

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 349/TT/2023

Coram:

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

Date of Order: 20.01.2025

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for trueing up of transmission tariff for the 2014-19 tariff period and determination of the transmission tariff for the 2019-24 tariff period for Assets under "Transmission System Associated with Parbati-III HEP" in the Northern Region.

And in the matter of:

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

...Petitioner

Versus

- 1. Ajmer Vidyut Vitran Nigam Limited,**
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
- 2. Jaipur Vidyut Vitran Nigam Limited,**
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
- 3. Jodhpur Vidyut Vitran Nigam Limited,**
132 kV, GSS RVPNL Sub-station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).



- 4. Himachal Pradesh State Electricity Board,**
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004 (Himachal Pradesh).
- 5. Punjab State Power Corporation Limited,**
The Mall, PSEB Head Office,
Patiala-147001 (Punjab).
- 6. Haryana Power Purchase Centre,**
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).
- 7. Jammu Kashmir Power Corporation Limited,**
220/66/33 kV Gladni Sub-station,
SLDC Building,
Narwal, Jammu, J&K.
- 8. Uttar Pradesh Power Corporation Limited,**
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001 (Uttar Pradesh).
- 9. BSES Yamuna Power Limited,**
B-Block, Shakti Kiran, Building (Near Karkadooma Court)
Karkadooma 2nd Floor,
New Delhi-110092.
- 10. BSES Rajdhani Power Limited,**
BSES Bhawan, Nehru Place,
New Delhi-110019.
- 11. Tata Power Delhi Distribution Limited,**
NDPL house, Hudson Lines Kingsway Camp,
Delhi-110009.
- 12. Chandigarh Administration,**
Sector -9, Chandigarh.
- 13. Uttarakhand Power Corporation Limited,**
Urja Bhawan,
Kanwali Road, Dehradun (Uttarakhand).
- 14. North Central Railway,**
Allahabad (Uttar Pradesh).



15. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi – 110002.

16. Parbati Koldam Transmission Company Limited,
5th Floor, JMD Galleria,
Sohna Road, Sector 48, Gurgaon.

17. National Hydroelectric Power Corporation Limited,
N.H.P.C. Office Complex,
Faridabad-121003 (Haryana).

...Respondent(s)

Parties Present: Ms. Swapna Seshadri, Advocate, PGCIL
Shri Utkarsh Singh, Advocate, PGCIL
Ms. Sneha, Advocate, PGCIL
Shri Vivek Kumar Singh, PGCIL
Shri V. C. Sekhar, PGCIL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited for truing up of transmission tariff of the 2014-19 tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for the determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) from the date of commercial operation (COD) to 2019-24 tariff period in respect of the following assets (hereinafter referred to as “the transmission assets/Combined Asset”) under “Transmission System Associated with Parbati-III HEP (hereinafter referred to as “the transmission project”)” in the Northern Region:



Asset No. in original petition	Description	Asset No. in current Petition	COD
Order dated 17.8.2020 in Petition No. 107/TT/2017 (Trued up of tariff for the 2009-14 and determination of transmission tariff for the 2014-19 tariff period)			
Asset-1	400 kV D/C Parbati Pooling Point-Amritsar line along with associated bays.	Asset-1	1.8.2013
Asset-2	80 MVAR bus reactor at Parbati Pooling Point along with associated bays	Asset-2	1.8.2013
Asset-3	LILO of 2 nd ckt of Parbati-II-Koldam Transmission Line at Pooling station and LILO at Parbati-III (Portion c-d)	Asset-3	1.9.2013
Asset-4	LILO of 2 nd ckt of Parbati-II-Koldam Transmission Line at Pooling Station along with associated bays and LILO of Parbati-III (Portion e-f)	Asset-4	1.9.2013
Order dated 20.8.2020 in Petition No. 136/TT/2017 (Determination of transmission tariff for the 2014-19 tariff period)			
Asset-1	Loop Out of 1 st ckt of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala” (j-k portion)	Asset-5	10.10.2014
Asset-2	Loop In of 1 st ckt of 400 kV D/C Parbati-II-Koldam Transmission Line at Banala” (i-f portion)	Asset-6	3.11.2015
Asset-3	LILO of 2 nd ckt of Parbati-II- Koldam Transmission Line at Pooling Station and LILO at Parbati-III (b-c Portion)	Asset -7	3.11.2015
Asset-4	LILO of 2 nd ckt of Parbati-II- Koldam Transmission Line at Pooling Station along with associated Bays and LILO at Parbati-III (f-g Portion)	Asset-8	22.3.2015

The transmission assets “Combined Asset-1-4, Asset-5, Asset-6, Asset-7, and Asset-8” have been collectively referred to as the "transmission assets" for the 2014-19 period. “Combined Asset-1-4, Asset-5, Asset-6, Asset-7, and Asset-8” have been combined for the 2019-24 period and have been collectively referred to as the "Combined Asset" for the 2019-24 tariff period.

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

- “1. Approve the trued-up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8 and 9 above.



2. *Approve the Completion cost and additional capitalization incurred during 2014-19 and allow the projected additional capitalization during 2019-24.*
3. *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 above for respective block.*
4. *Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 70 (1) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, and other expenditure (if any) in relation to the filing of petition.*
5. *Allow the petitioner to bill and recover Licensee fee and RLDC fees and charges, separately from the respondents in terms of Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
6. *Allow the petitioner to bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the respondents.*
7. *Allow the Petitioner to claim the overall security expenses and consequential IOWC on that security expenses separately.*
8. *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
9. *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

Background

3. The brief facts of the case are as under:
 - a. The administrative approval and expenditure sanction for the transmission project was accorded by the Government of India through the Ministry of Power's (MoP) Letter No. 12/19/2004-PG dated 31.7.2006 for ₹55724 lakh including an IDC of ₹2661 lakh. Subsequently, it was approved by the Board of the Petitioner vide Memorandum dated 9.8.2006. The transmission project



was to be completed within 42 months from the date of Investment Approval (IA). The revised cost estimate (RCE) was approved by the Board of Directors of the Petitioner on 25.6.2013 for ₹77525 lakh, including an IDC of ₹14242 lakh (based on April 2013 price level).

- b. The scope of the transmission project was discussed and agreed upon in the 19th NRPC meeting dated 19.1.2011, the 30th Standing Committee Meeting (SCM) dated 19.12.2011, and the 29th SCM dated 29.12.2010. The scope of work covered under the transmission project is as follows:

Transmission Lines:

1. LILO of Parbati-II-Koldam/Nalagarh 400 kV line at Parbati Pooling Point (quad conductor)
2. LILO of one 400 kV circuit of Parbati-II-Parbati Pooling Point at Parbati-III HEP (quad conductor)
3. Parbati Pooling Point-Amritsar 400 kV D/C line (twin conductor).

Sub-station:

1. New 400 kV Parbati Pooling Point Gas Insulated Sub-station.
 2. Extension of 400/220 kV Amritsar Sub-station.
- c. The details of the scheduled date of commercial operation (SCOD), COD of the transmission assets, and the earlier petitions in which the transmission assets were covered are as follows:



Asset	Asset Nomenclature in the previous petition	Asset Details	SCOD	COD	Time over-run
Order dated 17.8.2020 in Petition No. 107/TT/2017 (Trued up tariff for the 2009-14 period and determination of transmission tariff for the 2014-19 tariff period)					
Combined Asset 1-4	Asset-1	400 kV D/C Parbati Pooling Point – Amritsar line along with associated bays	9.2.2010	1.8.2013	42 months (condoned)
	Asset-2	80 MVAR bus reactor at Parbati Pooling Point along with associated bays	9.2.2010	1.8.2013	42 months (condoned)
	Asset-3	LILO of 2nd ckt of Parbati-II-Koldam T/L at Pooling station and LILO at Parbati-III (Portion c-d)	9.2.2010	1.9.2013	43 months (not condoned)
	Asset-4	LILO of 2nd ckt of Parbati-II-Koldam T/L at Pooling Station along with associated bays and LILO of Parbati-III (Portion e-f)	9.2.2010	1.9.2013	43 months (not condoned)
CERC order dated 20.8.2020 in Petition No. 136/TT/2017 (Transmission tariff for 2014-19 Tariff Block)					
Asset-5	Asset-1	Loop Out of 1st Ckt of 400KV D/C Parbati-II-Koldam Transmission Line at Banala” (j-k portion)	9.2.2010	10.10.2014	1704 days (not condoned)
Asset-6	Asset-2	Loop In of 1st Ckt of 400KV D/C Parbati-II-Koldam Transmission Line at Banala” (i-f portion)	9.2.2010	3.11.2015	2093 days (not condoned)
Asset-7	Asset-3	LILO of 2nd Ckt of Parbati-II- Koldam Transmission Line at Pooling Station and LILO at Parbati-III (b-c Portion)	9.2.2010	3.11.2015	2093 days (not condoned)



Asset	Asset Nomenclature in the previous petition	Asset Details	SCOD	COD	Time over-run
Asset-8	Asset-4	LILO of 2nd Ckt of Parbati-II- Koldam Transmission Line at Pooling Station along with associated Bays and LILO at Parbati-III (f-g Portion)	9.2.2010	22.3.2015	1867 days (not condoned)

- d. The complete scope of the work as per the IA is covered in the instant petition.
- e. The tariff for the 2014-19 period for the Combined Asset 1 -4 was determined vide order dated 17.8.2020 in Petition No. 107/TT/2017 and for Asset-5 to Asset-8 vide order dated 20.8.2020 in Petition No. 136/TT/2017.

4. The Respondents are distribution licensees, transmission licensees and power departments, which are procuring transmission services from the Petitioner, mainly the beneficiaries of the Northern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding the filing of this petition has been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. No reply was filed by any of the Respondents in the instant petition.

6. The matter was heard on 16.7.2024 and the order was reserved.



7. This order is issued considering the submissions made by the Petitioner vide affidavits dated 7.7.2023, 26.4.2024 and 7.8.2024.

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

Truing up of Annual Fixed Charges for the 2014-19 tariff period

9. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as under:

Combined Asset 1-4

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	3652.21	3713.23	3745.70	3763.40	3769.82
Interest on Loan	4075.47	3817.20	3518.17	3192.17	2859.74
Return on Equity	4136.64	4227.02	4266.41	4288.35	4313.37
Interest on Working Capital	301.04	299.50	295.15	289.54	283.64
O&M Expenses	505.89	522.02	538.48	556.32	574.81
Total	12671.25	12578.97	12363.91	12089.78	11801.38

Asset-5

(₹ in lakh)

Particulars	2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	10.78	24.64	26.28	26.87	26.87
Interest on Loan	13.52	28.84	27.95	25.23	22.53
Return on Equity	12.01	27.59	29.42	30.09	30.17
Interest on Working Capital	2.20	4.84	4.97	5.04	5.08
O&M Expenses	24.67	53.61	55.14	56.97	58.86
Total	63.18	139.52	143.76	144.20	143.51

Asset-6

(₹ in lakh)

Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
Depreciation	1.86	4.62	4.70	4.70
Interest on Loan	2.33	5.44	5.08	4.63
Return on Equity	2.09	5.18	5.26	5.27



Interest on Working Capital	1.37	3.44	3.53	3.63
O&M Expenses	22.15	55.85	57.69	59.62
Total	29.80	74.53	76.26	77.85

Asset-7

(₹ in lakh)

Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
Depreciation	3.52	8.71	8.81	8.81
Interest on Loan	4.14	9.66	8.97	8.17
Return on Equity	3.95	9.75	9.87	9.90
Interest on Working Capital	0.32	0.78	0.78	0.77
O&M Expenses	0.98	2.48	2.56	2.64
Total	12.91	31.38	30.99	30.29

Asset-8

(₹ in lakh)

Particulars	2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	0.78	28.25	28.38	28.51	28.51
Interest on Loan	0.92	32.23	29.77	27.30	24.70
Return on Equity	0.86	31.46	31.61	31.75	31.84
Interest on Working Capital	0.14	5.09	5.14	5.19	5.24
O&M Expenses	1.42	53.85	55.63	57.48	59.38
Total	4.12	150.88	150.53	150.23	149.67

10. The details of the trued-up Interest on Working Capital (IWC) claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as under:

Combined Asset 1-4

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	42.16	43.55	44.87	46.38	47.90
Maintenance Spares	75.89	78.39	80.77	83.45	86.22
Receivables	2111.88	2096.59	2060.65	2014.96	1966.90
Total Working Capital	2229.93	2218.53	2186.29	2144.77	2102.02
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	301.04	299.50	295.15	289.54	283.64



Asset-5

(₹ in lakh)

Particulars	2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.34	4.48	4.60	4.75	4.91
Maintenance Spares	7.81	8.07	8.27	8.55	8.83
Receivables	22.22	23.28	23.96	24.03	23.92
Total Working Capital	34.37	35.83	36.83	37.33	37.66
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	2.20	4.84	4.97	5.04	5.8

Asset-6

(₹ in lakh)

Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
O&M Expenses	4.50	4.65	4.81	4.97
Maintenance Spares	8.11	8.38	8.65	8.94
Receivables	12.12	12.42	12.71	12.98
Total Working Capital	24.73	25.45	26.17	26.89
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	1.37	3.44	3.53	3.63

Asset-7

(₹ in lakh)

Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
O&M Expenses	0.20	0.21	0.21	0.22
Maintenance Spares	0.36	0.37	0.38	0.40
Receivables	5.25	5.23	5.17	5.05
Total Working Capital	5.81	5.81	5.76	5.67
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.32	0.78	0.78	0.77

Asset-8

(₹ in lakh)

Particulars	2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	4.34	4.49	4.64	4.79	4.11
Maintenance Spares	7.82	8.08	8.34	8.62	7.40
Receivables	25.10	25.15	25.09	25.04	25.12
Total Working Capital	37.26	37.72	38.07	38.45	36.63
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.14	5.09	5.14	5.19	0.92



Capital Cost

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

12. The Commission, vide order dated 17.8.2020 in Petition No. 107/TT/2017, had trued-up the tariff for the 2009-14 tariff period based on the allowed capital cost as on the COD and, thereafter, up to 31.3.2014 and determined the tariff for the 2014-19 tariff period for the Combined Asset 1-4 (Asset-1, Asset-2, Asset-3 and Asset-4 in Petition No. 107/TT/2017). Further, the Commission, vide order dated 20.8.2020 in Petition No. 136/TT/2017, determined the tariff for the 2014-19 tariff period for Asset-5, Asset-6, Asset-7, and Asset-8 and allowed the capital cost as on the COD and thereafter, up to 31.3.2019 for the 2014-19 tariff period. The details of the capital cost allowed by the Commission in the aforesaid orders are as under:

(₹ in lakh)

Assets	RCE Apportioned Approved Cost	Capital Cost allowed as on COD / 31.3.2014	Additional Capital Expenditure (ACE)					Capital Cost allowed as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset 1 to 4	75776.11	69226.90	1765.73	727.53	849.42	0.00	0.00	72569.58
Asset-5	631.67	414.27	32.65	39.52	22.48	0.00	0.00	508.92
Asset-6	134.25	86.20	0.00	0.00	2.75	0.00	0.00	88.95
Asset-7	262.22	162.82	0.00	0.00	4.13	0.00	0.00	166.95
Asset-8	721.26	527.65	0.00	0.29	4.79	0.00	0.00	532.73
Total	77525.51	70417.84	1798.38	767.34	883.57	0.00	0.00	73867.13

13. Further, the details of the capital cost submitted by the Petitioner as on the COD/ 31.3.2014 and actual ACE incurred up to 31.3.2019, for truing up of transmission tariff for the 2014-19 period in the instant petition is as follows:



(₹ in lakh)

Assets	RCE AppORTIONED Approved Cost	Capital Cost allowed as on COD/31.3.2014	ACE					Capital Cost allowed as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset 1-4	75776.11	69874.35	1670.06	676.42	655.96	86.29	376.05	73339.13
Asset-5	631.67	495.06	32.65	39.52	22.49	0.00	0.00	589.71
Asset-6	134.25	114.74	0.00	0.00	2.75	0.00	0.00	117.49
Asset-7	262.22	243.87	0.00	0.00	4.13	0.00	0.00	248.00
Asset-8	721.26	697.24	0.00	0.29	4.79	0.00	0.00	702.32
Total	77525.51	71425.26	1702.71	716.23	690.12	86.29	376.05	74996.65

Cost Over-run

14. The Petitioner submitted that the RCE of the transmission project was approved by the Board of Directors of the Petitioner's company vide Memorandum No. C/CP/Parbati-III HEP TS dated 25.6.2013 with an estimated cost of ₹77525 lakh, including IDC of ₹14242 lakh on April 2013 price level.

15. The total completion cost amounting to ₹74996.65 lakh in respect of the transmission assets as on 31.3.2019, as claimed by the Petitioner, is within the RCE apportioned approved cost of ₹77525.51 lakh. Therefore, the total capital cost claimed as on 31.3.2019 is within the RCE approved cost. Therefore, there is no cost overrun with respect to the RCE.

Time Overrun

16. The details of the time over-run along with the time over-run condoned/not condoned by the Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 in respect of the Combined Asset 1-4 and vide order dated 20.8.2020 in Petition No. 136/TT/2017 in respect of Asset-5 to Asset-8 are as follows:



Assets	Asset Details	SCOD	COD	Time over-run	Time over-run condoned
Asset-1	400 kV D/C Parbati Pooling Point –Amritsar line along with associated bays	9.2.2010	1.8.2013	42 months	42 months
Asset-2	80 MVAR bus reactor at Parbati Pooling Point along with associated bays	9.2.2010	1.8.2013	42 months	42 months
Asset-3	LILO of 2nd Ckt of Parbati-II-Koldam Transmission Line at Pooling station and LILO at Parbati-III (Portion c-d)	9.2.2010	1.9.2013	43 months	0
Asset-4	LILO of 2nd Ckt of Parbati-II-Koldam Transmission Line at Pooling Station along with associated bays and LILO of Parbati-III (Portion e-f)	9.2.2010	1.9.2013	43 months	0
Asset-5	Loop Out of 1st Ckt of 400KV D/C Parbati-II-Koldam Transmission Line at Banala” (j-k portion)	9.2.2010	10.10.2014	1704 days	0
Asset-6	Loop In of 1st Ckt of 400KV D/C Parbati-II-Koldam Transmission Line at Banala(i-f portion)	9.2.2010	3.11.2015	2093 days	0
Asset-7	LILO of 2nd Ckt of Parbati-II-Koldam Transmission Line at Pooling Station and LILO at Parbati-III (b-c Portion)	9.2.2010	3.11.2015	2093 days	0
Asset-8	LILO of 2nd Ckt of Parbati-II-Koldam Transmission Line at Pooling Station along with associated Bays and LILO at Parbati-III (f-g Portion)	9.2.2010	22.3.2015	1867 days	0

17. The Petitioner submitted that Appeal No. 383 of 2023, against the order dated 17.8.2020 in Petition No. 107/TT/2017 (For Asset-3 and Asset-4) and Appeal No. 384 of 2023 against the order dated 20.8.2020 in Petition No. 136/TT/2017 (For Asset-5 to Asset-8), have been filed by the Petitioner before the Appellate Tribunal for Electricity (the APTEL) on the issue of non-condonation of time overrun and the matter is under consideration before the APTEL.



18. We have considered the Petitioner's submission. Since both the Appeals are subjudice before the APTEL, we are not inclined to re-evaluate the time overrun approved in the order dated 17.8.2020 in Petition No. 107/TT/2017 and order dated 20.8.2020 in Petition No. 136/TT/2017.

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

19. The Petitioner has claimed the IDC for all the transmission assets. The Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 has approved the IDC with respect to Asset-1 to Asset-4 while truing up the tariff of the 2009-14 period and observed as under:

“Interest During Construction (IDC)

34. The Petitioner has submitted the information relating to IDC duly certified and mentioned the year-wise discharge of the entire IDC claimed. On the basis of the information submitted by the Petitioner, the IDC has been worked out up to COD of Asset-1 and Asset-2 and up to scheduled commercial operation date of Asset-3 and Asset-4 taking into consideration the loan details as mentioned in Form-13 and the working sheet of IDC submitted by the Petitioner in the original petition. The IDC has been worked out after allowing delay of Asset-1 and Asset-2. Delay has not been condoned in respect of Asset-3 and Asset-4, hence IDC in respect of them has been disallowed. The details submitted by the Petitioner and IDC worked out as on COD of all the assets is as under: -

	(₹ in lakh)			
Particulars	Asset-1	Asset-2	Asset-3	Asset-4
Total accrued IDC claimed (As per Auditor's Certificate)	11843.34	182.67	190.92	167.84
Total accrued IDC allowed	11843.34	182.67	40.15	36.58
IDC allowed as on COD (cash Basis)	9737.67	165.60	40.15	36.58
IDC liability as on COD	2105.67	17.07	0.00	0.00
IDC allowed to be discharged in 2013-14	2061.15	16.92	0.00	0.00
IDC allowed to be discharged in 2014-15	33.25	0.00	0.00	0.00
Total IDC Allowed	11832.07	182.52	40.15	36.58
Remaining IDC not declared to be discharged during the years presumed to be discharged during 2015-16	11.27	0.15	0.00	0.00



35. The above IDC worked out is allowed to be capitalized in the true up calculations of 2009-14. The remaining IDC which has not been discharged during the financial years as shown above in the table is considered to be discharged during 2015-16 and is allowed during 2015-16 period.”

20. The Commission, while truing up the transmission tariff of Asset-1 to Asset-4, approved the IDC of the transmission assets based on the capital cost allowed as on COD and thereafter up to 31.3.2014. Therefore, the same IDC as approved in the order dated 17.8.2020 in Petition No. 107/TT/2017 has been considered in the instant order too.

21. In respect of Asset-5 to Asset-8, the Petitioner has claimed following IDC based on the Auditor’s Certificate and has submitted the statement showing IDC claim, undischarged liability as on the COD and its discharge schedule thereafter, the details of the same are as under:

Assets	IDC as per Auditor’s Certificate	IDC Discharged upto COD	IDC discharged during the year		
			2014-15	2015-16	2016-17
Asset-5	58.08	47.90	9.15	1.03	0.00
Asset-6	17.38	14.55		2.83	0.00
Asset-7	63.48	54.21		8.35	0.91
Asset-8	157.70	155.64		2.06	0.00

(₹ in lakh)

22. The Petitioner has submitted the IDC computation statement having the name of the loan, drawl date, loan amount, interest rate, and interest claimed. The IDC is worked out based on the details given in the IDC statement. Further, the loan amount as on the COD has been mentioned in Form-6 and Form-9C.

23. The allowable IDC in respect of Asset-5 to Asset-8 has been worked out based on the information available on the record and relying on the loan amount as per Form-9C. The IDC is considered as on the COD, and the summary of discharge of IDC up to the COD and thereafter, for the purpose of tariff determination, is as under:



(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC allowed as on COD	IDC Un-discharged as on COD	IDC discharged during the year		
				2014-15	2015-16	2016-17
Asset-5	58.08	0.00	0.00	0.00	0.00	0.00
Asset-6	17.38	0.00	0.00		0.00	0.00
Asset-7	63.48	5.89	5.89		5.89	0.00
Asset-8	157.70	20.20	20.20		20.20	0.00

24. The Petitioner has claimed the IEDC for all the transmission assets covered in the instant petition. In respect of the computation of the IEDC for Asset-1 to Asset-4, the Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 has observed as under:

"41. The Petitioner has submitted that the entire IEDC claimed in respect of all the assets of the instant petition has been discharged as on COD. While considering the Petitioner's claim for IEDC, we have taken note of the fact that the delay in respect of Asset-3 and Asset-4 has not been allowed.

(₹ in lakh)

Assets	IEDC claimed on COD	IEDC Allowed as on COD	IEDC Disallowed
Asset-1	3008.44	3008.44	0.00
Asset-2	46.04	46.04	0.00
Asset-3	49.31	24.95	24.36
Asset-4	43.43	21.97	21.46

25. As mentioned above, the Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 has approved the IEDC during the truing up of the transmission tariff in respect of Asset-1 to Asset-4 based on the capital cost allowed as on the COD and, thereafter, up to 31.3.2014. The same IEDC, as approved in the order dated 17.8.2020 in Petition No. 107/TT/2017, has been considered in the instant order too.

26. In respect of Asset-5 to Asset-8, the Petitioner has claimed the IEDC based on the Auditor's Certificate. Further, the Petitioner has submitted that the entire amount of IEDC has been discharged as on COD. As the time overrun for the transmission assets has not been condoned, the IEDC has been allowed on a pro-rata basis up to the



SCOD. The IEDC claimed as per the Auditor’s Certificate, IEDC considered, and IEDC discharged up to the COD is as under:

(₹ in lakh)			
Assets	IEDC as per Auditor’s Certificate	IEDC disallowed due to time overrun not condoned	IEDC allowed
Asset-5	39.79	22.72	17.07
Asset-6	17.99	11.16	6.83
Asset-7	18.25	11.32	6.93
Asset-8	41.71	24.75	16.96

Initial Spares

27. The Petitioner has submitted that the Commission has restricted the Initial Spares of ₹71.21 lakh for Asset-1, ₹72.01 lakh for Asset-3, ₹29.59 lakh for Asset-4, ₹12.14 lakh for Asset-7 and ₹7.35 lakh for Asset-8 based on their individual capital cost.

28. The APTEL, vide Judgment dated 14.9.2019 in Appeal No. 74 of 2017, has allowed the appeal of PGCIL and has held that the Initial Spares have to be seen as a percentage of the total project cost and not as an individual cost of the transmission assets. The APTEL has held as under:

“8.13We do not agree with this methodology of restricting initial spares asset / element wise as adopted by the Central Commission. The Central Commission to have a prudence check on the initial spares, being restricted based on the individual asset wise cost initially, but subsequently ought to have allowed as per the ceiling limits on the overall project cost basis during the true- up.”

29. The Initial Spares claimed by the Petitioner are as under:

Initial Spares calculation for the transmission assets commissioned during 2009-14 period:

Description		Plant and Machinery Cost (a)	Total Initial Spares claimed (b)	Ceiling Limits as per 2009 Tariff Regulations (in%) (c)	Initial Spares worked out (d = (a-b) *c/(100-c)	Excess spares claimed (b-d)
Asset 1	Transmission Line	57722.63	334.08	0.75	433.67	-99.59



	Sub-station (GIS)	8397.42	378.97	3.50	290.83	88.14
	Sub-station (AIS)	1615.86	60.44	2.50	39.89	20.55
Asset 2	Sub-station	973.06	0.00	2.50	24.95	-24.95
Asset 3	Transmission Line	1215.71	80.23	0.75	8.58	71.65
Asset 4	Transmission Line	499.3902	32.90	0.75	3.53	29.37
	Sub-station	534.04	0.00	2.50	13.69	-13.69

Initial Spares calculation for the transmission assets commissioned during 2014-19 period:

Description		Plant and Machinery Cost (a)	Total Initial Spares claimed (b)	Ceiling Limits as per 2014 Tariff Regulations (in%) (c)	Initial Spares worked out (d = (a-b) *c/(100-c)	Excess spares claimed (b -d)
Asset 5	Transmission Line	491.8465	0.00	1.00	4.97	-4.97
Asset 6	Transmission Line	82.12454	0.00	1.00	0.83	-0.83
Asset 7	Transmission Line	166.27	13.68	1.00	1.54	12.14
Asset 8	Transmission Line	100.71	8.28	1.00	0.93	7.35
	Sub-station	402.19	0.00	4.00	16.76	-16.76

30. The Petitioner has submitted that as per the APTEL's judgment dated 14.9.2019 in Appeal No. 74 of 2017, the Initial Spares should be allowed as per the ceiling limit on the overall project cost and has prayed to allow the same.

31. We have considered the Petitioner's submission. It has been observed that Asset-1, Asset-2, Asset-3, and Asset-4 were commissioned during the 2009-14 tariff period and the Petitioner has claimed the transmission tariff for Asset-1 to Asset-4 for the 2014-19 tariff period as the Combined Asset. However, Asset-5, Asset-6, Asset-7, and Asset-8 were commissioned during the 2014-19 tariff period, and the Petitioner has claimed the tariff for the 2014-19 tariff period as individual assets. We have considered the Initial Spares for the transmission assets individually for all the transmission assets during the 2014-19 tariff period. The Initial Spares for the transmission project as a



whole will be considered in the next tariff period, i.e., in the 2019-24 period, after the completion of all the transmission assets in the scope of the transmission project.

32. In respect of the computation of the Initial Spare for Asset-1 to Asset-4, the Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 has observed as under:

“49. We have considered the submissions of the Petitioner and UPPCL. The Initial Spares have been worked out as per the ceiling mentioned in the 2009 Tariff Regulations. The cut-off dates of all the assets in the instant petition is 31.3.2016 which is beyond the 2009-14 tariff period. The Petitioner has submitted the capital expenditure based on the Auditor’s Certificate which has been verified from the audited figures of accounts by the Auditor up to 31.3.2016. Therefore, the allowable Initial Spares during 2009-14 period have been worked out after considering the capital cost up to 31.3.2016 and the same is also the cut-off date. The details of the Initial Spares claimed and allowed for the instant assets are summarized as under: -

Description		Capital Cost up to cut-off date considered (i.i 31.3.2016) (₹ in lakh)	Total Initial Spares claimed (₹ in lakh)	Ceiling Limits as per Regulation 8 of the 2009 Tariff Regulations (in%)	Initial Spares worked out (₹ in lakh)	Excess Initial Spares claimed (₹ in lakh)
Asset-1	T/L	57066.83	334.08	0.75	428.71	0.00
	S/S (GIS)	9368.94	380.78	3.50	326.00	54.78
	S/S (Extn)	1704.05	58.62	2.50	42.19	16.43
Asset-3	T/L	1167.42	80.23	0.75	8.22	72.01
Asset-4	T/L	470.92	32.90	0.75	3.31	29.59

50. The Auditor’s Certificate in respect of Asset-1 as submitted by the Petitioner shows separate Initial Spares for GIS sub-station and for sub-station extension without segregating their costs. Therefore, we have considered capital cost of the said two types of sub-stations, namely, GIS and extension and segregated them on prorata basis by identifying the cost of plant and machinery. The Initial Spares claimed for PLCC has also been added on pro-rata basis to the cost of GIS sub-station and substation extension based on the plant and machinery cost.

51. The excess Initial Spares as indicated in the table above have been deducted from the capital cost of the assets as on COD and considered after allowing IDC and IEDC as on cash basis.

52. The liability of Initial Spares in respect of Asset-1 as mentioned in the table above (under paragraph 49) has been deducted from the capital cost of the asset as on COD to arrive at the capital cost of the asset on cash basis. The Initial Spares claimed above



in respect of Asset-3 and Asset-4 is considered to be discharged as on COD. After adjustment of excess Initial Spares, the allowable capital cost as on COD is as under: -

(₹ in lakh)

Asset	Capital Cost as on COD after considering IDC & IEDC	Less: Excess Initial Spares as on COD	Less: Undischarged Initial Spare as on COD	Capital Cost as on COD after considering IDC, IEDC & Initial Spares
Asset-1	63369.68	71.21	173.29	63125.17
Asset-2	951.86	0.00	0.00	951.86
Asset-3	880.09	72.01	0.00	808.07
Asset-4	775.43	29.59	0.00	745.84

33. The Petitioner has submitted the Auditor's Certificate of the capital cost as on the COD/31.3.2014 and, thereafter, up to 31.3.2019 for Asset-1 to Asset-4 indicating the discharge of the Initial Spares included in the ACE for the respective years. Therefore, further adjustment of undischarged Initial Spares, if any, is not required.

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

*“(d) Transmission System
Transmission line: 1.00%
Transmission Sub-station (Green Field): 4.00%
Transmission Sub-station (Brown Field): 6.00%
Series Compensation devices and HVDC Station: 4.00%
Gas Insulated Sub-station: 5.00%
Communication System: 3.5%”*

35. The Initial Spares allowed for the transmission assets commissioned during the 2014-19 tariff period is as follows:



Initial spares for the transmission assets commissioned in the 2014-2019 tariff period

(₹ in lakh)

Assets	Elements	Plant and Machinery cost (excluding IDC, IEDC, land cost, and cost of civil works for the purpose of Initial Spares)	Initial Spares claimed	Ceiling as per 2014 Tariff Regulations (in %)	Initial Spares as per 2014 Tariff Regulations	Excess Initial Spares claimed	Initial Spares allowed
Asset-7	Transmission Line	166.27	13.68	1.00	1.54	12.14	1.54
Asset-8	Transmission Line	100.71	8.28	1.00	0.93	7.35	0.93

Capital Cost as on COD / 31.3.2014

36. The details of the capital cost approved as on the COD in respect of the transmission assets are as under:

(₹ in lakh)

Assets	Capital Cost as on COD/31.3.2014 (Auditor's Certificates /Approved vide Order dated 17.8.2020 in Petition No. 107/TT/2017) (A)	IDC disallowed (B)	IEDC disallowed (C)	Excess Initial Spares Disallowed (D)	Undischarged IDC as on COD (E)	Capital Cost approved as on COD / 31.3.2014 (F=A-B-C-D-E)
Combined Asset 1-4	69226.90*	0.00	0.00*	0.00*	0.00	69226.90
Asset-5	495.07	58.08	22.72	0.00	0.00	414.27
Asset-6	114.74	17.38	11.16	0.00	0.00	86.20
Asset-7	243.87	57.59	11.32	12.14	5.89	156.93
Asset-8	697.24	137.50	24.75	7.35	20.20	507.45
Total	70777.80	270.55	69.95	19.49	26.09	70391.75

* Capital Cost up to 31.3.2014 has been fixed by the Commission vide order dated 17.8.2020 in Petition No. 107/TT/2017 during truing-up of transmission tariff for the 2009-14 tariff period in respect of Asset-1 to Asset-4 .



Additional Capital Expenditure (ACE)

37. The Commission, *vide* order dated 17.8.2020 in Petition No.107/TT/2017 and *vide* order dated 20.8.2020 in Petition No. 136/TT/2017, had allowed the projected ACE for the Combined Asset-1-4 and Asset-5 to Asset-8, respectively, under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations as under:

(₹ in lakh)

Assets	Petition No.	Admitted Cost as on COD/31.3.2014	ACE Allowed for 2014-19	Total cost as on 31.3.2019
Asset-1	107/TT/2017	66590.80	3090.98	69681.78
Asset-2		971.58	77.3	1048.88
Asset-3		883.23	85.44	968.67
Asset-4		781.28	89.17	870.45
Combined Asset 1-4		69226.89	3342.89	72569.78
Asset-5	136/TT/2017	414.27	94.65	508.92
Asset-6		86.20	2.75	88.95
Asset-7		162.82	4.13	166.95
Asset-8		527.65	5.08	532.73

38. The cut-off dates of the transmission assets considered under the instant Petition are as under:

Assets	COD	Cut-off date
Asset -1	1.8.2013	31.3.2016
Asset -2	1.8.2013	31.3.2016
Asset -3	1.9.2013	31.3.2016
Asset-4	1.9.2013	31.3.2016
Combined assets 1 to 4	1.8.2013	31.3.2016
Asset-5	10.10.2014	31.3.2017
Asset-6	3.11.2015	31.3.2018
Asset-7	3.11.2015	31.3.2018
Asset-8	22.3.2015	31.3.2018

39. The asset-wise details of the ACE submitted by the Petitioner *vide* affidavit dated 26.4.2024 are as under:



Combined Asset 1-4					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Liability Payment before the cut-off date under Regulation 14(1)(i) and after the cut-off date under Regulation 14(2)(iv)	1105.42	676.42	655.96	86.29	376.05
Accrual IDC under Regulation 14(1)(i)	33.25	0.00	0.00	0.00	0.00
Work deferred for execution under regulation 14(1)(ii)	564.64	0.00	0.00	0.00	0.00
Total	1703.31	676.42	655.96	86.29	376.05

Asset-5					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Liability Payment before the cut-off date under Regulation 14(1)(i)	32.65	39.52	22.49	0.00	0.00
Total	32.65	39.52	22.49	0.00	0.00

Asset-6				
Particulars	2015-16	2016-17	2017-18	2018-19
Liability Payment before the cut-off date under Regulation 14(1)(i)	0.00	2.75	0.00	0.00
Total	0.00	2.75	0.00	0.00

Asset-7				
Particulars	2015-16	2016-17	2017-18	2018-19
Liability Payment before the cut-off date under Regulation 14(1)(i)	0.00	4.13	0.00	0.00
Total	0.00	4.13	0.00	0.00

Asset-8					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Liability Payment before the cut-off date under Regulation 14(1)(i)	0.00	0.29	4.79	0.00	0.00
Total	0.00	0.29	4.79	0.00	0.00

40. Further, the liability flow statement in respect of the transmission assets, as submitted by the Petitioner are as follows:



Asset-1

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work		
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)	
Land Owners	Land	197.59						197.59	197.59	0.00	0.00	0.00	0.00
Sanjeev Sharma, Partap Builders, ELITE Project, Prem Singh & Vihar system Pvt. Limited	Civil & Building work	341.12	0.00	108.23	169.20	27.01	31.23	335.67	0.00	5.45	72.97	72.97	
Tata & Compensation	Transmission line work	1687.65	632.46	390.01	410.00	59.28	147.23	1638.98	0.00	48.68	491.67	491.67	
Siemens	Sub-Station Work	476.36	341.75	134.60	0.00	0.00	0.00	476.36	0.00	0.00	0.00	0.00	
Total			974.21	632.84	579.20	86.29	376.05	2648.60	0.00	54.13	564.64	564.64	

Asset-2

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge		Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	Total (14-19)			14-15	Total (14-19)
	Land	4.40	4.40	4.40	0.00	0.00	0.00	0.00
Siemens	Civil & Building work	72.75	72.75	72.75	0.00	0.00	0.00	0.00
Siemens	Transmission line work	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-station work	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			77.15	77.15	0.00	0.00	0.00	0.00

Asset-3

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
	Transmission line work	85.33	0.00	37.04	48.29	0.00	0.00	85.33	0.00	0.00	0.00	0.00
Tata	Sub-station work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			0.00	37.04	48.29	0.00	0.00	85.33	0.00	0.00	0.00	0.00



Asset-4

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
Siemens	Civil & Building work	1.53	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tata	Transmission line work	35.01	0.00	6.54	28.47	0.00	0.00	35.01	0.00	0.00	0.00	0.00
	Sub-station work	52.53	52.53	0.00	0.00	0.00	0.00	52.53	0.00	0.00	0.00	0.00
Total			54.06	6.54	28.47	0.00	0.00	89.07	0.00	0.00	0.00	0.00

Asset-5

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
Tata	Transmission line work	94.65	32.65	39.52	22.49	0.00	0.00	94.65	0.00	0.00	0.00	0.00
	Sub-station work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			32.65	39.52	22.49	0.00	0.00	94.65	0.00	0.00	0.00	0.00

Asset-6

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
Tata	Transmission line work	2.75	0.00	0.00	2.75	0.00	0.00	2.75	0.00	0.00	0.00	0.00
	Sub-station work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.75	0.00	0.00	2.75	0.00	0.00	2.75	0.00	0.00	0.00	0.00



Asset-7

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
Tata	Transmission line work	4.13	0.00	0.00	4.13	0.00	0.00	4.13	0.00	0.00	0.00	0.00
	Sub-station work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			0.00	0.00	4.13	0.00	0.00	4.13	0.00	0.00	0.00	0.00

Asset-8

(₹ in lakh)

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2014	Discharge						Additional Liability (14-19)	Outstanding Liability as on 31.3.2019	Unexecuted work	
			14-15	15-16	16-17	17-18	18-19	Total (14-19)			14-15	Total (14-19)
Tata	Transmission line	5.08	0.00	0.29	4.79	0.00	0.00	5.08	0.00	0.00	0.00	0.00
	Sub-station work		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			0.00	0.29	4.79	0.00	0.00	5.08	0.00	0.00	0.00	0.00

41. The Petitioner has submitted that out of the total ACE of ₹376.05 lakh claimed during FY 2018-19, ₹197.59 lakh was deposited in the Hon`ble Himachal Pradesh High Court on 20.3.2018 towards the enhanced land/house compensation as per the directions of the Additional District Judge (II), District Mandi, H.P.

42. We have reviewed and considered the Petitioner's submissions. The Petitioner has submitted the liability flow statements *vide* affidavit dated 26.4.2024, and the ACE has been allowed accordingly. ACE claimed by the Petitioner for the balance and retention payments, as well as for the works deferred and for the decree of a court of law, is allowed under Regulations 14(1) and 14(2) of the 2014 Tariff Regulations. The capital cost allowed for the 2014-19 tariff period is as under:



Combined Asset 1-4					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Liability Payment before cut-off date under Regulation 14(1)(i) and after cut-off date under Regulation 14(2)(iv) of the 2014 Tariff Regulations	1105.42	676.42	655.96	86.29	376.05
Accrual IDC under Regulation 14(1)(i)	33.25	11.42	0.00	0.00	0.00
Work deferred for execution under Regulation 14(1)(ii) of the 2014 Tariff Regulations	564.64	0.00	0.00	0.00	0.00
Total	1703.31	687.84	655.96	86.29	376.05

Asset-5					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Liability Payment before cut-off date under Regulation 14(1)(i) of the 2014 Tariff Regulations	32.65	39.52	22.49	0.00	0.00
Total	32.65	39.52	22.49	0.00	0.00

Asset-6				
Particulars	2015-16	2016-17	2017-18	2018-19
Liability Payment before cut-off date under Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	2.75	0.00	0.00
Total	0.00	2.75	0.00	0.00

Asset-7				
Particulars	2015-16	2016-17	2017-18	2018-19
Liability Payment before cut-off date under Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	4.13	0.00	0.00
Accrual IDC under Regulation 14(1)(i) of the 2014 Tariff Regulations	5.89	0.00	0.00	0.00
Total	5.89	4.13	0.00	0.00

Asset-8				
Particulars	2015-16	2016-17	2017-18	2018-19
Liability Payment before cut-off date under Regulation 14(1)(i) of the 2014 Tariff Regulations	0.29	4.79	0.00	0.00
Accrual IDC under Regulation 14(1)(i) of the 2014 Tariff Regulations	20.20	0.00	0.00	0.00
Total	20.49	4.79	0.00	0.00



43. Accordingly, the capital cost allowed for the 2014-19 tariff period for the transmission assets is as follows:

(₹ in lakh)

Assets	RCE AppORTIONED Approved Cost	Capital Cost allowed as on COD/1.4.2014	ACE (including IDC discharge)					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Combined Asset 1-4	75776.11	69226.90	1703.31*	687.84#	655.96	86.29	376.05	72736.35
Asset-5	631.67	414.27	32.65	39.52	22.49	0.00	0.00	508.93
Asset-6	134.25	86.20		0.00	2.75	0.00	0.00	88.95
Asset-7	262.22	156.93		5.89	4.13	0.00	0.00	166.95
Asset-8	721.26	507.45	0.00	20.49	4.79	0.00	0.00	532.73
Total	77525.51	70391.75	1735.96	753.74	690.12	86.29	376.05	74033.91

*Includes IDC discharge of ₹33.25 lakh in 2014-15.

#Includes IDC discharge of ₹11.27 lakhs and ₹0.15 lakh in 2015-16.

Debt-Equity Ratio

44. The debt-equity ratio has been considered and allowed in accordance with Regulation 19(3) of the 2014 Tariff Regulations. The details of the debt-equity ratio as on the COD and 31.3.2019 are as follows:

Combined Asset 1-4

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	48458.83	70.00	2456.62	70.00	50915.45	70.00
Equity	20768.07	30.00	1052.84	30.00	21820.91	30.00
Total	69226.90	100.00	3509.45	100.00	72736.35	100.00

Asset-5

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	289.99	70.00	66.26	70.00	356.25	70.00
Equity	124.28	30.00	28.40	30.00	152.68	30.00
Total	414.27	100.00	94.66	100.00	508.93	100.00



Asset-6

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	60.34	70.00	1.93	70.00	62.26	70.00
Equity	25.86	30.00	0.83	30.00	26.68	30.00
Total	86.20	100.00	2.75	100.00	88.95	100.00

Asset-7

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	109.85	70.00	7.02	70.00	116.86	70.00
Equity	47.08	30.00	3.01	30.00	50.08	30.00
Total	156.93	100.00	10.02	100.00	166.95	100.00

Asset-8

Funding	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	355.21	70.00	17.70	70.00	372.91	70.00
Equity	152.23	30.00	7.59	30.00	159.82	30.00
Total	507.45	100.00	25.28	100.00	532.73	100.00

Depreciation

45. The Petitioner's claim towards the depreciation was found to be higher than the depreciation allowed vide order dated 17.8.2020 in Petition No.107/TT/2017 for Asset-1, Asset-2, Asset-3, and Asset-4 and vide order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7 and Asset-8. The Petitioner has neither given any justification for claiming higher depreciation than what was not allowed in the previous orders nor has it made any specific prayer for allowing higher depreciation in the instant petition. A similar issue was dealt with vide order dated 9.5.2020 in Petition No. 19/TT/2020, wherein the Commission held as under:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-



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

46. In line with the above decision, the Gross Block during the 2014-19 tariff period has been depreciated at the Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out after considering the depreciation rates of the transmission assets as specified in the 2014 Tariff Regulations, and depreciation allowed during the 2014-19 tariff period is as under:

(₹ in lakh)

Combined Asset 1-4						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
	Depreciation					
A	Opening Gross Block	69226.90	70930.21	71618.05	72274.01	72360.30
B	ACE	1703.31	687.84	655.96	86.29	376.05
C	Closing Gross Block (A+B)	70930.21	71618.05	72274.01	72360.30	72736.35
D	Average Gross Block (A+C)/2	70078.56	71274.13	71946.03	72317.16	72548.33
E	Freehold land	840.72	840.99	841.06	841.06	1038.65



Combined Asset 1-4						
	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
F	Weighted Average Rate of Depreciation (in %)	5.1941	5.1929	5.1900	5.1878	5.1802
G	Aggregate Depreciable Value	62314.05	63389.82	63994.47	64328.48	64358.71
H	Balance useful life of the asset (Year)	33	32	31	30	29
I	Lapsed life (Year)	0	1	2	3	4
J	Depreciation during the year	3639.93	3701.22	3734.00	3751.69	3758.12
K	Cumulative depreciation (at the end of the year)	5966.72	9667.94	13401.94	17153.63	20911.74
L	Remaining Depreciable Value (at the end of the year) (G-K)	56347.33	53721.89	50592.53	47174.86	43535.88

(₹ in lakh)

Asset-5						
	Particulars	2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
	Depreciation					
A	Opening Gross Block	414.27	446.92	486.44	508.93	508.93
B	ACE	32.65	39.52	22.49	0.00	0.00
C	Closing Gross Block (A+B)	446.92	486.44	508.93	508.93	508.93
D	Average Gross Block (A+C)/2	430.59	466.68	497.68	508.93	508.93
E	Freehold land	0.00	0.00	0.00	0.00	0.00
F	Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
G	Aggregate Depreciable Value	387.53	420.01	447.91	458.04	458.04
H	Balance useful life of the asset (Year)	35	35	34	33	32
I	Lapsed life (Year)	0	0	1	2	3
J	Depreciation during the year	10.78	24.64	26.28	26.87	26.87
K	Cumulative depreciation (at the end of the year)	10.78	35.42	61.69	88.57	115.44
L	Remaining Depreciable Value (at the end of the year) (G-K)	376.76	384.59	386.22	369.47	342.60



(₹ in lakh)

Asset-6					
	Particulars	2015-16 (pro-rata 150 days)	2016- 17	2017- 18	2018- 19
	Depreciation				
A	Opening Gross Block	86.20	86.20	88.95	88.95
B	ACE	0.00	2.75	0.00	0.00
C	Closing Gross Block (A+B)	86.20	88.95	88.95	88.95
D	Average Gross Block (A+C)/2	86.20	87.57	88.95	88.95
E	Freehold land	5.28	5.28	5.28	5.28
F	Weighted Average Rate of Depreciation (in %)	86.20	86.20	88.95	88.95
G	Aggregate Depreciable Value	77.58	78.81	80.05	80.05
H	Balance useful life of the asset (Year)	35	35	34	33
I	Lapsed life (Year)	0	0	1	2
J	Depreciation during the year	1.87	4.62	4.70	4.70
K	Cumulative depreciation (at the end of the year)	1.87	6.49	11.19	15.88
L	Remaining Depreciable Value (at the end of the year) (G-K)	75.71	72.33	68.87	64.17

(₹ in lakh)

Asset-7					
	Particulars	2015-16 (pro-rata 150 days)	2016- 17	2017- 18	2018- 19
	Depreciation				
A	Opening Gross Block	156.93	162.82	166.95	166.95
B	ACE	5.89	4.13	0.00	0.00
C	Closing Gross Block (A+B)	162.82	166.95	166.95	166.95
D	Average Gross Block (A+C)/2	159.87	164.88	166.95	166.95
E	Freehold land	0.00	0.00	0.00	0.00
F	Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
G	Aggregate Depreciable Value	143.89	148.40	150.25	150.25
H	Balance useful life of the asset (Year)	35	35	34	33
I	Lapsed life (Year)	0	0	1	2
J	Depreciation during the year	3.46	8.71	8.81	8.81
K	Cumulative depreciation (at the end of the year)	3.46	12.17	20.98	29.80
L	Remaining Depreciable Value (at the end of the year) (G-K)	140.43	136.23	129.27	120.46



(₹ in lakh)

Asset-8						
	Particulars	2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
	Depreciation					
A	Opening Gross Block	507.45	507.45	527.94	532.73	532.73
B	ACE	0.00	20.49	4.79	0.00	0.00
C	Closing Gross Block (A+B)	507.45	527.94	532.73	532.73	532.73
D	Average Gross Block (A+C)/2	507.45	517.70	530.34	532.73	532.73
E	Weighted Average Rate of Depreciation (in %)	5.31	5.31	5.31	5.31	5.31
F	Aggregate Depreciable Value	456.70	465.93	477.30	479.46	479.46
G	Balance useful life of the asset (Year)	27	27	26	25	24
H	Lapsed life (Year)	0	0	1	2	3
I	Depreciation during the year	0.74	27.49	28.16	28.29	28.29
J	Cumulative depreciation (at the end of the year)	0.74	28.23	56.39	84.68	112.97
K	Remaining Depreciable Value (at the end of the year) (G-K)	455.97	437.70	420.91	394.78	366.49

47. The details of depreciation allowed vide order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and vide order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, as claimed by the Petitioner in the instant petition and true-up depreciation in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed vide order dated 17.8.2020 in Petition No. 107/TT/2017	3641.59	3705.59	3744.59	3765.43	3765.43
Claimed by the Petitioner in the instant petition	3652.21	3713.23	3745.70	3763.40	3769.82
Approved after true-up in this order	3639.93	3701.22	3734.00	3751.69	3758.12
Asset-5					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	10.78	24.64	26.28	26.87	26.87



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	10.78	24.64	26.28	26.87	26.87
Approved after true-up in this order	10.78	24.64	26.28	26.87	26.87
Asset-6					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		1.87	4.62	4.70	4.70
Claimed by the Petitioner in the instant petition		1.86	4.62	4.70	4.70
Approved after true-up in this order		1.87	4.62	4.70	4.70
Asset-7					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		3.53	8.71	8.81	8.81
Claimed by the Petitioner in the instant petition		3.52	8.71	8.81	8.81
Approved after true-up in this order		3.46	8.71	8.81	8.81
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.77	28.03	28.16	28.29	28.29
Claimed by the Petitioner in the instant petition	0.78	28.25	28.38	28.51	28.51
Approved after true-up in this order	0.74	27.49	28.16	28.29	28.29

Interest on Loan (IoL)

48. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. IoL has been calculated based on the actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed in respect of the transmission assets are as under:

		(₹ in lakh)				
	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
	Interest on Loan					
A	Gross Normative Loan	48458.83	49651.15	50132.64	50591.81	50652.21
B	Cumulative Repayments upto Previous Year	2326.79	5966.72	9667.94	13401.94	17153.63
C	Net Loan-Opening (A-B)	46132.04	43684.43	40464.70	37189.87	33498.58
D	Additions	1192.32	481.49	459.17	60.40	263.24
E	Repayment during the year	3639.93	3701.22	3734.00	3751.69	3758.12



	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
F	Net Loan-Closing (C+D-E)	43684.43	40464.70	37189.87	33498.58	30003.70
G	Average Loan (C+F)/2	44908.23	42074.56	38827.28	35344.23	31751.14
H	Weighted Average Rate of Interest on Loan (in %)	9.0435	9.0422	9.0320	9.0028	8.9781
I	Interest on Loan (G*H)	4061.30	3804.47	3506.88	3181.98	2850.66

(₹ in lakh)

	Particulars	Asset-5				
		2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
	Interest on Loan					
A	Gross Normative Loan	289.99	312.84	340.51	356.25	356.25
B	Cumulative Repayments upto Previous Year	0.00	10.78	35.42	61.69	88.57
C	Net Loan-Opening (A-B)	289.99	302.07	305.09	294.56	267.68
D	Additions	22.86	27.66	15.74	0.00	0.00
E	Repayment during the year	10.78	24.64	26.28	26.87	26.87
F	Net Loan-Closing (C+D-E)	302.07	305.09	294.56	267.68	240.81
G	Average Loan (C+F)/2	296.03	303.58	299.82	281.12	254.25
H	Weighted Average Rate of Interest on Loan (in %)	9.6365	9.5000	9.3215	8.9765	8.8614
I	Interest on Loan (G*H)	13.52	28.84	27.95	25.23	22.53

(₹ in lakh)

	Particulars	Asset-6			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Interest on Loan				
A	Gross Normative Loan	60.34	60.34	62.26	62.26
B	Cumulative Repayments upto Previous Year	0.00	1.87	6.49	11.19
C	Net Loan-Opening (A-B)	60.34	58.47	55.77	51.08
D	Additions	0.00	1.93	0.00	0.00
E	Repayment during the year	1.87	4.62	4.70	4.70
F	Net Loan-Closing (C+D-E)	58.47	55.77	51.08	46.38
G	Average Loan (C+F)/2	59.41	57.12	53.43	48.73
H	Weighted Average Rate of Interest on Loan (in %)	9.5528	9.5292	9.5032	9.4975
I	Interest on Loan (G*H)	2.33	5.44	5.08	4.63



(₹ in lakh)

	Particulars	Asset-7			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Interest on Loan				
A	Gross Normative Loan	109.85	113.97	116.86	116.86
B	Cumulative Repayments upto Previous Year	0.00	3.46	12.17	20.98
C	Net Loan-Opening (A-B)	109.85	110.51	104.70	95.88
D	Additions	4.13	2.89	0.00	0.00
E	Repayment during the year	3.46	8.71	8.81	8.81
F	Net Loan-Closing (C+D-E)	110.51	104.70	95.88	87.07
G	Average Loan (C+F)/2	110.18	107.61	100.29	91.48
H	Weighted Average Rate of Interest on Loan (in %)	9.0120	8.9828	8.9506	8.9322
I	Interest on Loan (G*H)	4.07	9.67	8.98	8.17

(₹ in lakh)

	Particulars	Asset-8				
		2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
	Interest on Loan					
A	Gross Normative Loan	355.21	355.21	369.56	372.91	372.91
B	Cumulative Repayments upto Previous Year	0.00	0.74	28.23	56.39	84.68
C	Net Loan-Opening (A-B)	355.21	354.48	341.33	316.52	288.23
D	Additions	0.00	14.35	3.35	0.00	0.00
E	Repayment during the year	0.74	27.49	28.16	28.29	28.29
F	Net Loan-Closing (C+D-E)	354.48	341.33	316.52	288.23	259.95
G	Average Loan (C+F)/2	354.84	347.90	328.93	302.38	274.09
H	Weighted Average Rate of Interest on Loan (in %)	9.0188	9.0128	8.9931	8.9718	8.9547
I	Interest on Loan (G*H)	0.88	31.36	29.58	27.13	24.54

49. The details of IoL allowed *vide* order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and *vide* order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, as claimed by the Petitioner in the instant petition and trued-up IoL in the instant order are as under:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed vide order dated 17.8.2020 in Petition No. 107/TT/2017	4062.47	3811.70	3528.26	3215.41	2874.39
Claimed by the Petitioner in the instant petition	4075.47	3817.20	3518.17	3192.17	2859.74
Approved after true-up in this order	4061.30	3804.47	3506.88	3181.98	2850.66
Asset-5					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	13.65	29.37	28.87	27.04	24.42
Claimed by the Petitioner in the instant petition	13.52	28.84	27.95	25.23	22.53
Approved after true-up in this order	13.52	28.84	27.95	25.23	22.53
Asset-6					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		2.34	5.47	5.12	4.67
Claimed by the Petitioner in the instant petition		2.33	5.44	5.08	4.63
Approved after true-up in this order		2.33	5.44	5.08	4.63
Asset-7					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		4.08	9.53	8.87	8.08
Claimed by the Petitioner in the instant petition		4.14	9.66	8.97	8.17
Approved after true-up in this order		4.07	9.67	8.98	8.17
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.92	32.26	29.85	27.42	24.83
Claimed by the Petitioner in the instant petition	0.92	32.23	29.77	27.30	24.70
Approved after true-up in this order	0.88	31.36	29.58	27.13	24.54

Return on Equity (RoE)

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



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

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

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

52. The Petitioner has claimed RoE for the 2014-19 tariff period after grossing up the RoE @ 15.50% with the effective tax rates (based on the MAT rates) each year. The trued-up RoE is allowed on the basis of the MAT rate applicable in the respective years for the 2014-19 tariff period, and the same is as follows:

(₹ in lakh)

Particulars	Combined Asset 1-4				
	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity					
A Opening Equity	20768.07	21279.06	21485.42	21682.20	21708.09
B Additions	510.99	206.35	196.79	25.89	112.82
C Closing Equity (A+B)	21279.06	21485.42	21682.20	21708.09	21820.91
D Average Equity (A+C)/2	21023.57	21382.24	21583.81	21695.15	21764.50
E Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F MAT Rate for the respective year (in %)	20.961	21.342	21.342	21.342	21.549



	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
G	Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (D*G)	4122.72	4213.37	4253.09	4275.03	4300.23

(₹ in lakh)

	Particulars	Asset-5				
		2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
	Return on Equity					
A	Opening Equity	124.28	134.08	145.93	152.68	152.68
B	Additions	9.80	11.86	6.75	0.00	0.00
C	Closing Equity (A+B)	134.08	145.93	152.68	152.68	152.68
D	Average Equity (A+C)/2	129.18	140.00	149.30	152.68	152.68
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for the respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (D*G)	12.01	27.59	29.42	30.09	30.17

(₹ in lakh)

Asset-6					
	Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Return on Equity				
A	Opening Equity	25.86	25.86	26.68	26.68
B	Additions	0.00	0.83	0.00	0.00
C	Closing Equity (A+B)	25.86	26.68	26.68	26.68
D	Average Equity (A+C)/2	25.86	26.27	26.68	26.68
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for the respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
H	Return on Equity (D*G)	2.09	5.18	5.26	5.27

(₹ in lakh)

Asset-7					
	Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Return on Equity				
A	Opening Equity	47.08	48.85	50.08	50.08
B	Additions	1.77	1.24	0.00	0.00
C	Closing Equity (A+B)	48.85	50.08	50.08	50.08
D	Average Equity (A+C)/2	47.96	49.47	50.08	50.08



E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for the respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
H	Return on Equity (D*G)	3.87	9.75	9.87	9.90

(₹ in lakh)

	Particulars	Asset-8				
		2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
	Return on Equity					
A	Opening Equity	152.23	152.23	158.38	159.82	159.82
B	Additions	0.00	6.15	1.44	0.00	0.00
C	Closing Equity (A+B)	152.23	158.38	159.82	159.82	159.82
D	Average Equity (A+C)/2	152.23	155.31	159.10	159.82	159.82
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for the respective year (in %)	20.961	21.342	21.342	21.342	21.549
G	Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
H	Return on Equity (D*G)	0.82	30.60	31.35	31.49	31.58

53. The details of the RoE approved vide order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and vide order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, as claimed by the Petitioner in the instant petition and true-up RoE in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed vide order dated 17.8.2020 in Petition No. 107/TT/2017	4124.56	4197.90	4244.28	4269.27	4269.27
Claimed by the Petitioner in the instant petition	4075.47	3817.20	3518.17	3192.17	2859.74
Approved after true-up in this order	4122.72	4213.37	4253.09	4275.03	4300.23
Asset-5					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	12.01	27.45	29.28	29.94	29.94
Claimed by the Petitioner in the instant petition	12.01	27.59	29.42	30.09	30.17
Approved after true-up in this order	12.01	27.59	29.42	30.09	30.17
Asset-6					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		2.08	5.15	5.23	5.23



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition		2.09	5.18	5.26	5.27
Approved after true-up in this order		2.09	5.18	5.26	5.27
Asset-7					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		3.94	9.70	9.82	9.82
Claimed by the Petitioner in the instant petition		3.95	9.75	9.87	9.90
Approved after true-up in this order		3.87	9.75	9.87	9.90
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.85	31.05	31.20	31.34	31.34
Claimed by the Petitioner in the instant petition	0.86	31.46	31.61	31.75	31.84
Approved after true-up in this order	0.82	30.60	31.35	31.49	31.58

Operation & Maintenance Expenses (O&M Expenses)

54. The O&M Expenses claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)

Particulars	Combined Asset 1-4				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) D/C 400 kV Parbati-Amritsar Transmission Line					
(ii) LILO of 2 nd Ckt of Parbati-II-Koldam at Parbat-III					
(iii) Loop out of S/C Portion of 2 nd Ckt of Parbati-II-Koldam at Parbati-III					
(iv) Parbati Pooling Point-Parbati III Bay					
(v) Loop in S/C portion of Parbati-II HEP-Koldam Ckt II at Parbati Pooling Station (Banala)					
Bay(s)					
(vi) Parbati / Banala: Amritsar bay Banala (GIS) Parbati Pooling Station / Banala (GIS)					
(vii) Parbati / Banala: VR Bay_Banala (GIS) Parbati Pooling Station / Banala (GIS)					
(viii) Parbati / Banala: Hamipur Bay Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
(ix) Parbati / Banala: Parbati III Bay Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
(x) Amritsar: Banala Bay Amritsar-Amritsar					
(xi) Amritsar: Jalandhar Bay II Amritsar-Amritsar					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
400 kV GIS Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	51.54	53.25	55.02	56.84	58.73
D/C Twin/Triple Conductor (km)	250.53	250.53	250.53	250.53	250.53
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
S/C 4 conductors (km)	3.333	3.333	3.333	3.333	3.333
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691



Particulars	Combined Asset 1-4				
	2014-15	2015-16	2016-17	2017-18	2018-19
Total O&M Expenses claimed (₹ in lakh)	505.89	522.02	538.48	556.32	574.81

(₹ in lakh)

Particulars	Asset-5				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line					
(i) Loop out of 1 st Ckt of 400 kV D/C Parbati-II-Koldam at Parbati Pooling Station (Banala)					
(ii) Loop out of 1 st Ckt of 400 kV D/C Parbati-II-Koldam at Parbati Pooling Station (Banala)					
Bay(s)					
(iii) Parbati / Bay: Bay for Loop out for LILO of Ckt-I at Banala					
400 kV Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
S/C 4 conductors (km)	0.84	0.84	0.84	0.84	0.84
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
Total O&M Expenses claimed (₹ in lakh)	24.67	53.61	55.14	57.97	58.86

(₹ in lakh)

Particulars	Asset-6			
	2015-16	2016-17	2017-18	2018-19
Transmission line				
(i) LILO of 1 st Ckt of 400 kV D/C Parbati-II-Koldam at Parbati Pooling Station (Banala)				
(ii) Loop In of 1 st Ckt of 400 kV D/C Parbati-II-Koldam at Parbati Pooling Station (banala)				
Bay(s)				
(iii) Parbati / Banala: Bay for Loop in for LILO of Ckt-I at Banala				
400 kV GIS Bays	1	1	1	1
Norms (₹ lakh/Bay)	53.25	55.02	56.84	58.73
S/C 4 conductors (km)	0.14	0.14	0.14	0.14
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669
D/C 4 Conductors (km)	0.650	0.650	0.650	0.650
Norms (₹ lakh/km)	1.097	1.133	1.171	1.21
Total O&M Expenses claimed (₹ in lakh)	22.15	55.85	57.69	59.62

(₹ in lakh)

Particulars	Asset-7			
	2015-16	2016-17	2017-18	2018-19
Transmission line				
(i) LILO D/C Portion of 2 nd Ckt of Parbati-II-Koldam at Parbati-III				
(ii) Loop In of 2 nd Ckt of Parbati-II Koldam at Parbati-III				
S/C 4 conductors (km)	0.07	0.07	0.07	0.07
Norms (₹ lakh/km)	0.209	0.216	0.223	0.23
D/C 4 Conductors (km)	2.144	2.144	2.144	2.144
Norms (₹ lakh/km)	1.097	1.133	1.171	1.21



Particulars	Asset-7			
	2015-16	2016-17	2017-18	2018-19
Total O&M Expenses claimed (₹ in lakh)	0.98	2.48	2.56	2.64

(₹ in lakh)

Particulars	Asset-8				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission line					
(i) LILO D/C portion of Parbati-II HEP-Koldam Ckt II at Parbati Pooling Station (Banala)					
(ii) Loop out S/C portion of Parbati-II- Parbati-II HEP-Koldam Ckt II at Parbati Pooling Station (Banala)					
Bay(s)					
(iii) Parbati / Banala: Koldam Bay-Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
400 kV GIS Bays	1	1	1	1	1
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
S/C 4 conductors (km)	0.250	0.250	0.250	0.250	0.250
Norms (₹ lakh/km)	0.202	0.209	0.216	0.223	0.23
D/C 4 Conductors (km)	0.400	0.400	0.400	0.400	0.400
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
Total O&M Expenses claimed (₹ in lakh)	1.42	53.85	55.63	57.48	59.38

55. The O&M Expense norms applicable for the transmission assets as per the 2014

Tariff Regulations are as under:

“29. Operation and Maintenance Expenses:

(3) Transmission System

(c) The operation and maintenance expenses of communication system forming part of inter-state transmission system shall be derived on the basis of the actual O&M expenses for the period of 2008-09 to 2012-13 based on audited accounts excluding abnormal variations if any after prudence check by the Commission. The normalized O&M expenses after prudence check, for the years 2008-09 to 2012-13 shall be escalated at the rate of 3.02% for computing base year expenses for FY 2012-13, 2013- 14 and at the rate of 3.32% for escalation from 2014-15 onwards.”

56. The applicable norms for the O&M Expenses as per the 2014 Tariff Regulations

is as follows:

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
D/C Bundled Conductor with four or more sub-conductors					
Norms (₹ lakh/km)	1.062	1.097	1.133	1.171	1.21
D/C Twin/Triple Conductor					



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
D/C Single Conductor					
Norms (₹ lakh/km)	0.303	0.313	0.324	0.334	0.346
S/C Bundled Conductor with four sub-conductors					
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
765 kV Bays					
Norms (₹ lakh/Bay)	84.42	87.22	90.12	93.11	96.20
400 kV Bays					
Norms (₹ lakh/Bay)	60.3	62.30	64.37	66.51	68.71
220 kV Bays					
Norms (₹ lakh/Bay)	42.21	43.61	45.06	46.55	48.1

57. The Petitioner has submitted that the 1 no. GIS bay, with respect to the O&M Expenses of Asset-5 and Asset-6 was not claimed in Petition No. 136/TT/2017, and tariff for the same may be granted in the instant Petition.

58. The Commission, *vide* RoP dated 16.7.2024, directed the Petitioner to submit the reasons for not claiming the O&M Expenses for Asset-5 and Asset-6 in Petition No. 136/TT/2017.

59. In response, the Petitioner has submitted that the claim of 1 no. GIS Bay, each used for the termination of the transmission line at Banala sub-station, was inadvertently missed out to be claimed in Petition No. 136/TT/2017, and the Petitioner has already mentioned the same in para 8.5 of the instant Petition. The Petitioner has further prayed to condone the inadvertent error and allow the O&M Expenses as claimed.

60. We have considered the Petitioner's submissions. Since the instant Petition consists of some portion as S/C line and some portion as D/C line, the same treatment has been considered for the determination of the O&M Expenses for Asset-1 to Asset-



8 as allowed vide order dated 17.8.2020 in Petition No. 107/TT/2017 and order dated 20.8.2020 in Petition No. 136/TT/2017.

61. Therefore, we have worked out the O&M Expenses of the S/C line as per the S/C line norms and for the D/C portion as per the D/C norms. We have considered half of the O&M Expense norms of the D/C line when both the circuits of the same D/C line have been put into commercial operation for each of the transmission assets (Asset-1 to Asset-8). In case when only one circuit is put into commercial operation of the D/C line, norms of the S/C line have been considered till the second circuit is put into commercial operation. The O&M Expenses have been worked out for the transmission assets as per the methodology discussed in the order dated 17.8.2020 in Petition No. 107/TT/2017, and the order dated 20.8.2020 in Petition No. 136/TT/2017, and the same has been reproduced hereunder:

***“Order dated 17.8.2020 in Petition No. 107/TT/2017
Asset-3 & Asset-4***

68(c) *Asset-3 & Asset-4 whose COD is 1.9.2013 are Loop Out Part of LILO at Parbati-III and Loop In Part of LILO at Banala Pooling Station respectively. Both these assets have DC Line common with other assets i.e. Asset (c-d) is having a D/C line common with the portion (b-c) whose COD is 3.11.2015 and Asset-4 portion (e-f) is having a D/C line common with portion (f-g) whose COD is 22.3.2015 and their tariff has been claimed in Petition No. 136/TT/2017.*

69. *The COD of Asset-3 being 1.9.2013, O&M Expenses are required to be paid to it for S/C line of the D/C portion for the reason that only one circuit (portion c-d) has been put into commercial operation and other circuit has been put into commercial operation on 3.11.2015. Therefore, we have applied S/C norms for this asset from 1.9.2013 to 2.11.2015, from 3.11.2015, when the other S/C Circuit of the same D/C line was into commercial operation, portion of the assets b-c and c-d combined are required to be paid O&M expenses on the norm of D/C line. Hence from 3.11.2015, the O&M Expenses for Asset-3 shall be taken as half of the Norm prescribed for D/C Line.*

70. *We have therefore, considered O&M Expenses of Asset-3 considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of O&M expenses norms for D/C Line after 3.11.2015. From 1.9.2013 to 2.11.2015, O&M expenses are allowed. Similarly, for Asset-4, we have considered the O&M expenses after considering a portion of S/C line as per S/C line norms from 22.3.2015 and from 1.9.2013 to 21.3.2015, S/C norms have been applied for the O&M Expenses.”*



“Order dated 20.8.2020 in Petition No. 136/TT/2017

Asset-I and II

65. *In the present case, Assets-I and Asset-II are loop-in and loop-out portions of the same LILO. Both assets have S/C and D/C portions. As such, we are of the view that the for the D/C portion, the Petitioner is entitled to get O&M Expenses based on the norm of D/C line. However, COD of both the assets are different.*

- a) *The COD of Asset-I is 10.10.2014. Therefore, from date of COD, this asset is eligible to get O&M Expenses of S/C line (4 sub-conductors) for the D/C portion also, since only one circuit (F-J) has been put into commercial operation.*
- b) *From 3.11.2015, when Asset-II was declared under commercial operation, Assets-5 and Asset-6 together/ combined are eligible to get O&M Expenses for D/C line. Hence, from 3.11.2015, O&M Expenses of Asset-5 shall be taken as half of the norm of D/C line.*
- c) *Therefore, we have worked out O&M Expenses of Asset-I considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M expense norms of D/C line post 3.11.2015. From 10.10.2014 till 2.11.2015, S/C norms are allowed.*
- d) *For Asset-II, D/C portion O&M expenses shall be taken as half of the norm for D/C line as other half of the D/C line’s O&M Expenses have been granted in Asset-I w.e.f. 3.11.2015.*

Asset-III and Asset-IV

66. *Similarly, Asset-III with COD as 3.11.2015 and Asset-IV with COD as 22.3.2015 which are loop in part of a LILO at Parbati-III and Loop-out part of a LILO at Banala Pooling Station respectively where both of these assets having a DC Line common for each other i.e. Asset-III (b-c) portion has a D/C line Common with (c-d) portion with COD as 1.9.2013 claimed in Peti07/TT/2017 and Asset-IV (f-g portion) is having a D/C line common with (e-f portion) with COD as 1.9.2013 claimed in Petition No. 107/TT/2017.*

67. *we have, therefore, worked out the O&M expenses of Asset-III considering a portion of S/ line as per S/C line norms and for D/C portion, we have considered half of the O&M expenses norms of D/C line from COD i.e. 3.11.2015 as the other half of the D/C line is common for (c-d portion) claimed in Petition No. 107/TT/2017.*

68. *Similarly, for Asset-IV, we have worked out the O&M Expenses after considering a portion of S/C line as per S/C line norms and for D/C portion, we have considered half of the O&M norms of D/C line from 22.3.2015 as the other half of the D/C line is common (e-f portion) claimed in Petition No. 107/TT/2017.”*

62. Therefore, as per the methodology followed in the order dated 17.8.2020 in Petition No. 107/TT/2017 for Asset-3 and Asset-4 and in order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7 & Asset-8 (Asset-I, Asset-II, Asset-III & Asset-IV in Petition No. 136/TT/2017), the O&M Expenses have been



allowed as per Regulation 29(3) of the 2014 Tariff Regulation for the transmission assets as follows:

Particulars	Combined Asset 1-4				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) D/C 400 kV Parbati-Amritsar Transmission Line					
(ii) LILO of 2 nd Ckt of Parbati-II-Koldam Transmission Line at Pooling Station and LILO at Parbati -III (portion c-d) {S/C upto 2.11.2015 =2.289 km and S/C onward 2.11.2015= 0.149 km}					
(iii) Loop out of S/C Portion of 2 nd Ckt of Parbati-II-Koldam at Parbati Pooling Station and LILO of Parbati-III (Portion e-f) {S/C upto 21.3.2015 =1.04 km and S/C onward 22.3.2015= 0.640 km}					
Bay(s)					
(i) Parbati / Banala: Amritsar bay Banala (GIS) Parbati Pooling Station / Banala (GIS)					
(ii) Parbati / Banala: VR Bay_Banala (GIS) Parbati Pooling Station / Banala (GIS)					
(iii) Parbati / Banala: Hamipur Bay Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
(iv) Parbati / Banala: Parbati III Bay Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
(v) Amritsar: Banala Bay Amritsar-Amritsar					
(vi) Amritsar: Jalandhar Bay II Amritsar-Amritsar					
400 kV Bays	2	2	2	2	2
Norms (₹ lakh/Bay)	60.3	62.3	64.37	66.51	68.71
O&M Expenses	120.60	124.60	128.74	133.02	137.42
400 kV GIS Bays	4	4	4	4	4
Norms (₹ lakh/Bay)	51.54	53.25	55.02	56.84	58.73
O&M Expenses	206.16	213.00	220.08	227.36	234.92
D/C Twin/Triple Conductor (km)	250.53	250.53	250.53	250.53	250.53
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
O&M Expenses	177.12	183.14	189.15	195.41	201.93
S/C 4 conductors (km)	3.969	3.078	0.789	0.789	0.789
Norms (₹ lakh/km)	0.606	0.627	0.647	0.669	0.691
O&M Expenses	2.01*	1.28*	0.51	0.53	0.55
Total O&M Expenses claimed (₹ in lakh)	505.90	522.03	538.48	556.32	574.81

Asset-5

Particulars	(₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) Loop out of 1 st Ckt of 400KV D/C Parbati-II-Koldam at Parbati Pooling Station (Banala) (j-k Portion) {S/C up to 2.11.2015: 0.84 km and S/C w.e.f 3.11.2015: 0.19 km}					
Bay(s)					
(i) Parbati / Bay: Bay for Loop out for LILO of Ckt-I at Banala					
400 kV S/C Transmission Line (km)	0.84	1.03	0.19	0.19	0.19



Norms as per the 2014 Tariff Regulations	0.606	0.627	0.647	0.669	0.691
O&M Charges	0.24*	0.36*	0.12	0.13	0.13
400 kV Bay (GIS)	1	1	1	1	1
Norms as per the 2014 Tariff Regulations	51.54	53.25	55.02	56.84	58.73
O&M Expenses	24.43*	53.25	55.02	56.84	58.73
Total	24.67	53.61	55.14	56.97	58.86

Asset-6

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) LILO of 1 st Ckt of 400 kV D/C Parbati-II-Koldam at Parbati Pooling Station (Banala) (i-f portion) {D/C: 0.65 km and S/C: 0.19 km}					
Bay(s)					
(i) Parbati / Banala: Bay for Loop in for LILO of Ckt-I at Banala					
400 kV D/C Transmission Line (km)	0.00	0.65	0.65	0.65	0.65
Norms as per the 2014 Tariff Regulations	1.062	1.097	1.133	1.171	1.21
O&M Charges	0.00	0.29*	0.74	0.76	0.79
400 kV S/C Transmission Line (km)	0.00	0.14	0.14	0.14	0.14
Norms as per the 2014 Tariff Regulations	0.606	0.627	0.647	0.669	0.691
O&M Charges	0.00	0.04*	0.09	0.09	0.10
400 kV Bay (GIS)	0.00	1	1	1	1
Norms as per the 2014 Tariff Regulations	51.54	53.25	55.02	56.84	58.73
O&M Expenses	0.00	21.82*	55.02	56.84	58.73
Total	0.00	22.15	55.85	57.69	59.61

Asset-7

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) LILO D/C Portion of 2nd Ckt of Parbati-II-Koldam at Parbati-III					
(ii) Loop In of 2nd Ckt of Parbati-II Koldam at Parbati-III {b-c portion}					
400 kV D/C Transmission line (km) [#]	0.00	2.144	2.144	2.144	2.144
Norms as per the 2014 Tariff Regulations	1.062	1.097	1.133	1.171	1.21
O&M Charges	0.00	0.96*	2.43	2.51	2.59
400 kV S/C Transmission Line (km)	0.00	0.07	0.07	0.07	0.07
Norms as per the 2014 Tariff Regulations	0.606	0.627	0.647	0.669	0.691
O&M Expenses	0.00	0.02*	0.05	0.05	0.05



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) LILO D/C Portion of 2nd Ckt of Parbati-II-Koldam at Parbati-III					
(ii) Loop In of 2nd Ckt of Parbati-II Koldam at Parbati-III {b-c portion}					
Total	0.00	0.98	2.47	2.56	2.64

Asset-8

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line					
(i) LILO D/C portion of Parbati-II HEP-Koldam Ckt II at Parbati Pooling Station (Banala)					
(ii) Loop out S/C portion of Parbati-II- Parbati-II HEP-Koldam Ckt II at Parbati Pooling Station (Banala) (f-g portion)					
Bay(s)					
(i) Parbati / Banala: Koldam Bay-Banala (GIS)-Parbati Pooling Station / Banala (GIS)					
400 kV D/C Transmission Line (km)#	0.40	0.40	0.40	0.40	0.40
Norms as per the 2014 Tariff Regulations	1.062	1.097	1.133	1.171	1.21
O&M Charges	0.01*	0.44	0.45	0.47	0.48
400 kV S/C Transmission Line (km)	0.25	0.25	0.25	0.25	0.25
Norms as per the 2014 Tariff Regulations	0.606	0.627	0.647	0.669	0.691
O&M Charges	0.00*	0.16	0.16	0.17	0.17
400 kV Bay (GIS)	1	1	1	1	1
Norms as per the 2014 Tariff Regulations	51.54	53.25	55.02	56.84	58.73
O&M Expenses	1.41*	53.25	55.02	56.84	58.73
Total	1.43*	53.85	55.63	57.48	59.38

63. The details of O&M Expenses approved *vide* order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and *vide* order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, as claimed by the Petitioner in the instant Petition and trued-up O&M Expenses in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed <i>vide</i> order dated 17.8.2020 in Petition No. 107/TT/2017	505.90	522.73	539.92	557.81	576.15



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	505.89	522.02	538.48	556.32	574.81
Approved after true-up in this order	505.90	522.03	538.48	556.32	574.81
Asset-5					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.24	0.51	0.49	0.51	0.52
Claimed by the Petitioner in the instant petition	24.67	53.61	55.14	56.97	58.86
Approved after true-up in this order	24.67	53.61	55.14	56.97	58.86
Asset-6					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		0.18	0.46	0.47	0.49
Claimed by the Petitioner in the instant petition		22.15	55.85	57.69	59.62
Approved after true-up in this order		22.15	55.85	57.69	59.61
Asset-7					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		0.50	1.26	1.30	1.34
Claimed by the Petitioner in the instant petition		0.98	2.48	2.56	2.64
Approved after true-up in this order		0.98	2.47	2.56	2.64
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	1.66	62.68	64.76	66.91	69.12
Claimed by the Petitioner in the instant petition	1.42	53.85	55.63	57.48	59.38
Approved after true-up in this order	1.43	53.85	55.63	57.48	59.38

Interest on Working Capital (IWC)

64. The IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed for the transmission asset is as follows:

		(₹ in lakh)				
	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
	Interest on Working Capital					
A	Working Capital for O&M Expenses (one month of O&M Expenses)	42.16	43.50	44.87	46.36	47.90
B	Working Capital for Maintenance Spares (Maintenance Spares @ 15% of O&M Expenses)	75.89	78.30	80.77	83.45	86.22
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	2104.99	2089.95	2054.46	2008.96	1961.11



D	Total Working Capital (A+B+C)	2223.04	2211.75	2180.11	2138.77	2095.23
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	300.11	298.59	294.31	288.73	282.86

(₹ in lakh)

	Particulars	Asset-5				
		2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
	Interest on Working Capital					
A	Working Capital for O&M Expenses (one month of O&M Expenses)	4.34	4.47	4.60	4.75	4.91
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	7.81	8.04	8.27	8.55	8.83
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	22.21	23.25	23.96	24.03	23.92
D	Total Working Capital (A+B+C)	34.36	35.76	36.83	37.33	37.65
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	2.20	4.83	4.97	5.04	5.08

(₹ in lakh)

	Particulars	Asset-6			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Interest on Working Capital				
A	Working Capital for O&M Expenses (one month of O&M Expenses)	4.50	4.65	4.81	4.97
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	8.11	8.38	8.65	8.94
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	12.12	12.42	12.71	12.97
D	Total Working Capital (A+B+C)	24.73	25.45	26.17	26.88
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	1.37	3.44	3.53	3.63



(₹ in lakh)

	Particulars	Asset-7			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Interest on Working Capital				
A	Working Capital for O&M Expenses (one month of O&M Expenses)	0.20	0.21	0.21	0.22
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	0.36	0.37	0.38	0.40
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	5.17	5.23	5.17	5.05
D	Total Working Capital (A+B+C)	5.72	5.81	5.76	5.66
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	0.32	0.78	0.78	0.76

(₹ in lakh)

	Particulars	Asset-8				
		2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
	Interest on Working Capital					
A	Working Capital for O&M Expenses (one month of O&M Expenses)	4.34	4.49	4.64	4.79	4.95
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M Expenses)	7.82	8.08	8.35	8.62	8.91
C	Working Capital for Receivables (Receivable equivalent to two months of fixed cost)	24.31	24.72	24.98	24.93	24.84
D	Total Working Capital (A+B+C)	36.47	37.29	37.96	38.34	38.69
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
F	Interest of working capital (D*E)	0.13	5.03	5.12	5.18	5.22

65. The details of IWC approved *vide* order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and *vide* order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, claimed by the Petitioner in the instant Petition and trued-up IWC in the instant order are as under:



(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed vide order dated 17.8.2020 in Petition No. 107/TT/2017	300.22	298.54	294.93	289.77	282.93
Claimed by the Petitioner in the instant petition	301.04	299.50	295.15	289.54	283.64
Approved after true-up in this order	300.11	298.59	294.31	288.73	282.86
Asset-5					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.85	1.90	1.97	1.96	1.90
Claimed by the Petitioner in the instant petition	2.20	4.84	4.97	5.04	5.08
Approved after true-up in this order	2.20	4.83	4.97	5.04	5.08
Asset-6					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		0.15	0.38	0.37	0.36
Claimed by the Petitioner in the instant petition		1.37	3.44	3.53	3.63
Approved after true-up in this order		1.37	3.44	3.53	3.63
Asset-7					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017		0.29	0.71	0.70	0.69
Claimed by the Petitioner in the instant petition		0.32	0.78	0.78	0.77
Approved after true-up in this order		0.32	0.78	0.78	0.76
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	0.15	5.56	5.63	5.70	5.76
Claimed by the Petitioner in the instant petition	0.14	5.09	5.14	5.19	5.24
Approved after true-up in this order	0.13	5.03	5.12	5.18	5.22

Approved Annual Fixed Charges for 2014-19 Tariff Period

66. The trued-up AFC approved for the transmission assets for the 2014-19 tariff period are as under:

(₹ in lakh)

	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
	Annual Transmission Charges					
A	Depreciation	3639.93	3701.22	3734.00	3751.69	3758.12
B	Interest on Loan	4061.30	3804.47	3506.88	3181.98	2850.66



	Particulars	Combined Asset 1-4				
		2014-15	2015-16	2016-17	2017-18	2018-19
C	Return on Equity	4122.72	4213.37	4253.09	4275.03	4300.23
D	O&M Expenses	505.90	522.03	538.48	556.32	574.81
E	Interest on Working Capital	300.11	298.59	294.31	288.73	282.86
F	Total (A+B+C+D+E)	12629.96	12539.68	12326.77	12053.75	11766.67

(₹ in lakh)

	Particulars	Asset-5				
		2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
	Annual Transmission Charges					
A	Depreciation	10.78	24.64	26.28	26.87	26.87
B	Interest on Loan	13.52	28.84	27.95	25.23	22.53
C	Return on Equity	12.01	27.59	29.42	30.09	30.17
D	O&M Expenses	24.67	53.61	55.14	56.97	58.86
E	Interest on Working Capital	2.20	4.83	4.97	5.04	5.08
F	Total (A+B+C+D+E)	63.17	139.51	143.76	144.20	143.51

(₹ in lakh)

	Particulars	Asset-6			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Annual Transmission Charges				
A	Depreciation	1.87	4.62	4.70	4.70
B	Interest on Loan	2.33	5.44	5.08	4.63
C	Return on Equity	2.09	5.18	5.26	5.27
D	O&M Expenses	22.15	55.85	57.69	59.61
E	Interest on Working Capital	1.37	3.44	3.53	3.63
F	Total (A+B+C+D+E)	29.80	74.53	76.26	77.84

(₹ in lakh)

	Particulars	Asset-7			
		2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
	Annual Transmission Charges				
A	Depreciation	3.46	8.71	8.81	8.81
B	Interest on Loan	4.07	9.67	8.98	8.17
C	Return on Equity	3.87	9.75	9.87	9.90
D	O&M Expenses	0.98	2.47	2.56	2.64
E	Interest on Working Capital	0.32	0.78	0.78	0.76
F	Total (A+B+C+D+E)	12.70	31.38	31.00	30.29



(₹ in lakh)

	Particulars	Asset-8				
		2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
	Annual Transmission Charges					
A	Depreciation	0.74	27.49	28.16	28.29	28.29
B	Interest on Loan	0.88	31.36	29.58	27.13	24.54
C	Return on Equity	0.82	30.60	31.35	31.49	31.58
D	O&M Expenses	1.43	53.85	55.63	57.48	59.39
E	Interest on Working Capital	0.13	5.03	5.12	5.18	5.22
F	Total (A+B+C+D+E)	4.00	148.33	149.85	149.56	149.02

67. The details of AFC approved *vide* order dated 17.8.2020 in Petition No.107/TT/2017 for the Combined Asset 1-4 and *vide* order dated 20.8.2020 in Petition No. 136/TT/2017 for Asset-5, Asset-6, Asset-7, and Asset-8, claimed by the Petitioner in the instant petition and true-up AFC in the instant order are as under:

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4					
Allowed <i>vide</i> order dated 17.8.2020 in Petition No. 107/TT/2017	12634.73	12536.45	12351.98	12097.69	11768.17
Claimed by the Petitioner in the instant petition	12671.25	12578.97	12363.91	12089.78	11801.38
Approved after true-up in this order	12629.96	12539.68	12326.77	12053.75	11766.67
Asset-5					
Allowed <i>vide</i> order dated 20.8.2020 in Petition No. 136/TT/2017	37.53	83.88	86.89	86.31	83.65
Claimed by the Petitioner in the instant petition	63.18	139.52	143.76	144.20	143.51
Approved after true-up in this order	63.17	139.51	143.76	144.20	143.51
Asset-6					
Allowed <i>vide</i> order dated 20.8.2020 in Petition No. 136/TT/2017		6.63	16.08	15.89	15.45
Claimed by the Petitioner in the instant petition		29.80	74.53	76.26	77.85
Approved after true-up in this order		29.80	74.53	76.26	77.84
Asset-7					
Allowed <i>vide</i> order dated 20.8.2020 in Petition No. 136/TT/2017		12.35	29.91	29.51	28.75



Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition		12.91	31.38	30.99	30.29
Approved after true-up in this order		12.70	31.38	31.00	30.29
Asset-8					
Allowed vide order dated 20.8.2020 in Petition No. 136/TT/2017	4.35	159.58	159.60	159.65	159.34
Claimed by the Petitioner in the instant petition	4.12	150.88	150.53	150.23	149.67
Approved after true-up in this order	4.00	148.33	149.85	149.56	149.02

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

68. The Petitioner has combined all the transmission assets with effect from 1.4.2019 into one single "Combined Asset" and has filed a consolidated petition claiming the tariff for the Combined Asset for the 2019-24 period as provided in Regulation 8(1) of the 2019 Tariff Regulations.

69. The Petitioner has claimed the following transmission charges for the Combined Asset for the 2019-24 tariff period:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	3843.22	3843.06	3842.82	3842.82	3844.10
Interest on Loan	2588.92	2242.57	1896.87	1553.97	1211.75
Return on Equity	4184.40	4184.29	4184.03	4184.03	4185.40
Interest on Working Capital	179.17	175.10	170.59	166.15	161.38
O&M Expenses	447.89	463.64	479.93	496.70	514.08
Total	11243.60	10908.66	10574.24	10243.67	9916.71

70. The Petitioner has claimed the following IWC for the Combined Asset for the 2019-24 tariff period:



(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	37.32	38.64	39.99	41.39	42.84
Maintenance Spares	67.18	69.55	71.99	74.51	77.11
Receivables	1382.41	1344.90	1303.67	1262.92	1219.27
Total Working Capital	1486.91	1453.09	1415.65	1378.82	1399.22
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	179.17	175.10	170.59	166.15	161.38

Capital Cost

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
- (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
- (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
- (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*



- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

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

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

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

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

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



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

72. The Petitioner has claimed the capital cost of ₹74259.90 lakh as on 31.3.2019 for the Combined Asset. However, the trued-up capital cost of ₹74033.91 lakh as on 31.3.2019 for the Combined Asset has been considered as the opening capital cost as on 1.4.2019 for the determination of the tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Effective Date of Commercial Operation (E-COD)

73. The Petitioner has claimed the E-COD of the Combined Asset as 11.8.2013. Based on the trued-up admitted capital cost as on 31.3.2019 and the actual COD of all the transmission assets, i.e, E-COD has been worked out as under:

Assets	Trued-up Capital Cost as on 31.3.2019 (₹ in lakh)	COD	No. of days from COD of the Transmission Asset from the COD of the Project	Weight of cost (in %)	Weighted days
Combined Asset 1-4	72736.35	1.8.2013	824.00	98.25	809.56
Asset 5	508.93	10.10.2014	389.00	0.69	2.67
Asset 6	88.95	3.11.2015	0.00	0.12	0.00
Asset 7	166.95	3.11.2015	0.00	0.23	0.00
Asset 8	532.73	22.3.2015	226.00	0.72	1.63
Total	74033.91			100.00	813.86
E- COD (latest COD-weighted days)	11.8.2013				



74. E-COD is used to determine the lapsed life of the project as a whole, which works out as 5 (five) years as on 1.4.2019 (i.e., the number of years completed as on 1.4.2019 from the E-COD).

Weighted Average Life (WAL) of the Project

75. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of WAL.

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

77. The WAL has been determined based on the admitted capital cost of the individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. The element-wise life as defined in the regulations prevailing at the time of the actual COD of the individual transmission asset has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for the determination of WAL. Accordingly, the WAL of all the transmission assets commissioned during the 2004-09 and 2014-19 periods has been worked out as 33 years as under:

Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) * (2)	Weighted Average Life of Asset (in years) (4) = (3) / (2)
Building Civil Works & Colony	25	1379.68	34492.06	33.15(Rounded off to 33)
Transmission Line	35	59834.33	2094201.52	
Sub-station	25	11418.23	285455.74	



Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3) = (1) * (2)	Weighted Average Life of Asset (in years) (4) = (3) / (2)
PLCC	15	363.01	5445.22	
IT Equipment including software	6.67	0.00	0.00	
Total		72995.26	2419594.54	

Initial Spares

78. As discussed above, the transmission assets covered in the transmission project are combined, and the overall project cost has been arrived at in the 2019-24 tariff period; therefore, the Initial Spares allowed during the 2019-24 tariff period are on the basis of the overall project cost as per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017. Accordingly, the Initial Spares allowed in the 2019-24 tariff period are as under:

Transmission Line:

Assets	Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed as per 2009-14/2014-19 (₹ in lakh)	Norms as per 2009/2014 Tariff Regulations (in %)	Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh)	Initial spares allowable during 2009-14/2014-19 period (₹ in lakh)	Initial Spares Disallowed in Previous Orders	Excess initial spares claimed (₹ in lakh)	Additional Initial Spares allowed (₹ in lakh)
	A	B	C	$D = \frac{(A-B) * C}{(100-C)}$	E	F	$G = B - D$	$I = G - F$
Asset-1	57722.63	334.08	0.75	433.67	454.04	121.09	15.13	105.96
Asset-3	1215.71	80.23	0.75	8.58				
Asset-4	499.39	32.90	0.75	3.53				
Asset-5	491.84	0.00	1.00	4.97				
Asset-6	82.12	0.00	1.00	0.83				
Asset-7	166.27	13.68	1.00	1.54				
Asset-8	100.71	8.28	1.00	0.93				
Combined Asset	60278.68	469.17		454.05				



Sub-station (GIS):

Assets	Capital Cost/Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed as per 2009-14/2014-19 (₹ in lakh)	Norms as per 2009/14 Tariff Regulations (in %)	Initial Spares allowable as per 2009/2014 Tariff Regulations (₹ in lakh)	Initial spares allowable during 2004-09 /2014-19 period (₹ in lakh)	Initial Spares Disallowed in Previous Order	Excess initial spares claimed (₹ in lakh)	Additional Initial Spares allowed (₹ in lakh)
	A	B	C	$D = \frac{(A-B) * C}{100-C}$	E	F	G=B - D	I = G-F
Asset-1 (GIS)	8397.42	378.97	3.50	290.83	386.12	71.21	53.29	17.91
Asset-1 (AIS)	1615.86	60.44	2.50	39.89				
Asset-2	973.06	0.00	2.50	24.95				
Asset-4	534.04	0.00	2.50	13.69				
Asset-8	402.19	0.00	4.00	16.76				
Combined Asset	11922.57	439.41		386.12				

79. Thus, in line with the APTEL’s judgement dated 14.9.2019 in Appeal No. 74 of 2017, the additional Initial Spares of ₹123.87 lakh is admissible. Therefore, the capital cost allowed as on 1.4.2019 for the Combined Asset after adding the additional Initial Spares as claimed by the Petitioner is as under:

(₹ in lakh)		
Capital Cost as on 31.3.2019	Additional Initial Spare claimed by the Petitioner	Capital Cost as on 1.4.2019
A	C	D=A+C
74033.91	123.87	74157.78

Additional Capital Expenditure (ACE)

80. The Petitioner has claimed the ACE of ₹44.74 lakh for the 2019-24 period for the Combined Asset under Regulations 24(1)(b) and 25(1)(d) of the 2019 Tariff Regulations as follows:



Asset	Capital Cost as on 31.3.2019	ACE					Capital Cost as on 31.3.2024
		2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	74157.78	5.45	-9.39	0.00	0.00	48.68	74202.52

81. The Petitioner has submitted that the total ACE claimed during the 2019-24 period pertains to Asset-1 (i.e., 400 kV D/C Parbati-Amritsar transmission line along with associated bays) only. The Petitioner has further submitted that the ACE of ₹5.45 lakh claimed during the FY 2019-20 is on account of the balance and retention payments released for the building and civil works completed within the cut-off date. Further, the negative ACE of ₹9.39 lakh during the FY 2020-21 is on account of the credit payment from the H.P. Forest Department due to the sale of the trees. The ACE of ₹48.68 lakh projected during the FY 2023-24 is on account of the balance compensation payable for dismantling and reallocating the houses falling in the way of the 400 kV D/C Parbati Pooling Point-Amritsar line. The house compensations payable for only three parties were pending and the same are expected to be resolved during the FY 2023-24. The house compensation will be paid as per the assessment orders that are to be issued by the Public Works Department of H.P.

82. Further, the Petitioner has submitted the liability flow statement as follows:

Combined Asset

Head/Party Wise	Particulars	Outstanding Liability as on COD/31.3.2019	Discharge						Additional Liability (19-24)	Outstanding Liability as on 31.3.2024	Unexecuted work	
			19-20	20-21	21-22	22-23	23-24	Total (19-24)			20-21	Total (19-24)
Sanjeev Sharma,	Civil & Building work	5.45	5.45	0.00	0.00	0.00	0.00	5.45	0.00	0.00	0.00	0.00
Compensation/Fo	Transmission line work	48.68	0.00	0.00	0.00	0.00	48.68	48.68	0.00	0.00	(9.39)	(9.39)



rest Proceeds	Sub-station work	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total			5.45	0.00	0.00	0.00	48.68	54.13	0.00	0.00	(9.39)	(9.39)

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

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

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

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

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

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

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

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

- (a) *Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- (b) *Change in law or compliance of any existing law;*
- (c) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (d) *Liability for works executed prior to the cut-off date;*
- (e) *Force Majeure events;*
- (f) *Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*
- (g) *Raising of ash dyke as a part of ash disposal system.*

(2) *In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission,*



after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

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

84. We have reviewed and considered the Petitioner’s submissions. The ACE claimed by the Petitioner is for the balance and retention payments and, thus, allowed as per Regulations 24(1) and 25(1) of the 2019 Tariff Regulations. The capital cost allowed for the Combined Asset for the 2019-24 tariff period is as under:

Asset	Capital Cost as on 1.4.2019	ACE					Capital Cost as on 31.3.2024
		2019-20	2020-21	2021-22	2022-23	2023-24	
Combined Asset	74157.78	5.45	-9.39	-	-	48.68	74202.52

Debt-Equity ratio

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

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

Provided that:

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

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



utilised for meeting the capital expenditure of the generating station or the transmission system.

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

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

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

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

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

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

(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.”

86. The debt-equity ratio considered for the purpose of computation of the tariff for the 2019-24 tariff period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The debt-equity ratio considered for the purpose of computation of tariff for the Combined Asset for the 2019-24 tariff period is as under:



Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	51910.44	70.00	31.32	70.00	51941.76	70.00
Equity	22247.33	30.00	13.42	30.00	22260.76	30.00
Total	74157.78	100.00	44.74	100.00	74202.52	100.00

Depreciation

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

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

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

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

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

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

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

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

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may



be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

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

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

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

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



88. We have considered the Petitioner’s submissions. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and thereafter up to 31.3.2024 and the accumulated depreciation up to 31.3.2019. The WAROD at Annexure-II has been worked out as per the rates of depreciation specified in the 2019 Tariff Regulations. The depreciation allowed for the Combined Asset is as under:

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	74157.78	74163.23	74153.84	74153.84	74153.84
B	ACE	5.45	-9.39	0.00	0.00	48.68
C	Closing Gross Block (A+B)	74163.23	74153.84	74153.84	74153.84	74202.52
D	Average Gross Block (A+C)/2	74160.51	74158.54	74153.84	74153.84	74178.18
E	Freehold Land	1038.65	1038.65	1038.65	1038.65	1038.65
F	Weighted average rate of Depreciation (WAROD) (in %)	5.18	5.17	5.17	5.17	5.17
G	Balance useful life of the asset (Year)	28	27	26	25	24
H	Lapsed life at the beginning of the year (Year)	5	6	7	8	9
I	Aggregate Depreciable Value	65809.67	65807.90	65803.67	65803.67	65825.58
J	Depreciation during the year	3837.83	3837.67	3837.42	3837.42	3838.71
K	Cumulative Depreciation (at the end of the year)	21185.82	25023.49	28860.92	32698.34	36537.05
L	Remaining Depreciable Value (at the end of the year) (H-J)	44623.84	40784.40	36942.75	33105.33	29288.53

Interest on Loan (IoL)

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

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



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

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

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

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

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

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

(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.”

90. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted at the time of true-up.

91. We have considered the Petitioner’s submissions. The weighted average rate of IoL has been considered on the basis of the rate prevailing as on 1.4.2019. Accordingly,



the floating rate of interest, if any, will be considered at the time of true up. IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed for the Combined Asset for the 2019-24 tariff period is as under:

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	51910.45	51914.27	51907.69	51907.69	51907.69
B	Cumulative Repayments upto Previous Year	21185.82	25023.65	28861.32	32698.74	36536.17
C	Net Loan-Opening (A-B)	30724.63	26890.61	23046.37	19208.95	15371.53
D	Additions	3.82	-6.57	0.00	0.00	34.08
E	Repayment during the year	3837.83	3837.67	3837.42	3837.42	3838.71
F	Net Loan-Closing (C+D-E)	26890.61	23046.37	19208.95	15371.53	11566.89
G	Average Loan (C+F)/2	28807.62	24968.49	21127.66	17290.24	13469.21
H	Weighted Average Rate of Interest on Loan (in %)	8.9856	8.9849	8.9876	8.9910	8.9934
I	Interest on Loan (G*H)	2588.54	2243.40	1898.87	1554.57	1211.35

Return on Equity (RoE)

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

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

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

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

Provided further that:



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

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

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

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

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

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

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

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

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

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

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



transmission licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.

Illustration-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

(b) Estimated Advance Tax for the year on above is Rs 240 crore;

(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

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

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

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	22247.33	22248.97	22246.15	22246.15	22246.15
B	Additions	1.64	-2.82	0.00	0.00	14.60
C	Closing Equity (A+B)	22248.97	22246.15	22246.15	22246.15	22260.75
D	Average Equity (A+C)/2	22248.15	22247.56	22246.15	22246.15	22253.45
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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)	4178.65	4178.54	4178.27	4178.27	4179.64

Operation & Maintenance Expenses (O&M Expenses)

94. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 period as under:

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M					
2 Nos. 400 kV Bay	64.30	66.56	68.90	71.32	73.82
7 Nos. 400 kV GIS Bay	157.57	163.10	168.84	174.72	180.88
S/C (Four Conductor) (km)	1.08	1.13	1.16	1.21	1.24
D/C (Four Conductor) (km)	4.22	4.37	4.53	4.68	4.85
D/C (Twin/Triple Conductor) (km)	220.72	228.48	236.50	244.77	253.29
Total Normative O&M Expenses	447.89	463.64	479.93	496.71	514.08

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

“35. Operation and Maintenance Expenses:

.....

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
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



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (₹ 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.

96. We have considered the Petitioner's submission. The O&M Expenses for the Combined Asset have been worked out and allowed as per Regulation 35(3) of the 2019 Tariff Regulations, subject to the prudent check at the time of truing up. The same is as under:

(₹ in lakh)

Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
2 Nos. 400 kV Bay	2	2	2	2	2
Norms as per Regulation 35(3) of the 2019 Tariff Regulations	32.15	33.28	34.45	35.66	36.91
O&M Expenses allowed	64.30	66.56	68.90	71.32	73.82
7 Nos. 400 kV GIS Bay	7	7	7	7	7
Norms as per Regulation 35(3) of the 2019 Tariff Regulations *	22.51	23.30	24.11	24.96	25.84
O&M Expenses allowed	157.57	163.10	168.77	174.72	180.88
S/C (Four Conductor) (km)	1.439	1.439	1.439	1.439	1.439
Norms as per Regulation 35(3) of the 2019 Tariff Regulations	0.755	0.781	0.809	0.837	0.867
O&M Expenses allowed	1.08	1.12	1.16	1.20	1.25
D/C (Four Conductor) (km)	3.19	3.19	3.19	3.19	3.19



Particulars	Combined Asset				
	2019-20	2020-21	2021-22	2022-23	2023-24
Norms as per Regulation 35(3) of the 2019 Tariff Regulations	1.322	1.368	1.416	1.466	1.517
O&M Expenses allowed	4.22	4.36	4.52	4.68	4.84
D/C (Twin/Triple Conductor) (km)	250.53	250.53	250.53	250.53	250.53
Norms as per Regulation 35(3) of the 2019 Tariff Regulations	0.881	0.912	0.944	0.977	1.011
O&M Expenses allowed	220.72	228.48	236.50	244.77	253.29
Total Normative O&M Expenses	447.89	463.62	479.85	496.69	514.08

*0.70 of the O&M expenses of the normative O&M expenses for bays

Interest on Working Capital (IWC)

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

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

.....

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

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

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

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

.....

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

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

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

“3. 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;”*



98. The Petitioner has submitted that it has claimed IWC for the 2019-24 tariff period considering the SBI base rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for the FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for the FY 2020-21, 10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points) for the FY 2021-22 and the FY 2022-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2022 of 8.50% plus 350 basis points) for the FY 2023-24. The components of the working capital and interest allowed thereon for the Combined Asset is as under:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	O&M Expenses	37.32	38.63	39.99	41.39	42.84
B	Maintenance Spares	67.18	69.54	71.98	74.51	77.11
C	Receivables	1380.97	1342.16	1299.78	1258.93	1217.74
D	Total Working Capital (A+B+C)	1485.47	1450.33	1411.76	1374.83	1337.69
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	12.00
F	Interest on working capital (D*E)	179.00	163.16	148.23	144.36	160.52

Annual Fixed Charges of the 2019-24 Tariff Period

99. The transmission charges allowed in respect of the Combined Asset for the 2019-24 tariff period are as under:

						(₹ in lakh)
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Depreciation	3837.83	3837.67	3837.42	3837.42	3838.71	
Interest on Loan	2588.54	2243.40	1898.87	1554.57	1211.35	
Return on Equity	4178.65	4178.54	4178.27	4178.27	4179.64	
O&M Expenses	447.86	463.61	479.89	496.71	514.06	



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Interest on Working Capital	179.00	163.16	148.23	144.36	160.52
Total	11231.87	10886.38	10542.69	10211.33	9904.28

Filing Fee and Publication Expenses

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

101. We have considered the submissions of the Petitioner. The Petitioner shall be entitled to 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.

License Fee and Publication Expenses

102. The Petitioner shall be entitled to 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 recovery of RLDC fees and charges in accordance with Regulations 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Goods and Services Tax

103. 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 will be borne and additionally paid by the Respondent(s) to the Petitioner, and the same will 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.



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

Security Expenses

105. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant petition, and it would file a separate petition for claiming the overall security expenses and consequential IWC.

106. We have considered the submissions of the Petitioner. The Petitioner has claimed the consolidated security expenses on a projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in the FY 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved the security expenses from 1.4.2019 to 31.3.2024. Therefore, the security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, 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

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

Sharing of Transmission Charges

108. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission system was governed by the 2010 Sharing Regulations. However, with



effect from 1.11.2020, sharing of the transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the billing, collection and disbursement of the transmission charges approved in this order shall be governed by the provisions of the applicable Sharing Regulations as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations.

109. To summarise:

a. The trued-up Annual Fixed Charges (AFC) allowed for the 2014-19 tariff period are as under:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Combined Asset 1-4	12629.96	12539.68	12326.77	12053.75	11766.67

(₹ in lakh)					
Particulars	2014-15 (pro-rata 173 days)	2015-16	2016-17	2017-18	2018-19
Asset-5	63.17	139.51	143.76	144.20	143.51

(₹ in lakh)				
Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
Asset-6	29.80	74.53	76.26	77.84

(₹ in lakh)				
Particulars	2015-16 (pro-rata 150 days)	2016-17	2017-18	2018-19
Asset-7	12.70	31.38	31.00	30.29

(₹ in lakh)					
Particulars	2014-15 (pro-rata 10 days)	2015-16	2016-17	2017-18	2018-19
Asset-8	4.00	148.33	149.85	149.56	149.02

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



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Asset	11231.87	10886.38	10542.69	10211.33	9904.28

110. Annexure-I and Annexure-II, given hereinafter, shall form part of the instant order.

111. This order disposes of Petition No. 349/TT/2023 in terms of the above discussions and findings.

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



Combined Asset 1-4

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/CO D (₹ in lakh)	ACE (₹ in lakh)						Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)					
		2014-15	2015-16	2016-17	2017-18	2018-19	Total			2014-15	2015-16	2016-17	2017-18	2018-19	
Freehold Land	840.52	0.40	0.14	0.00	0.00	197.59	198.13	1038.65	0.00	0.00	0.00	0.00	0.00	0.00	
Building & Other Civil Works	964.49	79.36	108.39	169.20	27.01	31.23	415.19	1379.68	3.34	33.54	36.67	41.31	44.59	45.56	
Transmission Line	56678.71	1151.35	442.94	486.76	59.28	147.23	2287.56	58966.27	5.28	3023.03	3065.12	3089.67	3104.08	3109.53	
Sub-station	10395.59	472.02	136.31	0.00	0.00	0.00	608.34	11003.93	5.28	561.35	577.41	581.01	581.01	581.01	
PLCC	347.59	0.17	0.06	0.00	0.00	0.00	0.22	347.81	6.33	22.01	22.01	22.02	22.02	22.02	
Total	69226.90	1703.31	687.84	655.96	86.29	376.05	3509.45	72736.35		3639.93	3701.22	3734.00	3751.69	3758.12	
										Average Gross Block (₹ in lakh)	70078.56	71274.13	71946	72317.2	72548.3
										Weighted Average Rate of Depreciation (in %)	5.19	5.19	5.19	5.19	5.18



Asset-5

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	2016-17	Total			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	414.27	32.65	39.52	22.49	94.66	508.93	5.28	22.74	24.64	26.28	26.87	26.87
Total	414.27	32.65	39.52	22.49	94.66	508.93		22.74	24.64	26.28	26.87	26.87
Average Gross Block (₹ in lakh)								430.59	466.68	497.68	508.93	508.93
Weighted Average Rate of Depreciation (in %)								5.28	5.28	5.28	5.28	5.28

Asset-6

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	Total			2015-16	2016-17	2017-18	2018-19
Transmission Line	86.20	2.75	2.75	88.95	5.28	4.55	4.62	4.70	4.70
Total	86.20	2.75	2.75	88.95		4.55	4.62	4.70	4.70
Average Gross Block (₹ in lakh)						86.20	87.57	88.95	88.95
Weighted Average Rate of Depreciation (in %)						5.28	5.28	5.28	5.28



Asset-7

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)			
		2015-16	2016-17	Total			2015-16	2016-17	2017-18	2018-19
Transmission Line	156.93	5.89	4.13	10.02	166.95	5.28	8.44	8.71	8.81	8.81
Total	156.93	5.89	4.13	10.02	166.95		8.44	8.71	8.81	8.81
Average Gross Block (₹ in lakh)							159.87	164.88	166.95	166.95
Weighted Average Rate of Depreciation (in %)							5.28	5.28	5.28	5.28

Asset-8

2014-19 Capital Expenditure	Admitted Capital Cost as on 1.4.2014/COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2015-16	2016-17	Total			2014-15	2015-16	2016-17	2017-18	2018-19
Transmission Line	94.17	4.27	4.79	9.06	103.23	5.28	4.97	5.08	5.32	5.45	5.45
Sub-station	398.66	15.65	0.00	15.65	414.30	5.28	21.05	21.46	21.88	21.88	21.88
PLCC	14.63	0.57	0.00	0.57	15.20	6.33	0.93	0.94	0.96	0.96	0.96
Total	507.45	20.49	4.79	25.28	532.73		26.95	27.49	28.16	28.29	28.29
Average Gross Block (₹ in lakh)							507.45	517.70	530.34	532.73	532.73
Weighted Average Rate of Depreciation (in %)							5.31	5.31	5.31	5.31	5.31



Combined Asset

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 (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Land - Freehold	1038.65	0.00	0.00	1038.65	-	-	-	-	-	-
Building Civil Works & Colony	1379.68	5.45	5.45	1385.13	3.34	46.17	46.26	46.26	46.26	46.26
Transmission Line	59940.29	39.29	39.29	59979.58	5.28	3164.85	3164.60	3164.35	3164.35	3165.64
Sub-station	11436.14	0.00	0.00	11436.14	5.28	603.83	603.83	603.83	603.83	603.83
PLCC	363.01	0.00	0.00	363.01	6.33	22.98	22.98	22.98	22.98	22.98
Total	74157.78	44.74	44.74	74202.52		3837.83	3837.67	3837.42	3837.42	3838.71
				Average Gross Block (₹ in lakh)		74160.5	74158.5	74153.8	74153.8	74178.2
				Weighted Average Rate of Depreciation (in %)		5.18	5.17	5.17	5.17	5.17

