

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 100/TT/2020

Coram:

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

Date of Order : 21.09.2021

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff for the 2019-24 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 7 assets under the Eastern Region Strengthening Scheme VIII in the Eastern Region.

And in the matter of:

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

.....Petitioner

Versus

1. Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board -BSEB),
Vidyut Bhavan, Bailey Road, Patna-800001.
2. West Bengal State Electricity Distribution Company Limited,
Bidyut Bhawan, Bidhan Nagar,
Block DJ, Sector-II, Salt Lake city,
Calcutta-700091.
3. Grid Corporation of Orissa Limited,
Shahid Nagar, Bhubaneswar-751007.
4. Jharkhand State Electricity Board,
In Front of Main Secretariat,
Doranda, Ranchi-834002.



5. Damodar Valley Corporation,
DVC Tower, Maniktala,
Civic Centre, VIP road, Calcutta-700054.
6. Power Department,
Government of Sikkim, Gangtok-737101.

...Respondent(s)

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

For Respondent: Shri Venkatesh, Advocate, BSPHCL
Shri Ashutosh K. Srivastava, Advocate, BSPHCL

ORDER

The Petitioner, Power Grid Corporation of India Limited, a deemed transmission licensee, has filed the present petition for truing up of transmission tariff for the period from 1.4.2014 to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of transmission tariff for the period from 1.4.2019 to 31.3.2024 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets under the Eastern Region Strengthening Scheme VIII in the Eastern Region (hereinafter referred to as “the transmission project”):

Asset-I: 125 MVAR Bus Reactor – I Muzaffarpur Sub-station along with bays;

Asset-II: 125 MVAR Bus Reactor II replacing existing 63 MVAR Bus Reactor at Muzaffarpur along with bays;

Asset-III: 1 number of 125 MVAR Bus Reactor and associated bays at 400 kV Rourkela Sub-station;

Asset-IV: 1 number of 1x125 MVAR Bus Reactor and associated bay at 400 kV Indravati Sub-station;



Asset-V: 1 number of 1x125 MVAR Bus Reactor and associated bay at 400 kV Jeypore Sub-station;

Asset-VI: 1 number of 1x500 MVA ICT at 400/220 kV Subhasgram Sub-station along with associated bays;

Asset-VII(a): Shifting of 2x50 MVAR line Reactor from Patna end of 400 kV Kahalgaon/Barh-Patna D/C line to Balia end of 400 kV Patna-Balia D/C line; and

Asset-VII(b): 2x50 MVAR Line reactor at Balia Sub-station.

2. The Petitioner has made the following prayers:

"1) Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.

2) Approve the Completion cost and additional capitalization incurred during 2014-19 & 2019-24.

3) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 10.2 and 11.0 above for respective block.

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

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

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

7) Allow the petitioner to claimed initial spares project as whole.

8) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 11.6 above.

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



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

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

Background

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

a) The Investment Approval (IA) and expenditure sanction for the transmission project was accorded by the Board of Directors of the Petitioner Company vide Memorandum No. C/CP/ERSS-VIII dated 28.8.2013 at an estimated cost of ₹7348 lakh including an IDC of ₹361 lakh (based on April 2013 price level). The transmission assets under the transmission project were scheduled to be commissioned within 20 months from the date of IA, i.e., 27.8.2013. Therefore, the scheduled date of commissioning of the transmission assets was 27.4.2015.

b) The Revised Cost Estimate (RCE) for the transmission project was accorded approval by the Board of Directors of the Petitioner Company vide Memorandum No. C/CP/RCE-ERSS-VIII dated 19.2.2016 at the cost of ₹9568 lakh including IDC of ₹111 lakh (based on August 2015 price level).

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

Installation of Bus Reactor

- i. 2x125 MVAR bus reactor at Muzaffarpur (one 125 MVAR reactor would be installed by replacing the existing 63 MVAR bus reactor at Muzaffarpur, which shall be used as spare)
- ii. 1x125 MVAR bus reactor at Rourkela
- iii. 1x125 MVAR bus reactor at Indravati
- iv. Replacement of existing 1x63 MVAR bus reactor with 1x125 MVAR bus reactor at Jeypore (63 MVAR reactor thus released shall be used as spare reactor)

Shifting of Line Reactor



Shifting of 2x50 MVAR line reactors from Patna end of 400 kV Kahalgaon/Barh-Patna D/C line to Balia end of 400 kV Patna-Balia D/C line.

Augmentation of Transformation Capacity

Addition of 1x500 MVA, 400/220 kV ICT with associated bays at Subhasgram along with 2 nos. of 220 kV equipped line bays.

d) All the transmission assets under the transmission project are completed and covered under instant petition except two 220 kV bays at Subhasgram sub-station. The details of transmission assets under the transmission project are as follows:

Sl. No.	Name of Asset	COD	Previous Order	Asset nomenclature in previous order	Asset nomenclature in instant petition
1	125 MVAR Bus Reactor-I Muzaffarpur Sub-station along with bays	5.3.2015	Order dated 23.5.2016 in Petition No. 475/TT/2015	Asset-II	Asset-I
2	125 MVAR Bus Reactor II replacing existing 63 MVAR Bus Reactor at Muzaffarpur along with bays	1.4.2015		Asset-III	Asset-II
3	1 number of 125 MVAR Bus Reactor and associated bays at 400 kV Rourkela Sub-station	2.2.2015	Order dated 18.3.2016 in Petition No. 142/TT/2015	Single asset	Asset-III
4	1 number of 1x125 MVAR Bus Reactor and associated bay at 400 kV Indravati Sub-station	3.8.2015	Order dated 22.3.2016 in Petition No. 174/TT/2015	Asset-I	Asset-IV
5	1 number of 1x125 MVAR Bus Reactor and associated bay at 400 kV Jeypore Sub-station	2.12.2015		Asset-II	Asset-V
6	1 number of 1x500 MVA ICT at 400/220 kV Subhasgram Sub-station along with associated bays	29.1.2015	Order dated 29.9.2016 in Petition No. 206/TT/2016	Asset-I	Asset-VI
7	Shifting of 2x50 MVAR line Reactor from Patna end of 400 kV Kahalgaon/Barh-Patna D/C line to Balia end of 400 kV Patna-Balia D/C line	11.2.2016		Asset-II	Asset-VII(a)
8	2x50 MVAR Line reactor at Balia Sub-station	11.2.2016 (Original	Order dated 14.12.2015	Part of Asset-II	Asset-VII(b)



Sl. No.	Name of Asset	COD	Previous Order	Asset nomenclature in previous order	Asset nomenclature in instant petition
		COD 1.5.2007)	in Petition No. 560/TT/2014 under Kahalgaon stage-II Phase-I project		
9	2 numbers of 220 kV bays at Subhasgram Sub-station	N/A	N/A	N/A	N/A

e) With respect to Asset-II, the replacement of existing 63 MVAR Bus Reactor at Muzaffarpur with 125 MVAR Bus Reactor-II was approved in 69th OCC meeting held on 28.12.2011 and the replaced 63 MVAR Reactor was approved to be used as Regional Spare.

f) COD of 2 numbers of 220 kV bays at Subhashgram sub-station was claimed in Petition No.206/TT/2016 as part of Asset-VI herein under proviso (ii) of Regulation 4(3) of the 2014 Tariff Regulations as the downstream asset under the scope of WBSETCL was not ready. However, the Commission vide order dated 29.9.2017 did not approve COD of these bays nor granted their tariff and directed the Petitioner to file a fresh petition matching with the downstream network of WBSETCL. Downstream network of WBSETCL has not been put into commercial operation yet and, therefore, tariff for 2 numbers of 220 kV bays is not claimed in the instant petition.

g) The Petitioner had filed Petition No. 206/TT/2016 for determination of tariff for (i) Asset-VI herein and 2 numbers of 220 kV equipped line bays at 400 kV Subhasgram sub-station and (ii) Asset-VII(a) herein. However, the Commission vide order dated 29.9.2017 in Petition No. 206/TT/2016 did not allow tariff for Asset-VII(a) and the Petitioner was directed to carry out decapitalisation and corresponding recapitalisation of the assets within a period of six months and claim the revised tariff of the “two reactors” at Balia at the time of truing-up. The relevant portion of the order dated 29.9.2017 in Petition No. 206/TT/2016 is extracted hereunder:



“8. The petitioner has claimed the cost of shifting of Asset-II as tariff in the instant petition and submitted that the tariff for Asset-II (the plant and machinery), covered under Kahalgaon Stage-II Phase-I project would continue to be recovered in the Petition No. 560/TT/2014. It is the case of inter-unit transfer. The tariff of 2x50 MVAR reactor at Patna Sub-station is allowed since from 2007 and the reactors have completed useful life of 10 years. In case the cost of shifting of Asset-II is allowed for 25 years, there will be a mismatch in the recovery of the cost of the FSC over the 25 years.

9. In order to address this issue, the Commission in the past has decided that in case of inter-unit transfer, the assets shall be de-capitalised in the books of accounts of the transmission system where the asset was originally commissioned and capitalised in the books of accounts of the transmission system where it is transferred. In the instant case, the two reactors have been shifted from Patna to Balia. Therefore, the said assets need to be de-capitalised from the books of account for the assets at Patna and capitalised in the books of account for the assets at Balia. The petitioner is directed to carry out the decapitalisation and corresponding capitalisation of the assets within a period of six months and claim the revised tariff of the “two reactors” at Balia at the time of truing-up. In so far as the expenditure involved in inter-unit transfer is concerned, this is in the nature of revenue expenditure and is allowed as a onetime pass through. Since the “two reactors” were dismantled and shifted to Balia and thereafter, commissioned on 11.2.2016, the tariff of the assets shall be determined afresh with reference to the COD as 11.2.2016. Accordingly, the petitioner after carrying out necessary de-capitalisation of the assets at Patna and capitalisation at Balia shall seek fresh determination of the tariff with effect from 11.2.2016. Therefore, the tariff for shifting of Asset-II is not allowed in this order.

10. However, the petitioner is directed to provide complete details of expenses incurred on shifting the instant asset supported by documentary evidence for a prudence check by the Commission. Further, there can be more cases of multiple shifting of such FSC/Reactors etc. from one project to another or even within the same project at some other locations. Therefore, in order to avoid multiplicity of tariff revisions, the tariff revision in such cases will be allowed once at the end of tariff block under truing-up provisions.”

h) Pursuant to the directions of the Commission vide order dated 29.9.2017 in Petition No. 206/TT/2016, the Petitioner has de-capitalised the 2x50 MVAR line reactors from Kahalgaon stage-II Phase-I project under Petition No. 86/TT/2020 and has recapitalised them in the instant petition as Asset-VII(b) and claimed the shifting cost under Asset-VII(a) of the instant petition.

i) The dates of commercial operation and time over-run of the transmission assets covered in the instant petition are as follows:

Asset	Scheduled date of commercial operation	Date of commercial operation	Time over-run	Time over-run condoned
Asset-I	27.4.2015	5.3.2015	Nil	N/A
Asset-II	27.4.2015	1.4.2015	Nil	N/A



Asset	Scheduled date of commercial operation	Date of commercial operation	Time over-run	Time over-run condoned
Asset-III	27.4.2015	2.2.2015	Nil	N/A
Asset-IV	27.4.2015	3.8.2015	4 Months	Not condoned
Asset-V	27.4.2015	2.12.2015	8 Months	8 Months
Asset-VI	27.4.2015	29.1.2015	Nil	N/A
Asset-VII(a) (shifting costs)	27.4.2015	11.2.2016	9.5 Months	Dealt in the instant order
Asset-VII(b) (re-capitalised asset)	N/A*	11.2.2016 (Original COD 1.5.2007)	Nil	N/A

* Asset covered under Kahalgaon stage-II Phase-I project. COD of asset was in 2004-09 tariff period.

j) The transmission tariff from COD to 31.3.2019 period was allowed for Asset-I and Asset-II vide order dated 23.5.2016 in Petition No. 475/TT/2015; for Asset-III vide order dated 18.3.2016 in Petition No. 142/TT/2015; for Asset-IV and Asset-V vide order dated 22.3.2016 in Petition No.174/TT/2015; for Asset-VI vide order dated 29.9.2016 in Petition No. 206/TT/2016; and for Asset-VII(b) vide order dated 14.12.2015 in Petition No. 560/TT/2014 under Kahalgaon stage-II Phase-I project.

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

5. The Petitioner has served the petition on the Respondents and notice of this petition has been published in the newspaper in accordance with Section 64 of the Electricity Act, 2003. No comments/ objections have been received from the general public in response to the aforesaid notice published in the newspaper by the Petitioner. Bihar State Power (Holding) Company Limited (BSPHCL) vide letter dated 10.3.2021 had requested an extension in time for filing of their reply. The Commission vide letter dated 23.3.2021 had allowed BSPHCL to file its reply by 31.3.2021 and the Petitioner



to file its rejoinder, if any, by 6.4.2021. BSPHCL vide affidavit dated 10.3.2021 has submitted the reply and has raised issues of time over-run, computation of Initial Spares, Additional Capital Expenditure (ACE), capital cost for the 2019-24 tariff period, security expenses and the effect of CGST.

6. This order is issued considering the submissions made by the Petitioner vide affidavits dated 1.1.2020, 8.6.2020, 18.9.2020, 20.10.2020 and 10.11.2020 and BSPHCL's reply vide affidavit dated 10.3.2021.

7. The hearing in this matter was held on 24.8.2020 through video conference and the order was reserved.

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

TRUING UP OF ANNUAL FIXED CHARGES OF THE 2014-19 PERIOD

9. The Petitioner has claimed the following trued-up tariff for the transmission assets for the 2014-19 tariff period:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1.12	35.93	48.32	51.48	51.60
Interest on Loan	1.27	38.41	48.97	47.51	43.09
Return on Equity	1.25	40.25	54.10	57.64	57.93
Interest on Working Capital	0.33	6.08	7.04	7.28	7.31
O&M Expenses	4.46	62.30	64.37	66.51	68.71
Total	8.43	182.97	222.80	230.42	228.64

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Depreciation	36.27	48.71	51.87	52.31
Interest on Loan	39.63	49.82	48.53	44.52
Return on Equity	40.63	54.54	58.07	58.73
Interest on Working Capital	2.68	3.52	3.65	3.58
O&M Expenses	0.00	0.00	0.00	0.00
Total	119.21	156.59	162.12	159.14



(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	4.18	32.01	39.03	49.11	56.70
Interest on Loan	4.65	34.31	38.77	44.50	47.70
Return on Equity	4.66	35.86	43.69	54.98	63.66
Interest on Working Capital	0.84	5.79	6.35	7.09	7.67
O&M Expenses	9.58	62.30	64.37	66.51	68.71
Total	23.91	170.27	192.21	222.19	244.44

(₹ in lakh)

Particulars	Asset-IV			
	2015-16	2016-17	2017-18	2018-19
Depreciation	21.73	37.46	47.20	55.24
Interest on Loan	23.84	38.61	44.23	47.98
Return on Equity	24.34	41.93	52.84	62.00
Interest on Working Capital	3.89	6.27	7.00	7.60
O&M Expenses	41.19	64.37	66.51	68.71
Total	114.99	188.64	217.78	241.53

(₹ in lakh)

Particulars	Asset-V			
	2015-16	2016-17	2017-18	2018-19
Depreciation	10.50	41.80	44.36	44.36
Interest on Loan	11.65	44.43	41.66	37.66
Return on Equity	11.76	46.80	49.66	49.79
Interest on Working Capital	1.92	6.62	6.80	6.83
O&M Expenses	20.60	64.37	66.51	68.71
Total	56.43	204.02	208.99	207.35

(₹ in lakh)

Particulars	Asset-VI				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	11.91	125.82	139.21	139.90	141.74
Interest on Loan	14.09	136.10	138.17	124.15	113.81
Return on Equity	13.28	140.94	155.86	156.63	159.11
Interest on Working	1.87	15.13	16.02	15.93	16.00
O&M Expenses	17.41	105.91	109.43	113.06	116.81
Total	58.56	523.90	558.69	549.67	547.47

(₹ in lakh)



Particulars	Asset-VII(a)			
	2015-16	2016-17	2017-18	2018-19
Depreciation	2.58	26.02	31.83	33.45
Interest on Loan	3.05	28.64	30.90	29.44
Return on Equity	2.89	29.13	35.63	37.55
Interest on Working Capital	0.20	1.93	2.26	2.31
O&M Expenses	0.00	0.00	0.00	0.00
Total	8.72	85.72	100.62	102.75

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16	2016-17	2017-18	2018-19
Depreciation	3.83	28.05	28.05	28.05
Interest on Loan	2.11	13.97	11.39	8.81
Return on Equity	4.29	31.41	31.41	31.49
Interest on Working Capital	0.23	1.69	1.63	1.57
O&M Expenses	0.00	0.00	0.00	0.00
Total	10.46	75.12	72.48	69.92

10. The Petitioner has claimed the following Interest on Working Capital (IWC) for the transmission assets for the 2014-19 tariff period:

(₹ in lakh)

Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	19.00	30.50	37.13	38.40	38.11
Total Working Capital	33.08	45.0	52.1	53.9	54.1
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.33	6.08	7.04	7.28	7.31

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	19.87	26.10	27.02	26.52
Total Working Capital	19.87	26.10	27.02	26.52
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	2.68	3.52	3.65	3.58



(₹ in lakh)

Particulars	Asset-III				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.03	5.19	5.36	5.54	5.73
Maintenance Spares	9.05	9.35	9.66	9.98	10.31
Receivables	25.08	28.38	32.04	37.03	40.74
Total Working Capital	39.16	42.92	47.06	52.55	56.78
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	0.84	5.79	6.35	7.09	7.67

(₹ in lakh)

Particulars	Asset-IV			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	28.98	31.44	36.30	40.26
Total Working Capital	43.52	46.46	51.82	56.30
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	3.89	6.27	7.00	7.60

(₹ in lakh)

Particulars	Asset-V			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	28.45	34.00	34.83	34.56
Total Working Capital	42.99	49.02	50.35	50.60
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	1.92	6.62	6.80	6.83

(₹ in lakh)

Particulars	Asset-VI				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	8.54	8.83	9.12	9.42	9.73
Maintenance Spares	15.38	15.89	16.41	16.96	17.52
Receivables	57.46	87.32	93.12	91.61	91.25
Total Working Capital	81.38	112.04	118.65	117.99	118.50
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	1.87	15.13	16.02	15.93	16.00

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	10.64	14.29	16.77	17.13



Total Working Capital	10.64	14.29	16.77	17.13
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.20	1.93	2.26	2.31

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16	2016-17	2017-18	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	12.77	12.52	12.08	11.65
Total Working Capital	12.77	12.52	12.08	11.65
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.23	1.69	1.63	1.57

Date of Commercial Operation (COD)

11. The details of COD approved by the Commission in respect of the transmission assets are as follows:

Asset	COD (Approved)	Order Date and No.
Asset-I	5.3.2015	Order dated 23.5.2016 in Petition No. 475/TT/2015
Asset-II	1.4.2015	
Asset-III	2.2.2015	Order dated 18.3.2016 in Petition No. 142/TT/2015
Asset-IV	3.8.2015	Order dated 22.3.2016 in Petition No.174/TT/2015
Asset-V	2.12.2015	
Asset-VI	29.1.2015	Order dated 29.9.2016 in Petition No. 206/TT/2016

Asset	Name of Asset	COD claimed	Remarks
Asset-VII(a)	Shifting of 2x50 MVAR line Reactor from Patna end of 400 kV Kahalgaon/ Barh-Patna D/C line to Balia end of 400 kV Patna-Balia D/C line	11.2.2016	Earlier covered under Petition No. 206/TT/2016. The Commission vide order dated 29.9.2017 in Petition No. 206/TT/2016 did not allow tariff for this asset. COD is dealt in the instant petition.
Asset-VII(b)	2x50 MVAR Line reactor at Balia Sub-station	11.2.2016 as recapitalisation date (Original COD 1.5.2007)	Covered under Order dated 14.12.2015 in Petition No. 560/TT/2014 under Kahalgaon stage-II Phase-I project. Petition No. 86/TT/2020 filed for true-up of 560/TT/2014 wherein this asset has been de-capitalised. Re-capitalisation is dealt in the instant petition. Petition No. 86/TT/2020 has been disposed of vide order dated 11.9.2021.



12. The Petitioner has claimed COD of the Asset-VII(a) as 11.2.2016. In support of COD of the asset, the Petitioner has submitted CEA energisation certificate dated 24.11.2015, RLDC charging certificate dated 4.4.2016 and CMD certificate as required under the Grid Code.

13. Taking into consideration the CEA energisation certificate, RLDC charging certificate and CMD certificate, COD of the Asset-VII(a) is approved as 11.2.2016.

14. The Petitioner has submitted that the capital cost claimed vide Auditor Certificate in respect of Asset-VII(a) includes the shifting cost and other costs such as switchgear, structure for switchyard, control relay and protection panel etc. and not the cost of reactor. Reactor is christened as Asset-VII(b) in the instant petition. The Petitioner has further submitted that the cost of the reactor {Asset-VII(b)} has been de-capitalised in Petition No. 86/TT/2020 at the stage of true-up of tariff of the 2014-19 tariff period and it has submitted copy of the Auditors Certificate filed in Petition No. 86/TT/2020 showing the de-capitalization of reactor cost therein.

15. Accordingly, the Petitioner has claimed the transmission tariff separately for the reactor shifted from Patna to Balia {Asset-VII(b)} and for the elements which have been placed in Balia sub-station for installation of the shifted reactor {Asset-VII(a)}.

16. We have considered the submissions of the Petitioner. Asset-VII(a), which has been installed in Balia sub-station on 11.2.2016, is a new asset and, accordingly, it has to be serviced from its COD i.e. 11.2.2016. However, Asset-VII(b), the reactor shifted from Patna sub-station is an existing asset as the Commission has already approved its COD as 1.5.2007 and granted tariff under “Kahalgaon Stage-II, Phase-I Transmission system” vide order dated 6.5.2009 in Petition No. 1/2009. Thus, Asset-VII(b) which has already been granted tariff since 1.5.2007 has completed around 7 years of its useful life. Moreover, the Petitioner has de-capitalised Asset-VII(b) in



Petition No. 86/TT/2020 and has re-capitalised it w.e.f. 11.2.2016 and has claimed separate tariff in the instant petition. Taking into consideration the submission of the Petitioner for claiming separate tariff for Asset-VII(a) and Asset-VII(b) and the fact that the remaining useful life of the transmission assets is not the same, separate tariff is allowed for Asset-VII(a) and Asset-VII(b).

Capital Cost

17. The capital cost from COD to 31.3.2019 period was allowed for Asset-I and Asset-II vide order dated 23.5.2016 in Petition No. 475/TT/2015; for Asset-III vide order dated 18.3.2016 in Petition No. 142/TT/2015; for Asset-IV and Asset-V vide order dated 22.3.2016 in Petition No.174/TT/2015; for Asset-VI vide order dated 29.9.2016 in Petition No. 206/TT/2016 and the same has been summarised as under:

(₹ in lakh)

Assets	Capital cost as on COD	ACE			Capital cost as on 31.3.2019
		2014-19			
		2014-15	2015-16	2016-17	
Asset-I	71.23	432.17	482.91	114.09	1100.40
Asset-II	508.66	0.00	489.04	102.70	1100.40
Asset-III	476.36	44.27	507.53	0.00	1028.16
Asset-IV	567.84	0.00	340.64	100.00	1008.48
Asset-V	478.24	0.00	261.75	100.08	840.07
Asset-VI	520.25	1614.78	495.86	101.60	2732.49

18. The details of claim by the Petitioner regarding apportioned approved capital cost, actual expenditure upto COD, and actual ACE for the 2014-19 tariff period as per the Auditor Certificate dated 18.7.2019 are as follows:

(₹ in lakh)

Assets	Apportioned approved cost as per RCE	Expenditure up to COD/ 31.3.2014	ACE					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	1051.04	71.23	432.17	354.34	114.92	4.70	0.00	977.36
Asset-II	1051.04	508.66	0.00	356.43	114.92	4.70	12.16	996.87
Asset-III	1100.65	476.36	44.27	171.40	94.20	287.69	0.00	1073.92
Asset-IV	1093.88	567.84	0.00	109.17	64.87	304.26	0.00	1046.14
Asset-V	1044.82	478.24	0.00	265.51	96.32	0.00	0.00	840.07
Asset-VI	2794.30	520.25	1614.78	495.86	11.49	14.31	55.41	2712.10



Asset-VII(a)	682.87	302.00	0.00	111.48	158.67	61.29	0.00	633.44
Asset-VII(b)	NA*	531.31	0.00	0.00	0.00	0.00	0.00	531.31

**The Petitioner has submitted that FR/RCE apportionment is not applicable for Asset-VII (b), as the said asset was covered under Kahalgaon Stage-II Phase-I project and FR/RCE apportionment along with cost and tariff for the same has already approved vide order dated 14.12.2015 in Petition No. 560/TT/2014.*

19. The total capital cost as on 31.3.2019 claimed by the Petitioner, including the ACE, is within the RCE apportioned approved capital cost. Therefore, there is no cost over-run.

Time over-run

20. The transmission assets under the transmission project were scheduled to be commissioned within 20 months from the date of IA, i.e., of 27.8.2013. Therefore, the SCOD of the transmission assets was 27.4.2015. There was no time over-run in case of Asset-I, Asset-II, Asset-III and Asset-VI. There was a delay of 4 months and 8 months in commissioning of Asset-IV and Asset-V respectively. The time over-run of 4 months in case of Asset-IV was not condoned and the time over-run of 8 months in case of Asset-V was condoned vide order dated 22.3.2016 in Petition No. 174/TT/2015.

21. COD of Asset-VII(a) is approved in the instant petition as 11.2.2016. Thus, there is a delay of 290 days in commissioning of Asset-VII(a). The Petitioner has submitted that shifting of reactors from Patna sub-station to Balia sub-station involved precise dismantling, transportation, shifting and re-erection of line reactors and other associated equipment. The Petitioner has further submitted that during the said works, a loss of 15 kilolitre oil from reactor had occurred which had to be recouped by vendor as per contractual provisions. The Petitioner has further submitted that the said bottlenecks resulted in time over-run of 9.5 months (approx.).



22. In response to the technical validation letter, the Petitioner vide affidavit dated 18.9.2020 has submitted the following timelines of activities related to shifting of Asset-VII(a) from 25.1.2013 to 9.2.2016:

Sr. No.	Activity	Schedule		Actual	
		From	To	From	To
1	Shifting of 2x250MVA Reactor from Patna to Balia	25.1.2013	26.8.2014	16.9.2013	9.2.2016
2	NOA	25.1.2013	25.1.2013	16.9.2013	16.9.2013
3	Supplies	9.9.2013	13.6.2014	19.7.2014	27.12.2015
4	Civil Works & Erection	22.4.2013	26.8.2014	7.1.2016	9.2.2016
5	Testing & COD	26.8.2014	26.8.2014	9.2.2016	9.2.2016

23. BSPHCL has submitted that transmission tariff is to be trued-up on the basis of controllable and/or uncontrollable factors as mentioned in Regulations 8(4) and 8(5) of the 2014 Tariff Regulations. Therefore, any claim raised by the Petitioner outside the purview of the said Regulations are not permissible and, hence, not to be factored while exercising truing up of transmission tariff for the 2014-19 tariff period. BSPHCL further submitted that Regulation 12 of the 2014 Tariff Regulations provides for the 'controllable' and 'uncontrollable' factors and the reasons submitted by the Petitioner hold no merit and does not fall under the purview of 'uncontrollable factors' and, hence, is liable to be rejected.

24. The Petitioner has not submitted rejoinder to the reply of BSPHCL.

25. We have considered the submissions made by the Petitioner and BSPHCL. As per the investment approval dated 27.8.2013, Asset-VII(a) was to be put into commercial operation on 27.4.2015 against which the asset was put into commercial operation on 11.2.2016 with a time over-run of 290 days. As per the Petitioner, the time over-run was mainly due to issues related to precise dismantling, transportation, shifting and re-erection of line reactors and other associated equipment apart from delays due to loss of 15 kilolitre oil from reactor which had to be recouped by vendor



as per contractual provisions. From CPM and PERT chart submitted by the Petitioner, it is seen that out of the 20 months of timeline, approximately one month was kept for issue of LOA/NOA and remaining 19 months were kept for supply of structure, equipment, civil works and erection, testing and commissioning. It is observed that the LOA/NOA was placed on 16.9.2013, within one month from the date of IA dated 27.8.2013. Further, from Form-5A, it is seen that installation work was initiated by the contractor on 16.9.2013 and work was scheduled to be completed on 15.12.2014. However, from CPM and PERT chart submitted by the Petitioner, the installation work was completed on 9.2.2016. It is evident that there was delay on part of the contractor of the Petitioner. The issue of time over-run is dealt by APTEL in judgement dated 27.4.2011 in Appeal No. 72 of 2010. It was held that if the time over-run is due to the contractor or supplier, the Petitioner is liable for the time over-run and the consequent cost(s). The relevant portion of the judgement is extracted hereunder:

“7.4. The delay in execution of a generating project could occur due to following reasons:

(i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

(ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

(iii) Situation not covered by (i) & (ii) above.”

In the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.



7.5. In our opinion, the above principles will be in consonance with the provisions of Section 61(d) of the Act, safeguarding the consumers' interest and at the same time, ensuring recovery of cost of electricity in a reasonable manner."

26. Further, the reasons submitted by the Petitioner are controllable as specified in Regulation 12(1) of the 2014 Tariff Regulations which provides as follows:

"12. Xxxxxx

(1) The "controllable factors" shall include but shall not be limited to the following:

(a) Variations in capital expenditure on account of time and/or cost over-runs on account of land acquisition issues;

(b) Efficiency in the implementation of the project not involving approved change in scope of such project, change in statutory levies or force majeure events; and

(c) Delay in execution of the project on account of contractor, supplier or agency of the generating company or transmission licensee."

27. In view of the above, we are of the view that the time over-run in the case of Asset-VII(a) is attributable to the Petitioner, its contractor or supplier, which are controllable in nature. Hence, the time over-run is not condoned.

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

28. As discussed in afore-mentioned paragraphs, the time over-run in case of Asset-IV (four months) and Asset-VII(a) (290 days) is not condoned. There is no time over-run in case of Asset-I, Asset-II, Asset-III and Asset-VI. Time over-run in case of Asset-V was condoned. The Petitioner has claimed IDC for the transmission assets and has submitted the statement showing IDC claim, discharge of IDC liability as on date of commercial operation and thereafter as follows:

Asset	IDC as per Auditor Certificate	IDC discharged up to COD	IDC discharged			Total
			2014-15	2015-16	2016-17	
Asset-I	3.19	1.78	0.00	1.41	0.00	3.19
Asset-II	8.47	0.94	0.00	7.53	0.00	8.47
Asset-III	3.65	2.09	0.01	1.55	0.00	3.65
Asset-IV	8.12	0.02	0.00	3.49	4.61	8.12
Asset-V	18.98	0.18	0.00	18.32	0.48	18.98
Asset-VI	6.43	6.43	0.00	0.00	0.00	6.43

(₹ in lakh)



Asset-VII(a)	19.30	19.30	0.00	0.00	0.00	19.30
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29. The Petitioner has submitted IDC computation statement which contains 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 date of commercial operation has been mentioned in Forms 6 and 9C. IDC claimed and considered as on the date of commercial operation and summary of discharge of IDC liability up to the date of commercial operation and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

Asset	IDC as per Auditor Certificate (A)	IDC disallowed due to time over-run not condoned (B)	IDC disallowed due to computational difference (C)	IDC allowed in the instant order (D=A-B-C)
Asset-I	3.19	0.00	0.04	3.15
Asset-II	8.47	0.00	0.00	8.47
Asset-III	3.65	0.00	0.00	3.65
Asset-IV	8.12	8.12	0.00	0.00
Asset-V	18.98	0.00	0.18	18.80
Asset-VI	6.43	0.00	0.00	6.43
Asset-VII(a)	19.30	7.30	0.00	12.00

30. IDC considered as on COD and the statement of IDC discharge for the purpose of tariff determination is as follows:

(₹ in lakh)

Asset	IDC allowed in the instant order (A)	IDC discharged up to COD (B)	IDC discharged (C)		
			2014-15	2015-16	2016-17
Asset-I	3.15	1.78	0.00	1.37	0.00
Asset-II	8.47	0.94	0.00	7.53	0.00
Asset-III	3.65	2.09	0.01	1.55	0.00
Asset-IV	0.00	0.00	0.00	0.00	0.00
Asset-V	18.80	0.18	0.00	18.32	0.30
Asset-VI	6.43	6.43	0.00	0.00	0.00
Asset-VII(a)	12.00	11.80	0.00	0.20	0.00



31. The Petitioner has claimed IEDC as per the Auditor Certificate for the transmission assets covered in the petition as per the tabulation given below. The Petitioner has submitted that the entire IEDC mentioned in the Auditor Certificate is on cash basis and was paid upto date of commercial operation, the details of which are as follows:

(₹ in lakh)

Assets	IEDC claimed as per Auditor certificate	IEDC considered as on COD	IEDC discharged up to COD
Asset-I	15.77	15.77	15.77
Asset-II	21.88	21.88	21.88
Asset-III	3.49	3.49	3.49
Asset-IV	16.67	16.67	16.67
Asset-V	8.40	8.40	8.40
Asset-VI	5.27	5.27	5.27
Asset-VII(a)	0.44	0.44	0.44

32. IEDC allowed as on COD for the purpose of tariff determination in this order is as follows:

(₹ in lakh)

Assets	IEDC as per Auditor Certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC allowed (C=A-B)
Asset-I	15.77	0.00	15.77
Asset-II	21.88	0.00	21.88
Asset-III	3.49	0.00	3.49
Asset-IV	16.67	15.35	1.32
Asset-V	8.40	0.00	8.40
Asset-VI	5.27	0.00	5.27
Asset-VII(a)	0.44	0.14	0.30

Initial Spares

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

*“(d) Transmission System
Transmission line: 1.00%*



Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
GIS Sub-station: 5.00%”

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

Asset	Particulars	Plant and machinery Cost excluding IDC, IEDC, Land Expenditure up to 31.3.2019 (₹ in lakh)	Initial Spares claimed (₹ in lakh)
Asset-I	Sub-station (Brownfield)	958.40	38.81
Asset-II	Sub-station (Brownfield)	966.52	38.81
Asset-III	Sub-station (Brownfield)	1066.78	0.00
Asset-IV	Sub-station (Brownfield)	1044.82	0.00
Asset-V	Sub-station (Brownfield)	812.69	0.00
Asset-VI	Sub-station (Brownfield)	2700.40	68.55
Asset-VII(a)	Sub-station (Brownfield)	613.70	8.77

35. BSPHCL has submitted that the Petitioner has not placed on the record the details of the initial spares as per Regulation 13 of the 2014 Tariff Regulations.

36. We have considered the submissions of the Petitioner and BSPHCL. It is observed that the petitioner has not claimed any initial spares for Asset-III, Asset-IV and Asset-V. The initial spares claimed by the petitioner for Asset-I, Asset-II, Asset-VI and Asset-VII(a) are within ceiling of 6% under brown field sub-station. The Initial Spares allowed for the transmission assets are as follows:

Assets	Plant and machinery Cost excluding IDC, IEDC, Land Expenditure up to 31.3.2019 (A) (₹ in lakh)	Initial Spares Claimed (B) (₹ in lakh)	Ceiling (in %) (C)	Initial Spares Worked out (₹ in lakh)	Initial Spares allowed in the instant order (₹ in lakh)
				$D = \frac{[(A-B) \times C]}{(100-C)}$	
Asset-I	958.40	38.81	6.00	58.70	38.81
Asset-II	966.52	38.81	6.00	59.22	38.81
Asset-III	1066.78	0.00	6.00	68.09	0.00
Asset-IV	1044.82	0.00	6.00	66.69	0.00
Asset-V	812.69	0.00	6.00	51.87	0.00
Asset-VI	2700.40	68.55	6.00	167.99	68.55
Asset-VII (a)	613.70	8.77	6.00	38.61	8.77



Re-capitalisation of Asset-VII(b)

37. The Petitioner has submitted a copy of the minutes of SCM held on 8.2.2012 regarding approval of Shifting of 2x50 MVAR line Reactor from Patna end of 400 kV Kahalgaon/Barh-Patna D/C line to Balia end of 400 kV Patna-Balia D/C line.

38. The Petitioner vide affidavit dated 20.10.2020 and 10.11.2020 has submitted the revised details of decapitalisation in respect of the Asset-VII(b) and Auditor's Certificate dated 30.10.2019. The Petitioner has claimed re-capitalisation of Asset-VII(b) in the instant petition as per the following details:

(₹ in lakh)

Equipment/Asset	Year of capitalisation of asset/equipment being decapitalised	Actual date of decapitalisation claimed in the instant petition	Original book value of the asset being decapitalised	Debt-Equity ratio at the time of capitalisation	Cumulative depreciation corresponding to actual date of decapitalisation	Cumulative repayment of loan corresponding actual date of decapitalisation	Date of recapitalisation claimed in the respective petitions
A	B	C	D	E	F	G	H
2x50 MVAR Line reactor	2007-08 (1.5.2007)	16.11.2014	531.31	70:30	211.79	158.02	11.2.2016

39. It is observed that the Petitioner in its submission in Petition. No. 86/TT/2020 has submitted that the 2x50 MVAR Line reactor at Patna Sub-station was de-capitalized on 16.11.2014 and it was shifted and commissioned at Balia Sub-station with effect from 11.2.2016. The Commission while decapitalising the transmission asset vide order dated 11.9.2021 in Petition No. 86/TT/2020 held as follows:

"38. The Petitioner vide affidavit dated 17.11.2020 had submitted the following details of the decapitalised assets:

(₹ in lakh)

Equipment/Asset	Year of capitalisation of asset/equipment being decapitalised	Actual date of removal of the asset	Original book value of the asset being decapitalised	Debt-Equity ratio at the time of capitalisation	Cumulative depreciation corresponding to actual date of removal	Cumulative repayment of loan corresponding actual date of removal	Date of recapitalisation claimed in the respective petitions
A	B	C	D	E	F	G	H
2x50 MVAR Line reactor	2007-08 (1.5.2007)	16.11.2014	531.31	70:30	211.79	158.02	11.2.2016
FSCs	2007-08 (1.6.2007)	5.9.2014	3483.04	70:30	1288.59	1092.72	11.2.2016



1X63 MVAR Bus Reactor I	2007-08 (1.5.2007)	6.1.2016	435.55	70:30	181.56	160.39	28.7.2017
1X63 MVAR Bus Reactor II	2007-08 (1.5.2007)	6.1.2016	435.55	70:30	181.56	160.39	6.5.2018
80 MVAR Bus reactor	2007-08 (1.5.2007)	2.3.2019	551.04	70:30	323.18	296.02	21.7.2019

39. Accordingly, we have considered the date of de-capitalisation of equipment in the instant petition as per respective dates mentioned in the preceding paragraph and necessary adjustments have been made in the capital cost of the respective transmission assets from respective dates of removal and tariff has been allowed accordingly.”

40. Accordingly, we have considered the date of de-capitalisation in respect of Asset-VII(b) as 16.11.2014 in Petition No. 86/TT/2020 and date of re-capitalisation as 11.2.2016 in the instant petition.

41. Auditor’s certificate submitted in respect of Asset-VII(a) further reveals that it includes an amount of ₹202.28 lakh is towards dismantling, shifting, transportation and re-erection in respect of Asset-VII(b) (shifted reactor). The Commission in order dated 7.2.2021 in Petition No. 33/TT/2019 has already held that expenditure towards shifting, dismantling and transportation are of the nature of revenue expenditure and cannot be capitalised. On the other hand, expenditure incurred towards erection is capital in nature and the same is required to be capitalised. Head-wise expenditure viz. dismantling, shifting, transportation and re-erection is not available, segregation of the amount which is to be capitalised out of the total expenditure of ₹202.28 lakh at this stage has not been submitted by the Petitioner. Accordingly, amount of ₹202.28 lakh towards dismantling, shifting, transportation and re-erection of the shifted reactor is not allowed to be capitalised and excluded from the capital cost as on COD of Asset-VII(a) for the purpose of tariff.

42. The Petitioner is allowed to recover the amount of ₹202.28 lakh towards dismantling, shifting, transportation and re-erection of the shifted reactor directly from the beneficiaries covered under the instant petition as a one-time exercise. The



Petitioner is directed to furnish all the details/ information of amount recovered on this account at the time of truing-up exercise of the 2019-24 tariff period.

43. The details of the capital cost as on COD now approved after adjustment of IDC and IEDC is as follows:

(₹ in lakh)

Asset as per instant petition	Capital Cost claimed as per Auditor Certificate	Undischarged IDC as on COD	IDC disallowed due to time overrun not condoned	IDC disallowed due to computational difference	IEDC disallowed due to time overrun not condoned	Amount of dismantling, shifting, transportation and re-erection of the shifted reactor	Capital Cost allowed as on COD
A	B	C	D	E	F	G	H=B-C-D-E-F-G
Asset-I	72.64	1.37	0.00	0.04	0.00	0.00	71.23
Asset-II	516.19	7.53	0.00	0.00	0.00	0.00	508.66
Asset-III	477.92	1.56	0.00	0.00	0.00	0.00	476.36
Asset-IV	591.31	0.00	8.12	0.00	15.35	0.00	567.84
Asset-V	478.41	18.62	0.00	0.18	0.00	0.00	459.61
Asset-VI	520.25	0.00	0.00	0.00	0.00	0.00	520.25
Asset-VII(a)	302.00	0.20	7.30	0.00	0.14	202.28	92.08

(₹ in lakh)

Asset	Date of recapitalisation claimed in the instant petition	Original book value of the asset being recapitalised	Corresponding cumulative depreciation as on date of decapitalisation	Corresponding cumulative repayment as on date of decapitalisation
Asset-VII(b)	11.2.2016	531.31	211.79	158.02

Additional Capital Expenditure (ACE)

44. The Commission had allowed ACE in 2014-19 tariff period for Asset-I and Asset-II vide order dated 23.5.2016 in Petition No. 475/TT/2015; for Asset-III vide order dated 18.3.2016 in Petition No. 142/TT/2015; for Asset-IV and Asset-V vide order dated 22.3.2016 in Petition No.174/TT/2015; and for Asset-VI vide order dated 29.9.2016 in Petition No. 206/TT/2016 which is as follows:

Assets	ACE (₹ in lakh)		
	2014-19		
	2014-15	2015-16	2016-17
Asset-I	432.17	482.91	114.09
Asset-II	0.00	489.04	102.70
Asset-III	44.27	507.53	0.00
Asset-IV	0.00	340.64	100.00
Asset-V	0.00	261.75	100.08



Asset-VI	1614.78	495.86	101.60
Total	2091.22	2577.73	518.47

45. The Petitioner has claimed following ACE in respect of the transmission assets based on the Auditor Certificate:

Assets	ACE (₹ in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	432.17	354.34	114.92	4.70	0.00
Asset-II	0.00	356.43	114.92	4.70	12.16
Asset-III	44.27	171.4	94.2	287.69	0.00
Asset-IV	0.00	109.17	64.87	304.26	0.00
Asset-V	0.00	265.51	96.32	0.00	0.00
Asset-VI	1614.78	495.86	11.49	14.31	55.41
Asset-VII(a)	0.00	111.48	158.67	61.29	0.00
Asset-VII(b)	0.00	0.00	0.00	0.00	0.00
Total	2091.22	1864.19	655.39	676.95	67.57

46. The cut-off date details in respect of the transmission assets are as follows:

Asset Name	COD	Cut-off date
Asset-I	5.3.2015	31.3.2018
Asset-II	1.4.2015	31.3.2018
Asset-III	2.2.2015	31.3.2018
Asset-IV	3.8.2015	31.3.2018
Asset-V	2.12.2015	31.3.2018
Asset-VI	29.1.2015	31.3.2018
Asset-VII(a)	11.2.2016	31.3.2019
Asset-VII(b)	1.5.2007	31.3.2010

47. The Petitioner has submitted that ACE claimed up to 31.3.2018 is within cut-off date and the same is claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and ACE claimed for 2018-19 is beyond the cut-off date for Asset-II and Asset-VI and is claimed under regulation 14(2)(iv) of the 2014 Tariff Regulations.

48. The Petitioner has further submitted that the Commission vide order dated 22.3.2016 in Petition No. 174/TT/2015 disallowed IDC and IEDC to the tune of ₹23.47 lakh on account of time over-run and reduced it from the capital cost as on the date of commercial operation. Subsequently, in 2017-18, an amount of ₹6.08 lakh was recovered as liquidated damages (LD) from the executing agency(ies) and reduced



from capital cost as per accounting procedures. The Petitioner has submitted that LD recovered to the extent of disallowed IDC and IEDC is added back as ACE in 2017-18 as mentioned in footnote of the Auditor's Certificate submitted by the Petitioner.

49. BSPHCL has submitted that the Petitioner has claimed ACE for the transmission assets for the period 2017-2018 to 2018-2019. However, the same was never claimed by the Petitioner during the determination of transmission tariff for 2014-19 tariff period. BSPHCL has further submitted that the Petitioner has failed to furnish any cogent explanation for incurring such ACE which was not envisaged during the determination of transmission tariff. BSPHCL further submitted that the Petitioner is seeking approval of ACE that is substantially higher than the actual expenditure and, therefore, in terms of Regulation 7(7)(iii) of the 2014 Tariff Regulations, the Respondent beneficiaries are entitled for the refund of excess tariff recovered corresponding to excess capital cost along with an interest @ 1.20 times the prevailing bank rate.

50. We have considered the submissions made by the Petitioner and BSPHCL. APTEL in judgement dated 27.4.2011 in Appeal 72/2010 has laid down the following principles for dealing with the issue of time over-run in execution of projects.

"7.4. The delay in execution of a generating project could occur due to following reasons:

i) due to factors entirely attributable to the generating company, e.g., imprudence in selecting the contractors/suppliers and in executing contractual agreements including terms and conditions of the contracts, delay in award of contracts, delay in providing inputs like making land available to the contractors, delay in payments to contractors/suppliers as per the terms of contract, mismanagement of finances, slackness in project management like improper co-ordination between the various contractors, etc.

ii) due to factors beyond the control of the generating company e.g. delay caused due to force majeure like natural calamity or any other reasons which clearly establish, beyond any doubt, that there has been no imprudence on the part of the generating company in executing the project.

iii) situation not covered by (i) & (ii) above.

In our opinion in the first case the entire cost due to time over run has to be borne by the generating company. However, the Liquidated Damages (LDs) and insurance proceeds



on account of delay, if any, received by the generating company could be retained by the generating company. In the second case the generating company could be given benefit of the additional cost incurred due to time over-run. However, the consumers should get full benefit of the LDs recovered from the contractors/suppliers of the generating company and the insurance proceeds, if any, to reduce the capital cost. In the third case the additional cost due to time overrun including the LDs and insurance proceeds could be shared between the generating company and the consumer. It would also be prudent to consider the delay with respect to some benchmarks rather than depending on the provisions of the contract between the generating company and its contractors/suppliers. If the time schedule is taken as per the terms of the contract, this may result in imprudent time schedule not in accordance with good industry practices.”

51. In terms of the above directions of APTEL, when the time over-run is attributable to the project developer, (in the instant case PGCIL), or its contractors, the cost of the time over-run, i.e. IDC and IEDC has to be borne by the project developer and Liquidated Damages (LD), if any, recovered can be retained by the Petitioner. In the instant case, the time over-run in case of Asset-IV was not condoned. Accordingly, IDC and IEDC for the period of time over-run not condoned in case of Asset-IV is not capitalised and LD recovered by the Petitioner can be retained by the Petitioner. The capital cost of the said asset is allowed in accordance with the observations made by the APTEL in judgement dated 27.4.2011. IDC and IEDC disallowed in case of the Asset-IV is deducted from the capital cost as on its date of commercial operation and ACE incurred by the Petitioner after COD is added to the capital cost. The adjustment of LD recovered, as claimed by the Petitioner, is allowed and the Petitioner is allowed to retain the same.

52. ACE claimed by the Petitioner has been allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and ACE claimed after cut-off date is allowed under Regulation 14(2)(iv) of the 2014 Tariff Regulations as it is towards balance and retention payments and balance work deferred for execution within the original scope. The entitled un-discharged IDC liability as on COD has been allowed as ACE during



the year of its discharge. ACE allowed for the 2014-19 tariff period in respect of the transmission assets is as follows:

(₹ in lakh)

Asset	Particulars	ACE				
		2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	ACE	432.17	352.93	114.92	4.70	0.00
	IDC Discharged	0.00	1.37	0.00	0.00	0.00
	Total	432.17	354.30	114.92	4.70	0.00
Asset-II	ACE	0.00	348.9	114.92	4.7	12.16
	IDC Discharged	0.00	7.53	0.00	0.00	0.00
	Total	0.00	356.43	114.92	4.70	12.16
Asset-III	ACE	44.26	169.85	94.20	287.69	0.00
	IDC Discharged	0.01	1.55	0.00	0.00	0.00
	Total	44.27	171.40	94.20	287.69	0.00
Asset-IV	ACE	0.00	109.17	64.87	304.26	0.00
	IDC Discharged	0.00	0.00	0.00	0.00	0.00
	Total	0.00	109.17	64.87	304.26	0.00
Asset-V	ACE	0.00	265.42	96.24	0.00	0.00
	IDC Discharged	0.00	18.32	0.30	0.00	0.00
	Total	0.00	283.74	96.54	0.00	0.00
Asset-VI	ACE	1614.78	495.86	11.49	14.31	55.41
Asset-VII(a)	ACE		111.48	158.67	61.29	0.00
	IDC Discharged	0.00	0.20	0.00	0.00	0.00
	Total	0.00	111.68	158.67	61.29	0.00

53. Accordingly, the capital cost for the transmission assets considered for the 2014-19 period is as follows:

(₹ in lakh)

Asset	Capital Cost as on 1.4.2014 /COD	ACE					Capital Cost as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	71.23	432.17	354.30	114.92	4.70	0.00	977.32
Asset-II	508.66	0.00	356.43	114.92	4.70	12.16	996.87
Asset-III	476.36	44.27	171.40	94.20	287.69	0.00	1073.92
Asset-IV	567.84	0.00	109.17	64.87	304.26	0.00	1046.14
Asset-V	459.61	0.00	283.74	96.54	0.00	0.00	839.89
Asset-VI	520.25	1614.78	495.86	11.49	14.31	55.41	2712.10
Asset-VII(a)	92.08	0.00	111.68	158.67	61.29	0.00	423.72
Asset-VII(b)	531.31	0.00	0.00	0.00	0.00	0.00	531.31



Debt-Equity ratio

54. The Petitioner has claimed debt-equity ratio of 70:30 as on the date of commercial operation. Debt-equity ratio of 70:30 is considered as provided in Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity ratio in respect of the transmission assets as on the date of commercial operation and as on 31.3.2019 are as follows:

(₹ in lakh)

Funding/ Asset	Capital Cost as on COD / 01.04.2014			Capital Cost as on 31.03.2019		
	Debt	Equity	Total	Debt	Equity	Total
	70%	30%	100%	70%	30%	100%
Asset-I	49.86	21.37	71.23	684.12	293.20	977.32
Asset-II	356.06	152.60	508.66	697.81	299.06	996.87
Asset-III	333.45	142.91	476.36	751.74	322.18	1073.92
Asset-IV	397.49	170.35	567.84	732.30	313.84	1046.14
Asset-V	321.73	137.88	459.61	587.92	251.97	839.89
Asset-VI	364.18	156.08	520.25	1898.47	813.63	2712.10
Asset-VII(a)	64.45	27.62	92.08	296.60	127.12	423.72
Asset-VII(b)	371.92	159.39	531.31	371.92	159.39	531.31

Depreciation

55. The Gross Block during the 2014-19 tariff period has been depreciated at weighted average of depreciation (WAROD). WAROD has been worked out and placed at Annexure-I after taking into account the depreciation rates of transmission assets as specified in the 2014 Tariff Regulations and depreciation allowed during 2014-19 is as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	71.23	503.40	857.70	972.62	977.32
ACE	432.17	354.30	114.92	4.70	0.00
Closing Gross Block	503.40	857.70	972.62	977.32	977.32
Average Gross Block	287.31	680.55	915.16	974.97	977.32



Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	258.58	612.49	823.64	877.47	879.59
Balance useful life of the asset	25.00	25.00	24.00	23.00	22.00
Elapsed life	0.00	0.00	1.00	2.00	3.00
Depreciation during the year	1.12	35.93	48.32	51.48	51.60
Cumulative depreciation	1.12	37.06	85.38	136.85	188.46
Remaining Depreciable Value	257.46	575.44	738.27	740.62	691.13

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	1.12	39.33	55.09	58.10	58.10
Claimed by the Petitioner in the instant petition	1.12	35.93	48.32	51.48	51.60
Approved after true-up in this order	1.12	35.93	48.32	51.48	51.60

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	508.66	865.09	980.01	984.71
ACE	356.43	114.92	4.70	12.16
Closing Gross Block	865.09	980.01	984.71	996.87
Average Gross Block	686.88	922.55	982.36	990.79
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
Depreciable Value	618.19	830.30	884.12	891.71
Balance useful life of the asset	25.00	24.00	23.00	22.00
Elapsed life	0.00	1.00	2.00	3.00
Depreciation during the year	36.27	48.71	51.87	52.31
Cumulative depreciation	36.27	84.98	136.85	189.16
Remaining Depreciable Value	581.92	745.32	747.28	702.55

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	39.77	55.39	58.10	58.10
Claimed by the Petitioner in the instant petition	36.27	48.71	51.87	52.31
Approved after true-up in this order	36.27	48.71	51.87	52.31



(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	476.36	520.63	692.03	786.23	1073.92
ACE	44.27	171.40	94.20	287.69	0.00
Closing Gross Block	520.63	692.03	786.23	1073.92	1073.92
Average Gross Block	498.50	606.33	739.13	930.08	1073.92
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	448.65	545.70	665.22	837.07	966.53
Balance useful life of the asset	25.00	25.00	24.00	23.00	22.00
Elapsed life	0.00	0.00	1.00	2.00	3.00
Depreciation during the year	4.18	32.01	39.03	49.11	56.70
Cumulative depreciation	4.18	36.20	75.22	124.33	181.03
Remaining Depreciable Value	444.46	509.50	589.99	712.74	785.49

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	4.18	40.89	54.29	54.29	54.29
Claimed by the Petitioner in the instant petition	4.18	32.01	39.03	49.11	56.70
Approved after true-up in this order	4.18	32.01	39.03	49.11	56.70

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	567.84	677.01	741.88	1046.14
ACE	109.17	64.87	304.26	0.00
Closing Gross Block	677.01	741.88	1046.14	1046.14
Average Gross Block	622.43	709.45	894.01	1046.14
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
Depreciable Value	560.18	638.50	804.61	941.53
Balance useful life of the asset	25.00	25.00	24.00	23.00
Elapsed life	0.00	0.00	1.00	2.00
Depreciation during the year	21.73	37.46	47.20	55.24



Cumulative depreciation	21.73	59.19	106.39	161.63
Remaining Depreciable Value	538.45	579.31	698.22	779.90

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	25.77	50.61	53.25	53.25
Claimed by the Petitioner in the instant petition	21.73	37.46	47.20	55.24
Approved after true-up in this order	21.73	37.46	47.20	55.24

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	459.61	743.35	839.89	839.89
ACE	283.74	96.54	0.00	0.00
Closing Gross Block	743.35	839.89	839.89	839.89
Average Gross Block	601.48	791.62	839.89	839.89
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
Depreciable Value	541.33	712.46	755.90	755.90
Balance useful life of the asset	25.00	25.00	24.00	23.00
Elapsed life	0.00	0.00	1.00	2.00
Depreciation during the year	10.50	41.80	44.35	44.35
Cumulative depreciation	10.50	52.30	96.64	140.99
Remaining Depreciable Value	530.83	660.16	659.26	614.91

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	10.63	41.71	44.36	44.36
Claimed by the Petitioner in the instant petition	10.50	41.80	44.36	44.36
Approved after true-up in this order	10.50	41.80	44.35	44.35

(₹ in lakh)



Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Depreciation					
Opening Gross Block	520.25	2135.03	2630.89	2642.38	2656.69
ACE	1614.78	495.86	11.49	14.31	55.41
Closing Gross Block	2135.03	2630.89	2642.38	2656.69	2712.10
Average Gross Block	1327.64	2382.96	2636.64	2649.54	2684.40
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28	5.28
Depreciable Value	1194.88	2144.66	2372.97	2384.58	2415.96
Balance useful life of the asset	25.00	25.00	24.00	23.00	22.00
Elapsed life	0.00	0.00	1.00	2.00	3.00
Depreciation during the year	11.91	125.82	139.21	139.90	141.74
Cumulative depreciation	11.91	137.73	276.94	416.84	558.57
Remaining Depreciable Value	1182.97	2006.94	2096.03	1967.74	1857.38

(₹ in lakh)

Particulars	Asset-VI				
	2014-15(Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	11.91	125.82	141.59	144.28	144.28
Claimed by the Petitioner in the instant petition	11.91	125.82	139.21	139.90	141.74
Approved after true-up in this order	11.91	125.82	139.21	139.90	141.74

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	92.08	203.76	362.43	423.72
ACE	111.68	158.67	61.29	0.00
Closing Gross Block	203.76	362.43	423.72	423.72
Average Gross Block	147.92	283.10	393.08	423.72
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
Depreciable Value	133.13	254.79	353.77	381.35
Balance useful life of the asset	18.00	17.00	16.00	15.00
Elapsed life	7.00	8.00	9.00	10.00
Depreciation during the year	1.07	14.95	20.75	22.37
Cumulative depreciation	1.07	16.01	36.77	59.14
Remaining Depreciable Value	132.06	238.77	317.00	322.21



(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	2.58	26.02	31.83	33.45
Approved in this order	1.07	14.95	20.75	22.37

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Depreciation				
Opening Gross Block	531.31	531.31	531.31	531.31
ACE	0.00	0.00	0.00	0.00
Closing Gross Block	531.31	531.31	531.31	531.31
Average Gross Block	531.31	531.31	531.31	531.31
Weighted Average Rate of Depreciation (in %)	5.28	5.28	5.28	5.28
Depreciable Value	478.18	478.18	478.18	478.18
Balance useful life of the asset	18.00	17.00	16.00	15.00
Elapsed life	7.00	8.00	9.00	10.00
Depreciation during the year	3.83	28.05	28.05	28.05
Cumulative depreciation	215.62	243.68	271.73	299.78
Remaining Depreciable Value	262.56	234.50	206.45	178.40

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	3.83	28.05	28.05	28.05
Approved in this order	3.83	28.05	28.05	28.05

Interest on Loan (IoL)

56. The Petitioner has claimed the weighted average rate of IoL, based on its actual loan portfolio and rate of interest.

57. IoL has been calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations. IoL allowed in respect of the transmission assets is as follows:



(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	49.86	352.38	600.39	680.83	684.12
Cumulative Repayments up to Previous Year	0.00	1.12	37.06	85.38	136.85
Net Loan-Opening	49.86	351.26	563.33	595.46	547.27
Additions	302.52	248.01	80.44	3.29	0.00
Repayment during the year	1.12	35.93	48.32	51.48	51.60
Net Loan-Closing	351.26	563.33	595.46	547.27	495.67
Average Loan	200.56	457.30	579.40	571.36	521.47
Weighted Average Rate of Interest on Loan (in %)	8.5336	8.3988	8.4522	8.3141	8.2620
Interest on Loan	1.27	38.41	48.97	47.50	43.08

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	1.27	41.91	55.45	54.05	49.19
Claimed by the Petitioner in the instant petition	1.27	38.41	48.97	47.51	43.09
Approved after true-up in this order	1.27	38.41	48.97	47.50	43.08

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Interest on Loan				
Gross Normative Loan	356.06	605.56	686.01	689.30
Cumulative Repayments up to Previous Year	0.00	36.27	84.98	136.85
Net Loan-Opening	356.06	569.30	601.03	552.45
Additions	249.50	80.44	3.29	8.51
Repayment during the year	36.27	48.71	51.87	52.31
Net Loan-Closing	569.30	601.03	552.45	508.65
Average Loan	462.68	585.16	576.74	530.55
Weighted Average Rate of Interest on Loan (in %)	8.5662	8.5132	8.4151	8.3909
Interest on Loan	39.63	49.82	48.53	44.52

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19



Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	43.39	57.04	55.26	50.27
Claimed by the Petitioner in the instant petition	39.63	49.82	48.53	44.52
Approved after true-up in this order	39.63	49.82	48.53	44.52

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	333.45	364.44	484.42	550.36	751.74
Cumulative Repayments upto Previous Year	0.00	4.18	36.20	75.22	124.33
Net Loan-Opening	333.45	360.26	448.22	475.14	627.41
Additions	30.99	119.98	65.94	201.38	0.00
Repayment during the year	4.18	32.01	39.03	49.11	56.70
Net Loan-Closing	360.26	448.22	475.14	627.41	570.71
Average Loan	346.86	404.24	461.68	551.28	599.06
Weighted Average Rate of Interest on Loan (in %)	8.4352	8.4876	8.3969	8.0727	7.9630
Interest on Loan	4.65	34.31	38.77	44.50	47.70

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	4.65	43.59	54.54	49.97	45.40
Claimed by the Petitioner in the instant petition	4.65	34.31	38.77	44.50	47.70
Approved after true-up in this order	4.65	34.31	38.77	44.50	47.70

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Interest on Loan				
Gross Normative Loan	397.49	473.91	519.32	732.30
Cumulative Repayments up to Previous Year	0.00	21.73	59.19	106.39
Net Loan-Opening	397.49	452.18	460.13	625.91
Additions	76.42	45.41	212.98	0.00
Repayment during the year	21.73	37.46	47.20	55.24



Net Loan-Closing	452.18	460.13	625.91	570.67
Average Loan	424.83	456.15	543.02	598.29
Weighted Average Rate of Interest on Loan (in %)	8.4857	8.4652	8.1453	8.0189
Interest on Loan	23.84	38.61	44.23	47.98

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	27.96	52.02	50.60	46.13
Claimed by the Petitioner in the instant petition	23.84	38.61	44.23	47.98
Approved after true-up in this order	23.84	38.61	44.23	47.98

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Interest on Loan				
Gross Normative Loan	321.73	520.34	587.92	587.92
Cumulative Repayments up to Previous Year	0.00	10.50	52.30	96.64
Net Loan-Opening	321.73	509.84	535.63	491.28
Additions	198.62	67.58	0.00	0.00
Repayment during the year	10.50	41.80	44.35	44.35
Net Loan-Closing	509.84	535.63	491.28	446.94
Average Loan	415.79	522.74	513.45	469.11
Weighted Average Rate of Interest on Loan (in %)	8.4740	8.4985	8.1118	8.0269
Interest on Loan	11.65	44.42	41.65	37.65

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	13.29	49.79	49.03	44.80
Claimed by the Petitioner in the instant petition	11.65	44.43	41.66	37.66
Approved after true-up in this order	11.65	44.42	41.65	37.65



(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Interest on Loan					
Gross Normative Loan	364.18	1494.52	1841.62	1849.67	1859.68
Cumulative Repayments up to Previous Year	0.00	11.91	137.73	276.94	416.84
Net Loan-Opening	364.18	1482.61	1703.90	1572.72	1442.85
Additions	1130.35	347.10	8.04	10.02	38.79
Repayment during the year	11.91	125.82	139.21	139.90	141.74
Net Loan-Closing	1482.61	1703.90	1572.72	1442.85	1339.90
Average Loan	923.39	1593.25	1638.31	1507.78	1391.37
Weighted Average Rate of Interest on Loan (in %)	8.9812	8.5424	8.4339	8.2341	8.1794
Interest on Loan	14.09	136.10	138.17	124.15	113.81

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	14.09	137.72	143.85	134.60	122.16
Claimed by the Petitioner in the instant petition	14.09	136.10	138.17	124.15	113.81
Approved after true-up in this order	14.09	136.10	138.17	124.15	113.81

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Interest on Loan				
Gross Normative Loan	64.45	142.63	253.70	296.60
Cumulative Repayments up to Previous Year	0.00	1.07	16.01	36.77
Net Loan-Opening	64.45	141.57	237.69	259.84
Additions	78.18	111.07	42.90	0.00
Repayment during the year	1.07	14.95	20.75	22.37
Net Loan-Closing	141.57	237.69	259.84	237.46
Average Loan	103.01	189.63	248.76	248.65
Weighted Average Rate of Interest on Loan (in %)	8.9498	8.6941	8.1868	8.0391
Interest on Loan	1.26	16.49	20.37	19.99



(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	3.05	28.64	30.90	29.44
Approved in this order	1.26	16.49	20.37	19.99

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Interest on Loan				
Gross Normative Loan	371.92	371.92	371.92	371.92
Cumulative Repayments up to Previous Year	158.02	161.85	189.91	217.96
Net Loan-Opening	213.90	210.06	182.01	153.96
Additions	0.00	0.00	0.00	0.00
Repayment during the year	3.83	28.05	28.05	28.05
Net Loan-Closing	210.06	182.01	153.96	125.91
Average Loan	211.98	196.04	167.98	139.93
Weighted Average Rate of Interest on Loan (in %)	9.2000	9.2000	9.2000	9.2000
Interest on Loan	2.66	18.04	15.45	12.87

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	2.11	13.97	11.39	8.81
Approved in this order	2.66	18.04	15.45	12.87

Return on Equity (RoE)

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

Year	Claimed effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.715
2016-17	21.338	19.704



2017-18	21.337	19.704
2018-19	21.549	19.757

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

60. The same MAT rates as arrived vide order dated 27.4.2020 are considered for the purpose of grossing up of rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations, which is as follows:

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

61. RoE is trued-up on the basis of the MAT rate applicable for the respective years and is allowed as follows:

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Return on Equity					
Opening Equity	21.37	151.02	257.31	291.79	293.20
Additions	129.65	106.29	34.48	1.41	0.00
Closing Equity	151.02	257.31	291.79	293.20	293.20
Average Equity	86.19	204.16	274.55	292.49	293.20
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500

(₹ in lakh)



MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity	1.25	40.23	54.10	57.64	57.93

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	1.25	43.82	61.38	64.74	64.74
Claimed by the Petitioner in the instant petition	1.25	40.25	54.10	57.64	57.93
Approved after true-up in this order	1.25	40.23	54.10	57.64	57.93

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	152.60	259.53	294.00	295.41
Additions	106.93	34.48	1.41	3.65
Closing Equity	259.53	294.00	295.41	299.06
Average Equity	206.06	276.77	294.71	297.24
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	40.60	54.54	58.07	58.73

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	44.31	61.72	64.74	64.74
Claimed by the Petitioner in the instant petition	40.63	54.54	58.07	58.73
Approved after true-up in this order	40.60	54.54	58.07	58.73

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19



Return on Equity					
Opening Equity	142.91	156.19	207.61	235.87	322.18
Additions	13.28	51.42	28.26	86.31	0.00
Closing Equity	156.19	207.61	235.87	322.18	322.18
Average Equity	149.55	181.90	221.74	279.02	322.18
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity	4.66	35.84	43.69	54.98	63.66

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	4.66	45.56	60.49	60.49	60.49
Claimed by the Petitioner in the instant petition	4.66	35.86	43.69	54.98	63.66
Approved after true-up in this order	4.66	35.84	43.69	54.98	63.66

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	170.35	203.10	222.56	313.84
Additions	32.75	19.46	91.28	0.00
Closing Equity	203.10	222.56	313.84	313.84
Average Equity	186.73	212.83	268.20	313.84
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	24.33	41.94	52.85	62.01

(₹ in lakh)



Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	28.71	56.39	59.33	59.33
Claimed by the Petitioner in the instant petition	24.34	41.93	52.84	62.00
Approved after true-up in this order	24.33	41.94	52.85	62.01

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	137.88	223.00	251.97	251.97
Additions	85.12	28.96	0.00	0.00
Closing Equity	223.00	251.97	251.97	251.97
Average Equity	180.44	237.49	251.97	251.97
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	11.75	46.80	49.65	49.78

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	11.85	46.48	49.42	49.42
Claimed by the Petitioner in the instant petition	11.76	46.80	49.66	49.79
Approved after true-up in this order	11.75	46.80	49.65	49.78

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Return on Equity					
Opening Equity	156.08	640.51	789.27	792.71	797.01
Additions	484.43	148.76	3.45	4.29	16.62



Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Closing Equity	640.51	789.27	792.71	797.01	813.63
Average Equity	398.29	714.89	790.99	794.86	805.32
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in)	19.610	19.705	19.705	19.705	19.758
Return on Equity	13.27	140.87	155.86	156.63	159.11

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	13.27	140.19	157.76	160.75	160.75
Claimed by the Petitioner in the instant petition	13.28	140.94	155.86	156.63	159.11
Approved after true-up in this order	13.27	140.87	155.86	156.63	159.11

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	27.62	61.13	108.73	127.12
Additions	33.50	47.60	18.39	0.00
Closing Equity	61.13	108.73	127.12	127.12
Average Equity	44.38	84.93	117.92	127.12
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in)	19.705	19.705	19.705	19.758
Return on Equity	1.19	16.74	23.24	25.12

(₹ in lakh)



Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	2.89	29.13	35.63	37.55
Approved in this order	1.19	16.74	23.24	25.12

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Return on Equity				
Opening Equity	159.39	159.39	159.39	159.39
Additions	0.00	0.00	0.00	0.00
Closing Equity	159.39	159.39	159.39	159.39
Average Equity	159.39	159.39	159.39	159.39
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	4.29	31.41	31.41	31.49

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	4.29	31.41	31.41	31.49
Approved in this order	4.29	31.41	31.41	31.49

Operation & Maintenance Expenses (O&M Expenses)

62. The Petitioner has not claimed O&M Expenses for Asset-II, Asset-VII(a) and Asset-VII(b). The O&M Expenses claimed by the Petitioner in respect of other transmission assets are as follows:

O&M Expenses Particulars	Asset-I				
	2014-15	2015-16	2016-17	2017-18	2018-19
1 number of 125 MVAR Bus Reactor at Muzaffarpur					
400 kV bays	1	1	1	1	1
Total O&M expense (₹ in lakh)	4.46	62.30	64.37	66.51	68.71



O&M Expenses	Asset-III				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1 number 400 kV Reactor Bay at Rourkela					
400 kV bays	1	1	1	1	1
Total O&M expense (₹ in lakh)	9.58	62.30	64.37	66.51	68.71

O&M Expenses	Asset-IV			
Particulars	2015-16	2016-17	2017-18	2018-19
1 number 400 kV Reactor Bay at Indravati				
400 kV bays	1	1	1	1
Total O&M expense (₹ in lakh)	41.19	64.37	66.51	68.71

O&M Expenses	Asset-V			
Particulars	2015-16	2016-17	2017-18	2018-19
1 number 400 kV Reactor Bay at Jeypore				
400 kV bays	1	1	1	1
Total O&M expense (₹ in lakh)	41.19	64.37	66.51	68.71

O&M Expenses	Asset-VI				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1 number 400 kV ICT-V Bay at Subhasgram					
1 number 220 kV ICT-V Bay at Subhasgram					
400 kV bays	1	1	1	1	1
220 kV bays	1	1	1	1	1
Total O&M expense (₹ in lakh)	17.41	105.91	109.43	113.06	116.81

63. Regulation 29(3) of the 2014 Tariff Regulations specifies the norms for O&M Expenses for the transmission system. Norms specified in respect of the elements covered in the transmission assets are as follows:

Particulars	Unit of measure	2014-15	2015-16	2016-17	2017-18	2018-19
Bays						
400 kV bays	(₹ lakh per bay)	60.30	62.30	64.37	66.51	68.71
220 kV bays	(₹ lakh per bay)	42.21	43.61	45.06	46.55	48.10

64. We have considered the submission of the Petitioner. The O&M Expenses are allowed for the transmission assets as per the norms specified in the 2014 Tariff Regulations and are as follows:

O&M Expenses						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	1 number of 400 kV bay	4.46	62.30	64.37	66.51	68.71
Asset-II	Nil	Nil				



O&M Expenses						
Asset	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-III	1 number of 400 kV bay	9.58	62.30	64.37	66.51	68.71
Asset-IV	1 number 400 kV bay	N/A	41.19	64.37	66.51	68.71
Asset-V	1 number 400 kV bay	N/A	20.60	64.37	66.51	68.71
Asset-VI	1 number 400 kV bay 1 number of 220 kV bay	17.41	105.91	109.43	113.06	116.81
Asset-VII (a)	Nil	Nil				
Asset-VII (b)	Nil	Nil				

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	4.46	62.30	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	4.46	62.30	64.37	66.51	68.71
Approved after true-up in this order	4.46	62.30	64.37	66.51	68.71

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	9.58	62.30	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	9.58	62.30	64.37	66.51	68.71
Approved after true-up in this order	9.58	62.30	64.37	66.51	68.71

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	41.19	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	41.19	64.37	66.51	68.71
Approved after true-up in this order	41.19	64.37	66.51	68.71

(₹ in lakh)



Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	20.60	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	20.60	64.37	66.51	68.71
Approved after true-up in this order	20.60	64.37	66.51	68.71

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	17.41	105.91	109.43	113.06	116.81
Claimed by the Petitioner in the instant petition	17.41	105.91	109.43	113.06	116.81
Approved after true-up in this order	17.41	105.91	109.43	113.06	116.81

Interest on Working Capital (IWC)

65. IWC for the 2014-19 tariff period has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and allowed as follows:

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	5.03	5.19	5.36	5.54	5.73
WC for Maintenance Spares (15% of O&M Expenses)	9.05	9.35	9.66	9.98	10.31
WC for Receivables (Equivalent to 2 months of annual fixed cost)	18.99	30.49	37.13	38.40	38.11
Total Working Capital	33.06	45.03	52.15	53.92	54.14
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	0.33	6.08	7.04	7.28	7.31

(₹ in lakh)



Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	0.33	6.32	7.51	7.75	7.76
Claimed by the Petitioner in the instant petition	0.33	6.08	7.04	7.28	7.31
Approved after true-up in this order	0.33	6.08	7.04	7.28	7.31

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 2 months of annual fixed cost)	19.86	26.10	27.02	26.52
Total Working Capital	19.86	26.10	27.02	26.52
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on working capital	2.68	3.52	3.65	3.58

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	2.93	4.01	4.10	3.98
Claimed by the Petitioner in the instant petition	2.68	3.52	3.65	3.58
Approved after true-up in this order	2.68	3.52	3.65	3.58

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	5.03	5.19	5.36	5.54	5.73
WC for Maintenance Spares (15% of O&M Expenses)	9.05	9.35	9.66	9.98	10.31
WC for Receivables (Equivalent to 2 months of annual fixed cost)	25.08	28.38	32.03	37.03	40.74



Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Total Working Capital	39.15	42.91	47.05	52.55	56.77
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	0.84	5.79	6.35	7.09	7.66

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	0.84	6.43	7.45	7.47	7.48
Claimed by the Petitioner in the instant petition	0.84	5.79	6.35	7.09	7.67
Approved after true-up in this order	0.84	5.79	6.35	7.09	7.66

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	5.19	5.36	5.54	5.73
WC for Maintenance Spares (15% of O&M Expenses)	9.35	9.66	9.98	10.31
WC for Receivables (Equivalent to 2 months of annual fixed cost)	28.98	31.44	36.30	40.25
Total Working Capital	43.52	46.46	51.82	56.29
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on working capital	3.88	6.27	7.00	7.60

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	4.17	7.22	7.43	7.45
Claimed by the Petitioner in the instant petition	3.89	6.27	7.00	7.60
Approved after true-up in this order	3.88	6.27	7.00	7.60

(₹ in lakh)



Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	5.19	5.36	5.54	5.73
WC for Maintenance Spares (15% of O&M Expenses)	9.35	9.66	9.98	10.31
WC for Receivables (Equivalent to 2 months of annual fixed cost)	28.44	34.00	34.83	34.55
Total Working Capital	42.98	49.02	50.34	50.59
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on working capital	1.92	6.62	6.80	6.83

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	1.96	6.73	6.96	6.99
Claimed by the Petitioner in the instant petition	1.92	6.62	6.80	6.83
Approved after true-up in this order	1.92	6.62	6.80	6.83

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	8.54	8.83	9.12	9.42	9.73
WC for Maintenance Spares (15% of O&M Expenses)	15.38	15.89	16.41	16.96	17.52
WC for Receivables (Equivalent to 2 months of annual fixed cost)	57.44	87.30	93.12	91.61	91.24
Total Working Capital	81.36	112.02	118.65	117.99	118.50
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on working capital	1.87	15.12	16.02	15.93	16.00

(₹ in lakh)



Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	0.77	15.14	16.25	16.36	16.29
Claimed by the Petitioner in the instant petition	1.87	15.13	16.02	15.93	16.00
Approved after true-up in this order	1.87	15.12	16.02	15.93	16.00

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 2 months of annual fixed cost)	4.39	8.21	10.97	11.50
Total Working Capital	4.39	8.21	10.97	11.50
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on working capital	0.08	1.11	1.48	1.55

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	0.20	1.93	2.26	2.31
Approved in this order	0.08	1.11	1.48	1.55

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
WC for O&M Expenses (O&M Expenses for 1 month)	0.00	0.00	0.00	0.00



Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
WC for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00
WC for Receivables (Equivalent to 2 months of annual fixed cost)	13.46	13.21	12.77	12.35
Total Working Capital	13.46	13.21	12.77	12.35
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on working capital	0.25	1.78	1.72	1.67

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	0.23	1.69	1.63	1.57
Approved in this order	0.25	1.78	1.72	1.67

Approved Annual Fixed Charges for the 2014-19 Period

66. The annual fixed charges for the transmission assets for the 2014-19 period allowed earlier, as claimed by the Petitioner and as approved after truing up in the instant order are as follows :

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	1.12	35.93	48.32	51.48	51.60
Interest on Loan	1.27	38.41	48.97	47.50	43.08
Return on Equity	1.25	40.23	54.10	57.64	57.93
O&M Expenses	4.46	62.30	64.37	66.51	68.71
Interest on Working Capital	0.33	6.08	7.04	7.28	7.31
Total	8.43	182.95	222.80	230.41	228.63

(₹ in lakh)



Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	8.43	193.68	243.80	251.15	248.49
Claimed by the Petitioner in the instant petition	8.43	182.97	222.80	230.42	228.64
Approved after true-up in this order	8.43	182.95	222.80	230.41	228.63

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Depreciation	36.27	48.71	51.87	52.31
Interest on Loan	39.63	49.82	48.53	44.52
Return on Equity	40.60	54.54	58.07	58.73
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	2.68	3.52	3.65	3.58
Total	119.19	156.59	162.12	159.14

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 23.5.2016 in Petition No. 475/TT/2015	130.40	178.15	182.19	177.10
Claimed by the Petitioner in the instant petition	119.21	156.59	162.12	159.14
Approved after true-up in this order	119.19	156.59	162.12	159.14

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	4.18	32.01	39.03	49.11	56.70
Interest on Loan	4.65	34.31	38.77	44.50	47.70
Return on Equity	4.66	35.84	43.69	54.98	63.66
O&M Expenses	9.58	62.30	64.37	66.51	68.71
Interest on Working Capital	0.84	5.79	6.35	7.09	7.66
Total	23.91	170.26	192.21	222.20	244.44

(₹ in lakh)



Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 18.3.2016 in Petition No. 142/TT/2015	23.91	198.77	241.14	238.72	236.36
Claimed by the Petitioner in the instant petition	23.91	170.27	192.21	222.19	244.44
Approved after true-up in this order	23.91	170.26	192.21	222.20	244.44

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Depreciation	21.73	37.46	47.20	55.24
Interest on Loan	23.84	38.61	44.23	47.98
Return on Equity	24.33	41.94	52.85	62.01
O&M Expenses	41.19	64.37	66.51	68.71
Interest on Working Capital	3.88	6.27	7.00	7.60
Total	114.97	188.65	217.79	241.53

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	127.81	230.60	237.12	234.87
Claimed by the Petitioner in the instant petition	114.99	188.64	217.78	241.53
Approved after true-up in this order	114.97	188.65	217.79	241.53

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Depreciation	10.50	41.80	44.35	44.35
Interest on Loan	11.65	44.42	41.65	37.65
Return on Equity	11.75	46.80	49.65	49.78
O&M Expenses	20.60	64.37	66.51	68.71
Interest on Working Capital	1.92	6.62	6.80	6.83
Total	56.42	204.01	208.95	207.32

(₹ in lakh)



Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
Allowed vide order dated 22.3.2016 in Petition No. 174/TT/2015	58.33	209.08	216.27	214.28
Claimed by the Petitioner in the instant petition	56.43	204.02	208.99	207.35
Approved after true-up in this order	56.42	204.01	208.95	207.32

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	11.91	125.82	139.21	139.90	141.74
Interest on Loan	14.09	136.10	138.17	124.15	113.81
Return on Equity	13.27	140.87	155.86	156.63	159.11
O&M Expenses	17.41	105.91	109.43	113.06	116.81
Interest on Working Capital	1.87	15.12	16.02	15.93	16.00
Total	58.54	523.82	558.70	549.66	547.46

(₹ in lakh)

Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
Allowed vide order dated 29.9.2017 in Petition No. 206/TT/2016	57.44	524.78	568.89	569.05	560.28
Claimed by the Petitioner in the instant petition	58.56	523.90	558.69	549.67	547.47
Approved after true-up in this order	58.54	523.82	558.70	549.66	547.46

(₹ in lakh)

Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Depreciation	1.07	14.95	20.75	22.37
Interest on Loan	1.26	16.49	20.37	19.99
Return on Equity	1.19	16.74	23.24	25.12
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.08	1.11	1.48	1.55
Total	3.60	49.28	65.84	69.03

(₹ in lakh)



Particulars	Asset-VII(a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	8.72	85.72	100.62	102.75
Approved in this order	3.60	49.28	65.84	69.03

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Depreciation	3.83	28.05	28.05	28.05
Interest on Loan	2.66	18.04	15.45	12.87
Return on Equity	4.29	31.41	31.41	31.49
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.25	1.78	1.72	1.67
Total	11.04	79.28	76.64	74.09

(₹ in lakh)

Particulars	Asset-VII(b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
Claimed by the Petitioner in the instant petition	10.46	75.12	72.48	69.92
Approved in this order	11.04	79.28	76.64	74.09

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

67. The transmission assets have been combined with effect from 1.4.2019. The Petitioner has claimed following transmission charges for the Combined Asset for the 2019-24 tariff period:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	465.23	465.23	465.23	465.23	465.23
Interest on Loan	338.66	299.99	262.11	224.22	185.71
Return on Equity	496.47	496.47	496.47	496.47	496.47
O&M Expenses	362.26	375.20	388.37	402.26	415.89
Interest on Working Capital	35.34	35.39	35.40	35.43	35.38
Total	1697.96	1672.28	1647.58	1623.61	1598.68



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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O & M Expenses	30.19	31.27	32.36	33.52	34.66
Maintenance Spares	54.34	56.28	58.26	60.34	62.38
Receivables	208.77	206.17	203.13	200.17	196.56
Total Working Capital	293.30	293.72	293.75	294.03	293.60
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	35.34	35.39	35.40	35.43	35.38

Effective Date of Commercial Operation (E-COD)

69. The Petitioner has stated that E-COD of the Combined Asset is 9.11.2014. Based on the capital cost and actual COD of the individual assets, E-COD has been worked out as follows:

Assets	Admitted Capital Cost as on 31.3.2019	COD	Number of days from last COD	Weightage of cost (in %)	Weighted days	Effective COD (latest COD – total weighted days)
	(₹ in lakh)					
Asset-I	977.32	5.3.2015	343	11.36%	38.97	29-10-2014
Asset-II	996.87	1.4.2015	316	11.59%	36.62	
Asset-III	1073.92	2.2.2015	374	12.49%	46.70	
Asset-IV	1046.14	3.8.2015	192	12.16%	23.35	
Asset-V	839.89	2.12.2015	71	9.76%	6.93	
Asset-VI	2712.10	29.1.2015	378	31.53%	119.19	
Asset-VII (a)	423.72	11.2.2016	0	4.93%	0.00	
Asset-VII (b)	531.31	1.5.2007	3208	6.18%	198.16	
Total	8601.27				469.93	

70. E-COD is used to determine the lapsed life of the project as a whole which works out as 4 (four) years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (WAL) of the transmission project

71. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life (WAL).



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

73. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. Accordingly, WAL of the transmission assets put into commercial operation during the 2014-19 period has been worked out as 25 years as shown below:

Particulars	Life (in years) (1)	Capital Cost as on 31.3.2019 (₹ in lakh) (2)	Weighted Cost (₹ in lakh) (3)= (1) x (2)	Weighted Average Life of Asset (in years) (4) = (3)/ (2)
Building Civil Works	25	0.00	0.00	25 years
Transmission Line	35	0.00	0.00	
Sub Station	25	8601.27	215031.77	
PLCC	15	0.00	0.00	
IT Equipment (Incl. Software)	6.67	0.00	0.00	
Total		8601.27	215031.77	

74. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, the E-COD of the assets is 29.10.2014 and the lapsed life of the project as a whole works out as 4 years as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 21 years.

Capital Cost

75. Regulation 19 of the 2019 Tariff Regulations provide as follows:

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



- (2) *The Capital Cost of a new project shall include the following:*
- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
 - (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
 - (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
 - (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
 - (e) *Capitalised initial spares subject to the ceiling rates in accordance with these regulations;*
 - (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*
 - (g) *Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;*
 - (h) *Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;*
 - (i) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
 - (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
 - (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
 - (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
 - (n) *Expenditure on account of change in law and force majeure events; and*
 - (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
 - (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
 - (c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
 - (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*



- (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
 - (b) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- (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 de-capitalised only after its redeployment;

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

- (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."*

76. The Petitioner has claimed capital cost of ₹8811.19 lakh as on 31.3.2019 for the Combined Asset.

77. BSPHCL has submitted that the capital cost for the purpose of determination of Transmission Tariff for the 2019-24 tariff period be computed as per Regulation 19 of the 2019 Tariff Regulations.

78. We have considered the submission of the Petitioner and BSPHCL. The capital cost of ₹8601.27 lakh as on 31.3.2019 admitted for the Combined Asset has been



considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (ACE)

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

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

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

- (a) *Undischarged liabilities recognized to be payable at a future date;*
- (b) *Works deferred for execution;*
- (c) *Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23of 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.”*

80. The Petitioner has not projected any ACE for the Combined Asset during the 2019-24 period. Accordingly, the capital cost for the 2019-24 tariff period for the Combined Asset is considered as follows:

(₹ in lakh)		
Admitted Capital Cost (as on 1.4.2019)	Admitted ACE	Capital Cost (as on 31.3.2024)
	2019-24	
8601.27	0.00	8601.27

Debt-Equity ratio

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

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



Provided that:

- 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.”

82. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the Combined Asset is as follows:



Funding	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	6020.89	70.00	6020.89	70.00
Equity	2580.38	30.00	2580.38	30.00
Total	8601.27	100.00	8601.27	100.00

Depreciation

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

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

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

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

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

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

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

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

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

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

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates



specified in **Appendix-I** to these regulations for the assets of the generating station and transmission system:

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

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

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

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

84. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. WAROD has been worked out at Annexure-II. The depreciation allowed for the Combined Asset is as follows:

	(₹ in lakh)				
Particular	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	8601.27	8601.27	8601.27	8601.27	8601.27
Addition during the year 2019-24 due to projected ACE	0.00	0.00	0.00	0.00	0.00
Closing Gross Block	8601.27	8601.27	8601.27	8601.27	8601.27
Average Gross Block	8601.27	8601.27	8601.27	8601.27	8601.27
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life at the beginning of the year	21	20	19	18	17
Elapsed life at the beginning of the year	4	5	6	7	8
Depreciable Value	7741.14	7741.14	7741.14	7741.14	7741.14
Depreciation during the year	454.15	454.15	454.15	454.15	454.15
Cumulative Depreciation at the end of the year	2232.91	2687.06	3141.21	3595.35	4049.50
Remaining Depreciable Value at the end of the year	5508.23	5054.09	4599.94	4145.79	3691.64



Interest on Loan (IoL)

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

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

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

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

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

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

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

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

(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.”*

86. We have considered the submission of the Petitioner. The weighted average rate of IoL has been considered on the basis of rate prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period may be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true up. Therefore, IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the Combined Asset is as follows:



(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	6020.89	6020.89	6020.89	6020.89	6020.89
Cumulative Repayments up to Previous Year	1724.99	2179.14	2633.29	3087.44	3541.58
Net Loan-Opening	4295.90	3841.75	3387.60	2933.45	2479.31
Additions	0.00	0.00	0.00	0.00	0.00
Repayment during the year	454.15	454.15	454.15	454.15	454.15
Net Loan-Closing	3841.75	3387.60	2933.45	2479.31	2025.16
Average Loan	4068.82	3614.67	3160.53	2706.38	2252.23
Weighted Average Rate of Interest on Loan (in %)	8.1973	8.1825	8.1886	8.1962	8.1795
Interest on Loan	333.53	295.77	258.80	221.82	184.22

Return on Equity (RoE)

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

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

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

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

Provided further that:

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



every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

Illustration-

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

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

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

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

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



transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis.”

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

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2580.38	2580.38	2580.38	2580.38	2580.38
Additions	0.00	0.00	0.00	0.00	0.00
Closing Equity	2580.38	2580.38	2580.38	2580.38	2580.38
Average Equity	2580.38	2580.38	2580.38	2580.38	2580.38
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	484.65	484.65	484.65	484.65	484.65

Operation & Maintenance Expenses (O&M Expenses)

89. The O&M Expenses claimed by the Petitioner for the Combined Asset for the 2019-24 period are as follows:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
1 number of 400 kV 125 MVAR Bus Reactor at Muzaffarpur					
1 number of 400 kV Reactor Bay at Rourkela					
1 number of 400 kV Reactor Bay at Indravati					
1 number of 400 kV Reactor Bay at Jeypore					
1 number of 400 kV ICT-V Bay at Subhasgram					
1 number of 220 kV ICT-V Bay at Subhasgram					
400 kV bays	5	5	5	5	5
220 kV bays	1	1	1	1	1
1 number of 500 MVA Transformer(s) at Subhasgram 400 kV ICT-III					
400 kV					
Capacity MVA	500	500	500	500	500
Total O&M expense (₹ in lakh)	362.26	375.20	388.37	402.26	415.89

*The petitioner has not claimed any O&M expenses under Communication system.



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

“35. Operation and Maintenance Expenses:

...

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84
132 kV and below	16.08	16.64	17.23	17.83	18.46
Norms for Transformers (₹ Lakh per MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
400 kV	0.358	0.371	0.384	0.398	0.411
220 kV	0.245	0.254	0.263	0.272	0.282
132 kV and below	0.245	0.254	0.263	0.272	0.282
Norms for AC and HVDC lines (₹ Lakh per km)					
Single Circuit (Bundled Conductor with six or more sub-conductors)	0.881	0.912	0.944	0.977	1.011
Single Circuit (Bundled conductor with four sub-conductors)	0.755	0.781	0.809	0.837	0.867
Single Circuit (Twin & Triple Conductor)	0.503	0.521	0.539	0.558	0.578
Single Circuit (Single Conductor)	0.252	0.260	0.270	0.279	0.289
Double Circuit (Bundled conductor with four or more sub-conductors)	1.322	1.368	1.416	1.466	1.517
Double Circuit (Twin & Triple Conductor)	0.881	0.912	0.944	0.977	1.011
Double Circuit (Single Conductor)	0.377	0.391	0.404	0.419	0.433
Multi Circuit (Bundled Conductor with four or more sub-conductor)	2.319	2.401	2.485	2.572	2.662
Multi Circuit (Twin & Triple Conductor)	1.544	1.598	1.654	1.713	1.773
Norms for HVDC stations					
HVDC Back-to-Back stations (Rs Lakh per 500 MW) (Except Gazuwaka BTB)	834	864	894	925	958
Gazuwaka HVDC Back-to-Back station (₹ Lakh per 500 MW)	1,666	1,725	1,785	1,848	1,913
500 kV Rihand-Dadri HVDC bipole scheme (Rs Lakh) (1500 MW)	2,252	2,331	2,413	2,498	2,586
±500 kV Talcher- Kolar HVDC bipole scheme (Rs Lakh) (2000 MW)	2,468	2,555	2,645	2,738	2,834



Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
<i>±500 kV Bhiwadi-Balia HVDC bipole scheme (Rs Lakh) (2500 MW)</i>	1,696	1,756	1,817	1,881	1,947
<i>±800 kV, Bishwanath-Agra HVDC bipole scheme (Rs Lakh) (3000 MW)</i>	2,563	2,653	2,746	2,842	2,942

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

Provided further that:

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

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

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



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

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

91. We have considered the submission of the Petitioner. The O&M expenses have been worked out as per the norms specified in the 2019 Tariff Regulations and are as follows:

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses					
400 kV					
Number of bays	5	5	5	5	5
220 kV					
Number of bays	1	1	1	1	1
Transformer(s)					
400 kV					
Capacity MVA	500	500	500	500	500
Total O&M expense (₹ in lakh)	362.26	375.20	388.37	402.26	415.89

Interest on Working Capital (IWC)

92. Regulation 34 and Regulation 3(7) of the 2019 Tariff Regulations provide as follows:

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

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

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



(vi) Operation and maintenance expenses, including water charges and security expenses, for one month.

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

(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;

(iii) Maintenance spares @ 30% of operation and maintenance expenses including water charges and security expenses;

(iv) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and

(v) Operation and maintenance expenses, including water charges and security expenses, for one month.

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

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

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

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

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

Provided that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined.

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

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

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



capital from any outside agency.”

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

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

93. The Petitioner has submitted that it has computed IWC for the 2019-24 period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The ROI considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas, ROI for 2020-21 onwards has been considered as 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points). The components of the working capital and interest thereon allowed is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
WC for O&M Expenses (O&M Expenses for 1 month)	30.19	31.27	32.36	33.52	34.66
WC for Maintenance Spares (15% of O&M Expenses)	54.34	56.28	58.26	60.34	62.38
WC for Receivables (Equivalent to 45 days of annual transmission charges)	205.27	202.49	199.55	196.71	193.22
Total Working Capital	289.79	290.03	290.17	290.57	290.26
Rate of Interest (in %)	12.05	11.25	11.25	11.25	11.25
Interest on Working Capital	34.92	32.63	32.64	32.69	32.65

Annual Fixed Charges of the 2019-24 Tariff Period

94. The transmission charges allowed for the Combined Asset for the 2019-24 tariff period are as below:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	454.15	454.15	454.15	454.15	454.15
Interest on Loan	333.53	295.77	258.80	221.82	184.22
Return on Equity	484.65	484.65	484.65	484.65	484.65
O & M Expenses	362.26	375.20	388.37	402.26	415.89
Interest on Working Capital	34.92	32.63	32.64	32.69	32.65
Total	1669.51	1642.39	1618.61	1595.56	1571.56



Filing Fee and the Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax

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

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



Security Expenses

99. 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 the consequential IWC.

100. BSPHCL has submitted that only relief admissible under Regulation 35 (3)(c) may be considered.

101. We have considered the submissions of the Petitioner and BSPHCL. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

103. With effect from 1.11.2020, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be



recovered from the concerned DICs through Bills under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations. .

104. To summarise:

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

(₹ in lakh)

Particulars	Asset-I				
	2014-15 (Pro-rata 27 days)	2015-16	2016-17	2017-18	2018-19
AFC	8.43	182.95	222.80	230.41	228.63

(₹ in lakh)

Particulars	Asset-II			
	2015-16	2016-17	2017-18	2018-19
AFC	119.19	156.59	162.12	159.14

(₹ in lakh)

Particulars	Asset-III				
	2014-15 (Pro-rata 58 days)	2015-16	2016-17	2017-18	2018-19
AFC	23.91	170.26	192.21	222.20	244.44

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata 242 days)	2016-17	2017-18	2018-19
AFC	114.97	188.65	217.79	241.53

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata 121 days)	2016-17	2017-18	2018-19
AFC	56.42	204.01	208.95	207.32

(₹ in lakh)



Particulars	Asset-VI				
	2014-15 (Pro-rata 62 days)	2015-16	2016-17	2017-18	2018-19
AFC	58.54	523.82	558.70	549.66	547.46

(₹ in lakh)

Particulars	Asset-VII (a)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
AFC	3.60	49.28	65.84	69.03

(₹ in lakh)

Particulars	Asset-VII (b)			
	2015-16 (Pro-rata 50 days)	2016-17	2017-18	2018-19
AFC	11.04	79.28	76.64	74.09

- b. The Annual Fixed Charges allowed for the Combined Asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)					
Combined Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Fixed Charges	1669.51	1642.39	1618.61	1595.56	1571.56

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

106. This order disposes of Petition No. 100/TT/2020 in terms of the above discussion and findings.

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

Asset-I

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
Sub Station	71.23	432.17	354.30	114.92	4.70	0.00	977.32	5.28%	15.17	35.93	48.32	51.48	51.60
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	71.23	432.17	354.30	114.92	4.70	0.00	977.32	Total	15.17	35.93	48.32	51.48	51.60
Average Gross Block (₹ in lakh)									287.31	680.55	915.16	974.97	977.32
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%	5.28%

Annexure-I

Asset-II

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19	2015-16			2016-17	2017-18	2018-19	
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00
Sub Station	508.66	356.43	114.92	4.70	12.16	996.87	5.28%	36.27	48.71	51.87	52.31	
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	508.66	356.43	114.92	4.70	12.16	996.87	Total	36.27	48.71	51.87	52.31	
Average Gross Block (₹ in lakh)									686.88	922.55	982.36	990.79
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%

Annexure-I

Asset-III

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
Sub Station	476.36	44.27	171.40	94.20	287.69	0.00	1073.92	5.28%	26.32	32.01	39.03	49.11	56.70
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	476.36	44.27	171.40	94.20	287.69	0.00	1073.92	Total	26.32	32.01	39.03	49.11	56.70
Average Gross Block (₹ in lakh)									498.50	606.33	739.13	930.08	1073.92
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%	5.28%



Annexure-I

Asset-IV

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00
Sub Station	567.84	109.17	64.87	304.26	0.00	1046.14	5.28%	32.86	37.46	47.20	55.24
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	567.84	109.17	64.87	304.26	0.00	1046.14	Total	32.86	37.46	47.20	55.24
Average Gross Block (₹ in lakh)								622.43	709.45	894.01	1046.14
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%

Annexure-I

Asset-V

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00
Sub Station	459.61	283.74	96.54	0.00	0.00	839.89	5.28%	31.76	41.80	44.35	44.35
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	459.61	283.74	96.54	0.00	0.00	839.89	Total	31.76	41.80	44.35	44.35
Average Gross Block (₹ in lakh)								601.48	791.62	839.89	839.89
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%

Annexure-I

Asset-VI

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)					Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations				
		2014-15	2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00	0.00
Sub Station	520.25	1614.78	495.86	11.49	14.31	55.41	2712.10	5.28%	70.10	125.82	139.21	139.90	141.74
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00	0.00
Total	520.25	1614.78	495.86	11.49	14.31	55.41	2712.10	Total	70.10	125.82	139.21	139.90	141.74
Average Gross Block (₹ in lakh)									1327.64	2382.96	2636.64	2649.54	2684.40
Weighted Average Rate of Depreciation									5.28%	5.28%	5.28%	5.28%	5.28%



Annexure-I
Asset-VII (a)

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00
Sub Station	92.08	111.68	158.67	61.29	0.00	423.72	5.28%	7.81	14.95	20.75	22.37
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	92.08	111.68	158.67	61.29	0.00	423.72	Total	7.81	14.95	20.75	22.37
Average Gross Block (₹ in lakh)								147.92	283.10	393.08	423.72
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%

Annexure-I
Asset-VII (b)

2014-19 Capital Cost	Capital Cost as on 1.4.2014/COD (₹ in lakh)	Allowed ACE (₹ in lakh)				Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (%)	Depreciation as per Regulations			
		2015-16	2016-17	2017-18	2018-19			2015-16	2016-17	2017-18	2018-19
Building Civil Works & Colony	0.00	0.00	0.00	0.00	0.00	0.00	3.34%	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00	5.28%	0.00	0.00	0.00	0.00
Sub Station	531.31	0.00	0.00	0.00	0.00	531.31	5.28%	28.05	28.05	28.05	28.05
PLCC	0.00	0.00	0.00	0.00	0.00	0.00	6.33%	0.00	0.00	0.00	0.00
IT Equipment (Incl. Software)	0.00	0.00	0.00	0.00	0.00	0.00	15.00%	0.00	0.00	0.00	0.00
Total	531.31	0.00	0.00	0.00	0.00	531.31	Total	28.05	28.05	28.05	28.05
Average Gross Block (₹ in lakh)								531.31	531.31	531.31	531.31
Weighted Average Rate of Depreciation								5.28%	5.28%	5.28%	5.28%



Annexure-II

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)					
		2019-24	Total			2019-20	2020-21	2021-22	2022-23	2023-24	
Land - Freehold	-	-	-	-	-	-	-	-	-	-	-
Land - Leasehold	-	-	-	-	3.34%	-	-	-	-	-	-
Building Civil Works & Colony	-	-	-	-	3.34%	-	-	-	-	-	-
Transmission Line	-	-	-	-	5.28%	-	-	-	-	-	-
Sub Station	8601.27	-	-	8601.27	5.28%	454.15	454.15	454.15	454.15	454.15	454.15
PLCC	-	-	-	-	6.33%	-	-	-	-	-	-
IT Equipment (Incl. Software)	-	-	-	-	15.00%	-	-	-	-	-	-
Total	8601.27	-	-	8601.27		454.15	454.15	454.15	454.15	454.15	454.15
Average Gross Block (₹ in lakh)						8601.27	8601.27	8601.27	8601.27	8601.27	8601.27
Weighted Average Rate of Depreciation						5.28%	5.28%	5.28%	5.28%	5.28%	5.28%

