

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 171/TT/2020

Coram:

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

Date of order: 03.03.2021

In the Matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 400 kV D/C Baharampur-Bheramara Transmission Line, LILO of 400 kV S/C Farakka-Jeerat Transmission Line at Baharampur and 01 No. 80 MVAR Bus Reactor and associated line bays and reactor bay at Baharampur under Inter-connection between India and Bangladesh Electrical Grids for India portion in Eastern Region.

And in the matter of:

Power Grid Corporation of India Ltd.,
"Saudamini", Plot No.2,
Sector-29, Gurgaon-122001(Haryana).

...Petitioner

Versus

Bangladesh Power Development Board,
WAPDA Building,
Motijheel Commercial Area,
Dhaka-1000,
People's Republic of Bangladesh.

....Respondent

For Petitioner : Shri A. K. Verma, PGCIL
Shri B. Dash, PGCIL

For Respondent : None



ORDER

The instant petition has been filed by Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), a deemed transmission licensee, for trueing-up of tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff of the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of 400 kV D/C Baharampur-Bheramara Transmission Line, LILO of 400 kV S/C Farakka-Jeerat Transmission Line at Baharampur and 01 No. 80 MVAR Bus Reactor and associated line bays and reactor bay at Baharampur (hereinafter referred to as “the transmission asset”) under “Interconnection between India and Bangladesh Electrical Grids for India portion in Eastern Region” (hereinafter referred to as “the Transmission Project”).

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

“1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9.1 and 10.0 above.

2) Approve the Completion cost and additional capitalization incurred during 2014-19.

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 9.1 and 10.0 above for respective block.

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



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

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

7) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.

8) Allow the petitioner to claimed initial spares based on revised cost as claimed.

9) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.6 above.

10) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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

a) The Investment Approval (IA) for the Transmission Project was accorded by the Board of Directors of the Petitioner vide Memorandum No. C/CP/Indo-Bangladesh dated 25.10.2010 at estimated cost of ₹16032 lakh, including IDC of ₹697 lakh (based on 2nd quarter, 2010 price level). The scope of the work falling under the Transmission Project is as under:

Transmission Lines:

- 1) Baharampur (India)-Bheramara (Bangladesh) 400 kV D/C line (India portion)
- 2) LILO of Farakka-Jeerat 400 kV S/C line at Baharampur (India portion)

Sub-stations:

- 1) Establishment of 400 kV switching station at Baharampur (India)
- 2) 1 No. of 80 MVAR Bus Reactor at Baharampur (India)

b) The complete scope of the work as per IA is covered in the instant petition.



c) The transmission asset was put into commercial operation on 1.9.2013 and the tariff from the date of commercial operation, i.e. 1.9.2013 to 31.3.2014 was approved vide order dated 11.6.2014 in Petition No. 101/TT/2013. The tariff of the 2009-14 period was trued-up and tariff for the period from 1.4.2014 to 31.3.2019 was determined vide order dated 31.1.2017 in Petition No. 558/TT/2014. The transmission tariff allowed for the 2014-19 period in order dated 31.1.2017 in Petition No. 558/TT/2014 and the trued up transmission tariff claimed by the Petitioner in the instant petition is as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	2857.95	2944.54	2909.25	2848.33	2787.92
Claimed by the Petitioner in the instant petition	2803.94	2849.23	2844.53	2792.99	2628.36

4. Notice regarding filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or objections have been received from the general public in response to the notices published by the Petitioner under Section 64 of the Electricity Act, 2003. A general Notice dated 12.3.2020 directing the Respondent to file reply in the matter was also published on Commission's website. However, none of the Respondents have filed any reply in the matter.

5. This order is issued considering the submissions of the Petitioner in the petition dated 17.1.2020 and Petitioner's affidavits dated 4.5.2020 and 5.8.2020.

6. The hearing in this matter was held on 22.7.2020 through video conference and the order was reserved.

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



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

7. The Commission vide order dated 31.1.2017 in Petition No. 558/TT/2014 approved the tariff of the 2014-19 period and the same is as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	725.67	763.85	767.80	767.80	767.80
Interest on Loan	862.07	847.38	786.62	714.16	641.80
Return on Equity	841.78	890.81	900.63	900.63	900.63
Interest on Working Capital	75.42	77.74	77.33	76.35	75.40
O&M Expenses	353.01	364.76	376.86	389.38	402.28
Total	2857.95	2944.54	2909.25	2848.33	2787.92

8. The Petitioner has submitted the information as required under the 2014 Tariff Regulations for truing-up of annual fixed charges for 2014-19 tariff period. The tariff of the 2014-19 period has been trued-up as discussed in the subsequent paragraphs.

9. The details of the trued-up transmission charges claimed by the Petitioner in respect of transmission asset are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	712.87	746.11	763.56	769.46	760.41
Interest on Loan	839.49	799.86	744.62	668.12	588.81
Return on Equity	823.69	862.22	882.91	890.19	882.59
Interest on Working Capital	74.23	75.62	75.89	75.13	73.64
O&M Expenses	353.66	365.42	377.55	390.09	322.91
Total	2803.94	2849.23	2844.53	2792.99	2628.36

10. The details of the trued-up Interest on Working Capital claimed by the Petitioner in respect of transmission asset are as under:

(₹ in lakh)

Particular	2014-15	2015-16	2016-17	2017-18	2018-19
O & M Expenses	29.47	30.45	31.46	32.51	33.59
Maintenance Spares	53.05	54.81	56.63	58.51	60.45
Receivables	467.32	474.87	474.09	465.50	451.41
Total	549.84	560.13	562.18	556.52	545.45
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	74.23	75.62	75.89	75.13	73.64



Capital Cost

11. The capital cost of the transmission asset has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The Commission vide order dated 31.1.2017 in Petition No. 558/TT/2014 had approved the transmission tariff for the transmission asset for the 2014-19 period based on admitted capital cost of ₹13642.31 lakh as on 1.4.2014.

12. The Petitioner has claimed capital cost of ₹13644.87 lakh as on 1.4.2014 in the instant petition. The Petitioner has added Initial Spares of ₹2.56 lakh to the capital cost of ₹13642.31 lakh as on 31.3.2014 approved vide order dated 31.1.2017 in Petition No. 558/TT/2014. The Petitioner has claimed IDC of ₹18.57 lakh, which was disallowed by the Commission in order dated 31.1.2017 in Petition No. 558/TT/2014, as ACE during the year 2014-15. The Petitioner's additional claim of Initial Spares of ₹2.56 lakh, which has been added to capital cost as on 1.4.2014, is on account of the IDC claim of ₹18.57 lakh which was earlier disallowed.

13. The Petitioner has not submitted any justification for claiming again the disallowed IDC of ₹18.57 lakh in the instant petition. Accordingly, the Petitioner's claim of IDC of ₹18.57 lakh is not considered in the instant order. The claim of Initial Spares of ₹2.56 lakh as on 1.4.2014 has also not been considered in the instant order and the same is dealt in relevant paragraphs of this Order. Accordingly, the capital cost of ₹13642.31 lakh as on 1.4.2014, as approved vide order dated 31.1.2017 in Petition No. 558/TT/2014, has been considered for the purpose of truing-up of the tariff of the 2014-19 tariff period.



Interest During Construction (IDC)

14. The transmission asset was put into commercial operation in the 2009-14 tariff period and tariff for 2009-14 period was tried-up vide order dated 31.1.2017 in Petition No. 558/TT/2014. As stated above, the Petitioner in the instant petition has claimed IDC of ₹18.57 lakh, which was disallowed by the Commission vide order dated 31.1.2017 in Petition No. 558/TT/2014, as ACE during 2014-15.

15. The Petitioner has submitted Statement of IDC discharge on cash basis for the transmission asset vide affidavit dated 5.8.2020, wherein the Petitioner has again claimed IDC discharged up to COD amounting to ₹611.69 lakh, which includes ₹18.57 lakh already disallowed in the above said order. The Petitioner has not submitted the reasons as to why the disallowed IDC is now being claimed in the instant petition. Accordingly, the claim of disallowed IDC of ₹18.57 lakh and its impact has not been considered in the instant order.

Initial Spares

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

*“(d) Transmission System
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%”*

17. In Petition No. 558/TT/2014, the Petitioner had claimed Initial Spares of ₹182.52 lakh and ₹76.18 lakh against the sub-station and the transmission line respectively, out of which Initial Spares of ₹72.18 lakh against the sub-station was disallowed as on COD in order dated 31.1.2017.



18. In the instant petition, the Petitioner has claimed Initial Spares of ₹2.56 lakh against sub-station, in addition to Initial Spares allowed in order dated 31.1.2017 in Petition No. 558/TT/2014.

19. We have considered the submissions of the Petitioner. The Initial Spares calculated in the instant petition are as under:

(₹ in lakh)

Particulars	Capital Cost as on 31.3.2014 allowed in order dated 31.1.2017 in Petition No. 558/TT/2014 (Including disallowed Initial Spares) (A)	Dis-allowed Initial Spares in order dated 31.1.2017 in Petition No. 558/TT/2014 (B)	ACE claimed up to cut-off date as per Auditor's certificate dated 21.11.2019 (C)	Total project cost up to cut-off date (D) = A + B + C	Initial Spares (E)	Ceiling Limit (%)	Initial Spares allowable (F)	Excess Initial Spares (E-F)
Transmission Line	9965.98	-	592.20	10558.18	76.18	0.75	79.21	-
Sub-station	3676.33	72.18	564.40	4312.91	182.52	2.50	105.91	76.61

20. The Initial Spares allowed are as under:

(₹ in lakh)

Particulars	Initial Spares allowed in order dated 31.1.2017 in Petition No. 558/TT/2014			Initial Spares allowed in the instant Order	Initial Spares already allowed upto COD	Initial Spares allowed as ACE during 2015-16 in the instant order	Excess Initial Spares disallowed during 2015-16 in the instant Order
	up to COD	During 2014-19 ACE					
A	B	C	D	E	F	G	H=(C-G)
Transmission Line	68.56	4.67	73.23	76.18	68.56	7.62**	0.00
Sub-station	91.91	18.25	110.16	105.91	91.91	14.00	4.25

21. It is observed from Form-7 that the Petitioner has already included the discharge of Initial Spares of ₹7.62 lakh towards transmission lines.



Additional Capital Expenditure (ACE)

22. The Commission had allowed ACE of ₹1666.80 lakh for the transmission asset during 2014-19 vide order dated 31.1.2017 in Petition No. 558/TT/2014. The Petitioner has claimed the following ACE based on actual expenditure:

(₹ in lakh)

Additional Capital Expenditure (ACE)				
2014-15	2015-16	2016-17	2017-18	2018-19
691.36	483.82	230.90	15.32	-352.55

23. The Petitioner has submitted that ACE pertains to balance and retention payment, payment towards unexecuted work, IDC discharged after COD and un-discharged spares.

24. We have considered the submissions made by the Petitioner. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and (ii) of the 2014 Tariff Regulations as it is towards balance and retention payments and balance work deferred for execution. The entitled amount of Initial Spares un-discharged as on COD has been allowed as ACE during the year of its discharge. ACE allowed from COD to 31.3.2019 in respect of the transmission asset is as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
ACE	672.78	457.95	230.90	15.32	0.00
Un-discharged Initial spares	0.00	21.62	0.00	0.00	0.00
Total ACE	672.78	479.57	230.90	15.32	0.00



De-capitalization

24. The Petitioner has claimed de-capitalization of ₹352.55 lakh during 2018-19 on account of removal of LILO of 400 kV S/C Farakka-Jeerat Transmission Line at Baharampur Sub-station w.e.f. 3.9.2018. The removal of the LILO was discussed and agreed in the 17th SCM held in May, 2014. The relevant portion of the meetings of the 17th SCM is extracted hereunder:

“4.0 Eastern Region Strengthening Scheme-XV (ERSS-XV): System strengthening in Eastern Region for transfer of additional 500 MW power to Bangladesh

4.1 Director, CEA stated that presently, Bangladesh is drawing about 500 MW of power through an asynchronous link viz. Baharampur (India)-Bheramara (Bangladesh) 400 kV D/C line with an 500 MW HVDC Back-to-Back terminal at Bheramara (Bangladesh). Bangladesh has desired for transfer of additional 500MW power from India. The proposal was discussed in the 7th Joint Working Group (JWG) and 7th Joint Steering Committee (JSC) meetings on Cooperation of Power between India and Bangladesh on 2nd-3rd April 2014 at Dhaka, Bangladesh, wherein, it was decided that both sides would jointly study the requirement of system strengthening in their territories for this additional power transfer from India to Bangladesh.

4.2 He added that to identify the transmission system strengthening required on the Indian side for transfer of additional 500MW power to Bangladesh, joint system study was conducted by CEA and POWERGRID. The scheme as identified was discussed in a meeting held at New Delhi on 13-06-2014 where representatives from CEA, POWERGRID, ERPC, POSOCO, WBSETCL and NTPC attended the meeting. The system strengthening required in Bangladesh was evolved by BPDB / PGCB of Bangladesh. A combined study report of the subject proposal was presented in 8th JSC meeting held on 10th Oct. 2014 at New Delhi, wherein, following system strengthening requirements were identified:

- **System Strengthening on Indian side:**
 - (i) 400 kV Farakka - Baharampur D/C (HTLS) line (about 70 km.)
 - (ii) Removal of the existing LILO of 400 kV Farakka - Jeerat S/c line at Baharampur.
 - (iii) LILO of the above Farakka-Jeerat 400 kV S/c line at Sagardighi.
 - (iv) LILO of Sagardighi-Subhasgram 400 kV S/c line at Jeerat
- **System Strengthening on Bangladesh side:**
 - (i) Bheramara - Ishurdi 230 kV D/c line – 12 km.
 - (ii) Additional 500 MW HVDC back-to-back converter unit (2nd module) at Bheramara (Bangladesh).

4.3 He added that during outage of one circuit of Baharampur-Bheramara 400 kV /C line, Bangladesh would restrict the drawl with the help of runback control / ramping down facility on the HVDC system. In the 8th JSC, it was decided that POWERGRID of India and PGCB of Bangladesh would take up the work in their respective territory, with target date of completion as June, 2017.



4.4 He said that in addition to the above lines, following reactive compensation is also proposed to be included in the scheme:

- (i) Installation of 1x125 MVA bus reactor at 400kV at Baharampur substation
- (ii) Conversion of 50 MVA fixed line reactor at Subhasgram end of Sagardighi – Subhasgram 400kV S/c line to switchable line reactor.

4.5 Director (Project), BSPTCL enquired about additional cost / transmission charges that the constituents would have to bear because of this system strengthening. He further added that BSPTCL agrees to the proposed scheme only if there is no additional financial implication on BSPTCL. AGM, POWERGRID said that the scheme would not only help in supplying additional power to Bangladesh but also strengthen the transmission system around Sagardighi, Jeerat and Subhashgram. Further, Bangladesh would be paying POC charges at Baharampur corresponding to about 1000 MW drawl.

4.6 Regarding HTLS conductor, Director (Project), BSPTCL stated that the HTLS is a generic name used for the high capacity conductor and various types of conductors are there in HTLS category with different cost implications. He requested that the conductor for HTLS may be specified. AGM, POWERGRID stated that before selecting the HTLS conductor, POWERGRID's engineering group compares the various options of HTLS conductor for the specified current rating. It was decided that POWERGRID would make a small presentation on HTLS conductor in next SCM of ER.

4.7 MS, ERPC agreed with the proposed strengthening system under Eastern Regional transmission scheme-XV. He added that for reliable, sustainable and smooth power supply of 1000 MW to Bangladesh in future, entire 400 kV Farakka-Sagardighi-Jeerat-Rajarhat-Subhasgram D/C line and 400 kV Sagardighi-Parulia (PG) D/C to be operated and maintained under ISTS. He emphasised that export to Bangladesh being an international transaction, healthiness of 400 kV Farakka-Sagardighi-Jeerat-Rajarhat-Subhasgram D/C and 400 kV Sagardighi-Durgapur D/C lines would help in ensuring the quality and reliable export. WBSETCL agreed with the proposal and also cited that work of approved 765 kV system in West Bengal is to be expedited simultaneously on PRIORITY basis to ensure stability of power system at Jeerat(WB), Subhasgram(PG) & Rajarhat(PG) 400 kV sub-stations.

4.8 After further discussions, following regional system strengthening named as "Eastern Region Strengthening Scheme-XV" to be implemented by POWERGRID was agreed. It was also decided that in case of space constraint at Farakka / Sagardighi/ Baharampur, GIS bays may be considered instead of AIS.

Transmission Line:

- (i) Farakka - Baharampur 400kV D/C (HTLS) line
- (ii) Removal of the existing LILO of Farakka - Jeerat 400 kV S/c line at Baharampur
- (iii) LILO of the above Farakka - Jeerat 400 kV S/c line at Sagardighi
- (iv) LILO of Sagardighi - Subhasgram 400 kV S/c line at Jeerat

Substation:

- (i) Extension at 400/220 kV Farakka S/s of NTPC
- 2 nos. 400kV line bays for Farakka– Behrampur 400kV D/C (HTLS) line
- (ii) Extension at 400/220 kV Sagardighi S/s of West Bengal
- 2 nos. 400 kV line bays for LILO of Farakka – Jeerat 400kV S/c line



(formed after removal of the existing LILO of Farakka – Jeerat 400kV S/c line at Baharampur) at Sagardighi
(iii) Extension at 400/220 kV Jeerat S/s of West Bengal
- 2 nos. 400 kV GIS line bays for LILO of Sagardighi – Subhasgram 400 kV S/c line
(iv) Extension at 400 kV Baharampur s/s of POWERGRID
- 2 nos. 400 kV line bays for termination of Farakka - Baharampur 400 kV D/C (HTLS) line
- 125 MVar bus reactor at 400kV at Baharampur substation
(v) Extension at 400 kV Subhasgram S/s of POWERGRID
- Conversion of 50 MVar fixed line reactor at Subhasgram end of Sagaradighi - Subhasgram 400 kV S/c line to switchable line reactor

Note: 2 nos. of 400 kV line bays released after removal of existing LILO of Farakka - Jeerat 400 kV S/c line at Baharampur are proposed to be utilized for connection of one existing bus reactor which is presently connected to one end of the bus due to space constraint and one new bus reactor mentioned above.

4.8 Further, it was also agreed that for any scheme involving substation extension, if there is a space constraint, GIS bays may be considered in place of AIS bays as a general principle. However, if a new substation needs to be constructed as GIS one, the same may be discussed.”

25. As the LILO of the of Farakka-Jeerat 400 kV S/C Transmission Line is no more required and the same was agreed in the 17th SCM accordingly the removal of the LILO of the of Farakka-Jeerat 400 kV S/C Transmission Line is approved. The Petitioner has submitted that the same has been recapitalized in Eastern Region Strengthening Scheme (ERSS-XV) covered in in Petition No. 95/TT/2020. The Petitioner has claimed de-capitalization of ₹352.55 lakh during 2018-19 and has also claimed adjustment in the cumulative depreciation and cumulative repayment on account of de-capitalization of the LILO of the of Farakka-Jeerat 400 kV S/C Transmission Line. The details of the de-capitalisation claimed by the Petitioner are as under:



Sl. No.	Year of decapitalization	Work/ Equipment proposed to be de-capitalized	Year of capitalization of asset/equipment being de-capitalized	Original book value of asset being de-capitalized (₹ in lakh)	Debt: Equity ratio at the time of capitalization	Cumulative depreciation corresponding to de-capitalization (₹ in lakh)	Cumulative Repayment of loan corresponding to de-capitalization (₹ in lakh)
1.	2018-19	TL	2013-14	161.34	70:30	42.59	42.59
2.		Sub-station		163.32		43.12	43.12
3.		PLCC		27.89		7.36	7.36
		Total		352.55		93.07	93.07

26. The Petitioner has removed the existing LILO of 400 kV Farakka-Jeerat Transmission Line at Baharampur and has partially used the removed items in Farakka-Baharampur 400 kV D/C Transmisison Line. 2 nos. of 400 kV bays are released after removal of existing LILO of Farakka-Jeerat 400 kV S/C Transmission Line at Baharampur. The Petitioner has utilized one of bay for connecting existing bus reactor at Baharampur and another bay for new Bus Reactor at Baharampur Sub-station. The schematic diagram of the above mentioned scheme is as follows:



27. We have considered the submissions of the Petitioner. The Petitioner has submitted that dismantling work of LILO of Farakka-Jeerat S/C Transmission Line at Baharampur started on 5.8.2018 and was completed on 2.9.2018. Therefore, the transmission line was not in use from 5.8.2018. As per Regulation 9(6) of the 2014 Tariff Regulations, the asset not in use shall be removed from the capital cost and tariff will not be allowed for the asset. Regulation 9(6) of the 2014 Tariff Regulations provides as follows:

“(6) The following shall be excluded or removed from the capital cost of the existing and new project:

(a) The assets forming part of the project, but not in use;

(b) De-capitalisation of Asset;

(c) In case of hydro generating station 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 two stage transparent process of bidding; and

(d) the proportionate cost of land which is being used for generating power from generating station based on renewable energy:

Provided that 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 shall be excluded from the Capital Cost for the purpose of computation of interest on loan, return on equity and depreciation;”

28. Accordingly, we are of the view that the assets that are shifted from one transmission system to another transmission system and no longer put to use as envisaged originally shall be de-capitalised from the transmission system from where they are removed and re-capitalized where they are transferred and put to use. In the instant case, the LILO of the Farakka-Jeerat 400 kV S/C Transmission Line was removed on 5.8.2018 and put to use in another scheme and accordingly the capital cost of the LILO has to be removed from the instant transmission system. The capital cost of the LILO was considered alongwith the 400 kV D/C Baharampur-Bheramara Transmission Line and the associated bus reactor, line bays and reactor at Baharampur in order dated 11.6.2014 in Petition No. 101/TT/2013 and order dated



31.1.2017 in Petition No. 558/TT/2014 where tariff from the date of commercial operation to 31.3.2014 and for the period from 1.4.2014 to 31.3.2019 was approved respectively. Further, the capital cost of the LILO was not given by the Petitioner in the instant petition and the Petitioner has claimed de-capitalization of ₹352.55 lakh during 2018-19 on account of removal of the LILO and it has been recapitalised in ERSS-XV covered in Petition No.95/TT/2020. The Petitioner has submitted that the capital cost of the LILO is ₹1034.78 lakh. The relevant portion of the submissions made by the Petitioner vide affidavit dated 29.5.2020 in Petition No. 95/TT/2020 is extracted hereunder:

“

Particulars under 171/TT/2020	Cost	Remarks
<i>Asset (Combined) under Indo-Bangla Project</i>	<i>₹ 14750.83 lakhs</i>	<i>As per Auditor certificate (dated 21.11.2019) Cost inclusive of De-cap amount of ₹ 352.55 lakhs</i>
	<i>₹15103.38 lakhs</i>	<i>Total estimated completion cost without considering De-cap amount</i>
<i>LILO of 400 kV S/C Farakka-Jeerat Transmission line at Baharampur Sub-station alongwith associated bays under Indo-Bangla Project</i>	<i>₹1034.78 lakhs</i>	<i>Total Cost of LILO (Part of total estimated cost for ₹ 15103.38 lakhs)</i>
	<i>₹ 352.55 lakhs*</i>	<i>De-capitalization corresponding to LILO from original gross amount of ₹ 1034.78 lakhs</i>

**₹352.55 lakhs is the de-capitalization amount and the same has been re-capitalized in subject Asset-I under ERSS-XV. This amount is corresponding to equipment dismantled from Indo-Bangla project and utilized as part of subject asset-I in ERSS-XV. Further, it is submitted that no-decapitalization of balance amount left from original gross of the said LILO (original gross of LILO is ₹ 1034.78 lakhs) has been carried out in the petition no. 171/TT/2020.”*

29. In view of the above, ₹1034.78 lakh has been de-capitalised from the instant petition.



25. Accordingly, we have considered the date of de-capitalization as 5.8.2018 and de-capitalization has been considered in the instant petition as under:

(₹ in lakh)

Year of decapitalisation	Year of capitalisation of asset/equipment being decapitalised	Original book value of the asset being decapitalised	Debt-Equity ratio at the time of capitalisation	Cumulative depreciation corresponding to decapitalisation date	Cumulative repayment of loan corresponding to decapitalisation	Net Book Value
2018-19	2013-14	1034.78	70:30	267.96	267.96	766.82

Capital Cost as on 31.3.2019

30. Accordingly, the capital cost considered for the 2014-19 period is as under:

(₹ in lakh)

Particulars	Capital cost as on 31.3.2014 (A)	ACE during 2014-19 (B)	De-capitalization during 2018-19 (C)	Total capital cost as on 31.3.2019(D) = A+ B - C
Capital Cost allowed in this order	13642.31	1398.57	1034.78	14006.10

Debt-Equity Ratio

26. As per Regulation 19(3) of the 2014 Tariff Regulations, the debt-equity ratio allowed by the Commission for determination of tariff for the period ending on 31.3.2014 shall be considered. The debt-equity ratio of 70:30 for the period ending on 31.3.2014 considered for the purpose of determination of tariff of the 2014-19 tariff period has been considered for the purpose of truing-up of the tariff of the transmission asset for the 2014-19 tariff period. The details of the debt-equity ratio as on 1.4.2014 and 31.3.2019 of the transmission asset are as under:

Particulars	Capital cost as on 1.4.2014 (₹ in lakh)	(%)	Total cost as on 31.3.2019 (₹ in lakh)	(%)
Debt	9549.62	70.00	9804.27	70.00
Equity	4092.69	30.00	4201.82	30.00
Total	13642.31	100.00	14006.10	100.00



Interest on Loan (IoL)

27. The Petitioner has claimed the Weighted Average Rate of Interest (WAROI) based on actual interest rates for each year during the 2014-19 period. The Petitioner has submitted that the WAROI has been considered on the basis of the rates prevailing as on 1.4.2014 and has prayed to consider floating rate of interest applicable during 2014-19 period, if any, during the truing-up of tariff.

28. We have considered the submissions of the Petitioner. It is observed that SBI loan with respect to transmission asset in the instant petition has been deployed with floating interest rates. Accordingly, factoring the impact of floating rate of interest, IoL has been worked out based on actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations.

29. IoL has been worked out as under:

- a. Gross amount of loan, repayment of instalments and weighted average rate of interest on actual average loan have been considered as per the petition
- b. The repayment for the 2014-19 tariff period has been considered to be equal to the depreciation allowed for that period.

30. The details of trued up IoL allowed for the transmission asset are as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					1.4.2018 to 4.8.2018 (126 days)	5.8.2018 to 31.3.2019 (239 days)
Gross Normative Loan	9549.62	10020.56	10356.27	10517.90	10528.62	9804.27
Adjustment of cumulative repayment pertaining to the decapitalized asset	0.00	0.00	0.00	0.00	0.00	267.96
Cumulative Repayments up to Previous Year	391.20	1100.17	1838.51	2594.18	3355.76	3350.84
Net Loan-Opening	9158.42	8920.39	8517.76	7923.72	7172.86	6453.44
Addition due to ACE	470.95	335.70	161.63	10.72	0.00	0.00



Repayment during the year	708.97	738.33	755.67	761.58	263.04	463.32
Net Loan-Closing	8920.39	8517.76	7923.72	7172.86	6909.82	5990.11
Average Loan	9039.40	8719.08	8220.74	7548.29	7041.34	6221.78
Weighted Average Rate of Interest on Loan (%)	9.280%	9.164%	9.055%	8.858%	8.902%	8.902%
Interest on Loan	838.90	799.04	744.42	668.63	216.39	362.68

31. Accordingly, IoL allowed vide order dated 31.1.2017 in Petition No. 558/TT/2014, claimed by the Petitioner in the instant petition and trued-up IoL allowed in the instant order is as under:

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	862.07	847.38	786.62	714.16	641.80
Claimed by the Petitioner in the instant petition	839.49	799.86	744.62	668.12	588.81
Allowed after true-up in this order	838.90	799.04	744.42	668.63	579.07

Return on Equity (RoE)

32. The Petitioner has claimed RoE for the transmission asset under Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed following effective tax rates for the 2014-19 tariff period:

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

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



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

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

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

34. The MAT rates as considered in order dated 27.4.2020 in Petition No. 274/TT/2019 are considered for the purpose of grossing up of rate of RoE for truing-up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations and the same are as under:

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

35. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE of 15.50% with Effective Tax rates (based on MAT rates) each year. RoE is



trued-up on the basis of the MAT rate applicable in the respective years and RoE allowed for the transmission asset is as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					1.4.2018 to 4.8.2018 (126 days)	5.8.2018 to 31.3.2019 (239 days)
Opening Equity	4092.69	4294.52	4438.39	4507.66	4512.25	4201.82
Addition due to ACE	201.83	143.86	69.27	4.60	0.00	0.00
Closing Equity	4294.52	4438.39	4507.66	4512.25	4512.25	4201.82
Average Equity	4193.61	4366.46	4473.02	4509.96	4512.25	4201.82
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate applicable (%)	20.961%	21.342%	21.342%	21.342%	21.549%	21.549%
Rate of Return on Equity (Pre-Tax) (%)	19.610%	19.705%	19.705%	19.705%	19.758%	19.758%
Return on Equity (Pre-Tax)	822.37	860.41	881.41	888.69	307.76	543.61

36. Accordingly, RoE allowed vide order dated 31.1.2017 in Petition No. 558/TT/2014, claimed by the Petitioner in the instant petition and trued-up RoE allowed in the instant order are as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					2018-19	
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	841.78	890.81	900.63	900.63		900.63
Claimed by the Petitioner in the instant petition	823.69	862.22	882.91	890.19		882.59
Allowed after true-up in this order	822.37	860.41	881.41	888.69		851.37

Depreciation

37. The Petitioner's claim towards depreciation in this petition was found higher than the depreciation allowed for the instant transmission asset in the order dated 31.1.2017 in Petition No. 558/TT/2014. The Petitioner has neither given any justification for claiming higher depreciation than what was allowed earlier in order



dated 31.1.2017 in Petition No. 558/TT/2014 nor has made any specific prayer for allowing higher depreciation in this petition.

38. The transmission asset was put into commercial operation during the 2009-14 period and the tariff for the period from COD to 31.3.2014 was allowed vide order dated 11.6.2014 in Petition No. 101/TT/2013. Further, the tariff for the 2009-14 period was trued-up and tariff for the 2014-19 period was allowed vide order dated 31.1.2017 in Petition No. 558/TT/2014. It is observed that the Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said two petitions where the tariff of the instant transmission asset for the 2009-14 period was trued-up and tariff for the 2014-19 period was determined, though there was a clear provision in the 2014 Tariff Regulations providing depreciation @15% for IT Equipment. 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 for 2014-19 tariff period.

39. Similar issue had come up in Petition No. 19/TT/2020 wherein the Commission vide order dated 9.5.2020 decided as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not claim any capital expenditure towards "IT Equipment" in the above said three petitions where tariff for the instant assets for the 2009-14 period was allowed, tariff of the 2009-14 period was trued up and tariff for 2014- 19 period was allowed even though there was a clear provision in the 2009 Tariff Regulations and 2014 Tariff Regulations providing depreciation @15% for IT Equipment. Having failed to make a claim as per the 2009 Tariff Regulations(the period during which COD of assets was achieved), the Petitioner has now, at the time of truing up of the tariff allowed for the 2014-19 period has apportioned a part of the capital expenditure to "IT Equipment". The Petitioner has adopted similar methodology not only in this but in some of the other petitions listed along with the instant petition on 26.2.2020. It is observed that the Petitioner has for the first time apportioned a part of the capital expenditure towards IT Equipment and has claimed depreciation under the



head "IT Equipment" @15% at the time of truing up of the tariff of 2014-19 period. Regulation 8(1) of the 2014 Tariff Regulations provides for truing up of the capital expenditure including the additional capital expenditure, incurred up to 31.3.2019, admitted by the Commission after prudence check. We are of the view that scope of truing up exercise is restricted to truing up of the capital expenditure already admitted and apportionment or reapportionment of the capital expenditure cannot be allowed at the time of truing up. Therefore, we are not inclined to consider the Petitioner's prayer for apportionment of capital expenditure towards IT Equipment and allowing depreciation @15% from 1.4.2014 onwards. Accordingly, the depreciation @5.28% has been considered for IT Equipment as part of the substation 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."

40. In line with the above order of the Commission, the depreciation is considered @5.28% 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 of the 2019 Tariff Regulations. The trued-up depreciation allowed for the transmission asset is as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					1.4.2018 to 4.8.2018 (126 days)	5.8.2018 to 31.3.2019 (239 days)
Opening Gross Block	13642.31	14315.09	14794.66	15025.56	15040.88	14006.10
ACE	672.78	479.57	230.90	15.32	0.00	0.00
Closing Gross Block	14315.09	14794.66	15025.56	15040.88	15040.88	14006.10
Average Gross Block	13978.70	14554.87	14910.11	15033.22	15040.88	14006.10
WAROD (%)	5.07%	5.07%	5.07%	5.07%	5.0661%	5.0520%
Balance useful life of the asset at the beginning of the year	31	30	29	28	27	27
Elapsed life at the beginning of the year	0	1	2	3	4	4
Aggregated Depreciable Value	12139.13	12656.44	12976.15	13086.95	13093.85	12162.54
Depreciation during the year	708.97	738.33	755.67	761.58	263.04	463.32
Aggregate Cumulative Depreciation	1100.17	1838.51	2594.18	3355.76	3618.80	3814.16



Remaining Aggregate Depreciable Value	11747.93	11556.27	11137.65	10492.78	9738.09	8811.71
---------------------------------------	----------	----------	----------	----------	---------	---------

41. Accordingly, depreciation allowed vide order dated 31.1.2017 in Petition No. 558/TT/2014, depreciation claimed by the Petitioner in the instant petition and true-up depreciation allowed for the transmission asset in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	725.67	763.85	767.80	767.80	767.80
Claimed by the Petitioner in the instant petition	712.87	746.11	763.56	769.46	760.41
Allowed after true-up in this order	708.97	738.33	755.67	761.58	726.36

Operation & Maintenance Expenses (O&M Expenses)

42. The Petitioner has claimed O&M Expenses for the transmission asset as per the norms specified under Regulation 29(4)(a) of the 2014 Tariff Regulations.

43. The Petitioner has claimed O&M Expenses for the de-capitalized portion of the asset i.e. LILO of 400 kV S/C Farakka-Jeerat Transmission Line till the date of de-capitalization i.e. 3.9.2018.

44. The date of de-capitalization has been considered as 5.8.2018 in this order. Accordingly, O&M Expenses for 400 kV S/C Transmission Line of 0.25 km length and 400 kV D/C Transmission Line of 2.12 km length and for two (2) nos. 400 kV line bays at Baharampur Sub-station have been allowed from 1.4.2014 to 4.8.2018.

45. The details of the O&M Expenses claimed by the Petitioner for the transmission asset and allowed under Regulation 29(4)(a) of the 2014 Tariff Regulations for purpose of tariff are as under:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	1.4.2018 to 4.8.2018 (126 days)	5.8.2018 to 31.3.2019 (239 days)
Sub-station Bays						
400 kV Bahamara Line Bay I & II at Baharampur (AIS) (Nos.)	2	2	2	2	2	2
400 kV Farakka Line Bay I at Baharampur (AIS) (Nos.)	1	1	1	1	1	0
400 kV Jeerat Line Bay at Baharampur (AIS) (Nos.)	1	1	1	1	1	0
400 kV 80 MVaR Bus Reactor Bay at Baharampur (AIS) (Nos.)	1	1	1	1	1	1
Norm (₹ lakh/bay)						
400 kV Sub-station Bays (AIS)	60.30	62.30	64.37	66.51	68.71	68.71
Total Sub-station O&M	301.50	311.50	321.85	332.55	118.60	134.97
AC Lines						
LILO of 400 kV S/C Farakka-Jeerat Line at Bahrampur (km)	2.12	2.12	2.12	2.12	2.12	0
LILO of 400 kV S/C Farakka-Jeerat Line at Bahrampur (km)	0.25	0.25	0.25	0.25	0.25	0
400 kV D/C Bahrampur-Bahamara Line (Indian Portion) (km)	71.51	71.51	71.51	71.51	71.51	71.51
Norm (₹ lakh/km)						
S/C Twin Conductor	0.404	0.418	0.432	0.446	0.461	0.461
D/C Twin Conductor	0.707	0.731	0.755	0.780	0.806	0.806
Total Transmission Line O&M Expenses	52.16	53.93	55.70	57.54	20.53	37.74
Total O&M Expenses	353.66	365.43	377.55	390.09	139.12	172.71

46. Accordingly, O&M Expenses approved vide order dated 31.1.2017 in Petition No. 558/TT/2014, claimed by the Petitioner in the instant petition and trued-up O&M Expenses allowed in respect of transmission asset in this order is shown in the table below:



Order in Petition No.171/TT/2020.

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	353.01	364.76	376.86	389.38	402.28
Claimed by the Petitioner in the instant petition	353.66	365.42	377.55	390.09	322.91
Allowed after true-up in this order	353.66	365.43	377.55	390.09	311.83

Interest on Working Capital (IWC)

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

(i) Receivables

Receivables as a component of working capital will be equivalent to two months fixed cost. The Petitioner has claimed the receivables on the basis of 2 months' annual transmission charges. In the tariff being allowed, receivables have been worked out on the basis of 2 months' transmission charges.

(ii) Maintenance spares

Regulation 28 of the 2014 Tariff Regulations provides for maintenance spares @ 15% per annum of the O&M expenses. The value of maintenance spares has accordingly been worked out.

(iii) O & M expenses

Operation and maintenance expenses have been considered for one month as a component of working capital. The Petitioner has claimed O&M expenses for 1 month of the respective year as claimed in the petition. This has been considered in the working capital.

(iv) Rate of interest on working capital

As per Proviso 3 of Regulation 28 of the 2014 Tariff Regulation, SBI Base rate 10.00% as on 1.4.2014 plus 350 Bps i.e. 13.50% has been considered for the asset, as the rate of interest on working capital.



48. The trued-up IWC allowed for the transmission asset as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations is as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					1.4.2018 to 4.8.2018	5.8.2018 to 31.3.2019
O&M Expenses	29.47	30.45	31.46	32.51	33.58	21.98
Maintenance Spares	53.05	54.81	56.63	58.51	60.45	39.57
Receivables	466.33	473.10	472.45	463.99	459.69	403.02
Total Working Capital	548.85	558.37	560.55	555.01	553.72	464.57
Rate of Interest (%)	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on working capital	74.09	75.38	75.67	74.93	25.80	41.07

49. Accordingly, IWC approved vide order dated 31.1.2017 in Petition No. 558/TT/2014, claimed by the Petitioner in the instant petition and trued-up IWC allowed for the transmission asset is shown as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					2018-19	
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	75.42	77.74	77.33	76.35		75.40
Claimed by the Petitioner in the instant petition	74.23	75.62	75.89	75.13		73.64
Allowed after true-up in this order	74.09	75.38	75.67	74.93		66.87

Approved Annual Fixed Charges for the 2014-19 Tariff Period

50. The trued-up annual fixed charges for the transmission asset for the tariff period 2014-19 are summarised as under:

Particulars	2014-15	2015-16	2016-17	2017-18	(₹ in lakh)	
					1.4.2018 to 4.8.2018	5.8.2018 to 31.3.2019
Depreciation	708.97	738.33	755.67	761.58	263.04	463.32
Interest on Loan	838.90	799.04	744.42	668.63	216.39	362.68
Return on Equity	822.37	860.41	881.41	888.69	307.76	543.61



Interest on Working Capital	74.09	75.38	75.67	74.93	25.80	41.07
O & M Expenses	353.66	365.43	377.55	390.09	139.12	172.71
Total	2797.99	2838.59	2834.72	2783.92	952.12	1583.39

51. The annual fixed charges in respect of the transmission asset as approved earlier vide order dated 31.1.2017 in Petition No. 558/TT/2014, as claimed by the Petitioner and as true- up in respect of the transmission asset are shown as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Allowed in order dated 31.1.2017 in Petition No. 558/TT/2014	2857.95	2944.54	2909.25	2848.33	2787.92
Claimed by the Petitioner in the instant petition	2803.94	2849.23	2844.53	2792.99	2628.36
Allowed after true-up in this order	2797.99	2838.59	2834.72	2783.92	2535.51

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

52. The Petitioner has claimed the following transmission tariff for the 2019-24 tariff period:-

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	751.63	752.30	743.85	742.14	742.14
Interest on Loan	518.65	453.58	387.91	322.84	257.27
Return on Equity	830.18	831.31	831.31	831.31	831.31
Interest on Working Capital	38.55	37.94	37.07	36.33	35.53
O&M Expenses	159.88	165.49	171.29	177.28	183.46
Total	2298.89	2240.62	2171.43	2109.90	2049.71

53. The details of the IWC claimed by the Petitioner for the transmission asset are as under:

(₹ in lakh)

Particular	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	13.32	13.79	14.27	14.77	15.29
Maintenance Spares	23.98	24.82	25.69	26.59	27.52
Receivables	282.65	276.24	267.71	260.12	252.01
Total	319.95	314.85	307.67	301.48	294.82



Rate of Interest (%)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	38.55	37.94	37.07	36.33	35.53

Capital Cost

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

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

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

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



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

- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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

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

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

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

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

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

- (c) *In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) *Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) *Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment."*



55. The Petitioner has claimed capital cost of ₹14713.72 lakh as on 31.3.2019 for the transmission asset as per the Auditor's Certificate dated 21.11.2019. However, the capital cost of ₹14006.10 lakh as on 31.3.2019 worked out for the transmission asset has been considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

56. Regulation 24 and 25 of the 2019 Tariff Regulations provides as under:

"24. Additional Capitalisation within the original scope and up to the cut-off date

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

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

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

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

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

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

- a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- b) Change in law or compliance of any existing law;*
- c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) Liability for works executed prior to the cut-off date;*
- e) Force Majeure events*



- f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and
g) Raising of ash dyke as a part of ash disposal system.

(2) In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

- (a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;
(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;
(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and
(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.”

57. The Petitioner has claimed ₹40 lakh as projected ACE for the transmission asset during the 2019-24 period and submitted Auditor’s Certificates in support of the same.

58. ACE claimed by the Petitioner has been allowed under Regulation 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations as it is towards un-discharged liabilities recognised to be payable at a future date and balance work deferred for execution. The projected ACE allowed during 2019-24 in respect of the transmission asset is summarized as under:

		(₹ in lakh)
Particulars	Regulation	2019-20
ACE to the extent of Balance & Retention Payments & work deferred for execution before cut-off date	Regulation 24(1)(a) and Regulation 24(1)(b) of 2019 Tariff Regulations	40.00

59. Therefore, the capital cost of ₹14730.59 lakh as on 31.3.2024 has been considered for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations as shown in the following table:



(₹ in lakh)

Admitted Capital Cost as on 1.4.2019	ACE allowed for the year 2019-20	Total Estimated Completion Cost up to 31.3.2024
	2019-20	
14006.10	40.00	14046.10

60. The estimated completion cost of the transmission asset including ACE of ₹40 lakh during 2019-20 is ₹14046.10 lakh which is within the FR approved cost of ₹16032 lakh. Therefore, there is no cost over-run.

Debt-Equity Ratio

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

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

Provided that:

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

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

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

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019,



debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

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

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

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

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

62. The details of the debt-equity ratio considered for the purpose of tariff of computation of tariff for the transmission asset for the 2019-24 period are as under:

Particulars	Capital cost as on 1.4.2019 (₹ in lakh)	%	Capital cost as on 31.3.2024 (₹ in lakh)	%
Debt	9804.27	70.00	9832.27	70.00
Equity	4201.82	30.00	4213.82	30.00
Total	14006.10	100.00	14046.10	100.00

Return on Equity (RoE)

63. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify as under:-

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

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



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

Provided further that:

- i. In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;*
- ii. in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;*
- iii. in case of a thermal generating station, with effect from 1.4.2020:*
 - a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
 - b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%;*

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

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

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

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

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



Illustration-

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

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

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

- (a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;
 (b) Estimated Advance Tax for the year on above is Rs 240 crore;
 (c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
 (d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	4201.82	4213.82	4213.82	4213.82	4213.82
Addition due to ACE	12.00	0.00	0.00	0.00	0.00
Closing Equity	4213.82	4213.82	4213.82	4213.82	4213.82
Average Equity	4207.82	4213.82	4213.82	4213.82	4213.82
Return on Equity (Base Rate) (%)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax Rate applicable (%)	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax) (%)	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-Tax)	790.31	791.44	791.44	791.44	791.44



Interest on Loan (IoL)

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

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

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

(3) *The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered up to the date of de-capitalisation of such asset.*

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

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

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

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

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

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

66. WAROI has been considered on the basis of prevailing rate as on 1.4.2019.

The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up or next revision of tariff. In view of above, IoL has been worked out in accordance



with Regulation 32(5) of the 2019 Tariff Regulations. IoL allowed for the transmission asset is as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	9804.27	9832.27	9832.27	9832.27	9832.27
Cumulative Repayments up to Previous Year	3814.16	4529.00	5244.51	5960.02	6675.53
Net Loan-Opening	5990.11	5303.27	4587.76	3872.25	3156.75
Addition due to ACE	28.00	0.00	0.00	0.00	0.00
Repayment during the year	714.84	715.51	715.51	715.51	715.51
Net Loan-Closing	5303.27	4587.76	3872.25	3156.75	2441.24
Average Loan	5646.69	4945.52	4230.01	3514.50	2798.99
Weighted Average Rate of Interest on Loan (%)	8.820%	8.819%	8.824%	8.836%	8.837%
Interest on Loan	498.06	436.14	373.24	310.55	247.35

Depreciation

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

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

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

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

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

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

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



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

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

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

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

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

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

68. The IT equipment has been considered as a part of the Gross Block and depreciated using WAROD. WAROD has been worked out (as placed in Annexure-II) after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered Nil, i.e. IT asset has been considered as 100 per cent depreciable. The depreciation has been worked out considering the admitted capital expenditure of ₹14690.59 lakh as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for the transmission asset is as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	14006.10	14046.10	14046.10	14046.10	14046.10
Addition during 2019-24 due to projected ACE	40.00	0.00	0.00	0.00	0.00
Closing Gross Block	14046.10	14046.10	14046.10	14046.10	14046.10
Average Gross Block	14026.10	14046.10	14046.10	14046.10	14046.10
WAROD (%)**	5.10%	5.09%	5.09%	5.09%	5.09%
Balance useful life at the beginning	26	25	24	23	22
Elapsed Life at the beginning of the year	5	6	7	8	9
Aggregated Depreciable Value	12187.32	12205.32	12205.32	12205.32	12205.32
Depreciation during the year	714.84	715.51	715.51	715.51	715.51
Cumulative Depreciation up to previous year	3814.16	4529.00	5244.51	5960.02	6675.53
Aggregate Cumulative Depreciation	4529.00	5244.51	5960.02	6675.53	7391.04
Remaining Aggregated Depreciable Value	8373.16	7676.32	6960.81	6245.30	5529.79

**Refer Annexure-II of this order

Operation & Maintenance Expenses (O&M Expenses)

69. Regulation 35(3)(a) and 4 of the 2019 Tariff Regulations specify the norms for the O&M Expenses for the Transmission System and the same are as under:

“35. Operation and Maintenance Expenses:

...

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

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



Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
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 years.

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

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

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

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

70. The O&M Expenses claimed by the Petitioner are as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission line					
400 kV D/C Baharampur-Bheramara Transmission line (71.50 km)	63.00	65.22	67.51	69.87	72.30
Sub-station					
2 Nos 400 kV Line bays and 1 No 400 kV Bus Reactor bay	96.45	99.84	103.35	106.98	110.73
Communication System					
PLCC	0.43	0.43	0.43	0.43	0.43
Total O&M Expenses	159.88	165.49	171.29	177.28	183.46

71. The Petitioner has claimed O&M Expenses separately for the PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms



for sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations, though PLCC is a communication system. Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed. The relevant portions of the order dated 24.1.2021 in Petition No.126/TT/2020 are extracted hereunder:

"103.Thus, although PLCC equipment is a communication system, it has been considered as a part of sub-station, as it is used both for protection and communication. Therefore, we are of the considered view that rightly, it was not considered for separate O&M Expenses while framing norms of O&M for 2019-24 tariff period. While specifying norms for bays and transformers, O&M Expenses for PLCC have been included within norms for O&M Expenses for sub-station. Norms of O&M Expenses @2% of the capital cost in terms of Regulation 35(4) of the 2019 Tariff Regulations have been specified for communication system such as PMU, RMU, OPGW etc. and not for PLCC equipment."

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

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

Therefore, the Petitioner's claim for separate O&M Expenses for PLCC @2% is not allowed.

72. The O&M Expenses allowed for the transmission asset are as under:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station Bays					
400 kV Bahamara Line Bay I & II at Bahrampur S/S (AIS) – Nos.	2	2	2	2	2
400 kV 80 MVAR Bus Reactor Bay at Bahrampur S/S (AIS) – Nos.	1	1	1	1	1
Norm (₹ lakh/bay)					
400 kV	32.150	33.280	34.450	35.660	36.910
Total Sub-station O&M Expenses	96.45	99.84	103.35	106.98	110.73
Transmission Lines					
400 kV D/C Bahrampur-Bahamara Line (km)	71.51	71.51	71.51	71.51	71.51
Norm (₹ lakh/km)					
D/C Twin Conductor	0.881	0.912	0.944	0.977	1.011
Total Transmission Line O&M Expenses	63.00	65.22	67.51	69.87	72.30
Total O&M Expenses	159.45	165.06	170.86	176.85	183.03

Interest on Working Capital (IWC)

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

“34. Interest on Working Capital:

(1) The working capital shall cover:

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

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

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

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

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



“3.Definitions ...

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

74. The Petitioner has submitted that it has computed the IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of interest on working capital as 12.05. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20 and 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-24. The components of the working capital and interest allowed thereon for the transmission asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	13.29	13.75	14.24	14.74	15.25
Maintenance Spares	23.92	24.76	25.63	26.53	27.45
Receivables	270.46	264.11	256.99	249.92	242.14
Total Working Capital	307.66	302.62	296.85	291.18	284.84
Rate of Interest (%)	12.05%	11.25%	11.25%	11.25%	11.25%
Interest on Working Capital	37.07	34.04	33.40	32.76	32.04

Annual Fixed Charges for the 2019-24 Tariff Period

75. The transmission charges allowed for the transmission asset for the 2019-24 period are as summarised as under:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	714.84	715.51	715.51	715.51	715.51
Interest on Loan	498.06	436.14	373.24	310.55	247.35
Return on Equity	790.31	791.44	791.44	791.44	791.44
Interest on Working Capital	37.07	34.04	33.40	32.76	32.04
O & M Expenses	159.45	165.06	170.86	176.85	183.03
Total	2199.73	2142.19	2084.44	2027.10	1969.37



Filing Fee and Publication Expenses

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

Licence Fee & RLDC Fees and Charges

77. The Petitioner has requested to allow it to bill and recover license fee and RLDC fees and charges, separately from the Respondent. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall also be entitled for recovery of RLDC fee and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

78. The Petitioner has sought to recover GST on transmission charges separately from the Respondents, if at any time GST on transmission is withdrawn from negative list in future. We have considered the submission of the Petitioner. GST is not levied on transmission service at present. Therefore, we are of the view that Petitioner's prayer is premature.

Security Expenses

79. The Petitioner has submitted that security expenses for the transmission asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC. The Petitioner has requested to consider the actual security expenses incurred during 2018-19 for claiming estimated security expenses for 2019-20 which shall be subject to true up at



the end of the year based on the actuals. The Petitioner has submitted that similar petition for security expenses for 2020-21, 2021-22, 2022-23 and 2023-24 shall be filed on a yearly basis on the basis of the actual expenses of previous year subject to true up at the end of the year on actual expenses. The Petitioner has submitted that the difference, if any, between the estimated security expenses and actual security expenses as the audited accounts may be allowed to be recovered from the beneficiaries on yearly basis.

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

Capital Spares

81. 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

82. The Commission vide order dated 31.1.2017 in Petition No. 558/TT/2014 held as under:

"78. As provided under clause 3.0 of the Bulk Power Transmission Agreement (BPTA), dated 26.7.2010, signed between Bangladesh Power Development Board (BPDB) and the Petitioner, the transmission charges allowed in this order shall be paid by BPDB."



83. Accordingly, the transmission charges of the transmission assets for the 2014-19 and 2019-24 tariff period shall be borne by Bangladesh Power Development Board (BPDB) as per clause 3.0 of the BPTA dated 26.7.2010, signed between BPDB and the Petitioner.

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

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
AFC	2797.99	2838.59	2834.72	2783.92	2535.51

The Annual Fixed Charges allowed for the transmission asset for the 2019-24 tariff period in this order are as under:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	2199.73	2142.19	2084.44	2027.10	1969.37

85. This order disposes of Petition No. 171/TT/2020.

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



Annexure - I

Asset	2014-19	Combined admitted Capital Cost as on 1.4.2014 (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations (₹ in lakh)					
	Capital Expenditure as on 1.4.2014				2014-15	2015-16	2016-17	2017-18	1.4.2018 to 4.8.2018	5.8.2018 to 31.3.2019
Instant Asset	Land	489.39	492.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Building	183.24	331.15	3.34	6.38	8.08	10.53	11.54	11.54	11.06
	Transmission Line	9965.98	9810.95	5.28	536.34	551.98	558.30	559.28	559.42	518.02
	Sub-Station	2954.46	3258.72	5.28	161.34	171.59	180.15	184.07	184.33	172.06
	PLCC	49.24	45.37	6.33	3.12	3.12	3.12	3.12	3.12	2.87
	Leasehold Land	0.00	-	3.34	0.00	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	0.00	67.75	5.28	1.79	3.58	3.58	3.58	3.58	3.58
	TOTAL	13642.31	14006.10		708.97	738.33	755.67	761.58	761.99	707.59
		Average Gross Block (₹ in lakh)		13978.70	14554.87	14910.11	15033.22	15040.88	14006.10	
		Weighted Average Rate of Depreciation (%)		5.07	5.07	5.07	5.07	5.07	5.05	



Annexure-II

Asset	2019-24	Combined admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations				
	Capital Expenditure as on 1.4.2019				2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Asset	Land	492.16	492.16	0.00	0.00	0.00	0.00	0.00	0.00
	Building	331.15	371.15	3.34	11.73	12.40	12.40	12.40	12.40
	Transmission Line	9810.95	9810.95	5.28	518.02	518.02	518.02	518.02	518.02
	Sub-Station	3258.72	3258.72	5.28	172.06	172.06	172.06	172.06	172.06
	PLCC	45.37	45.37	6.33	2.87	2.87	2.87	2.87	2.87
	Leasehold Land	-	0.00	3.34	0.00	0.00	0.00	0.00	0.00
	IT Equipment and software	67.75	67.75	15.00	10.16	10.16	10.16	10.16	10.16
TOTAL	14006.10	14046.10			714.84	715.51	715.51	715.51	715.51
Average Gross Block (₹ in lakh)					14026.10	14046.10	14046.10	14046.10	14046.10
Weighted Average Rate of Depreciation (%)					5.10	5.09	5.09	5.09	5.09

