

CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

Petition No. 9/TT/2023

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member**

Date of Order: 13.06.2025

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for the determination of transmission tariff from COD to 31.3.2024 for the transmission assets under "Eastern Region Strengthening Scheme XX (ERSS – XX)" in the Eastern Region.

And in the matter of:

Power Grid Corporation of India Ltd.

SAUDAMINI, Plot No-2,
Sector-29, Gurgaon-122001 (Haryana).

....Petitioner

Versus

- 1. Bihar State Power (Holding) Company Limited,**
Vidyut Bhawan, Bailey Road,
Patna – 800001.
- 2. West Bengal State Electricity Distribution Company Limited,**
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake City,
Calcutta - 700091.
- 3. Grid Corporation of Orissa Limited**
Shahid Nagar,
Bhubhaneswar - 751007.
- 4. Damodar Valley Corporation,**
DVC Tower, Maniktala,
Civic Centre, VIP Road,
Calcutta - 700054.
- 5. Power Department,**
Government of Sikkim,
Gangtok - 737001.



6. Jharkhand State Electricity Board,

In front of Main Secretariat

Doranda, Ranchi- 834002.

... Respondent(s)

Parties Present: Ms. Swapna Seshadri, Advocate, PGCIL
Shri Utkarsh Singh, Advocate, PGCIL
Ms. Sneha, Advocate, PGCIL

ORDER

The Power Grid Corporation of India Limited (hereinafter referred to as “the Petitioner”), had filed the instant Petition for the determination of transmission tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) for the period from COD to 31.3.2024 in respect of the following transmission assets under “Eastern Region Strengthening Scheme XX (ERSS – XX)” (hereinafter referred to as “the transmission project”) in the Eastern Region:

Asset-I: 400/220 kV 500 MVA ICT IV along with 400kV Bay at Biharsharif (POWERGRID) Substation and 220 kV Bay at Biharsharif (BSPTCL) Substation alongwith 220 kV interconnecting line from Biharsharif (BSPTCL) Substation to 220 kV bushing of ICT installed at Biharsharif (POWERGRID) Substation;

Asset-II: Replacement of 220/132 kV, 1X50 MVA ICT with 220/132 kV 160 MVA ICT along with suitable modification of bay equipment at Malda Substation;

Asset-III: Reconductoring of 220 kV D/C New Purnea – Purnea Ckt.-I and Ckt.-II transmission line along with modification of 220 kV bays equipments at New Purnea & Purnea Substations;

Asset-IV: 400/132 kV, 315 MVA ICT III along with associated bays at Lakhisarai Substation;

Asset-V: 400/132 kV, 315 MVA ICT III along with associated bays at Banka Substation;

Asset-VI: 420 kV, 1X125 MVAR Bus Reactor along with associated bay at Susbhasgram Substation;

Asset-VII: Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj – New Purnea 400 kV D/C line to Switchable Line Reactor (SLR);

Asset-VIII: 400/132 kV, 500 MVA ICT along with associated bays at Maithon Substation;

Asset-IX: Reconductoring of 400 kV D/C Rangpo – New Siliguri transmission line along with modification of 400 kV bays equipments at New Siliguri Substations;



Asset-X: 765 kV, 80 MVAR (single phase) Spare Reactor Unit at New Ranchi Substation; and

Asset-XI: 220/132 kV, 100 MVA ICT along with associated bays at Rangpo GIS Substation.

2. The Petitioner has made the following prayers in the instant Petition:

“

- 1) *Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per para –8.3 above.*
- 2) *Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
- 3) *Approve the DOCO for the subject Assets as claimed and allow full tariff as claimed under instant petition.*
- 4) *Approve the initial spares as claimed in the instant petition.*
- 5) *Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.*
- 6) *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 2019 as per para 8.3 above for respective block.*
- 7) *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.*
- 8) *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.*
- 9) *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 beneficiaries.*
- 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.*
- 11) *Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.*

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 follows:

- a. The Investment Approval (IA) of the transmission project was accorded by the Board of Directors (BoD) of the Petitioner's Company in its meeting held

on 2.11.2017 vide Memorandum No. C/CP/PA1718-12-0A-IA008 dated 27.11.2017 at an estimated cost of ₹35883.00 lakh, including an IDC of ₹2207.00 lakh based on the June 2017 price level. The project was scheduled to be commissioned within 30 months from the date of the IA.

- b. The Petitioner, vide affidavit dated 7.11.2022, has submitted Revised Cost Estimate (RCE) for the project “Eastern Region Strengthening Scheme XX (ERSS – XX)”, which was accorded by the Competent Authority, i.e., Chairman and Managing Director (CMD) of the Petitioner Company on 31.7.2022 vide Memorandum No. C/CP/PA2223-05-0S-RCE003 dated 1.8.2022 with Revised Cost Estimate of the project as ₹34789.00 lakh, including IDC of ₹1483.00 lakh based on June 2022 price level.

- c. The scope of work covered under the transmission project is as follows:

Transmission Lines:

- i. **Reconductoring of Rangpo – New Siliguri 400kV D/C line**
The existing Twin ACSR Moose line is to be re-conducted with Twin HTLS conductor
- ii. **Reconductoring of New Purnea – Purnea 220kV D/C line**
The existing New Purnea (400/220 kV) – Purnea (220/132 kV) 220 kV D/C line needs to be re-conducted with a Single HTLS conductor

Substation:

(a) Extension at Biharsharif (PG) Sub-station

- 400/220 kV, 500 MVA ICT alongwith associated bays

(b) Extension at Biharsharif (BSPTCL) Sub-station

- 220 kV ICT bay [along with 220 kV interconnecting line from this bay to 220 kV bushing of ICT installed at Biharshariff (POWERGRID) Sub-station

(c) Extension at Maithon Sub-station

- 400/220kV, 500 MVA ICT along with associated bays

(d) Extension at Banka Sub-station

- 400/220kV, 315 MVA ICT along with associated bays

(e) Extension at Lakhisarai Sub-station

- 400/220kV, 315 MVA ICT along with associated bays

(f) Extension at Rangpo Sub-station

- 220/132kV, 100 MVA ICT along with associated bays
- Modification of 400kV bay equipment of Rangpo – New Siliguri 400kV D/C line

(g) Extension at New Siliguri 400/220kV Sub-station

- Modification of 400kV bay equipment of Rangpo – New Siliguri 400kV D/C line

(h) Extension at Malda Sub-station

- Replacement of 220/132 kV, 1X50 MVA ICT with 220/132 kV, 160 MVA ICT along with suitable modification of bay equipment

(i) Extension at Subhasgram Sub-station

- 420 kV, 125 MVAR Bus Reactor along with associated bay

(j) Extension at Ranchi (New) 765/400kV Sub-station

- 765 kV, 80 MVAR (Single Phase) spare Reactor Unit

(k) Extension at New Purnea 400/220kV Sub-station

- Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj – New Purnea 400kV D/C line to switchable line Reactor.
- Modification of 220kV bay equipment of New Purnea – Purnea 220kV D/C line.

(l) Extension at Purnea 220/132 kV Sub-station

- Modification of 220kV bay equipment of New Purnea – Purnea 220kV D/C line

- d. As per the IA dated 27.11.2017, the transmission assets were scheduled to be commissioned within 30 months from the date of IA, i.e., by 1.5.2020. The details of the transmission assets including scheduled commercial operation

date (SCOD), date of commercial operation (COD), and time overrun, are as follows:

Assets	SCOD	COD	Time over-run
Asset-I	1.5.2020	6.9.2019	NIL
Asset-II	1.5.2020	1.10.2019	NIL
Asset-III	1.5.2020	21.12.2019	NIL
Asset-IV	1.5.2020	31.12.2019	NIL
Asset-V	1.5.2020	1.1.2020	NIL
Asset-VI	1.5.2020	13.1.2020	NIL
Asset-VII	1.5.2020	19.2.2020	NIL
Asset-VIII	1.5.2020	31.7.2020	92 days
Asset-IX	1.5.2020	31.3.2021	335 days
Asset-X	1.5.2020	2.4.2021	337 days
Asset-XI	1.5.2020	19.2.2022	660 days

4. The Petitioner has submitted the following regarding Assets-II, III, VII, and IX:

- a. **Asset-II:** Replacement of 220/132 kV, 1X50 MVA ICT with 220/132 kV 160 MVA ICT along with suitable modification of bay equipment at Malda Substation. (COD: 1.10.2019).

With regards to Asset-II, the Petitioner has submitted that it is a replacement of an already existing 50 MVA ICT with the new 160 MVA ICT at the Malda Sub-station. The details are as follows:

Sl. No.	Particulars	
i	Substation	400/200/132 kV Malda in ER (also includes suitable bay modification)
ii	Original Asset	50 MVA ICT alongwith associated bays (220 kV and 132 kV)
iii	COD of Original Asset	1.9.1995
iv	Project of Original Asset	Auto Transformer at Malda in Eastern Region
v	Current Petition no. of Original Project	311/TT/2019 (Truing up for period 2014-19 and transmission tariff for period 2019-24).
vi	Date of replacement of Original asset (50 MVA) with new asset (160 MVA)	30.9.2019 (one day prior to COD of replacement; in line with relevant provision of the 2019 Tariff Regulations)
vii	Date of COD of New 160 MVA ICT	1.10.2019

- b. **Asset-III:** Re-conductoring of 220 kV D/C New Purnea-Purnea Ckt.-I and Ckt.-II transmission line along with modification of 220kV bays equipment's at New Purnea & Purnea Substations. (COD: 21.12.2019)

{Existing conductor of line re-conducted with single HTLS conductor}

The details are as follows:

Sl. No.	Particulars	
i	Transmission line	220 kV D/C New Purnea – Purnea
ii	Original Asset	D/C line of 220 kV New Purnea - Purnea
iii	COD of Original Asset	1.11.2003
iv	Project of Original Asset	LILO of 400 kV D/C Bonaigaon- Malda line at Purnea and Substation at Purnea (New) in Eastern Region
v	Current Petition no. of Original Project	207/TT/2020 (Truing up for period 2014-19 and transmission tariff for period 2019-24).
vi	Date of replacement of Original conductor and New Siliguri's bay equipment	20.12.2019 (one day prior to COD of replacement; in line with relevant provision of the 2019 Tariff Regulations)
vii	Date of COD of New Asset	21.12.2019

The Petitioner has further submitted that the de-capitalization as per the provision of the relevant regulation(s) will be done separately in the original project against this asset.

- c. **Asset-VII:** Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj – New Purnea 400kV D/C line to Switchable Line Reactor (SLR). (COD: 19.2.2020).

The details are as follows:

Sl. No.	Particulars	
I	Substation	400/200kV New Purnea
ii	Original Asset	Fixed line Reactor at New Purnea for one circuit of 400kV D/C New Siliguri – New Purnea line.
iii	COD of Original Asset	1.7.2011
iv	Project of Original Asset	ERSS-II in Eastern Region
V	Current Petition no. of Original Project	327/TT/2019 (Truing up for period 2014-19 and transmission tariff for period 2019-24).
Vi	New Asset after Conversion	Switchable line Reactor at New Purnea for one ckt. of 400kV D/C Kishanganj – New Purnea line

Sl. No.	Particulars	
		<i>{Kishanganj – New Purnea formed after LILO of New Siliguri – New Purnea at Kishanganj}</i>
vii	Date of conversion of FLR to SLR is date of COD	19.2.2020

- d. **Asset-IX:** Re-conductoring of 400kV D/C Rangpo – New Siliguri transmission line along with modification of 400kV bay equipments at New Siliguri Substations. (COD: 31.3.2021)

{Existing Twin ACSR Moose line re-conducted with Twin HTLS conductor}

The details are as follows:

Sl. No.	Particulars	
i	Transmission line	400 kV D/C Rangpo – New Siliguri
ii	Sub-station	New Siliguri (Bay Modification)
	Original Asset	Instant Asset 400 kV D/C Rangpo – new Siliguri has been formed as follows: (i) Using portion of 400 kV D/C Teesta V – New Siliguri line (under project Teesta-V) (ii) Using Ckt.-II of 400 kV D/C Teesta V – New Siliguri line at Rangpo (under project Sikkim B)
iii	Original Asset (number-1)	<u>Twin ACSR Moose line of</u> 400kV D/C Teesta V – New Siliguri line
iv	COD of Original Asset (number-1)	1.2.2008 {Ckt.-I} & 1.6.2008 {Ckt.-II}
v	Project of Original Asset (number-1)	Teesta – V in Eastern Region
vi	Current Petition no. of Original Project (number-1)	465/TT/2020 (Truing up for period 2014-19 and transmission tariff for period 2019-24).
vii	Original Asset (number-2)	<u>Twin ACSR Moose line of</u> 400kV D/C Rangpo – New Siliguri <i>{Rangpo – New Siliguri formed after LILO of 400kV D/C Teesta-V – New Siliguri at Rangpo}</i>
viii	COD of Original Asset (number-2)	24.4.2014 {Ckt.-I} & 31.10.2014 {Ckt.-II}
ix	Project of Original Asset (number-2)	Sikkim Part-B in Eastern Region
x	Current Petition no. of Original Project (number-2)	382/TT/2020 (Truing up for period 2014-19 and transmission tariff for period 2019-24).
xi	Date of replacement of Original conductor and New Siliguri's bay equipment	30.3.2021

Sl. No.	Particulars	
		(one day prior to COD of replacement; in line with relevant provision of Regulations'2019)
xii	Date of COD of New Asset	31.3.2021

5. The Petitioner has further submitted that the de-capitalization as per the provision of the relevant regulation(s) will be done separately in the original project(s) against these transmission assets.

6. The Respondents are distribution licensees and power departments that are procuring transmission service from the Petitioner, mainly beneficiaries of the Eastern Region.

7. The Petitioner has served a copy of the petition on the Respondents, and notice regarding the filing of this Petition has also been published in newspapers in accordance with Section 64 of the Electricity Act, 2003. None of the Respondents has filed a reply to the Petition despite notice. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner.

8. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 25.5.2022 and Petitioner's affidavits dated 24.8.2022, 7.11.2022, 25.9.2023, 16.11.2023, and 10.1.2024.

9. The hearing in this matter was held on 16.7.2024, and the order was reserved.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

10. The Petitioner has claimed the following transmission charges in respect of the transmission assets for the 2019-24 tariff period:

Asset-I

(₹ in lakh)

Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	81.01	173.33	182.43	187.84	189.65
Interest on Loan	83.49	169.24	164.68	155.68	142.55
Return on Equity	86.45	184.97	194.68	200.45	202.38
O&M Expenses	133.02	242.50	251.00	260.07	268.71
Interest on Working Capital	9.57	18.53	19.12	19.55	19.75
Total	393.54	788.57	811.91	823.59	823.04

Asset-II

(₹ in lakh)

Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	24.54	64.22	68.80	68.80	68.80
Interest on Loan	24.63	61.34	60.91	55.60	50.26
Return on Equity	26.19	68.53	73.42	73.42	73.42
O&M Expenses	19.60	40.64	42.08	43.52	45.12
Interest on Working Capital	1.99	4.70	4.90	4.88	4.86
Total	96.95	239.43	250.11	246.22	242.46

Asset-III

(₹ in lakh)

Particulars	2019-20 (pro-rata 102 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	1.83	7.94	9.53	10.40	10.62
Interest on Loan	1.76	7.30	8.21	8.33	7.77
Return on Equity	1.95	8.48	10.18	11.10	11.33
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.08	0.36	0.42	0.45	0.45
Total	5.62	24.08	28.34	30.28	30.17

Asset-IV

(₹ in lakh)

Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	22.94	101.08	112.41	118.76	120.35
Interest on Loan	21.90	92.04	95.13	92.78	85.40
Return on Equity	23.82	105.08	117.02	123.79	125.48
O&M Expenses	40.47	166.79	172.64	178.86	184.84
Interest on Working Capital	2.80	11.77	12.43	12.86	13.04
Total	111.93	476.76	509.63	527.05	529.11



Asset-V

(₹ in lakh)

Particulars	2019-20 (pr-rata 91 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	30.45	136.42	153.86	164.22	166.53
Interest on Loan	27.18	116.74	122.99	121.39	111.43
Return on Equity	29.95	135.27	153.76	164.82	167.28
O&M Expenses	40.03	166.79	172.64	178.86	184.84
Interest on Working Capital	3.06	13.13	14.02	14.59	14.75
Total	130.67	568.35	617.27	643.88	644.83

Asset-VI

(₹ in lakh)

Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	8.98	46.67	51.13	51.92	51.92
Interest on Loan	8.78	43.62	44.40	41.34	37.47
Return on Equity	9.58	49.81	54.56	55.41	55.41
O&M Expenses	6.94	33.28	34.45	35.66	36.91
Interest on Working Capital	0.71	3.56	3.77	3.80	3.79
Total	34.99	176.94	188.31	188.13	185.50

Asset-VII

(₹ in lakh)

Particulars	2019-20 (pro-rata 42 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	0.42	5.01	6.39	6.84	6.99
Interest on Loan	0.41	4.76	5.70	5.65	5.28
Return on Equity	0.45	5.35	6.82	7.30	7.46
O&M Expenses	3.69	33.28	34.45	35.66	36.91
Interest on Working Capital	0.18	1.68	1.79	1.85	1.91
Total	5.15	50.08	55.15	57.30	58.55

Asset-VIII

(₹ in lakh)

Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
Depreciation	83.10	135.09	140.44	140.44
Interest on Loan	76.58	117.07	112.34	102.39
Return on Equity	89.28	145.22	150.92	150.92
O&M Expenses	161.84	250.57	259.62	268.25
Interest on Working Capital	10.09	15.78	16.24	16.43
Total	420.89	663.73	679.56	678.43

Asset-IX

(₹ in lakh)

Particulars	2020-21 (pro-rata 1 day)	2021-22	2022-23	2023-24
Depreciation	1.81	697.09	746.61	761.40
Interest on Loan	1.72	635.25	629.16	589.53
Return on Equity	1.94	743.47	796.29	812.07
O&M Expenses	0.00	0.82	0.82	0.82
Interest on Working Capital	0.08	29.23	30.58	30.37
Total	5.55	2105.86	2203.46	2194.19

Asset-X

(₹ in lakh)

Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
Depreciation	60.42	66.96	69.03
Interest on Loan	43.90	45.23	42.78
Return on Equity	61.57	68.49	70.67
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	2.17	2.37	2.39
Total	168.06	183.05	184.87

Asset-XI

(₹ in lakh)

Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
Depreciation	19.76	187.43	205.45
Interest on Loan	16.59	150.76	153.41
Return on Equity	21.09	200.02	219.25
O&M Expenses	6.20	57.15	59.21
Interest on Working Capital	0.99	9.23	9.80
Total	64.63	604.59	647.12

11. The Petitioner has claimed the following Interest on Working Capital (IWC) in respect of the transmission assets for the 2019-24 tariff period:

Asset-I

(₹ in lakh)

Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	19.51	20.21	20.92	21.67	22.39
Maintenance Spares	35.11	36.38	37.65	39.01	40.31
Receivables	85.14	97.22	100.10	101.54	101.19
Total Working Capital	139.76	153.81	158.67	162.22	163.89
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	9.57	18.53	19.12	19.55	19.75



Asset-II

(₹ in lakh)

Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	3.27	3.39	3.51	3.63	3.76
Maintenance Spares	5.88	6.10	6.31	6.53	6.77
Receivables	23.84	29.52	30.84	30.36	29.81
Total Working Capital	32.99	39.01	40.66	40.52	40.34
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1.99	4.70	4.90	4.88	4.86

Asset-III

(₹ in lakh)

Particulars	2019-20 (pro-rata 102 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	2.48	2.97	3.49	3.73	3.71
Total Working Capital	2.48	2.97	3.49	3.73	3.71
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	0.08	0.36	0.42	0.45	0.45

Asset-IV

(₹ in lakh)

Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	13.42	13.90	14.39	14.91	15.40
Maintenance Spares	24.15	25.02	25.90	26.83	27.73
Receivables	54.75	58.78	62.83	64.98	65.05
Total Working Capital	92.32	97.70	103.12	106.72	108.18
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	2.80	11.77	12.43	12.86	13.04

Asset-V

(₹ in lakh)

Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	13.42	13.90	14.39	14.91	15.40
Maintenance Spares	24.15	25.02	25.90	26.83	27.73
Receivables	64.62	70.07	76.10	79.38	79.28
Total Working Capital	102.19	108.99	116.39	121.12	122.41
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	3.06	13.13	14.02	14.59	14.75



Asset-VI

(₹ in lakh)

Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	2.68	2.77	2.87	2.97	3.08
Maintenance Spares	4.82	4.99	5.17	5.35	5.54
Receivables	19.93	21.82	23.22	23.19	22.81
Total Working Capital	27.43	29.58	31.26	31.51	31.43
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	0.71	3.56	3.77	3.80	3.79

Asset-VII

(₹ in lakh)

Particulars	2019-20 (pro-rata 42 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	2.68	2.77	2.87	2.97	3.08
Maintenance Spares	4.82	4.99	5.17	5.35	5.54
Receivables	5.52	6.17	6.80	7.06	7.20
Total Working Capital	13.02	13.93	14.84	15.38	15.82
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	0.18	1.68	1.79	1.85	1.91

Asset-VIII

(₹ in lakh)

Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
O&M Expenses	20.17	20.88	21.64	22.35
Maintenance Spares	36.31	37.59	38.94	40.24
Receivables	77.62	81.83	83.78	83.41
Total Working Capital	134.10	140.30	144.36	146.00
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	10.09	15.78	16.24	16.43

Asset-IX

(₹ in lakh)

Particulars	2020-21 (pro-rata 1 day)	2021-22	2022-23	2023-24
O&M Expenses	0.07	0.07	0.07	0.07
Maintenance Spares	0.12	0.12	0.12	0.12
Receivables	249.71	259.63	271.66	269.78
Total Working Capital	249.90	259.82	271.85	269.97
Rate of Interest (in %)	11.25	11.25	11.25	11.25
Interest on Working Capital	0.08	29.23	30.58	30.37

Asset-X

(₹ in lakh)

Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	20.78	22.57	22.73
Total Working Capital	20.78	22.57	22.73
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	2.17	2.37	2.39

Asset-XI

(₹ in lakh)

Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
O&M Expenses	4.60	4.76	4.93
Maintenance Spares	8.29	8.57	8.88
Receivables	70.94	74.54	79.56
Total Working Capital	83.83	87.87	93.37
Rate of Interest (in %)	10.50	10.50	10.50
Interest on Working Capital	0.99	9.23	9.80

Data of Commercial Operation ("COD")

12. The Petitioner has claimed the actual date of commercial operation in respect of the transmission assets as follows:

Assets	COD
Asset-I 400/220 kV 500 MVA ICT IV along with 400 kV Bay at Biharsharif (POWERGRID) Sub-station and 220 kV Bay at Biharsharif (BSPTCL) Substation along with 220 kV interconnecting line from Biharsharif (BSPTCL) Sub-station to 220 kV bushing of ICT installed at Biharsharif (POWERGRID) Sub-station	6.9.2019
Asset-II Replacement of 220/132 kV, 1X50 MVA ICT with 220/132 kV 160 MVA ICT along with suitable modification of bay equipment at Malda Substation	1.10.2019
Asset-III Reconductoring of 220 kV D/C New Purnea-Purnea Ckt.-I and Ckt.-II transmission line along with modification of 220 kV bays equipments at New Purnea & Purnea Sub-stations	21.12.2019
Asset-IV 400/132 kV, 315 MVA ICT III along with associated bays at Lakhisarai Sub-station	31.12.2019
Asset-V	1.1.2020

Assets	COD
400/132 kV, 315 MVA ICT III along with associated bays at Banka Sub-station	
Asset-VI 420 KV, 1X125 MVAR Bus Reactor along with associated bay at Subhasgram Sub-station	13.1.2020
Asset-VII Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj-New Purnea 400 kV D/C line to Switchable Line Reactor (SLR)	19.2.2020
Asset-VIII 400/132 kV, 500 MVA ICT along with associated bays at Maithon Sub-station	31.7.2020
Asset-IX Reconductoring of 400 kV D/C Rangpo-New Siliguri transmission line along with modification of 400 kV bays equipment at New Siliguri Substations	31.3.2021
Asset-X 765 kV, 80 MVAR (single phase) Spare Reactor Unit at New Ranchi Sub-station	2.4.2021
Asset-XI 220/132 kV, 100 MVA ICT along with associated bays at Rangpo GIS Sub-station	19.2.2022

13. Regulation 5 of the 2019 Tariff Regulations provides as follows:

“5. Date of Commercial Operation: (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- (a) *Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- (b) *Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- (c) *Implementation Agreement, if any, executed by the parties;*

- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;
- (e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.”

14. The Petitioner has submitted the following documents in support of COD of the transmission assets covered under the instant petition:

Asset	COD	Document Submitted
Asset-I	6.9.2019	CEA Approval of Energization dated 30.8.2019, Certificate of completion of Trial Operation of Transmission Element dated 10.10.2019, CMD certificate and COD letter dated 15.10.2019
Asset-II	1.10.2019	CEA Approval of Energization dated 27.9.2019, Certificate of completion of Trial Operation of Transmission Element dated 23.10.2019, CMD certificate and COD letter dated 30.10.2019
Asset-III	21.12.2019	CEA Approval of Energization dated 19.12.2019, Certificate of completion of Trial Operation of Transmission Element dated 6.4.2022 and COD letter dated 7.1.2020
Asset-IV	31.12.2019	CEA Approval of Energization dated 27.12.2019, Certificate of completion of Trial Operation of Transmission Element dated 14.1.2020, CMD certificate and COD letter dated 7.1.2020
Asset-V	1.1.2020	CEA Approval of Energization dated 27.12.2019, Certificate of completion of Trial Operation of Transmission Element dated 14.1.2020, CMD certificate and COD letter dated 7.1.2020
Asset-VI	13.1.2020	CEA Approval of Energization dated 24.1.2020 Certificate of completion of Trial Operation of Transmission Element dated 7.2.2020, CMD certificate and COD letter dated 30.3.2020
Asset-VII	19.2.2020	CEA Approval of Energization dated 10.2.2020, Certificate of completion of Trial Operation of Transmission Element dated 15.5.2020, CMD certificate and COD letter dated 18.3.2020
Asset-VIII	31.7.2020	CEA Approval of Energization dated 1.7.2020, Certificate of completion of Trial Operation of Transmission Element dated 2.9.2020, CMD certificate and COD letter dated 10.9.2020
Asset-IX	31.3.2021	CEA Approval of Energization dated 24.3.2021, Certificate of completion of Trial Operation of Transmission Element dated 24.1.2022, and COD letter dated 5.4.2021
Asset-X	2.4.2021	CEA Approval of Energization dated 15.2.2021, CMD certificate, and COD letter dated 12.4.2021
Asset-XI	19.2.2022	CEA Approval of Energization dated 12.3.2021, Certificate of completion of Trial Operation of Transmission Element dated 5.4.2022 and CMD certificate COD letter dated 22.2.2022

15. We have considered the submissions made by the Petitioner.

16. In case of Asset-III, the Petitioner has submitted that Re-conductoring of 220 kV D/C New Purnea-Purnea Ckt.-I and Ckt.-II transmission line along with modification of 220 kV bay equipments at New Purnea and Purnea Substations, and in the case of Asset-IX, the Petitioner has carried out Re-conductoring of the 400 kV D/C Rangpo-New Siliguri transmission line along with modification of 400 kV bay equipment at New Siliguri Substation.

17. First, we will be dealing with Asset-III.

18. We are of the view that in the case of Assets III, the Petitioner has carried out the stringing of new conductors on existing towers using the same RoW. As per the scope of work mentioned in the Investment Approval, the petitioner has mentioned the replacement of terminal end equipment at both the substations, i.e., New Purnea and Purnea. Based on the auditor certificate and Form-5 , it is noted that the petitioner has not claimed any expenditure towards terminal end equipments at New Purnea and Purnea Substations. .

19. In case of Asset-III, the Petitioner has replaced the conductors of Purnea-Purnea (New) 220 kV D/C line of POWERGRID with HTLS conductor and claimed COD of the ckt-1 and ckt-2 as 21.12.2019. The details of the existing Purnea-Purnea (New) 220 kV D/C transmission line and tariff approval details of the same is as follows:

Name of the transmission line	COD of the transmission asset considered	Petition No. under which tariff is approved.
220 kV Purnea-Purnea (New) D/C transmission line	1.11.2003	Vide order dated 21.09.2021 in Petition No. 207/TT/2020 has trued-up tariff for 2014-19 and granted tariff for 2019-24 tariff Period.

20. As per the Petitioner's submissions, it is observed that for Asset-III, the Petitioner initially commissioned the 220 kV Purnea-Purnea (New) D/C transmission line in the year 2003, and re-conductoring work has been completed on 21.12.2019. The existing

220 kV Purnea-Purnea (New) D/C transmission line has completed its useful life of 16 years as on 21.12.2019.

21. Regulation 3(73) of the 2019 Tariff Regulations defines useful life in relation to transmission lines as 35 years. The towers installed in both transmission assets have not completed their useful life, and only their conductor have been replaced under the re-conductoring scheme. We observe that the transmission assets covered in the instant Petition are not new transmission assets. Instead, they are re-conductoring and upgrading the already existing transmission assets, which are expenses in the nature of additional capitalization in the transmission assets, for which the tariff has already been approved.

22. The Petitioner is, accordingly, directed to claim the capital cost [under additional capital expenditure (ACE)] in respect of Asset-III incurred towards the re-conductoring of 220 kV Purnea-Purnea (New) D/C transmission line under the Transmission System, namely LILO of 400 kV D/C Bonaigaon- Malda Transmission Line at Purnea and Sub-station at Purnea (New) in Eastern Region in Petition No. 207/TT/2020 at the time of truing up during 2019-24 tariff period and determination of transmission tariff for 2024-29 tariff period. Accordingly, we are not inclined to grant a tariff for Asset-III in the instant petition.

Asset-VII:

23. Similarly, in respect of Asset-VII, i.e., Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj-New Purnea 400 kV D/C line to Switchable Line Reactor (SLR), the Petitioner has commissioned the fixed line Reactor at new Purnea end of one ckt. New Siliguri-New Purnea 400 kV D/C (quad) line on 1.7.2011, and the present scope of the work is only modification of the existing fixed Reactor, which has completed about only 9 years of useful life as on 19.02.2020. Since

the scope of work is modification of an existing transmission asset, we are of the view that the expenses incurred towards the fixed line Reactor into switchable line Reactor are in the nature of Additional Capitalization. Therefore, the Petitioner is directed to claim the capital cost [conversion under additional capital expenditure (ACE)] incurred on Asset-VII under Transmission System in Petition No. 327/TT/2019, i.e., “ERSS-II in Eastern Region Project” while filing true-up of tariff for the 2019-24 and determination of tariff for the 2024-29 tariff period. Accordingly, we are not inclined to grant a tariff for Asset-VII in the instant tariff Petition.

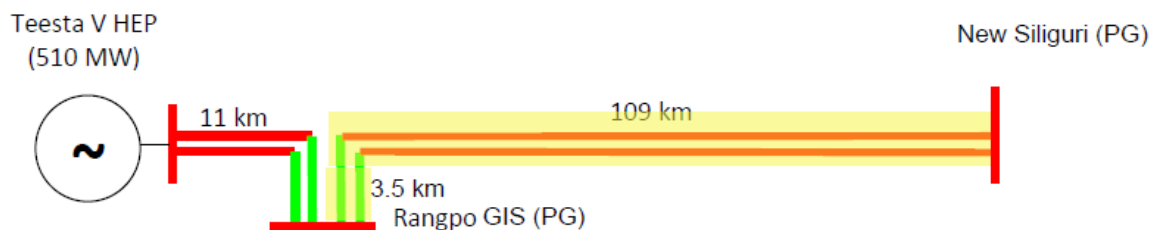
Asset-IX:

24. The Petitioner has carried out the stringing of new conductors on existing towers using the same RoW. In the case of Asset-IX, the Petitioner has carried out the replacement of the terminal bay equipment with high-rating equipment at the New Siliguri substation. As per Form-5, it is noted that the petitioner has claimed an amount of Rs. 934.82 lakhs towards substation equipment. As per the auditor certificate dated 4.08.2021, the petitioner has submitted that an amount of Rs. 1038.59 lakhs has been incurred towards the substation.

25. In case of Asset-IX, the Petitioner initially commissioned the 400 kV D/C Teesta-V-New Siliguri transmission line, which is part of the Transmission System associated with Teesta (Stage-V) HEP in the Eastern Region. The Petitioner has made LILO of the existing 400 kV D/C Teesta-V-New Siliguri transmission line at Rangpo Substation and claimed the tariff for LILO of the existing 400 kV D/C Teesta-V-New Siliguri transmission line under Sikkim Part B in Eastern Region. As such, the Asset -IX is partly covered under the Teesta-V HEP Transmission System in the Eastern Region and partly under Sikkim Part-B Scheme in the Eastern Region is as follows:

Name of the transmission line	COD of the transmission assets considered	Petition No under which tariff is approved.
Transmission System associated with Teesta (Stage-V) HEP in Eastern Region: Combined Asset of Ckt-I and Ckt-II of 400 kV Teesta (Stage-V) Siliguri Transmission Line;	1.02.2008 (Ckt. I) & 1.06.2008 (Ckt-II)	The Commission Vide order dated 16.6.2021 in Petition No. 465/TT/2020 has trued-up tariff for 2014-19 and granted tariff for 2019-24 tariff Period.
Transfer of Power from Generation Projects in Sikkim to NR / WR Part-B" in Eastern Region: LILO of 400 kV D/C Teesta V- Siliguri Line (Ckt-I) at Rangpo and associated bays (Asset-2) LILO of 400 kV D/C Teesta V-Siliguri line (Ckt-II) at Rangpo and associated bays at Rangpo Sub-station	1.12.2014((Ckt. I) & 31.10.2014 ((Ckt-II)	The Commission Vide order dated 14.11.2023 in Petition No. 382/TT/2020 has trued-up tariff for 2014-19 and granted tariff for 2019-24 tariff Period.

The single line diagram of the same is as follows:



(The Petitioner in the instant tariff petition has claimed a tariff for re-conductoring of the 400 kV D/C Rangpo-New Siliguri (yellow portion of the above-mentioned diagram). It is noted that the Petitioner in the case of Asset-IX has replaced only conductors of 400 kV D/C Rangpo-New Siliguri transmission line with HTLS conductors and terminal end equipments at New Siliguri and claimed COD as 31.3.2021.)

26. Regulation 3(73) of the 2019 Tariff Regulations defines useful life in relation to transmission lines as 35 years. The towers installed in both transmission assets have not completed their useful life, and only their conductor and associated bay equipment have been replaced under the re-conductoring scheme. Regulation 3(73) of the 2019 Tariff Regulations defines the useful life of transmission lines as 35 years. The towers

installed in both transmission assets have not yet completed their useful life; only the conductors and associated bay equipment have been replaced under the re-conductoring scheme. In the case of the re-conductoring of the Rangpo–New Siliguri transmission line, we observe that the petitioner has incurred an expenditure of ₹13,332.59 lakhs towards the transmission line and ₹1,038.59 lakhs towards the substation.

27. We observe that the transmission assets covered in the instant Petition are not new transmission assets. Instead, they are re-conductoring and upgrading the already existing transmission assets, which are expenses in the nature of additional capitalization in the transmission assets, for which the tariff has already been approved.

28. Accordingly, in respect of Asset-IX, i.e., 400 kV D/C Rangpo-New Siliguri transmission line, the Petitioner is directed to claim the capital cost [under additional capital expenditure (ACE)] in Petition No. 465/TT/2020, i.e., Transmission System associated with Teesta (Stage-V) HEP in Eastern Region, while filing true-up of transmission tariff for 2019-24 and determination of tariff for 2024-29 tariff period. Accordingly, we are not inclined to grant a tariff for Asset-IX in the instant petition.

29. In view of the above discussions, we are not inclined to grant a tariff for Assets-III, VII, and Asset-IX and the same is as follows:

Asset Name	Direction of the Commission
Asset-III Reconductoring of 220 kV D/C New Purnea- Purnea Ckt.-I and Ckt.-II transmission line along with modification of 220 kV bays equipment at New Purnea & Purnea Sub-stations	The Petitioner is directed to claim as ACE under Petition No. 207/TT/2020 while filing true-up of tariff for the 2019-24 Tariff Period.
Asset-VII Conversion of 63 MVAR fixed line Reactor at New Purnea end of one circuit of Kishanganj-New Purnea 400 kV D/C line to Switchable Line Reactor (SLR)	The Petitioner is directed to claim as ACE under Petition No. 327/TT/2019 while filing true-up of tariff for 2019-24 Tariff Period.
Asset-IX Reconductoring of 400 kV D/C Rangpo-New Siliguri transmission line along with modification of 400 kV bay equipment at New Siliguri Substations	The Petitioner is directed to claim as ACE under Petition No. The Petitioner is directed to claim as ACE under Petition No. 465/TT/2020 while filing true-up of tariff for the 2019-24 Tariff Period.

30. Taking into consideration the self-declaration of the COD letter, the CEA Energisation Certificate, the Certificate of Completion of trial operation, and the Petitioner's CMD Certificate, the COD approved for the transmission assets is considered for the purpose of transmission charges of the 2019-24 tariff period as follows:

Asset	Asset Description	COD
Asset-I	400/220 kV 500 MVA ICT IV along with 400kV Bay at Biharsharif (POWERGRID) Substation and 220kV Bay at Biharsharif (BSPTCL) Substation along with 220 kV interconnecting line from Biharsharif (BSPTCL) Substation to 220 kV bushing of ICT installed at Biharsharif (POWERGRID) Substation.	6.9.2019
Asset-II	Replacement of 220/132 kV, 1X50 MVA ICT with 220/132 kV 160 MVA ICT along with suitable modification of bay equipment at Malda Substation.	1.10.2019
Asset-IV	400/132 kV, 315 MVA ICT III along with associated bays at Lakhisarai Substation.	31.12.2019
Asset-V	400/132 kV, 315 MVA ICT III along with associated bays at Banka Substation.	1.1.2020
Asset-VI	420 kV, 1X125 MVAR Bus Reactor along with associated bay at Susbhasgram Substation.	13.1.2020
Asset-VIII	400/132 kV, 500 MVA ICT along with associated bays at Maithon Substation.	31.7.2020
Asset-X	765 kV, 80 MVAR (single phase) Spare Reactor Unit at New Ranchi Substation.	2.4.2021
Asset-XI	220/132 kV, 100 MVA ICT along with associated bays at Rangpo GIS Substation.	19.2.2022

Capital Cost

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*

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

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

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

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

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



(DDUGJY) project in the affected area.

- (5) The following shall be excluded from the capital cost of the existing and new projects:
- The assets forming part of the project, but not in use, as declared in the tariff petition;
 - De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

- 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;
- Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and
- 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.”

32. The Petitioner vide Auditor's Certificates dated 31.10.2019, 16.1.2020, 10.2.2020, 20.2.2020, 24.5.2020, 15.6.2020, 15.10.2020, 4.8.2021, 31.8.2021 and 23.3.2022 for Assets-I, II, III, IV, V, VI, VII, VIII, IX, X, and XI respectively has claimed capital cost incurred as on COD and Additional Capital Expenditure (ACE) projected to be incurred in respect of the transmission asset and the same are as follows:

(₹ in lakh)

Assets	Apportioned Approved Cost (As per FR)	Expenditure up to COD	Projected ACE					Estimated completion cost
			2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-I	3772.19	2224.21	957.30	205.14	136.75	68.38	0.00	3591.78
Asset- II	1574.97	733.10	400.00	170.00			0.00	1303.10
Asset-III	167.16	118.83	16.47	32.95	24.71	8.24	0.00	201.20
Asset-IV	2079.56	1650.96	120.23	215.36	180.35	60.12	0.00	2227.02
Asset- V	2719.00	2096.24	174.51	305.40	305.40	87.26	0.00	2968.80
Asset- VI	1352.66	776.88	53.08	123.40	30.00	0.00	0.00	983.36
Asset- VII	293.67	64.98	10.69	39.68	11.34	5.67	0.00	132.36
Asset- VIII	3090.99	2275.99		202.58	200.00	0.00	0.00	2678.57
Asset- IX	17371.00	12880.95			971.27	560.00	0.00	14412.22
Asset- X	380.75	1001.84			187.85	51.62	25.81	1267.12
Asset- XI	2563.94	3342.52			48.59	350.00	300.00	4041.11
Total	35365.89	27166.50	1732.28	1294.51	2096.26	1122.91	325.81	33806.64

33. The capital cost claimed vis-à-vis the approved RCE cost is as follows:



Assets	Apportioned Approved Cost (As per FR)	Apportioned approved cost (as per RCE)	Expenditure up to COD	Projected ACE					Estimated completion cost
				2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-I	3772.19	3602.24	2224.21	957.30	205.14	136.75	68.38	0.00	3591.78
Asset- II	1574.97	1357.18	733.10	400.00	170.00			0.00	1303.10
Asset-III	167.16	204.70	118.83	16.47	32.95	24.71	8.24	0.00	201.20
Asset-IV	2079.56	2306.18	1650.96	120.23	215.36	180.35	60.12	0.00	2227.02
Asset- V	2719.00	3195.98	2096.24	174.51	305.40	305.40	87.26	0.00	2968.80
Asset- VI	1352.66	1030.36	776.88	53.08	123.40	30.00	0.00	0.00	983.36
Asset- VII	293.67	157.12	64.98	10.69	39.68	11.34	5.67	0.00	132.36
Asset- VIII	3090.99	2891.09	2275.99		202.58	200.00	0.00	0.00	2678.57
Asset- IX	17371.0	14648.91	12880.95			971.27	560.00	0.00	14412.22
Asset- X	380.75	1349.13	1001.84			187.85	51.62	25.81	1267.12
Asset- XI	2563.94	4046.11	3342.52			48.59	350.00	300.0	4041.11
Total	35365.89	34789.00	27166.50	1732.28	1294.51	2096.26	1122.91	325.81	33806.64

Cost Over-run

34. The Petitioner has submitted that the total apportioned approved cost as per the FR is ₹35365.89 lakh. The total apportioned cost as per the RCE is ₹34789.00 lakh and the estimated completion cost is ₹33806.64 lakh. Thus, there is no cost over-run with regard to the instant transmission project.

35. The Petitioner has further submitted that on an individual asset/ element basis, there is no cost over-run of FR apportioned cost as compared to the estimated completion cost for Asset-I, Asset-II, Asset-VI, Asset-VII, Asset-VIII, and Asset-IX. However, there is cost overrun in Asset-III, Asset-IV, Asset-V, Asset-X, and Asset-XI on same aspect.

36. The Petitioner, vide affidavit dated 7.11.2022, has submitted that there is no cost over-run of the estimated completion cost as compared to the cost approved in the RCE for any of the assets.

37. The Petitioner has submitted the details of cost variation with respect to Asset-I, Asset-II, Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII, Asset-IX, Asset-X, and Asset-XI as follows:

Reasons for Cost Variation

Comparison of Revised Cost Estimates with the approved cost

The comparison of RCE cost of ₹34789 lakh is carried out against the approved cost of ₹35883 lakh. The details of the comparison are summarized as follows:

Sr. No.	Variation on account of:	Variation	
		(₹ in lakh)	(In %)
(i)	Price Variation		
a	DPR to LOA for approved scope (on competitive bidding while awarding)	1840	5.13
b	Provision presently kept as per contract price variation clause by Regions.	990	2.76
	Sub-Total (PV)	2830	7.89
(ii)	Variation in quantities of approved Items	1115	3.11
(iii)	Addition of Item	464	1.29
(iv)	Compensation for Transmission lines	(-) 3182	(-) 8.87
	Sub-Total (i to iv)	1227	3.42
(v)	Other Reasons (IEDC and IDC)		
A	IEDC (incl. Contingencies)	(-) 1597	(-) 4.45
b	IDC	(-) 724	(-) 2.02
	Sub- Total (IEDC & IDC)	(-) 2321	(-) 6.47
	Grand Total	(-) 1094	(-) 3.05

Reasons for variation in Cost Estimate:

It may be seen from the above table that there is a variation of (-) ₹1094 lakh (i.e. (-) 3.05 %) from the approved cost of ₹35883 lakh.

The head-wise variation in cost is explained as follows:

Price Variation (PV) (Increase of ₹2830 lakh: 7.89 %)

There has been an increase in the cost of the project by ₹2830 lakh on this account, which works out to 7.89% of the approved cost as per details given as follows:

The Petitioner submitted that an amount of ₹1840 lakh has been incurred from the time of Investment approval of project till award of various contracts (DPR to LOA) for approved scope based on prices received as per transparent competitive bidding and further price variation amount of ₹990 lakh is kept in line with contract price variation clause.

With regard to PV from DPR to LOA, the Petitioner has submitted that the Contracts for all packages under this project were awarded only after approval of Competent Authority as per Detailed Operation Procedure (DoP) to the lowest evaluated and responsive bidder, on the basis of Competitive Bidding by the Petitioner Company.

Further, it may be submitted that a provision of ₹990 lakh towards price variation clause as per contract is kept in RCE under the head of price variation by Region.

Variation in quantity of approved items (Net Increase of ₹1115 lakh: 3.11 %)

In the subject RCE, quantities of various Substation and transmission line equipment and civil works have been considered as per actual site requirement and latest amendments.

With respect to Substation, there has been an addition of circuit breakers, increase in quantities of control and relay panels, structures, testing equipment, changes in various quantities of civil works like PCC, reinforcement steel, and excavation, etc. w.r.t. DPR envisaged quantities, and also there is a decrease in quantities of GIS Bus Duct, etc. resulting in net increase in cost of project by ₹528 lakh.

With respect to transmission line, there has been an addition of hot line stringing works, increase in quantities of conductors, insulators, changes in various quantities of civil works and also there is a decrease in quantities of hardware fittings and conductor accessories as per actual site requirement resulting in overall net increase in project cost by ₹130 lakh.

Further, there is an increase in project cost by ₹457 lakh due to an increase in the cost of infrastructure works. In the DPR, there was a provision of ₹200 lakh (₹20 lakhs for each Substation) for miscellaneous infrastructure works. In the RCE, an amount of ₹657 lakh has been provisioned by the site as per actual requirement

against miscellaneous works such as site levelling, boundary wall, internal roads, Maintenance, T&P-cum-Fitter Room for proper and safe storage, fencing, etc.

Addition of Item (Net increase of ₹464 lakh: 1.29%)

There is an increase in project cost by ₹464 lakh due to the addition of cost pertaining to 80 MVAR, 765 kV 1-phase shunt Reactor at Ranchi (Bero), which has been supplied as owner-supplied material (OSM).

Compensation for Transmission Lines (Net decrease of ₹3182 lakh:(-) 8.87 %)

Based on the approved DPR cost, there was a provision of ₹3319 lakh under this head. However, based on the actual expenditure incurred and the balance anticipated expenditure, an amount of ₹137 lakh is incurred/likely to be incurred under the head, resulting in a decrease of ₹3182 lakh in the cost of the project.

Variation in IDC/IEDC (Net decrease of ₹2321 lakh: (-) 6.47%)

Total IDC and IEDC under the project have decreased by ₹2321 lakh in comparison to the approved cost, which works out to (-) 6.47% as per the following break-up:

Decrease in IEDC

As per the investment approval, the IEDC, including contingencies for the project, was estimated at ₹ 4020 lakh on total DCO cost (i.e., IEDC @10.75% & contingency @3% on total DCO cost), whereas in the RCE, it has been considered as per actual expenditure, which works out to ₹2423 lakh, resulting in an overall decrease of ₹1597 lakh.

Decrease in IDC

Interest During Construction (IDC) for the project as per the Investment Approval was estimated as ₹2207 lakh, whereas based on actual funds flow, the IDC for the project in the RCE works out to ₹1483 lakh. Thus, there is a decrease of ₹724 lakh in IDC.

38. In response to RoP for the hearing dated 30.10.2023, the Petitioner vide affidavit dated 16.11.2023 has submitted the information with regard to Asset-V and Asset-XI and stated that there is a cost overrun vis-à-vis their individual FR apportioned costs. The reasons submitted for variation in the Asset-wise cost are as follows:

Asset-V (net increase of ₹259.80 lakhs):

PV: increase of ₹266.30 lakhs in ICT & associated switchgear

Foundation works: increase of ₹15.00 lakhs owing to variable site conditions

Asset-XI (net increase of ₹1477.17 lakhs):

PV: increase of ₹1456.08 lakhs in ICT & associated switchgear

Foundation works: increase of ₹98.22 lakhs owing to variable site conditions

39. The Petitioner has submitted that the cost variation was mainly due to actual site conditions, the awarded rate, and other associated factors which were beyond the control of the Petitioner.

40. Further, the Petitioner has submitted that the Revised Cost Estimate (RCE) for the subject project has also been submitted vide affidavit dated 7.11.2022, wherein detailed justification at the project level has also been provided for other transmission assets in case of cost overrun/ variation.

41. We have considered the submissions made by the Petitioner and find that there is a cost overrun in Asset-III, Asset-IV, Asset-V, Asset-X, and Asset-XI. However, as compared to the FR cost of ₹35365.89 lakh, the estimated completion cost of ₹33806.64 lakh is lower by ₹1559.25 lakh, including ACE as mentioned above, which is within the FR apportioned approved cost. Therefore, there is no cost overrun for the project as a whole.

42. The Petitioner has submitted that the capital cost varied due to variation in the quantity of approved items like circuit breakers, an increase in the quantities of control,

and relay panels, etc. It is observed that the Petitioner has not submitted asset-wise approved items vs actual items installed, and the reasons for the variation of Substation items. Therefore, the Petitioner is directed to submit the asset-wise details along with the variation between the awarded cost and completion cost at the time of true-up with valid justification at the time of truing up. It is noted that the petitioner has claimed the capital cost of ₹464 lakh due to the addition of cost pertaining to an 80 MVAR, 765 kV 1-phase shunt Reactor at Ranchi (Bero), which has been supplied as owner-supplied material (OSM). The petitioner is directed to clarify the reasons for claiming the same in the instant petition instead of claiming under self-insurance reserves at the time of truing-up.

43. It is further observed that the cost variation is primarily on account of variation in estimated prices and final competitive prices. The asset-wise completion cost is within the FR apportioned approved cost for Asset-I, Asset-II, Asset-VI, Asset-VII, Asset-VIII., and Asset-IX. The Petitioner has submitted an RCE vide affidavit dated 7.11.2022 for Asset-III, Asset-IV, Asset-V, Asset-X, and Asset-XI. Against the total RCE approved cost of ₹34789.00 lakh, the estimated completed cost of ₹33806.64 lakh is within the approved cost. Furthermore, there is no cost overrun with respect to any transmission asset in the instant project as well. Accordingly, the cost variation is allowed. However, as discussed above, Asset-III, Asset-VII, and Asset-IX have not been considered for tariff in this order

Time overrun

44. As per the IA dated 2.11.2017, the transmission project was scheduled to be commissioned within 30 months from the date of the IA which works out to be 1.5.2020. However, the details of the actual commissioning of the transmission assets are as follows:

Assets	SCOD	COD	Time over-run
Asset-I	1.5.2020	6.9.2019	NIL
Asset-II		1.10.2019	NIL
Asset-IV		31.12.2019	NIL
Asset-V		1.1.2020	NIL
Asset-VI		13.1.2020	NIL
Asset-VIII		31.7.2020	91 days
Asset-X		2.4.2021	336 days
Asset-XI		19.2.2022	659 days

45. There is no delay in the commissioning of Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, and Asset-VI. However, there is a delay in the commissioning of the Asset-VIII by 91 days, Asset-X by 336 days, and Asset-XI by 659 days.

46. The detailed reasons submitted by the Petitioner for time overrun in case of the transmission of Asset-VIII, Asset-X, and Asset-XI are as follows:

Asset-VIII:

Unseasonal Rainfall:

47. The unseasonal and unprecedented rainfall in and around Maithon (under Dhanbad District of Jharkhand) during the lean rainfall season of March-April-May 2020 led to the deferment of works associated with subject Asset-VIII.

48. The Petitioner has further submitted that this period of March-May is also defined as Pre-Monsoon Season by the Meteorological dept. witness large excess rainfall as compared to the Long Period Average (LPA) in the Maithon Area (Dhanbad). Cyclonic activity in the Bay of Bengal and the development of low pressure over areas of Jharkhand, Odisha, and West Bengal.

49. The Petitioner has further submitted that most of the works associated with ICT at Maithon were completed and only testing and commissioning (T&C) related activities were pending by February 2020. The T&C related activities were planned for the period March-April 2020, keeping in mind the lean or minimal rainfall pattern in and around Maithon during this pre-monsoon period.

50. The Petitioner has further submitted that unprecedented and continuous rainfall over these months affected the execution of completion of Testing and commissioning related works and compliances as the heavy rains/thunderstorm conditions not ideal for working in electrically charged switchyard of 400/220kV Maithon sub-station apart from issues related to hindrances caused by water logging, restricted movement of machinery, swift mobilisation/ re-mobilisation of man and material, etc.

51. The Petitioner has further submitted that the Commission, vide its order dated 29.4.2011, had approved the Model Transmission Service Agreement (Model TSA).

52. Clause 14.2.1 of the said Model TSA defines “force majeure” as follows:

“14.0 Force Majeure

.....

14.2.1 Natural Force Majeure Events (a) Act of God, including, but not limited to drought, fire and explosion (to the extent originating from a source external to the Site), earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred (100) years;”

53. The Petitioner has further submitted that, as per clause 14.2.1 of the Model TSA, exceptional adverse weather conditions which are in excess of the statistical measures for the last hundred (100) years can be considered as force majeure, and in such cases, any delays will not be attributable to the Petitioner.

54. The Petitioner has further submitted that in the month of March 2020, the total rainfall recorded was about 69 mm, which was 247% of normal rainfall. Similarly, the actual rainfalls during April-May 2020 were also above the normal pattern and were in excess. The same is also testified by the Yearly Weather Report 2020 for the State of Jharkhand issued by IMD, Meteorological Centre at Ranchi. There was excessive rainfall in the month of March 2020 in Jharkhand, with 76% excess in the District of Dhanbad (Maithon) when calculated cumulatively for the period of March-May 2020.

55. The Petitioner has submitted that works related to T&C were affected largely due to unprecedented rains during the lean rainfall period, due to unseasonal and

unprecedented rains as compared to the LPA of the region, which were unforeseen and uncontrollable on the part of the Petitioner. However, the Petitioner had put in their best efforts to bring back the project as close as possible to the scheduled timeline, only to run into Covid-19-related restrictions from March 2020 to July 2020.

COVID-19:

56. COVID-19 was identified by the WHO as a Global Pandemic and a force majeure event across all segments/ verticals of the global business/ industry. This situation, by definition, was of an unforeseen/unplanned nature. As such, the global business and production took a multiple-fold hit.

57. The projects undertaken by the Petitioner were no exception, facing a multitude of challenges as they navigate through largely uncharted territory with projects and supply lines experiencing highly unique and mounting risks leading to delays in execution from the effects of Covid-19.

Nationwide lockdown in India in various phases owing to the COVID-19 pandemic:

- Phase 1: 25 March 2020 – 14 April 2020 (21 days)
- Phase 2: 15 April 2020 – 3 May 2020 (19 days)
- Phase 3: 4 May 2020 – 17 May 2020 (14 days)
- Phase 4: 18 May 2020 – 31 May 2020 (14 days)

Unlock:

- Unlock 1.0: 01 June 2020 – 30 June 2020 (30 days)
- Unlock 2.0: 01 July 2020 – 31 July 2020 (31 days)
- Unlock 2.0: 01 August 2020 – 31 August 2020 (31 days)

The lockdown restricted people from stepping out of their homes across the country. All transport services—road, air, and rail—were suspended, with exceptions for transportation of essential goods, fire, police, and emergency services. Educational

institutions, industrial establishments, and hospitality services were also suspended. Services such as food shops, banks and ATMs, petrol pumps, other essentials, and their manufacturing were exempted. The Home Ministry stated that anyone who fails to follow the restrictions can face up to a year in jail. The Government (Centre & State) had locked down all the cities and restricted the movement from one place to another. The movement restriction affected the critical supply chain, transportation, worker/ labour absenteeism due to illness/quarantine/ migration, etc, which resulted in a complete halt of ongoing projects. The lockdown imposition was a voluntary step back of the construction workers, which was also unforeseen and unavoidable. The sites were either closed or access was largely restricted as a result of measures to contain the COVID-19 outbreak. The contractors thus were not able to carry out the works as a result of action by governments to prevent the spread of the outbreak. Specific Covid-19-related challenges: supplier-delivery issues, worker absenteeism due to illness, delayed issuance of permits, travel restrictions, and loss time or inefficiencies due to the need to practice social distancing on the job site are just a few of the issues that had scheduling consequences. Also, the lack of engineering and technical support and supply chain disruptions were the major factors impacting the project schedule and implementations. Thus, the commissioning of various projects, including the subject project, faced delays due to the squeezing of supply lines and construction activities. According to the Petitioner, when construction resumed, additional delays and inefficiencies further pushed back completion dates. The construction could not be started immediately. The biggest hurdle is that the supply chain has not been fully restored. Besides, considering the scenario that if anybody gets infected on the construction site after work has started, the area would be sealed and all related people will be quarantined for 14-28 days. Construction pace plummeted or came to a grinding halt. With the halting of various line construction activities, the work was at a standstill



for almost 4-5 months (i.e., from the end of March 2020 to July 2020) and gradually gathered speed in line with Government directives. The above-mentioned Force Majeure issues, which led to disruption in the global supply chain and project execution due to the outbreak of Covid-19 and imposition of consequential lockdown in India. Further, the Petitioner has submitted that the Ministry of Power (MoP), Government of India vide letter dated 27.7.2020 had provided an extension of 5 month with respect to SCOD for inter-state transmission project (under construction as on 25.3.2020 and SCOD not prior to 25.3.2020) owing to unforeseen circumstances forced by the Covid-19 pandemic.

Asset-X:

The detailed reasons submitted by the Petitioner for time overrun in the case of the transmission Asset-X are more or less similar to those submitted for Asset-VIII. Therefore, the same is not repeated here for the sake of brevity.

Asset-XI

In response to RoP for the hearing dated 30.10.2023, the Petitioner vide affidavit dated 16.11.2023 has submitted the information with regard to Asset-XI and submitted the reasons for delay in commissioning as follows:

Transportation Constraints

The Petitioner has submitted that 100 MVA ICT could be dispatched from its factory location (Vadodara) by September 2019 (27.9.2019) for transit towards its eventual location at Rangpo GIS Station. It is submitted that the ICT was ready for transit by July 2019; however, due to severe rainfall and landslides, the route in hilly areas in Sikkim was severely affected. Landslides, being a natural calamity, are a force majeure situation, and time was lost for the repair of the roads and bridges that fell on the route. Therefore, the dispatch of ICT was held up for this period of 3 months from July to September 2019. The Petitioner has further submitted that on the way to Rangpo GIS

from Siliguri, the route (NH-10) traverses through a few bridges over the river Teesta (and its distributaries) in the mountainous terrain in the State of Sikkim. On one such bridge, namely the Rangpo Check post (entry) Bridge (ICT reached this check post on 27.10.2019), a transportation issue occurred as there was a load restriction on the movement of cargo over this bridge, on account of which the 100 MVA ICT could not be transported beyond this point. The Petitioner has submitted that, as per the orders of the Rangpo Administration, the incessant rains had taken a severe toll and washed away additional support pillars and foundations. Thus, load restrictions were introduced as a safety precaution till the re-strengthening of the same. The Circular of Sikkim Govt.'s Rangpo Administration has been filed. Further, it is submitted that the route survey was carried out in 2018 and finalized by December 2018. However, the information in this circular restricting allowable load passage was passed on by the relevant administration in October 2019. Subsequently, as an alternate measure to overcome this hurdle, owing to time constraints, it was decided to build a temporary shallow bridge-cum-road over the river-bed to transport the ICT beyond this point. However, to construct this temporary passage over the river bed, another issue came up, i.e., high water level/ severe water current due to heavy rains and high hydro season. Thus, the matter could be taken up at ground level only after high hydro season had ceased, i.e., in the Winter Season (December 2019). After the construction/completion of this temporary road/passage/bridge, the ICT could move beyond this check post in the last week of December 2019 and eventually reach Rangpo GIS on 21.1.2020. Thus, considerable time from October 2019 to December 2019, i.e., 2 months, was lost in this force majeure situation.

Worldwide Covid-19 pandemic-Wave-01 (March 2020 – June 2020)

The reasons explained by the Petitioner for the delay in the execution of the Asset-XI are more-or-less similar to the reasons explained for the delay in the execution of Asset-VIII. Therefore, the same is not repeated here for the sake of brevity.

Delay due to Non-availability of requisite Shutdowns:

The Petitioner has submitted that when it approached the concerned authorities /forums for availing the requisite shutdowns, the requests were denied for a very long time owing to various system/ grid constraints. The transmission asset had to be commissioned in the existing 400/220/132 Rangpo GIS. Therefore, it was a necessity to obtain multiple shutdowns for terminal and pre-commissioning works. The following table shows shutdown applied and not-approved by the concerned authorities:

S. No.	S/D applied		S/D Approved		Remarks
1	April 2020	October 2020	Not approved	Not approved	(i) Due to High hydro period. (ii) Also, due to reconductoring works of Rangpo – Siliguri 400kV D/C line, so S/D could be given only upon return of this line to operation. <u>Period affected: 180 days</u>
2	3.12.2020	8.12.2020	Not approved	Not approved	No S/D Accorded By ERLDC for docking in 220KV Bus-1. <i>Later provided from 08.12.2020 to 10.12.2020</i> <u>Period affected: 5 days</u>
3	11.12.2020	16.12.2020	Not approved	Not approved	No S/D Provided By ERLDC for docking in 220KV Bus-2. <i>Later provided from 16.12.2020 to 18.12.2020</i> <u>Period affected: 6 days</u>
4	19.12.2020	23.12.2020	Not approved	Not approved	S/D of 132KV Bus-3 & 4 was not provided by ERLDC for the docking of the conductor in the 132KV site interface module. <i>Later provided from 24.12.2020 to 29.12.2020</i> <u>Period affected: 5 days</u>
5	8.1.2021	9.1.2021	Not approved	Not approved	Subject to consent from Sikkim & generators based on real-time grid conditions.

S. No.	S/D applied		S/D Approved		Remarks
					Maybe allowed only in the NIL generation period, so the power to Gangtok is not affected Reference 174th OCC <u>Period affected: 2 days</u>
6	24.1.2021	26.1.2021	Not approved	Not approved	S/D was not provided by ERLDC for 220KV Bus-1 & 2 for HV testing. <i>Later provided from 26.1.2021 to 28.1.2021</i> <u>Period affected: 3 days</u>
7	10.2.2021	24.2.2021	Not approved	Not approved	Not provided by ERLDC due to system constraints. Was required for S/D of 132KV Bus-1 & 2 (for connecting conductor in interface module, and 220KV Bus-1 & 2 <u>Period affected: 15 days</u>
8	13.6.2021	13.7.2021	Not approved	Not approved	S/D not provided by ERLDC from 13.6.2021 to 13.7.2021 for rectification of 220KV side bay-214 Bus earth switch. <i>Later provided from 14.7.2021 to 22.7.2021</i> <u>Period affected: 30 days</u>
9	1.7.2021	12.7.2021	Not approved	Not approved	High Hydro period. Subject to consent from Sikkim & generators based on real-time grid conditions. Reference 180 th OCC <u>Period affected: overlapping above</u>
10	24.7.2021	2.11.2021	Not approved	Not approved	High Hydro period. S/D not provided by ERLDC <u>Period affected: 100 days</u>
11	25.7.2021	26.7.2021	Not approved	Not approved	High Hydro period. Subject to consent from Sikkim & generators based on real-time grid conditions. Reference 180 th OCC <u>Period affected: overlapping above</u>
12	13.8.2021	14.8.2021	Not approved	Not approved	Deferred, to be availed after High Hydro period. Subject to consent from Sikkim & generators based on real time grid conditions. Reference 181 st OCC <u>Period affected: overlapping above</u>
	Applied after high hydro period				

S. No.	S/D applied		S/D Approved		Remarks
13	13.11.2021	13.11.2021	Not approved	Not approved	Subject to consent from Sikkim & generators based on real time grid conditions. Reference 184 th OCC Period affected: 1 days
14	17.12.2021	17.12.2021	Not approved	Not approved	Subject to consent from Sikkim based on real time grid conditions. Reference 185 th OCC Period affected: 1 days

Due to the above facts and circumstances, the commissioning of Asset-XI was delayed for about 348 days. Continuous shutdown on a regular basis was allowed from 18.12.2021 onwards, and eventually, the transmission asset was commissioned on 19.2.2022.

Cause(s) for Shutdown Denial:

The Petitioner has submitted that the shutdowns were denied because of various reasons that include high and peak hydro, monsoon season with heavy rains, and re-conductoring works of 400kV D/C Rangpo-Siliguri line, which is the Asset-IX of the instant petition. The Petitioner has further submitted that 400/220/132 KV Rangpo is one of the most important and critical substations of Eastern region-II. It is the gateway between all hydel generations of Sikkim to the rest of India. This Station has either direct or indirect connectivity with Teesta-III, Teesta-V, Rangit, Dikchu, Tashiding, JLHEP, Rangnachu, and Chuzachen. Total 5 nos. 400/220 KV 315 MVA (3*105MVA) ICT and four nos. 220/132KV 100MVA ICTs are present at Rangpo. During peak hydropower generation, all these ICTs are considerably loaded.

58. In response to RoP for the hearing dated 30.10.2023, the Petitioner vide affidavit dated 16.11.2023 has submitted the information with regard to the status of the project as on March 2020 as follows:

Asset-VIII	SCOD: 1.5.2020	COD: 31.7.2020
Activity	Work completed prior to Covid -19 pandemic (i.e., before March 2020)	Balance work affected due to the onset of Covid-19 (i.e., after March 2020)
LOA	completed	-
Supply	completed	-
Foundation & civil Works	completed	-
Erection	completed	-
Testing & Commissioning	Majorly completed	Balance of T&C works completed

**status are broadly indicative and not quantitative.*

Asset-X	SCOD: 1.5.2020	COD: 2.4.2021
Activity	Work completed prior to Covid -19 pandemic (i.e., before March 2020)	Balance work affected due to the onset of Covid-19 (i.e. after March 2020)
LOA	completed	-
Supply	completed	-
Foundation & Civil Works	Majorly completed	Balance was completed shortly afterwards
Erection	Works were in progress, minor portion completed	Balance the major portion completed afterwards
Testing & Commissioning	Pending	Completed in March 2021

**status are broadly indicative and not quantitative.*

Asset-XI	SCOD: 1.5.2020	COD: 19.2.2022
Activity	Work completed prior to Covid -19 pandemic (i.e. before Mar'2020)	Balance work affected due to the onset of Covid-19 (i.e., after Mar'2020)
LOA	completed	-
Supply	completed	-
Foundation & Civil Works	Works were in progress, minor portion completed	Balance the major portion completed afterwards
Erection	Works were in progress, minor portion completed	Balance the major portion completed afterwards
Testing & Commissioning	Pending	Completed in Feb 2022

**status are broadly indicative and not quantitative.*

59. Further, in response to RoP for the hearing dated 15.12.2023, the Petitioner vide affidavit dated 10.1.2024 has submitted reasons for delay in the commissioning of Asset-VIII, Asset-IX, Asset-X, and Asset-XI as follows:

Sr. No	Asset	SCOD	COD	Delay	Reason for the Delay	Documentary Evidence
1.	Asset-VIII: 400/132 kV, 500 MVA ICT alongwith	2.5.2020	31.7.2020	92 Days	- Unprecedented Rainfall - Covid-19 Related issues	Affidavit dated 16.11.2023



Sr. No	Asset	SCOD	COD	Delay	Reason for the Delay	Documentary Evidence
	associated bays at Maithon Substation.					as a Reply to RoP for hearing dated 30.10.2023
2.	Asset-X: 765 kV, 80 MVAR (single phase) Spare Reactor Unit at New Ranchi Substation.		2.4.2021	337 Days	Unprecedented Rainfall Covid-19 Related	
3.	Asset-XI: 200/132 kV, 100 MVA ICT along with associated bays at Rangpo GIS Substation.		19.2.2022	660 Days	- Unprecedented Rainfall and Transportation Constraints - Weak Bridges - Landslide - Covid-19 Related Issues - Non-availability due to Shutdown	

60. Further, the Petitioner has submitted substantiating judgments/orders in support of delay due to time overrun issues as follows:

a. Time overrun condoned due to unprecedented Rainfall:

- i. NTPC Tamil Nadu Energy Company Ltd. v. AP Transmission Corporation: 2016 SCC Online CERC 46.
- ii. NTPC Limited v. Madhya Pradesh Power Management Company Limited: 2015 SCC Online CERC 78.
- iii. NTPC Tamil Nadu Energy Company Ltd. v. Transmission Corporation of Andhra Pradesh Ltd.: 2017 SCC Online CERC 97.
- iv. Kanti Bijlee Utpadan Nigam Limited v. Bihar State Power Holding Company Ltd. and Ors.: 2019 SCC Online CERC 184.
- v. Power Grid Corporation of India Limited v. Assam Electricity Grid Corporation Limited and Ors.: 2023 SCC Online CERC 5.
- vi. NLC Tamil Nadu Power Limited v. Transmission Corporation of Andhra Pradesh: 2017 SCC Online CERC 91.

b. Time overrun condoned due to Covid-19:

- i. NTPC Limited v. Uttar Pradesh Power Corporation Limited: Petition No. 3/GT/2021.
- ii. Power Grid Corporation of India Limited v. Tamil Nadu Generation and Distribution Corporation Limited: 2022 SCC Online CERC 328.

c. Time Overrun condoned due to Shutdown Approval:



- i. Power Grid Corporation of India v. Bihar State Power (Holding) Company Limited and Ors.: 2023 SCC Online CERC 79.
 - ii. Power Grid Corporation of India v. Bihar State Power (Holding) Company Limited and Ors.: 2022 SCC Online CERC 416.
- d. Time Overrun condoned due to Weak Bridges and Landslides
- i. Teesta Urja Limited v. PTC India Limited and Ors.: 2020 SCC Online CERC 145.
 - ii. Power Grid Corporation of India Limited v. Assam Electricity Grid Corporation Limited and Ors.: 2018 SCC Online CERC 229.

Analysis and decision:

61. We have considered the submissions made by the Petitioner. We have also gone through the documentary evidence placed on record by the Petitioner to justify the time overrun. The transmission assets were scheduled to be commissioned within 30 months from the date of IA, i.e., 2.11.2017. Accordingly, the SCOD works out to 1.5.2020 against which Asset-I, Asset-II, Asset-IV, Asset-V, Asset-VI, Asset-VIII, Asset-X, and Asset-XI have been put to commercial operation on 6.9.2019, 1.10.2019, 31.12.2019, 1.1.2020, 13.1.2020, 31.7.2020, 2.4.2021, and 19.2.2022, respectively. Thus, there is no delay in the case of Asset-I, Asset-II, Asset-IV, Asset-V, and Asset-VI. However, there is a time overrun of 91 days, 336 days, and 659 days in respect of Asset-VIII, Asset-X, and Asset-XI, respectively.

62. The Petitioner has submitted that the time overrun in the case of all the transmission assets is due to COVID-19. The Petitioner has further submitted that in the case of Asset-VIII and Asset-X, it was due to unseasonal rainfall. Asset-XI got delayed due to the non-availability of the requisite shutdowns. Furthermore, Asset-XI was delayed due to problems in the transportation of the Asset to Rangpo and unprecedented rainfall during the lean season.

63. We have gone through the submissions made by the Petitioner in the instant petition and the information filed vide affidavits dated 16.11.2023 and 10.1.2024 in response to the RoPs for hearing dated 30.10.2023 and 15.12.2023, respectively.

64. With respect to Asset-VIII, Asset-X, and Asset-XI, the Petitioner has submitted that the Ministry of Power vide letter dated 27.7.2020 has provided an extension of 5 months in respect to SCOD for the inter-State transmission project (under construction as on 25.3.2020 and SCOD not prior to 25.3.2020) owing to unforeseen circumstances forced by the COVID-19 pandemic. The relevant portion of the letter dated 27.7.2020 is as follows:

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter-State transmission projects

Sir,

I am directed to state that transmission utilities have pointed out that construction activities at various transmission project sites have been severely affected by the nationwide lockdown measures announced since 25th march, 2020 to contain outbreak of COVID-19 and have requested for extension of Scheduled Commercial Operation (SCOD) to mitigate the issues of disruption in supply chains and manpower, caused due to outbreak of COVID19 pandemic.

2. It has been, therefore, decided that; i. All inter-state transmission projects, which were under construction as on date of lock-down i.e. 25th March 2020, shall get an extension of five months in respect of SCOD

ii. This order shall not apply to those projects, whose SCOD date was prior to 25th March 2020

iii. Start date of Long Term Access granted to a generator by CTU based on completion of a transmission line, whose SCOD is extended by 5 months due to COVID-19 as mentioned above at point(i), shall also be extended by 5 months.”

65. In the aforesaid letter, MoP, taking into account, the construction activities at the various transmission project sites having been severely affected by the nationwide lockdown measures announced since 25.3.2020 to contain the outbreak of Covid-19 and the request of the transmission utilities for extension of SCOD to mitigate the issues of disruption in supply chains and manpower caused due to outbreak of Covid-19, decided that all inter-State transmission projects which were under construction as on date of lockdown, i.e., 25.3.2020 shall get an extension of 5 months in respect of SCOD provided the SCOD of these projects was post 25.3.2020. It is also relevant to note that

the above letter of the MoP is in nature of generic order/blanket order applicable to all the transmission licensees whose projects fall under the criteria specified therein and as such does not require the individual licensee to substantiate/ make out its case for availing the dispensation provided under the said order. In the present case, the transmission project of the Petitioner was under construction stage as on the date of lockdown, i.e., 25.3.2020 and the SCOD of the transmission project was 1.5.2020, i.e., post 25.3.2020 and, therefore, the dispensation provided by the MoP vide its letter dated 27.7.2020 is applicable in the instant case. Accordingly, the SCOD of the transmission project is considered as of 1.10.2020.

66. As per the I.A., the SCOD of the transmission project is 1.5.2020. In terms of the above letter dated 27.7.2020, the revised SCOD of the transmission project is considered as 1.10.2020. However, there is a time overrun of 183 days and 506 days in declaring the commercial operation of the Asset-IX and Asset-XI, respectively, in terms of the revised SCOD.

Asset	SCOD as per IA	Revised SCOD as per MoP letter dated 27.7.2020	COD	Time Over-run as per Revised SCOD
Asset-I	1.5.2020	1.10.2020	6.9.2019	NIL
Asset-II			1.10.2019	NIL
Asset-IV			31.12.2019	NIL
Asset-V			1.1.2020	NIL
Asset-VI			13.1.2020	NIL
Asset-VIII			31.7.2020	NIL
Asset-X			2.4.2021	183 days
Asset-XI			19.2.2022	506 days

Asset-X:

67. With respect to Asset-X, the Petitioner has submitted the reasons for delay as unprecedented rainfall during the lean season in addition to COVID-19. The Petitioner has submitted that the time period from October 2019 to March 2020, i.e., about 5 months, is impacted on account of unprecedented rainfall during the lean period. As the COD of the Asset is revised to 1.10.2020, we examine the reasons given by the

Petitioner for the time overrun beyond the revised SCOD of 1.10.2020, as we do not find any reason to examine the time overrun before the revised SCOD. The Petitioner has not submitted any further reasons for delay after 1.10.2020. It is further noted that Asset-X is a spare Reactor unit at New Ranchi Sub-station. As per the IA dated 2.11.2017, the transmission asset is scheduled to be commissioned within 30 months, i.e., by 1.5.2020. As per Form-5A, it is noted that the Petitioner had awarded the work on 13.12.2017 for the supply of a spare Reactor from TBEA. It seems that the transportation of the Reactor leads to delay in the commissioning of the transmission asset. The Petitioner has not submitted when the Reactor reached the site after the award of the project on 13.12.2017. As per the petitioners' affidavit dated 16.03.2023, as tabulated below, supply has already been completed on 1.05.2020.

Asset-X	SCOD: 1.5.2020	COD: 2.4.2021
Activity	Work completed prior to Covid -19 pandemic (i.e., before March 2020)	Balance work affected due to the onset of Covid-19 (i.e. after March 2020)
LOA	completed	-
Supply	completed	-
Foundation & Civil Works	Majorly completed	Balance was completed shortly afterwards
Erection	Works were in progress, a minor portion completed	Balance the major portion completed afterwards
Testing & Commissioning	Pending	Completed in March 2021

The Petitioner is directed to submit the reasons for the delay from 1.10.2020 to 2.4.2021, and the same will be reviewed at the time of truing-up. The Petitioner further directed to submit the details of transportation, the details of the Reactor at the time of truing-up. We are not inclined to condone the total delay of 183 days beyond 1.10.2020, and the same will be reviewed at the time of truing-up based on the justification for the period 1.10.2020 to 2.4.2021

Asset-XI:

68. As per the I.A. dated 2.11.2017, the SCOD of the transmission assets was 1.5.2020. Asset-XI was put into commercial operation on 19.2.2022. Thus, there is a time overrun of 659 days in the case of Asset-XI. The Petitioner has submitted that the main reasons for delay are (i) Transportation constraints (July 2019 to September 2019 and October 2019 to December 2019), about 5 months, unprecedented rainfall during lean seasons, and Covid-19 related lockdown and restrictions, non-availability of requisite shutdown.

69. As stated above, we have already revised the SCOD of Asset-XI as of 1.10.2020, and it has been put into commercial operation on 19.2.2022. Thus, the time overrun in the case of Asset-XI, as per the revised SCOD, is 506 days. Therefore, we examine the reasons given by the Petitioner for the time overrun beyond the revised SCOD of 1.10.2020, as we do not find any reason to examine the time overrun before the revised SCOD.

70. The Petitioner has submitted that the project was also affected by the second wave of COVID-19, as the lockdown was again imposed by the GoI, and several restrictions were imposed by the State Government on the movement of personnel and transportation of equipment. Further, it was submitted that severe restrictions were imposed between 1.4.2021 and 30.6.2021 on the movement of men and materials. Due to the severity of the second COVID-19 wave, all the manufacturing (supply chains) and erection activities at the site were badly affected.

71. We have considered the submissions of the Petitioner. The relevant portion of the letter dated 12.6.2021 is as follows:

“Sub: Extension to TSP/Transmission Licensees for completion of under construction inter State transmission projects – reg.

Sir,



I am directed to state that transmission utilities have approached this Ministry stating that construction activity at various transmission projects sites have been severely affected by the current second wave of COVID-19 pandemic and various measures taken by State/UT Governments to contain the pandemic; such as night curfew, imposition of section 144, weekend lockdown and complete lockdown. In this regard they have requested for extension of Scheduled Commercial Operation Date (SCOD) for the undergoing Transmission projects to mitigate the issues of disruption in supply chains and manpower, caused due to COVID-19 pandemic.

- 2. The matter has been examined in the Ministry and it has been noted that unlike last year complete lock-down in the entire country, this time different States/UTs have ordered lock-down in their State/UTs as per their own assessments. Therefore, after due consideration, it has been decided that;*
 - i. All inter-state transmission projects, which are under construction with SCOD coming after 01 April 2021 shall get an extension of three (3) months in respect of their SCOD;*
 - ii. The commencement date of Long-Term Access (LTA) to a generator by CTU based on completion of a transmission line, whose SCOD is extended by three (3) months due to COVID19 as mentioned above at point(i), shall also be extended by three (3) months.*
- 3. This issue with the approval of Competent Authority."*

72. As per the above, it is observed that extension of three months shall be granted only when SCOD is after 1.4.2021. In the instant case, the revised SCOD of the transmission asset is 1.10.2020; therefore, the extension of 3 months is not applicable in the instant case. It is further observed that the Petitioner had applied for a shutdown in the month of April, 2020, which means that the Petitioner had completed all erection works and only testing and commissioning were pending. It is also observed that the Petitioner submitted application for energisation of 100 MVA ICT, 220/132 kV GIS bay at PGCIL on 17.12.2020 and the CEA vide letter dated 12th March, 2021 had granted CEA Energisation Certificate for 100 MVA ICT, the second wave of Covid-19 did not impact the commissioning of the instant transmission asset. Based on the above discussion, we are of the view that the Second Wave of COVID-19 did not impact the commissioning of the instant transmission asset.

73. The petitioner has submitted that the petitioner has sought a shutdown from April 2020 to October 2020, which was denied due to the high hydro period and also due to reconductoring works of the Rangpo-Siliguri 400 kV D/C line. The shutdown was not approved, due to which the time period of 180 days was impacted. We have gone



through the submissions of the petitioner. The petitioner has not placed any document/ OCC minutes for the denial of shutdown during this period. It is further noted that the SCOD of the asset is revised to 1.10.2020, so the time overrun sought from April 2020 to October 2020 is subsumed in this period.

74. The Petitioner has submitted that it had applied for a shutdown from 3.12.2020 to 17.12.2021, on account of getting approval for the shutdown, which caused a delay of 168 days.

75. Regulation 22(1) of the 2019 Tariff Regulations is extracted as under:

*“(2) The “uncontrollable factors” shall include but shall not be limited to the following:
a. Force Majeure events;
b. Change in law; and
c. Land acquisition except where the delay is attributable to the generating company or the transmission licensee.”*

76. Regulation 3(1) of the 2019 Tariff Regulations is extracted as under:

*“(10) ‘Change in Law’ means occurrence of any of the following events:
(a) enactment, bringing into effect or promulgation of any new Indian law; or
(b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or
(c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or
(d) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or
(e) coming into force or change in any bilateral or multilateral agreement or treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these regulations.”*

77. Regulation 3(25) of the 2019 Tariff Regulations is extracted as under;

*“(25) ‘Force Majeure’ for the purpose of these regulations means the events or circumstances or combination of events or circumstances including those stated below which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control of the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:
(a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or*

(b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or
(c) Industry wide strikes and labour disturbances having a nationwide impact in India; or
(d) Delay in obtaining statutory approval for the project except where the delay is attributable to project developer;"

78. As per the above, it is noted that Regulations 22(1), 3(10), and 3(25) of the 2019 Tariff Regulations collectively define "uncontrollable factors" as circumstances beyond the control of the generating company or transmission licensee, including Force Majeure events, Change in Law, and delays in land acquisition not attributable to the developer. "Change in Law" encompasses the enactment, amendment, repeal, or reinterpretation of Indian laws or regulations, changes in licensing conditions, and international treaties affecting the project. "Force Majeure" refers to extraordinary events such as natural disasters, war, terrorism, nationwide strikes, or delays in statutory approvals (unless caused by the developer), which hinder timely project execution despite reasonable care and adherence to prudent utility practices. We are of the view that shutdown is a planned activity, and obtaining shutdown approval does not fall under change in law and Force majeure events. Therefore, we are not inclined to condone the time period of 168 days on account shutdown.

79. The petitioner has submitted that the time period(s) from 3.12.2020 to 8.12.2020 (05 days), 11.12.2020 to 16.12.2020 (06 days), 19.12.2020 to 23.12.2020 (05 days), 24.01.2021 to 26.01.2021 (03 days), 13.06.2021 to 13.07.2021 (30 days) totalling about 49 days was impacted on account of granting shutdown approval by ERLDC. We have gone through the letters issued by ERLDC and based on the request of the petitioner, ERLDC has granted shutdown approval. Therefore, we are of the view that the delay on account of shutdown approval by ERLDC has no merit and the same is not condoned.

80. The Petitioner has submitted minutes of the 174th OCC, 180th OCC, 181st OCC, 184th OCC and 185th OCC. As per the annexure of the various OCC minutes, it

is observed that the petitioner applied for a shutdown of the 220 kV and 132 kV bus and 220 kV and 132 kV bay, but when it had finally obtained a shutdown for charging the ICT, it was not submitted. Therefore, we are not inclined to condone the time period of 168 days on account of the shutdown.

Asset	SCOD	Revised SCOD	COD	Time Overrun	Revised Time Overrun	Time overrun condoned	Time overrun not condoned
Asset-I	1.5.2020	1.10.2020	6.9.2019	NIL	NIL	NA	NA
Asset-II			1.10.2019	NIL	NIL	NA	NA
Asset-IV			31.12.2019	NIL	NIL	NA	NA
Asset-V			1.1.2020	NIL	NIL	NA	NA
Asset-VI			13.1.2020	NIL	NIL	NA	NA
Asset-VIII			31.7.2020	91 days	NIL	NA	NA
Asset-X			2.4.2021	336 days	183 days	0 days	183 days
Asset-XI			19.2.2022	659 days	506 days	0 days	506 days

81. As we have already decided above that we are not inclined to grant a tariff for Asset-III, Asset-VII, and Asset-IX, therefore, we are dealing with Assets-I, II, IV, V, VI, VIII, X, and XI only in the subsequent paragraphs for tariff purposes.

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

82. The Petitioner has claimed IDC of the transmission asset covered in the instant Petition and has submitted the statement showing IDC claim, discharge of IDC liability as on COD, and thereafter as follows:

(₹ in lakh)						
Assets	IDC as per the Auditor Certificate	IDC Discharged up to COD	IDC discharged during 2019-20	IDC discharged during 2020-21	IDC discharged during 2021-22	IDC discharged during 2022-23
Asset-I	31.91	27.99	1.46	2.46	0.00	0.00
Asset-II	10.67	6.93		3.74	0.00	0.00
Asset-IV	43.17	12.98	2.09	28.10	0.00	0.00
Asset-V	53.28	7.76		45.52	0.00	0.00
Asset-VI	21.16	5.36	0.31	15.49		0.00
Asset-VIII	154.37	143.26		8.56	2.55	0.00
Asset-X	3.74	3.74			0.00	0.00
Asset-XI	157.88	120.66			4.72	32.51

83. We have considered the submissions of the Petitioner. As discussed above in this order, there is a claim for time overrun of 183 and 506 days from the actual COD for Asset-X and Asset-XI, respectively, and the same has been disallowed. Accordingly, the IDC on a cash basis up to the COD has been worked out based on the loan details given in the Statement showing discharge of IDC and Form-9C for the transmission assets. The IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and thereafter, for the purpose of tariff determination, subject to revision at the time of truing up, is as follows:

(₹ in lakh)

Assets	IDC as per Auditor Certificate	IDC Disallowed Due to computational error/time overrun not condoned	IDC Allowed	IDC Discharged upto COD	IDC discharged during 2019-20	IDC discharged during 2020-21	IDC discharged during 2021-22	IDC discharged during 2022-23
Asset-I	31.91	0.52	31.39	27.46	1.46	2.47	0.00	0.00
Asset-II	10.67	0.13	10.54	6.79		3.75	0.00	0.00
Asset-IV	43.17	1.08	42.09	12.53	2.09	27.47	0.00	0.00
Asset-V	53.28	1.03	52.25	7.48		44.77	0.00	0.00
Asset-VI	21.16	0.59	20.57	4.76		0.31	15.50	0.00
Asset-VIII	154.37	14.30	140.07	129.12		8.56	2.39	0.00
Asset-X	3.74	1.23	2.51	2.51			0.00	0.00
Asset-XI	157.88	104.59	53.29	0.00			53.29	0.00

84. Further, the Petitioner has claimed IEDC for the transmission assets as per the Auditor Certificates. The Petitioner has further submitted that the entire amount of IEDC for the transmission assets has been discharged up to COD. As the time overrun for the Asset-X and Asset-XI has not been condoned, we disallow the IEDC on a pro rata basis in these 2 transmission assets. The IEDC claimed, as per the Auditor Certificate, IEDC considered and discharged up to COD as follows:

(₹ in lakh)

Assets	IEDC claimed as per the Auditor certificate (A)	IEDC disallowed - due to time overrun, not condoned (B)	IEDC Allowed (C)=(A-B)
Asset-I	167.37	0.00	167.37
Asset-II	25.57	0.00	25.57
Asset-IV	142.91	0.00	142.91
Asset-V	271.48	0.00	271.48
Asset-VI	34.78	0.00	34.78
Asset-VIII	101.03	0.00	101.03
Asset-X	194.14	28.49	165.65
Asset-XI	447.63	144.27	303.36

Initial Spares

85. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of 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%
 - Brown Field- 6.00%
- (iii) Series Compensation devices and HVDC Station- 4.00%
- (iv) Gas Insulated Sub-station (GIS)
 - Green Field- 5.00%
 - Brown Field- 7.00%
- (v) Communication System- 3.50%
- (vi) Static Synchronous Compensator- 6.00%”

86. The Initial Spares as claimed by the Petitioner are as follows:

(₹ in lakh)

Assets	Particulars	Plant and machinery cost	Initial Spares claimed	Ceiling limit mentioned as per Regulation (In %)
Asset-I	Sub-station (Brownfield)	3001.92	113.89	6.00
Asset-II	Sub-station (Brownfield)	1266.86	72.05	6.00
Asset-IV	Sub-station (Brownfield)	2040.94	91.86	6.00
Asset-V	Sub-station (Brownfield)	2644.04	91.66	6.00
Asset-VI	Sub-station (Brownfield)	927.42	78.34	6.00
Asset-VIII	Sub-station (Brownfield)	2372.45	106.42	6.00
Asset-X	Sub-station (Brownfield)	1069.24	39.03	6.00
Asset-XI	Sub-station (Brownfield)	3435.6	163.52	7.00



87. The Petitioner has submitted the initial spares discharge, details of which are as follows:

Asset name	Total initial spares in the Auditor certificate		Spares Discharge (₹ in lakh)							
			COD		2019-20		2020-21		2021-22	
	TL	SS	TL	SS	TL	SS	TL	SS	TL	SS
Asset-I	0.00	113.89	0.00	83.42	0.00	9.40	0.00	14.32	0.00	6.75
Asset-II	0.00	72.05	0.00	66.91	0.00	5.14	0.00	0.00	0.00	0.00
Asset-IV	0.00	91.86	0.00	76.47	0.00	0.00	0.00	6.54	0.00	8.85
Asset-V	0.00	91.66	0.00	79.06	0.00	0.00	0.00	3.87	0.00	8.73
Asset-VI	0.00	78.34	0.00	75.26	0.00	3.08	0.00	0.00	0.00	0.00
Asset-VIII	0.00	106.42	0.00	98.29	0.00	0.00	0.00	5.69	0.00	2.44
Asset-X	0.00	39.03	0.00	30.55	0.00	0.00	0.00	0.00	0.00	8.48

Asset name	Total initial spares in the Auditor certificate		Spares Discharge (₹ in lakh)							
			COD		2021-22		2022-23		2023-24	
	TL	SS	TL	SS	TL	SS	TL	SS	TL	SS
Asset- XI	0.00	163.52	0.00	150.44	0.00	5.08	0.00	8.00	0.00	0.00

88. We have considered the submissions of the Petitioner. Based on the information available on record, the Initial Spares for the transmission asset are allowed as per the respective percentage of the Plant and Machinery Cost as on the cut-off date. The Initial Spares allowed for the transmission assets are as follows:

Assets	Particulars	Plant and Machinery cost (excluding IDC/IEDC, Land cost and Cost of Civil Works) (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2019 Tariff Regulations (In %)	Initial Spares allowable (₹ in lakh)	Initial Spares disallowed (₹ in lakh)	Initial Spares Allowed (₹ in lakh)
		A	B	C	$D=(A-B)*C/(100-C)$	E=B-D	
Asset-I	Sub-station	3001.92	113.89	6.00	184.34	0.00	113.89
	Transmission Line	390.58	0.00	1.00	0.00	0.00	0.00
Asset-II	Sub-station	1266.86	72.05	6.00	76.26	0.00	72.05
Asset-IV	Sub-station	2040.94	91.86	6.00	124.41	0.00	91.86
Asset-V	Sub-station	2644.04	91.66	6.00	162.92	0.00	91.66

Asset-VI	Sub-station	927.42	78.34	6.00	54.20	24.14	54.20
Asset-VIII	Sub-station	2372.45	106.42	6.00	144.64	0.00	106.42
Asset-X	Sub-station	1069.24	39.03	6.00	65.76	0.00	39.03
Asset-XI	Sub-station	3435.60	163.52	7.00	246.29	0.00	163.52

89. Accordingly, there are excess Initial Spares claimed for Asset-VI. Therefore, the Initial Spares have been allowed as per the 2019 Tariff Regulations. The capital cost allowed as on COD is as follows:

(₹ in lakh)						
Assets	Capital Cost claimed as on COD (Auditor Certificate) (A)	IDC Disallowed (B)	Undischarged IDC as on COD (C)	IEDC Disallowed (D)	Excess IS Disallowed upto COD (E)	Capital Cost as on COD (G) = (A-B-C-D-E-F)
Asset-I	2224.21	0.52	3.93	0.00	0.00	2219.76
Asset-II	733.10	0.13	3.75	0.00	0.00	729.22
Asset-IV	1650.96	1.08	29.56	0.00	0.00	1620.32
Asset-V	2096.24	1.03	44.77	0.00	0.00	2050.44
Asset-VI	776.88	0.59	15.81	0.00	21.06	739.42
Asset-VIII	2275.99	14.30	10.95	0.00	0.00	2250.74
Asset-X	1001.84	1.23	0.00	28.49	0.00	972.12
Asset-XI	3342.52	104.59	53.29	144.27	0.00	3040.37

De-capitalisation:

90. In Form-10B, the Petitioner has submitted the de-capitalisation details in case of Assets-II, III, VII, and IX. The Petitioner has submitted that the de-capitalisation will be carried out as per the provisions of the tariff regulations separately in the original projects against the respective transmission assets.

91. We have considered the submissions of the Petitioner. The asset-wise de-capitalisation has been considered in subsequent paragraphs.

Asset-II:

92. The Commission had trued-up the transmission tariff for the 2014-19 and granted the tariff for 50 MVA ICT at Malda Substation vide order dated 27.1.2021 in Petition No. 311/TT/2019. The Petitioner has replaced the 50 MVA ICT with a 160 MVA ICT. We have considered the submissions made by the Petitioner. The Petitioner is directed to

decapitalise the 50 MVA ICT installed at Malda Substation while filing the true-up of 2019-24 in Petition No. 311/TT/2019.

Asset-III:

93. In the case of Asset-III, the Petitioner has proposed to decapitalise only the conductors and insulators. The Petitioner is directed to decapitalise the same in Petition No. 207/TT/2020, while filing the true-up of the 2019-24 tariff period. The Petitioner is further directed to explore how the aforesaid conductors and insulators can be capitalised at other locations as per need and put to use, or their salvage value needs to be adjusted with the re-conductoring value.

Asset-IX:

94. In case of Asset-IX, the Petitioner has submitted that de-capitalisation of the 400 kV Teesta (Stage-V) Siliguri Transmission Line and LILO of 400 kV D/C Teesta V-Siliguri Line at Rangpo will be carried out separately under Petition No. 465/TT/2020 and Petition No. 382/TT/2020. With respect to decapitalisation of Asset-IX, the Petitioner is directed as follows:

Petition No. 382/TT/2020	Direction of the Commission
Asset-2: Termination of Gangtok-Rangpo/Chujachen and Melli-Rangpo/Chujachen Line at Rangpo and associated bays at Rangpo Sub-station, LILO of 400 kV D/C Teesta-V Siliguri Line (Ckt-I) at Rangpo and associated bays along with 1 Number 400 kV Bus Coupler bay at Rangpo Substation, 01 number 3X105 MVA Single Phase 400/220 kV Transformer (1st) and associated bays along with 1 Number 1X105 MVA Single Phase, 400/220 kV Spare Transformer at the Rangpo Substation, and One number 100 MVA 220/132 kV Transformer (1st) and associated bays along with 1 number 132 kV Bus Coupler Bay and 1 number 132 kV Bus Sectionalizer bay at Rangpo Substation (COD: 24.4.2014)	The Petitioner is directed to de-capitalise entire cost of the LILO of 400 kV D/C Teesta-V Siliguri Line (Ckt-I) at Rangpo and associated bays in Petition No. 382/TT/2020 and capitalise under Petition No. 465/TT/2020 while filing the true-up of tariff for the 2019-24 Tariff Period.
Asset-12 LILO of 400 kV D/C Teesta V Siliguri line (Ckt-II) at Rangpo and associated bays at the Rangpo Substation	The Petitioner is directed to de-capitalise the entire cost of the LILO of 400 kV D/C Teesta V-Siliguri Line (Ckt-2) at Rangpo and associated bays in Petition No. 382/TT/2020

	and capitalise under Petition No. 465/TT/2020 while filing the true-up of tariff for the 2019-24 Tariff Period.
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Petition No. 465/TT/2020	Direction of the Commission
The Commission vide order 16.06.2021 in Petition No. 465/TT/2020 has trued-up the tariff for the 2014-19 and determined tariff for 2019-24 for Combined Asset of Ckt-I and Ckt-II of 400 kV Teesta (Stage-V) Siliguri Transmission Line; The Petitioner has prayed that the Petitioner will decapitalise the same under Petition No 465/TT/2020.	Since the decapitalisation of only conductors and insulators has been proposed, it can be capitalised at other locations as per need, wherever it would be put to use, or its salvage value needs to be adjusted with the reconductoring value. Accordingly, the Petitioner is directed to decapitalise the same in Petition No. 465/TT/2020.

Additional Capital Expenditure (ACE)

95. Regulation 24 of the 2019 Tariff Regulations provides as follows:

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

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

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

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

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

96. The Petitioner has claimed that the ACE incurred/ projected to be incurred is mainly on account of balance/ retention payments, and hence the same is claimed under Regulations 24(1)(a) and 24(1)(b) of the 2019 Tariff Regulations. The Petitioner has claimed capital cost as per the cash IDC discharge as on 31.3.2024 as follows:

(₹ in lakh)

Assets	Capital Cost as on COD	Projected ACE 2019-24					Estimated Completion Cost
		2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-I	2224.21	957.30	205.14	136.75	68.38		3591.78
Asset-II	733.10	400.00	170.00				1303.10
Asset-IV	1650.96	120.23	215.36	180.35	60.12		2227.02
Asset-V	2096.24	174.51	305.40	305.40	87.26		2968.80
Asset-VI	776.88	53.08	123.40	30.00			983.36
Asset-VIII	2275.99		202.58	200.00			2678.57
Asset-X	1001.84			187.85	51.62	25.81	1267.12
Asset-XI	3342.52			48.59	350.00	300.00	4041.11

97. In response, the Petitioner vide affidavit dated 24.8.2022 has submitted that the element-wise details of ACE claimed and the Liability flow statement in the instant petition have been submitted vide Form-12 submitted in the Petition. The details of the liability flow are as follows:

(₹ in lakh)

Asset No.	Party	Particular	Year of Actual Capitalisation	Outstanding Liability as on 1.4.2019	Discharge						Additional Liability Recognised						Outstanding Liability as on 31.3.2024
					2019-20	2020-21	2021-22	2022-23	2023-24	Total (2019-24)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (2019-24)	
					2019-20	2020-21	2021-22	2022-23	2023-24	Total (2019-24)	2019-20	2020-21	2021-22	2022-23	2023-24	Total (2019-24)	
Asset-I	TBEA Energy Pvt Ltd	TL	2019-20	270.24	189.17	40.54	27.02	13.51		270.24							0.00
		SS		1097.33	768.13	164.60	109.73	54.87		1097.33							0.00
Asset-II	TBEA Energy Pvt Ltd	SS	2019-20	320.00	150.00	170.00				320.00	250.00	0.00				250.00	0.00
Asset-IV	TBEA Energy Pvt Ltd	SS	2019-20	576.06	120.23	215.36	180.35	60.12		576.06							0.00
Asset-V	TBEA Energy Pvt Ltd	SS	2019-20	872.57	174.51	305.40	305.40	87.26		872.57							0.00
Asset-VI	TBEA Energy Pvt Ltd	SS	2019-20	206.48	53.08	123.40	30.00			206.48							0.00
Asset-VIII	TBEA Energy Pvt Ltd	SS, BC&W	2020-21	402.58		202.58	200.00			402.58							0.00
Asset-X	TBEA Energy Pvt Ltd	SS	2021-22	265.28			187.52	51.62	25.81	265.28							0.00
Asset-XI	TBEA Energy Pvt Ltd	SS, BC&W	2021-22	698.59			48.59	350.00	300.00	698.59							0.00

98. We have considered the submissions of the Petitioner. The actual / projected ACE allowed is subject to truing up in respect of the transmission asset, and the same is as follows:



Asset-I:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23
ACE as per Auditor's certificate	957.30	205.14	136.75	68.38
Add: IDC Discharged	1.46	2.47	0.00	0.00
ACE allowed in the instant order	958.76	207.61	136.75	68.38

Asset-II:

(₹ in lakh)

Particulars	2019-20	2020-21
ACE as per Auditor's certificate	400.00	170.00
Add: IDC Discharged	0.00	3.75
ACE allowed in the instant order	400.00	173.75

Asset-IV:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23
ACE as per Auditor's certificate	120.23	215.36	180.35	60.12
Add: IDC Discharged	2.09	27.47	0.00	0.00
ACE allowed in the instant order	122.32	242.83	180.35	60.12

Asset-V:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23
ACE as per Auditor's certificate	174.51	305.40	305.40	87.26
Add: IDC Discharged	0.00	44.77	0.00	0.00
ACE allowed in the instant order	174.51	350.17	305.40	87.26

Asset-VI:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22
ACE as per Auditor's certificate	53.08	123.40	30.00
Add: IDC Discharged	0.31	15.50	0.00
Less: Excess IS	3.08	0.00	0.00
ACE allowed in the instant order	50.31	138.90	30.00

Asset-VIII:

(₹ in lakh)

Particulars	2020-21	2021-22
ACE as per Auditor's certificate	202.58	200.00
Add: IDC Discharged	8.56	2.39
ACE allowed in the instant order	211.14	202.39

Asset-X:

(₹ in lakh)

Particulars	2021-22	2022-23	2023-24
ACE as per Auditor's certificate	187.85	51.62	25.81
Add: IDC Discharged	0.00	0.00	0.00
ACE allowed in the instant order	187.85	51.62	25.81

Asset-XI:

(₹ in lakh)

Particulars	2021-22	2022-23	2023-24
ACE as per Auditor's certificate	48.59	350.00	300.00
Add: IDC Discharged	53.29	0.00	0.00
ACE allowed in the instant order	101.88	350.00	300.00

99. The capital cost considered for the transmission asset for the 2019-24 tariff period is as follows:

(₹ in lakh)

Assets	Capital Cost as on COD	Approved ACE 2019-24					Estimated Completion Cost
		2019-20	2020-21	2021-22	2022-23	2023-24	
Asset-I	2219.76	958.76	207.61	136.75	68.38	0.00	3591.26
Asset-II	729.22	400.00	173.75	0.00	0.00	0.00	1302.97
Asset-IV	1620.32	122.32	242.83	180.35	60.12	0.00	2225.94
Asset-V	2050.44	174.51	350.17	305.40	87.26	0.00	2967.78
Asset-VI	739.42	50.31	138.90	30.00	0.00	0.00	958.63
Asset-VIII	2250.74		211.14	202.39	0.00	0.00	2664.27
Asset-X	972.12			187.85	51.62	25.81	1237.40
Asset-XI	3040.37			101.88	350.00	300.00	3792.26

Debt-Equity ratio

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

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

Provided that:

- 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;
- 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.”

101. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the transmission assets is as follows:

Asset-I

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	1553.83	70.00	960.05	70.00	2513.88	70.00
Equity	665.93	30.00	411.45	30.00	1077.38	30.00
Total	2219.76	100.00	1371.50	100.00	3591.26	100.00

Asset-II

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	510.45	70.00	401.62	70.00	912.07	70.00
Equity	218.77	30.00	172.12	30.00	390.89	30.00
Total	729.22	100.00	573.75	100.00	1302.97	100.00

Asset-IV

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	1134.22	70.00	423.93	70.00	1558.15	70.00
Equity	486.10	30.00	181.68	30.00	667.78	30.00
Total	1620.32	100.00	605.62	100.00	2225.94	100.00

Asset-V

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	1435.31	70.00	642.14	70.00	2077.45	70.00
Equity	615.13	30.00	275.20	30.00	890.33	30.00
Total	2050.44	100.00	917.34	100.00	2967.78	100.00

Asset-VI

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	517.59	70.00	153.45	70.00	671.04	70.00
Equity	221.83	30.00	65.76	30.00	287.59	30.00
Total	739.42	100.00	219.21	100.00	958.63	100.00

Asset-VIII

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	1575.52	70.00	289.47	70.00	1864.99	70.00
Equity	675.22	30.00	124.06	30.00	799.28	30.00
Total	2250.74	100.00	413.53	100.00	2664.27	100.00

Asset-X

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	680.48	70.00	185.70	70.00	866.18	70.00
Equity	291.64	30.00	79.58	30.00	371.22	30.00
Total	972.12	100.00	265.28	100.00	1237.40	100.00

Asset-XI

Funding	Capital Cost as on COD (₹ in lakh)	In %	ACE during 2019-24 (₹ in lakh)	In %	Capital Cost as on 31.3.2024 (₹ in lakh)	In %
Debt	2128.26	70.00	526.32	70.00	2654.58	70.00
Equity	912.11	30.00	225.57	30.00	1137.68	30.00
Total	3040.37	100.00	751.88	100.00	3792.25	100.00

Depreciation

102. 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 assets of the generating station and transmission system:

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

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

Commission upto 31.3.2019 from the gross depreciable value of the assets.

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

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

(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.”

103. The depreciation has been worked out considering the admitted capital expenditure as on the COD and thereafter up to 31.3.2024. The Weighted Average Rate of Depreciation (WAROD) at Annexure has been worked out for the transmission asset as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the transmission asset is as follows:

Asset-I

(₹ in lakh)

	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	2219.76	3178.52	3386.13	3522.88	3591.26
B	ACE	958.76	207.61	136.75	68.38	0.00
C	Closing Gross Block (A+B)	3178.52	3386.13	3522.88	3591.26	3591.26



	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
D	Average Gross Block (A+C)/2	2699.14	3282.33	3454.51	3557.07	3591.26
E	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	26	26	25	24	23
G	Lapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value (D * 90%)	2429.23	2954.09	3109.05	3201.36	3232.13
I	Depreciation during the year (D * E)	80.99	173.31	182.40	187.81	189.62
J	Aggregate Cumulative Depreciation at the end of the year	80.99	254.30	436.70	624.51	814.13
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	2348.24	2699.79	2672.36	2576.85	2418.01

Asset-II

(₹ in lakh)

	Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	729.22	1129.22	1302.97	1302.97	1302.97
B	ACE	400.00	173.75	0.00	0.00	0.00
C	Closing Gross Block (A+B)	1129.22	1302.97	1302.97	1302.97	1302.97
D	Average Gross Block (A+C)/2	929.22	1216.09	1302.97	1302.97	1302.97
E	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	25	25	24	23	22
G	Lapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value (D * 90%)	836.30	1094.49	1172.67	1172.67	1172.67
I	Depreciation during the year (D * E)	24.53	64.21	68.80	68.80	68.80
J	Aggregate Cumulative Depreciation at the end of the year	24.53	88.74	157.54	226.33	295.13
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	811.77	1005.74	1015.13	946.34	877.54

Asset-IV

(₹ in lakh)

	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	1620.32	1742.64	1985.47	2165.82	2225.94



	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
B	ACE	122.32	242.83	180.35	60.12	0.00
C	Closing Gross Block (A+B)	1742.64	1985.47	2165.82	2225.94	2225.94
D	Average Gross Block (A+C)/2	1681.48	1864.05	2075.64	2195.88	2225.94
E	Weighted average rate of Depreciation (WAROD) (In %)	5.43	5.42	5.41	5.41	5.40
F	Balance useful life of the asset	25	25	24	23	22
G	Lapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value (D * 90%)	1515.88	1680.34	1870.92	1979.13	2006.18
I	Depreciation during the year (D * E)	22.94	101.04	112.35	118.70	120.29
J	Aggregate Cumulative Depreciation at the end of the year	22.94	123.98	236.33	355.04	475.33
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	1492.94	1556.36	1634.58	1624.09	1530.86

Asset-V

(₹ in lakh)

	Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	2050.44	2224.95	2575.12	2880.52	2967.78
B	ACE	174.51	350.17	305.40	87.26	0.00
C	Closing Gross Block (A+B)	2224.95	2575.12	2880.52	2967.78	2967.78
D	Average Gross Block (A+C)/2	2137.69	2400.03	2727.82	2924.15	2967.78
E	Weighted average rate of Depreciation (WAROD) (In %)	5.73	5.68	5.64	5.61	5.61
F	Balance useful life of the asset	24	24	23	22	21
G	Lapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value (D * 90%)	1933.75	2169.97	2465.08	2641.78	2681.05
I	Depreciation during the year (D * E)	30.44	136.38	153.79	164.16	166.46
J	Aggregate Cumulative Depreciation at the end of the year	30.44	166.82	320.61	484.77	651.23
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	1903.31	2003.15	2144.47	2157.01	2029.81

Asset-VI

(₹ in lakh)

	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	739.42	789.73	928.63	958.63	958.63



	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
B	ACE	50.31	138.90	30.00	0.00	0.00
C	Closing Gross Block (A+B)	789.73	928.63	958.63	958.63	958.63
D	Average Gross Block (A+C)/2	764.57	859.18	943.63	958.63	958.63
E	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28	5.28	5.28	5.28
F	Balance useful life of the asset	25	25	24	23	22
G	Lapsed life at the beginning of the year	0	0	1	2	3
H	Aggregate Depreciable Value (D * 90%)	688.12	773.26	849.27	862.77	862.77
I	Depreciation during the year (D * E)	8.71	45.36	49.82	50.62	50.62
J	Aggregate Cumulative Depreciation at the end of the year	8.71	54.08	103.90	154.52	205.13
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	679.40	719.18	745.37	708.25	657.63

Asset-VIII

(₹ in lakh)

	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
	Depreciation				
A	Opening Gross Block	2250.74	2461.88	2664.27	2664.27
B	ACE	211.14	202.39	0.00	0.00
C	Closing Gross Block (A+B)	2461.88	2664.27	2664.27	2664.27
D	Average Gross Block (A+C)/2	2356.31	2563.08	2664.27	2664.27
E	Weighted average rate of Depreciation (WAROD) (In %)	5.24	5.24	5.24	5.24
F	Balance useful life of the asset	25	25	24	23
G	Lapsed life at the beginning of the year	0	0	1	2
H	Aggregate Depreciable Value (D * 90%)	2120.68	2306.77	2397.84	2397.84
I	Depreciation during the year (D * E)	82.61	134.35	139.69	139.69
J	Aggregate Cumulative Depreciation at the end of the year	82.61	216.96	356.66	496.35
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	2038.07	2089.81	2041.18	1901.49

Asset-X

(₹ in lakh)

	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
	Depreciation			
A	Opening Gross Block	972.12	1159.97	1211.59
B	ACE	187.85	51.62	25.81
C	Closing Gross Block (A+B)	1159.97	1211.59	1237.40



	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
D	Average Gross Block (A+C)/2	1066.04	1185.78	1224.49
E	Weighted average rate of Depreciation (WAROD) (In %)	5.53	5.51	5.50
F	Balance useful life of the asset	24	24	23
G	Lapsed life at the beginning of the year	0	0	1
H	Aggregate Depreciable Value (D * 90%)	962.15	1069.98	1104.85
I	Depreciation during the year (D * E)	58.77	65.31	67.38
J	Aggregate Cumulative Depreciation at the end of the year	58.77	124.08	191.46
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	903.39	945.90	913.39

Asset-XI

(₹ in lakh)

	Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
	Depreciation			
A	Opening Gross Block	3040.37	3142.26	3492.26
B	ACE	101.88	350.00	300.00
C	Closing Gross Block (A+B)	3142.26	3492.26	3792.26
D	Average Gross Block (A+C)/2	3091.31	3317.26	3642.26
E	Weighted average rate of Depreciation (WAROD) (In %)	5.28	5.28	5.28
F	Balance the useful life of the asset	25	25	24
G	Lapsed life at the beginning of the year	0	0	1
H	Aggregate Depreciable Value (D * 90%)	2782.18	2985.53	3278.03
I	Depreciation during the year (D * E)	18.33	175.15	192.31
J	Aggregate Cumulative Depreciation at the end of the year	18.33	193.49	385.80
K	Remaining Aggregate Depreciable Value at the end of the year (H – J)	2763.85	2792.05	2892.23

Interest on Loan (IoL)

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

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

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



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

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

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

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

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

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

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

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

105. The Weighted Average Rate of IoL (WAROI) has been considered on the basis of the rate prevailing as on the COD. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, the IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations for the transmission asset and is as follows:

Asset-I

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	1553.83	2224.96	2370.29	2466.01	2513.88

	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
B	Cumulative Repayments up to the Previous Year	0.00	80.99	254.30	436.70	624.51
C	Net Loan-Opening (A-B)	1553.83	2143.97	2115.99	2029.32	1889.37
D	Additions due to ACE	671.13	145.33	95.73	47.87	0.00
E	Repayment during the year	80.99	173.31	182.40	187.81	189.62
F	Net Loan-Closing (C+D-E)	2143.97	2115.99	2029.32	1889.37	1699.75
G	Average Loan (C+F)/2	1848.90	2129.98	2072.65	1959.34	1794.56
H	Weighted Average Rate of Interest on Loan (In %)	7.9441	7.9442	7.9443	7.9443	7.9420
I	Interest on Loan (G*H)	83.47	169.21	164.66	155.66	142.52

Asset-II

(₹ in lakh)

	Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	510.45	790.45	912.07	912.07	912.07
B	Cumulative Repayments up to the Previous Year	0.00	24.53	88.74	157.54	226.33
C	Net Loan-Opening (A-B)	510.45	765.92	823.33	754.54	685.74
D	Additions due to ACE	280.00	121.62	0.00	0.00	0.00
E	Repayment during the year	24.53	64.21	68.80	68.80	68.80
F	Net Loan-Closing (C+D-E)	765.92	823.33	754.54	685.74	616.94
G	Average Loan (C+F)/2	638.18	794.63	788.93	720.14	651.34
H	Weighted Average Rate of Interest on Loan (In %)	7.7176	7.7185	7.7193	7.7193	7.7149
I	Interest on Loan (G*H)	24.63	61.33	60.90	55.59	50.25

Asset-IV

(₹ in lakh)

	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	1134.22	1219.84	1389.82	1516.07	1558.15
B	Cumulative Repayments up to the Previous Year	0.00	22.94	123.98	236.33	355.04
C	Net Loan-Opening (A-B)	1134.22	1196.91	1265.84	1279.73	1203.11
D	Additions due to ACE	85.62	169.98	126.25	42.08	0.00
E	Repayment during the year	22.94	101.04	112.35	118.70	120.29
F	Net Loan-Closing (C+D-E)	1196.91	1265.84	1279.73	1203.11	1082.82
G	Average Loan (C+F)/2	1165.56	1231.37	1272.79	1241.42	1142.97
H	Weighted Average Rate of Interest on Loan (In %)	7.4723	7.4711	7.4700	7.4700	7.4676
I	Interest on Loan (G*H)	21.89	92.00	95.08	92.73	85.35



Asset-V**(₹ in lakh)**

	Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	1435.31	1557.47	1802.59	2016.37	2077.45
B	Cumulative Repayments up to the Previous Year	0.00	30.44	166.82	320.61	484.77
C	Net Loan-Opening (A-B)	1435.31	1527.03	1635.77	1695.75	1592.68
D	Additions due to ACE	122.16	245.12	213.78	61.08	0.00
E	Repayment during the year	30.44	136.38	153.79	164.16	166.46
F	Net Loan-Closing (C+D-E)	1527.03	1635.77	1695.75	1592.68	1426.21
G	Average Loan (C+F)/2	1481.17	1581.40	1665.76	1644.22	1509.45
H	Weighted Average Rate of Interest on Loan (In %)	7.3803	7.3804	7.3806	7.3806	7.3796
I	Interest on Loan (G*H)	27.18	116.71	122.94	121.35	111.39

Asset-VI**(₹ in lakh)**

	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	517.59	552.81	650.04	671.04	671.04
B	Cumulative Repayments up to the Previous Year	0.00	8.71	54.08	103.90	154.52
C	Net Loan-Opening (A-B)	517.59	544.09	595.96	567.14	516.52
D	Additions due to ACE	35.22	97.23	21.00	0.00	0.00
E	Repayment during the year	8.71	45.36	49.82	50.62	50.62
F	Net Loan-Closing (C+D-E)	544.09	595.96	567.14	516.52	465.90
G	Average Loan (C+F)/2	530.84	570.03	581.55	541.83	491.21
H	Weighted Average Rate of Interest on Loan (In %)	7.4336	7.4374	7.4410	7.4410	7.4390
I	Interest on Loan (G*H)	8.52	42.40	43.27	40.32	36.54

Asset-VIII**(₹ in lakh)**

	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
A	Gross Normative Loan	1575.52	1723.32	1864.99	1864.99
B	Cumulative Repayments up to the Previous Year	0.00	82.61	216.96	356.66
C	Net Loan-Opening (A-B)	1575.52	1640.71	1648.02	1508.33
D	Additions due to ACE	147.80	141.67	0.00	0.00
E	Repayment during the year	82.61	134.35	139.69	139.69
F	Net Loan-Closing (C+D-E)	1640.71	1648.02	1508.33	1368.64
G	Average Loan (C+F)/2	1608.11	1644.36	1578.18	1438.48
H	Weighted Average Rate of Interest on Loan (In %)	7.0808	7.0804	7.0804	7.0799



	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
I	Interest on Loan (G*H)	76.12	116.43	111.74	101.84

Asset-X

(₹ in lakh)

	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
A	Gross Normative Loan	680.48	811.98	848.11
B	Cumulative Repayments up to the Previous Year	0.00	58.77	124.08
C	Net Loan-Opening (A-B)	680.48	753.21	724.03
D	Additions due to ACE	131.50	36.13	18.07
E	Repayment during the year	58.77	65.31	67.38
F	Net Loan-Closing (C+D-E)	753.21	724.03	674.72
G	Average Loan (C+F)/2	716.84	738.62	699.38
H	Weighted Average Rate of Interest on Loan (In %)	5.9749	5.9749	5.9743
I	Interest on Loan (G*H)	42.71	44.13	41.78

Asset-XI

(₹ in lakh)

	Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
A	Gross Normative Loan	2128.26	2199.58	2444.58
B	Cumulative Repayments up to the Previous Year	0.00	18.33	193.49
C	Net Loan-Opening (A-B)	2128.26	2181.24	2251.09
D	Additions due to ACE	71.32	245.00	210.00
E	Repayment during the year	18.33	175.15	192.31
F	Net Loan-Closing (C+D-E)	2181.24	2251.09	2268.78
G	Average Loan (C+F)/2	2154.75	2216.17	2259.94
H	Weighted Average Rate of Interest on Loan (In %)	6.3598	6.3575	6.3555
I	Interest on Loan (G*H)	15.39	140.89	143.63

Return on Equity (RoE)

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

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

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



of-river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 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 ₹ 1,000 crore;
- (b) Estimated Advance Tax for the year on above is ₹ 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = ₹ 240 Crore/₹ 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.”

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

Asset-I

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	665.93	953.56	1015.84	1056.87	1077.38
B	Additions (B)	287.63	62.28	41.03	20.51	0.00



	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
C	Closing Equity (C) = (A+B)	953.56	1015.84	1056.87	1077.38	1077.38
D	Average Equity (D) = (A+C)/2	809.74	984.70	1036.35	1067.12	1077.38
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	86.43	184.95	194.65	200.43	202.35

Asset-II

(₹ in lakh)

	Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	218.77	338.77	390.89	390.89	390.89
B	Additions (B)	120.00	52.12	0.00	0.00	0.00
C	Closing Equity (C) = (A+B)	338.77	390.89	390.89	390.89	390.89
D	Average Equity (D) = (A+C)/2	278.77	364.83	390.89	390.89	390.89
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity(D*G)	26.18	68.52	73.42	73.42	73.42

Asset-IV

(₹ in lakh)

	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	486.10	522.80	595.64	649.75	667.78
B	Additions (B)	36.70	72.85	54.11	18.04	0.00
C	Closing Equity (C) = (A+B)	522.80	595.64	649.75	667.78	667.78
D	Average Equity (D) = (A+C)/2	504.45	559.22	622.70	658.77	667.78
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity(D*G)	23.82	105.03	116.95	123.73	125.42



Asset-V

(₹ in lakh)

	Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	615.13	667.48	772.53	864.15	890.33
B	Additions (B)	52.35	105.05	91.62	26.18	0.00
C	Closing Equity (C) = (A+B)	667.48	772.53	864.15	890.33	890.33
D	Average Equity (D) = (A+C)/2	641.31	720.01	818.34	877.24	890.33
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity(D*G)	29.95	135.23	153.70	164.76	167.22

Asset-VI

(₹ in lakh)

	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	221.83	236.92	278.59	287.59	287.59
B	Additions (B)	15.09	41.67	9.00	0.00	0.00
C	Closing Equity (C) = (A+B)	236.92	278.59	287.59	287.59	287.59
D	Average Equity (D) = (A+C)/2	229.38	257.76	283.09	287.59	287.59
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity(D*G)	9.30	48.41	53.17	54.02	54.02

Asset-VIII

(₹ in lakh)

	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
A	Opening Equity (A)	675.22	738.56	799.28	799.28
B	Additions (B)	63.34	60.72	0.00	0.00
C	Closing Equity (C) = (A+B)	738.56	799.28	799.28	799.28
D	Average Equity (D) = (A+C)/2	706.89	768.92	799.28	799.28
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782	18.782
H	Return on Equity(D*G)	88.75	144.42	150.12	150.12



Asset-X

(₹ in lakh)

	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
A	Opening Equity (A)	291.64	348.00	363.48
B	Additions (B)	56.36	15.49	7.74
C	Closing Equity (C) = (A+B)	348.00	363.48	371.22
D	Average Equity (D) = (A+C)/2	319.82	355.74	367.35
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782
H	Return on Equity(D*G)	59.90	66.81	69.00

Asset-XI

(₹ in lakh)

	Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
A	Opening Equity (A)	912.11	942.68	1047.68
B	Additions (B)	30.57	105.00	90.00
C	Closing Equity (C) = (A+B)	942.68	1047.68	1137.68
D	Average Equity (D) = (A+C)/2	927.39	995.18	1092.68
E	Return on Equity (Base Rate) (In %)	15.500	15.500	15.500
F	MAT Rate for respective year (In %)	17.472	17.472	17.472
G	Rate of Return on Equity (In %)	18.782	18.782	18.782
H	Return on Equity (D*G)	19.57	186.91	205.23

Operation & Maintenance Expenses (O&M Expenses)

108. The Petitioner has claimed the following O&M expenses for the transmission asset for the 2019-24 period are as follows:

Particulars	Asset-I				
	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
Transmission Line:					
(i) 220 kV Interconnecting Line from PG Sub-station to BSPTCL Sub-station for 500 MVA ICT-IV					
Bays:					
(i) Biharsharif: ICT-IV 220 kV Bay Biharsharif (BSPTCL)					
(ii) Biharsharif: ICT-IV 400 kV Bay Biharsharif (PG)					
(iii) Biharsharif: ICT-IV Biharsharif (PG)					



Particulars	Asset-I				
	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
TL Length (in km)	0.80	0.80	0.80	0.80	0.80
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
O&M Expenses claimed (₹ in lakh)	0.23	0.42	0.43	0.45	0.46
400 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	18.27	33.28	34.45	35.66	36.91
220 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	12.79	23.30	24.12	24.96	25.84
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	101.73	185.50	192.00	199.00	205.50
Total O&M Expenses claimed (₹ in lakh)	133.02	242.50	251.00	260.07	268.71

Particulars	Asset-II				
	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Malda: 160 MVA ICT					
220 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.245	0.254	0.263	0.272	0.282
O&M Expenses claimed (₹ in lakh)	19.60	40.64	42.08	43.52	45.12

Particulars	Asset-IV				
	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Lakhisarai: 400 kV Bay for ICT III					
(ii) Lakhisarai: 132 kV Bay for ICT III					
(iii) Lakhisarai: ICT III					
400kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	8.08	33.28	34.45	35.66	36.91
132 kVBays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.48
O&M Expenses claimed (₹ in lakh)	4.04	16.64	17.23	17.83	18.46
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411

Particulars	Asset-IV				
	2019-20(pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses claimed (₹ in lakh)	28.35	116.87	120.96	125.37	129.47
Total O&M Expenses claimed (₹ in lakh)	40.47	166.79	172.64	178.86	184.84

Particulars	Asset-V				
	2019-20(pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Banka: ICT III					
(ii) Banka: 400 kV Bay for ICT III					
(iii) Banka: 132 kV Bay for ICT III					
400kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	7.99	33.28	34.45	35.66	36.91
132 kVBays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.48
O&M Expenses claimed (₹ in lakh)	4.04	16.64	17.23	17.83	18.46
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	28.04	116.87	120.96	125.37	129.47
Total O&M Expenses claimed (₹ in lakh)	40.03	166.79	172.64	178.66	184.84

Particulars	Asset-VI				
	2019-20(pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Subhasgram: 125 MVAR BR Bay					
400 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	6.94	33.28	34.45	35.66	36.91

Particulars	Asset-VIII			
	2020-21(pro-rata 244 days)	2021-22	2022-23	2023-24
Bays:				
(i) Maithon: 400 kV Bay for ICT Maithon				
(ii) Maithon: 220 kV Bay for ICT Maithon				
(iii) Maithon: 500 MVA ICT at Maithon				
400 kV Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	22.25	34.45	35.66	36.91

Particulars	Asset-VIII			
	2020-21(pro-rata 244 days)	2021-22	2022-23	2023-24
220 kV Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	23.30	24.12	24.96	25.84
O&M Expenses claimed (₹ in lakh)	15.58	24.12	24.96	25.84
400 kV ICT Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	124.01	192.00	199.00	205.50
Total O&M Expenses claimed (₹ in lakh)	161.84	250.57	259.62	268.25
Particulars	Asset-XI			
	2021-22(pro-rata 41 days)	2022-23	2023-24	
Bays:				
(i) Rangpo: 220 kV Bay for ICT				
(ii) Rangpo: 132 kV Bay for ICT				
(iii) Rangpo: ICT at Rangpo				
220 kV ICT Bay	1.00	1.00	1.00	
Norms (₹ lakh/Bay)	0.263	0.272	0.282	
O&M Expenses claimed (₹ in lakh)	2.95	27.20	28.20	
220 kV GIS Bays	1.00	1.00	1.00	
Norms (₹ lakh/Bay)	16.884	17.472	18.088	
O&M Expenses claimed (₹ in lakh)	1.90	17.47	18.09	
400 kV ICT Bays	1.00	1.00	1.00	
Norms (₹ lakh/Bay)	12.061	12.841	12.922	
O&M Expenses claimed (₹ in lakh)	1.35	12.48	12.92	
Total O&M Expenses claimed (₹ in lakh)	6.20	57.15	59.21	

109. The norms specified under Regulation 35(3)(a) of the 2019 Tariff Regulations provide as follows:

“35. Operation and Maintenance Expenses:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ 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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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 (₹ 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 (₹ Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (₹ Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834
±500 kV Bhiwadi-Balia HVDC bipole scheme (₹ Lakh) (2500 MW)	1,696	1,756	1,817	1,881	1,947
±800 kV, Bishwanath-Agra HVDC bipole scheme (₹ 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 (2500 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.”

110. The O&M Expenses have been worked out for the various elements of the transmission assets, except Asset-III, Asset-IX, and Asset-X as per the norms specified in the 2019 Tariff Regulations and are as follows:

Particulars	Asset-I				
	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
Transmission Line:					
(i) 220 kV Interconnecting Line from PG Sub-station to BSPTCL Sub-station for 500 MVA ICT-IV					
Bays:					
(i) Biharsharif: ICT-IV 220 kV Bay Biharsharif (BSPTCL)					
(ii) Biharsharif: ICT-IV 400 kV Bay Biharsharif (PG)					
(iii) Biharsharif: ICT-IV Biharsharif (PG)					
TL Length (in km)	0.80	0.80	0.80	0.80	0.80

Particulars	Asset-I				
	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
Norms (₹ lakh/km)	0.503	0.521	0.539	0.558	0.578
O&M Expenses claimed (₹ in lakh)	0.23	0.42	0.43	0.45	0.46
400 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	18.27	33.28	34.45	35.66	36.91
220 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	12.79	23.30	24.12	24.96	25.84
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	101.73	185.50	192.00	199.00	205.50
Total O&M Expenses claimed (₹ in lakh)	133.02	242.50	251.00	260.07	268.71

Particulars	Asset-II				
	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Malda: 160 MVA ICT					
220 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.245	0.254	0.263	0.272	0.282
O&M Expenses claimed (₹ in lakh)	19.60	40.64	42.08	43.52	45.12

Particulars	Asset-IV				
	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Lakhisarai: 400 kV Bay for ICT III					
(ii) Lakhisarai: 132 kV Bay for ICT III					
(iii) Lakhisarai: ICT III					
400kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	8.08	33.28	34.45	35.66	36.91
132 kVBays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.48
O&M Expenses claimed (₹ in lakh)	4.04	16.64	17.23	17.83	18.46
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	28.35	116.87	120.96	125.37	129.47

Particulars	Asset-IV				
	2019-20(pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
Total O&M Expenses claimed (₹ in lakh)	40.47	166.79	172.64	178.86	184.84

Particulars	Asset-V				
	2019-20(pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Banka: ICT III					
(ii) Banka: 400 kV Bay for ICT III					
(iii) Banka: 132 kV Bay for ICT III					
400kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	7.99	33.28	34.45	35.66	36.91
132 kVBays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	16.08	16.64	17.23	17.83	18.48
O&M Expenses claimed (₹ in lakh)	4.04	16.64	17.23	17.83	18.46
400 kV ICT Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.358	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	28.04	116.87	120.96	125.37	129.47
Total O&M Expenses claimed (₹ in lakh)	40.03	166.79	172.64	178.66	184.84

Particulars	Asset-VI				
	2019-20(pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
Bays:					
(i) Subhasgram: 125 MVAR BR Bay					
400 kV Bays	1.00	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	32.15	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	6.94	33.28	34.45	35.66	36.91

Particulars	Asset-VIII			
	2020-21(pro-rata 244 days)	2021-22	2022-23	2023-24
Bays:				
(i) Maithon: 400 kV Bay for ICT Maithon				
(ii) Maithon: 220 kV Bay for ICT Maithon				
(iii) Maithon: 500 MVA ICT at Maithon				
400 kV Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	33.28	34.45	35.66	36.91
O&M Expenses claimed (₹ in lakh)	22.25	34.45	35.66	36.91
220 kV Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	23.30	24.12	24.96	25.84

Particulars	Asset-VIII			
	2020-21(pro-rata 244 days)	2021-22	2022-23	2023-24
O&M Expenses claimed (₹ in lakh)	15.58	24.12	24.96	25.84
400 kV ICT Bays	1.00	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.371	0.384	0.398	0.411
O&M Expenses claimed (₹ in lakh)	124.01	192.00	199.00	205.50
Total O&M Expenses claimed (₹ in lakh)	161.84	250.57	259.62	268.25

Asset-XI

Particulars	Asset-XI		
	2021-22(pro-rata 41 days)	2022-23	2023-24
Bays:			
(i) Rangpo: 220 kV Bay for ICT			
(ii) Rangpo: 132 kV Bay for ICT			
(iii) Rangpo: ICT at Rangpo			
220 kV ICT Bay	1.00	1.00	1.00
Norms (₹ lakh/Bay)	0.263	0.272	0.282
O&M Expenses claimed (₹ in lakh)	2.95	27.20	28.20
220 kV GIS Bays	1.00	1.00	1.00
Norms (₹ lakh/Bay)	16.884	17.472	18.088
O&M Expenses claimed (₹ in lakh)	1.90	17.47	18.09
400 kV ICT Bays	1.00	1.00	1.00
Norms (₹ lakh/Bay)	12.061	12.841	12.922
O&M Expenses claimed (₹ in lakh)	1.35	12.48	12.92
Total O&M Expenses claimed (₹ in lakh)	6.21	57.15	59.21

Interest on Working Capital (IWC)

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

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

(a) For Coal-based/lignite-fired thermal generating stations:

- (i) Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;
- (ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;
- (iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;
- (iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;
- (v) Receivables equivalent to 45 days of capacity charge and energy charge

for sale of electricity calculated on the normative annual plant availability factor;
and
(vi) Operation and maintenance expenses, including water charges and security expenses, for one month.

(aa) For emission control system of coal or lignite based thermal generating stations:

- (i) Cost of limestone or reagent towards stock for 20 days corresponding to the normative annual plant availability factor;
- (ii) Advance payment for 30 days towards cost of reagent for generation corresponding to the normative annual plant availability factor;
- (iii) Receivables equivalent to 45 days of supplementary capacity charge and supplementary energy charge for sale of electricity calculated on the normative annual plant availability factor;
- (iv) Operation and maintenance expenses in respect of emission control system for one month;
- (v) Maintenance spares @20% of operation and maintenance expenses in respect of emission control system.

(b) For Open-cycle Gas Turbine/Combined Cycle thermal generating stations:

- (i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;
- (ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;
- (iii) Maintenance spares @ 30% of operation and maintenance expenses including water charges and security expenses;
- (iv) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and
- (v) Operation and maintenance expenses, including water charges and security expenses, for one month.

(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.

(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:

Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as

used for infirm power, preceding date of commercial operation for which tariff is to be determined.

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

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

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

“3. Definitions. - In these regulations, unless the context otherwise requires:-

‘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;”

112. The Petitioner has submitted that it has computed IWC for the 2019-24 period, considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 10.50%.

113. The 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 1.4.2020 of 7.00% plus 350 basis points) for 2021-22 and 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for 2023-24. The components of the working capital and interest thereon allowed for transmission assets are as under:

Asset-I

(₹ in lakh)						
	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	19.51	20.21	20.92	21.67	22.39
B	WC for Maintenance Spares (15% of O&M Expenses)	35.11	36.37	37.65	39.01	40.31



	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	85.13	97.06	99.78	101.21	101.17
D	Total Working Capital	139.74	153.64	158.35	161.90	163.87
E	Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	9.57	17.28	16.63	17.00	19.66

Asset-II

(₹ in lakh)

	Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	3.27	3.39	3.51	3.63	3.76
B	WC for Maintenance Spares (15% of O&M Expenses)	5.88	6.10	6.31	6.53	6.77
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	23.83	29.48	30.75	30.28	29.81
D	Total Working Capital	32.98	38.96	40.57	40.43	40.33
E	Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	1.99	4.38	4.26	4.25	4.84

Asset-IV

(₹ in lakh)

	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	13.42	13.90	14.39	14.91	15.40
B	WC for Maintenance Spares (15% of O&M Expenses)	24.15	25.02	25.90	26.83	27.73
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	54.74	58.66	62.61	64.75	65.03
D	Total Working Capital	92.31	97.58	102.89	106.49	108.15
E	Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	2.80	10.98	10.80	11.18	12.98



Asset-V

(₹ in lakh)

	Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	13.42	13.90	14.39	14.91	15.40
B	WC for Maintenance Spares (15% of O&M Expenses)	24.15	25.02	25.90	26.83	27.73
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	64.61	69.95	75.86	79.13	79.25
D	Total Working Capital	102.18	108.86	116.14	120.86	122.38
E	Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	3.06	12.25	12.19	12.69	14.69

Asset-VI

(₹ in lakh)

	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	2.68	2.77	2.87	2.97	3.08
B	WC for Maintenance Spares (15% of O&M Expenses)	4.82	4.99	5.17	5.35	5.54
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	19.46	21.29	22.68	22.67	22.35
D	Total Working Capital	26.97	29.06	30.72	30.99	30.96
E	Rate of Interest (In %)	12.05	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	0.70	3.27	3.23	3.25	3.72

Asset-VIII

(₹ in lakh)

	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	20.17	20.88	21.64	22.35
B	WC for Maintenance Spares (15% of O&M Expenses)	36.31	37.59	38.94	40.24
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	77.34	81.43	83.38	83.29
D	Total Working Capital	133.83	139.89	143.96	145.88
E	Rate of Interest (In %)	11.25	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	10.06	14.69	15.12	17.51

Asset-X

(₹ in lakh)

	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00
B	WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	20.21	22.02	22.23
D	Total Working Capital	20.21	22.02	22.23
E	Rate of Interest (In %)	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	2.12	2.31	2.67

Asset-XI

(₹ in lakh)

	Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
A	WC for O&M Expenses (O&M Expenses for 1 month)	4.60	4.76	4.93
B	WC for Maintenance Spares (15% of O&M Expenses)	8.29	8.57	8.88
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	66.33	70.14	75.13
D	Total Working Capital	79.22	83.47	88.94
E	Rate of Interest (In %)	10.50	10.50	12.00
F	Interest on Working Capital (D*E)	0.93	8.76	10.67

Annual Fixed Charges for the 2019-24 Tariff Period

114. The transmission charges allowed for the transmission assets for the 2019-24 tariff period are as follows:

Asset-I

(₹ in lakh)

	Particulars	2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	80.99	173.31	182.40	187.81	189.62
B	Interest on Loan	83.47	169.21	164.66	155.66	142.52
C	Return on Equity	86.43	184.95	194.65	200.43	202.35
D	O & M Expenses	133.02	242.50	251.00	260.07	268.71
E	Interest on Working Capital	9.57	17.28	16.63	17.00	19.66
F	Total	393.48	787.25	809.34	820.97	822.86



Asset-II

(₹ in lakh)

	Particulars	2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	24.53	64.21	68.80	68.80	68.80
B	Interest on Loan	24.63	61.33	60.90	55.59	50.25
C	Return on Equity	26.18	68.52	73.42	73.42	73.42
D	O & M Expenses	19.60	40.64	42.08	43.52	45.12
E	Interest on Working Capital	1.99	4.38	4.26	4.25	4.84
F	Total	96.93	239.08	249.46	245.58	242.43

Asset-IV

(₹ in lakh)

	Particulars	2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	22.94	101.04	112.35	118.70	120.29
B	Interest on Loan	21.89	92.00	95.08	92.73	85.35
C	Return on Equity	23.82	105.03	116.95	123.73	125.42
D	O & M Expenses	40.47	166.79	172.64	178.86	184.84
E	Interest on Working Capital	2.80	10.98	10.80	11.18	12.98
F	Total	111.92	475.84	507.82	525.20	528.88

Asset-V

(₹ in lakh)

	Particulars	2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	30.44	136.38	153.79	164.16	166.46
B	Interest on Loan	27.18	116.71	122.94	121.35	111.39
C	Return on Equity	29.95	135.23	153.70	164.76	167.22
D	O & M Expenses	40.03	166.79	172.64	178.86	184.84
E	Interest on Working Capital	3.06	12.25	12.19	12.69	14.69
F	Total	130.66	567.36	615.26	641.83	644.61

Asset-VI

(₹ in lakh)

	Particulars	2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	8.71	45.36	49.82	50.62	50.62
B	Interest on Loan	8.52	42.40	43.27	40.32	36.54
C	Return on Equity	9.30	48.41	53.17	54.02	54.02
D	O & M Expenses	6.94	33.28	34.45	35.66	36.91
E	Interest on Working Capital	0.70	3.27	3.23	3.25	3.72
F	Total	34.17	172.72	183.94	183.87	181.81



Asset-VIII

(₹ in lakh)

	Particulars	2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
A	Depreciation	82.61	134.35	139.69	139.69
B	Interest on Loan	76.12	116.43	111.74	101.84
C	Return on Equity	88.75	144.42	150.12	150.12
D	O & M Expenses	161.83	250.57	259.62	268.25
E	Interest on Working Capital	10.06	14.69	15.12	17.51
F	Total	419.37	660.46	676.29	677.41

Asset-X

(₹ in lakh)

	Particulars	2021-22 (pro-rata 364 days)	2022-23	2023-24
A	Depreciation	58.77	65.31	67.38
B	Interest on Loan	42.71	44.13	41.78
C	Return on Equity	59.90	66.81	69.00
D	O & M Expenses	0.00	0.00	0.00
E	Interest on Working Capital	2.12	2.31	2.67
F	Total	163.50	178.56	180.83

Asset-XI

(₹ in lakh)

	Particulars	2021-22 (pro-rata 41 days)	2022-23	2023-24
A	Depreciation	18.33	175.15	192.31
B	Interest on Loan	15.39	140.89	143.63
C	Return on Equity	19.57	186.91	205.23
D	O & M Expenses	6.21	57.15	59.21
E	Interest on Working Capital	0.93	8.76	10.67
F	Total	60.43	568.86	611.05

Filing Fee and the Publication Expenses

115. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses.

116. 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 a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

117. The Petitioner has sought reimbursement of the licensee fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall be entitled to the reimbursement of the 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 to the 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

118. The Petitioner has submitted that, if GST is levied at any rate and at any point of time in the 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, and the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

120. The Petitioner has submitted that security expenses related to the transmission assets are not claimed in the instant Petition. It will file a separate Petition to claim the overall security expenses and the consequential IWC as per Regulation 35(3)(c) of the 2019 Tariff Regulations.

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

122. The Petitioner has sought reimbursement of capital spares at the end of the 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

123. The Petitioner has submitted that Annual Fixed Charges for 2019-24 will be recovered on monthly basis in accordance with Regulation 57 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and will be shared by the beneficiaries and long term transmission customers in Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 dated 15.6.2010 and amendment to these Regulations issued vide order dated 30.11.2012 or as amended from time to time.

124. With effect from 1.11.2020, the sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (in short, "the 2020 Sharing Regulations"). Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of the respective Tariff Regulations and shall be recovered from the concerned DICs through Bill 2 under Regulation 15(2)(b) of the 2020 Sharing Regulations. For the subsequent period, the

billing, collection, and disbursement of the transmission charges approved in this order shall be governed by the provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.

125. To summarise:

a. AFC allowed in respect of the following transmission assets for the 2019-24 tariff period are as follows:

Asset-I

(₹ in lakh)

2019-20 (pro-rata 208 days)	2020-21	2021-22	2022-23	2023-24
393.48	787.25	809.34	820.97	822.86

Asset-II

(₹ in lakh)

2019-20 (pro-rata 183 days)	2020-21	2021-22	2022-23	2023-24
96.93	239.08	249.46	245.58	242.43

Asset-IV

(₹ in lakh)

2019-20 (pro-rata 92 days)	2020-21	2021-22	2022-23	2023-24
111.92	475.84	507.82	525.20	528.88

Asset-V

(₹ in lakh)

2019-20 (pro-rata 91 days)	2020-21	2021-22	2022-23	2023-24
130.66	567.36	615.26	641.83	644.61

Asset-VI

(₹ in lakh)

2019-20 (pro-rata 79 days)	2020-21	2021-22	2022-23	2023-24
34.17	172.72	183.94	183.87	181.81

Asset-VIII

(₹ in lakh)

2020-21 (pro-rata 244 days)	2021-22	2022-23	2023-24
419.37	660.46	676.29	677.41

Asset-X

(₹ in lakh)

2021-22 (pro-rata 364 days)	2022-23	2023-24
163.50	178.56	180.83

Asset-XI

(₹ in lakh)

2021-22 (pro-rata 41 days)	2022-23	2023-24
60.43	568.86	611.05

126. The Annexure to this order forms part of the order.

127. This order disposes of Petition No. 9/TT/2023 in terms of the above findings and discussions.

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson

ANNEXURE-I**Asset-I**

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)						Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure		2019-20	2020-21	2021-22	2022-23	2023-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	125.29	189.25	40.68	27.02	13.51	0.00	270.46	395.75	5.28%	11.61	17.68	19.47	20.54	20.90
Sub Station	2094.47	769.51	166.93	109.73	54.87	0.00	1101.04	3195.51	5.28%	130.90	155.63	162.93	167.27	168.72
Total	2219.76	958.76	207.61	136.75	68.38	-	1371.50	3591.26		142.51	173.31	182.40	187.81	189.62
Average Gross Block (₹ in lakh)										2699.14	3282.33	3454.51	3557.07	3591.26
Weighted Average Rate of Depreciation										5.28%	5.28%	5.28%	5.28%	5.28%



Asset-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	729.22	400.00	173.75	573.75	1302.97	5.28%	49.06	64.21	68.80	68.80	68.80
Total	729.22	400.00	173.75	573.75	1302.97		49.06	64.21	68.80	68.80	68.80
						Average Gross Block (₹ in lakh)	929.22	1216.09	1302.97	1302.97	1302.97
						Weighted Average Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%



Asset-IV

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)						Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure		2019-20	2020-21	2021-22	2022-23	2023-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	1594.88	122.29	239.89	180.35	60.12	-	602.65	2197.53	5.28%	87.44	97.00	108.09	114.44	116.03
IT Equipment (Incl. Software)	25.44	0.03	2.93	-	-	-	2.96	28.40	15.00%	3.82	4.04	4.26	4.26	4.26
Total	1620.32	122.32	242.83	180.35	60.12	-	605.62	2225.94		91.26	101.04	112.35	118.70	120.29
									Average Gross Block (₹ in lakh)	1681.48	1864.05	2075.64	2195.88	2225.94
									Weighted Average Rate of Depreciation	5.43%	5.42%	5.41%	5.41%	5.40%



Asset-V

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)						Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure		2019-20	2020-21	2021-22	2022-23	2023-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	1952.13	174.51	348.02	305.40	87.26	-	915.19	2867.33	5.28%	107.68	121.47	138.73	149.09	151.39
IT Equipment (Incl. Software)	98.30	-	2.15	-	-	-	2.15	100.45	15.00%	14.75	14.91	15.07	15.07	15.07
Total	2050.44	174.51	350.17	305.40	87.26	-	917.34	2967.78		122.43	136.38	153.79	164.16	166.46
									Average Gross Block (₹ in lakh)	2137.69	2400.03	2727.82	2924.15	2967.78
									Weighted Average Rate of Depreciation	5.73%	5.68%	5.64%	5.61%	5.61%



Asset-VI

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
Capital Expenditure		2019-20	2020-21	2021-22	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Sub Station	739.42	50.31	138.90	30.00	219.21	958.63	5.28%	40.37	45.36	49.82	50.62	50.62
Total	739.42	50.31	138.90	30.00	219.21	958.63		40.37	45.36	49.82	50.62	50.62
							Average Gross Block (₹ in lakh)	764.57	859.18	943.63	958.63	958.63
							Weighted Average Rate of Depreciation	5.28%	5.28%	5.28%	5.28%	5.28%



Asset-VIII

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
Capital Expenditure		2020-21	2021-22	Total			2020-21	2021-22	2022-23	2023-24
Building Civil Works & Colony	35.44	15.01	0.04	15.05	50.49	3.34%	1.43	1.69	1.69	1.69
Sub Station	2215.30	196.13	202.35	398.47	2613.77	5.28%	122.15	132.67	138.01	138.01
Total	2250.74	211.14	202.39	413.53	2664.27		123.58	134.35	139.69	139.69
						Average Gross Block (₹ in lakh)	2356.31	2563.08	2664.27	2664.27
						Weighted Average Rate of Depreciation	5.24%	5.24%	5.24%	5.24%



Asset-X

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
Capital Expenditure		2021-22	2022-23	2023-24	Total			2021-22	2022-23	2023-24
Sub Station	945.47	186.83	51.33	25.66	263.82	1209.29	5.28%	54.85	61.14	63.17
IT Equipment (Incl. Software)	26.65	1.02	0.29	0.15	1.46	28.11	15.00%	4.07	4.17	4.20
Total	972.12	187.85	51.62	25.81	265.28	1237.40		58.93	65.31	67.38
							Average Gross Block (₹ in lakh)	1066.04	1185.78	1224.49
							Weighted Average Rate of Depreciation	5.53%	5.51%	5.50%



Asset-XI

2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)		
Capital Expenditure		2021-22	2022-23	2023-24	Total			2021-22	2022-23	2023-24
Sub Station	3040.37	101.88	350.00	300.00	751.88	3792.26	5.28%	163.22	175.15	192.31
Total	3040.37	101.88	350.00	300.00	751.88	3792.26		163.22	175.15	192.31
						Average Gross Block (₹ in lakh)		3091.31	3317.26	3642.26
						Weighted Average Rate of Depreciation		5.28%	5.28%	5.28%

