

# CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 83/TT/2020

Coram:

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

Date of Order : 01.02.2021

**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 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 for transmission assets consisting of **Asset-I(A)(a)**: Establishment of 765/400 kV GIS Pooling Station at Hyderabad (Maheshwaram) with 1x1500MVA 765/400 kV Transformers-I and 2 nos. 240 MVAR Bus Reactor 765 kV alongwith associated bays at Hyderabad (Maheshwaram) Pooling Station; **Asset-I(A)(b)**: Hyderabad (Maheshwaram)-Kurnool 400 kV S/C line; **Asset-I(B)(a)**: 1x1500MVA 765/400 kV ICT-II alongwith associated bays at Maheshwaram Pooling Station; and **Asset-I(B)(b)**: 400 kV Maheshwaram-Hyderabad S/C line under "Sub-station works associated with Hyderabad (Maheshwaram) Pooling Station" in the Southern Region.

**And in the Matter of:**

Power Grid Corporation of India Ltd.,  
SAUDAMINI, Plot No-2,  
Sector-29, Gurgaon-122 001 (Haryana).

.....Petitioner

**Vs**

1. Karnataka Power Transmission Corporation Ltd.,  
Kaveri Bhavan, Bangalore-560009.
2. Transmission Corporation of Andhra Pradesh Ltd.,  
Vidyut Soudha, Hyderabad-500082.
3. Kerala State Electricity Board,  
Vaidyuthi Bhavanam,  
Pattom, Thiruvananthapuram-695004.



4. Tamil Nadu Generation and Distribution Corporation Ltd.,  
(Formerly Tamil Nadu Electricity Board-TNEB),  
NPKRR Maaligai, 800, Anna Salai, Chennai-600002.
5. Electricity Department,  
Government of Pondichery, Pondicherry-605001.
6. Eastern Power Distribution Company of Andhra Pradesh Ltd.,  
P&T Colony,  
Seethmmadhara, Vishakhapatnam, Andhra Pradesh.
7. Southern Power Distribution Company of Andhra Pradesh Ltd.,  
Srinivasasa Kalyana Mandapam Backside,  
Tiruchanoor Road, Kesavayana Gunta, Tirupati-517 501,  
Chittoor District, Andhra Pradesh.
8. Central Power Distribution Company of Andhra Pradesh Ltd.,  
Corporate Office, Mint Compound,  
Hyderabad-500063, Telangana.
9. Northern Power Distribution Company of Andhra Pradesh Ltd.,  
Opp. NIT Petrol Pump, Chaitanyapuri, Kazipet,  
Warangal-506004, Telangana.
10. Bangalore Electricity Supply Company Ltd.,  
Corporate Office, K.R.Circle,  
Bangalore-560 001, Karanataka.
11. Gulbarga Electricity Supply Company Ltd.,  
Station Main Road, Gulbarga, Karnataka.
12. Hubli Electricity Supply Company Ltd.,  
Navanagar, PB Road, HUBLI, Karnataka.
13. MESCOM Corporate Office,  
Paradigm Plaza, AB Shetty Circle,  
Mangalore-575001, Karnataka.
14. Chamundeswari Electricity Supply Corporation Ltd.,  
927, L J Avenue,  
Ground Floor, New Kantharaj Urs Road,  
Saraswatipuram, Mysore-570 009, Karnataka.
15. Electricity Department,  
Government of Goa,  
Vidyuti Bhawan, Panaji, Goa-403001.
16. Transmission Corporation of Telangana Ltd.,  
Vidhyut Sudha, Khairatabad,  
Hyderabad-500082.
17. Tamil Nadu Transmission Corporation,  
NPKRR Maaligai, 800, Anna Salai,



Chennai-600002.

18. Powergrid NM Transmission Ltd.,  
B-9, Qutab Industrial Area,  
Katwaria Sarai, New Delhi-110016.

19. Maheshwaram Transmission Ltd.,  
F-1, Mira Corporate Suits,  
1 and 2 Mathura Road, Ishwarnagar,  
New Delhi-110065.

...Respondent(s)

**For Petitioner:** Shri S.S. Raju, PGCIL  
Shri B. Dash, PGCIL

**For Respondent:** Shri S. Vallinayagam, Advocate, TANGEDCO

### **ORDER**

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for truing up of 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 tariff from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following transmission assets under “Sub-station works associated with Hyderabad (Maheshwaram) Pooling Station” in the Southern Region (hereinafter referred to as “the transmission project”):

**Asset-I(A)(a):** Establishment of 765/400 kV GIS Pooling Station at Hyderabad (Maheshwaram) with 1x1500MVA 765/400 kV Transformers-I and 2 nos. 240 MVAR Bus Reactor 765 kV alongwith associated bays at Hyderabad (Maheshwaram) Pooling Station;

**Asset-I(A)(b):** Hyderabad (Maheshwaram)- Kurnool 400 kV S/C line;



**Asset-I(B)(a):** 1x1500MVA 765/400 kV ICT-II alongwith associated bays at Maheshwaram Pooling Station;

**Asset-I(B)(b):** 400 kV Maheshwaram-Hyderabad S/C line.

2. The Petitioner has made the following prayers:

*“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 also projected additional capitalization during 2019-24 tariff block.*

*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 additional RoE of 0.5 % during 2014-19 period as per para 6.5 above.*

*7)Allow the Initial spares claimed as project as a whole.*

*8)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.*

*9)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.*

*10)Allow the Petitioner to adjust the cumulative depreciation by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful life.*

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

*12)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.”*

### **Background**

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



a. The Investment Approval (IA) for the transmission project was accorded by Board of Directors of the Petitioner, vide Memorandum Ref No. C/CP/Maheshwaram PS dated 27.3.2015 at an estimated cost of ₹55006 lakh including IDC of ₹3192 lakh based at December 2014 price level. The scope of work covered under the instant transmission project is as under:

(a) Establishment of 765/400 kV GIS Pooling Station at Hyderabad (Maheshwaram) with 2x1500 MVA 765/400 kV Transformers

- i. 2 number 765 kV transformer bays for 2X1500 MVA transformers
- ii. 2 number 765 kV reactor bays for 2X240 MVA Bus Reactor
- iii. 2 number 400 kV transformer bays for 2X1500 MVA transformers
- iv. 2 number 400 kV line bays for terminating LILO of Hyderabad-Kurnool 400 kV S/C line

(b) LILO of Hyderabad-Kurnool 400 kV S/C line at Maheshwaram Sub-station

(c) 2 nos 240 MVAR 765 kV Bus reactors at Maheshwaram Pooling station

b. The transmission tariff was allowed for the transmission assets for 2014-19 period vide order dated 5.7.2018 in Petition No. 157/TT/2017.

c. The details of commercial operation of the assets covered in the instant petition are as under:

Asset	Earlier covered in Petition No.	Asset nomenclature in order dated 5.7.2018 in Petition No. 157/TT/2017	Scheduled COD (SCOD)	COD	Time over-run
Asset-I(A)(a)	157/TT/2017	Asset-IA	24.3.2018	31.8.2017	No time over-run
Asset-I(A)(b)		Asset-IB		6.9.2017	
Asset-I(B)(a)					
Asset-I(B)(b)					

d. RLDC vide charging certificates dated 9.8.2017 and 20.11.2017 has certified the trial operation for the following Assets:

- (a) LILO portion of 400 kV Maheshwaram-Kurnool (AP) line and associated bays at both ends
- (b) LILO portion of 400 kV Maheshwaram-Hyderabad line and associated bays at Maheshwaram.



e. It is observed that the nomenclature of Asset-1(A)(b) and Asset-1(B)(b) mentioned in the instant petition is not matching with the nomenclature mentioned in order dated 5.7.2018 in Petition No. 157/TT/2017. The Petitioner is directed to clarify mismatch in nomenclature of the assets at the time of truing up for 2019-24 tariff period.

4. The Petitioner has bifurcated Asset-IA into Asset-I(A)(a) and Asset-I(A)(b) and Asset-IB into Asset-I(B)(a) and Asset-I(B)(b) and has claimed additional Return on Equity (RoE) in respect of these assets. The Commission in order dated 5.7.2018 in Petition No. 157/TT/2017 observed that additional RoE is admissible for transmission lines of more than 50 km as per Regulation 24(2)(vi) of the 2014 Tariff Regulations and as LILO of Hyderabad-Kurnool 400 kV S/C line was only 1.74 km, no additional RoE was allowed for that line. However, for remaining assets due to non-availability of segregated cost, the Commission observed that the same will be considered at the time of truing up on submission of segregated cost and funding details. The relevant extract of the order dated 5.7.2018 in Petition No. 157/TT/2017 is as under:

*“38. We have considered the submissions of the petitioner. It is noticed that SRPC has certified certain elements fulfilling the requirements of regulation 24(2)(iii) of the 2014 Tariff Regulations and recommended for additional RoE in respect of these elements under the said regulation. It is further observed that the petitioner has claimed additional RoE for LILO of Hyderabad-Kurnool 400 kV S/C line at Maheshwaram PS. The line length of LILO of Hyderabad-Kurnool 400 kV S/C line is 1.74 km. As per Regulation 24(2)(vi) of the 2014 Tariff Regulations, additional RoE shall not be admissible for transmission line having length of less than 50 km. Accordingly, additional ROE is not granted for LILO of Hyderabad-Kurnool 400 kV S/C line. Since, the petitioner has not furnished breakup of cost for ICTs and Bus reactors at Maheshwaram and LILO of Hyderabad-Kurnool 400 kV D/C line, additional RoE has not been considered at this stage. However, additional RoE is admissible for the following, subject to furnishing of breakup of cost of ICTS and bus reactors at the time of truing-up of tariff:-“*

5. The issue of additional ROE is dealt in the subsequent paragraphs of this order while allowing RoE.

6. The details of transmission tariff allowed for the 2014-19 tariff period in order dated 5.7.2018 in Petition No. 157/TT/2017 and the trued up transmission tariff claimed by the Petitioner for the transmission assets is as under:



(₹ in lakh)

Asset	Particulars	2017-18	2018-19
Asset-IA	Annual Fixed Charges (AFC) approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	3402.12	6469.61
	AFC claimed by the Petitioner based on truing up in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	3345.73	6036.82
Asset-I(A)(a)	AFC claimed by the Petitioner based on truing up in the instant petition	3308.32	5971.51
Asset-I(A)(b)	AFC claimed by the Petitioner based on truing up in the instant petition	37.41	65.31
Asset-IB	AFC approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	1003.78	1911.82
	AFC claimed by the Petitioner based on truing up in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	1036.34	1953.58
Asset-I(B)(a)	AFC claimed by the Petitioner based on truing up in the instant petition	999.26	1885.25
Asset-I(B)(b)	AFC claimed by the Petitioner based on truing up in the instant petition	37.08	68.33

7. The Respondents are distribution licensees and power departments, which are procuring transmission service from the Petitioner, mainly beneficiaries of the Southern Region.

8. The Petitioner has served the petition on the Respondents and notice of this petition has been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO), Respondent No. 4 has filed its reply along with an undertaking dated 13.7.2020 to file hard copy of counter affidavit and other documents after lifting of lockdown. TANGEDCO has raised the issues of some assets not being put to beneficial use, determination of Initial Spares and restriction of additional RoE claimed. TANGEDCO has later filed affidavit dated 22.8.2020 in support of its reply. The Petitioner vide affidavit dated 20.7.2020 has filed its rejoinder to the reply filed by TANGEDCO. The





issues raised by TANGEDCO and clarifications given by the Petitioner have been considered in the relevant portions of this order.

9. This order is issued considering the submissions made by the Petitioner in the petition dated 20.12.2019, Petitioner's affidavits dated 12.3.2020 and 8.7.2020, reply submitted by TANGEDCO and the rejoinder filed by Petitioner.

10. The hearing in this matter was held on 24.6.2020 and 10.8.2020 through video conference.

11. Having heard the representatives of the Petitioner, learned counsel for TANGEDCO and having perused the material on record, we proceed to dispose of the petition.

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

12. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing up of annual fixed charges for 2014-19 period. AFC claimed for 2014-19 period based on truing up are as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata)*	2018-19
<b>Asset-I(A)(a)</b>		
Depreciation	933.84	1,704.41
Interest on Loan	960.40	1,676.05
Return on Equity	1108.51	2047.65
Interest on Working Capital	76.22	137.34
O&M Expenses	229.35	406.06
<b>Total</b>	<b>3308.32</b>	<b>5971.51</b>
<b>Asset-I(A)(b)</b>		
Depreciation	11.48	20.40
Interest on Loan	11.48	19.20
Return on Equity	12.85	22.90
Interest on Working Capital	0.81	1.41
O&M Expenses	0.79	1.40
<b>Total</b>	<b>37.41</b>	<b>65.31</b>
<b>Asset-I(B)(a)</b>		
Depreciation	273.92	528.68





(₹ in lakh)

Particulars	2017-18 (pro-rata)*	2018-19
Interest on Loan	268.39	487.07
Return on Equity	315.24	609.97
Interest on Working Capital	24.43	45.87
O&M Expenses	117.28	213.66
<b>Total</b>	<b>999.26</b>	<b>1885.25</b>
<b>Asset-I(B)(b)</b>		
Depreciation	11.43	21.45
Interest on Loan	11.28	19.92
Return on Equity	12.80	24.08
Interest on Working Capital	0.80	1.48
O&M Expenses	0.77	1.40
<b>Total</b>	<b>37.08</b>	<b>68.33</b>

\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)

13. The trued up Interest on Working Capital (IWC) claimed by the Petitioner for the transmission assets is as under:

(₹ in lakh)

Particulars	2017-18 (pro-rata)*	2018-19
<b>Asset-I(A)(a)</b>		
O&M Expenses	32.75	33.84
Maintenance Spares	58.95	60.91
Receivables	944.86	995.25
Total Working Capital	1036.56	1090.00
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>76.22</b>	<b>137.34</b>
<b>Asset-I(A)(b)</b>		
O&M Expenses	0.11	0.12
Maintenance Spares	0.20	0.21
Receivables	10.69	10.89
Total Working Capital	11.00	11.22
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.81</b>	<b>1.41</b>
<b>Asset-I(B)(a)</b>		
O&M Expenses	17.23	17.81
Maintenance Spares	31.02	32.05
Receivables	293.66	314.21
Total Working Capital	341.91	364.07
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>24.43</b>	<b>45.87</b>
<b>Asset-I(B)(b)</b>		



O&M Expenses	0.11	0.12
Maintenance Spares	0.20	0.21
Receivables	10.90	11.39
Total Working Capital	11.21	11.72
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.80</b>	<b>1.48</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

### **Cost Over-run**

14. The details of apportioned approved capital cost, actual expenditure upto COD and additional capital expenditure (ACE) incurred during the period 2014-19 as claimed by the Petitioner are as under:

Asset	FR Apportioned Approved Capital cost	Actual Capital cost as on COD	ACE (2014-19)	(₹ in lakh)
				Total Capital cost as on 31.3.2019
<b>On cash basis</b>				
Asset-I(A)(a)	41963.69	30201.68	4675.94	34877.62
Asset-I(A)(b)	635.85	359.59	27.66	387.25
Asset-I(B)(a)	11736.35	8285.15	1720.72	10005.87
Asset-I(B)(b)	670.11	359.06	48.93	407.99

15. We have considered the submissions of the Petitioner. It is observed that the estimated completion cost of the transmission assets as on 31.3.2019 including ACE is within the FR apportioned approved capital cost.

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

16. There was no time over-run in execution of the transmission assets. The Petitioner has claimed IDC for the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on date of commercial operation and thereafter as under:

Asset	IDC as per Auditor Certificate	IDC Discharged upto COD	IDC discharged during 2014-15	IDC discharged during 2015-16	(₹ in lakh)
					Undischarged IDC upto COD



Asset	IDC as per Auditor Certificate	IDC Discharged upto COD	IDC discharged during 2014-15	IDC discharged during 2015-16	Undischarged IDC upto COD
Asset-I(A)(a)	1295.42	635.71	591.15	68.56	659.71
Asset-I(A)(b)	15.14	7.57	7.03	0.54	7.57
Asset-I(B)(a)	362.35	156.95	144.22	61.18	205.40
Asset-I(B)(b)	16.55	6.83	6.26	3.46	9.72

17. The allowable IDC has been worked out considering the information submitted by the Petitioner. The loan details submitted in Form-9C for period 2014-19 and date of drawl submitted in IDC statement has been considered for the purpose of calculating IDC for the assets. Accordingly, IDC allowed is as under:

(₹ in lakh)

Asset	IDC as per Auditor Certificate	IDC upto COD as worked out	IDC disallowed due to computation difference	IDC allowed upto COD on cash basis	Undischarged portion of IDC as on COD*	Discharged during 2017-18	Discharged during 2018-19
I(A)(a)	1295.42	1283.20	12.22	629.78	653.42	591.15	62.27
I(A)(b)	15.14	15.14	0	7.49	7.65	7.03	0.62
I(B)(a)	362.35	359.72	2.63	155.82	203.90	144.22	59.68
I(B)(b)	16.55	15.62	0.93	6.77	8.85	6.26	2.59

\*The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged

18. The Petitioner has claimed IEDC for the transmission assets and the same as on date of commercial operation is within the percentage of hard cost indicated in the abstract cost estimate. Hence, the entire amount of IEDC has been allowed. Accordingly, IEDC considered for the purpose of tariff calculation are as under:

(₹ in lakh)

Asset	IEDC claimed as per Auditor Certificate	IEDC considered as on COD
Asset-I(A)(a)	838.91	838.91
Asset-I(A)(b)	9.80	9.80
Asset-I(B)(a)	337.44	337.44
Asset-I(B)(b)	15.41	15.41
<b>Total</b>	<b>1201.56</b>	<b>1201.56</b>



### Initial Spares

19. The Petitioner has claimed the Initial Spares for GIS sub-stations taking into consideration the judgement of the Appellate Tribunal for Electricity (APTEL) dated 14.9.2019 in Appeal No.74 of 2017. The excess Initial Spares as worked out by the Petitioner is as under:

Asset	Asset Type	Plant and Machinery Cost* (A) (₹ in lakh)	Initial Spares claimed (B) (₹ in lakh)	Ceiling limit (%) (C)	Initial Spares worked out	Excess Initial Spares E = B-D (₹ in lakh)
					$D = [(A-B)*C / (100-C)]$ (₹ in lakh)	
Asset-I(A)(a)	Sub-station (GIS)	29844.48	1567.57	5.00	1488.26	79.31
Asset-I(B)(a)	Sub-station (GIS)	9306.09	419.49	5.00	467.72	-48.23
<b>Total</b>	<b>Sub-station (GIS)</b>	<b>39150.57</b>	<b>1987.06</b>	<b>5.00</b>	<b>1955.97</b>	<b>31.09</b>

\*Excluding IDC, IEDC, land cost and cost of civil works for the purpose of Initial Spares

20. The Petitioner has further submitted that the Initial Spares included in the Auditor Certificate is as per actual cash expenditure incurred and the Initial Spares discharged after COD is considered as ACE in the respective years. The discharge of Initial Spares submitted by the Petitioner is as under:

(₹ in lakh)

Asset	Initial Spares claimed	Initial Spares discharged upto COD	Initial Spares discharged in 2017-18	Initial Spares discharged in 2018-19
Asset-I(A)(a)	1567.57	0.00	619.20	948.37
Asset-I(B)(a)	419.49	210.20	148.92	60.37

21. The Petitioner has reduced the excess Initial Spares of ₹31.09 lakh from the capital cost of Asset-I(A)(a) as per actual discharge from ACE claimed in 2018-19.



22. TANGEDCO has submitted that the Commission vide its order dated 21.4.2016 in Petition No. 53/TT/2015 had restricted the excess Initial Spares based on element-wise capital cost and the same was reaffirmed vide its order dated 7.9.2016 in Review Petition No. 35/RP/2016. TANGEDCO has further submitted that the Commission in the aforementioned order had relied on the judgement of APTEL dated 28.11.2013 in Appeal No. 165 of 2012, wherein the Commission's policy of considering the apportioned cost of the individual assets for computation of tariff was upheld. In light of the above, TANGEDCO has submitted that judgement of the APTEL dated 14.9.2019 in Appeal No.74 of 2017 is contradictory to its earlier judgement in Appeal No. 165 of 2012 and has requested that the excess Initial Spares may be restricted based on the capital cost of individual asset. In response, the Petitioner, vide affidavit dated 20.7.2020, has submitted that APTEL in its judgement dated 14.9.2019 in Appeal No.74 of 2017 has allowed the computation of Initial Spares based on overall cost of the project after considering the facts/ orders issued by it in its previous judgements and requested to allow the Initial Spares as claimed.

23. We have considered the submissions of the Petitioner and TANGEDCO. APTEL in its judgement dated 14.9.2019 in Appeal No. 74 of 2017 observed that the Commission for the purpose of prudence check may restrict the initial spares to the cost of the individual asset and later at the time of truing up allow initial spares as per the ceiling on the overall project cost. The relevant portion of the said judgement is extracted hereunder:-

*“18.13. .... We do not agree with this methodology of restricting initial spares asset / element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true- up.”*



24. We agree with the Petitioner that as per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as a percentage of the project cost as a whole as on the cut-off date. However, although the transmission assets were put into commercial operation during 2017-18, the overall project cost of the assets is arrived at only when all the transmission assets are combined while claiming the tariff for the 2019-24 tariff period. Therefore, the Initial Spares are allowed on the basis of the cost of the individual assets in the 2014-19 tariff period and the Initial Spares are allowed on the basis of the overall project cost in the 2019-24 period when the transmission assets are combined and the overall project cost is arrived at. Accordingly, details of Initial Spares allowed for the 2014-19 tariff period are as under:

Asset	Element	Plant & Machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations	Initial Spares as per the norms of the 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
I(A)(a)	Sub-station (GIS)	29844.48	1567.57	5.00%	1488.26	1488.26*
I(B)(a)	Sub-station (GIS)	9306.09	419.49	5.00%	467.72	419.49

\*The excess Initial Spares disallowed for Asset-I(A)(a) are deducted from ACE in the year of discharge i.e. 2018-19

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

25. The capital cost of the transmission assets has been calculated in accordance with the Regulation 9(3) of the 2014 Tariff Regulations.

26. The Commission vide order dated 5.7.2018 in Petition No. 157/TT/2017 had allowed capital cost as on COD and projected ACE for determination of tariff for the 2014-19 period, which are summarised as under:

Asset	Admitted Capital Cost as on COD <sup>#</sup>	ACE		Admitted Capital Cost as on 31.3.2019
		2017-18	2018-19	

(₹ in lakh)



(₹ in lakh)

Asset	Admitted Capital Cost as on COD <sup>#</sup>	ACE		Admitted Capital Cost as on 31.3.2019
		2017-18	2018-19	
Asset-IA	30561.58*	4258.85	4604.55	39424.98
Asset-IB	8642.37*	1140.39	843.79	10626.55
<b>Total</b>	<b>39203.95</b>	<b>5399.24</b>	<b>5448.34</b>	<b>50051.53</b>

\*Accrual IDC adjusted from COD and added in respective year of discharge

<sup>#</sup>The capital cost on COD has been computed after deducting IDC on account of computational difference amounting to ₹2.88 lakh for Asset-IA and ₹4.20 lakh for Asset-IB

27. TANGEDCO has submitted that the following elements are not under beneficial use and may accordingly be excluded from capital cost:

- i. 800 kV GIS bus auxiliary bus bar module for spare transformer;
- ii. 800 kV GIS auxiliary bus bar module for spare line and bus reactor; and
- iii. 400 kV SF6 GIS auxiliary bus bar module for spare transformer.

28. TANGEDCO has further submitted that tariff for the above elements may not be allowed until they are put to use as per Regulation 9(6) of the 2014 Tariff Regulations and that the same has been held by the Commission vide order dated 22.8.2016 in Petition No. 416/TT/2014. In support of its contentions, it has placed reliance on the judgement of Appellate Tribunal for Electricity (APTEL) dated 18.1.2018 in Appeal No. 198 of 2015 and Appeal No. 6 of 2016 wherein it has been held that the assets must be in “intended/ regular use” in order for it to be capitalised and the same cannot be capitalised with “some use”. Judgement of APTEL dated 2.7.2012 in Appeal No. 123 of 2011 also supports the reasoning that only the elements of the assets that have been put to use can be capitalised. Accordingly, TANGEDCO has prayed that the cost of the elements which have not been put to beneficial use may be excluded from the capital cost and the proportionate IDC and IEDC may be restricted. In response, the Petitioner, vide affidavit dated 20.7.2020, has stated that the Commission, in order dated 5.7.2018 in Petition No. 157/TT/2017, considered the cost of 800 kV GIS





Auxiliary bus bar module for future extension such as spare transformer, spare line and reactor and 400 kV SF6 GIS auxiliary bus bar module for spare transformer as part of the capital cost. The Petitioner has further submitted that if in view of TANGEDCO there was any error in the order issued by the Commission with regard to the inclusion of future bays in a GIS module, the same should have been contested by it through a Review Petition against the said order.

29. We have considered the submissions made by the Petitioner and TANGEDCO. TANGEDCO had raised the same issue in Petition No 157/TT/2017 and the Commission vide order dated 5.7.2018 in Petition No 157/TT/2017 had decided that the cost of the aforementioned elements shall be included as part of the capital cost.

The relevant extract is as under:

*“...We are of the view that GIS substation is a compact design in nature and if GIS is planned bay-wise it would increase the cost and repeated opening for extension of GIS module will increase the vulnerability of GIS for exposure to faults. Therefore the cost of the above the 800 kV GIS Auxiliary bus bar module for future extension such as spare transformer, spare line and reactor and 400 kV SF6 GIS auxiliary bus bar module for spare transformer needs to be considered in the capital cost.”*

30. In view of the above, we are not inclined to consider the submission of the TANGEDCO and tariff of the above mentioned elements are part of the capital cost.

31. Accordingly, the capital cost allowed as on COD is summarized hereunder:-

(₹ in lakh)

Asset	Capital cost as on COD claimed as per Auditor Certificate (A)	Less: IDC as on COD due to		Capital cost allowed as on COD (C) = (A-B-C)
		Undischarged IDC (B)	Computational Difference (C)	
Asset-I(A)(a)	30861.40	653.42	12.22	30195.76
Asset-I(A)(b)	367.16	7.65	0	359.51
Asset-I(B)(a)	8490.55	203.90	2.63	8284.02
Asset-I(B)(b)	368.78	8.85	0.93	359.00



### Additional Capital Expenditure(ACE)

32. The cut-off date for the transmission assets is 31.3.2020. The Petitioner has claimed ACE as under:

(₹ in lakh)

Asset	ACE claimed (on cash basis)	
	2017-18	2018-19
Asset-I(A)(a)	1855.11	2820.83
Asset-I(A)(b)	25.81	1.85
Asset-I(B)(a)	1647.45	73.27
Asset-I(B)(b)	45.47	3.46

33. The Petitioner has submitted that ACE incurred during 2014-19 period is on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date and work to be executed within the cut-off date and has been claimed under Regulation 14(1)(i) (undischarged liabilities recognized to be payable at a future date) and Regulation 14(1)(ii) (works deferred for execution) of the 2014 Tariff Regulations. The break-up of ACE claimed by the Petitioner is as under:

(₹ in lakh)

Particulars	Regulation	Asset-I(A)(a)		Asset-I(A)(b)		Asset-I(B)(a)		Asset-I(B)(b)	
		2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	1263.96	2504.21	18.78	-	1503.24	-	39.21	-
Works deferred for execution	14(1)(ii)	-	248.06	-	1.31	-	12.09	-	-
IDC Discharged after COD	14(1)(i)	591.15	68.56	7.03	0.54	144.21	61.18	6.26	3.46
<b>Total ACE</b>		<b>1855.11</b>	<b>2820.83</b>	<b>25.81</b>	<b>1.85</b>	<b>1647.45</b>	<b>73.27</b>	<b>45.47</b>	<b>3.46</b>

34. Further, in response to the Commission's directions vide Record of Proceedings (RoP) dated 24.6.2020 to furnish additional information regarding ACE,



the Petitioner vide affidavit dated 8.7.2020 has submitted the package-wise breakup as below:

(₹ in lakh)

Vendor Name	Nature of Work	2017-18	2018-19
<b>Asset-I(A)(a)</b>			
Balance and retention payments for liabilities other than IDC			
Hyosung & L&T	Sub-station	876.82	1996.74
Siemens	Sub-station	387.15	32.96
Misc. Site Package	Sub-station	-	10.20
TBEA	Sub-station	-	559.77
<b>Total</b>		<b>1263.97</b>	<b>2599.67*</b>
Works deferred for execution			
Kalyani Projects	Building & Civil Works	-	168.90
SKP BuildconPvt. Ltd.	Building & Civil Works	-	52.14
B VenkataRamudu	Building & Civil Works	-	22.84
Aakar Engineers andContractors	Building & Civil Works	-	23.83
S R Constructions	Building & Civil Works	-	11.44
<b>Total</b>		<b>-</b>	<b>279.15<sup>#</sup></b>

\*The amount claimed in the instant petition is ₹2504.21 lakh. The excess amount of ₹95.46 lakh is categorized as 'additional liability recognized' in the affidavit dated 8.7.2020 and is also included in the ACE of ₹1788.52 lakh in 2019-20. Accordingly, ₹2504.21 lakh has been allowed as balance and retention payments in 2018-19

<sup>#</sup>The excess initial spares of ₹31.09 lakh as determined by the Petitioner has been deducted from ₹279.15 lakh while claiming as ACE

(₹ in lakh)

Vendor Name	Nature of Work	2017-18	2018-19
<b>Asset-I(A)(b)</b>			
Balance and retention payments for liabilities other than IDC			
KPTL	Transmission line	18.78	-
<b>Total</b>		<b>18.78</b>	<b>-</b>
Works deferred for execution			
KPTL	Transmission line	-	1.31
<b>Total</b>		<b>-</b>	<b>1.31</b>

(₹ in lakh)

Vendor Name	Nature of Work	2017-18	2018-19
<b>Asset-I(B)(a)</b>			
Balance and retention payments for liabilities other than IDC			
Hyosung & L&T	Sub-station	110.31	-
Siemens	Sub-station	1392.93	-
<b>Total</b>		<b>1503.24</b>	<b>-</b>
Works deferred for execution			
Siemens	Sub-station	-	12.09
<b>Total</b>		<b>-</b>	<b>12.09</b>

(₹ in lakh)

Vendor Name	Nature of Work	2017-18	2018-19
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(₹ in lakh)

Vendor Name	Nature of Work	2017-18	2018-19
<b>Asset-I(B)(b)</b>			
Balance and retention payments for liabilities other than IDC			
KPTL	Transmission line	39.20	-
<b>Total</b>		<b>39.20</b>	<b>-</b>

35. We have considered the submissions made by the Petitioner and the claim has been verified from the Auditor Certificates. The undischarged IDC as on COD has been allowed as ACE during the year of discharge. Further, the excess initial spares of ₹79.31 lakh is reduced from ACE of Asset-I(A)(a) as per actual discharge in 2018-19. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations which pertain to undischarged liabilities recognized to be payable at a future date and liabilities toward works deferred for execution respectively. Accordingly, ACE allowed for the transmission assets for the 2014-19 period is as under:

(₹ in lakh)

Particulars	Regulation	Asset-I(A)(a)		Asset-I(A)(b)		Asset-I(B)(a)		Asset-I(B)(b)	
		2017-18	2018-19	2017-18	2018-19	2017-18	2018-19	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	14(1)(i)	1263.96	2504.21	18.78	-	1503.24	-	39.21	-
Works deferred for execution	14(1)(ii)	-	199.84	-	1.31	-	12.09	-	-
IDC Discharged after COD	14(1)(i)	591.15	62.27	7.03	0.62	144.22	59.68	6.26	2.59
<b>Total ACE</b>		<b>1855.11</b>	<b>2766.31</b>	<b>25.81</b>	<b>1.93</b>	<b>1647.46</b>	<b>71.77</b>	<b>45.47</b>	<b>2.59</b>

(₹ in lakh)

Asset	Apportioned Approved Capital Cost	Capital Cost allowed as on COD	ACE allowed		Capital Cost allowed as on 31.3.2019
			2017-18	2018-19	
Asset-I(A)(a)	41963.69	30195.76	1855.11	2766.31	34817.19
Asset-I(A)(b)	635.85	359.51	25.81	1.93	387.25
Asset-I(B)(a)	11736.35	8284.02	1647.46	71.77	10003.25
Asset-I(B)(b)	670.11	359.00	45.47	2.59	407.06
<b>Total</b>	<b>55006.00</b>	<b>39198.29</b>	<b>3573.85</b>	<b>2842.60</b>	<b>45614.75</b>



### Debt-Equity ratio

36. The debt-equity ratio has been considered in accordance with Regulation 19(1), (3) and (5) of the 2014 Tariff Regulations. The debt-equity ratio of 70:30 has been considered for ACE allowed during 2014-19 period in accordance with Regulation 19(3) of the 2014 Tariff Regulations. The details of the debt-equity ratio as on COD and 31.3.2019 for the transmission assets considered for the purpose of determination of tariff for the 2014-19 period is as under:

Particulars	Capital cost as on COD (₹ in lakh)	(%)	ACE during 2014-19 (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
<b>Asset-I(A)(a)</b>						
Debt	21137.04	70.00	3235.00	70.00	24372.03	70.00
Equity	9058.73	30.00	1386.43	30.00	10445.16	30.00
<b>Total</b>	<b>30195.76</b>	<b>100.00</b>	<b>4621.42</b>	<b>100.00</b>	<b>34817.19</b>	<b>100.00</b>
<b>Asset-I(A)(b)</b>						
Debt	251.66	70.00	19.42	70.00	271.08	70.00
Equity	107.85	30.00	8.32	30.00	116.18	30.00
<b>Total</b>	<b>359.51</b>	<b>100.00</b>	<b>27.74</b>	<b>100.00</b>	<b>387.25</b>	<b>100.00</b>
<b>Asset-I(B)(a)</b>						
Debt	5798.81	70.00	1203.46	70.00	7002.28	70.00
Equity	2485.21	30.00	515.77	30.00	3000.98	30.00
<b>Total</b>	<b>8284.02</b>	<b>100.00</b>	<b>1719.23</b>	<b>100.00</b>	<b>10003.25</b>	<b>100.00</b>
<b>Asset-I(B)(b)</b>						
Debt	251.30	70.00	33.64	70.00	284.94	70.00
Equity	107.70	30.00	14.42	30.00	122.12	30.00
<b>Total</b>	<b>359.00</b>	<b>100.00</b>	<b>48.06</b>	<b>100.00</b>	<b>407.06</b>	<b>100.00</b>

### Interest on Loan (IoL)

37. The Petitioner has claimed that the weighted average rate of IoL, based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rate submitted by the Petitioner, in accordance with the Regulation 26 of the 2014 Tariff Regulations. IoL is worked out as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)*	2018-19
Interest on Loan		
Asset-I(A)(a)		



Gross Normative Loan	21137.04	22435.61
Cumulative Repayments up to Previous Year	0.00	917.96
Net Loan-Opening	21137.04	21517.65
Additions	1298.58	1936.42
Repayment during the year	917.96	1675.47
Net Loan-Closing	21517.65	21778.61
Average Loan	21327.34	21648.13
Weighted Average Rate of Interest on Loan (%)	7.7179	7.7447
<b>Interest on Loan</b>	<b>960.55</b>	<b>1676.57</b>
<b>Asset-I(A)(b)</b>		
Gross Normative Loan	251.66	269.73
Cumulative Repayments up to Previous Year	0.00	11.47
Net Loan-Opening	251.66	258.25
Additions	18.07	1.35
Repayment during the year	11.47	20.40
Net Loan-Closing	258.25	239.20
Average Loan	254.95	248.73
Weighted Average Rate of Interest on Loan (%)	7.7144	7.7186
<b>Interest on Loan</b>	<b>11.48</b>	<b>19.20</b>
<b>Asset-I(B)(a)</b>		
Gross Normative Loan	5798.81	6952.04
Cumulative Repayments up to Previous Year	0.00	273.08
Net Loan-Opening	5798.81	6678.96
Additions	1153.22	50.24
Repayment during the year	273.08	527.14
Net Loan-Closing	6678.96	6202.06
Average Loan	6238.89	6440.51
Weighted Average Rate of Interest on Loan (%)	7.5850	7.5630
<b>Interest on Loan</b>	<b>268.37</b>	<b>487.09</b>
<b>Asset-I(B)(b)</b>		
Gross Normative Loan	251.30	283.13
Cumulative Repayments up to Previous Year	0.00	11.43
Net Loan-Opening	251.30	271.70
Additions	31.83	1.81
Repayment during the year	11.43	21.42
Net Loan-Closing	271.70	252.08
Average Loan	261.50	261.89
Weighted Average Rate of Interest on Loan (%)	7.6031	7.5944



<b>Interest on Loan</b>	<b>11.28</b>	<b>19.89</b>
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*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

38. Accordingly, IoL approved vide order dated 5.7.2018 in Petition No. 157/TT/2017 for the transmission asset, IOL claimed by the Petitioner in the instant petition and true up IoL allowed in the instant order are as under :

(₹ in lakh)		
Particular	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	1024.73	1887.95
Claimed by the Petitioner in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	971.88	1695.25
Allowed after true-up in this order (collation of Asset-I(A)(a) and Asset-I(A)(b))	972.03	1695.77
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	960.40	1676.05
Allowed after true-up in this order	960.55	1676.57
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	11.48	19.20
Allowed after true-up in this order	11.48	19.20
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	277.21	510.65
Claimed by the Petitioner in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	279.67	506.99
Allowed after true-up in this order (collation of Asset-I(B)(a) and Asset-I(B)(b))	279.65	506.98
<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	268.39	487.07
Allowed after true-up in this order	268.37	487.09
<b>Asset-I(B)(b)</b>		
Claimed by the Petitioner in the instant petition	11.28	19.92
Allowed after true-up in this order	11.28	19.89

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

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

39. The Petitioner is entitled to RoE for the transmission assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that it is liable to pay income tax at MAT rates.





40. The Petitioner has also claimed additional RoE of 0.5% for Asset-I(A)(a) and Asset-I(B)(a) since they have been put into commercial operation within the timeline specified in the 2014 Tariff Regulations for grant of additional RoE of 0.5%. No additional RoE has been claimed for Asset-I(A)(b) and Asset-I(B)(b) as the length of the transmission line is 1.74 km for both assets, which is less than 50 km. The Petitioner has claimed following effective tax rates for the 2014-19 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

41. TANGEDCO has submitted that the petitioner has not segregated the cost of the bays associated with the transmission lines under Asset-I(A)(b) and Asset-I(B)(b). The Respondent has further submitted that the Petitioner cannot combine the elements for initial spares and split individual element for claiming additional RoE to suit its convenience and safeguard its commercial interest. In response, the Petitioner vide affidavit dated 20.7.2020 has claimed that it has submitted all the relevant information in the instant petition and in its reply to the Record of Proceedings (RoP) dated 8.7.2020. It has further submitted that the Commission vide order dated 5.7.2018 in Petition No. 157/TT/2017 had stated that additional RoE is admissible, subject to furnishing of breakup of cost of ICTs and bus reactors at the time of truing-up of tariff.

42. We have considered the submissions made by TANGEDCO and the Petitioner. The Commission vide order dated 5.7.2018 in Petition No. 157/TT/2017 held as under:



“38. We have considered the submissions of the petitioner. It is noticed that SRPC has certified certain elements fulfilling the requirements of regulation 24(2)(iii) of the 2014 Tariff Regulations and recommended for additional RoE in respect of these elements under the said regulation. It is further observed that the petitioner has claimed additional RoE for LILO of Hyderabad-Kurnool 400 kV S/C line at Maheshwaram PS. The line length of LILO of Hyderabad-Kurnool 400 kV S/C line is 1.74 km. As per Regulation 24(2)(vi) of the 2014 Tariff Regulations, additional RoE shall not be admissible for transmission line having length of less than 50 km. Accordingly, additional ROE is not granted for LILO of Hyderabad-Kurnool 400 kV S/C line. Since, the petitioner has not furnished breakup of cost for ICT’s and Bus reactors at Maheshwaram and LILO of Hyderabad-Kurnool 400 kV D/C line, additional RoE has not been considered at this stage. However, additional RoE is admissible for the following, subject to furnishing of breakup of cost of ICTs and bus reactors at the time of truing-up of tariff:-

Sl.No	Transmission elements	Whether additional RoE is admissible
<i>Sub-Station Works associated with Hyderabad (Maheshwaram) Pooling Station</i>		
(i)	1500MVA 765/400kV ICT-1 and its bays at Maheshwaram GIS	Yes
(ii)	2x240MVA, 765kV Bus reactors and its bays at Maheshwaram GIS	Yes
(iii)	400kV Maheshwaram-Kurnool bays at Maheshawaram GIS	Yes
(iv)	1500MVA 765/400kV ICT-2 and its bays at Maheshwaram GIS	Yes
(v)	400kV Maheshwaram-Hyderabad bays at Maheshawaram GIS	Yes
(vi)	LILO of Hyderabad-Kurnool 400kV D/C line	No

39. Due to non-availability of segregated cost, additional ROE is not considered in the tariff computation and the same shall be considered at the time of truing-up on receipt of segregated cost and funding details.”

43. Accordingly, as the Petitioner has furnished the breakup of cost of ICTs and bus reactors in the instant petition by segregating the assets, additional RoE of 0.5% is allowed for Asset-I(A)(a) and Asset-I(B)(a).

44. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 has arrived at the effective tax rate based on the notified MAT rates for the Petitioner. The relevant portion of the order dated 27.4.2020 is as under:

“26. We are conscious that the entities covered under MAT regime are paying Income Tax as per MAT rate notified for respective financial year under IT Act, 1961, which is levied on the book profit of the entity computed as per the Section 115JB of the IT Act, 1961. The Section 115JB(2) defines book profit as net profit in the statement of Profit & Loss prepared in accordance with Schedule-III of the Companies Act, 2013, subject to



some additions and deductions as mentioned in the IT Act, 1961. Since the Petitioner has been paying income tax on income computed under Section 115JB of the IT Act, 1961 as per the MAT rates of the respective financial year, the notified MAT rate for respective financial year shall be considered as effective tax rate for the purpose of grossing up of RoE for truing up of the tariff of the 2014-19 tariff period in terms of the provisions of the 2014 Tariff Regulations. Interest imposed on any additional income tax demand as per the Assessment Order of the Income Tax authorities shall be considered on actual payment. However, penalty (for default on the part of the Assessee) if any imposed shall not be taken into account for the purpose of grossing up of rate of return on equity. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/ DICs as the case may be on year to year basis.

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

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

”

45. The MAT rates considered in 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 the 2014-19 period in terms of provisions of the 2014 Tariff Regulations:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed up RoE (Base Rate/1-t) (in %)	Base rate of RoE including additional RoE (in %)	Grossed up RoE (Base Rate including additional RoE/1-t) (in %)
2014-15	20.961	15.50	19.610	16.00	20.243
2015-16	21.342	15.50	19.705	16.00	20.341
2016-17	21.342	15.50	19.705	16.00	20.341
2017-18	21.342	15.50	19.705	16.00	20.341
2018-19	21.549	15.50	19.758	16.00	20.395

46. RoE is trued up on the basis of the MAT rate applicable in the respective years and is allowed as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata)*	2018-19
Return on Equity		



<b>Asset-I(A)(a)</b>		
Opening Equity	9058.73	9615.26
Additions	556.53	829.89
Closing Equity	9615.26	10445.16
Average Equity	9337.00	10030.21
Return on Equity (Base Rate) (%)	16.000	16.000
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	20.341	20.395
<b>Return on Equity</b>	<b>1108.33</b>	<b>2045.65</b>
<b>Asset-I(A)(b)</b>		
Opening Equity	107.85	115.60
Additions	7.74	0.58
Closing Equity	115.60	116.18
Average Equity	111.73	115.89
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758
<b>Return on Equity</b>	<b>12.85</b>	<b>22.90</b>
<b>Asset-I(B)(a)</b>		
Opening Equity	2485.21	2979.44
Additions	494.24	21.53
Closing Equity	2979.44	3000.98
Average Equity	2732.33	2990.21
Return on Equity (Base Rate) (%)	16.000	16.000
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	20.341	20.395
<b>Return on Equity</b>	<b>315.20</b>	<b>609.85</b>
<b>Asset-I(B)(b)</b>		
Opening Equity	107.70	121.34
Additions	13.64	0.78
Closing Equity	121.34	122.12
Average Equity	114.52	121.73
Return on Equity (Base Rate) (%)	15.500	15.500
MAT Rate for respective year (%)	21.342	21.549
Rate of Return on Equity (%)	19.705	19.758
<b>Return on Equity</b>	<b>12.80</b>	<b>24.05</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

47. Accordingly, details of RoE allowed vide order dated 5.7.2018 in Petition No. 157/TT/2017 for the transmission asset, RoE claimed by the Petitioner in the instant petition and trued up RoE allowed in the instant order are as under:



(₹ in lakh)

Particular	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	1122.37	2184.04
Claimed by the Petitioner in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	1121.36	2070.55
Allowed after true-up in this order (collation of Asset-I(A)(a) and Asset-I(A)(b))	1121.18	2068.54
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	1108.51	2047.65
Allowed after true-up in this order	1108.33	2045.65
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	12.85	22.90
Allowed after true-up in this order	12.85	22.90
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	307.38	600.37
Claimed by the Petitioner in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	328.04	634.05
Allowed after true-up in this order (collation of Asset-I(B)(a) and Asset-I(B)(b))	328.00	633.90
<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	315.24	609.97
Allowed after true-up in this order	315.20	609.85
<b>Asset-I(B)(b)</b>		
Claimed by the Petitioner in the instant petition	12.80	24.08
Allowed after true-up in this order	12.80	24.05

\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)

### **Depreciation**

48. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed for the transmission assets vide order dated 5.7.2018 in Petition No. 157/TT/2017. The Petitioner has neither given any justification for claiming higher depreciation than that was allowed in previous orders nor made any specific prayer for allowing higher depreciation in this petition. Similar issue has come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 decided as under:



“31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009- 14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards “IT Equipment” in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014-19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to “IT Equipment”. The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the head “IT Equipment” @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner’s prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @ 15% from 1.4.2014 onwards. Accordingly, the depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period. During the 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @ 15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.”

49. In line with the above order of the Commission, the Gross Block during the tariff period 2014-19 has been depreciated at weighted average of depreciation (WAROD). The calculation of WAROD for the 2014-19 period for Asset-I(A)(a), Asset-I(A)(b), Asset-I(B)(a) and Asset-I(B)(b) is placed in Annexure-I, Annexure-II, Annexure-III and Annexure-IV respectively. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and the trued-up depreciation allowed for the transmission asset during 2014-19 is as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata)*	2018-19
<b>Depreciation</b>		
<b>Asset-I(A)(a)</b>		
Opening Gross Block	30195.76	32050.87





Additional Capitalisation	1855.11	2766.31
Closing Gross Block	32050.87	34817.19
Average Gross Block	31123.32	33434.03
Freehold Land	662.01	662.01
Weighted average rate of Depreciation (WAROD) (%)	5.05	5.01
Balance useful life of the asset	25	25
Elapsed useful life at the beginning of the year	0	0
Aggregate Depreciable Value	27415.18	29494.82
<b>Combined Depreciation during the year</b>	<b>917.96</b>	<b>1675.47</b>
Aggregate Cumulative Depreciation	917.96	2593.43
Remaining Aggregate Depreciable Value	26497.22	26901.39
<b>Asset-I(A)(b)</b>		
Opening Gross Block	359.51	385.32
Additional Capitalisation	25.81	1.93
Closing Gross Block	385.32	387.25
Average Gross Block	372.42	386.29
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28
Balance useful life of the asset	35	35
Elapsed useful life at the beginning of the year	0	0
Aggregate Depreciable Value	335.18	347.66
<b>Combined Depreciation during the year</b>	<b>11.47</b>	<b>20.40</b>
Aggregate Cumulative Depreciation	11.47	31.87
Remaining Aggregate Depreciable Value	323.70	315.79
<b>Asset-I(B)(a)</b>		
Opening Gross Block	8284.02	9931.48
Additional Capitalisation	1647.46	71.77
Closing Gross Block	9931.48	10003.25
Average Gross Block	9107.75	9967.37
Weighted average rate of Depreciation (WAROD) (%)	5.29	5.29
Balance useful life of the asset	25	25
Elapsed useful life at the beginning of the year	0	0
Aggregate Depreciable Value	8196.98	8970.63
<b>Combined Depreciation during the year</b>	<b>273.08</b>	<b>527.14</b>
Aggregate Cumulative Depreciation	273.08	800.21
Remaining Aggregate Depreciable Value	7923.90	8170.42





<b>Asset-I(B)(b)</b>		
Opening Gross Block	359.00	404.47
Additional Capitalisation	45.47	2.59
Closing Gross Block	404.47	407.06
Average Gross Block	381.73	405.76
Weighted average rate of Depreciation (WAROD) (%)	5.28	5.28
Balance useful life of the asset	35	35
Elapsed useful life at the beginning of the year	0	0
Aggregate Depreciable Value	343.56	365.19
<b>Combined Depreciation during the year</b>	<b>11.43</b>	<b>21.42</b>
Aggregate Cumulative Depreciation	11.43	32.85
Remaining Aggregate Depreciable Value	332.13	332.33

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

50. The details of the depreciation allowed vide order dated 5.7.2018 in Petition No. 157/TT/2017 for the transmission asset, depreciation claimed by the Petitioner in the instant petition and true up depreciation allowed in the instant order are as under:

Particular	(₹ in lakh)	
	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	947.50	1843.76
Claimed by the Petitioner in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	945.32	1724.81
Allowed after true-up in this order (collation of Asset-I(A)(a) and Asset-I(A)(b))	929.44	1695.86
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	933.84	1704.41
Allowed after true-up in this order	917.96	1675.47
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	11.48	20.40
Allowed after true-up in this order	11.47	20.40
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	276.10	539.26
Claimed by the Petitioner in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	285.35	550.13
Allowed after true-up in this order (collation of Asset-I(B)(a) and Asset-I(B)(b))	284.51	548.56



<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	273.92	528.68
Allowed after true-up in this order	273.08	527.14
<b>Asset-I(B)(b)</b>		
Claimed by the Petitioner in the instant petition	11.43	21.45
Allowed after true-up in this order	11.43	21.42

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

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

51. The O&M Expenses claimed by the Petitioner for the transmission assets are as under:

<b>O&amp;M Expenses</b>	<b>2017-18 (pro-rata)*</b>	<b>2018-19</b>
<b>Asset-I(A)(a)</b>		
<b>Sub-station bays at Hyderabad (Maheshwaram)</b>		
400 kV GIS Sub-station		
No. of bays	2	2
Norms (₹ lakh per bay)	56.84	58.73
765 kV GIS Sub-station		
No. of bays	3	3
Norms (₹ lakh per bay)	93.11	96.20
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>229.35</b>	<b>406.06</b>
<b>Asset-I(A)(b)</b>		
<b>Transmission line (Hyderabad (Maheshwaram)-Kurnool 400 kV line)</b>		
400 kV D/C Twin Conductor (km)	1.74	1.74
Norms (₹ lakh per km)	0.780	0.806
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.79</b>	<b>1.40</b>
<b>Asset-I(B)(a)</b>		
<b>Sub-station bays at Maheshwaram</b>		
400 kV GIS Sub-station		
No. of bays	2	2
Norms (₹ lakh per bay)	56.84	58.73
765 kV GIS Sub-station		
No. of bays	1	1
Norms (₹ lakh per bay)	93.11	96.20
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>117.28</b>	<b>213.66</b>
<b>Asset-I(B)(b)</b>		
<b>Transmission line</b>		



<b>(Maheshwaram-Hyderabad 400 kV line)</b>		
400 kV D/C Twin Conductor (km)	1.74	1.74
Norms (₹ lakh per km)	0.780	0.806
<b>Total O&amp;M Expense (₹ in lakh)</b>	<b>0.77</b>	<b>1.40</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

52. 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 under:

Particulars	Unit of measure	2017-18	2018-19
<b>Sub-station bays</b>			
400 kV GIS bays	(₹ lakh per bay)	56.84	58.73
765 kV GIS bays*	(₹ lakh per bay)	93.11	96.20
<b>Transmission lines</b>			
D/C Twin/Triple Conductor	(₹ lakh per km)	0.780	0.806

*\*The 2014 Tariff Regulations do not provide norms for 765 kV GIS bays, hence, the norms applicable for 765 kV bays are considered for computation of O&M expenses for the 2014-19 period*

53. The O&M Expenses are allowed for the transmission assets as per the norms specified in the 2014 Tariff Regulations and are as under:

O&M Expenses	2017-18 (pro-rata)*	2018-19
<b>Asset-I(A)(a)</b>		
<b>Sub-station bays</b>		
400 kV GIS Sub-station		
No. of bays	2	2
765 kV GIS Sub-station		
No. of bays	3	3
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>229.35</b>	<b>406.06</b>
<b>Asset-I(A)(b)</b>		
<b>Transmission line</b>		
400 kV D/C Twin Conductor (km)	1.74	1.74
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>0.79</b>	<b>1.40</b>
<b>Asset-I(B)(a)</b>		
<b>Sub-station bays</b>		
400 kV GIS Sub-station		



No. of bays	2	2
765 kV GIS Sub-station		
No. of bays	1	1
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>117.28</b>	<b>213.66</b>
<b>Asset-I(B)(b)</b>		
<b>Transmission line</b>		
400 kV D/C Twin Conductor (km)	1.74	1.74
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>0.77</b>	<b>1.40</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

54. The details of the O&M Expenses allowed vide order dated 5.7.2018 in Petition No. 157/TT/2017 for the transmission asset, O&M Expenses claimed by the Petitioner in the instant petition and true up O&M Expenses allowed in the instant order are as under:

	(₹ in lakh)	
Particular	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	229.34	406.06
Claimed by the Petitioner in the instant petition(collation of Asset-I(A)(a) and Asset-I(A)(b))	230.14	407.46
Allowed after true-up in this order(collation of Asset-I(A)(a) and Asset-I(A)(b))	230.14	407.46
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	229.35	406.06
Allowed after true-up in this order	229.35	406.06
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	0.79	1.40
Allowed after true-up in this order	0.79	1.40
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	118.53	215.06
Claimed by the Petitioner in the instant petition(collation of Asset-I(B)(a) and Asset-I(B)(b))	118.05	215.06
Allowed after true-up in this order(collation of Asset-I(B)(a) and Asset-I(B)(b))	118.05	215.06
<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	117.28	213.66
Allowed after true-up in this order	117.28	213.66
<b>Asset-I(B)(b)</b>		



Claimed by the Petitioner in the instant petition	0.77	1.40
Allowed after true-up in this order	0.77	1.40

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

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

55. The Petitioner has claimed IWC as per Regulation 28(1)(c) of the 2014 Tariff Regulations. The components of the working capital and the Petitioner's entitlement to interest thereon are discussed hereunder:

**I. Maintenance spares:**

Maintenance spares have been worked out based on 15% of Operation and Maintenance Expenses.

**II. O & M Expenses:**

O&M Expenses have been considered for one month of the allowed O&M Expenses.

**III. Receivables:**

The receivables have been worked out on the basis of 2 months of annual transmission charges as worked out above.

**IV. Rate of interest on working capital:**

Rate of interest on working capital is considered on normative basis in accordance with Clause (3) of Regulation 28 of the 2014 Tariff Regulations.

56. IWC for the 2014-19 period has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is as under:

(₹ in lakh)		
Particulars	2017-18 (pro-rata)*	2018-19
<b>Interest on Working Capital</b>		
<b>Asset-I(A)(a)</b>		
O&M Expenses	32.75	33.84
Maintenance Spares	58.95	60.91
Receivables	940.22	990.07
Total Working Capital	1031.92	1084.82
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>75.88</b>	<b>136.69</b>
<b>Asset-I(A)(b)</b>		
O&M Expenses	0.11	0.12
Maintenance Spares	0.20	0.21



Receivables	10.68	10.88
Total Working Capital	11.00	11.21
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.81</b>	<b>1.41</b>
<b>Asset-I(B)(a)</b>		
O&M Expenses	17.23	17.81
Maintenance Spares	31.02	32.05
Receivables	293.39	313.93
Total Working Capital	341.64	363.78
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>24.41</b>	<b>45.84</b>
<b>Asset-I(B)(b)</b>		
O&M Expenses	0.11	0.12
Maintenance Spares	0.20	0.21
Receivables	10.90	11.37
Total Working Capital	11.21	11.70
Rate of Interest (%)	12.60	12.60
<b>Interest on Working Capital</b>	<b>0.80</b>	<b>1.47</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

57. The details of IWC allowed vide order dated 5.7.2018 in Petition No. 157/TT/2017 for the transmission asset, IWC claimed by the Petitioner in the instant petition and true up IWC allowed in the instant order are as under:

Particular	₹ in lakh	
	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	78.19	147.80
Claimed by the Petitioner in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	77.03	138.75
Allowed after true-up in this order (collation of Asset-I(A)(a) and Asset-I(A)(b))	76.68	138.10
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	76.22	137.34
Allowed after true-up in this order	75.88	136.69
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	0.81	1.41
Allowed after true-up in this order	0.81	1.41
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	24.56	46.47



Claimed by the Petitioner in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	25.23	47.35
Allowed after true-up in this order (collation of Asset-I(B)(a) and Asset-I(B)(b))	25.21	47.31
<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	24.43	45.87
Allowed after true-up in this order	24.41	45.84
<b>Asset-I(B)(b)</b>		
Claimed by the Petitioner in the instant petition	0.80	1.48
Allowed after true-up in this order	0.80	1.47

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

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

58. Accordingly, the annual transmission charges allowed for Asset-I(A)(a), Asset-I(A)(b), Asset-I(B)(a) and Asset-I(B)(b) after truing up for the 2014-19 tariff period are as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)*	2018-19
<b>Asset-I(A)(a)</b>		
Depreciation	917.96	1675.47
Interest on Loan	960.55	1676.57
Return on Equity	1108.33	2045.65
Interest on Working Capital	75.88	136.69
O&M Expenses	229.35	406.06
<b>Total</b>	<b>3292.06</b>	<b>5940.43</b>
<b>Asset-I(A)(b)</b>		
Depreciation	11.47	20.40
Interest on Loan	11.48	19.20
Return on Equity	12.85	22.90
Interest on Working Capital	0.81	1.41
O&M Expenses	0.79	1.40
<b>Total</b>	<b>37.40</b>	<b>65.31</b>
<b>Asset-I(B)(a)</b>		
Depreciation	273.08	527.14
Interest on Loan	268.37	487.09
Return on Equity	315.20	609.85
Interest on Working Capital	24.41	45.84
O&M Expenses	117.28	213.66
<b>Total</b>	<b>998.34</b>	<b>1883.58</b>
<b>Asset-I(B)(b)</b>		
Depreciation	11.43	21.42





Interest on Loan	11.28	19.89
Return on Equity	12.80	24.05
Interest on Working Capital	0.80	1.47
O&M Expenses	0.77	1.40
<b>Total</b>	<b>37.08</b>	<b>68.24</b>

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*

59. Accordingly, the Annual Transmission Charges allowed vide order dated 5.7.2018 in Petition No. 157/TT/2017, claimed by the Petitioner in the instant petition and approved after trueing up in the instant order is shown in the table below:

(₹ in lakh)		
Particular	2017-18 (pro-rata)*	2018-19
<b>Asset-IA</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	3402.12	6469.61
Claimed by the Petitioner in the instant petition (collation of Asset-I(A)(a) and Asset-I(A)(b))	3345.73	6036.82
Allowed after true-up in this order (collation of Asset-I(A)(a) and Asset-I(A)(b))	3329.46	6005.74
<b>Asset-I(A)(a)</b>		
Claimed by the Petitioner in the instant petition	3308.32	5971.51
Allowed after true-up in this order	3292.06	5940.43
<b>Asset-I(A)(b)</b>		
Claimed by the Petitioner in the instant petition	37.41	65.31
Allowed after true-up in this order	37.40	65.31
<b>Asset-IB</b>		
Approved vide order dated 5.7.2018 in Petition No. 157/TT/2017	1003.78	1911.82
Claimed by the Petitioner in the instant petition (collation of Asset-I(B)(a) and Asset-I(B)(b))	1036.34	1953.58
Allowed after true-up in this order (collation of Asset-I(B)(a) and Asset-I(B)(b))	1035.41	1951.82
<b>Asset-I(B)(a)</b>		
Claimed by the Petitioner in the instant petition	999.26	1885.25
Allowed after true-up in this order	998.34	1883.58
<b>Asset-I(B)(b)</b>		
Claimed by the Petitioner in the instant petition	37.08	68.33
Allowed after true-up in this order	37.08	68.24

*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b) and 207 days for Asset-I(B)(a) and Asset-I(B)(b)*



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

60. The Petitioner has claimed the following AFC for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2378.29	2417.96	2417.96	2417.96	2417.96
Interest on Loan	2167.77	2026.29	1847.91	1670.89	1477.44
Return on Equity	2624.11	2674.41	2674.41	2674.41	2674.41
Interest on Working Capital	181.72	183.87	183.89	184.06	183.65
O&M Expenses	1695.52	1754.25	1816.19	1881.43	1946.98
<b>Total</b>	<b>9047.41</b>	<b>9056.78</b>	<b>8940.36</b>	<b>8828.75</b>	<b>8700.44</b>

61. The Petitioner has claimed the following IWC for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	141.29	146.19	151.35	156.79	162.25
Maintenance Spares	254.33	263.14	272.43	282.21	292.05
Receivables	1112.39	1116.59	1102.24	1088.48	1069.73
Total Working Capital	1508.01	1525.92	1526.02	1527.48	1524.03
Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
<b>Interest on Working Capital</b>	<b>181.72</b>	<b>183.87</b>	<b>183.89</b>	<b>184.06</b>	<b>183.65</b>

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

62. The Petitioner has stated that E-COD of the Combined Asset works out to be 1.9.2017. Based on the trued up capital cost and actual COD of the transmission assets, E-COD has been worked out as 1.9.2017 i.e. the same as that of Petitioner's submission. The working for the same is as under:

Asset	Trued-up Capital Cost as on 31.3.2019 (₹ in lakh)	COD	No. of days from COD of Asset from COD of Project	Weight of cost	Weighted days	Effective COD (latest COD – total weighted Days)
Asset-I(A)(a)	34817.19	31.8.2017	6	76.33%	4.58	1.9.2017
Asset-I(A)(b)	387.25	31.8.2017	6	0.85%	0.05	
Asset-I(B)(a)	10003.25	6.9.2017	0	21.93%	0.00	
Asset-I(B)(b)	407.06	6.9.2017	0	0.89%	0.00	
<b>Total</b>	<b>45614.75</b>			<b>100.00%</b>	<b>4.63</b>	



### **Weighted Average Life (WAL) of the Project**

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

64. The Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

65. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. 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 25 years as shown below:-

<b>Particulars</b>	<b>Life (in years) (1)</b>	<b>Combined Capital Cost as on 31.3.2019 (₹ in lakh) (2)</b>	<b>Weighted Cost (₹ in lakh) (3) = (1) x (2)</b>	<b>Weighted Avg. Life of Asset (in years) (4) = (3)/(2)</b>
Building Civil Works & Colony	25	3542.47	88561.77	<b>25.02 (rounded off to 25)</b>
Transmission Line	35	794.31	27800.72	
Sub-station	25	40151.46	1003786.57	
PLCC	15	169.51	2542.70	
IT Equipment (Incl. Software)	6.67	294.98	1966.55	
<b>Total</b>		<b>44952.74*</b>	<b>1124658.31</b>	

*\*Freehold land amounting to ₹662.01 lakh is excluded from the capital cost as on 31.3.2019 while determining WAL*

66. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the Effective COD of the assets is 1.9.2017 and the lapsed life of the project as a whole works out as 1 year



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 24 years.

### **Initial Spares**

67. As stated above in this order, Initial Spares are allowed for the 2014-19 period on the basis of the cost of individual assets. The assets covered in the transmission project are combined and the overall project cost is arrived at in the 2019-24 tariff period and therefore Initial Spares are allowed during the 2019-24 tariff period on the basis of the overall project cost as per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, Initial Spares allowed in the 2019-24 tariff period are as under:

Asset	Asset type	Plant & Machinery cost upto cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per norms and APTEL judgement dated 14.9.2019 (₹ in lakh)	Initial Spares allowed in 2014-19 (₹ in lakh)	Additional spares now allowed (₹ in lakh)
Asset-I(A)(a)	Sub-station (GIS)	29844.48	1567.57	5.00%	1955.98	1907.75	48.23
Asset-I(B)(a)	Sub-station (GIS)	9306.09	419.49				
<b>Total</b>		<b>39150.57</b>	<b>1987.06</b>				

68. Accordingly, additional Initial Spares of ₹48.23 lakh for Sub-station (GIS) element of Combined Asset are being allowed as part of the combined capital cost as on 1.4.2019 in line with APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

### **Capital Cost**

69. Regulation 19 of the 2019 Tariff Regulations provides as under:

**“19. Capital Cost:(1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check**



*in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.*

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

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
- (n) Expenditure on account of change in law and force majeure events; and*
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*



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

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

(4) The Capital Cost in case of existing or new hydro generating station shall also include:

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

“(5) The following shall be excluded from the Capital Cost of the existing and new projects:

(a) The 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 decapitalised only after its redeployment;

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

70. The Petitioner has claimed capital cost of ₹45678.75 lakh as on 31.3.2019 for the Combined Asset. The capital cost of ₹45614.75 lakh was admitted for the transmission assets as on 31.3.2019. Further, as discussed in paragraph 08 of this order, the incremental Initial Spares of ₹48.23 lakh is added back to the capital cost of the Combined Asset as on 31.3.2019. Further, the Petitioner has reduced ₹3.20 lakh





from ACE in 2019-20 as the asset is being shared with the telecommunication business w.e.f. 1.4.2019 and the cost of ₹3.20 lakh towards 50% of fibre cable OPGW cost used by the telecommunication business has been reduced from ACE in 2019-20 and transferred to the telecommunication business. As the sharing of asset is effective from 1.4.2019, we have reduced the same from the capital cost as on 1.4.2019. Accordingly, the opening capital cost as on 1.4.2019 of the Combined Asset is determined in accordance with Regulation 19 of the 2019 Tariff Regulations and is allowed as under:

(₹ in lakh)			
Capital Cost as on 31.3.2019 (A)	Additional Initial Spares allowed as per APTEL judgement dated 14.9.2019 in Appeal No. 74 of 2017 (B)	Reduction of 50% of fibre cable OPGW cost used by the telecommunication business (C)	Capital Cost as on 1.4.2019 (A+B-C)
45614.75	48.23	3.20	45659.77

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

71. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as under:

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

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

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

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

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



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

(1) *The 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.”*

72. The Petitioner has claimed ACE of ₹1788.52 lakh (₹758.90 lakh as undischarged liabilities recognized to be payable at a future date and ₹1029.62 lakh as works deferred for execution) during 2019-20 for the Combined Asset on account of undischarged liability towards final payment/ withheld payment due to contractual exigencies for works executed within the cut-off date and works deferred for execution under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations respectively. Further, the Petitioner has reduced ₹3.20 lakh during 2019-20 as the asset is being shared with the telecommunication business w.e.f. 1.4.2019 and the cost of ₹3.20 lakh towards 50% of fibre cable OPGW cost used by the telecommunication business has been reduced from ACE in 2019-20 and transferred to the telecommunication business. The capital cost projected during the 2019-24 period is as under:





(₹ in lakh)

Capital Cost claimed as on 1.4.2019	ACE claimed	Capital Cost claimed as on 31.3.2024
	2019-20	
45678.75	1785.32	47464.07

73. In response to a query in Record of Proceedings (RoP) dated 24.6.2020 regarding ACE, the Petitioner vide affidavit dated 8.7.2020 has submitted package-wise breakup as below:

(₹ in lakh)

Vendor Name	Nature of Work	2018-19
Balance and retention payments for liabilities other than IDC		
Hyosung & L&T	Sub-station	412.00
Siemens	Sub-station	0.11
Misc. Site Package	Sub-station	122.29
TBEA	Sub-station	224.50
<b>Total</b>		<b>758.90</b>
Works deferred for execution		
Kalyani Projects	Building & Civil Works	402.74
SKP BuildconPvt. Ltd.	Building & Civil Works	122.55
B VenkataRamudu	Building & Civil Works	112.24
Aakar Engineers andContractors	Building & Civil Works	49.36
CG Power & Industrial Solutions	Sub-station	34.69
Ravin Cables Limited	Sub-station	32.41
GE T&D India Limited	Sub-station	56.53
Customs duty liability on additional spares	Sub-station	131.65
Site Packages	Building & Civil Works	87.45
<b>Total</b>		<b>1029.62</b>

74. As discussed in paragraph 70 of this order, 50% of fibre cable OPGW cost used by the telecommunication business is reduced from the opening capital cost as the asset is being shared with the telecommunication business w.e.f. 1.4.2019. The total capital expenditure as on 31.3.2024 is within the FR apportioned approved cost of ₹55006 lakh. Therefore, ACE claimed on account of balance and retention payments and works deferred for execution is allowed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations respectively. Accordingly, the capital cost considered for the tariff period 2019-24 is as under:



(₹ in lakh)

Capital Cost as on 1.4.2019	Admitted ACE	Capital Cost as on 31.3.2024
	2019-20	
45659.77	1788.52	47448.29

### Debt-Equity ratio

75. Regulation 18 of the 2019 Tariff Regulations provides as under:

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

Provided that:

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

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

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

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

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

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

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination



of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as ACE 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.”

76. The details of debt and equity considered for the purpose of computation of tariff for the 2019-24 tariff period are as under:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	%	ACE for 2019-24 (₹ in lakh)	%	Capital Cost as on 31.3.2024 (₹ in lakh)	%
Debt	31961.84	70.00	1251.96	70.00	33213.80	70.00
Equity	13697.93	30.00	536.56	30.00	14234.49	30.00
<b>Total</b>	<b>45659.77</b>	<b>100.00</b>	<b>1788.52</b>	<b>100.00</b>	<b>47448.29</b>	<b>100.00</b>

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

77. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as under:

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

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

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

*Provided further that:*

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

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



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

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

b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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.”

78. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which shall be trued up with actual tax rate in accordance with Regulation 31(3) of the Tariff Regulations, 2019. RoE allowed for the Combined Asset is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	13697.93	14234.49	14234.49	14234.49	14234.49
Additions	536.56	0.00	0.00	0.00	0.00
Closing Equity	14234.49	14234.49	14234.49	14234.49	14234.49
Average Equity	13966.21	14234.49	14234.49	14234.49	14234.49
Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (%)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (%)	18.782	18.782	18.782	18.782	18.782
<b>Return on Equity</b>	<b>2623.06</b>	<b>2673.45</b>	<b>2673.45</b>	<b>2673.45</b>	<b>2673.45</b>

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

79. Regulation 32 of the 2019 Tariff Regulations provides as under:

**“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.*

(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.”

80. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The details of weighted average rate of interest for 2019-24 tariff period are placed in Annexure-2 and IoL allowed for the Combined Asset is as under:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	31961.84	33213.80	33213.80	33213.80	33213.80
Cumulative Repayments upto Previous Year	3458.37	5835.74	8252.87	10670.00	13087.13
Net Loan-Opening	28503.47	27378.07	24960.94	22543.81	20126.67
Additions	1251.96	0.00	0.00	0.00	0.00
Repayment during the year	2377.37	2417.13	2417.13	2417.13	2417.13
Net Loan-Closing	27378.07	24960.94	22543.81	20126.67	17709.54
Average Loan	27940.77	26169.50	23752.37	21335.24	18918.11
Weighted Average Rate of Interest on Loan (%)	7.7683	7.7540	7.7924	7.8459	7.8261





Interest on Loan	2170.52	2029.19	1850.88	1673.95	1480.55
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### Depreciation

81. Regulation 33 of the 2019 Tariff Regulations provides as under:

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

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

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

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

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

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

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

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

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

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

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



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

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

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

82. The IT equipment has been considered as a part of the Gross Block and depreciated using weighted average rate of depreciation (WAROD) (Annexure-V). WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as nil i.e., IT asset has been considered as 100 per cent depreciable. The calculation of WAROD for the 2019-24 period is placed in Annexure-V. 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 transmission asset is as under:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Depreciation</b>					
Opening Gross Block	45659.77	47448.29	47448.29	47448.29	47448.29
Additional Capitalisation	1788.52	0.00	0.00	0.00	0.00
Closing Gross Block	47448.29	47448.29	47448.29	47448.29	47448.29
Average Gross Block	46554.03	47448.29	47448.29	47448.29	47448.29
Freehold Land	662.01	662.01	662.01	662.01	662.01
Weighted average rate of Depreciation (WAROD) (%)	5.11	5.09	5.09	5.09	5.09
Balance useful life of the asset	24	23	22	21	20
Elapsed useful life at the beginning of the year	1	2	3	4	5
Aggregate Depreciable Value	41332.32	42137.15	42137.15	42137.15	42137.15
<b>Combined Depreciation during the year</b>	<b>2377.37</b>	<b>2417.13</b>	<b>2417.13</b>	<b>2417.13</b>	<b>2417.13</b>
Aggregate Cumulative Depreciation	5835.74	8252.87	10670.00	13087.13	15504.26





Remaining Aggregate Depreciable Value	35496.58	33884.28	31467.15	29050.02	26632.89
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### **Operation & Maintenance Expenses (O&M Expenses)**

83. The O&M norms specified under Regulation 35(3)(a) of the 2019 Tariff

Regulations are as under:

#### **“35. Operation and Maintenance Expenses:**

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

<b>Particulars</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
<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
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole	1,696	1,756	1,817	1,881	1,947



<i>scheme (Rs Lakh) (2500 MW)</i>					
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

*Provided further that:*

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

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

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

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

*(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 trueing up.”*

84. The O&M Expenses claimed by the Petitioner for the transmission asset for the 2019-24 tariff period are as under:

Name of the Asset	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
400 kV D/C Twin Conductor Hyderabad (Maheshwaram) - Kurnool line (1.74 km)	3.06	3.18	3.28	3.40	3.52
400 kV D/C Twin Conductor Maheshwaram-Hyderabad line (1.74 km)					
4 nos. of 765 kV GIS bays	126.03	130.48	135.04	139.80	144.71
4 nos. of 400 kV GIS bays	90.04	93.20	96.48	99.84	103.36
765 kV ICT-I and ICT-II AT Maheshwaram (3000 MVA)	1473.00	1524.00	1578.00	1635.00	1692.00
PLCC	3.39	3.39	3.39	3.39	3.39
<b>Total O&amp;M expenses</b>	<b>1695.52</b>	<b>1754.25</b>	<b>1816.19</b>	<b>1881.43</b>	<b>1946.98</b>

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

*“103. Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not*



considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment.”

“105. In our view, granting of O&M Expenses for PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations under the communication system head would tantamount to granting O&M Expenses twice for PLCC equipment as PLCC equipment has already been considered as part of the sub-station. Therefore, the Petitioner’s prayer for grant of O&M Expenses for the PLCC equipment @2% of its capital cost under Regulation 35(4) of the 2014 Tariff Regulations is rejected.

106. The principle adopted in this petition that PLCC is part of sub-station and accordingly no separate O&M Expenses is admissible for PLCC equipment in the 2019-24 tariff period under Regulation 35(4) of the 2019 Tariff Regulations shall be applicable in case of all petitions where similar claim is made by the Petitioner. As already mentioned, the Commission, however, on the basis of the claim made by the Petitioner has inadvertently allowed O&M Expenses for PLCC equipment @2% of its original project cost, which is applicable for other “communication system”, for 2019-24 period in 31 petitions given in Annexure-3 of this order. Therefore, the decision in this order shall also be applicable to all the petitions given in Annexure-3. Therefore, PGCIL is directed to bring this decision to the notice of all the stakeholders in the 31 petitions given in Annexure-3 and also make revised claim of O&M Expenses for PLCC as part of the sub-station at the time of truing up of the tariff allowed for 2019-24 period in respective petitions.”

86. The O&M Expenses allowed as per the norms specified in the 2019 Tariff Regulations, for the transmission asset are as under:

O&M Expenses	2019-20	2020-21	2021-22	2022-23	2023-24
<b>Sub-station bays</b>					
765 kV GIS					
No. of bays	4	4	4	4	4
Norms (₹ lakh/Bay)	31.507	32.620	33.761	34.951	36.176
400 kV GIS					
No. of bays	4	4	4	4	4
Norms (₹ lakh/Bay)	22.505	23.296	24.115	24.962	25.837
<b>Transformers</b>					
765 kV Transformer					
Transformers (MVA)	3000	3000	3000	3000	3000
Norms (₹ lakh/MVA)	0.491	0.508	0.526	0.545	0.564
<b>Transmission lines</b>					
400 kV D/C Twin Conductor (km)	3.48	3.48	3.48	3.48	3.48
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
<b>Total O&amp;M Expenses (₹ in lakh)</b>	<b>1692.11</b>	<b>1750.84</b>	<b>1812.79</b>	<b>1878.05</b>	<b>1943.57</b>



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

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

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

*(1) ...*

- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Transmission System:*
- i. Receivables equivalent to 45 days of fixed cost;*
  - ii. Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and*
  - iii. Operation and maintenance expenses, including security expenses for one month”*

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

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

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

***“3. Definitions*** - *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;”*

88. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of 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, whereas, rate of IWC for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest allowed thereon is as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	141.01	145.90	151.07	156.50	161.96
Maintenance Spares	253.82	262.63	271.92	281.71	291.54
Receivables	1112.05	1114.77	1100.42	1086.67	1067.93
Total Working Capital	1506.87	1523.29	1523.41	1524.89	1521.43
Rate of Interest (%)	12.05	11.25	11.25	11.25	11.25
<b>Interest on Working Capital</b>	<b>181.58</b>	<b>171.37</b>	<b>171.38</b>	<b>171.55</b>	<b>171.16</b>

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

89. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as below:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	2377.37	2417.13	2417.13	2417.13	2417.13
Interest on Loan	2170.52	2029.19	1850.88	1673.95	1480.55
Return on Equity	2623.06	2673.45	2673.45	2673.45	2673.45
Interest on Working Capital	181.58	171.37	171.38	171.55	171.16
O & M Expenses	1692.11	1750.84	1812.79	1878.05	1943.57
<b>Total</b>	<b>9044.65</b>	<b>9041.98</b>	<b>8925.64</b>	<b>8814.13</b>	<b>8685.86</b>

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

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

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

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





### **Goods and Services Tax**

92. The Petitioner has submitted that, if GST is levied at any point of time in future on charges on transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) 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 Govt. / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

### **Security Expenses**

94. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as per the audited accounts may be allowed to be recovered from the beneficiaries on a yearly basis.



95. We have considered the submissions of the Petitioner. We are of the view that the Petitioner should claim security expenses for all the transmission assets in one petition. It is observed that the Petitioner has already filed the Petition No. 260/MP/2020 claiming consolidated security expenses on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19. Therefore, security expenses will be dealt with in Petition No. 260/MP/2020 in accordance with the applicable provisions of the 2019 Tariff Regulations.

**Capital Spares**

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

**Sharing of Transmission Charges**

97. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 or the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, as applicable, as provided in Regulation 43 of 2014 Tariff Regulations for the 2014-19 period and Regulation 57 of the 2019 Tariff Regulations for the 2019-24 period.

98. To summarise, the trued-up Annual Fixed Charges allowed for the transmission assets for the 2014-19 tariff period are as under:

Particulars	(₹ in lakh)	
	2017-18 (pro-rata)*	2018-19
Annual Fixed Charges		
Asset-I(A)(a)	3292.06	5940.43
Asset-I(A)(b)	37.40	65.31
Asset-I(B)(a)	998.34	1883.58





Asset-I(B)(b)	37.08	68.24
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*\*Pro-rata of 213 days for Asset-I(A)(a) and Asset-I(A)(b)  
and 207 days for Asset-I(B)(a) and Asset-I(B)*

The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

<b>Combined Asset</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2021-22</b>	<b>2022-23</b>	<b>2023-24</b>
Annual Fixed Charges	9044.65	9041.98	8925.64	8814.13	8685.86

99. This order disposes of Petition No. 83/TT/2020

**Sd/  
(Arun Goyal)  
Member**

**Sd/  
(I. S. Jha)  
Member**

**Sd/  
(P. K. Pujari)  
Chairperson**



<b>Petition No.:</b>	<b>83/TT/2020</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-I [Asset-I(A)(a)]**

2014-19  Capital Expenditure	Admitted Capital Cost as on 1.4.2014/C OD (₹ in lakh)	Additional Capitalisation (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
		2017-18	2018-19	Total			2017-18	2018-19	
Land – Freehold	662.01	-	-	-	662.01	-	-	-	
Land – Leasehold	-	-	-	-	-	3.34%	-	-	
Building Civil Works & Colony	1496.52	715.18	1330.77	2045.95	3542.47	3.34%	61.93	96.09	
Transmission Line	-	-	-	-	-	5.28%	-	-	
Sub Station	27728.05	1082.25	1434.90	2517.14	30245.20	5.28%	1492.61	1559.07	
PLCC	35.27	52.20	0.07	52.27	87.54	6.33%	3.88	5.54	
IT Equipment (Incl. Software)	273.92	5.48	0.58	6.06	279.98	5.28%	14.61	14.77	
<b>Total</b>	<b>30195.76</b>	<b>1855.11</b>	<b>2766.31</b>	<b>4621.42</b>	<b>34817.19</b>		<b>1573.03</b>	<b>1675.47</b>	
							<b>Average Gross Block (₹ in lakh)</b>	<b>31123.32</b>	<b>33434.03</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.05%</b>	<b>5.01%</b>



<b>Petition No.:</b>	<b>83/TT/2020</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-II [Asset-I(A)(b)]**

2014-19  Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	Additional Capitalisation (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)	
		2017-18	2018-19	Total			2017-18	2018-19
Land – Freehold	-	-	-	-	-	-	-	-
Land – Leasehold	-	-	-	-	-	3.34%	-	-
Building Civil Works & Colony	-	-	-	-	-	3.34%	-	-
Transmission Line	359.51	25.81	1.93	27.74	387.25	5.28%	19.66	20.40
Sub Station	-	-	-	-	-	5.28%	-	-
PLCC	-	-	-	-	-	6.33%	-	-
IT Equipment (Incl. Software)	-	-	-	-	-	5.28%	-	-
<b>Total</b>	<b>359.51</b>	<b>25.81</b>	<b>1.93</b>	<b>27.74</b>	<b>387.25</b>		<b>19.66</b>	<b>20.40</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>372.42</b>	<b>386.29</b>
<b>Weighted Average Rate of Depreciation</b>							<b>5.28%</b>	<b>5.28%</b>



<b>Petition No.:</b>	<b>83/TT/2020</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-III [Asset-I(B)(a)]**

2014-19  Capital Expenditure	Admitted Capital Cost as on 1.4.2014/C OD (₹ in lakh)	Additional Capitalisation (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
		2017- 18	2018- 19	Total			2017-18	2018-19	
Land – Freehold	-	-	-	-	-	-	-	-	
Land – Leasehold	-	-	-	-	-	3.34%	-	-	
Building Civil Works & Colony	-	-	-	-	-	3.34%	-	-	
Transmission Line	-	-	-	-	-	5.28%	-	-	
Sub Station	8232.38	1602.49	71.40	1673.89	9906.27	5.28%	476.98	521.17	
PLCC	37.00	44.71	0.27	44.98	81.98	6.33%	3.76	5.18	
IT Equipment (Incl. Software)	14.64	0.25	0.11	0.36	15.01	5.28%	0.78	0.79	
<b>Total</b>	<b>8284.02</b>	<b>1647.46</b>	<b>71.77</b>	<b>1719.23</b>	<b>10003.25</b>		<b>481.51</b>	<b>527.14</b>	
							<b>Average Gross Block (₹ in lakh)</b>	<b>9107.75</b>	<b>9967.37</b>
							<b>Weighted Average Rate of Depreciation</b>	<b>5.29%</b>	<b>5.29%</b>



<b>Petition No.:</b>	<b>83/TT/2020</b>
<b>Period</b>	<b>2014-19 Tariff</b>

**Annexure-IV [Asset-I(B)(b)]**

2014-19  Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	Additional Capitalisation (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)	
		2017-18	2018-19	Total			2017-18	2018-19
Land – Freehold	-	-	-	-	-	-	-	-
Land – Leasehold	-	-	-	-	-	3.34%	-	-
Building Civil Works & Colony	-	-	-	-	-	3.34%	-	-
Transmission Line	359.00	45.47	2.59	48.06	407.06	5.28%	20.16	21.42
Sub Station	-	-	-	-	-	5.28%	-	-
PLCC	-	-	-	-	-	6.33%	-	-
IT Equipment (Incl. Software)	-	-	-	-	-	5.28%	-	-
<b>Total</b>	<b>359.00</b>	<b>45.47</b>	<b>2.59</b>	<b>48.06</b>	<b>407.06</b>		<b>20.16</b>	<b>21.42</b>
<b>Average Gross Block (₹ in lakh)</b>							<b>381.73</b>	<b>405.76</b>
<b>Weighted Average Rate of Depreciation</b>							<b>5.28%</b>	<b>5.28%</b>



