.2018	509 days	509 days
Asset-XI		1.7.2018	513 days	513 days
Asset-XII		1.10.2018	605 days	605 days
Asset-XIII		10.6.2017	126 days	126 days

25. There is time over-run in case of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII, Asset-IX, Asset-X, Asset-XI, Asset-XII and Asset-XIII. The time over-run in case of the said assets has already been considered by the Commission and time over-run in case of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-X, Asset-XI, Asset-XII and Asset-XIII was not condoned. The time over-run in case of Asset-VIII and Asset-IX has already been partially condoned by the Commission as per the details given in the table above.

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

26. The Petitioner has claimed IDC for the transmission assets and has submitted Auditor's Certificates dated 30.7.2019 in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.



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

28. TANGEDCO has submitted that there is no provision in the 2014 Tariff Regulations for adjusting the IDC and IEDC disallowed on account of time over-run against the liquidated damages claimed by the Petitioner as per contractual obligations. As per Regulation 11 of 2014 Tariff Regulations, IDC and IEDC corresponding to the period of time over-run can only be allowed if the time over-run was on account of uncontrollable factors, which is not the case in the subject petition.

29. In response, the Petitioner has submitted that there were provisions of LD recovery in the contracts and the exact amount of LD is ascertainable only after the completion of the transmission project but as a matter of practice, retention amount of defaulting contractors is not released till the final settlement. Meanwhile cost certificates are prepared for the purpose of filing the petition which captures only the actual outflow of funds against the subject asset. This results in showing the capital cost in certificate reduced by LD amount and the amount of LD will be deducted from retention money of the defaulting contractor at a later date, after completion of the transmission project and after all type of reconciliations with the contractor. Further, as per the accounting policy/ practice, the LD recovered is to be adjusted against the capital cost. Reduction on account



of time over-run from the cost given in the certificate results in double deduction as the disallowed IDC and IEDC is already deducted from the cost. Further, the LD recovered is only added back to the extent of the disallowed IDC and IEDC.

30. Commission vide order dated 22.8.2020 in Petition No. 327/TT/2019 and order dated 2.6.2021 in Petition No. 132/TT/2020 has already allowed IDC/ IEDC disallowed to the extent LD recovered. Accordingly, in the instant petition, disallowed IDC and IEDC to the extent of LD recovered has been allowed as ACE during 2018-19 as per Form-7.

31. We have considered the submissions of the Petitioner and TANGEDCO. Accordingly, based on the information filed by the Petitioner, the IDC considered is summarized as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC Admissible	IDC Discharge as on COD	IDC Undischarged as on COD	IDC Discharge during		
	A	B	C	D=B-C	2016-17	2017-18	2018-19
Asset-I	122.43	122.36	88.36	34.00	31.86	2.14	0.00
Asset-II	39.10	39.01	19.33	19.69	6.93	12.75	0.00
Asset-III	50.27	50.08	27.44	22.65	0.00	22.65	0.00
Asset-IV	283.73	241.56	127.71	113.84	0.00	113.84	0.00
Asset-V	43.11	33.03	3.23	29.80	0.00	29.80	0.00
Asset-VI	63.74	51.56	21.21	30.35	0.00	30.35	0.00
Asset-VII	12.69	10.44	3.56	6.88	0.00	6.88	0.00
Asset-VIII	60.01	12.37	7.49	4.88	0.00	0.00	4.88
Asset-IX	140.11	83.10	82.01	1.09	0.00	0.00	1.09
Asset-X	271.86	85.06	85.06	0.00	0.00	0.00	0.00
Asset-XI	151.13	38.10	38.10	0.00	0.00	0.00	0.00
Asset-XII	183.83	78.67	78.67	0.00	0.00	0.00	0.00
Asset-XIII	43.90	23.96	10.03	13.93	0.00	13.93	0.00

32. The Petitioner has claimed IEDC for the transmission assets and submitted Auditors' Certificate in support of the same. The Petitioner has also submitted that entire IEDC has been discharged as on COD in respect of the transmission assets, deduction of IEDC in respect to Asset-IV and Asset-V has





been done due to restriction of cost on account of cost over-run and disallowance of time over-run. However, after submission of RCE, there is no restriction in completion cost of Asset-IV. But, the capital cost in case of Asset-V is more than the RCE as stated in paragraph 22 above and accordingly the capital cost of Asset-V is restricted to the RCE apportioned cost. According to prevailing practice the IEDC has been restricted due to disallowance of time over-run. Accordingly, the IEDC is allowed as claimed subject to adjustment as per condonation of time over-run. The details of IEDC claimed and allowed are as follows:

(₹ in lakh)

Assets	IEDC claimed as per Auditor Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
	1	2	3= (1-2)
Asset-I	166.68	0.00	166.68
Asset-II	41.84	0.00	41.84
Asset-III	50.00	0.00	50.00
Asset-IV	553.14	29.20	523.94
Asset-V	96.55	5.66	90.89
Asset-VI	69.69	3.95	65.74
Asset-VII	11.65	0.63	11.02
Asset-VIII	61.05	9.18	51.87
Asset-IX	75.98	18.05	57.93
Asset-X	294.48	105.26	189.22
Asset-XI	142.80	51.30	91.50
Asset-XII	227.41	90.52	136.89
Asset-XIII	42.10	5.09	37.01

### **Initial Spares**

33. Initial Spares are provided in Regulation 13(d) of the 2014 Tariff

Regulations 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%*

.....”



34. The Petitioner has claimed the Initial Spares in respect of the transmission assets as follows:

(₹ in lakh)

Assets	Particulars	Plant & Machinery cost (excluding IDC and IEDC, land cost and cost of civil works) (A)	Initial Spares claimed (B)	Ceiling Limit (%) (C)	Initial Spares Worked Out	Excess Initial Spares
					$D = [(A-B) * C / (100-C)]$	
Asset-I	Sub-station	2227.59	131.78	6.0	133.78	0.00
Asset-II	Sub-station	2128.91	123.54	6.0	128.00	0.00
Asset-III	Sub-station	2106.67	124.85	6.0	126.50	0.00
Asset-IV	Sub-station	5818.77	216.11	6.0	357.62	0.00
Asset-V	Sub-station	983.68	37.32	6.0	60.41	0.00
Asset-VI	Sub-station	1837.12	105.16	6.0	110.56	0.00
Asset-VII	Sub-station	303.83	19.24	6.0	18.17	1.07
Asset-VIII	Sub-station	1417.91	79.95	6.0	85.40	0.00
Asset-IX	Sub-station	1247.74	0.00	6.0	79.64	0.00
Asset-X	Sub-station	4645.11	193.41	6.0	284.15	0.00
Asset-XI	Sub-station	2656.97	92.60	6.0	163.68	0.00
Asset-XII	Sub-station	2419.89	92.60	6.0	148.55	0.00
Asset-XIII	Sub-station	1880.86	108.63	6.0	113.12	0.00

35. TANGEDCO has submitted that excess Initial Spares have been claimed for Asset-VII as per the APTEL judgment dated 14.9.2019 in Appeal No. 74 of 2017 considering the transmission project as a whole instead of individual assets. TANGEDCO has submitted that while passing the judgment in the said appeal, the APTEL failed to consider the judgment in Appeal No. 165 of 2012 and, therefore, the judgment in Appeal No. 74 of 2017 is to be read down and till the said issue is not settled, the Commission should not grant Initial Spares as per the latter judgment.

36. In response, the Petitioner has submitted that the Initial Spares have been claimed as per judgment of the APTEL in Appeal No. 74 of 2017 and, hence, the same may be allowed.



37. We have considered the submissions of the Petitioner and TANGEDCO. The Petitioner's claim of Initial Spares except Asset-VII is within the ceiling limit specified in Regulation 13(d) of the 2014 Tariff Regulations. In case of Asset-VII ₹1.07 Lakh has been disallowed as on COD. Accordingly, the details of the Initial Spares allowed in respect of the transmission assets for the 2014-19 tariff period are as follows:

Assets	P&M cost considered as on cut-off date	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per the 2014 Tariff Regulations	Initial Spares allowed	Discharge of Initial Spares		
						(₹ in lakh)		
						As on COD	2017-18	2018-19
Asset-I	2227.59	131.78	6.0	133.78	131.78	131.78	-	-
Asset-II	2128.91	123.54	6.0	128.00	123.54	123.54	-	-
Asset-III	2106.67	124.85	6.0	126.50	124.85	124.85	-	-
Asset-IV	5818.77	216.11	6.0	357.62	216.11	216.11	-	-
Asset-V	983.68	37.32	6.0	60.41	37.32	37.32	-	-
Asset-VI	1837.12	105.16	6.0	110.56	105.16	105.16	-	-
Asset-VII	303.83	19.24	6.0	18.17	18.17	18.17	-	-
Asset-VIII	1417.91	79.95	6.0	85.40	79.95	79.95	-	-
Asset-IX	1247.74	0.00	6.0	79.64	0.00	-	-	-
Asset-X	4645.11	193.41	6.0	284.15	193.41	186.58	-	6.83
Asset-XI	2656.97	92.60	6.0	163.68	92.60	79.45	-	13.15
Asset-XII	2419.89	92.60	6.0	148.55	92.60	34.78	-	57.82
Asset-XIII	1880.86	108.63	6.0	113.12	108.63	74.55	34.08	-

### De-capitalisation

38. The Commission in order dated 18.9.2018 in Petition No. 176/TT/2017 has decapitalised ₹304.57 lakh and ₹319.30 lakh in case of Asset-VI(A) and Asset-VI(B) (Asset-VIII and Asset-IX in instant petition).

*"37. The Asset VI (A) and VI (B) are replacing the existing assets. The petitioner vide affidavit dated 16.4.2018 has mentioned that the tariff for the replaced assets are approved by the Commission in Petition No. 212/TT/2014. The petitioner further has submitted that the replace ICT shall be used as a regional spare. The petitioner vide affidavit dated 17.5.2018 has submitted the details of gross block and accumulated depreciation for both the replaced ICTs at Narendra which are reproduced below:*



<i>Particulars</i>	<i>COD of replaced asset</i>	<i>Date of replacement</i>	<i>Gross block</i>	<i>Accumulated depreciation</i>	<i>Net Block as on the date of replacement</i>
<i>ICT-1 1x315 MVA replacement by Asset-VI(A)</i>	<i>28.10.2005</i>	<i>14.12.2017</i>	<i>745.10</i>	<i>440.53</i>	<i>304.57</i>
<i>ICT-1 1x315 MVA replacement by Asset-VI(B)</i>	<i>30.8.2006</i>	<i>16.4.2018</i>	<i>743.63</i>	<i>424.33</i>	<i>319.30</i>

*The Net Block as on the date of replacement has been adjusted from the allowable capital cost as on COD of the concerned new Asset”*

39. The Petitioner has submitted that Asset-VIII i.e. one 315 MVA transformer diverted to Misa Sub-station (NER) from Narendra after replacement with 500 MVA and kept as regional spare at Misa. The Commission vide order dated 10.12.2019 in Petition No. 175/TT/2018, approved the tariff for the diverted asset from Narendra as spare at Misa.

40. The Commission had approved the tariff for the decapitalized 315 MVA transformer of Narendra at Misa (Asset-VIII) as regional spare. Further, in the 34<sup>th</sup> SCM of Southern Grid held on 16.4.2012 and 20<sup>th</sup> SRPC meeting held on 28.9.2012, it has been agreed to keep the replaced ICT as spare. Similarly, Asset-IX has been kept as a spare in the transmission project, as follows:

*“12.4 It was also informed by POWERGRID that at Narendra 400/220 kV substation where transformation capacity is to be augmented with 1x500 MVA there is no space available. Towards this it was proposed that the existing 2x315 MVA transformer maybe replaced by 2x500 MVA transformers which shall effectively lead to augmentation of capacity by about 370 MVA. Further, the replaced 2x315 MVA transformers maybe used as regional spare in the same manner as contemplated for the 1x315 MVA 400/220 kV spare transformer approved earlier in the 13th SRPC meeting. This shall enable the Southern region to utilize 3 nos of 315 MVA 400/220 kV spare transformers (including one spare already approved and being procured) to meet the demand with enhanced reliability.*



12.5 After detailed deliberation members agreed for replacement of 2x315 MVA 400/220 kV transformers at Narendra with 2x500 MVA transformers and utilize the replaced 2x315 MVA transformers as regional spare.”

41. Based on the submissions of the Petitioner, 1(one) number of 315 MVA transformer (Asset-VIII) was diverted to Misa sub-station (NER) from Narendra after replacement with 500 MVA and kept as regional spare at Misa. The other 315 MVA transformer (Asset-IX) was kept at the transmission project as regional spare. Hence, we have adjusted the decapitalised amount ₹304.57 lakh for Asset-VIII only.

### **Capital Cost as on COD**

42. Accordingly, the capital cost allowed for the transmission assets as on COD is summarized as follows:

Assets	(₹ in lakh)						
	Capital Cost as on 1.4.2014 or COD whichever is later as per Auditors' Certificate	Less: IDC as on COD due to		Less: IEDC disallowed as on COD due to time over-run	Excess Initial Spares as on COD	De-capita-lisation	Capital Cost considered as on 1.4.2014
		Time over-run/computation difference	Un-discharged				
1	2	3	4=1-2-3	5	6	7=1-4-5-6	
Asset-I	1745.38	0.07	34.00	0.00	0.00	0.00	1711.31
Asset-II	1539.33	0.09	19.69	0.00	0.00	0.00	1519.56
Asset-III	1771.05	0.19	22.65	0.00	0.00	0.00	1748.22
Asset-IV	5083.17	42.17	113.84	29.20	0.00	0.00	4897.95
Asset-V	769.66	10.08	29.80	5.66	0.00	0.00	724.12
Asset-VI	1462.44	12.18	30.35	3.95	0.00	0.00	1415.96
Asset-VII	273.65	2.25	6.88	0.63	1.07	0.00	262.82
Asset-VIII	1323.31	47.64	4.88	9.18	0.00	304.57	957.03
Asset-IX	1335.09	57.01	1.09	18.05	0.00	0.00	1258.94
Asset-X	4403.64	186.80	0.00	105.26	0.00	0.00	4111.58
Asset-XI	2302.22	113.03	0.00	51.30	0.00	0.00	2137.89
Asset-XII	2714.67	105.17	0.00	90.52	0.00	0.00	2518.99
Asset-XIII	1594.65	19.94	13.93	5.09	0.00	0.00	1555.69



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

43. The Commission vide order dated 28.6.2016 in Petition No.23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No.176/TT/2017 in respect of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.06.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII has allowed ACE for the transmission assets covered in the instant petition which is as follows:

(₹ in lakh)

Particulars	Additional Capital Expenditure		
	2016-17	2017-18	2018-19
Asset-I	0.00	0.00	0.00
Asset-II	58.10	0.00	0.00
Asset-III	212.63	0.00	0.00
Asset-IV	0.00	1494.91	331.64
Asset-V	0.00	252.58	94.85
Asset-VI	0.00	559.26	110.25
Asset-VII	0.00	76.91	23.34
Asset-VIII	0.00	135.00	72.08
Asset-IX	0.00	0.00	185.84
Asset-X	0.00	0.00	564.15
Asset-XI	0.00	0.00	429.15
Asset-XII	0.00	0.00	31.88
Asset-XIII	0.00	396.44	70.50

44. The Petitioner has submitted that ACE has been claimed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has claimed the following ACE in respect of the transmission assets and submitted Auditor's Certificate in support of its claim:

(₹ in lakh)

Particulars	Additional Capital Expenditure		
	2016-17	2017-18	2018-19
Asset-I	343.48	287.38	140.46
Asset-II	325.63	283.17	61.72
Asset-III	206.83	113.45	115.61
Asset-IV	0.00	612.12	683.47
Asset-V	0.00	221.32	173.77
Asset-VI	0.00	441.55	34.63



Particulars	Additional Capital Expenditure		
	2016-17	2017-18	2018-19
Asset-VII	0.00	49.17	5.35
Asset-VIII	0.00	143.66	72.00
Asset-IX	0.00	0.00	94.92
Asset-X	0.00	0.00	812.17
Asset-XI	0.00	0.00	600.04
Asset-XII	0.00	0.00	112.46
Asset-XIII	0.00	292.76	79.45

45. Thus, the ACE claimed includes the accrued IDC discharged during the 2014-19 tariff period. It is observed that the total estimated completion cost including ACE for the 2014-19 period, except asset V, is within the approved cost as per RCE.

46. We have considered the submissions of the Petitioner. The ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations as it is towards Balance and Retention Payments and works deferred for execution. The undischarged IDC as on COD has been allowed as ACE. The details of ACE allowed are as follows:

(₹ in lakh)

Asset-I	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	88.24	130.63	107.79
Work deferred for execution/ ACE to the extent of unexecuted work	255.24	156.75	32.67
IDC Discharged	31.86	2.14	0.00
<b>Total ACE allowed</b>	<b>375.34</b>	<b>289.52</b>	<b>140.46</b>

(₹ in lakh)

Asset-II	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	216.63	278.40	11.34
Work deferred for execution/ ACE to the extent of unexecuted work	109.00	4.77	50.38
IDC Discharged	6.93	12.75	0.00
<b>Total ACE allowed</b>	<b>332.56</b>	<b>295.92</b>	<b>61.72</b>



(₹ in lakh)

Asset-III	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	118.83	111.12	112.12
Work deferred for execution/ ACE to the extent of unexecuted work	88.00	2.33	3.49
IDC Discharged	0.00	22.65	0.00
<b>Total ACE allowed</b>	<b>206.83</b>	<b>136.10</b>	<b>115.61</b>

(₹ in lakh)

Asset-IV	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	530.83	682.58
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	81.29	0.89
IDC Discharged	0.00	113.84	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>725.96</b>	<b>683.47</b>

(₹ in lakh)

Asset-V	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	99.92	139.58
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	121.40	5.79
IDC Discharged	0.00	29.80	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>251.12</b>	<b>145.37</b>

(₹ in lakh)

Asset-VI	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	418.07	27.45
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	23.48	7.18
IDC Discharged	0.00	30.35	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>471.90</b>	<b>34.63</b>

(₹ in lakh)

Asset-VII	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	44.41	5.35
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	4.76	0.00
IDC Discharged	0.00	6.88	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>56.05</b>	<b>5.35</b>





(₹ in lakh)

Asset-VIII	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	143.66	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	72.00
IDC Discharged	0.00	0.00	4.88
<b>Total ACE allowed</b>	<b>0.00</b>	<b>143.66</b>	<b>76.88</b>

(₹ in lakh)

Asset-IX	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	0.00	0.00
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	94.92
IDC Discharged	0.00	0.00	1.09
<b>Total ACE allowed</b>	<b>0.00</b>	<b>0.00</b>	<b>96.01</b>

(₹ in lakh)

Asset-X	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	0.00	786.95
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	25.22
IDC Discharged	0.00	0.00	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>0.00</b>	<b>812.17</b>

(₹ in lakh)

Asset-XI	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	0.00	593.50
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	6.54
IDC Discharged	0.00	0.00	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>0.00</b>	<b>600.04</b>

(₹ in lakh)

Asset-XII	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	0.00	112.46
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	0.00
IDC Discharged	0.00	0.00	0.00
<b>Total ACE allowed</b>	<b>0.00</b>	<b>0.00</b>	<b>112.46</b>



(₹ in lakh)

Asset-XIII	ACE		
	2016-17	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	292.76	75.47
Work deferred for execution/ ACE to the extent of unexecuted work	0.00	0.00	3.98
IDC Discharged	0.00	13.93	0.00
Total ACE allowed	<b>0.00</b>	<b>306.69</b>	<b>79.45</b>

### Capital Cost for 2014-19 tariff period

47. Accordingly, the capital cost of the transmission assets considered for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars	FR Approved Capital Cost	RCE Approved Capital Cost	Capital Cost as on COD on cash basis	Additional Capital Expenditure (ACE)			Total Capital Cost as on 31.3.2019
				2016-17	2017-18	2018-19	
Asset-I	2056.68	2814.59	1711.31	375.34	289.52	140.46	2516.63
Asset-II	1991.53	2760.18	1519.56	332.56	295.92	61.72	2209.76
Asset-III	2303.26	2895.44	1748.22	206.83	136.10	115.61	2206.75
Asset-IV	5394.61	6939.78	4897.95	0.00	725.96	683.47	6307.39
Asset-V	858.19	1120.61	724.12	0.00	251.12	145.37	1120.61
Asset-VI	2347.62	2442.69	1415.96	0.00	471.90	34.63	1922.49
Asset-VII	179.90	411.73	262.82	0.00	56.05	5.35	324.22
Asset-VIII	1378.86	1845.31	957.03	0.00	143.66	76.88	1177.57
Asset-IX	1346.77	1845.31	1258.94	0.00	0.00	96.01	1354.95
Asset-X	4358.31	5742.16	4111.58	0.00	0.00	812.17	4923.75
Asset-XI	2321.16	3195.94	2137.89	0.00	0.00	600.04	2737.93
Asset-XII	2321.16	3139.44	2518.99	0.00	0.00	112.46	2631.45
Asset-XIII	1990.84	2455.82	1555.69	0.00	306.69	79.45	1941.83

### Debt-Equity Ratio

48. The Petitioner has considered a debt-equity ratio of 70:30 as on COD and for ACE post COD. The debt-equity ratio of 70:30 has been considered for capital cost as on COD and ACE during the 2014-19 period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on COD and as on 31.3.2019 is as follows:



Funding Asset-I	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	1197.92	70.00	1761.65	70.00
Equity	513.39	30.00	754.98	30.00
Total	<b>1711.31</b>	<b>100.00</b>	<b>2516.63</b>	<b>100.00</b>
Funding Asset-II	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	1063.69	70.00	1546.84	70.00
Equity	455.87	30.00	662.92	30.00
Total	<b>1519.56</b>	<b>100.00</b>	<b>2209.76</b>	<b>100.00</b>
Funding Asset-III	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	1223.76	70.00	1544.74	70.00
Equity	524.46	30.00	662.01	30.00
Total	<b>1748.22</b>	<b>100.00</b>	<b>2206.75</b>	<b>100.00</b>
Funding Asset-IV	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	3428.57	70.00	4415.17	70.00
Equity	1469.39	30.00	1892.21	30.00
Total	<b>4897.95</b>	<b>100.00</b>	<b>6307.39</b>	<b>100.00</b>
Funding Asset-V	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	506.89	70.00	784.44	70.00
Equity	217.23	30.00	336.17	30.00
Total	<b>724.12</b>	<b>100.00</b>	<b>1120.61</b>	<b>100.00</b>
Funding Asset-VI	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	991.18	70.00	1345.76	70.00
Equity	424.78	30.00	576.73	30.00
Total	<b>1415.96</b>	<b>100.00</b>	<b>1922.49</b>	<b>100.00</b>
Funding Asset-VII	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	183.98	70.00	226.97	70.00
Equity	78.83	30.00	97.25	30.00
Total	<b>262.82</b>	<b>100.00</b>	<b>324.22</b>	<b>100.00</b>
Funding Asset-VIII	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)



	(₹ in lakh)		(₹ in lakh)	
Debt	669.93	70.00	824.31	70.00
Equity	287.10	30.00	353.26	30.00
Total	<b>957.03</b>	<b>100.00</b>	<b>1177.57</b>	<b>100.00</b>
<b>Funding Asset-IX</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	881.26	70.00	948.47	70.00
Equity	377.68	30.00	406.49	30.00
Total	<b>1258.94</b>	<b>100.00</b>	<b>1354.95</b>	<b>100.00</b>
<b>Funding Asset-X</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	2878.11	70.00	3446.62	70.00
Equity	1233.47	30.00	1477.12	30.00
Total	<b>4111.58</b>	<b>100.00</b>	<b>4923.75</b>	<b>100.00</b>
<b>Funding Asset-XI</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	1496.53	70.00	1916.56	70.00
Equity	641.36	30.00	821.37	30.00
Total	<b>2137.89</b>	<b>100.00</b>	<b>2737.93</b>	<b>100.00</b>
<b>Funding Asset-XII</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	1763.30	70.00	1842.02	70.00
Equity	755.69	30.00	789.43	30.00
Total	<b>2518.99</b>	<b>100.00</b>	<b>2631.45</b>	<b>100.00</b>
<b>Funding Asset-XIII</b>	<b>As on COD</b>		<b>As on 31.3.2019</b>	
	<b>Amount</b>	<b>(in %)</b>	<b>Amount</b>	<b>(in %)</b>
	<b>(₹ in lakh)</b>		<b>(₹ in lakh)</b>	
Debt	1088.98	70.00	1359.29	70.00
Equity	466.70	30.00	582.54	30.00
Total	<b>1555.69</b>	<b>100.00</b>	<b>1941.83</b>	<b>100.00</b>

### **Depreciation**

49. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. IT equipment has been considered as a part of the Gross



Block for Asset-I, Asset-VI and Asset-X and depreciated using weighted average rate of depreciation (WAROD). The weighted average rate of depreciation (WAROD) has been worked out considering the depreciation rates of IT and non-IT assets as specified in the 2014 Tariff Regulations. The salvage value of IT equipment has been considered nil, i.e., IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019.

50. During 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I to Annexure-XIII. The depreciation for the 2014-19 period is trued-up for the transmission assets as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)

<b>Asset-I</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 283 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Gross Block	1711.31	2086.65	2376.17
B	ACE	375.34	289.52	140.46
C	Closing Gross Block (A+B)	2086.65	2376.17	2516.63
D	Average Gross Block (A+C)/2	1898.98	2231.41	2446.40
E	Depreciable Value (D*90%)	1709.09	2008.27	2201.76
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
I	<b>Depreciation during the year (E*F)</b>	<b>77.74</b>	<b>117.82</b>	<b>129.17</b>
J	Aggregate Cumulative Depreciation at the end of the year	77.74	195.56	324.73
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	1631.35	1812.71	1877.03



(₹ in lakh)

Asset-II				
	Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
A	Opening Gross Block	1519.56	1852.12	2148.04
B	ACE	332.56	295.92	61.72
C	Closing Gross Block (A+B)	1852.12	2148.04	2209.76
D	Average Gross Block (A+C)/2	1685.84	2000.08	2178.90
E	Depreciable Value (D*90%)	1517.26	1800.07	1961.01
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28r	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
I	<b>Depreciation during the year (E*F)</b>	<b>51.94</b>	<b>105.60</b>	<b>115.05</b>
J	Aggregate Cumulative Depreciation at the end of the year	51.94	157.55	272.59
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	1465.31	1642.53	1688.42

(₹ in lakh)

Asset-III				
	Particulars	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
A	Opening Gross Block	1748.22	1955.05	2091.14
B	ACE	206.83	136.10	115.61
C	Closing Gross Block (A+B)	1955.05	2091.14	2206.75
D	Average Gross Block (A+C)/2	1851.63	2023.10	2148.95
E	Depreciable Value (D*90%)	1666.47	1820.79	1934.05
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
I	<b>Depreciation during the year (E*F)</b>	<b>50.89</b>	<b>106.82</b>	<b>113.46</b>
J	Aggregate Cumulative Depreciation at the end of the year	50.89	157.71	271.18
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	1615.58	1663.08	1662.88



(₹ in lakh)

Asset-IV				
	Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
A	Opening Gross Block	4897.95	4897.95	5623.92
B	ACE	0.00	725.96	683.47
C	Closing Gross Block (A+B)	4897.95	5623.92	6307.39
D	Average Gross Block (A+C)/2	4897.95	5260.93	5965.65
E	Depreciable Value (D*90%)	4408.16	4734.84	5369.09
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00
I	<b>Depreciation during the year (E*F)</b>	<b>3.54</b>	<b>277.78</b>	<b>314.99</b>
J	Aggregate Cumulative Depreciation at the end of the year	3.54	281.32	596.31
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	4404.61	4453.52	4772.78

(₹ in lakh)

Asset-V				Asset-VI		
	Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
A	Opening Gross Block	724.12	975.24	1415.96	1415.96	1887.86
B	ACE	251.12	145.37	0.00	471.90	34.63
C	Closing Gross Block (A+B)	975.24	1120.61	1415.96	1887.86	1922.49
D	Average Gross Block (A+C)/2	849.68	1047.93	1415.96	1651.91	1905.18
E	Depreciable Value (D*90%)	764.71	943.13	1261.68	1473.11	1700.13
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	0.00	0.00	1.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	25.00	25.00	25.00
I	<b>Depreciation during the year (E*F)</b>	<b>44.74</b>	<b>55.33</b>	<b>0.20</b>	<b>87.22</b>	<b>100.59</b>
J	Aggregate Cumulative Depreciation at the end of the year	44.74	100.07	0.20	87.43	188.02
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	719.97	843.06	1274.16	1399.29	1526.64



(₹ in lakh)

		Asset-VII			Asset-VIII	
	Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
A	Opening Gross Block	262.82	262.82	318.87	957.03	1100.69
B	ACE	0.00	56.05	5.35	143.66	76.88
C	Closing Gross Block (A+B)	262.82	318.87	324.22	1100.69	1177.57
D	Average Gross Block (A+C)/2	262.82	290.84	321.54	1028.86	1139.13
E	Depreciable Value (D*90%)	236.54	261.76	289.39	925.98	1025.22
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	1.00	0.00	0.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00	24.00	25.00	25.00
I	<b>Depreciation during the year (E*F)</b>	<b>0.15</b>	<b>15.36</b>	<b>16.98</b>	<b>16.07</b>	<b>60.15</b>
J	Aggregate Cumulative Depreciation at the end of the year	0.15	15.51	32.49	16.07	76.22
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	236.38	246.25	256.90	909.90	949.00

(₹ in lakh)

	Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
		2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
A	Opening Gross Block	1258.94	4111.58	2137.89	2518.99
B	ACE	96.01	812.17	600.04	112.46
C	Closing Gross Block (A+B)	1354.95	4923.75	2737.93	2631.45
D	Average Gross Block (A+C)/2	1306.95	4517.66	2437.91	2575.22
E	Depreciable Value (D*90%)	1176.25	4065.90	2194.12	2317.70
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00	0.00	0.00





H	Balance useful life at the beginning of the year (Year)	25.00	25.00	25.00	25.00
I	<b>Depreciation during the year (E*F)</b>	<b>66.17</b>	<b>181.02</b>	<b>96.63</b>	<b>67.80</b>
J	Aggregate Cumulative Depreciation at the end of the year	66.17	181.02	96.63	67.80
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	1110.08	3884.87	2097.49	2249.90

(₹ in lakh)

Asset-XIII			
	Particulars	2017-18 (Pro-rata for 295 days)	2018-19
A	Opening Gross Block	1555.69	1862.38
B	ACE	306.69	79.45
C	Closing Gross Block (A+B)	1862.38	1941.83
D	Average Gross Block (A+C)/2	1709.03	1902.10
E	Depreciable Value (D*90%)	1538.13	1711.89
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.28	5.28
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00
H	Balance useful life at the beginning of the year (Year)	25.00	25.00
I	<b>Depreciation during the year (E*F)</b>	<b>72.93</b>	<b>100.43</b>
J	Aggregate Cumulative Depreciation at the end of the year	72.93	173.36
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	1465.20	1538.53

51. The details of depreciation allowed for the transmission assets *vide* order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No.176/TT/2017 in respect of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



(₹ in lakh)

Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	79.10	104.98	104.98
	As claimed by the Petitioner	78.81	119.23	130.66
	Approved after Truing Up	77.74	117.82	129.17
Asset- II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	71.60	96.49	96.49
	As claimed by the Petitioner	51.94	105.61	115.05
	Approved after Truing Up	51.94	105.60	115.05
Asset- III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	72.63	114.02	114.02
	As claimed by the Petitioner	50.89	106.82	113.47
	Approved after Truing Up	50.89	106.82	113.46
Asset- IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	3.48	293.24	341.47
	As claimed by the Petitioner	3.48	273.08	310.19
	Approved after Truing Up	3.54	277.78	314.99
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	43.35	52.64
	As claimed by the Petitioner	0.00	43.35	54.72
	Approved after Truing Up	0.00	44.74	55.33
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.20	89.49	107.17
	As claimed by the Petitioner	0.21	88.71	102.13
	Approved after Truing Up	0.20	87.22	100.59
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.15	15.96	18.61
	As claimed by the Petitioner	0.15	15.42	17.00
	Approved after Truing Up	0.15	15.36	16.98
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	16.31	60.59
	As claimed by the Petitioner	0.00	16.39	61.20
	Approved after Truing Up	0.00	16.07	60.15
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	52.31
	As claimed by the Petitioner	0.00	0.00	66.32
	Approved after Truing Up	0.00	0.00	66.17
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	176.08
	As claimed by the Petitioner	0.00	0.00	182.70
	Approved after Truing Up	0.00	0.00	181.02



Assets	Particulars	2016-17	2017-18	2018-19
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	93.24
	As claimed by the Petitioner	0.00	0.00	96.63
	Approved after Truing Up	0.00	0.00	96.63
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	66.74
	As claimed by the Petitioner	0.00	0.00	67.80
	Approved after Truing Up	0.00	0.00	67.80
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	74.85	104.94
	As claimed by the Petitioner	0.00	73.09	100.43
	Approved after Truing Up	0.00	72.93	100.43

### Interest on Loan (IoL)

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

(₹ in lakh)				
<b>Asset-I</b>				
	Particulars	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
A	Gross Normative Loan	1197.92	1460.66	1663.33
B	Cumulative Repayments upto Previous Year	0.00	77.74	195.56
C	Net Loan-Opening (A-B)	1197.92	1382.92	1467.77
D	Addition due to Additional Capitalization	262.74	202.67	98.32
E	Repayment during the year	77.74	117.82	129.17
F	Net Loan-Closing (C+D-E)	1382.92	1467.77	1436.92
G	Average Loan (A+F)/2	1290.42	1425.35	1452.35
H	Weighted Average Rate of Interest on Loan (in %)	8.147	8.051	8.021
I	<b>Interest on Loan (GxH)</b>	<b>81.52</b>	<b>114.75</b>	<b>116.49</b>



(₹ in lakh)

Asset-II				
	Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
A	Gross Normative Loan	1063.69	1296.49	1503.64
B	Cumulative Repayments upto Previous Year	0.00	51.94	157.55
C	Net Loan-Opening (A-B)	1063.69	1244.54	1346.09
D	Addition due to Additional Capitalization	232.80	207.15	43.20
E	Repayment during the year	51.94	105.60	115.05
F	Net Loan-Closing (C+D-E)	1244.54	1346.09	1274.25
G	Average Loan (A+F)/2	1154.12	1295.32	1310.17
H	Weighted Average Rate of Interest on Loan (in %)	8.085	8.036	8.008
I	<b>Interest on Loan (GxH)</b>	<b>54.45</b>	<b>104.10</b>	<b>104.91</b>

(₹ in lakh)

Asset-III				
	Particulars	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
A	Gross Normative Loan	1223.76	1368.54	1463.81
B	Cumulative Repayments upto Previous Year	0.00	50.89	157.71
C	Net Loan-Opening (A-B)	1223.76	1317.65	1306.10
D	Addition due to Additional Capitalization	144.78	95.27	80.93
E	Repayment during the year	50.89	106.82	113.46
F	Net Loan-Closing (C+D-E)	1317.65	1306.10	1273.57
G	Average Loan (A+F)/2	1270.71	1311.87	1289.83
H	Weighted Average Rate of Interest on Loan (in %)	8.052	7.993	7.984
I	<b>Interest on Loan (GxH)</b>	<b>53.26</b>	<b>104.86</b>	<b>102.98</b>

(₹ in lakh)

Asset-IV				
	Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
A	Gross Normative Loan	3428.57	3428.57	3936.74
B	Cumulative Repayments upto Previous Year	0.00	3.54	281.32
C	Net Loan-Opening (A-B)	3428.57	3425.02	3655.42
D	Addition due to Additional Capitalization	0.00	508.17	478.43
E	Repayment during the year	3.54	277.78	314.99
F	Net Loan-Closing (C+D-E)	3425.02	3655.42	3818.86



G	Average Loan (A+F)/2	3426.80	3540.22	3737.14
H	Weighted Average Rate of Interest on Loan (in %)	8.216	8.097	7.981
I	<b>Interest on Loan (GxH)</b>	<b>3.86</b>	<b>286.65</b>	<b>298.26</b>

(₹ in lakh)

Asset-V			Asset-VI			
	Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
A	Gross Normative Loan	506.89	682.68	991.18	991.18	1321.52
B	Cumulative Repayments upto Previous Year	0.00	44.74	0.00	0.20	87.43
C	Net Loan-Opening (A-B)	506.89	637.94	991.18	990.97	1234.09
D	Addition due to Additional Capitalization	175.79	101.76	0.00	330.34	24.24
E	Repayment during the year	44.74	55.33	0.20	87.22	100.59
F	Net Loan-Closing (C+D-E)	637.94	684.37	990.97	1234.09	1157.74
G	Average Loan (A+F)/2	572.42	661.15	991.07	1112.53	1195.92
H	Weighted Average Rate of Interest on Loan (in %)	8.175	8.135	8.143	7.993	7.963
I	<b>Interest on Loan (GxH)</b>	<b>46.67</b>	<b>53.79</b>	<b>0.22</b>	<b>88.93</b>	<b>95.24</b>

(₹ in lakh)

Asset-VII				Asset-VIII		
	Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
A	Gross Normative Loan	183.98	183.98	223.22	669.93	770.49
B	Cumulative Repayments upto Previous Year	0.00	0.15	15.51	0.00	16.07
C	Net Loan-Opening (A-B)	183.98	183.83	207.71	669.93	754.42
D	Addition due to Additional Capitalization	0.00	39.24	3.75	100.56	53.82
E	Repayment during the year	0.15	15.36	16.98	16.07	60.15
F	Net Loan-Closing (C+D-E)	183.83	207.71	194.49	754.42	748.09
G	Average Loan (A+F)/2	183.91	195.77	201.10	712.17	751.26



H	Weighted Average Rate of Interest on Loan (in %)	8.068	7.929	7.867	7.627	7.620
I	<b>Interest on Loan (GxH)</b>	<b>0.16</b>	<b>15.52</b>	<b>15.82</b>	<b>16.07</b>	<b>57.24</b>

(₹ in lakh)

	Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
		2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
A	Gross Normative Loan	881.26	2878.11	1496.53	1763.30
B	Cumulative Repayments upto Previous Year	0.00	0.00	0.00	0.00
C	Net Loan-Opening (A-B)	881.26	2878.11	1496.53	1763.30
D	Addition due to Additional Capitalization	67.21	568.52	420.03	78.72
E	Repayment during the year	66.17	181.02	96.63	67.80
F	Net Loan-Closing (C+D-E)	882.30	3265.60	1819.93	1774.22
G	Average Loan (A+F)/2	881.78	3071.85	1658.23	1768.76
H	Weighted Average Rate of Interest on Loan (in %)	8.037	7.993	7.714	8.335
I	<b>Interest on Loan (GxH)</b>	<b>67.96</b>	<b>186.34</b>	<b>96.02</b>	<b>73.51</b>

(₹ in lakh)

Asset-XIII			
	Particulars	2017-18 (Pro-rata for 295 days)	2018-19
A	Gross Normative Loan	1088.98	1303.67
B	Cumulative Repayments upto Previous Year	0.00	72.93
C	Net Loan-Opening (A-B)	1088.98	1230.74
D	Addition due to Additional Capitalization	214.68	55.62
E	Repayment during the year	72.93	100.43
F	Net Loan-Closing (C+D-E)	1230.74	1185.93
G	Average Loan (A+F)/2	1159.86	1208.33
H	Weighted Average Rate of Interest on Loan (in %)	7.928	8.012
I	<b>Interest on Loan (GxH)</b>	<b>74.32</b>	<b>96.81</b>



53. The details of IOL allowed for the transmission assets vide order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No.176/TT/2017 in respect of Assets-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)				
Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	86.47	107.23	98.62
	As claimed by the Petitioner	81.47	114.61	116.24
	Approved after Truing Up	81.52	114.75	116.49
Asset-II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	82.66	104.48	96.57
	As claimed by the Petitioner	54.45	104.10	104.92
	Approved after Truing Up	54.45	104.10	104.91
Asset-III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	82.29	121.55	112.20
	As claimed by the Petitioner	53.26	104.87	102.99
	Approved after Truing Up	53.26	104.86	102.98
Asset-IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	3.78	305.75	331.49
	As claimed by the Petitioner	3.78	281.56	293.51
	Approved after Truing Up	3.86	286.65	298.26
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	45.08	51.20
	As claimed by the Petitioner	0.00	45.22	53.27
	Approved after Truing Up	0.00	46.67	53.79
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.22	93.39	104.64
	As claimed by the Petitioner	0.22	88.89	95.02
	Approved after Truing Up	0.22	88.93	95.24
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.16	16.39	17.80
	As claimed by the Petitioner	0.16	15.59	15.87
	Approved after Truing Up	0.16	15.52	15.82



<b>Assets</b>	<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	16.10	56.83
	As claimed by the Petitioner	0.00	16.39	58.25
	Approved after Truing Up	0.00	16.07	57.24
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	53.53
	As claimed by the Petitioner	0.00	0.00	68.11
	Approved after Truing Up	0.00	0.00	67.96
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	182.68
	As claimed by the Petitioner	0.00	0.00	186.32
	Approved after Truing Up	0.00	0.00	186.34
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	91.92
	As claimed by the Petitioner	0.00	0.00	96.02
	Approved after Truing Up	0.00	0.00	96.02
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	70.99
	As claimed by the Petitioner	0.00	0.00	73.51
	Approved after Truing Up	0.00	0.00	73.51
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	76.81	100.91
	As claimed by the Petitioner	0.00	74.48	96.79
	Approved after Truing Up	0.00	74.32	96.81

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

54. The Petitioner has claimed RoE for the transmission assets in terms of Regulations 24 and Regulation 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

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





55. The Commission vide order dated 27.4.2020 in Petition No.274/TT/2019 had arrived at the effective tax rate for the Petitioner for the 2014-19 tariff period based on the notified MAT rates and the same is as follows:

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

56. MAT rates allowed vide order dated 27.4.2020 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 and the same is as follows:

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

57. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year. Trued-up RoE on the basis of the MAT rate applicable in the respective years and allowed for the transmission assets are as follows:

(₹ in lakh)

Asset-I				
	Particulars	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
A	Opening Equity	513.39	625.99	712.84
B	Additions	112.60	86.85	42.14
C	Closing Equity (A-B)	625.99	712.84	754.98
D	Average Equity (A+B)/2	569.69	669.41	733.91



<b>Asset-I</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 283 days)</b>	<b>2017-18</b>	<b>2018-19</b>
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>87.04</b>	<b>131.91</b>	<b>145.01</b>

(₹ in lakh)

<b>Asset-II</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 213 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	455.87	555.63	644.40
B	Additions	99.77	88.77	18.52
C	Closing Equity (A-B)	555.63	644.40	662.92
D	Average Equity (A+B)/2	505.75	600.02	653.66
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>58.16</b>	<b>118.23</b>	<b>129.15</b>

(₹ in lakh)

<b>Asset-III</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 190 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	524.46	586.51	627.33
B	Additions	62.05	40.83	34.68
C	Closing Equity (A-B)	586.51	627.33	662.01
D	Average Equity (A+B)/2	555.48	606.92	644.67
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>56.98</b>	<b>119.59</b>	<b>127.37</b>

(₹ in lakh)

<b>Asset-IV</b>				
	<b>Particulars</b>	<b>2016-17 (Pro-rata for 5 days)</b>	<b>2017-18</b>	<b>2018-19</b>
A	Opening Equity	1469.39	1469.39	1687.17
B	Additions	0.00	217.79	205.04
C	Closing Equity (A-B)	1469.39	1687.17	1892.21
D	Average Equity (A+B)/2	1469.39	1578.28	1789.69
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>3.97</b>	<b>311.00</b>	<b>353.61</b>



(₹ in lakh)

Asset-V				Asset-VI		
	Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
A	Opening Equity	217.23	292.56	424.78	424.78	566.34
B	Additions	75.33	43.61	0.00	141.56	10.39
C	Closing Equity (A-B)	292.56	336.17	424.78	566.34	576.73
D	Average Equity (A+B)/2	254.90	314.37	424.78	495.56	571.54
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.758	19.705	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>50.09</b>	<b>62.11</b>	<b>0.23</b>	<b>97.65</b>	<b>112.92</b>

(₹ in lakh)

Asset-VII					Asset-VIII	
	Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
A	Opening Equity	78.83	78.83	95.65	287.10	330.20
B	Additions	0.00	16.81	1.60	43.10	23.06
C	Closing Equity (A-B)	78.83	95.65	97.25	330.20	353.26
D	Average Equity (A+B)/2	78.83	87.24	96.45	308.65	341.73
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.342	21.549	21.342	21.549
G	Rate of Return on Equity (%)	19.705	19.705	19.758	19.705	19.758
H	<b>Return on Equity (DxG)</b>	<b>0.17</b>	<b>17.19</b>	<b>19.06</b>	<b>18.00</b>	<b>67.52</b>

(₹ in lakh)

		Asset-IX	Asset-X	Asset-XI	Asset-XII
Particulars		2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
A	Opening Equity	377.68	1233.47	641.36	755.69
B	Additions	28.80	243.65	180.01	33.74
C	Closing Equity (A-B)	406.49	1477.12	821.37	789.43
D	Average Equity (A+B)/2	392.08	1355.30	731.37	772.56
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.549	21.549	21.549	21.549
G	Rate of Return on Equity (in %)	19.758	19.758	19.758	19.758
H	<b>Return on Equity (DxG)</b>	<b>74.28</b>	<b>203.22</b>	<b>108.48</b>	<b>76.11</b>



(₹ in lakh)

Asset-XIII			
	Particulars	2017-18 (Pro-rata for 295 days)	2018-19
A	Opening Equity	466.70	558.71
B	Additions	92.01	23.83
C	Closing Equity (A-B)	558.71	582.54
D	Average Equity (A+B)/2	512.71	570.62
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	<b>Return on Equity (DxG)</b>	<b>81.65</b>	<b>112.74</b>

58. The details of RoE allowed for the transmission assets vide order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No. 176/TT/2017 in respect of Assets-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	91.60	121.58	121.58
	As claimed by the Petitioner	87.03	131.91	145.01
	Approved after Truing Up	87.04	131.91	145.01
Asset-II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	87.41	117.73	117.73
	As claimed by the Petitioner	58.16	118.24	129.16
	Approved after Truing Up	58.16	118.23	129.15
Asset-III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	86.82	136.16	136.16
	As claimed by the Petitioner	56.98	119.60	127.39
	Approved after Truing Up	56.98	119.59	127.37
Asset-IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	3.87	326.75	380.48
	As claimed by the Petitioner	3.90	306.36	348.83
	Approved after Truing Up	3.97	311.00	353.61



<b>Assets</b>	<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	48.30	58.66
	As claimed by the Petitioner	0.00	48.54	61.43
	Approved after Truing Up	0.00	<b>50.09</b>	<b>62.11</b>
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.23	99.72	119.41
	As claimed by the Petitioner	0.23	97.68	112.89
	Approved after Truing Up	0.23	97.65	112.92
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.17	17.79	20.74
	As claimed by the Petitioner	0.17	17.26	19.12
	Approved after Truing Up	0.17	17.19	19.06
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	18.17	67.51
	As claimed by the Petitioner	0.00	18.35	68.71
	Approved after Truing Up	0.00	18.00	67.52
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	58.29
	As claimed by the Petitioner	0.00	0.00	74.46
	Approved after Truing Up	0.00	0.00	74.28
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	196.19
	As claimed by the Petitioner	0.00	0.00	203.25
	Approved after Truing Up	0.00	0.00	203.22
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	103.89
	As claimed by the Petitioner	0.00	0.00	108.47
	Approved after Truing Up	0.00	0.00	108.48
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	74.36
	As claimed by the Petitioner	0.00	0.00	76.11
	Approved after Truing Up	0.00	0.00	76.11
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	83.40	116.92
	As claimed by the Petitioner	0.00	81.84	112.75
	Approved after Truing Up	0.00	81.65	112.74

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

59. The O&M Expenses claimed by the Petitioner are as follows:



<b>Asset-I</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Kalivanthapattu: ICT III BAY (400/220 kV) Kalivanthapattu-Kalibandhapatu		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Kalivanthapattu: ICT III BAY (400/220 kV) Kalivanthapattu-Kalibandhapatu		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	1	1	1
220 KV			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>84.85</b>	<b>113.06</b>	<b>116.81</b>

<b>Asset-II</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Somanahalli: ICT III at Somanhalli		
2	Somanahalli: ICT III BAY (400/220 kV) Somanhally-Bangalore		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Somanahalli: ICT III BAY (400/220 kV) Somanhally-Bangalore		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	2	2	2
<b>Sub-station</b>			
220 kV			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>63.86</b>	<b>113.06</b>	<b>116.81</b>

<b>Asset-III</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Mysore: ICT III at Mysore		
2	Mysore: ICT III Bay (400/220 kV) Mysore- Mysore		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Mysore: ICT III Bay (400/220 kV) Mysore-Mysore		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			



<b>Asset-III</b>			
400 kV			
Number of bays	2	2	2
<b>Sub-station</b>			
220 kV			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>56.96</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

<b>Asset-IV</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Hyderabad: ICT IV Bay (400/220 kV) Hyderabad-Hyderabad		
2	Vijayawada: BR III Bay Vijaywada-Vijayawada		
3	Vijayawada: ICT III Bay (400/220 kV) Vijaywada -Vijayawada		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Hyderabad: ICT IV Bay (400/220 kV) Hyderabad-Hyderabad		
2	Vijayawada: ICT III Bay (400/220 kV)_Vijaywada -Vijayawada		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	3	3	3
<b>Sub-station</b>			
220 kV			
Number of bays	2	2	2
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>3.88</b>	<b>292.63</b>	<b>302.33</b>

<b>Asset-V</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Vijayawada: BR IV Bay Vijaywada-Vijayawada		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>66.33</b>	<b>68.71</b>

<b>Asset-VI</b>	
<b>S. No.</b>	<b>400 kV Sub-station bay</b>
1	Karur: ICT III BAY (400/220 kV) Karur-Pugalur



<b>Asset-VI</b>			
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Karur: ICT III BAY (400/220 kV) Karur-Pugalur		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	1	1	1
220 kV			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.30</b>	<b>113.06</b>	<b>116.81</b>

<b>Asset-VII</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Trichur: Pallakad SLR Bay I Trichur-Trichur		
2	Trichur: Pallakad SLR Bay II Trichur-Trichur		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	1	1	1
220 kV			
Number of bays	1	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>1.41</b>	<b>133.02</b>	<b>137.42</b>

<b>Asset-VIII</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Narendra: ICT at Narendra		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	0	0
220 kV			
Number of bays	0	0	0
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>





<b>Asset-IX</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Narendra: Narendra ICT II		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	0	0
220 kV			
Number of bays	0	0	0
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

<b>Asset-X</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Khammam: ICT III Bay (400/220 kV)_Khammam-Khammam		
2	Warangal: ICT III Bay (400/220 kV)_Warangal-Warrangal		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	0	2
220 kV			
Number of bays	0	0	0
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>0.00</b>	<b>177.30</b>

<b>Asset-XI</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Gooty: ICT III Bay (400/220 kV) Gooty-Gooty		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Gooty: ICT III Bay (400/220 kV) Gooty-Gooty		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	0	1
220 kV			
Number of bays	0	0	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>0.00</b>	<b>87.69</b>



<b>Asset-XII</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Cuddapah: ICT III Bay (400/220 kV) Kadapa-Cuddapah		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Cuddapah: ICT III BAY (400/220 kV) Kadapa-Cuddapah		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	0	1
220 kV			
Number of bays	0	0	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>0.00</b>	<b>58.24</b>

<b>Asset-XIII</b>			
<b>S. No.</b>	<b>400 kV Sub-station bay</b>		
1	Trichy: ICT III BAY (400/220 kV) Trichy-Trichy		
<b>S. No.</b>	<b>220 kV Sub-station bay</b>		
1	Trichy: ICT III BAY (400/220 kV) Trichy-Trichy		
<b>O&amp;M Expenses</b>			
	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
<b>Sub-station</b>			
400 kV			
Number of bays	0	1	1
220 kV			
Number of bays	0	1	1
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.00</b>	<b>91.38</b>	<b>116.81</b>

60. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. The norms specified in respect of the elements covered in the transmission assets are as follows:

<b>Asset-I</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV GIS Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10



<b>Asset-II</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

<b>Asset-III</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

<b>Asset-IV</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

<b>Asset-V</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71

<b>Asset-VI</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

<b>Asset-VII</b>						
<b>Element</b>	<b>UoM</b>	<b>Norms for 2014-15</b>	<b>Norms for 2015-16</b>	<b>Norms for 2016-17</b>	<b>Norms for 2017-18</b>	<b>Norms for 2018-19</b>
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71



Asset-X						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

Asset-XI						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

Asset-XII						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

Asset-XIII						
Element	UoM	Norms for 2014-15	Norms for 2015-16	Norms for 2016-17	Norms for 2017-18	Norms for 2018-19
400 kV Sub-station	₹ lakh/bay	60.30	62.30	64.37	66.51	68.71
220 kV Sub-station	₹ lakh/bay	42.21	43.61	45.06	46.55	48.10

61. We have considered the submissions of the Petitioner. O&M Expenses approved under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

Asset-I	(₹ in lakh)		
	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
1 number of 400 kV sub-station	49.91	66.51	68.71
1 number of 220 kV sub-station	34.94	46.55	48.10
<b>Total</b>	<b>84.85</b>	<b>113.06</b>	<b>116.81</b>



(₹ in lakh)

Asset-II	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
1 number of 400 kV sub-station	37.56	66.51	68.71
1 number of 220 kV sub-station	26.30	46.55	48.10
<b>Total</b>	<b>63.86</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

Asset-III	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
1 number of 400 kV sub-station	33.51	66.51	68.71
1 number of 220 kV sub-station	23.46	46.55	48.10
<b>Total</b>	<b>56.96</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

Asset-IV	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
3 numbers of 400 kV sub-station	2.65	199.53	206.13
2 numbers of 220 kV sub-station	1.23	93.10	96.20
<b>Total</b>	<b>3.88</b>	<b>292.63</b>	<b>302.33</b>

(₹ in lakh)

Asset-V	2017-18 (Pro-rata for 364 days)	2018-19
1 number of 400 kV sub-station	66.33	68.71
<b>Total</b>	<b>66.33</b>	<b>68.71</b>

(₹ in lakh)

Asset-VI	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
1 number of 400 kV sub-station	0.18	66.51	68.71
1 number of 220 kV sub-station	0.12	46.55	48.10
<b>Total</b>	<b>0.30</b>	<b>113.06</b>	<b>116.81</b>

(₹ in lakh)

Asset-VII	2016-17 (Pro-rata for 4 days)	2017-18	2018-19
2 numbers of 400 kV sub-station	1.41	133.02	137.42
<b>Total</b>	<b>1.41</b>	<b>133.02</b>	<b>137.42</b>



(₹ in lakh)

<b>Asset-X</b>	<b>2018-19 (Pro-rata for 277 days)</b>
2 numbers of 400 kV sub-station	104.29
2 numbers of 220 kV sub-station	73.01
<b>Total</b>	<b>177.30</b>

(₹ in lakh)

<b>Asset-XI</b>	<b>2018-19 (Pro-rata for 274 days)</b>
1 number of 400 kV sub-station	51.58
1 number of 220 kV sub-station	36.11
<b>Total</b>	<b>87.69</b>

(₹ in lakh)

<b>Asset-XII</b>	<b>2018-19 (Pro-rata for 182 days)</b>
1 number of 400 kV sub-station	34.26
1 number of 220 kV sub-station	23.98
<b>Total</b>	<b>58.24</b>

(₹ in lakh)

<b>Asset-XIII</b>	<b>2017-18 (Pro-rata for 295 days)</b>	<b>2018-19</b>
1 number of 400 kV sub-station	53.75	68.71
1 number of 220 kV sub-station	37.62	48.10
<b>Total</b>	<b>91.38</b>	<b>116.81</b>

62. The details of O&M Expenses allowed for the transmission assets vide order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No. 176/TT/2017 in respect of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:



(₹ in lakh)

Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	82.45	113.06	116.81
	As claimed by the Petitioner	84.85	113.06	116.81
	Approved after Truing Up	84.85	113.06	116.81
Asset-II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	82.45	113.06	116.81
	As claimed by the Petitioner	63.86	113.06	116.81
	Approved after Truing Up	63.86	113.06	116.81
Asset-III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	73.15	113.06	116.81
	As claimed by the Petitioner	56.97	113.06	116.81
	Approved after Truing Up	56.96	113.06	116.81
Asset-IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	3.81	292.63	302.33
	As claimed by the Petitioner	3.88	292.63	302.33
	Approved after Truing Up	3.88	292.63	302.33
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	66.33	68.71
	As claimed by the Petitioner	0.00	66.33	68.71
	Approved after Truing Up	0.00	66.33	68.71
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.29	113.06	116.81
	As claimed by the Petitioner	0.30	113.06	116.81
	Approved after Truing Up	0.30	113.06	116.81
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	1.38	133.02	137.42
	As claimed by the Petitioner	1.42	133.02	137.42
	Approved after Truing Up	1.41	133.02	137.42
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	0.00
	As claimed by the Petitioner	0.00	0.00	0.00
	Approved after Truing Up	0.00	0.00	0.00
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	0.00
	As claimed by the Petitioner	0.00	0.00	0.00
	Approved after Truing Up	0.00	0.00	0.00
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	177.16
	As claimed by the Petitioner	0.00	0.00	177.28
	Approved after Truing Up	0.00	0.00	177.30



Assets	Particulars	2016-17	2017-18	2018-19
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	87.61
	As claimed by the Petitioner	0.00	0.00	87.69
	Approved after Truing Up	0.00	0.00	87.69
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	58.24
	As claimed by the Petitioner	0.00	0.00	58.24
	Approved after Truing Up	0.00	0.00	58.24
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	91.39	116.81
	As claimed by the Petitioner	0.00	91.37	116.81
	Approved after Truing Up	0.00	91.38	116.81

### Interest on Working Capital (IWC)

63. The Petitioner has claimed interest on working capital as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The Petitioner is entitled to claim IWC.

The IWC allowed for the transmission assets is as follows:

(₹ in lakh)

Asset-I				
	Particulars	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	9.12	9.42	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	16.41	16.96	17.52
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	73.29	81.90	87.02
D	<b>Total Working Capital (A+B+C)</b>	<b>98.82</b>	<b>108.28</b>	<b>114.27</b>
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>9.81</b>	<b>13.86</b>	<b>14.63</b>

(₹ in lakh)

Asset-II				
	Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	9.12	9.42	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	16.41	16.96	17.52
C	WC for Receivables (Receivable	67.21	75.68	79.94





Asset-II				
	Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
	equivalent to 2 months of fixed cost)			
D	<b>Total Working Capital (A+B+C)</b>	92.75	102.06	107.20
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>6.93</b>	<b>13.06</b>	<b>13.72</b>

(₹ in lakh)

Asset-III				
	Particulars	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	9.12	9.42	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	16.41	16.96	17.52
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	71.91	76.25	79.04
D	<b>Total Working Capital (A+B+C)</b>	97.44	102.63	106.30
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>6.49</b>	<b>13.14</b>	<b>13.61</b>

(₹ in lakh)

Asset-IV				
	Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	23.60	24.39	25.19
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	42.48	43.89	45.35
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	190.97	200.41	217.68
D	<b>Total Working Capital (A+B+C)</b>	257.06	268.69	288.22
E	Rate of Interest (in %)	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>0.45</b>	<b>34.39</b>	<b>36.89</b>

(₹ in lakh)

Asset-V				Asset-VI		
	Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	5.54	5.73	9.12	9.42	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	9.98	10.31	16.41	16.96	17.52



Asset-V				Asset-VI		
	Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	35.81	41.19	59.92	66.46	73.07
D	<b>Total Working Capital (A+B+C)</b>	51.33	57.22	85.46	92.84	100.32
E	Rate of Interest (in %)	12.60	12.60	12.80	12.80	12.80
F	<b>Interest on Working Capital (DxE)</b>	<b>6.45</b>	<b>7.21</b>	<b>0.03</b>	<b>11.88</b>	<b>12.84</b>

(₹ in lakh)

Asset-VII				Asset-VIII		
	Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	10.73	11.09	11.45	0.00	0.00
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	19.31	19.95	20.61	0.00	0.00
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	30.11	31.52	32.93	28.85	31.48
D	<b>Total Working Capital (A+B+C)</b>	60.15	62.55	65.00	28.85	31.48
E	Rate of Interest (in %)	12.80	12.80	12.80	12.60	12.60
F	<b>Interest on Working Capital (DxE)</b>	<b>0.08</b>	<b>8.01</b>	<b>8.32</b>	<b>1.08</b>	<b>3.97</b>

(₹ in lakh)

	Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
		2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
A	WC for O&M Expenses (1 month of O&M Expenses)	0.00	19.47	9.73	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	35.04	17.52	17.52
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	36.98	168.79	88.68	94.62
D	<b>Total Working Capital (A+B+C)</b>	36.98	223.30	115.94	121.87
E	Rate of Interest (in %)	12.20	12.20	12.20	12.20
F	<b>Interest on Working Capital (DxE)</b>	<b>4.33</b>	<b>20.67</b>	<b>10.62</b>	<b>7.41</b>



(₹ in lakh)

Asset-XIII			
	Particulars	2017-18 (Pro-rata for 295 days)	2018-19
A	WC for O&M Expenses (1 month of O&M Expenses)	9.42	9.73
B	WC for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	16.96	17.52
C	WC for Receivables (Receivable equivalent to 2 months of fixed cost)	68.03	73.24
D	<b>Total Working Capital (A+B+C)</b>	94.41	100.50
E	Rate of Interest (in %)	12.60%	12.60%
F	<b>Interest on Working Capital (DxE)</b>	<b>9.61</b>	<b>12.66</b>

64. The details of IWC allowed for the transmission assets vide order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Assets-I, Asset-II and Asset-III, order dated 18.9.2018 in Petition No. 176/TT/2017 in respect of Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)

Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	9.92	13.19	13.20
	As claimed by the Petitioner	9.83	13.89	14.65
	Approved after Truing Up	9.81	13.86	14.63
Asset-II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	9.58	12.86	12.89
	As claimed by the Petitioner	6.93	13.06	13.72
	Approved after Truing Up	6.93	13.06	13.72
Asset-III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	9.10	14.02	14.01
	As claimed by the Petitioner	6.49	13.14	13.61
	Approved after Truing Up	6.49	13.14	13.61
Asset-IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.44	35.49	38.78
	As claimed by the Petitioner	0.45	34.08	36.58
	Approved after Truing Up	0.45	34.39	36.89



<b>Assets</b>	<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	6.35	7.02
	As claimed by the Petitioner	0.00	6.35	7.17
	Approved after Truing Up	0.00	6.45	7.21
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.03	12.07	13.33
	As claimed by the Petitioner	0.03	11.92	12.87
	Approved after Truing Up	0.03	11.88	12.84
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.08	8.05	8.43
	As claimed by the Petitioner	0.08	8.01	8.32
	Approved after Truing Up	0.08	8.01	8.32
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	1.08	3.97
	As claimed by the Petitioner	0.00	1.10	4.04
	Approved after Truing Up	0.00	1.08	3.97
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	3.41
	As claimed by the Petitioner	0.00	0.00	4.33
	Approved after Truing Up	0.00	0.00	4.33
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	20.34
	As claimed by the Petitioner	0.00	0.00	20.71
	Approved after Truing Up	0.00	0.00	20.67
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	10.36
	As claimed by the Petitioner	0.00	0.00	10.61
	Approved after Truing Up	0.00	0.00	10.62
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	7.30
	As claimed by the Petitioner	0.00	0.00	7.41
	Approved after Truing Up	0.00	0.00	7.41
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	9.75	12.94
	As claimed by the Petitioner	0.00	9.63	12.66
	Approved after Truing Up	0.00	9.61	12.66

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

65. Accordingly, the AFC approved in respect of the transmission assets after truing-up for the 2014-19 tariff period are as follows:



(₹ in lakh)

<b>Asset-I</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 283 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	77.74	117.82	129.17
Interest on Loan	81.52	114.75	116.49
Return on Equity	87.04	131.91	145.01
O&M Expenses	9.81	13.86	14.63
Interest on Working Capital	84.85	113.06	116.81
<b>Total</b>	<b>340.95</b>	<b>491.40</b>	<b>522.11</b>

(₹ in lakh)

<b>Asset-II</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 213 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	51.94	105.60	115.05
Interest on Loan	54.45	104.10	104.91
Return on Equity	58.16	118.23	129.15
O&M Expenses	63.86	113.06	116.81
Interest on Working Capital	6.93	13.06	13.72
<b>Total</b>	<b>235.34</b>	<b>454.06</b>	<b>479.64</b>

(₹ in lakh)

<b>Asset-III</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 190 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	50.89	106.82	113.46
Interest on Loan	53.26	104.86	102.98
Return on Equity	56.98	119.59	127.37
O&M Expenses	56.96	113.06	116.81
Interest on Working Capital	6.49	13.14	13.61
<b>Total</b>	<b>224.59</b>	<b>457.47</b>	<b>474.24</b>

(₹ in lakh)

<b>Asset-IV</b>			
<b>Particulars</b>	<b>2016-17 (Pro-rata for 5 days)</b>	<b>2017-18</b>	<b>2018-19</b>
Depreciation	3.54	277.78	314.99
Interest on Loan	3.86	286.65	298.26
Return on Equity	3.97	311.00	353.61
O&M Expenses	3.88	292.63	302.33
Interest on Working Capital	0.45	34.39	36.89
<b>Total</b>	<b>15.70</b>	<b>1202.45</b>	<b>1306.07</b>



(₹ in lakh)

Asset-V			Asset-VI		
Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
Depreciation	44.74	55.33	0.20	87.22	100.59
Interest on Loan	46.67	53.79	0.22	88.93	95.24
Return on Equity	50.09	62.11	0.23	97.65	112.92
O&M Expenses	66.33	68.71	0.30	113.06	116.81
Interest on Working Capital	6.45	7.21	0.03	11.88	12.84
<b>Total</b>	<b>214.27</b>	<b>247.92</b>	<b>0.99</b>	<b>398.74</b>	<b>438.41</b>

(₹ in lakh)

Asset-VII				Asset-VIII	
Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
Depreciation	0.15	15.36	16.98	16.07	60.15
Interest on Loan	0.16	15.52	15.82	16.07	57.24
Return on Equity	0.17	17.19	19.06	18.00	67.52
O&M Expenses	1.41	133.02	137.42	0.00	0.00
Interest on Working Capital	0.08	8.01	8.32	1.08	3.97
<b>Total</b>	<b>1.98</b>	<b>189.10</b>	<b>197.59</b>	<b>51.22</b>	<b>188.87</b>

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
Depreciation	66.17	181.02	96.63	67.80
Interest on Loan	67.96	186.34	96.02	73.51
Return on Equity	74.28	203.22	108.48	76.11
O&M Expenses	0.00	177.30	87.69	58.24
Interest on Working Capital	4.33	20.67	10.62	7.41
<b>Total</b>	<b>212.74</b>	<b>768.55</b>	<b>399.43</b>	<b>283.08</b>

(₹ in lakh)

Asset-XIII		
Particulars	2017-18 (Pro-rata for 295 days)	2018-19
Depreciation	72.93	100.43
Interest on Loan	74.32	96.81
Return on Equity	81.65	112.74
O&M Expenses	91.38	116.81
Interest on Working Capital	9.61	12.66
<b>Total</b>	<b>329.89</b>	<b>439.46</b>



66. The details of AFC allowed for the transmission assets vide order dated 28.8.2016 in Petition No. 23/TT/2016 in respect of Asset-I, Asset-II and Asset-III, dated 18.9.2018 in Petition No. 176/TT/2017 in respect of Assets-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII and Asset-IX, order dated 25.6.2019 in Petition No. 253/TT/2018 in respect of Asset-X, Asset-XI and Asset-XII and order dated 30.4.2020 in Petition No. 35/TT/2019 in respect of Asset-XIII, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)				
Assets	Particulars	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	349.54	460.04	455.19
	As claimed by the Petitioner	341.99	492.70	523.37
	Approved after Truing Up	340.95	491.40	522.11
Asset-II	Allowed vide order dated 28.8.2016 in Petition No. 23/TT/2016	333.70	444.62	440.49
	As claimed by the Petitioner	235.34	454.07	479.66
	Approved after Truing Up	235.34	454.06	479.64
Asset-III	Allowed vide order dated 31.3.2016 in Petition No. 111/TT/2013	323.99	498.81	493.20
	As claimed by the Petitioner	224.59	457.49	474.27
	Approved after Truing Up	224.59	457.47	474.24
Asset-IV	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	15.38	1253.86	1394.55
	As claimed by the Petitioner	15.49	1187.71	1291.44
	Approved after Truing Up	15.70	1202.45	1306.07
Asset-V	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	209.41	238.23
	As claimed by the Petitioner	0.00	209.79	245.31
	Approved after Truing Up	0.00	214.27	247.15
Asset-VI	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.97	407.73	461.36
	As claimed by the Petitioner	0.99	400.26	439.72



<b>Assets</b>	<b>Particulars</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
	Approved after Truing Up	0.99	398.74	438.41
Asset-VII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	1.94	191.21	203.00
	As claimed by the Petitioner	1.98	189.30	197.76
	Approved after Truing Up	1.98	189.10	197.59
Asset-VIII	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	51.66	188.90
	As claimed by the Petitioner	0.00	52.23	192.20
	Approved after Truing Up	0.00	51.22	188.87
Asset-IX	Allowed vide order dated 18.9.2018 in Petition No. 176/TT/2017	0.00	0.00	167.54
	As claimed by the Petitioner	0.00	0.00	213.23
	Approved after Truing Up	0.00	0.00	212.74
Asset-X	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	752.45
	As claimed by the Petitioner	0.00	0.00	770.26
	Approved after Truing Up	0.00	0.00	768.55
Asset-XI	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	387.02
	As claimed by the Petitioner	0.00	0.00	399.42
	Approved after Truing Up	0.00	0.00	399.43
Asset-XII	Allowed vide order dated 25.6.2019 in Petition No. 253/TT/2018	0.00	0.00	277.63
	As claimed by the Petitioner	0.00	0.00	283.07
	Approved after Truing Up	0.00	0.00	283.08
Asset-XIII	Allowed vide order dated 30.04.2020 in Petition No. 35/TT/2019	0.00	336.20	452.52
	As claimed by the Petitioner	0.00	330.42	439.44
	Approved after Truing Up	0.00	329.89	439.46

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

67. The Petitioner has submitted tariff forms combining Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII, Asset-IX, Asset-X,





Asset-XI, Asset-XII and Asset-XIII, wherein the COD has been achieved prior to 1.4.2019, as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for the Combined Asset has been worked out for the 2019-24 tariff period.

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1687.48	1716.42	1716.42	1716.42	1716.42
Interest on Loan	1530.73	1422.82	1287.63	1152.29	1011.66
Return on Equity	1795.13	1826.01	1826.01	1826.01	1826.01
O&M Expenses	208.60	213.02	215.83	218.95	221.42
Interest on Working Capital	3056.86	3167.00	3278.07	3396.46	3509.39
<b>Total</b>	<b>8278.80</b>	<b>8345.27</b>	<b>8323.96</b>	<b>8310.13</b>	<b>8284.90</b>

69. The Petitioner has claimed the following Interest on Working Capital in respect of the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses	254.74	263.92	273.17	283.04	292.45
Maintenance Spares	458.53	475.05	491.71	509.47	526.41
Receivables	1017.89	1028.87	1026.24	1024.54	1018.64
<b>Total Working Capital</b>	<b>1731.16</b>	<b>1767.84</b>	<b>1791.12</b>	<b>1817.05</b>	<b>1837.50</b>
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>208.60</b>	<b>213.02</b>	<b>215.83</b>	<b>218.95</b>	<b>221.42</b>

#### **Effective Date of Commercial Operation (E-COD)**

70. The Petitioner has claimed E-COD of the Combined Asset as 15.8.2017. Accordingly, based on the trued-up admitted capital cost and actual COD of all the assets, the E-COD has been worked out as follows:

Computation of E-COD					
Asset	Actual COD	Admitted Capital Cost as on 31.3.2019	Weight of the cost (in %)	No. of Days from last COD	Weighted Days
Asset-I	22.6.2016	2516.63	8.02%	831	66.60
Asset-II	31.8.2016	2209.76	7.04%	761	53.55



Asset-III	23.9.2017	2206.75	7.03%	738	51.86
Asset-IV	27.3.2017	6307.39	20.10%	553	111.07
Asset-V	2.4.2017	1120.61	3.60%	547	19.69
Asset-VI	31.3.2017	1922.49	6.13%	549	33.61
Asset-VII	28.3.2017	324.22	1.03%	552	5.70
Asset-VIII	14.12.2017	1177.57	3.75%	291	10.91
Asset-IX	16.4.2018	1354.95	4.32%	168	7.25
Asset-X	28.6.2018	4923.75	15.69%	95	14.90
Asset-XI	1.7.2018	2737.93	8.72%	92	8.02
Asset-XII	1.12.2018	2631.45	8.38%	-	0.00
Asset-XIII	10.6.2017	1941.83	6.19%	478	29.56
Total		31375.33	100.00		412.94
<b>Effective COD (Latest COD – Total weighted Days) – 14.8.2017</b>					

71. The E-COD is used to determine the lapsed life of the transmission project, which 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).

#### **Weighted Average Life (WAL)**

72. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life.

73. 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 Weighted Average Life (WAL) has been used as the useful life of the transmission project as a whole.

74. The 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. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 23.97 years as follows:



Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life as per the 2019 Tariff Regulation (Years) (2)	Weighted Cost (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) =(3)/(1)
Building	0.00	25	0.00	
Transmission Line	0.00	35	0.00	
Sub-station	31321.17	25	783029.19	
PLCC	0.00	15	0.00	
Leasehold Land	0.00	25	0.00	
IT Equipment and Software	54.17	7	361.14	
<b>Total</b>	<b>31375.34</b>		<b>783390.33</b>	<b>24.97</b>

75. The WAL as on 1.4.2019 as determined above is applicable prospectively i.e., for the 2019-24 tariff period. No retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of the Combined Asset is 14.8.2017 and the lapsed life of the transmission project as a whole, works out as one (1) years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 23.97 years.

### **Capital Cost**

76. 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 tried up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of 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.”

77. The Petitioner has claimed the following capital cost of individual assets up to 31.3.2019 and ACE during 2019-24 in respect of the Combined Asset and it is as follows:

(₹ in lakh)

Assets	FR approved apportioned cost as per FR	RCE approved apportioned capital cost	Capital cost claimed as on 31.3.2019 as per Auditor certificate	ACE	Estimated completion cost as on 31.3.2024
				2019-20	
Asset-I	2056.70	2814.60	2516.70	0.00	2516.70
Asset-II	1991.53	2760.18	2209.85	0.00	2209.85
Asset-III	2303.26	2895.44	2206.94	0.00	2206.94
Asset-IV	5394.61	6939.78	6378.76	439.05	6817.81
Asset-V	858.19	1120.61	1164.75	0.00	1164.75
Asset-VI	2347.62	2442.69	1938.62	31.93	1970.55
Asset-VII	179.90	411.73	328.17	0.00	328.17
Asset-VIII	1378.86	1845.31	1538.97	0.00	1538.97
Asset-IX	1346.77	1845.31	1430.01	33.82	1463.83
Asset-X	4358.31	5742.16	5215.81	286.94	5502.75
Asset-XI	2321.16	3195.94	2902.26	104.46	3006.72



Assets	FR approved apportioned cost as per FR	RCE approved apportioned capital cost	Capital cost claimed as on 31.3.2019 as per Auditor certificate	ACE	Estimated completion cost as on 31.3.2024
				2019-20	
Asset-XII	2321.16	3139.44	2827.13	200.00	3027.13
Asset-XIII	1990.84	2455.82	1966.86	0.00	1966.86
Combined Asset	<b>28848.89</b>	<b>37609.00</b>	<b>32624.83</b>	<b>1096.20</b>	<b>33721.03</b>

78. Against the overall RCE approved capital cost of ₹37609 lakh, the estimated completion cost is ₹33721.03 lakh. However, in case of Asset V, the completion cost has been restricted to apportioned cost as per RCE.

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

(₹ in lakh)

Element	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V	Asset-VI	Asset-VII
Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station	2500.46	2209.76	2206.75	6307.39	1120.61	1906.34	324.22
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	16.17	0.00	0.00	0.00	0.00	16.15	0.00
<b>Total</b>	<b>2516.63</b>	<b>2209.76</b>	<b>2206.75</b>	<b>6307.39</b>	<b>1120.61</b>	<b>1922.49</b>	<b>324.22</b>

(₹ in lakh)

Element	Asset-VIII	Asset-IX	Asset-X	Asset-XI	Asset-XII	Asset-XIII	Capital Cost for Combined Asset as on 31.3.2019
Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station	1177.57	1354.95	4901.90	2737.93	2631.45	1941.83	31321.17
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00



Element	Asset-VIII	Asset-IX	Asset-X	Asset-XI	Asset-XII	Asset-XIII	Capital Cost for Combined Asset as on 31.3.2019
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	0.00	0.00	21.85	0.00	0.00	0.00	54.17
<b>Total</b>	<b>1177.57</b>	<b>1354.95</b>	<b>4923.75</b>	<b>2737.93</b>	<b>2631.45</b>	<b>1941.83</b>	<b>31375.34</b>

### Initial Spares

80. As stated above, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual assets. The transmission assets covered in the transmission project are combined during the 2019-24 tariff period and, hence, the Initial Spares are allowed on the basis of the overall transmission project cost in terms of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, Initial Spares allowed for the 2019-24 tariff period are as follows:

(₹ in lakh)

Assets	Particulars	P&M cost (excluding IDC and IEDC, land cost and cost of civil works) (A)	Initial Spares Claimed (B)	Ceiling Limit (in %)	Initial Spares Worked Out	Initial Spares Allowed	Initial Spares allowed for Combined Asset
				(C)	$D = [(A-B) * C / (100-C)]$	(E)	
Asset-I	Sub-station	2227.59	131.78	6	133.78	131.78	1.07
Asset-II	Sub-station	2128.91	123.54	6	128	123.54	
Asset-III	Sub-station	2106.67	124.85	6	126.5	124.85	
Asset-IV	Sub-station	5818.77	216.11	6	357.62	216.11	
Asset-V	Sub-station	983.68	37.32	6	60.41	37.32	
Asset-VI	Sub-station	1837.12	105.16	6	110.56	105.16	
Asset-VII	Sub-station	303.83	19.24	6	18.17	18.17	
Asset-VIII	Sub-station	1417.91	79.95	6	85.4	79.95	
Asset-IX	Sub-station	1247.74	0	6	79.64	0	
Asset-X	Sub-station	4645.11	193.41	6	284.15	193.41	
Asset-XI	Sub-station	2656.97	92.6	6	163.68	92.6	
Asset-XII	Sub-station	2419.89	92.6	6	148.55	92.6	
Asset-XIII	Sub-station	1880.86	108.63	6	113.12	108.63	
<b>Total</b>			<b>1325.19</b>		<b>1809.58</b>	<b>1324.12</b>	

81. Thus, in line with the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹1.07 lakh is admissible.





82. The Commission has worked out capital cost of ₹31375.34 lakh as on 31.3.2019 in preceding paragraphs and after considering Initial Spares of ₹1.07 lakh, capital cost of ₹31376.41 lakh (₹31375.34 + ₹1.07) 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.

(₹ in lakh)			
Assets	Total Capital Cost as on 31.3.2019 (A)	Additional Initial Spares allowed (B)	Total Capital Cost as on 1.4.2019 (C)=[(A)+(B)]
Combined Asset	31375.34	1.07	31376.41

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

83. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

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

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;*
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;*
- (e) Change in law or compliance of any existing law; and*
- (f) Force Majeure events:*

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

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

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

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





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

(2) In case of replacement of 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.”

84. The Petitioner has claimed ACE in respect of the transmission assets during 2019-24 in accordance with Regulation 25(1)(d) of the 2019 Tariff Regulations as follows:

Assets	Apportioned approved cost	Capital Expenditure as on 31.3.2019	(₹ in lakh)	
			ACE 2019-24	Capital Cost as on 31.3.2024
			(As per auditor's certificate) 2019-20	
Asset-I	2814.6	2516.63	0.0	2516.63
Asset-II	2760.18	2209.76	0.00	2209.76
Asset-III	2895.44	2206.75	0.00	2206.75
Asset-IV	6930.78	6307.39	439.05	6746.44
Asset-V	1129.61	1120.61	0.00	1120.61
Asset-VI	2442.69	1922.49	31.93	1954.42
Asset-VII	411.73	324.22	0.00	324.22
Asset-VIII	1845.31	1177.57	0.00	1177.57
Asset-IX	1845.31	1354.95	33.82	1388.77
Asset-X	5742.16	4923.75	286.94	5210.69
Asset-XI	3195.94	2737.93	104.46	2842.39
Asset-XII	3139.44	2631.45	200.00	2831.45
Asset-XIII	2455.82	1941.83	0.00	1941.83
<b>Total</b>	<b>37609.00</b>	<b>31376.41</b>	<b>1096.20</b>	<b>32472.61</b>



85. TANGEDCO has submitted that the Petitioner may be directed to submit the liability flow statement and details of works deferred for execution.

86. In response, the Petitioner has submitted that the ACE approved by the Commission in previous orders were based on projections and while projecting the estimated ACE, contracts are not closed, and liabilities do not get finalised. Whereas, in the instant petition, the ACE has been claimed on the basis of actual payments made to the contractor after receipt of final invoices from the contractor and amendments thereto, if any. Therefore, the actual ACE may be higher or lower than the projections. Further, the ACE claimed for the assets is within the cut-off date and the same is as per the original scope of work. Further, the ACE claimed is on account of undischarged liabilities towards final payment/ withheld payment due to contractual exigencies for works executed within cut-off date and works to be executed within the cut-off date. The details of reasons regarding the ACE have been provided in Form-7. Further, the contractor-wise details have been submitted along with the affidavit dated 1.7.2021.

87. We have considered the submissions of the Petitioner and TANGEDCO. The ACE claimed for Asset-IV, Asset-VI, Asset-IX, Asset-X, Asset-XI and Asset-XIII for 2019-20 towards balance & retention payments and unexecuted work is allowed under Regulation 24(1)(a) and (b) and Regulation 25(1)(d) of the 2019 Tariff Regulations which is subject to true-up. The ACE allowed in 2019-24 tariff period in respect of the Combined Asset is as follows:

(₹ in lakh)		
Particulars	Regulation	ACE (2019-24)
ACE to extent of Balance & Retention Payments and work deferred for execution before cut-off date/ after cut-off date,	Regulation 25(1)(d) of the 2019 Tariff Regulations	1096.20

### **Capital Cost for the 2019-24 tariff period**

88. Accordingly, the capital cost of the Combined Asset considered for the 2019-24 tariff period, subject to truing-up, is as follows:

(₹ in lakh)		
Capital Cost (As on 1.4.2019)	ACE (2019-20)	Total Estimated Completion Cost (up to 31.3.2024)
31376.41	1096.20	32472.61

89. Against the overall apportioned approved capital cost as per RCE of ₹37609.00 lakh, the estimated transmission project cost of the Combined Asset including Additional Capital Expenditure is ₹32472.61 lakh which is within the approved cost.

### **Debt-Equity Ratio**

90. 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 utilisation 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.”

91. The details of the debt-equity considered for the purpose of tariff for the 2019-24 tariff period are as follows:

<b>Funding</b>	<b>Capital Cost (as on 1.4.2019) (₹ in lakh)</b>	<b>(in %)</b>	<b>Capital Cost (as on 31.3.2024) (₹ in lakh)</b>	<b>(in %)</b>
Debt	21963.61	70.00	22730.95	70.00
Equity	9412.80	30.00	9741.66	30.00
<b>Total</b>	<b>31376.41</b>	<b>100.00</b>	<b>32472.61</b>	<b>100.00</b>



## Depreciation

92. Regulation 33 of the 2019 Tariff Regulations provide as follows:

*"33. Depreciation:(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission 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 decapitalized 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.”*

93. The weighted average rate of depreciation (WAROD) has been worked out and placed at Annexure-XIV after taking into account the depreciation rates of IT





and non-IT assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the Combined Asset is as follows:

(₹ in lakh)

Combined Asset						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	31376.41	32472.61	32472.61	32472.61	32472.61
B	ACE	1096.20	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	32472.61	32472.61	32472.61	32472.61	32472.61
D	Average Gross Block (A+C)/2	31924.51	32472.61	32472.61	32472.61	32472.61
E 1	Depreciable Value (Excluding IT Assets)(D*90%)	31870.34	32418.44	32418.44	32418.44	32418.44
E 2	Depreciable Value IT Asset	54.17	54.17	54.17	54.17	54.17
F	Weighted Average Rate of Depreciation (WAROD) (in %)	5.30	5.30	5.30	5.30	5.30
G	Elapsed useful life at the beginning of the year (Year)	1.00	2.00	3.00	4.00	5.00
H	Balance useful life at the beginning of the year (Year)	24.00	23.00	22.00	21.00	20.00
I	<b>Depreciation during the year (D*F)</b>	1690.88	1719.82	1719.82	1719.82	1719.82
J	Aggregate Cumulative Depreciation at the end of the year	4137.47	5857.29	7577.11	9296.93	11016.74
K	Remaining Aggregate Depreciable Value at the end of the year(E-J)	24600.01	23373.48	21653.66	19933.84	18214.02

### **Interest on Loan (IoL)**

94. 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”.*

95. We have considered the submissions of the Petitioner. The weighted average rate of IoL has been considered on the basis of the 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. In view of the above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL considered for the Combined Asset is as follows:





(₹ in lakh)

Combined Asset						
	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	21963.61	22730.95	22730.95	22730.95	22730.95
B	Cumulative Repayments upto Previous Year	2446.59	4137.47	5857.29	7577.11	9296.93
C	Net Loan-Opening (A-B)	19517.02	18593.48	16873.66	15153.84	13434.02
D	Additions	767.34	0.00	0.00	0.00	0.00
E	Repayment during the year	1690.88	1719.82	1719.82	1719.82	1719.82
F	Net Loan-Closing (C+D-E)	18593.48	16873.66	15153.84	13434.02	11714.20
G	Average Loan (A+F)/2	19055.25	17733.57	16013.75	14293.93	12574.11
H	Weighted Average Rate of Interest on Loan (in %)	8.051%	8.041%	8.059%	8.080%	8.065%
I	Interest on Loan (GxH)	1534.21	1426.02	1290.57	1154.96	1014.05

### Return on Equity (RoE)

96. 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 cutoff date beyond the original scope, excluding additional capitalization on 7 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.”

97. The RoE considered for the Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

		(₹ in lakh)				
		<b>Combined Asset</b>				
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
A	Opening Equity	9412.80	9741.66	9741.66	9741.66	9741.66
B	Additions	328.86	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	9741.66	9741.66	9741.66	9741.66	9741.66
D	Average Equity (A+B)/2	9577.23	9741.66	9741.66	9741.66	9741.66
E	Return on Equity (Base Rate) (in %)	15.50%	15.50%	15.50%	15.50%	15.50%
F	MAT Rate for respective year (in %)	17.47%	17.47%	17.47%	17.47%	17.47%
G	Rate of Return on Equity (in %)	18.78%	18.78%	18.78%	18.78%	18.78%
H	Return on Equity (DxG)	1798.80	1829.68	1829.68	1829.68	1829.68

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

98. The O&M Expenses claimed by the Petitioner of the Combined Asset for the 2019-24 period is as follows:

<b>O&amp;M Expenses</b>					
	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<b>Transformers</b>					
400 kV					
Input MVA (13X500 MVA)	6500	6500	6500	6500	6500



O&M Expenses					
<b>O&amp;M Expenses (₹ in lakh)</b>	2327.00	2411.50	2496.00	2587.00	2671.50
<b>Sub-stations</b>					
400 kV					
Number of Bays	15	15	15	15	15
<b>O&amp;M Expenses (₹ in lakh)</b>	482.25	499.20	516.75	534.90	553.65
220 kV					
Number of bays	11	11	11	11	11
<b>O&amp;M Expenses (₹ in lakh)</b>	247.61	256.30	265.32	274.56	284.24
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>3056.86</b>	<b>3167.00</b>	<b>3278.07</b>	<b>3396.46</b>	<b>3509.39</b>

\* The Petitioner has not claimed any O&M towards PLCC.

99. The Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provides as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>Norms for sub-station Bays (₹ Lakh per bay)</i>					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
<i>Norms for Transformers (₹ Lakh per MVA)</i>					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
<i>Norms for AC and HVDC lines (₹ Lakh per km)</i>					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
<i>Norms for HVDC stations</i>					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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 bi-pole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bi-pole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bi-pole scheme (Rs Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bi-pole scheme (Rs Lakh) (3000 MW)	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

- i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;*
- ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;*
- iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);*
- iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;*
- v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and*
- vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three years.*

*(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per*



MVA and per km respectively.

(c) *The Security Expenses and Capital Spares for transmission system shall be allowed separately after prudence check:*

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

**(4) Communication system:** *The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”*

100. We have considered the submissions of the Petitioner. The O&M Expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as follows:

Details	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
15 Numbers of 400 kV Sub-station bays	482.25	499.20	516.75	534.90	553.65
11 Numbers of 220 kV Sub-station bays	247.61	256.30	265.32	274.56	284.24
(13X500 MVA) 6500 Transformers of 400 kV	2327.00	2411.50	2496.00	2587.00	2671.50
<b>Total</b>	<b>3056.86</b>	<b>3167.00</b>	<b>3278.07</b>	<b>3396.46</b>	<b>3509.39</b>

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

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

“34. *Interest on Working Capital: (1) .....*

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

(i) *Receivables equivalent to 45 days of 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. **Definition** - In these regulations, unless the context otherwise requires:-

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

102. The Petitioner has submitted that it has computed IWC for 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 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, 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 and 10.60% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.10% plus 350 basis points) for 2022-24. The components of the working capital and interest allowed thereon is as follows:

(₹ in lakh)						
Combined Asset						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	254.74	263.92	273.17	283.04	292.45
B	WC for Maintenance Spares (Equivalent to 15% of O&M Expenses)	458.53	475.05	491.71	509.47	526.41
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	1019.20	1028.39	1024.02	1022.46	1016.49
D	Total Working Capital (A+B+C)	1732.47	1767.35	1788.91	1814.97	1835.35



<b>Combined Asset</b>						
	<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
E	Rate of Interest (in %)	12.05	11.25	10.50	10.60	10.60
F	Interest on Working Capital (DxE)	208.76	198.83	187.84	192.39	194.55

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

103. The various components of the annual fixed charges for the Combined Asset for 2019-24 tariff period are summarized as follows:

<b>Combined Asset</b>						<b>(₹ in lakh)</b>
<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>	
Depreciation	1690.88	1719.82	1719.82	1719.82	1719.82	
Interest on Loan	1534.21	1426.02	1290.57	1154.96	1014.05	
Return on Equity	1798.80	1829.68	1829.68	1829.68	1829.68	
O&M Expenses	3056.86	3167.00	3278.07	3396.46	3509.39	
Interest on Working Capital	208.76	198.83	187.84	192.39	194.55	
<b>Total</b>	<b>8289.51</b>	<b>8341.35</b>	<b>8305.97</b>	<b>8293.31</b>	<b>8267.49</b>	

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

104. The Petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses. Regulation 70(1) of the 2019 Tariff Regulations provides for reimbursement of filing fees and publication expenses paid by the Petitioner. Accordingly, 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**

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





accordance with Regulation 70(3) of the 2019 Tariff Regulations for 2019-24 tariff period.

### **Good and Service Tax**

106. 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 Respondents 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.

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

### **Security Expenses**

108. The Petitioner has submitted that security expenses in respect of 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.

109. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021.



Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

### **Capital Spares**

110. 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**

111. TANGEDCO has submitted that with the notification of the 2020 Sharing Regulations, it is inevitable to segregate the capital cost of the assets in to 2010 Sharing Regulations regime and 2020 Sharing Regulations regime. TANGEDCO has also submitted that vide order in Petition No.102 of 2016, the Commission had directed to split the capital cost under two heads viz. Pre-PoC and Post-PoC i.e. up to 30.6.2011 and beyond 30.6.2011 respectively. Further, the components of the tariff had also been reworked based on the splitting of the capital cost based on Pre-PoC and Post-PoC regime. TANGEDCO has submitted that there is a need to split the capital cost including ACE based on the 2010 Sharing Regulations and the 2020 Sharing Regulations 2020 i.e., up to 31.12.2020 and from 1.1.2021 onwards. Further, the Yearly Transmission Charges (YTC) up to 31.12.2020 and from 1.1.2021 onwards is required to be split and the tariff components for the same needs to be worked out accordingly.

112. In response, the Petitioner has submitted that the instant petition is filed for truing up of transmission tariff of 2014-19 tariff period and determination of transmission tariff of 2019-24 tariff period for Combined Asset. After the truing up and determination of transmission tariff, sharing of transmission charges for the 2014-19 period and the 2019-24 periods up to 31.10.2020 will as per the 2010 Sharing Regulations and from 1.11.2020 onwards will be shared under the 2020 Sharing Regulations. Tariff determination and sharing of transmission charges are two independent activities and they are not interlinked. After the determination of tariff of the assets by the Commission, the aspects of YTC bifurcation raised by TANGEDCO shall be taken care of by the Petitioner at the time of billing.

113. We have considered the submissions of the Petitioner and TANGEDCO. We agree with the submissions of the Petitioner that tariff determination and sharing of transmission charges are two independent activities and they are not interlinked. The tariff of the transmission assets is determined in accordance with the provisions of the relevant Tariff Regulations and after the determination of tariff of the assets by the Commission, the sharing of the YTC amongst DICs are worked out in terms of provisions of the relevant Sharing Regulations and bills are raised accordingly. Therefore, the issue raised by TANGEDCO for splitting the capital cost of the transmission assets and the tariff components on the basis of the 2010 Sharing Regulations regime and the 2020 Sharing Regulations regime is not relevant. The concerns raised by TANGEDCO shall be taken care of by the Petitioner at the time of billing as observed by us.

114. The COD of Asset-XIII is approved as 10.6.2017 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations since the corresponding



downstream assets of TANTRANSCO were not ready. Therefore, the transmission charges of Asset-XIII shall be borne by TANTRANSCO from its COD on 10.6.2017 to COD of the downstream transmission system under the scope of TANTRANSCO vide order dated 30.4.2020. The relevant portion of the order dated 30.4.2020 is extracted hereunder:

*“68. The transmission charges for the Asset, from 10.6.2017 to COD of the downstream system under the scope of TANTRANSCO will be borne by TANTRANSCO and thereafter, the transmission charges allowed in this order, as provided in Regulation 43 of the 2014 Tariff Regulations, shall be shared by the beneficiaries and long term transmission customers in terms of the Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 as amended from time to time..”*

115. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by 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 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. Billing, collection and disbursement of the transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

116. To summarise:

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



(₹ in lakh)

Asset-I			
Particulars	2016-17 (Pro-rata for 283 days)	2017-18	2018-19
AFC	340.95	491.40	522.11

(₹ in lakh)

Asset-II			
Particulars	2016-17 (Pro-rata for 213 days)	2017-18	2018-19
AFC	235.34	454.06	479.64

(₹ in lakh)

Asset-III			
Particulars	2016-17 (Pro-rata for 190 days)	2017-18	2018-19
AFC	224.59	457.47	474.24

(₹ in lakh)

Asset-IV			
Particulars	2016-17 (Pro-rata for 5 days)	2017-18	2018-19
AFC	15.70	1202.45	1306.07

(₹ in lakh)

Asset-V			Asset-VI		
Particulars	2017-18 (Pro-rata for 364 days)	2018-19	2016-17 (Pro-rata for 1 day)	2017-18	2018-19
AFC	214.27	241.95	0.99	398.74	438.41

(₹ in lakh)

Asset-VII				Asset-VIII	
Particulars	2016-17 (Pro-rata for 4 days)	2017-18	2018-19	2017-18 (Pro-rata for 108 days)	2018-19
AFC	1.98	189.10	197.59	51.22	188.87

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI	Asset-XII
	2018-19 (Pro-rata for 350 days)	2018-19 (Pro-rata for 277 days)	2018-19 (Pro-rata for 274 days)	2018-19 (Pro-rata for 182 days)
AFC	212.74	768.55	399.43	283.08



(₹ in lakh)

Asset-XIII		
Particulars	2017-18 (Pro-rata for 295 days)	2018-19
AFC	329.89	439.46

b) Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in the instant order are as follows:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	8289.51	8341.35	8305.97	8293.31	8267.49

117. The Annexure-I to Annexure-XIV given hereinafter form part of the order.

118. This order disposes of Petition No. 23/TT/2021 in terms of the above discussion and findings.

sd/-  
(P. K. Singh)  
Member

sd/-  
(Arun Goyal)  
Member

sd/-  
(I.S. Jha)  
Member



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-I**

**Asset-I**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19	
		Sub-station	1697.05	375.07			289.50	138.84	2500.46	5.28
IT Equipment & Software	14.27	0.27	0.02	1.62	16.17	5.28	0.76	0.77	0.81	
<b>Total</b>	<b>1711.31</b>	<b>375.34</b>	<b>289.52</b>	<b>140.46</b>	<b>2516.63</b>		<b>100.27</b>	<b>117.82</b>	<b>129.17</b>	
<b>Average Gross Block (₹ in lakh)</b>								1898.98	2231.41	2446.40
<b>Weighted Average Rate of Depreciation (in %)</b>								5.28%	5.28%	5.28%



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Asset-II**

**Annexure-II**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
		Sub-station	1519.56	332.56	295.92	61.72	2209.76	5.28%	89.01
<b>Total</b>	<b>1519.56</b>	<b>332.56</b>	<b>295.92</b>	<b>61.72</b>	<b>2209.76</b>		<b>89.01</b>	<b>105.60</b>	<b>115.05</b>
<b>Average Gross Block (₹ in lakh)</b>							1685.84	2000.08	2178.90
<b>Weighted Average Rate of Depreciation (in %)</b>							5.28%	5.28%	5.28%





<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-III**

**Asset-III**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)		
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
		Sub-station	1748.22	206.83	136.10	115.61	2206.75	5.28	97.77
<b>Total</b>							<b>97.77</b>	<b>106.82</b>	<b>113.46</b>
<b>Average Gross Block (₹ in lakh)</b>							1851.63	2023.10	2148.95
<b>Weighted Average Rate of Depreciation (in %)</b>							5.28	5.28	5.28



Petition No.:	23/TT/2021
Period	2014-19 Tariff

**Asset-IV**

**Annexure-IV**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh)		
					(₹ in lakh)	(in %)			
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19
Sub-station	4897.95	0.00	725.96	683.47	<b>6307.39</b>	5.28	258.61	277.78	314.99
<b>Total</b>							<b>258.61</b>	<b>277.78</b>	<b>314.99</b>
<b>Average Gross Block (₹ in lakh)</b>							4897.95	5260.93	5965.65
<b>Weighted Average Rate of Depreciation (in %)</b>							5.28	5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-V**

**Asset-V**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19	
		Sub-station	724.12	0.00	251.12	145.37	1120.61	5.28	0.00	44.74
<b>Total</b>	<b>724.12</b>	<b>0.00</b>	<b>251.12</b>	<b>145.37</b>	<b>1120.61</b>			<b>44.74</b>	<b>55.33</b>	
<b>Average Gross Block (₹ in lakh)</b>								0.00	849.68	1047.93
<b>Weighted Average Rate of Depreciation (in %)</b>								<b>0.00</b>	5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-VI**

**Asset-VI**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations			
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19	
Sub-station	1401.87	0.00	469.84	34.63	1906.34	5.28	74.02	86.42	99.74	
IT Equipment and software	14.09	0.00	2.06	0.00	16.15	5.28	0.74	0.80	0.85	
<b>Total</b>	<b>1415.96</b>	0.00	471.90	34.63	1922.49		<b>74.76</b>	<b>87.22</b>	<b>100.59</b>	
<b>Average Gross Block (₹ in lakh)</b>								1415.96	1651.91	1905.18
<b>Weighted Average Rate of Depreciation (in %)</b>								5.28	5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Asset-VII**

**Annexure-VII**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19			Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh)			
					(₹ in lakh)	(in %)				
		2016-17	2017-18	2018-19			2016-17	2017-18	2018-19	
Sub-station	262.82	0.00	56.05	5.35	324.22	5.28	13.88	15.36	16.98	
<b>Total</b>	262.82	0.00	56.05	5.35	<b>324.22</b>	5.28	<b>13.88</b>	<b>15.36</b>	<b>16.98</b>	
<b>Average Gross Block (₹ in lakh)</b>								262.82	290.84	321.54
<b>Weighted Average Rate of Depreciation (in %)</b>								5.28	5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-VIII**

**Asset-VIII**

Particulars	Admitted Capital Cost as on 1.4.2014	ACE 2014-19		Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations	
	(₹ in lakh)			(₹ in lakh)	(in %)	(₹ in lakh)	
		2017-18	2018-19			2017-18	2018-19
Sub-station	957.03	143.66	76.88	1177.57	5.28	54.32	60.15
<b>Total</b>	<b>957.03</b>	<b>143.66</b>	<b>76.88</b>	<b>1177.57</b>		54.32	60.15
<b>Average Gross Block (₹ in lakh)</b>						1028.86	1139.13
<b>Weighted Average Rate of Depreciation (in %)</b>						5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-IX**

**Asset-IX**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations
			(₹ in lakh)	(in %)	(₹ in lakh)
		2018-19			2018-19
Sub-station	1258.94	96.01	1354.95	5.28	69.01
<b>Total</b>	<b>1258.94</b>	<b>96.01</b>	<b>1354.95</b>	<b>5.28</b>	<b>69.01</b>
<b>Average Gross Block (₹ in lakh)</b>					1306.95
<b>Weighted Average Rate of Depreciation (in %)</b>					5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-X**

**Asset-X**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations
			(₹ in lakh)	(in %)	(₹ in lakh)
		2018-19			2018-19
Sub-station	4089.73	812.17	4901.90	5.28	237.38
IT Asset	21.85	0.00	21.85	5.28	1.15
<b>Total</b>	<b>4111.58</b>	<b>812.17</b>	<b>4923.75</b>		<b>238.53</b>
<b>Average Gross Block (₹ in lakh)</b>					4517.66
<b>Weighted Average Rate of Depreciation (in %)</b>					5.28





<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-XI**

**Asset-XI**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations
			(₹ in lakh)	(in %)	(₹ in lakh)
		2018-19			2018-19
Sub-station	2137.89	600.04	2737.93	5.28	128.72
<b>Total</b>					<b>128.72</b>
<b>Average Gross Block (₹ in lakh)</b>					2437.91
<b>Weighted Average Rate of Depreciation (in %)</b>					5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-XII**

**Asset-XII**

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19	Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations
		2018-19	(₹ in lakh)	(in %)	(₹ in lakh)
Sub-station	2518.99	112.46	2631.45	5.28	135.97
<b>Total</b>					<b>135.97</b>
<b>Average Gross Block (₹ in lakh)</b>					2575.22
<b>Weighted Average Rate of Depreciation (in %)</b>					5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-XIII**

**Asset-XIII**

Particulars	Admitted Capital Cost as on 1.4.2014	ACE 2014-19		Admitted Capital Cost as on 1.4.2019	Rate of Depreciation	Annual Depreciation as per Regulations	
	(₹ in lakh)			(₹ in lakh)	(in %)	(₹ in lakh)	
		2017-18	2018-19			2017-18	2018-19
Sub-station	1555.69	306.69	79.45	1941.83	5.28	90.24	100.43
<b>Total</b>							
<b>Average Gross Block (₹ in lakh)</b>						1709.03	1902.10
<b>Weighted Average Rate of Depreciation (in %)</b>						5.28	5.28



<b>Petition No.:</b>	<b>23/TT/2021</b>
<b>Period</b>	<b>2019-24 Tariff</b>

**Annexure - XIV**

**Combined Asset**

2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2019-20	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
					2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Sub-station	31322.24	1096.20	32418.44	5.28	1682.75	1711.69	1711.69	1711.69	1711.69
IT Equipment & Software	54.17	0.00	54.17	5.28	8.13	8.13	8.13	8.13	8.13
<b>TOTAL</b>	<b>31376.41</b>	<b>1096.20</b>	<b>32472.61</b>		1690.88	1719.82	1719.82	1719.82	1719.82
<b>Average Gross Block (₹ in lakh)</b>					31924.51	32472.61	32472.61	32472.61	32472.61
<b>Weighted Average Rate of Depreciation (in %)</b>					5.30	5.30	5.30	5.30	5.30

