

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 165/TT/2022

Coram:

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

Date of Order: 07.10.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 400 kV D/C Kameng-Balipara transmission line along with associated bays at Balipara Sub-station under "Transmission System associated with North East-Northern/Western Inter Connector-I" in North Eastern Region.

And in the matter of:

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

....Petitioner

Vs

1. Assam Electricity Grid Corporation Limited,
Bijulee Bhawan, Paltan Bazar,
Guwahati- 781001, Assam.
2. Meghalaya Energy Corporation Limited,
Short Roud Road, "Lumjingshai"
Shillong- 793001, Meghalaya.
3. Government of Arunachal Pradesh,
Vidyut Bhawan, Itanagar- 791111,
Arunachal Pradesh.



4. Power and Electricity Department,
Government of Mizoram,
Aizwal, Mizoram.
5. Manipur State Power Distribution Company Limited,
(Formerly Electricity Department, Govt. of Manipur)
Electricity Complex, Patta No. 1293 under 87(2),
Khwai Bazar, Keishampat,
District- Imphal West, Manipur-795001.
6. Department of Power,
Government of Nagaland
Kohima, Nagaland
7. Tripura State Electricity Corporation Limited,
Vidyut Bhawan, North Banamalipur.
Agartala, Tripura (W)- 799001, Tripura.
8. NEEPCO, 15, NBCC Tower,
Bhikaji Cama Place, New Delhi.

...Respondent(s)

For Petitioner : Shri S.S. Raju, PGCIL
Shri Mukesh Khanna, PGCIL
Shri Zafrul Hasan, PGCIL
Shri Vivek Kumar Singh, PGCIL

For Respondents : None

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing up of transmission tariff from 1.4.2014/COD to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and determination of transmission tariff for 2019-24 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



Kameng-Balipara transmission line along with associated bays at Balipara Substation (hereinafter referred to as “the transmission asset”) under “Transmission System associated with North East- Northern/Western Inter Connector-I” in North Eastern Region (hereinafter referred to as “ the transmission project”).

2. The Petitioner has made the following prayers in the instant 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 10.2 and 11.1 above.

2)Admit the capital cost claimed and additional capitalization incurred during 2014-19 and also allow the projected additional capitalization during 2019-24.

3)Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.1 above for respective block.

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

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

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

7)Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses.

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



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

and pass such other relief as Hon'ble Commission deems fit and appropriate under the circumstances of the case and in the interest of justice"

Background

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

(a) The Investment Approval (IA) for implementation of the transmission asset under the transmission project was accorded by the Board of Directors of the Petitioner's Company in its 219th meeting held on 24.2.2009 vide Memorandum Ref No. C/CP/NER-NR.WR Intr-I dated 27.2.2009 at an estimated cost of ₹1113019 lakh including IDC of ₹106605 lakh based on 4th quarter 2008 price level (communicated vide Memorandum Ref. No. C/CP/NER-NR.WR Intr-I dated 27.2.2009).

(b) The Revised Cost Estimate-I (RCE-I) for the transmission project was approved by Board of Directors of the Petitioner's Company in its 323rd meeting held on 30.11.2015 vide Memorandum Ref. No. C/CP/RCE:NE-NR/WR Interconnector-I dated 9.12.2015 at an estimated cost of ₹1376271 lakh including IDC of ₹174732 lakh based on April, 2015 price level.

(c) The Revised Cost Estimate-II (RCE-II) for the transmission project was approved by Board of Directors of the Petitioner in 363rd meeting held on 7.3.2019 vide Memorandum Ref. No. C/CP/RCE-II/PA1819-12-0AY-RTE023 dated 28.3.2019 at an estimated cost of ₹1471910 lakh including IDC of ₹176395 lakh based on March, 2018 price level.



- (d) The scope of work covered under the transmission project is as follows :

Transmission Lines:

Part-A: North East – Northern / Western Interconnector-I

- (i) Biswanath Chariyali-Agra \pm 800 kV, 6000 MW HVDC bipole line
(This includes four (4) no. of corridors with 800 kV HVDC towers in the chicken neck area. One corridor has been utilized by stringing of the Biswanath Chariyali - Agra HVDC bipole line while only towers will be erected in the other three corridors (No Stringing). Further, this includes Earth Electrode line at Biswanath Chariyali end and at Agra end.)*
- (ii) Balipara - Biswanath Chariyali 400 kV D/C line;
- (iii) LILO of Ranganadi - Balipara 400 kV D/C line at Biswanath Chariyali (Pooling Point);
- (iv) Biswanath Chariyali - Biswanath Chariyali (AEGCL) 132 kV D/C line

Part-B: Transmission System for immediate evacuation of power from

Kameng HEP :

- (i) Kameng - Balipara 400 kV D/C line
- (ii) Balipara - Bongaigaon 400 kV D/C line (Quad conductor) with 30% Fixed Series Compensation at Balipara end.

Part-C: Transmission System for immediate evacuation of power from

Lower Subansiri HEP :

- (i) Lower Subansiri - Biswanath Chariyali (Pooling Point) 400 kV 2*D/C line with twin lapwing conductor.

Sub-stations

Part- A: North East – Northern/ Western Interconnector -I

- (i) Establishment of 400/132 kV Pooling Station at Biswanath Chariyali with 2x200MVA, 400/132/33 kV transformers along with associated line bays;
- (ii) HVDC rectifier module of 3000 MW at Biswanath Chariyali and inverter module of 3000 MW capacity at Agra;



- (iii) Augmentation of 400 kV Agra Sub-station by 1x315 MVA, 400/220/33 kV transformer along with associated bays;
- (iv) Extension of 400 kV line bays at Balipara Sub-station
- (v) Extension of 132 kV line bays at Biswanath Chariyali (AEGCL)

Part- B: Transmission System for immediate evacuation of power from Kameng HEP

- (i) 2nd 315 MVA, 400/220 kV ICT at Misa;
- (ii) Extension of 400 kV line bays at Bongaigaon and Balipara Sub-stations.

Part- C: Transmission System for immediate evacuation of power from Lower Subansiri HEP

- (i) Extension of 400 kV line bays at Biswanath Chariyali Pooling Sub-stations;

Reactive Compensation

A. Line reactors

Sr. No	Name of Line	Line Reactor
1.	L. Subansiri- Biswanath Chariyali 400 kV 2 x D/C line	2x63 MVAR* at Biswanath Chariyali end on each ckt (total 4 nos. of reactors out of which 2 nos. of reactors are being utilized as Bus Reactors)*
2.	Balipara- Bongaigaon 400 kV D/C line (Quad Moose)	1x63 MVAR at both end on each ckt. (Total 4 numbers of reactors)
3.	Balipara-Biswanath Chariyali 400 kV D/C line resulting from LILO of Ranganadi-Balipara 400 kV D/C line at Biswanath Chariyali	1x50 MVAR Existing Fixed line reactor in each circuit at Balipara end to be made switchable at the present location itself.
4.	Agra- Sikar 400 kV D/C line	2x80 MVAR line reactors in place of 2x50 MVAR existing line reactors at Agra end.**

'Switchable line reactor

*As agreed during 6th NER Standing Committee Meeting held on October 03, 2016.

#* As agreed during 33rd SCM of NR held on December 23, 2013.



B. Bus reactors

Sr. No	Name of Sub-station	Bus Reactor
1.	Biswanath Chariyali	2x80 MVAR
2.	Bongaigaon	1x80 MVAR
3.	Balipara	1x80 MVAR
4.	Lower Subansiri	1x80 MVAR*
5.	Kameng	1x80 MVAR*

****These reactors would be a part of generation switchyard***

(e) As per the IA dated 24.2.2009, the transmission asset was scheduled to be put into commercial operation within 48 months from the date of IA. Therefore, the scheduled date of commercial operation (SCOD) of the transmission asset was 24.2.2013.

(f) The details of the transmission project is covered under various tariff petitions and the same are as follows:

Sl. No.	Name of Asset	COD	Covered under petition no
1	Kameng–Balipara 400 kV D/C line alongwith associated bays and 1x80 MVAr Bus reactor	30.3.2018*	Covered under instant petition
2	2 nd 315 MVA, 400/220 kV ICT at Misa	1.7.2012	Petition No. 681/TT/2020 (truing up of 2014-19 and determination of tariff of 2019-24)
3	80 MVAR Bus Reactor at Balipara	1.10.2012	
4	80 MVAR Bus Reactor at Bongaigaon	1.3.2013	
5	400 kV, D/C (Quad) Balipara-Bongaigaon T/L along with associated bays at Bongaigaon S/S and Balipara S/S including 30% FSC at Balipara and 4 X 63 MVAR, 420 kV LR	07.11.2014	
6	200 MVA, 400/132/33 kV ICT-2 along with associated bays at BNC	1.10.2015	
7	80 MVAR Bus Reactor – 1 along with associated Bays at Biswanath Chariyali	3.10.2015	
8	80 MVAR Bus Reactor – 2 along with associated Bays at Biswanath Chariyali	26.2.2016	
9	Augmentation of 400 kV Agra Sub-Station by 1X315 MVA, 400/220/33 kV ICT along with associated bays	10.12.2015	
10	400 kV D/C Balipara-Biswanath Chariyali # 3 Transmission Line along with associated bays at Balipara and Biswanath Chariyali PS	12.10.2015	



11	400 kV D/C Balipara-Biswanath Chariali # 4 Transmission Line along with associated bays at Balipara and Biswanath Chariali PS	1.10.2015	
12	2X80 MVAR, 400 kV Switchable Line Reactors for 400 kV D/C Agra-Sikar T/L at Agra Sub-station	1.08.2017	
13	63 MVAR line reactor (to be used as Bus Reactor) connected to 400 kV Lower Subansiri-BNC-I line bay alongwith associated bays at BNC Sub-station	21.7.2017	
14	63 MVAR line reactor (to be used as Bus Reactor) connected to 400 kV Lower Subansiri-BNC-III line bay alongwith associated bays at BNC Sub-station	11.12.2017	
15	Loop In and Loop Out (LILO) of 400 kV Ranganadi-Balipara-I T/L at Biswanath Chariali PS alongwith associated bays at Biswanath Chariali PS	28.10.2015	
16	Loop In and Loop Out (LILO) of 400 kV Ranganadi-Balipara-II T/L at Biswanath Chariali PS alongwith associated bays at Biswanath Chariali PS	27.10.2015	
17	132 kV D/C BNC (PG) - BNC (AEGCL) T/L alongwith associated bays at BNC (AEGCL) and BNC PS (PGCIL)	1.10.2015	
18	200 MVA, 400/132/33 kV ICT – I at Biswanath Chariali PS	19.12.2015	
19	± 800 kV HVDC Biswanath Chariali – Agra Pole-1 (1500 MW HVDC Terminals at Biswanath Chariali and Agra each along with the ± 800 kV Hexa Lapwing Transmission Line)	1.11.2015	
20	±800 kV Biswanath Chariali-Agra HVDC POLE-II (1500 MW HVDC Terminal at Biswanath Chariali and Agra) alongwith Earth Electrode line and Earth Electrode Station for both BNC and Agra	2.9.2016	
21	Lower Subansiri – Biswanath Chariali (Pooling Point)– 2 nos. 400 kV D/C lines with twin Lapwing conductor along with associated bays and 1x80 MVA Bus reactor and 4x63 MVA Line Reactor	Under implementation, petition shall be filed under 2019 Tariff Regulations	

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

(g) The transmission tariff in respect of the transmission asset in the instant petition from 1.4.2014/COD to 31.3.2019 was approved by the Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019.

5. The Petitioner has served the petition on the Respondents and notice of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from



the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed any reply.

6. Hearing in this matter was held on 14.9.2022 and order was reserved.

7. This order is issued considering the main petition accompanied by affidavits dated 27.1.2022 and 3.8.2022.

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

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

9. The details of the transmission charges claimed by the Petitioner in respect of the transmission asset are as follows:

(₹ in lakh)		
Particulars	2017-18 Pro-rata for 2 days	2018-19
Depreciation	6.35	1218.32
Interest on Loan	8.08	1482.15
Return on Equity	4.73	933.26
Interest on Working Capital	0.46	87.39
O&M Expenses	0.96	183.52
Total	6.35	1218.32

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

(₹ in lakh)		
Particulars	2017-18 Pro-rata for 2 days	2018-19
O&M Expenses	14.60	15.29
Maintenance Spares	26.28	27.53
Receivables	625.70	650.77



Total	666.58	693.60
Rate of Interest (in %)	12.60	12.60
Total	0.46	87.39

Date of Commercial Operation (“COD”)

11. The Commission vide order dated in 31.8.2021 in Petition No. 121/TT/2019 approved the COD of the transmission asset as 30.3.2018 in accordance with proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations as the associated generation project under NEEPCO has not been commissioned. The relevant extract of the order dated 31.8.2021 is as follows:

“20. We have considered the submissions of the Petitioner and NEEPCO. The Petitioner has claimed COD of the transmission asset as 30.3.2018 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations. The Petitioner has submitted that the asset could not be put to regular service due to non-commissioning of the associated generating station (Kameng HEP) under the scope of NEEPCO.

.....

22. In support of COD of the transmission asset, the Petitioner has submitted CEA energisation certificate dated 22.3.2018 issued under Regulation 43 of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations, 2010, ‘No-load’ RLDC charging Certificate dated 26.8.2018, self-declaration COD letter dated 30.8.2018 and CMD Certificate as required under Grid code.

23. Taking into consideration of CEA Energisation Certificate, ‘No-load’ RLDC charging Certificate and CMD Certificate as required under Grid Code, COD of the transmission asset is approved as 30.3.2018 under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations.”

Capital Cost as on COD

12. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 allowed the following capital cost as on 1.4.2014/COD and projected Additional Capital Expenditure (ACE) for 2014-19 period and the same is as follows:



(₹ in lakh)					
Apportioned approved, cost (FR)	Apportioned approved, cost (RCE-I)	Apportioned approved, cost (RCE-II)	Expenditure up to COD	ACE 2014-2019 (as per Auditor's certificate) 2018-19	Cost as on 31.3.2019
14083.81	18153.17	31153.23	21905.23	2282.64	24187.87

13. The Petitioner in the instant true-up petition vide Auditor's Certificate dated 28.10.2021 has submitted the capital cost upto COD along with ACE up to 31.3.2019. The details of the apportioned approved capital cost, capital cost as on COD and ACE incurred upto 31.3.2019 as claimed by the Petitioner in the instant true up petition for the transmission asset are as follows:

(₹ in lakh)					
Apportioned approved, cost (FR)	Apportioned approved, cost (RCE-I)	Apportioned approved, cost (RCE-II)	Expenditure up to COD	ACE 2014-2019 (as per Auditor's certificate) 2018-19	Cost as on 31.3.2019
14083.81	18153.17	31153.23	26801.95	3074.80	29876.75

Cost Over-run

14. The cost claimed by Petitioner including ACE in respect of the transmission asset is ₹29876.75 lakh as on 31.3.2019 which is within the RCE-II approved apportioned capital cost of ₹31153.23 lakh. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 already approved the cost variation from FR cost.

Time Over-run

15. As per the Investment Approval (IA) dated 24.2.2009, the transmission asset was scheduled to be put into commercial operation within 48 months from the date



of I.A. Accordingly, the scheduled COD of the transmission asset was 24.2.2013, against which the transmission asset was put under commercial operation on 30.3.2018. Hence, there is time over-run of 1860 days in declaring the COD of the transmission asset.

16. The scheduled date of commercial operation (SCOD) of the transmission asset and actual COD of the transmission asset are as follows:

SCOD	COD	Time Over-run
24.2.2013	30.3.2018*	1860 days

**Approved accordance with Regulation 4 (3) (ii) of 2014 Tariff Regulations.*

17. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 has already condoned the time over-run of 1860 days.

Interest During Construction (“IDC”)

18. The Petitioner has claimed IDC for the transmission asset and has submitted the Auditor’s Certificates dated 28.10.2021. The Petitioner has submitted the computation of IDC alongwith year-wise details of the IDC discharged.

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



20. Accordingly, based on the information furnished by the Petitioner, the IDC considered for the transmission asset is summarized as follows:

IDC as per Auditor's Certificate	IDC Admissible	IDC disallowed due to computational difference	IDC Dis-charged as on COD	IDC Undis-charged as on COD	(₹ in lakh)	
					IDC Discharge During	
A	B	C=A-B	D	E=B-D	2017-18	2018-19
					F	G
6011.79	6011.79	0.00	5075.89	935.90	0.00	935.90

Incidental Expenditure During Construction (IEDC)

21. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 has allowed the following IEDC in respect of the transmission asset, subject to truing up and the same is as follows:

IEDC claimed as per Auditor Certificate (₹ in lakh)	IEDC allowed as on COD (₹ in lakh)	IEDC disallowed as on COD (₹ in lakh)
1	2	3
4710.70	749.89	3960.81

22. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 with regard to IDEC of the transmission asset held as follows:

“43. IEDC allowed for the transmission asset will be reconsidered in the light of the directions of Appellate Tribunal for Electricity (APTEL) in judgment dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018 as implemented vide Commission's Order dated 4.2.2020 in Petition No. 1/TT/2019, at the time of truing up or after all the assets under the scope of the transmission project achieve COD and the actual quantum of IEDC is known. The Petitioner is directed to furnish IEDC details of all the assets of the transmission project at the time of true-up.”

23. In the instant petition, the Petitioner has submitted Form-12A and Auditor's Certificate in support of its claim.

24. The Petitioner has submitted that some of the transmission of the transmission project are covered in the instant petition and in Petition No. 681/TT/2020 and some



of the transmission assets are under implementation. Further, the Petitioner has submitted the details of IEDC for the transmission assets covered in Petition No. 681/TT/2020 and for the transmission asset covered in the instant petition along with Auditor's certificate in support of its claim. The IEDC claimed by the Petitioner for the transmission assets covered in Petition No. 681/TT/2020 and for the transmission asset covered in the instant petition which altogether sums upto ₹44100.53 lakh which is within the limit of the IEDC mentioned in the Abstract Cost Estimate of ₹46820.00 lakh.

25. The Petitioner has not furnished the details of IEDC with respect to the transmission asset i.e. Lower Subansiri-Biswanath Chariali (Pooling Point)–2 number of 400 kV D/C lines with twin Lapwing conductor alongwith associated bays and 1x80 MVar Bus reactor and 4x63 MVar Line Reactor which is under implementation and in respect of which transmission tariff petition is yet to be filed.

26. The IEDC is to be allowed in accordance with the judgment of Appellate Tribunal dated 2.12.2019 in Appeal No. 95 of 2018 and Appeal No. 140 of 2018. The relevant extract of the judgement dated 2.12.2019 is as follows:

“7.16 In light of the above, we are of the considered opinion that Central Commission has not considered the IEDC for the reference assets correctly in line with provisions of its own regulations which cannot be sustained in the eyes of law. In catena of judgments of Hon'ble Supreme Court and this Tribunal, it has been held that the Regulations framed by the Commissions are binding for all stakeholders including the Commission itself. The Regulations framed under the Act, in no way, mandate the Central Commission to restrict the IEDC to 5% of the original estimated hard cost.

7.17. Accordingly, we hold that IEDC should be computed only on actual basis after due prudence check based on the data submitted by the Appellant in accordance with the Tariff Regulations.”



27. We have examined Form 12-A alongwith the Auditor's Certificate submitted by the Petitioner in support of the claimed IEDC. The details of IEDC claimed and allowed in respect of the transmission asset are as follows:

(₹ in lakh)

IEDC claimed as per Auditor's Certificate (₹ in lakh)	IEDC disallowed due to time over-run (₹ in lakh)	IEDC allowed as on COD (₹ in lakh)
1	2	3 = (1-2)
4710.70	0.00	4710.70

Initial Spares

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

“(d) Transmission System

- (i) *Transmission line: 1.00%*
- (ii) *Transmission Sub-station (Green Field): 4.00%*
- (iii) *Transmission Sub-station (Brown Field): 6.00%*
- (iv) *Series Compensation devices and HVDC Station: 4.00%*
- (v) *Gas Insulated Sub-station (GIS): 5.00%*
- (vi) *Communication system: 3.5%”*

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

(₹ in lakh)

Plant and Machinery cost (excluding IDC and IEDC, land cost and cost of civil works) (A)	Initial Spares Claimed (B)	Ceiling (in %) (C)	Initial Spares Worked Out D = [(A-B) C/(100-C)]	Excess Initial Spares
19284.51	161.41	1.00	193.16	0.00

30. The Petitioner has further submitted that discharge of Initial Spares has been



included in the capital cost indicated as per Auditor's Certificate. Hence, further adjustment in capital cost in case of discharge of liability, if any, in respect of Initial Spares is not required.

31. We have considered the submission of the Petitioner. The Initial Spares claimed by the petitioner towards transmission line is within ceiling of 1% as specified in Regulation 13(d) of the 2014 Tariff Regulations. Accordingly, the details of the Initial Spares allowed in respect of the transmission asset for 2014-19 tariff period are as follows:

Transmission Line:

Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Initial Spares allowed (₹ in lakh)
19284.51	161.41	1.00	193.16	161.41

Capital Cost allowed as on COD

32. Capital cost in respect of the transmission asset as on COD has been considered as per the Auditor's Certificate. Accordingly, capital cost allowed in respect of the transmission asset is as follows:

Capital Cost as on COD as per Auditor's Certificate	Less: IDC as on COD due to		IEDC disallowed due to time over-run	Excess Initial Spares	Capital Cost as on COD (on cash basis)
	IDC Disallowed	Un-discharged IDC			
26801.95	0.00	935.90	0.00	0.00	25866.05



Additional Capital Expenditure (“ACE”)

33. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 allowed the following projected ACE

(₹ in lakh)

Particulars	ACE	
	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	1346.74
Add: IDC Discharged	0.00	935.90
Total ACE allowed	0.00	2282.64

34. The Petitioner in the instant true-up petition has claimed the following ACE for the transmission asset covered in the instant petition and has submitted the Auditor's Certificates in support of the same:

(₹ in lakh)

ACE (As per Auditor's Certificate)	
2017-18	2018-19
0.00	3074.80

35. The Petitioner has submitted the liability flow statement for 2014-19 tariff period and the details of the same are as follows:

(₹ in lakh)

Party	Particulars	Year of Actual Capitalization	Outstanding Liability as on COD	Discharge						Additional Liability Recognized (Unexecuted Works)			Outstanding Liability as on 31.3.2019
				2014-15	2015-16	2016-17	2017-18	2018-19	Total (14-19)	2017-18	2018-19	Total (14-19)	
North Eastern Cables & Conductors Pvt. Ltd.	Transmission Line	2017-18	5.98	0.00	0.00	0.00	0.00	5.98	5.98	0.00	0.00	0.00	0.00
BHEL	Transmission Line	2017-18	10.30	0.00	0.00	0.00	0.00	7.57	7.57	0.00	0.00	0.00	2.73
KEC International Limited	Transmission Line	2017-18	3273.07	0.00	0.00	0.00	0.00	2745.73	2745.73	0.00	0.00	0.00	527.34
M/s ICSA (India) Limited	Sub-station	2017-18	19.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.06
ICSA (India) Limited	PLCC	2017-18	2.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.13
Enkay Enterprises	Sub-station	2017-18	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00
Compensation	Transmission Line	2017-18	353.08	0.00	0.00	0.00	0.00	315.52	315.52	0.00	0.00	0.00	37.56
Total			3668.62	0.00	0.00	0.00	0.00	3074.80	3074.80	0.00	0.00	0.00	593.82

36. We have considered the submissions made by the Petitioner. The



undischarged IDC as on COD has been allowed as ACE during the year of its discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations as it is towards balance and retention payments. The undischarged IDC as on COD has been allowed as ACE. The details of ACE allowed in respect of the transmission asset are as follows:

(₹ in lakh)

Particulars	ACE	
	2017-18	2018-19
ACE to the extent of Balance & Retention Payments	0.00	3074.80
Add: IDC Discharged	0.00	935.90
Add: Un-discharged Initial Spares allowed as ACE	0.00	0.00
Total ACE allowed	0.00	4010.70

Capital Cost for 2014-19 tariff period

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

(₹ in lakh)

Apportioned Approved Capital Cost as per RCE-II	Capital Cost as on COD on cash basis	Additional Capital Expenditure (ACE)		Total Capital Cost as on 31.3.2019
		2017-18	2018-19	
31153.23	25866.05	0.00	4010.70	29876.75

Debt-Equity Ratio

38. As per Form-6, the Petitioner has claimed debt-equity ratio of 80:20 as on COD and 72.33:27.67 for ACE. Accordingly, as provided under Regulation 19 of the 2014 Tariff Regulations, the debt-equity ratio of 80:20 as on COD and 72.33:27.67 for ACE has been considered for 2014-19 tariff period. The details of debt-equity ratio in respect of the transmission asset as on COD and as on 31.3.2019 for the purpose



of tariff are as follows:

Particulars	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	20692.84	80.00	23593.92	78.97
Equity	5173.21	20.00	6282.83	21.03
Total	25866.05	100.00	29876.75	100.00

Depreciation

39. Depreciation has been allowed as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations. Depreciation has been allowed considering capital expenditure as on 1.4.2014 and approved ACE during 2014-19 tariff period. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD) and working of WAROD is placed at Annexure-1. Depreciation for the 2014-19 tariff period for the transmission asset is allowed as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)			
Sl. No.	Particulars	2017-18 (Pro-rata for 2 days)	2018-19
A	Opening Gross Block	25866.05	25866.05
B	Addition during the year 2014-19	0.00	4010.70
C	Closing Gross Block (A+B)	25866.05	29876.75
D	Average Gross Block (A+C)/2	25866.05	27871.40
E	Depreciable value(D*90%)	23279.45	25084.26
F	Weighted average rate of Depreciation (WAROD) (in %)	5.29	5.29
G	Elapsed useful life at the beginning of the year (Year)	0.00	0.00
H	Balance useful life at the beginning of the year (Year)	35.00	35.00
I	Cumulative Depreciation at the beginning of the year	0.00	7.49
J	Remaining Aggregate Depreciable Value at the beginning of the year (E-I)	23279.45	25076.77
K	Depreciation during the year	7.49	1473.32



L	Cumulative Depreciation at the end of the year (I+K)	7.49	1480.81
M	Remaining Aggregate Depreciable Value at the end of the year (E-L)	23271.95	23603.45

40. The details of depreciation allowed for the transmission asset vide order dated 31.8.2021 in in Petition No. 121/TT/2019, claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)		
Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	6.35	1218.32
As claimed by the Petitioner	7.49	1473.32
Approved after true-up in the instant order	7.49	1473.32

Interest on Loan (“IoL”)

41. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. The details of IoL allowed in respect of the transmission asset are as follows:

(₹ in lakh)			
Sl. No.	Particulars	2017-18 (Pro-rata for 2 days)	2018-19
A	Gross Normative Loan	20692.84	20692.84
B	Cumulative Repayments up to Previous Year	0.00	7.49
C	Net Loan-Opening (A-B)	20692.84	20685.35
D	Addition due to ACE	0.00	2901.08
E	Repayment during the year	7.49	1473.32
F	Net Loan-Closing (C+D-E)	20685.35	22113.11
G	Average Loan (A+F)/2	20689.09	21399.23



H	Weighted Average Rate of Interest on Loan (in %)	8.411	8.145
I	Interest on Loan (GxH)	9.54	1743.07

42. The details of IoL allowed for the transmission asset vide order dated 31.8.2021 in in Petition No. 121/TT/2019, claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)		
Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	8.08	1482.15
As claimed by the Petitioner	9.54	1743.07
Allowed after true-up in the instant order	9.54	1743.07

Return on Equity ("RoE")

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

Year	Claimed effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758

44. 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 and the same is as follows:



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

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

Year	MAT Rate (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758

46. Accordingly, RoE allowed for the transmission asset is as follows:

(₹ in lakh)			
Sl. No.	Particulars	2017-18 (Pro-rata for 2 days)	2018-19
A	Opening Equity	5173.21	5173.21
B	Addition due to ACE	0.00	1109.62
C	Closing Equity (A+B)	5173.21	6282.83
D	Average Equity(A+B)/2	5173.21	5728.02
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	Tax Rate applicable (in %)	21.342	21.549
G	Rate of Return on Equity (Pre-tax)	19.705	19.758
H	Return on Equity (Pre-tax)	5.59	1131.74

47. The details of RoE allowed for the transmission asset vide order dated 31.8.2021 in in Petition No. 121/TT/2019, claimed by the Petitioner in the instant



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

(₹ in lakh)		
Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	4.73	933.26
As claimed by the Petitioner	5.59	1131.74
Allowed after true-up in the instant order	5.59	1131.74

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

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

(₹ in lakh)				
Transmission Lines				
Sl. No.	Name of Line	Double Circuit	No of Sub-Conductors	Line Length Km
1	400 kV D/C Kameng- Balipara Transmission Line	Double Circuit	2	57.200
Particulars		2017-18		2018-19
Transmission lines (km)				
Double circuit with twin conductors (km)		57.200		57.200
Norm (₹ lakh/km)				
Double Circuit with twin conductors		0.780		0.806
Total Transmission Line O&M (A)		44.62		46.10
Sub-station				
Sl. No.	400 kV Bays			
1	Kameng/ Balipara: Kameng-I & II Balipara-Balipara			
Particulars		2017-18 (Pro-rata for 2 days)		2018-19
Sub-station (Number of bays)				
400 kV		2		2
Norms (₹ lakh/bay)				
400 kV sub-station		66.510		68.710
Total Sub-station O&M (B)		133.02		137.42



Total O&M Expenses C= (A)+(B)	0.97	183.52
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49. The details of O&M Expenses allowed for the transmission asset vide order dated 31.8.2021 in Petition No. 121/TT/2019, claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)		
Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	0.96	183.52
As claimed by the Petitioner	0.97	183.52
Approved after truing up	0.97	183.52

Interest on Working Capital (“IWC”)

50. The Petitioner is entitled to claim IWC as per Regulation 28 of the 2014 Tariff Regulations. IWC allowed for the transmission asset is as follows:

(₹ in lakh)		
Particulars	2017-18 (Pro-rata for 2) days	2018-19
Working Capital for O&M Expenses (one month of O&M Expenses)	14.80	15.29
Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	26.65	27.53
Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	733.71	772.39
Total Working Capital	775.16	815.22
Rate of Interest on working capital (in %)	12.60	12.60
Interest of Working Capital	0.54	102.72

51. The details of IWC allowed for the transmission asset vide order dated 31.8.2021 in in Petition No. 121/TT/2019, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:



(₹ in lakh)

Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	0.46	87.39
As claimed by the Petitioner	0.54	102.72
Allowed after true-up in the instant order	0.54	102.72

Approved Annual Fixed Charges for 2014-19 Tariff Period

52. The trued-up annual fixed charges allowed for the transmission asset for 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars	2017-18 (Pro-rata for 2 days)	2018-19
Depreciation	7.49	1473.32
Interest on Loan	9.54	1743.07
Return on Equity	5.59	1131.74
Operation and Maintenance Expenses	0.97	183.52
Interest on Working Capital	0.54	102.72
Total	24.13	4634.37

53. The details of Annual Fixed Charges allowed for transmission asset vide order dated 31.8.2021 in Petition No. 121/TT/2019, as claimed by the Petitioner in the instant petition and trued up in the instant order is as follows:

(₹ in lakh)

Particulars	2017-18	2018-19
Allowed vide order dated 31.8.2021 in Petition No. 121/TT/2019	20.57	3904.65
As claimed by the Petitioner	24.14	4634.38
Allowed after true-up in the instant order	24.13	4634.37

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

54. The Petitioner has claimed the following transmission charges for the transmission asset for 2019-24 tariff period:



(₹ in lakh)					
Particulars	2019-20	2020-21	201-22	2022-23	2023-24
Depreciation	1588.62	1603.60	1609.20	1609.20	1609.91
Interest on Loan	1776.78	1657.36	1529.91	1395.07	1256.34
Return on Equity	1190.06	1206.05	1212.02	1212.02	1212.76
Interest on Working Capital	73.51	72.54	70.98	69.13	67.08
O&M Expenses	114.69	118.73	122.90	127.20	131.65
Total	4743.66	4658.28	4545.01	4412.62	4277.74

55. The Petitioner has claimed the following IWC for the transmission asset for 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	9.56	9.89	10.24	10.60	10.97
Maintenance Spares	17.20	17.81	18.44	19.08	19.75
Receivables	583.24	574.31	560.34	544.02	525.95
Total	610.00	602.01	589.02	573.70	556.67
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	73.51	72.54	70.98	69.13	67.08

Capital Cost

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*



- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the Asset-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 Asset-forming part of the project, but not in use, as declared in the tariff petition;*
- (b) De-capitalised Asset-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 asset.

(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.”

57. Capital cost has been considered in accordance with Regulation 19(3) of the 2019 Tariff Regulations. The trued-up capital cost of ₹ 29876.75 lakh in respect of the transmission asset has been considered as admitted capital cost as on 1.4.2019 for working out tariff for 2019-24 tariff period.

Additional Capital Expenditure (“ACE”)

58. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

- (1) *The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after 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.”

59. The Petitioner has claimed projected ACE for 2019-24 period on account of liability for works executed prior to the cut-off date. The details of the projected ACE in respect of the transmission asset are as follows:

(₹ in lakh)

ACE (As per Auditor's Certificate)				
2019-20	2020-21	2021-22	2022-23	2023-24
355.46	212.17	0.00	0.00	26.19

60. The Petitioner has submitted following Liability Flow Statement for 2019-24 period:

(₹ in lakh)

Party	Particulars	Year of Actual Capitalization	Outstanding Liability as on COD	Discharge					
				2019-20	2020-21	2021-22	2022-23	2023-24	Total (2019-24)
North Eastern Cables & Conductors Pvt. Ltd.	Transmission Line	2017-18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BHEL	Transmission Line	2017-18	2.73	0.00	2.73	0.00	0.00	0.00	2.73
KEC International Limited	Transmission Line	2017-18	527.34	317.90	209.44	0.00	0.00	0.00	527.34
ICSA (India) Limited	Sub-station	2017-18	19.06	0.00	0.00	0.00	0.00	19.06	19.06
ICSA (India) Limited	PLCC	2017-18	2.13	0.00	0.00	0.00	0.00	2.13	2.13
Enkay Enterprises	Sub-station	2017-18	5.00	0.00	0.00	0.00	0.00	5.00	5.00
Compensation	Transmission Line	2017-18	37.56	37.56	0.00	0.00	0.00	0.00	37.56
Total			593.82	355.46	212.17	0.00	0.00	26.19	593.82



61. We have considered the submissions of the Petitioner. ACE claimed is allowed towards undischarged liabilities under Regulation 24(1)(a) of the 2019 Tariff Regulations. ACE allowed in respect of the transmission asset is as follows, which is subject to truing-up:

(₹ in lakh)

Regulations	ACE (As per Auditor's Certificate)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Regulation 24(1)(a) of the 2019 Tariff Regulations.	355.46	212.17	0.00	0.00	26.19
Total	355.46	212.17	0.00	0.00	26.19

Capital Cost considered for 2019-24 tariff period

62. Accordingly, the capital cost of the transmission asset considered for 2019-24 tariff period subject to truing-up is as follows:

(₹ in lakh)

Apportioned Approved Capital Cost (RCE-II)	Capital Cost as on 1.4.2019	Admitted ACE	Capital Cost as on 31.3.2024
		2019-24	
31153.23	29876.75	593.82	30470.57

Debt-Equity Ratio

63. Regulations 18 of the 2019 Tariff Regulations provides as follows:

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

Provided that:

- where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:



- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

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

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

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

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

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

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

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



64. The details of debt-equity considered for the purpose of computation of tariff for 2019-24 tariff period is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	23593.92	78.97	24009.60	78.80
Equity	6282.83	21.03	6460.98	21.20
Total	29876.75	100.00	30470.57	100.00

The Debt-Equity ratio for the ACE has been considered in the ratio of 70.00:30.00.

Depreciation

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

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

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

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

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

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

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



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

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

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

*(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in **Appendix-I** to these regulations for the Asset-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 asset.

(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 asset.

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

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

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



control system based on straight line method, with salvage value of 10%, over a period of –

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

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

c) ten years or a period mutually agreed by the generating company and the beneficiaries, whichever is higher, in case the generating station or unit thereof has completed its useful life.”

66. We have considered the submissions of the Petitioner. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The Weighted Average Rate of Depreciation (WAROD) has been worked as per the rates prescribed in the 2019 Tariff Regulations and WAROD is placed at Annexure-II. Depreciation allowed in respect of the transmission asset is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	29876.75	30232.21	30444.38	30444.38	30444.38
B	Addition during the year 2019-24 due to projected ACE	355.46	212.17	0.00	0.00	26.19
C	Closing Gross Block (A+B)	30232.21	30444.38	30444.38	30444.38	30470.57
D	Average Gross Block (A+C)/2	30054.48	30338.30	30444.38	30444.38	30457.48
E	Average Gross Block (90% depreciable assets)	30054.48	30338.30	30444.38	30444.38	30457.48
F	Average Gross Block (100% depreciable assets)	0.00	0.00	0.00	0.00	0.00
G	Depreciable value (excluding IT equipment and software) (E*90%)	27049.03	27304.47	27399.94	27399.94	27411.73
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00



I	Total Depreciable Value (G+H)	27049.03	27304.47	27399.94	27399.94	27411.73
J	Weighted Average Rate of Depreciation (WAROD) (in %)	5.29	5.29	5.29	5.29	5.29
K	Lapsed useful life at the beginning of the year (Year)	1.00	2.00	3.00	4.00	5.00
L	Balance useful life at the beginning of the year (Year)	34.00	33.00	32.00	31.00	30.00
M	Depreciation during the year(D*J)	1588.62	1603.60	1609.20	1609.20	1609.91
N	Aggregate Cumulative Depreciation at the end of the year	3069.43	4673.03	6282.23	7891.44	9501.34
O	Remaining Aggregate Depreciable Value at the end of the year(I-N)	23979.60	22631.43	21117.71	19508.50	17910.38

Interest on Loan (“IoL”)

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

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

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

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

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

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



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

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

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

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

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

68. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of truing up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed is in respect of the transmission asset is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	23593.92	23842.74	23991.26	23991.26	23991.26
B	Cumulative Repayments upto Previous Year	1480.81	3069.43	4673.03	6282.23	7891.44
C	Net Loan-Opening (A-B)	22113.11	20773.31	19318.23	17709.03	16099.82
D	Addition due to Additional Capitalization	248.82	148.52	0.00	0.00	18.33
E	Repayment during the year	1588.62	1603.60	1609.20	1609.20	1609.91
F	Net Loan-Closing (C+D-E)	20773.31	19318.23	17709.03	16099.82	14508.25
G	Average Loan (C+F)/2	21443.21	20045.77	18513.63	16904.43	15304.04
H	Weighted Average Rate of Interest on Loan (in %)	8.286	8.268	8.264	8.253	8.209



I	Interest on Loan (G*H)	1776.79	1657.36	1529.91	1395.07	1256.34
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Return on Equity("RoE")

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

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

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

Provided that return on equity in respect of Additional Capitalization after cut-off date beyond the original scope excluding additional capitalization on account of emission control system, shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system or in the absence of actual loan portfolio of the generating station or the transmission system, the weighted average rate of interest of the generating company or the transmission licensee, as the case may be, as a whole shall be considered, subject to ceiling of 14%;

Provided further that:

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

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

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

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:*



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

(3) The return on equity in respect of additional capitalization on account of emission control system shall be computed at the base rate of one year marginal cost of lending rate (MCLR) of the State Bank of India as on 1st April of the year in which the date of operation (ODe) occurs plus 350 basis point, subject to ceiling of 14%;

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

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

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

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

Illustration-

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

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

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

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



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

70. The Petitioner has submitted that MAT rate is applicable to it. We have considered the submissions of the Petitioner. 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 allowed in respect of the transmission asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	6282.83	6389.47	6453.12	6453.12	6453.12
B	Addition due to Additional Capitalization	106.64	63.65	0.00	0.00	7.86
C	Closing Equity (A+B)	6389.47	6453.12	6453.12	6453.12	6460.98
D	Average Equity (A+C)/2	6336.15	6421.29	6453.12	6453.12	6457.05
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in%)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (Pre-tax) (D*G)	1190.06	1206.05	1212.02	1212.02	1212.76

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

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

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



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



<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

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

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



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

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

72. The details of O&M Expenses claimed by the Petitioner for the transmission asset and allowed under Regulation 35(3)(a) of the 2019 Tariff Regulations for the purpose of tariff are as follows:

(₹ in lakh)						
Sl. No.	Name of Line		Single Circuit / Double Circuit	Number of Sub-Conductors		Line length in km
1	400 kV D/C Kameng- Balipara Transmission Line		Double Circuit	2		57.200
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
Transmission lines (km)						
Double circuit with Two conductors (km)		57.200	57.200	57.200	57.200	57.200
Norm (₹ lakh/km)						
Double Circuit (Twin & Triple Conductor)		0.881	0.912	0.944	0.977	1.011
Total Transmission Line O&M (A)		50.39	52.17	54.00	55.88	57.83
Sub-station						
Srl. No.	400 kV Sub-station bay					
1	Kameng/ Balipara: Kameng-I & II-Balipara-Balipara					
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station (Number of bays)						
400 kV		2	2	2	2	2
Norms (₹ lakh/bay)						
400 kV Sub-station		32.15	33.28	34.45	35.66	36.91
Total Sub-station O&M (B)		64.30	66.56	68.90	71.32	73.82
Total O&M Expenses C= (A)+(B)		114.69	118.73	122.90	127.20	131.65



Interest on Working Capital ("IWC")

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

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

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

(i) Receivables equivalent to 45 days of annual fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and

(iii) Operation and maintenance expenses, including security expenses for one month."

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

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

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

"3. Definition - *In these regulations, unless the context otherwise requires:-*

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

74. The Petitioner has submitted that it has computed the IWC for 2019-24 period considering SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of Interest (RoI) considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75%



plus 350 basis points) for 2020-21, 10.50%(SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-24 onwards. The components of the working capital and interest allowed thereon are as follows:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M expenses for one month)	9.56	9.89	10.24	10.60	10.97
B	Working Capital for Maintenance Spares (15% of O&M expenses)	17.20	17.81	18.43	19.08	19.75
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost / annual transmission charges)	583.24	573.71	559.20	542.91	524.88
D	Total of Working Capital	610.00	601.41	587.88	572.59	555.59
E	Rate of Interest for Working Capital (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest of working capital	73.50	67.66	61.73	60.12	58.34

Annual Fixed Charges for 2019-24 Tariff Period

75. The transmission charges allowed for 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	1588.62	1603.60	1609.20	1609.20	1609.91
Interest on Loan	1776.79	1657.36	1529.91	1395.07	1256.34
Return on Equity	1190.06	1206.05	1212.02	1212.02	1212.76
O&M Expenses	114.69	118.73	122.90	127.20	131.65
Interest on Working Capital	73.50	67.66	61.73	60.12	58.34
Total	4743.66	4653.40	4535.76	4403.61	4269.00

Filing Fees and Publication Expenses

76. The Petitioner has prayed reimbursement of fees paid by it for filing the petition and publication expenses.

77. We have considered the submissions of the Petitioner. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection



with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fees and RLDC Fees and Charges

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

Goods and Services Tax

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

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

Security Expenses

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



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.

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

Capital Spares

83. 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

84. The Commission vide order dated 31.8.2021 in Petition No. 121/TT/2019 held that the transmission charges from COD of the transmission asset shall be borne by NEEPCO till COD of the associated generation under the scope of NEEPCO, as COD of the transmission asset was approved as 30.3.2018 under proviso (ii) to Regulation 4(3) of the 2014 Tariff Regulations due to non-commissioning of



associated generation under the scope of NEEPCO. The Petitioner has submitted that NEEPCO vide its letter dated 16.6.2020 addressed to the Petitioner informed that NEEPCO has declared the COD of the first unit of generating station on 17.6.2020. Therefore, transmission charges from COD of the transmission asset i.e. 30.03.2018 till the date of COD of the first unit of generating station under the scope of NEEPCO i.e 17.6.2020 shall be borne by NEEPCO. From 18.6.2020 to 31.10.2020 sharing of transmission charges shall be governed by the provisions of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 ("the 2010 Sharing Regulations").

85. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs (for the period from 18.6.2020 to 31.10.2020) for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of the respective Sharing Regulations and shall be recovered from the concerned DICs under Regulation 15(2)(b) of the 2020 Sharing Regulations.

86. To summarise,

(a) The trued-up Annual Fixed Charges approved for the transmission asset for 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)	
	2017-18 (Pro-rata for 2 days)	2018-19
Total	24.13	4634.37



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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Total	4743.66	4653.40	4535.76	4403.61	4269.00

87. Annexure-I and Annexure-II given hereinafter form part of the order.

88. This order disposes of Petition No. 165/TT/2022 in terms of the above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member



2014-19

Annexure-I

Asset

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations	
		2017-18	2018-19			2017-18	2018-19
Land	0.00	0.00	0.00	0.00	0.00%	0.00	0.00
Building	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
Transmission Line	25187.93	0.00	3986.16	29174.09	5.28%	1329.92	1435.16
Sub Station	518.20	0.00	18.75	536.95	5.28%	27.36	27.86
PLCC	159.92	0.00	5.79	165.71	6.33%	10.12	10.31
Leasehold Land	0.00	0.00	0.00	0.00	3.34%	0.00	0.00
IT Equipment & Software	0.00	0.00	0.00	0.00	5.28%	0.00	0.00
Total	25866.05	0.00	4010.70	29876.75		1367.41	1473.32
Weighted Average Rate of Depreciation (%)						5.29%	5.29%
Average Gross Block (₹ in lakh)						25866.05	27871.40



2019-24

Annexure-II

Asset

(₹ lakh)

Particulars	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE 2014-19					Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24			2019-20	2020-21	2021-22	2022-23	2023-24
Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00	0.00
Building	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	29174.09	355.46	212.17	0.00	0.00	0.00	29741.72	5.28%	1549.78	1564.76	1570.36	1570.36	1570.36
Sub Station	536.95	0.00	0.00	0.00	0.00	24.06	561.01	5.28%	28.35	28.35	28.35	28.35	28.99
PLCC	165.71	0.00	0.00	0.00	0.00	2.13	167.84	6.33%	10.49	10.49	10.49	10.49	10.56
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
IT Equipment & Software	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	29876.75	355.46	212.17	0.00	0.00	26.19	30470.57		1588.62	1603.60	1609.20	1609.20	1609.91
Weighted Average Rate of Depreciation (%)									5.29%	5.29%	5.29%	5.29%	5.29%
Average Gross Block (₹ in lakh)									30054.48	30338.30	30444.38	30444.38	30457.48

