CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 11/TT/2021

Coram:

Shri P. K. Pujari, Chairperson Shri Arun Goyal, Member Shri P.K. Singh, Member

Date of order: 05.06.2022

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of transmission tariff from the date of commercial operation (COD to 31.3.2019 under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for **Asset-I:** 2 number of line bays at Amritsar 400/220 kV Sub-station, **Asset-II (a):** 2 number of line bays at Malerkotla GIS 400/220 kV Sub-station, **Asset-II (b):** 2 number of line bays at Malerkotla GIS 400/220 kV Sub-station, **Asset-III:** 2 number of 400 kV Malerkotla bays at 400/220 kV GIS Sub-station at Kurukshetra under "Northern Region System Strengthening Scheme-XXXI(Part-B)" in the Northern Region.

And in the matter of:

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

.....Petitioner

Vs

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



- Jaipur Vidyut Vitran Nigam Limited, 132 kV, GSS RVPNL Sub-Station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).
- Jodhpur Vidyut Vitran Nigam Limited, 132 kV, GSS RVPNL Sub-Station Building, Caligiri Road, Malviya Nagar, Jaipur – 302017 (Rajasthan).
- Himachal Pradesh State Electricity Board, Vidyut Bhawan, Kumar House Complex Building II, Shimla – 171004.
- Punjab State Electricity Board, The Mall, Patiala – 147001.
- Haryana Power Purchase Centre, Shakti Bhawan, Sector-6, Panchkula – 134 109 (Haryana).
- Power Development Department, Government of Jammu & Kashmir, Mini Secretariat, Jammu.
- Uttar Pradesh Power Corporation Limited, (Formerly Uttar Pradesh State Electricity Board) Shakti Bhawan, 14, Ashok Marg, Lucknow – 226001.
- 10. Delhi Transco Limited, Shakti Sadan, Kotla Road, New Delhi – 110002.
- 11. BSES Yamuna Power Limited, BSES Bhawan, Nehru Place, New Delhi-110019.
- 12. BSES Rajdhani Power Limited, BSES Bhawan, Nehru Place, New Delhi – 110019.
- Tata Power Delhi Distribution Limited, 33 kV Sub-station Building, Hudson Lane, Kingsway Camp, North Delhi – 110009.



- Chandigarh Administration, Sector- 9, Chandigarh.
- 15. Uttarakhand Power Corporation Limited, Urja Bhawan, Kanwali Road, Dehradun.
- 16. North Central Railway, Allahabad (Uttar Pradesh).
- 17. New Delhi Municipal Council, Palika Kendra, Sansad Marg New Delhi – 110002.
- NRSS XXXI(B) Transmission Limited (NTL) A-26/3, Mohan Co-operative Estate, Saidabad New Delhi – 110044.

...Respondent(s)

- For Petitioner: Shri S. S. Raju, PGCIL Shri D.K. Biswal, PGCIL Shri Ved Prakash Rastogi, PGCIL Shri A.K. Verma, PGCIL
- For Respondents: Shri Neeraj Kumar Verma, NTL Shri Vijayanand Semletty, NTL

<u>ORDER</u>

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 from the date of commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations") and determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations of Tariff) Regulations, 2019 (hereinafter referred to as "the 2014 Tariff Regulations") and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as "the 2019 Tariff Regulations") for 2019-24 period in respect of the following assets associated with

"Northern Region System Strengthening Scheme-XXXI (Part-B)" (hereinafter referred

to as "the transmission project") in the Northern Region:

Asset-I: 2 number of line bays at Amritsar 400/220 kV Sub-station;

Asset-II (a): 2 number of 400 kV line bays at Malerkotla GIS 400/220 kV Substation;

Asset-II (b): 2 number of 400 kV line bays at Malerkotla GIS 400/220 kV Substation; and

Asset-III: 2 number of 400 kV line bays at 400/220 kV GIS Sub-station at Kurukshetra.

2. Asset-I, Asset-II (a), Asset-II (b) and Asset-III have been collectively referred to

in this order as "transmission assets" for 2014-19 tariff period. Since Asset-I, Asset-II

(a), Asset-II (b) and Asset-III have been combined as on 1.4.2019, they have been

collectively referred to as "Combined Asset" in 2019-24 tariff period.

- 3. The Petitioner has made the following prayers in this Petition:
 - "1) The delay in filing of the petition is due to prevailing lockdown situation due to COVID-19 pandemic. However, Hon'ble commission vide order dated:06.04.2020 in petition 7/SM/2020 permit to file the tariff petition for 2019-24 period along with truing up petitions for 2014-19 period, by 30.6.2020.
 - 2) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8 and 9 above.
 - 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 8 and 9 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.



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- 6) Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.
- 7) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.10 above.
- 8) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 9) 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.
- 10) The delay in filing of the petition is due to prevailing lockdown situation due to COVID-19 pandemic. However, Hon'ble commission vide order dated:06.04.2020 in petition 7/SM/2020 permit to file the tariff petition for 2019-24 period along with truing up petitions for 2014-19 period, by 30.6.2020

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

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

a) Investment Approval (IA) of the transmission project was accorded by the Board of Directors of the Petitioner in 315th meeting held on 28.5.2015 for ₹11818 lakh including IDC of ₹468 lakh based on February, 2015 price level (communicated *vide* Memorandum No. C/CP/NRSS-31 (Part B) dated 2.6.2015).

b) The scope of the scheme was discussed and agreed upon in 31st Standing Committee Meeting (SCM) of Northern Region (NR) held on 2.1.2013 and 28th meeting of NRPC held on 26.4.2013.

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

Sub-stations:

(i) Kurukshetra (PGCIL) HVDC Sub-station (GIS) Extension

400 kV Line Bays: 2 numbers.

- (ii) Malerkotla (PGCIL) 400/220 kV Sub-station (GIS) Extension400 kV Line Bays: 4 numbers
- (iii) Amritsar (PGCIL) 400/220 kV Sub-station Extension400 kV Line Bays: 2 numbers

 d) The entire scope of work is covered under the instant petition. Details of the dates of commercial operation of the transmission assets covered in the instant petition are as follows:

Asset nomenclature in instant petition	Previous order	Asset nomenclature in previous order	SCOD	COD
Asset-I	Orders dated 30.11.2017	Asset-I		3.4.2017
Asset-II (a)	and 26.4.2022 in Petition	Asset-II (a)	1.10.2016	3.4.2017
Asset-II (b)	No. 60/TT/2017	Asset-II (b)		18.1.2017
Asset-III	Order dated 7.1.2020 in Petition No. 61/TT/2018	Asset	28.9.2016	1.12.2016

e) The transmission tariff from COD to 31.3.2019 in respect of Asset-I, Asset-II (a) and Asset-II (b) was determined *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 while in respect of Asset-III was determined vi*de* order dated 7.1.2020 in Petition No. 61/TT/2018.

f) The Commission vide order dated 30.11.2017 in Petition No. 60/TT/2017 held that the Petitioner was not able to put Asset-I, Asset-II [Asset-II(a) and Asset-II(b)] into use because of delay in COD of the Kurukshetra-Malerkotla Transmission Line and Malerkotla-Amritsar Transmission Line executed by NRSS-XXXI (B) Transmission Limited (NTL) under Tariff Based Competitive Bidding (TBCB) route. Therefore, the Commission decided that NTL would bear Interest During Construction (IDC) and Incidental Expenses During Construction (IEDC) for the period from 1.10.2016 to the approved COD of Asset-I i.e. till Page 6 of 68 3.4.2017; from 5.11.2016 to the approved COD of Asset-II(a) i.e. till 3.4.2017 and from 5.11.2016 to the approved COD of Asset-II(b) i.e. till 18.1.2017. It may be noted that Asset-II was split into two assets i.e., Asset-II (a) and Asset-II (b) consisting of two bays each based on their COD and the Commission vide its order dated 30.11.2017 in Petition No. 60/TT/2017 approved the COD of Asset-I, Asset-II(a) and Asset-II(b) matching with the COD of the transmission lines of NTL.

g) NTL filed Petition No. 195/MP/2017 before the Commission seeking extension of its scheduled COD to the actual dates of execution of the transmission lines on the ground that delay in achieving commercial operation of NTL's transmission lines did not occur on any act or omission on the part of NTL and the delay was entirely attributable to certain force majeure events. The Commission vide order dated 29.3.2019 in Petition No. 195/MP/2017 held that the delay in execution of the transmission lines under the scope of NTL was due to force majeure events and extended the scheduled COD of the transmission lines of NTL.

h) The order dated 30.11.2017 in Petition No. 60/TT/2017 was challenged by NTL before the Appellate Tribunal for Electricity ("APTEL") in Appeal No. 17 of 2019. The APTEL vide its judgement dated 14.9.2020 in the said Appeal No. 17 of 2019 partially set aside the Commission's order dated 30.11.2017 in Petition No. 60/TT/2017 and directed the Commission to take a fresh view in the matter on the issue of liability for the period of mismatch between the date when the transmission assets of Petitioner/PGCIL were ready for use and COD of the



associated transmission lines of NTL after considering the observations of the APTEL.

i) Pursuant to remand back of the matter by APTEL in Appeal No. 17 of 2019 in Petition No. 60/TT/2017, the Petition No. 60/TT/2017 was taken up afresh for hearing in the light of observations of APTEL. The Commission *vide* order 26.4.2022 in Petition No. 60/TT/2017 considered the observations and decision of the APTEL and held that the only fair solution is to fasten the liability of IDC and IEDC due to mismatch on NTL as delay has been caused by NTL. As the line bays of PGCIL at Malerkotla and Amritsar and the associated transmission lines of NTL are inter-linked and dependant on each other, the Commission held that the Petitioner is entitled to recover IDC and IEDC from NTL for the period of mismatch. The Commission did not make any change in its decision in respect of sharing of IDC and IEDC liabilities. Accordingly, the COD for Asset-I, Asset-II(a) and Asset-II(b) has been considered as 3.4.2017, 3.4.2017 and 18.1.2017 respectively.

j) The COD of Asset-III was approved as 1.12.2016 under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations and the transmission charges from 1.12.2016 to 17.1.2017 (one day before actual charging of 400 kV D/C Kurukshetra-Malerkotla TBCB were to be borne by NTL and thereafter from 18.1.2017 (COD of TBCB line) it will be shared under PoC mechanism. NTL has preferred Appeal before the APTEL vide DFR No. 19 of 2020 aggrieved with the Commission's order dated 7.1.2020 in Petition No. 61/TT/2018. Accordingly, the transmission charges with regard to Asset-III shall be shared as per the findings in this order, subject to outcome of the said Appeal filed before the APTEL. 5. The Respondents are distribution licensees and power departments which are procuring transmission service from the Petitioner mainly the beneficiaries of the Northern Region.

6. The Petitioner has served the petition on Respondents and notice of this petition has been published in the 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. NRSS XXXI(B) Transmission Limited (NTL), Respondent No. 18, has submitted its reply *vide* affidavit dated 24.9.2021 wherein it has raised issues with regard to the liabilities be borne by NTL on account of time over-run. The Petitioner *vide* affidavit dated 7.10.2021 has submitted its reply filed by NTL.

7. The hearing in this matter was held on 31.8.2021 through video conference and the Commission reserved order in the matter.

8. This order is issued considering the submissions made by the Petitioner *vide* affidavits dated 29.6.2020, 6.8.2021 and 20.9.2021, NTL's reply filed *vide* affidavit dated 24.9.2021 and the Petitioner's rejoinder affidavit dated 7.10.2021 to the reply filed by NTL.

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

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

10. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

		(₹ in lakh)
Particulars 2017-18 (Pro-rata 363 days)		2018-19
Asset-I		
Depreciation	23.71	29.67
Interest on Loan	22.86	26.91
Return on Equity	26.10	32.82
O&M Expenses	132.29	137.42
Interest on Working Capital	8.37	8.99
Total	213.33	235.81
Asset-II (a)		
Depreciation	153.43	167.15
Interest on Loan	148.83	147.70
Return on Equity	163.79	179.47
O&M Expenses	113.06	117.46
Interest on Working Capital	15.81	16.65
Total	594.92	628.43

Particulars	2016-17 (Pro- rata 73 days)	2017-18	2018-19
Asset-II (b)			
Depreciation	24.36	135.42	146.54
Interest on Loan	25.29	127.87	125.15
Return on Equity	25.69	143.60	156.37
O&M Expenses	22.01	113.68	117.46
Interest on Working Capital	2.79	14.82	15.48
Total	100.14	535.39	561.00

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III	121 udysj		
Depreciation	6.19	24.89	27.77
Interest on Loan	3.26	15.44	21.39
Return on Equity	0.91	5.78	9.30
O&M Expenses	36.48	113.68	117.46
Interest on Working Capital	2.13	6.95	7.42
Total	48.97	166.74	183.34

11. The details of the trued-up Interest on Working Capital (IWC) claimed by the

Petitioner in respect of the transmission assets are as follows:

Order in Petition No. 11/TT/2021

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Particulars	2017-18 (Pro- rata 363 days)	2018-19		
Asset-I				
Working Capital for O&M Expenses (O&M Expenses for 1 month)	11.09	11.45		
Working Capital for Maintenance Spares (15% of O&M Expenses)	19.95	20.61		
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	35.75	39.30		
Total Working Capital	66.79	71.36		
Rate of Interest (in %)	12.60	12.60		
Interest on Working Capital	8.37	8.99		
Asset-II (a)				
Working Capital for O&M Expenses (O&M Expenses for 1 month)	9.47	9.79		
Working Capital for Maintenance Spares (15% of O&M Expenses)	17.05	17.62		
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	99.70	104.74		
Total Working Capital	126.22	132.15		
Rate of Interest (in %)	12.60	12.60		
Interest on Working Capital	15.81	16.65		

(₹ in lakh)

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	9.17	9.47	9.79
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.51	17.05	17.62
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	83.45	89.23	93.50
Total Working Capital	109.13	115.75	120.91
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	2.79	14.82	15.48

(₹	in	lak	h)
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Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	9.17	9.47	9.79
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.51	17.05	17.62
Working Capital for Receivables	24.62	27.79	30.56



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(Equivalent to 2 months of annual fixed cost)			
Total Working Capital	50.30	54.31	57.97
Rate of Interest (%)	12.80	12.80	12.80
Interest on Working Capital	2.13	6.95	7.42

Date of Commercial Operation (COD)

12. The Petitioner in Petition No. 60/TT/2017 claimed the COD of Asset-I, Asset-II (a) and Asset-II(b) as 1.12.2016 as per proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations. The Commission vide order dated 30.11.2017 in Petition No. 60/TT/2017 did not approve the COD of the Asset-I, Asset-II(a) and Asset-II(b) under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations. However, the Commission approved the COD of Asset-II(a) as 3.4.2017 and Asset-II(b) as 18.1.2017 matching with COD of the transmission lines of NTL.

13. The Petitioner has claimed COD of Asset-III as 1.12.2016 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The Commission vide order dated 7.1.2020 in Petition No. 61/TT/2018 approved the COD of Asset-III as 1.12.2016 under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations.

Capital Cost

14. The Commission *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 allowed capital cost as on COD for Asset-I, Asset-II(a) and Asset-II(b). The Commission *vide* order dated 7.1.2020 in Petition No. 61/TT/2018 allowed capital cost as on COD in respect of Asset-III. The details of the capital cost allowed by the Commission in the aforesaid orders and the capital cost now claimed by the Petitioner in the instant petition are as follows:

Particulars	Apportioned approved cost as per FR	Capital Cost as on COD previously allowed by the Commission	Capital Cost as on COD claimed in the instant petition
Asset-I	699.19	387.19	391.21
Asset-II (a)	9197.80	2644.09	2546.19
Asset-II (b)	9197.00	2395.75	2123.61
Asset-III	1921.01	281.37	282.38

Cost Over-run

15. The details of the capital cost claimed by the Petitioner in the instant petition are as follows:

						(₹ in lakh)
Particulars	Apportioned approved cost as per FR	Capital Cost as on COD	2016-17	2017-18	2018-19	Capital Cost as on 31.3.2019
Asset-I	699.19	391.21		105.42	114.14	610.77
Asset-II (a)	0407.00	2546.19		478.96	5.39	3030.54
Asset-II (b)	9197.80	2123.61	98.56	413.57	4.66	2640.40
Asset-III	1921.01	282.38	152.57	88.57	29.58	553.10

16. The capital cost claimed as on 31.3.2019 in respect of Asset-I, Asset-II (a), Asset-II (b) and Asset-III is within the FR apportioned approved cost. Therefore, there is no cost over-run.

Time Over-run

17. As per the Investment Approval dated 2.6.2015, the scheduled COD of Asset-I, Asset-II(a) and Asset-II(b) was 1.10.2016 and Asset-III was 28.9.2016. The time overrun in case of Asset-I, Asset-II(a) and Asset-II(b) was considered by the Commission in order dated 30.11.2017 in Petition No. 60/TT/2017 and Asset-III in order dated 7.1.2020 in Petition No. 61/TT/2018. The details of time over-run in respect of transmission assets is as follows:

Asset	SCOD	COD claimed	Approved COD	Time over-run
Asset-I		1.12.2016	3.4.2017	6 months 3 days
Asset-II (a)	1.10.2016	1.12.2016	3.4.2017	6 months 3 days
Asset-II (b)		1.12.2016	18.1.2017	3 months 18 days
Asset-III	28.9.2016	1.12.2016	1.12.2016*	64 days

* COD approved under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations.

18. As stated above, the Petitioner sought approval of the COD of Asset-I, Asset-II(a) and Asset-II(b) under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations but the Commission approved the actual COD of the said assets in order dated 30.11.2017 in Petition No. 60/TT/2017 and held that NTL shall bear the IDC and IEDC for the period of mismatch in the COD of the assets of the Petitioner and the associated transmission assets of NTL. The Commission considered the time over-run and the period of mismatch between the assets of PGCIL and NTL together. The relevant portion of the Commission's order dated 30.11.2017 is extracted hereunder:

"37. As per the Investment Approval dated 2.6.2015, the instant assets were scheduled to be commissioned within 16 months i.e. by 1.10. 2016 against which the instant assets were ready to be put under commercial operation on 1.12.2016. However, the instant asset was put to use only after COD of associated line. The petitioner has submitted that it has made various communications with NTL through letters dated 30.9.2016, 19.10.2016, 27.10.2016 and 22.11.2016 for commissioning of the TBCB line. The petitioner has stated that the time over run is on account of the delay of the associated lines by the Respondent, NTL. We have observed that petitioner has submitted CEA certificate dated 26.9.2016 for Asset-I which proves that it was ready before 1.10.2016 but in case of Asset –II, the petitioner obtained CEA Certificate dated 4.11.2016. Therefore, there is no documentary evidence in the petition to support that Asset-II was ready before 4.11.2016. Hence, we are not inclined to allow time overrun of 1.10.2016 to 4.11.2016 for Asset-II. Accordingly, the IDC and IEDC shall be billed as under:

Asset	Date	Liable party
Asset-I	1.10.2016-date of COD of the asset	To be borne by NTL
Asset-II (a and b)	1.10.2016-4.11.2016	Not to be Capitalized
Asset-II (a and b)	5.11.2016-date of COD of the asset	To be borne by NTL

19. In case of Asset-III, the Commission approved the COD as 1.12.2016 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations and held that the transmission charges from 1.12.2016 to 17.1.2017, i.e. COD of the transmission line

under the scope of NTL would be borne by NTL and from 18.1.2017 would be shared under the PoC mechanism in order dated 7.1.2020 in Petition No. 61/TT/2018. Further, the time over-run of 64 days was not condoned by the Commission in the said order dated 7.1.2020. The relevant portion of the order dated 7.1.2020 is as follows:

"30. We have gone through the submissions of the Petitioner. The Petitioner has attributed the entire time over-run in respect of instant asset towards time taken for matching with the associated transmission line of NTL. The Petitioner has invoked proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as it was prevented from putting the assets into commercial operation as the associated transmission asset under the scope of NTL was not ready. The Petitioner has submitted CEA energisation certificate and RLDC certificate in support of COD of the instant asset. Accordingly, the COD has been approved as 1.12.2016 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. Therefore, the time over-run of 64 days in commissioning of instant asset on account of matching with the downstream network of NTL was a decision of the Petitioner and hence the same is not condoned. However, for the period prior to COD of the instant asset, the Petitioner is at liberty to claim compensation in terms of LDs, IDC or IEDC from NTL as per the arrangement/ agreement entered into, if any in line with the order dated 5.8.2015 in petition no 11/SM/2014 of the Commission. Further, the transmission charges from 1.12.2016 (COD date) to 17.1.2017 (one day before actual charging of 400kV D/C Kurukshetra-Malerkotla TBCB transmission line) will be borne by the NTL and thereafter from 18.1.2017 (date of Power flow/ COD of TBCB line) it will be shared under POC mechanism."

20. NTL has submitted that the order dated 30.11.2017 in Petition No. 60/TT/2017 was challenged before the APTEL in Appeal No. 17 of 2019 on the ground that no liability for payment of IDC and IEDC could be on NTL in the order dated 30.11.2017 as the assets of NTL were delayed on account of reasons not attributable to it and the said Appeal was disposed of by APTEL vide judgement dated 14.9.2020. APTEL vide its judgement dated 14.9.2020 took cognizance of the Commission's order dated 29.3.2019 in Petition No. 195/MP/2017 and directed the Commission to take a fresh view in the matter and evolve a mechanism in line with the observations of the APTEL. NTL has, therefore, requested that imposition of liability in the form of IDC and IEDC be set aside in respect of Asset-I, Asset-II (a) and Asset-II (b), in line with the findings of APTEL. In respect of time over-run of Asset-III, NTL has submitted that an Appeal vide DFR No. 92 of 2020 has been filed before the APTEL challenging the Page 15 of 68

Commission's order dated 7.1.2020 in Petition No. 61/TT/2018 and the same is pending adjudication. NTL has, however, requested the Commission to reconsider the decision of the Commission in light of the APTEL's findings in judgement dated 14.9.2020.

21. The Petitioner in response to the issues raised by NTL has submitted that it has already furnished all the details related to instant petition and prayed the Commission to take a view on the facts submitted by NTL and the Petitioner in the case.

22. We have considered the submissions made by the Petitioner and NTL. The order dated 30.11.2017 in Petition No. 60/TT/2017 was challenged by NTL before the APTEL in Appeal No. 17 of 2019. The APTEL vide its judgement dated 14.9.2020 in the said Appeal partially set aside the Commission's order dated 30.11.2017 in Petition No. 60/TT/2017 and directed the Commission to take a fresh view in the matter on the issue of liability for the period of mismatch between the date when the transmission assets of PGCIL were ready for use and COD of the associated transmission lines of NTL after considering the observations of the APTEL. In terms of the APTEL's judgment dated 14.9.2020 in Appeal No. 17 of 2019, the matter was considered afresh and the Commission vide order dated 26.4.2022 in Petition No. 60/TT/2017 upheld its earlier decision in the order dated 30.11.2017 in Petition No. 60/TT/2017 on the issue of liability for the period of mismatch. NTL has also preferred another Appeal being DFR No. 19 of 2020 against the order dated 7.1.2020 in Petition No. 61/TT/2018 on the issue of approval of COD of Asset-III under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations and holding NTL liable for the transmission charges for the period of mismatch, and the same is pending before APTEL.

As regards Asset-III, the Commission vide order dated 7.1.2020 in Petition No.61/TT/2018 held as follows:

"66. We have considered the submissions of the Petitioner and Respondent. The transmission charges from 1.12.2016 (COD date) to 17.1.2017 (one day before actual charging of 400 kV D/C Kurukshetra-Malerkotla TBCB transmission line) will be borne by NTL and thereafter from 18.1.2017 (COD of TBCB line) it will be shared under POC mechanism"

24. In view of the above, the transmission charges of Asset-III from 1.12.2016

(COD date) to 17.1.2017 (one day before actual charging of 400 kV D/C Kurukshetra-

Malerkotla TBCB transmission line) will be borne by NTL and thereafter from

18.1.2017 (COD of TBCB line) it will be shared under POC mechanism, subject to the

outcome of the Appeal filed by NTL before APTEL.

25. Accordingly, the sharing of IDC and IEDC liabilities in case of Asset-I, Asset-

II(a) and Asset-II(b) and transmission charges in case of Asset-III is as follows:

Asset	Scheduled COD	COD Claimed (Asset was ready)	Approved COD	Remarks
Asset-I	1.10.2016	1.10.2016	3.4.2017	The IDC and IEDC of Asset-I from 1.10.2016 till one day before the approved COD of the asset i.e. 2.4.2017, shall be borne by NTL. Thereafter, will be included in the PoC mechanism.
Asset-II (a)	1.10.2016	4.11.2016	3.4.2017	The IDC and IEDC of Asset-II(a) and Asset-II(b) from 1.10.2016 to 4.11.2016 shall not be capitalised due to non-condonation of time over-run. The IDC and IEDC in case of Asset-II(a) from
Asset-II (b)	1.10.2016	4.11.2016	18.1.2017	5.11.2016 to 2.4.2017 and in case of Asset-II(b) from 5.11.2016 to 7.1.2017 shall be borne by NTL. Thereafter, will be included in the PoC mechanism.
Asset-III	28.9.2016	1.12.2016	1.12.2016*	The IDC and IEDC for the period of time over-run from the scheduled COD of 28.9.2016 to approved COD of 1.12.2016 shall not be capitalised due to non- condonation of time over-run. The transmission charges of the asset from1.12.2016 to 17.1.2017 shall be borne by NTL. Thereafter, will be included in the PoC mechanism.

*Approved under proviso (ii) of Regulation 4(3) of the2014 Tariff Regulations.

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

26. The Petitioner has claimed IDC in respect of the transmission assets and has submitted the statement of IDC claim, discharge of IDC liability as on the date of commercial operation and thereafter and the same is as follows:

Particulars	IDC as per Auditor's Certificate	IDC Discharged up to COD	Un-discharged IDC Claimed up to COD	
Asset-I	14.03	3.46	10.57	
Asset-II (a)	131.58	68.50	63.08	
Asset-II (b)	87.71	71.70	16.01	
Asset-III	8.63	7.42	1.21	

27. The allowable IDC in respect of Asset-I, Asset-II (a), Asset-II (b) and Asset-III has been worked out considering the information submitted by the Petitioner. The loan details submitted in Form-9C for 2014-19 period and the date of drawl submitted in IDC statements have been considered for the purpose of calculation of IDC for Asset-I, Asset-II(a), Asset-II(b) and Asset-III. Accordingly, the IDC allowed in respect of the transmission assets is as follows:

	1	1			(₹ in lakh)
Particulars	IDC as per Auditor's Certificate	IDC allowed	IDC disallowed due to time over-run	Un-discharged portion of IDC as on COD*	IDC allowed up to COD on cash basis
Asset-I	14.03	4.69	9.34	2.79	1.90
Asset-II (a)	131.58	60.44	71.14	23.68	36.76
Asset-II (b)	87.71	55.01	32.70	5.41	49.60
Asset-III	8.63	7.47	1.16	0.06	7.42

*The un-discharged IDC as on COD of the transmission assets has been adjusted from capital cost as on COD and is considered as ACE in the year in which it is discharged

28. The Petitioner has claimed IEDC for the transmission assets and the details of the same are as follows:

			(₹ in lakh)
Particulars	IEDC claimed as per Auditor's Certificate	IEDC considered by Petitioner as on COD	IEDC discharged up to COD
Asset-I	2.80	2.80	2.80
Asset-II (a)	28.47	28.47	28.47
Asset-II (b)	24.59	24.59	24.59
Asset-III	2.09	2.09	2.09



29. The IEDC details considered in respect of the transmission assets for the purpose computation of tariff are as follows:

			(c in fairi)
Particulars	IEDC claimed as per Auditor's Certificate	IEDC allowed as on COD	IEDC disallowed
Asset-I	2.80	2.03	0.77
Asset-II (a)	28.47	20.66	7.81
Asset-II (b)	24.59	20.09	4.50
Asset-III	2.09	1.85	0.24

30. The sharing of disallowed IDC and IEDC liabilities in respect of the transmission assets in terms of Commission's orders dated 30.11.2017 and 26.4.2022 in Petition No. 60/TT/2017 are as follows:

Assets	Time Over-run	Party liable for IDC and IEDC
Asset-I	1.10.2016 till the date of COD of the asset	NTL
Asset-II (a) & Asset-II (b)	1.10.2016 to 4.11.2016	PGCIL
	5.11.2016 till the date of COD of the asset	NTL

31. The Commission vide order dated 7.1.2020 in Petition No. 61/TT/2018, with regard to Asset-III granted liberty to the Petitioner to claim compensation for the period prior to COD of Asset-III in terms of IDC or IEDC from NTL as per the arrangement/Agreement entered into, if any, in line with Commission's order dated 5.8.2015 in Petition No. 11/SM/2014. Further, the transmission charges from 1.12.2016 (COD date) to 17.1.2017 (one day before the actual charging of 400 kV D/C Kurukshetra-Malerkotla TBCB transmission line) will be borne by NTL and thereafter from 18.1.2017 (date of power flow/COD of TBCB line) it will be shared under POC mechanism, subject to the outcome of the said Appeal preferred by NTL before the APTEL.

(₹ in lakh)

Initial Spares

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

"(d) Transmission System Transmission line: 1.00% Transmission sub-station (Green Field): 4.00% Transmission sub-station (Brown Field): 6.00% Gas Insulated sub-station :5.00% Communication System: 3.5%"

33. The Initial Spares claimed by the Petitioner in respect of the transmission assets are as follows:

Particulars	Asset Cost as on Claime		Initial Spares claimed	Ceiling limit (C)	Initial Spares worked out	Excess Initial Spares
r articulars	Туре	cut-off date (B) (A) (₹ in lakh)		(in %)	(D)=[(A-B)*C /(100-C)] (₹ in lakh)	(E)=(D-B) (≹ in lakh)
Asset-I	Sub-station (Brown Field)	605.34	42.80	6.00	35.91	6.89
Asset-II (a)	Gas	2959.67	87.61		151.16	-63.55
Asset-II (b)	Insulated Sub-station (GIS)	2555.55	87.61	5.00	129.89	-42.28
Asset-III		891.33	3.50		46.73	-43.23

34. We have considered the submissions of the Petitioner. The initial spares in respect of Asset-I is restricted to ceiling of 6% and Initial Spares claimed for Asset-II (a), Asset-II(b) and Asset-III are within the ceiling of 5%. Initial Spares allowed for the transmission assets as per percentage specified in the 2014 Tariff Regulations are as follows:

Particulars	Asset	Type Cost as on claimed (C)		Initial Spares worked out	Excess Initial Spares	Initial Spares	
Particulars	туре				(D)=[(A-B)*C /(100-C)] (₹ in lakh)	(E)=(D-B) (₹ in lakh)	allowed (₹ in lakh)
Asset-I	Sub-station (Brown Field)	605.34	42.80	6.00	35.91	6.89	35.91



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Asset-II (a)	Gas	2959.67	87.61	5.00	151.16	-63.55	87.61
Asset-II (b)	Insulated Sub-station	2555.55	87.61	5.00	129.89	-42.28	87.61
Asset-III	Sub-station (GIS)	891.33	3.50		46.73	-43.23	3.50

Capital Cost as on COD

35. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The details of the capital cost now approved as on COD after adjustment of IDC, IEDC and Initial Spares in respect of transmission assets are as follows:

Particulars	Capital Cost claimed in Auditor's Certificates as on COD (A)	Un-discharged IDC as on COD (B)	IDC Disallowed as on COD (C)	IEDC Disallowed as on COD (D)	Excess Initial Spares disallowed as on COD (E)	Capital Cost allowed as on COD (F) = (A-B-C-D-E)
Asset-I	403.22	2.79	9.34	0.77	6.89	383.43
Asset-II (a)	2635.37	23.68	71.14	7.81	0.00	2532.74
Asset-II (b)	2151.06	5.41	32.70	4.50	0.00	2108.46
Asset-III	283.82	0.06	1.16	0.24	0.00	282.37

Additional Capital Expenditure (ACE)

36. The Commission *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II(a) and Asset-II(b) and *vide* order dated 7.1.2020 in Petition No. 61/TT/2018 for Asset-III allowed ACE for 2014-19 period, the details of the same are as follows:

(₹ in lakh) Apportioned Capital Capital ACE **Particulars** approved cost Cost as Cost as on 2016-17 2017-18 2018-19 as per FR on COD 31.3.2019 Asset-I 699.19 387.19 195.50 80.02 662.72 Asset-II (a) 2644.09 372.62 175.62 3192.32 9197.80 Asset-II (b) 2395.75 248.33 372.62 175.62 3192.32 Asset-III 1921.01 281.37 153.56 292.42 271.44 998.79



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(₹ in lakh)

37. The Petitioner has claimed the following ACE in respect of the transmission assets based on actual expenditure:

						(₹ in lakh)
Particulars	Apportioned approved cost	Capital Cost claimed as	A	Capital Cost claimed as		
F al liculai S	as per FR	on COD	2016-17	2017-18	2018-19	on 31.3.2019
Asset-I	699.19	391.21		105.42	114.14	610.77
Asset-II (a)	9197.80	2546.19		478.96	5.39	3030.54
Asset-II (b)	9197.00	2123.61	98.56	413.57	4.66	2640.40
Asset-III	1921.01	282.38	152.57	88.57	29.58	553.10

38. The Petitioner has submitted that ACE incurred during 2014-19 period is on account of un-discharged liabilities recognized to be payable at a future date under Regulation 14(1)(i) of the 2014 Tariff Regulations and works deferred for execution under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

39. ACE claimed by the Petitioner has been verified from the Auditor's Certificates. The discharge of IDC for the transmission assets has been considered as per the IDC statements submitted by the Petitioner. Accordingly, ACE has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations (un-discharged liabilities recognized to be payable at a future date) and Regulation 14(1)(ii) of the 2014 Tariff Regulations (works deferred for execution). Further, capital cost claimed as on 31.3.2019 for Asset-I, Asset-II (a), Asset-II (b) and Asset-III are within the apportioned approved cost as per FR. ACE allowed in respect of the transmission assets for 2014-19 tariff period is as follows:

(₹ in lakh)

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Particulars	Apportioned approved cost	Capital Cost allowed as	A	CE allowe	d	Capital Cost allowed as
	as per FR	on COD	2016-17	2017-18	2018-19	on 31.3.2019
Asset-I	699.19	383.43		107.60	114.14	605.17
Asset-II (a)	0107.00	2532.74		502.64	5.39	3040.78
Asset-II (b)	9197.80	2108.46	103.97	413.57	4.66	2630.66



Asset-III	1921.01	282.37	152.41	88.57	29.58	552.92
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Debt-Equity ratio

40. Debt-Equity ratio has been considered as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt and equity as on the COD and as on 31.3.2019 in respect of the transmission assets considered for the purpose of tariff for 2014-19 period are as follows:

Asset-I

Particulars	Capital Cost as on COD (₹ in lakh)	Debt- Equity ratio (in %)	ACE in 2014-19 (≹ in lakh)	Debt- Equity ratio (in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	Debt- Equity ratio (in %)
Debt	268.40	70.00	155.21	70.00	423.62	70.00
Equity	115.03	30.00	66.52	30.00	181.55	30.00
Total	383.43	100.00	221.74	100.00	605.17	100.00

Asset-II (a)

Particulars	Capital Cost as on COD (₹ in lakh)	Debt- Equity ratio (in %)	ACE in 2014-19 (₹ in lakh)	Debt- Equity ratio (in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	Debt- Equity ratio (in%)
Debt	1772.92	70.00	355.62	70.00	2128.54	70.00
Equity	759.82	30.00	152.41	30.00	912.23	30.00
Total	2532.74	100.00	508.03	100.00	3040.78	100.00

Asset-II (b)

Particulars	Capital Cost as on COD (₹ in lakh)	Debt- Equity ratio (in %)	ACE in 2014-19 (≹ in lakh)	Debt- Equity ratio (in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	Debt- Equity ratio (in %)
Debt	1475.92	70.00	365.54	70.00	1841.46	70.00
Equity	632.54	30.00	156.66	30.00	789.20	30.00
Total	2108.46	100.00	522.20	100.00	2630.66	100.00

Asset-III

Particulars	Capital Cost as on 1.4.2014 (₹ in lakh)	Debt- Equity ratio (in %)	ACE in 2014-19 (≹ in lakh)	Debt- Equity ratio (in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	Debt- Equity ratio (in %)
Debt	270.73	95.88	230.68	85.26	501.41	90.68
Equity	11.63	4.12	39.88	14.74	51.51	9.32



Total	282.37	100.00	270.56	100.00	552.92	100.00
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Depreciation

41. The Petitioner's claim towards depreciation for Asset-II (a) and Asset-II (b) was found to be higher than the depreciation allowed for the transmission assets in order dated 30.11.2017 in Petition No. 60/TT/2017. The Petitioner has neither given any justification for claiming higher depreciation than that was allowed earlier vide order dated 30.11.2017 in Petition No. 60/TT/2017 nor made any specific prayer for allowing higher depreciation. In a similar case, the Commission in order dated

9.5.2020 in Petition No. 19/TT/2020 held as follows:

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



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42. In line with the above decision, depreciation @ 5.28% has been considered for IT Equipment as part of the sub-station up to 31.3.2019 while truing up the capital expenditure for the 2014-19 period for Asset-II(a) and Asset-II(b). The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) (as placed in Annexure-I, Annexure-II, Annexure-III and Annexure-IV for Asset-I, Asset-II (a), Asset-II (b) and Asset-III respectively). WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. The asset-wise trued up depreciation allowed in respect of the transmission assets is as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Opening Gross Block	383.43	491.03
ACE	107.60	114.14
Closing Gross Block	491.03	605.17
Average Gross Block	437.23	548.10
Weighted Average Rate of Depreciation (WAROD) (in %)	5.37	5.36
Balance useful life of the asset (Year)	25	25
Lapsed life at the beginning of the year	0	0
Depreciable Value	393.50	493.29
Depreciation during the year	23.36	29.37
Cumulative Depreciation at the end of the year	23.36	52.73
Remaining Depreciable Value at the end of the year	370.15	440.55
Asset-II (a)	· · ·	
Opening Gross Block	2532.74	3035.39
ACE	502.64	5.39
Closing Gross Block	3035.39	3040.78
Average Gross Block	2784.06	3038.08
Weighted Average Rate of Depreciation (WAROD) (in %)	5.32	5.32
Balance useful life of the asset (Year)	25	25
Lapsed life at the beginning of the year	0	0
Aggregate Depreciable Value	2505.66	2734.27
Combined Depreciation during the year	147.40	161.72

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Cumulative Aggregate Depreciation at the end of the year	147.40	309.12
Remaining Aggregate Depreciable Value at the end of the year	2358.26	2425.15

			(₹ in lakh)
Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Opening Gross Block	2108.46	2212.43	2626.00
ACE	103.97	413.57	4.66
Closing Gross Block	2212.43	2626.00	2630.66
Average Gross Block	2160.44	2419.21	2628.33
Weighted average rate of Depreciation (WAROD) (in %)	5.33	5.32	5.32
Balance useful life of the asset (Year)	25	25	25
Lapsed life at the beginning of the year	0	0	1
Aggregate Depreciable Value	1944.40	2177.29	2365.49
Combined Depreciation during the year	23.01	128.80	139.92
Cumulative Aggregate Depreciation at the end of the year	23.01	151.81	291.73
Remaining Aggregate Depreciable Value at the end of the year	1921.39	2025.48	2073.76

		<u>(</u> ₹ in lakh)			
Particulars	2016-17 (Pro- rata 121 days)	2017-18	2018-19		
Asset-III					
Opening Gross Block	282.37	434.77	523.34		
ACE	152.41	88.57	29.58		
Closing Gross Block	434.77	523.34	552.92		
Average Gross Block	358.57	479.06	538.13		
Weighted average rate of Depreciation (WAROD) (in %)	5.20	5.19	5.16		
Balance useful life of the asset (Year)	25	25	25		
Elapsed life at the beginning of the year	0	0	1		
Depreciable Value	322.71	431.15	484.32		
Depreciation during the year	6.18	24.88	27.76		
Cumulative Depreciation at the end of the year	6.18	31.05	58.82		
Remaining Depreciable Value at the end of the year	316.54	400.10	425.50		

43. The details of depreciation approved *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II (a) and Asset-II (b), vide order dated 7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, depreciation claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)
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Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	25.86	33.31
Claimed by the Petitioner in the instant petition	23.71	29.67
Allowed after true-up in this order	23.36	29.37
Asset-II (a)	·	•
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	149.74	165.13
Claimed by the Petitioner in the instant petition	153.43	167.15
Allowed after true-up in this order	147.40	161.72

(₹ in lakh)

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	26.82	150.56	165.13
Claimed by the Petitioner in the instant petition	24.36	135.42	146.54
Allowed after true-up in this order	23.01	128.80	139.92

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	6.17	30.05	44.36
Claimed by the Petitioner in the instant petition	6.19	24.89	27.77
Allowed after true-up in this order	6.18	24.88	27.76

Interest on Loan (IoL)

44. The Petitioner has claimed the Weighted Average Rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the

Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The truedup IoL allowed in respect of the transmission assets are as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Gross Normative Loan	268.40	343.72
Cumulative Repayments up to Previous Year	0.00	23.36
Net Loan-Opening	268.40	320.36
Additions due to ACE	75.32	79.90
Repayment during the year	23.36	29.37
Net Loan-Closing	320.36	370.88
Average Loan	294.38	345.62
Weighted Average Rate of Interest on Loan (in %)	7.6929	7.7101
Interest on Loan	22.52	26.65
Asset-II (a)		
Gross Normative Loan	1772.92	2124.77
Cumulative Repayments up to Previous Year	0.00	147.40
Net Loan-Opening	1772.92	1977.37
Additions due to ACE	351.85	3.77
Repayment during the year	147.40	161.72
Net Loan-Closing	1977.37	1819.42
Average Loan	1875.15	1898.40
Weighted Average Rate of Interest on Loan (in %)	7.9886	7.8460
Interest on Loan	148.98	148.95

(₹ in lakh)

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Gross Normative Loan	1475.92	1548.70	1838.20
Cumulative Repayments up to Previous Year	0.00	23.01	151.81
Net Loan-Opening	1475.92	1525.69	1686.39
Additions due to ACE	72.78	289.50	3.26
Repayment during the year	23.01	128.80	139.92



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Net Loan-Closing	1525.69	1686.39	1549.73
Average Loan	1500.80	1606.04	1618.06
Weighted Average Rate of Interest on Loan (in %)	8.3798	7.9500	7.7561
Interest on Loan	25.15	127.68	125.50

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Gross Normative Loan	270.73	418.70	480.70
Cumulative Repayments up to Previous Year	0.00	6.18	31.05
Net Loan-Opening	270.73	412.53	449.65
Additions due to ACE	147.97	62.00	20.71
Repayment during the year	6.18	24.88	27.76
Net Loan-Closing	412.53	449.65	442.59
Average Loan	341.63	431.09	446.12
Weighted Average Rate of Interest on Loan (%)	2.8741	3.5799	4.7920
Interest on Loan	3.25	15.43	21.38

45. The details of IoL approved *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II (a) and Asset-II (b), vide order dated 7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, IoL claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro- rata 363 days)	2018-19
Asset-I	·	
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	26.32	31.85
Claimed by the Petitioner in the instant petition	22.86	26.91
Allowed after true-up in this order	22.52	26.65
Asset-II (a)	·	
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	162.56	166.28
Claimed by the Petitioner in the instant petition	148.83	147.70
Allowed after true-up in this order	148.98	148.95



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			(₹ in lakh)
Particulars	2016-17 (Pro- rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	30.04	161.12	163.91
Claimed by the Petitioner in the instant petition	25.29	127.87	125.15
Allowed after true-up in this order	25.15	127.68	125.50

Particulars	2016-17 (Pro- rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	2.63	11.61	15.66
Claimed by the Petitioner in the instant petition	3.26	15.44	21.39
Allowed after true-up in this order	3.25	15.43	21.38

Return on Equity (RoE)

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

Year	Claimed effective tax rate (in %)	Grossed up RoE (in %) [Base Rate/(1-t)]
2014-15	20.961	19.611
2015-16	21.342	19.706
2016-17	21.342	19.706
2017-18	21.342	19.706
2018-19	21.549	19.758

47. The Commission, *vide* order dated 27.4.2020 in Petition No.274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given as follows:

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

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

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

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

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Opening Equity	115.03	147.31
Additions due to ACE	32.28	34.24
Closing Equity	147.31	181.55
Average Equity	131.17	164.43
Return on Equity (Base Rate) (in %)	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.758
Return on Equity	25.71	32.49
Asset-II (a)	· · · · · ·	
Opening Equity	759.82	910.62
Additions due to ACE	150.79	1.62

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Particulars	2017-18 (Pro-rata 363 days)	2018-19
Closing Equity	910.62	912.23
Average Equity	835.22	911.42
Return on Equity (Base Rate) (in %)	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.758
Return on Equity	163.68	180.08

(₹ in lakh)

Particulars	s 2016-17 (Pro-rata 73 days)		2018-19
Asset-II (b)	·		
Opening Equity	632.54	663.73	787.80
Additions due to ACE	31.19	124.07	1.40
Closing Equity	663.73	787.80	789.20
Average Equity	648.13	725.76	788.50
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	25.54	143.01	155.79

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Opening Equity	11.63	16.07	42.64
Additions due to ACE	4.43	26.57	8.87
Closing Equity	16.07	42.64	51.51
Average Equity	13.85	29.35	47.08
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	0.90	5.78	9.30

50. The details of RoE approved *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II (a) and Asset-II (b), vide order dated 7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, RoE claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Approved vide order dated 30.11.2017 in Petition No. 60/TT/2017	28.37	36.63
Claimed by the Petitioner in the instant petition	26.10	32.82
Allowed after true-up in this order	25.71	32.49
Asset-II (a)		
Approved vide order dated 30.11.2017 in Petition No. 60/TT/2017	165.60	182.64
Claimed by the Petitioner in the instant petition	163.79	179.47
Allowed after true-up in this order	163.68	180.08

(₹ in lakh)

			. ,
Particulars	2016-17 (Pro- rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	29.65	166.51	182.64
Claimed by the Petitioner in the instant petition	25.69	143.60	156.37
Allowed after true-up in this order	25.54	143.01	155.79

			(₹ in lakh)
Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	2.25	19.91	36.49
Claimed by the Petitioner in the instant petition	0.91	5.78	9.30
Allowed after true-up in this order	0.90	5.78	9.30

Operation & Maintenance Expenses (O&M Expenses)

51. O&M Expenses claimed by the Petitioner in respect of the transmission assets

are as follows:

			(₹ in lakh)			
O&M Expenses claimed by the Petitioner						
Particulars	2016-17	2017-18	2018-19			
Asset-I		132.29*	137.42			
Asset-II (a)		113.06*	117.46			
Asset-II (b)	22.01*	113.68	117.46			
Asset-III	36.48*	113.68	117.46			

*Pro-rata O&M Expenses



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52. We have considered the submissions of the Petitioner. The O&M Expenses norms specified for the elements covered in the transmission assets under Regulation 29 (4) of the 2014 Tariff Regulations are as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	
Sub-station (400 kV)						
Norms (₹ lakh/bay)	60.30	62.30	64.37	66.51	68.71	
Sub-station (400 kV GIS)						
Norms (₹ lakh/km)	51.54	53.25	55.02	56.84	58.73	

53. The O&M Expenses determined in respect of the transmission assets are in line with the norms specified in Regulation 29(4) of the 2014 Tariff Regulations and are allowed as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I	•	•
Amritsar Sub-station		
400 kV bays (number of bays)	2	2
Norms (₹ lakh/bay)	66.51	68.71
Total O&M Expenses (₹ in lakh)	132.29	137.42
Asset-II (a)	•	•
Malerkotla Sub-station (2 number of bays b/w Amrits	ar-Malerkotla)	
400 kV GIS bays (Number of bays)	2	2
Norms (₹ lakh/bay)	56.84	58.73
Total O&M Expenses (₹ in lakh)	113.06	117.46

(₹ in lakh) 2016-17 **Particulars** 2017-18 2018-19 (Pro-rata 73 days) Asset-II (b) Malerkotla Sub-station (2 number of bays b/w Amritsar-Malerkotla) 400 kV GIS bays (Number of bays) 2 2 2 Norms (₹ lakh/bay) 55.02 56.84 58.73 Total O&M Expenses (₹ in lakh) 22.01 113.68 117.46

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			(₹ in lakh)
Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			•
Kurukshetra GIS Sub-station			
400 kV GIS bays (Number of bays)	2	2	2
Norms (₹ lakh/bay)	55.02	56.84	58.73
Total O&M Expenses (₹ in lakh)	36.48	113.68	117.46

54. The details of O&M Expenses approved vide order dated 30.11.2017 in Petition

No. 60/TT/2017 in respect of Asset-I, Asset-II(a) and Asset-II(b), vide order dated

7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, O&M Expenses claimed by

the Petitioner in the instant petition and trued up in the instant order are as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	132.29	137.42
Claimed by the Petitioner in the instant petition	132.29	137.42
Allowed after true-up in this order	132.29	137.42
Asset-II (a)		
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	113.06	117.46
Claimed by the Petitioner in the instant petition	113.06	117.46
Allowed after true-up in this order	113.06	117.46

(₹ in lakh)

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	22.01	113.68	117.46
Claimed by the Petitioner in the instant petition	22.01	113.68	117.46
Allowed after true-up in this order	22.01	113.68	117.46



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Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	36.68	113.68	117.46
Claimed by the Petitioner in the instant petition	36.48	113.68	117.46
Allowed after true-up in this order	36.48	113.68	117.46

Interest on Working Capital (IWC)

55. IWC has been worked out as per the methodology provided in Regulation 28 of

the 2014 Tariff Regulations and is allowed in respect of the transmission assets as follows:

2017-18 **Particulars** (Pro-rata 363 2018-19 days) Asset-I Working Capital for O&M Expenses 11.09 11.45 (O&M Expenses for 1 month) Working Capital for Maintenance Spares 19.95 20.61 (15% of O&M Expenses) Working Capital for Receivables 35.57 39.15 (Equivalent to 2 months of annual fixed cost) **Total Working Capital** 66.60 71.22 Rate of Interest (in %) 12.60 12.60 **Interest on Working Capital** 8.35 8.97 Asset-II (a) Working Capital for O&M Expenses 9.47 9.79 (O&M Expenses for 1 month) Working Capital for Maintenance Spares 17.05 17.62 (15% of O&M Expenses) Working Capital for Receivables 98.67 104.13 (Equivalent to 2 months of annual fixed cost) **Total Working Capital** 125.20 131.54 Rate of Interest (in %) 12.60 12.60 Interest on Working Capital 15.69 16.57

(₹ in lakh)



Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	9.17	9.47	9.79
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.51	17.05	17.62
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	82.06	87.97	92.33
Total Working Capital	107.74	114.50	119.74
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	2.76	14.66	15.33

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Working Capital for O&M Expenses (O&M Expenses for 1 month)	9.17	9.47	9.79
Working Capital for Maintenance Spares (15% of O&M Expenses)	16.51	17.05	17.62
Working Capital for Receivables (Equivalent to 2 months of annual fixed cost)	24.61	27.79	30.55
Total Working Capital	50.29	54.31	57.96
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	2.13	6.95	7.42

56. The details of IWC approved *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II(a) and Asset-II(b), order dated 7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, IWC claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)

Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	8.68	9.41
Claimed by the Petitioner in the instant petition	8.37	8.99
Allowed after true-up in this order	8.35	8.97
Asset-II (a)	·	

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Particulars	2017-18 (Pro-rata 363 days)	2018-19
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	16.33	17.35
Claimed by the Petitioner in the instant petition	15.81	16.65
Allowed after true-up in this order	15.69	16.57

(₹ in lakh)

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	3.04	16.37	17.30
Claimed by the Petitioner in the instant petition	2.79	14.82	15.48
Allowed after true-up in this order	2.76	14.66	15.33

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	2.16	7.29	8.25
Claimed by the Petitioner in the instant petition	2.13	6.95	7.42
Allowed after true-up in this order	2.13	6.95	7.42

Approved Annual Fixed Charges for 2014-19 Tariff Period

57. The trued-up Annual Fixed Charges approved for the transmission assets for

2014-19 tariff period are as follows:

		(₹ in lakh)
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
Depreciation	23.36	29.37
Interest on Loan	22.52	26.65
Return on Equity	25.71	32.49
O&M Expenses	132.29	137.42
Interest on Working Capital	8.35	8.97
Total	212.22	234.90
Asset-II (a)	•	



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Depreciation	147.40	161.72
Interest on Loan	148.98	148.95
Return on Equity	163.68	180.08
O&M Expenses	113.06	117.46
Interest on Working Capital	15.69	16.57
Total	588.80	624.78

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Depreciation	23.01	128.80	139.92
Interest on Loan	25.15	127.68	125.50
Return on Equity	25.54	143.01	155.79
O&M Expenses	22.01	113.68	117.46
Interest on Working Capital	2.76	14.66	15.33
Total	98.47	527.83	554.00

			(₹ in lakh)
Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Depreciation	6.18	24.88	27.76
Interest on Loan	3.25	15.43	21.38
Return on Equity	0.90	5.78	9.30
O&M Expenses	36.48	113.68	117.46
Interest on Working Capital	2.13	6.95	7.42
Total	48.95	166.73	183.32

58. The details of AFC approved *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 in respect of Asset-I, Asset-II (a) and Asset-II (b), vide order dated 7.1.2020 in Petition No. 61/TT/2018 in respect of Asset-III, AFC claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)Particulars2017-18
(Pro-rata 363
days)2018-19Asset-IApproved vide order dated 30.11.2017 in Petition No.
60/TT/2017221.51248.62Claimed by the Petitioner in the instant petition213.33235.81

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Allowed after true-up in this order	212.22	234.90
Asset-II (a)		
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	607.28	648.85
Claimed by the Petitioner in the instant petition	594.92	628.43
Allowed after true-up in this order	588.80	624.78

Particulars	2016-17 (Pro-rata 73 days)	2017-18	2018-19
Asset-II (b)			
Approved <i>vide</i> order dated 30.11.2017 in Petition No. 60/TT/2017	111.56	608.24	646.43
Claimed by the Petitioner in the instant petition	100.14	535.39	561.00
Allowed after true-up in this order	98.47	527.83	554.00

(₹ in lakh)

Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
Approved <i>vide</i> order dated 7.1.2020 in Petition No. 61/TT/2018	49.89	182.53	222.22
Claimed by the Petitioner in the instant petition	48.97	166.74	183.34
Allowed after true-up in this order	48.95	166.73	183.32

59. The Annual Transmission Charges in respect of the transmission assets approved after truing up vary in comparison to what was approved earlier *vide* order dated 30.11.2017 in Petition No. 60/TT/2017 and vide order dated 7.1.2020 in Petition No. 61/TT/2018 and the same is mainly due to difference in ACE allowed after truing up.

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

60. The Petitioner has combined the transmission assets covered in the transmission project into one single "Combined Asset" and has filed a consolidated petition claiming tariff of Combined Asset for 2019-24 tariff period as provided in Regulation 8(1) of the 2019 Tariff Regulations.

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	386.51	397.94	397.94	397.94	389.90
Interest on Loan	314.18	295.48	265.57	235.72	204.78
Return on Equity	376.18	388.73	388.73	388.73	388.73
O&M Expenses	205.69	212.69	219.95	227.44	235.19
Interest on Working Capital	25.16	25.60	25.46	25.34	25.04
Total	1307.72	1320.44	1297.65	1275.17	1243.64

62. The details of IWC claimed by the Petitioner for 2019-24 tariff period in respect

of the Combined Asset are as follows:

					<u>(</u> ₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	17.14	17.72	18.33	18.95	19.60
Working Capital for Maintenance Spares (15% of O&M Expenses)	30.85	31.90	32.99	34.12	35.28
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	160.78	162.79	159.98	157.21	152.91
Total Working Capital	208.77	212.41	211.30	210.28	207.79
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	25.16	25.60	25.46	25.34	25.04

Effective Date of Commercial Operation (E-COD)

63. The Petitioner has claimed that E-COD of the Combined Asset works out to be 23.2.2017. Based on the trued-up admitted capital cost as on 31.3.2019 and actual COD of all the transmission assets, E-COD has been worked out as follows:

Particulars	Capital Cost as on 31.3.2019 (₹ in lakh)	COD	Number of days fromWeightage of Costlast COD(in %)		Weighted days	Effective COD (latest COD – weighted days)
Asset-I	605.17	3.4.2017	0	8.86	0.00	23.2.2017
Asset-II (a)	3040.78	3.4.2017	0	44.52	0.00	23.2.2017



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Asset-II (b)	2630.66	18.1.2017	75	38.52	28.89
Asset-III	552.92	1.12.2016	123	8.10	9.96
Total	6829.52			100.00	38.85

64. E-COD is used to determine the lapsed life of the project as a whole which works out as 2 (two) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL) of the Assets

65. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life. Combined Asset may have multiple elements such as land, building, transmission line, sub-station and PLCC and each element may have different span of life. Therefore, the concept of WAL has been used as the useful life of the project as a whole.

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

Particulars	Capital Cost as on 31.3.2019 (₹ in lakh) (1)	Life (in years) (2)	Weighted Cost (₹ in lakh) (3) = [(1)x(2)]	Weighted Average Life of Asset (in years) (4) = [(3)/(1)]
Building Civil Works & Colony	47.01	25	1175.28	
Transmission Line	0.00	35	0.00	24.24
Sub Station	6368.15	25	159203.73	24.24 (rounded off
PLCC	290.09	15	4351.30	to
IT Equipment (Including Software)	124.27	6.67	828.49	24 years)
Total	6829.52	0	165558.80	

67. 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 Page 42 of 68

previous tariff period is required to be done. As discussed above, Effective COD of the Combined Asset is 23.2.2017 and lapsed life of the project as a whole works out to 2 years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 22 years.

Capital Cost

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

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

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

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

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

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

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

(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;

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

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

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

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

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

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

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

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(*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;



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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."

69. The Petitioner has claimed the capital cost of ₹6834.81 lakh as on 31.3.2019for the Combined Asset.

70. The capital cost of ₹6829.52 lakh was admitted in respect of the transmission

assets as on 31.3.2019. Accordingly, opening capital cost of ₹6829.52 lakh as on

1.4.2019 of Combined Asset is considered for determination of tariff in accordance

with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

71. Regulation 25 of the 2019 Tariff Regulations provides as follows:

"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;
- (g) Raising of ash dyke as a part of ash disposal system."



72. The Petitioner has claimed ACE of ₹445.71 lakh in respect of Asset-III during 2019-20 under Regulation 25(1)(d) of the 2019 Tariff Regulations on account of undischarged liability towards final payment after the cut-off date for works executed prior to the cut-off date. The Petitioner *vide* affidavit dated 20.9.2021 has also submitted that the complete liability is towards GE T&D India Limited in 2019-20.

73. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations (un-discharged liabilities after the cut-off date for works executed prior to the cut-off date). The capital cost now allowed as on 31.3.2024 is within the apportioned approved capital cost for the transmission assets as per FR and the total capital cost as per FR. Accordingly, ACE considered for 2019-24 tariff period and the capital cost as on 31.3.2024 considered for the Combined Asset are as follows:

(₹ in lakh)

			((
Particulars	Capital Cost admitted as on 1.4.2019	ACE admitted 2019-20	Capital Cost admitted as on 31.3.2024
Combined Asset	6829.52	445.71	7275.23

74. Therefore, capital cost of ₹6829.52 lakh as on 1.4.2019 and ₹7275.23 lakh as on 31.3.2024 have been considered for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

Debt-Equity ratio

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

"18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more



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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.

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

76. The debt-equity considered for the purpose of computation of tariff of 2019-24

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	Debt- Equity ratio (in %)	ACE in 2019-24 (₹ in lakh)	Debt- Equity ratio (in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	Debt- Equity Ratio (in %)
Debt	4895.03	71.67	312.00	70.00	5207.02	71.57
Equity	1934.49	28.33	133.71	30.00	2068.21	28.43
Total	6829.52	100.00	445.71	100.00	7275.23	100.00

tariff period in respect of the Combined Asset is as follows:

Depreciation

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

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



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

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

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

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

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

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

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

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit

thereof and the date of operation of the emission control system are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof,

shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of

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

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

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit

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thereof has completed its useful life."

78. 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 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 Combined Asset is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	6829.52	7275.23	7275.23	7275.23	7275.23
Addition during the year due to projected ACE	445.71	0.00	0.00	0.00	0.00
Closing Gross Block	7275.23	7275.23	7275.23	7275.23	7275.23
Average Gross Block	7052.38	7275.23	7275.23	7275.23	7275.23
Weighted Average Rate of Depreciation (in %)	5.48	5.47	5.47	5.47	5.47
Balance useful life at the beginning of the year (Year)	22	21	20	19	18
Lapsed Life at the beginning of the year (Year)	2	3	4	5	6
Aggregate Depreciable Value	6359.56	6560.13	6560.13	6560.13	6560.13
Combined Depreciation during the year	386.23	397.65	397.65	397.65	397.65
Aggregate Cumulative depreciation at the end of year	1098.63	1496.28	1893.93	2291.59	2689.24
Remaining Aggregate Depreciable Value at the end of year	5260.94	5063.85	4666.20	4268.55	3870.89

Interest on Loan (IoL)

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

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

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

(3) The repayment for each of the year of the tariff period 2019-24 shall be Page 50 of 68

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

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

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

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

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

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

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

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

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 change in interest rate due

to floating rate of interest applicable, if any, during 2019-24 tariff period may be

adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the

time of truing up. IoL has been allowed in accordance with Regulation 32 of the 2019

Tariff Regulations. IoL allowed for the Combined Asset for the 2019-24 tariff period is

as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	4895.03	5207.02	5207.02	5207.02	5207.02
Cumulative Repayments	712.40	1098.63	1496.28	1893.93	2291.59

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up to Previous Year					
Net Loan-Opening	4182.63	4108.40	3710.74	3313.09	2915.44
Additions due to ACE	312.00	0.00	0.00	0.00	0.00
Repayment during the year	386.23	397.65	397.65	397.65	397.65
Net Loan-Closing	4108.40	3710.74	3313.09	2915.44	2517.78
Average Loan	4145.51	3909.57	3511.92	3114.26	2716.61
Weighted Average Rate of Interest on Loan (in %)	7.6212	7.6034	7.6132	7.6278	7.5946
Interest on Loan	315.94	297.26	267.37	237.55	206.32

Return on Equity (RoE)

81. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provide as

follows:

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

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

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope excluding additional capitalization 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;



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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 of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

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

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

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

Illustration-

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

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 Page 53 of 68

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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."

82. The Petitioner has submitted that MAT rate is applicable to it. Accordingly, MAT

rate applicable for 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 2019 Tariff

Regulations. RoE allowed in respect of the Combined Asset is as follows:

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	1934.49	2068.21	2068.21	2068.21	2068.21
Additions due to ACE	133.71	0.00	0.00	0.00	0.00
Closing Equity	2068.21	2068.21	2068.21	2068.21	2068.21
Average Equity	2001.35	2068.21	2068.21	2068.21	2068.21
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	375.89	388.45	388.45	388.45	388.45

Operation & Maintenance Expenses (O&M Expenses)

83. The O&M expenses claimed by the Petitioner for various elements included in

the Combined Asset for 2019-24 tariff period are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Amritsar Substation					
400 kV bays (Number of bays)	2	2	2	2	2
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ in lakh)	64.30	66.56	68.90	71.32	73.82
GIS Sub-stations at Malerkotla and k	Kurukshetra	a			
400 kV GIS bays (Number of bays)	6	6	6	6	6
Norms (₹ lakh/bay)	22.505	23.296	24.115	24.962	25.837
O&M Expenses (₹ in lakh)	135.03	139.77	144.69	149.76	155.01
PLCC (2% of ₹318.01 lakh)	6.36	6.36	6.36	6.36	6.36
Total O&M Expenses (₹ in lakh)	205.69	212.69	219.95	227.44	235.19

84. Regulation 35(3)(a) and Regulation 33(4) of the 2019 Tariff Regulations provide

as follows:

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

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

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

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

Provided further that:

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

(b) The total allowable operation and maintenance expenses for the transmission system shall be calculated by multiplying the number of sub-station bays, transformer

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capacity of the transformer (in MVA) and km of line length with the applicable norms for the operation and maintenance expenses per bay, per MVA and per km respectively.

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

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

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

85. We have considered the submission of the Petitioner. The Petitioner has claimed O&M Expenses separately for 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 2019 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.

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Amritsar Substation					
400 kV bays (Number of bays)	2	2	2	2	2
Norms (₹ lakh/bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ in lakh)	64.30	66.56	68.90	71.32	73.82

GIS Sub-stations at Malerkotla and Kurukshetra									
400 kV GIS bays (Number of bays) 6 6 6									
Norms (₹ lakh/bay)	22.505	23.296	24.115	24.962	25.837				
O&M Expenses (₹ in lakh)	135.03	139.77	144.69	149.76	155.01				
Total O&M Expenses (₹ in lakh)	199.33	206.34	213.59	221.09	228.84				

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 specify as follows:

"34. Interest on Working Capital

(1) ...

- (c) For Hydro Generating Station (including Pumped Storage Hydro Generating Station) and Combined Asset:
 - 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 Combined Asset including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

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

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

"3. Definitions ...

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

88. The Petitioner has submitted that it has computed IWC for 2019-24 period

considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner

has considered the rate of IWC as 12.05%.

89. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. Rate of Interest (ROI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas ROI 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) for 2020-21 and from 2021-22 onwards it has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon in respect of the Combined Asset is as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M					
Expenses	16.61	17.19	17.80	18.42	19.07
(O&M Expenses for 1 month)					
Working Capital for Maintenance					
Spares	29.90	30.95	32.04	33.16	34.33
(15% of O&M Expenses)					
Working Capital for Receivables					
(Equivalent to 45 days of annual	160.12	161.92	158.92	156.15	152.82
transmission charges)					
Total Working Capital	206.63	210.06	208.75	207.74	206.21
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	24.90	23.63	21.92	21.81	21.65

Annual Fixed Charges of the 2019-24 Tariff Period

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

					(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	386.23	397.65	397.65	397.65	397.65
Interest on Loan	315.94	297.26	267.37	237.55	206.32
Return on Equity	375.89	388.45	388.45	388.45	388.45
O&M Expenses	199.33	206.34	213.59	221.09	228.84
Interest on Working Capital	24.90	23.63	21.92	21.81	21.65
Total	1302.29	1313.33	1288.98	1266.56	1242.91



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(₹ in lakh)

Filing Fee and Publication Expenses

91. 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 Fees & RLDC Fees and Charges

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

Goods and Services Tax

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

94. 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

95. 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 consequential IWC.

96. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission *vide* order dated 3.8.2021. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

98. The Petitioner has prayed that transmission charges for 2014-19 period may be allowed to be recovered on monthly basis in accordance with Regulation 42 and may be shared by the Respondents in accordance with Regulation 43 of the 2014 Tariff Regulations as per 2010 Sharing Regulations. The Petitioner has prayed that tariff for 2019-24 period may be allowed to be recovered on monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and may be shared by the beneficiaries and long term transmission customers as per the 2019 Sharing Regulations.

99. We have considered the submissions of the Petitioner. As stated above in paragraph 25 above, the IDC and IEDC of Asset-I from 1.10.2016 till. 2.4.2017 will be borne by NTL. Thereafter, will be included in the PoC mechanism. The IDC and IEDC of Asset-II(a) and Asset-II(b) from 1.10.2016 to 4.11.2016 shall not be capitalised due to non-condonation of time over-run. The IDC and IEDC in case of Asset-II(a) from 5.11.2016 till 2.4.2017 and in case of Asset-II(b) from 5.11.2016 till 17.1.2017 shall be borne by NTL. Thereafter, will be included in the PoC mechanism.

100. The transmission charges of Asset-III from 1.12.2016 (COD date) to 17.1.2017 (one day before actual charging of 400 kV D/C Kurukshetra-Malerkotla TBCB transmission line) will be borne by NTL and thereafter from 18.1.2017 (COD of TBCB line) it will be shared under POC mechanism, subject to the outcome of the Appeal filed by NTL before APTEL.

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

102. To summarise:

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

(₹ in lakh)

		(
Particulars	2017-18 (Pro-rata 363 days)	2018-19
Asset-I		
AFC	212.22	234.90
Asset-II (a)		
AFC	588.80	624.78

Particulars	Particulars (Pro-rata 73 days)		2018-19
Asset-II (b)			
AFC	98.47	527.83	554.00

			(₹ in lakh)
Particulars	2016-17 (Pro-rata 121 days)	2017-18	2018-19
Asset-III			
AFC	48.95	166.73	183.32

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	1302.29	1313.33	1288.98	1266.56	1242.91

103. Annexure-I, Annexure-II, Annexure-III and Annexure-IV given hereinafter form part of the order.

104. This order disposes of Petition No. 11/TT/2021 in terms of above discussions and findings.

sd/-(P. K. Singh) Member sd/-(Arun Goyal) Member sd/-(P. K. Pujari) Chairperson

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Annexure-I

Asset-I

2014-19	Admitted Capital Cost as on	ACE (₹ in lakh)		Admitted Capital Cost as on	Rate of Depreciation as per	Depre as per Re	nual ciation gulations lakh)	
Capital Expenditure	COD (₹ in lakh)	2017-18	2018-19	Total	31.3.2019 (₹ in lakh)	Regulations	2017-18	2018-19
Sub Station	348.44	101.23	114.14	215.37	563.80	5.28%	21.07	26.76
PLCC	34.99	6.37	-	6.37	41.36	6.33%	2.42	2.62
Total	383.43	107.60	114.14	221.74	605.17		23.49	29.37
					Average Gross Block (₹ in lakh)		437.23	548.10
					Weighted Average Rate of Depreciation		5.37%	5.36%



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Annexure-II

Asset-II (a)

2014-19	Admitted Capital Cost as on		ACE (₹ in lakh)		Admitted Capital Cost as on	Rate of Depreciation as per	Annual Depreciation as per Regulations (₹ in lakh)		
Capital Expenditure	COD (₹ in lakh)	2017-18	2018-19	Total	31.3.2019 (₹ in lakh)	Regulations	2017-18	2018-19	
Sub Station	2365.50	483.38	5.39	488.77	2854.27	5.28%	137.66	150.56	
PLCC	106.08	18.69	-	18.69	124.77	6.33%	7.31	7.90	
IT Equipment (Including Software)	61.16	0.57	-	0.57	61.73	5.28%	3.24	3.26	
Total	2532.74	502.64	5.39	508.03	3040.78		148.21	161.72	
			0	Gross Block n lakh)	2784.06	3038.08			
			U	Average Rate reciation	5.32%	5.32%			



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Annexure-III

Asset-II (b)

2014-19	Admitted Capital Cost as on	ACE (₹ in lakh)				Admitted Capital Cost as on	Rate of Depreciation as per	Annual Depreciation as per Regulations (₹ in lakh)			
Capital Expenditure	COD (₹ in lakh)	2016-17	2017-18	2018-19	Total	31.3.2019 (₹ in lakh)	Regulations	2016-17	2017-18	2018-19	
Sub Station	1952.65	103.57	398.29	4.66	506.52	2459.17	5.28%	105.83	119.08	129.72	
PLCC	93.42	0.24	15.28	-	15.52	108.94	6.33%	5.92	6.41	6.90	
IT Equipment (Including Software)	62.38	0.16	-	-	0.16	62.54	5.28%	3.30	3.30	3.30	
Total	2108.46	103.97	413.57	4.66	522.20	2630.66		115.05	128.80	139.92	
						•	Gross Block I lakh)	2160.44	2419.21	2628.33	
							Average Rate reciation	5.33%	5.32%	5.32%	



Annexure-IV

Asset-III

2014-19	Admitted Capital		AC (₹ in I	_		Admitted Capital Cost	Rate of	Annual Depreciation as per Regulations (₹ in lakh)			
Capital Expenditure	Cost as on COD (₹ in lakh)	2016-17	2017-18	2018-19	Total	as on 31.3.2019 (₹ in lakh)	Depreciation as per Regulations	2016-17	2017-18	2018-19	
Building Civil Works & Colony	21.98	0.21	14.21	10.61	25.03	47.01	3.34%	0.74	0.98	1.39	
Sub Station	249.77	148.90	73.26	18.97	241.13	490.90	5.28%	17.12	22.98	25.42	
PLCC	10.62	3.29	1.10	-	4.39	15.01	6.33%	0.78	0.92	0.95	
Total	282.37	152.41	88.57	29.58	270.56	552.92		18.63	24.88	27.76	
		1	I	I	1		Gross Block I lakh)	358.57	479.06	538.13	
							Average Rate reciation	5.20%	5.19%	5.16%	

Annexure-V

Combined Asset

2019-24	Admitted Capital Cost as on	Projected ACE (₹ in lakh)		Admitted Capital Cost as on	Rate of Depreciation	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure	1.4.2019 (₹ in lakh)	2019-20	Total	31.3.2024 (₹ in lakh)	as per Regulations	2019-20	2020-21	2021-22	2022-23	2023-24
Building Civil Works & Colony	47.01	50.87	50.87	97.88	3.34%	2.42	3.27	3.27	3.27	3.27
Sub Station	6368.15	366.80	366.80	6734.95	5.28%	345.92	355.61	355.61	355.61	355.61
PLCC	290.09	28.04	28.04	318.13	6.33%	19.25	20.14	20.14	20.14	20.14
IT Equipment (Incl. Software)	124.27	-	-	124.27	15.00%	18.64	18.64	18.64	18.64	18.64
Total	6829.52	445.71	445.71	7275.23		386.23	397.65	397.65	397.65	397.65
		Average Gross Block (₹ in lakh)		7052.38	7275.23	7275.23	7275.23	7275.23		
					Average Rate reciation	5.48%	5.47%	5.47%	5.47%	5.47%

