

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 94/TT/2020

Coram:

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

Date of Order: 18.04.2022

In the matter of:

Approval under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of transmission tariff of the 2014-19 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of the 2019-24 period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 **Asset-I:** SCADA system at DVC, **Asset-II:** SCADA system at Sikkim, **Asset-III:** SCADA system at BSPTCL, **Asset-IV:** SCADA system at JUSNL, **Asset-V:** SCADA system at DVC Main control centre (Howrah), **Asset-VI:** SCADA system at BSPTCL (Integration of RTUs to Main & Backup Control Centres and RTUs: 44 Numbers), **Asset-VII:** SCADA system at DVC (Integration of RTUs to Main & Backup Control Centres and RTUs: 31 Numbers), **Asset-VIII:** SCADA system at JUSNL (Integration of RTUs to Main & Backup Control Centres and RTUs: 15 Numbers), **Asset-IX:** SCADA system at Sikkim (Integration of RTUs to Main & Backup Control Centres and RTUs: 5 Numbers) and **Asset-X:** SCADA system at BSPTCL (Integration of RTUs to Main & Backup Control Centres and RTUs: 10 Numbers) under Expansion/Upgradation of SCADA/EMS System of SLDCs of Eastern Region.

And in the matter of:

Power Grid Corporation of India Limited,
'SAUDAMINI', Plot No-2, Sector-29,
Gurgaon-122001 (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,
Doranda,
Ranchi-834002.
5. Damodar Valley Corporation.,
DVC Tower, Maniktala,
Civic Centre, VIP Road,
Calcutta-700054.
6. Power Department,
Government of Sikkim,
Gangtok-737101.

.....Respondents

For Petitioner : Ms. Swapna Seshadri, Advocate, PGCIL
Shri Aditya H. Dubey, Advocate, PGCIL
Shri S. S. Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents : Shri Abhinav Mishra, Advocate, BSPHCL
Ms. Nivedita Chauhan, Advocate, BSPHCL
Ms. Komal Singh, Advocate, BSPHCL
Shri Rishabh Kapoor, Advocate, BSPHCL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant petition for truing-up of transmission tariff of the 2014-19 tariff period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and for determination of tariff 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 transmission assets forming part of **Combined Asset** under Expansion/ Upgradation of SCADA/EMS System of SLDCs of Eastern Region (hereinafter referred to as “the transmission project”):



Asset-I: SCADA system at DVC;
Asset-II: SCADA system at Sikkim;
Asset-III: SCADA system at BSPTCL;
Asset-IV: SCADA system at JUSNL;
Asset-V: SCADA system at DVC Main control centre (Howrah);
Asset-VI: SCADA system at BSPTCL (Integration of RTUs to Main & Backup Control Centres and RTUs: 44 Numbers);
Asset-VII: SCADA system at DVC (Integration of RTUs to Main & Backup Control Centres and RTUs: 31 Numbers);
Asset-VIII: SCADA system at JUSNL (Integration of RTUs to Main & Backup Control Centres and RTUs: 15 Numbers);
Asset-IX: SCADA system at Sikkim (Integration of RTUs to Main & Backup Control Centres and RTUs: 5 Numbers); and
Asset-X: SCADA system at BSPTCL (Integration of RTUs to Main & Backup Control Centres and RTUs: 10 Numbers).

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

- “1) *Approve the trued up Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 10.2 and 11.0 above.*
- 2) *Approve the Completion cost and additional capitalization incurred during 2014-19.*
- 3) *Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 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 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.*
- 8) *Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 9) *Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.*

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

3. **Backdrop of the case**

- a) The scope of the transmission project was discussed and agreed in the 20th TCC and ERPC meeting held on 16.12.2011 and 17.12.2011 at Kolkata and was later discussed and agreed for implementation in the 21st TCC and ERPC meeting held on 20.4.2012 and 21.4.2012 at Kolkata. The Petitioner has been entrusted with the implementation of Communication System.
- b) Investment Approval (IA) for the transmission project was accorded by Board of Directors of the Petitioner's company (in its 285th meeting held on 28.3.2013) vide Memorandum Ref. No. C/CP/ER-SCADA dated 5.4.2013 with an estimated cost of ₹3972.00 lakh including IDC of ₹247.00 lakh (based on February 2013 Price Level) in its 285th meeting dated 28.3.2013.
- c) The scope of work covered under “Expansion/ Upgradation of SCADA/ EMS system of SLDCs” scheme is as follows:
 - i. Installation of new EMS/ SCADA platform equipped with Hardware and Software at SLDCs and Backup SLDCs.
 - ii. Installation of RTUs/ SAS to Main and Backup Control Centre on IEC 60870-5-101/104 protocol.
 - iii. Integration of Main and Backup Control Centres of SLDCs with Main and Backup ERLDC on ICCP protocol.
 - iv. Integration of Distribution Company (DISCOM) Control Centres with their respective Main and Backup SLDCs.
 - v. Installation of Auxiliary Power Supply (APS) system for control centres.
 - vi. RTUs for DVC, BSEB and Sikkim.



- vii. Installation of new Video Projection System for all Control Centres envisaged in this project.
 - viii. Installation of Video Conferencing System for all Control Centres envisaged in this project.
- d) The Petitioner vide affidavit dated 11.2.2021 has submitted the submitted Revised Cost Estimate (RCE) approved by the “competent authority” on 12.3.2020. According to which the RCE of the project is ₹4052.00 lakh.
- e) The entire scope of the work under the transmission project has been completed and is covered in the instant petition.
- f) The transmission assets were scheduled to be put into commercial operation within 27 months from the date of the IA i.e. 28.3.2013. Accordingly, the scheduled date of commercial operation was 27.6.2015.
- g) The details of scheduled COD, COD and time over-run are as follows:

Asset	SCOD	COD	Time over-run
Asset-I	27.6.2015	8.1.2016	195 days
Asset-II		8.1.2016	195 days
Asset-III		8.1.2016	195 days
Asset-IV		8.1.2016	195 days
Asset-V		31.3.2016	278 days
Asset-VI		1.7.2017	735 days
Asset-VII		1.7.2017	735 days
Asset-VIII		1.7.2017	735 days
Asset-IX		1.7.2017	735 days
Asset-X		19.9.2017	815 days

4. The transmission tariff of Asset-I to Asset-V was approved by the Commission vide order dated 14.12.2017 in Petition No. 232/TT/2016 and transmission tariff of Asset-VI to Asset-X was approved by the Commission vide order dated 30.9.2019 in Petition No. 181/TT/2018 from their respective COD to 31.3.2019. The Respondents are distribution licensees, power departments and transmission licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of Eastern Region.

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this application has been published in the newspapers in accordance with Section 64 of the Electricity Act 2003. No comments or



objections have been received from the general public in response to the aforesaid notices published in the newspapers. Bihar State Power (Holding) Company Limited (BSPHCL), Respondent No. 1 has filed its reply vide affidavit dated 21.10.2021 and has raised the issues of effective tax rate for trueing up Return on Equity (RoE), Interest During Construction (IDC), cost over-run, COD approval certificate of Asset-III and Asset-IV, Additional Capital Expenditure (ACE), GST, filing fee and publication expenses and sharing of transmission charges. The Petitioner vide affidavit dated 1.11.2021 has filed rejoinder to BSPHCL's reply.

6. This order is issued considering the submissions made by the Petitioner in the petition, additional information filed vide affidavits dated 11.2.2021, 27.8.2021, and 8.9.2021, written submissions filed by the Petitioner vide affidavit dated 22.9.2021, BSPHCL's reply filed vide affidavit dated 21.10.2021 and the Petitioner's rejoinder filed vide affidavit dated 1.11.2021.

7. The hearings in this matter were held on 10.9.2021 and 2.11.2021 through video conference and the order was reserved. Having heard the learned counsels for the parties and after perusal of the materials on record, we proceed to dispose of the petition.

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

8. The details of the trued-up transmission charges claimed by the Petitioner for the transmission assets for the 2014-19 tariff period are as follows:



(₹ in lakh)

Particulars	Asset-I			
	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	10.66	57.77	71.79	76.91
Interest on Loan	4.43	19.91	18.48	14.22
Return on Equity	4.20	22.77	28.29	30.39
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.44	2.31	2.73	2.80
Total	19.73	102.76	121.29	124.32

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	9.97	54.00	60.90	63.39
Interest on Loan	4.10	18.79	15.45	11.17
Return on Equity	3.93	21.28	24.00	25.05
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.41	2.17	2.31	2.29
Total	18.41	96.24	102.66	101.90

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	19.78	100.23	108.00	113.98
Interest on Loan	8.22	35.56	28.08	20.72
Return on Equity	7.80	39.50	42.56	45.04
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.82	4.04	4.11	4.14
Total	36.62	179.33	182.75	183.88

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	12.25	65.06	72.74	75.81
Interest on Loan	5.04	22.65	18.42	13.34
Return on Equity	4.83	25.64	28.66	29.95
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.51	2.61	2.76	2.74
Total	22.63	115.96	122.58	121.84

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata for 1 day)	2016-17	2017-18	2018-19
Depreciation	0.12	56.10	68.95	72.40
Interest on Loan	0.05	20.72	18.72	14.08
Return on Equity	0.05	22.11	27.17	28.61



O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.01	2.28	2.64	2.65
Total	0.23	101.21	117.48	117.74

(₹ in lakh)

Particulars	Asset-VI		Asset-VII	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	59.21	84.42	36.31	53.85
Interest on Loan	22.66	25.96	13.89	16.64
Return on Equity	23.34	33.36	14.31	21.28
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	2.26	3.08	1.38	1.97
Total	107.47	146.82	65.89	93.74

(₹ in lakh)

Particulars	Asset-VIII		Asset-IX	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	13.53	19.96	4.13	5.90
Interest on Loan	5.18	6.16	1.55	1.79
Return on Equity	5.34	7.89	1.63	2.33
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.52	0.73	0.16	0.22
Total	24.57	34.74	7.47	10.24

(₹ in lakh)

Particulars	Asset-X	
	2017-18 (Pro-rata for 194 days)	2018-19
Depreciation	5.83	15.56
Interest on Loan	2.10	4.84
Return on Equity	2.30	6.15
O&M Expenses	0.00	0.00
Interest on Working Capital	0.22	0.57
Total	10.45	27.12

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

(₹ in lakh)

Particulars	Asset-I			
	2015-16 (Pro-rata for 84 days)	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	14.33	17.13	20.22	20.72



Total Working Capital	14.33	17.13	20.22	20.72
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.44	2.31	2.73	2.80

(₹ in lakh)

Particulars	Asset-II			
	2015-16 (Pro-rata for 84 days)	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	13.37	16.04	17.11	16.98
Total Working Capital	13.37	16.04	17.11	16.98
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.41	2.17	2.31	2.29

(₹ in lakh)

Particulars	Asset-III			
	2015-16 (Pro-rata for 84 days)	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	26.60	29.89	30.46	30.65
Total Working Capital	26.60	29.89	30.46	30.65
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.82	4.04	4.11	4.14

(₹ in lakh)

Particulars	Asset-IV			
	2015-16 (Pro-rata for 84 days)	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	16.44	19.33	20.43	20.31
Total Working Capital	16.44	19.33	20.43	20.31
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.51	2.61	2.76	2.74

(₹ in lakh)

Particulars	Asset-V			
	2015-16 (Pro-rata for 1 day)	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	13.73	16.87	19.58	19.62
Total Working Capital	13.73	16.87	19.58	19.62
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.01	2.28	2.64	2.65



(₹ in lakh)

Particulars	Asset-VI		Asset-VII	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	23.86	24.47	14.63	15.62
Total Working Capital	23.86	24.47	14.63	15.62
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	2.26	3.08	1.38	1.97

(₹ in lakh)

Particulars	Asset-VIII		Asset-IX	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
O&M Expenses	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00
Receivables	5.45	5.79	1.66	1.71
Total Working Capital	5.45	5.79	1.66	1.71
Rate of Interest (in %)	12.60	12.60	12.60	12.60
Interest on Working Capital	0.52	0.73	0.16	0.22

(₹ in lakh)

Particulars	Asset-X	
	2017-18 (Pro-rata for 194 days)	2018-19
O&M Expenses	0.00	0.00
Maintenance Spares	0.00	0.00
Receivables	3.28	4.52
Total Working Capital	3.28	4.52
Rate of Interest (in %)	12.60	12.60
Interest on Working Capital	0.22	0.57

Capital Cost

10. The Commission vide order dated 14.12.2017 in Petition No. 232/TT/2016 in case of Asset-I to Asset-V and vide order dated 30.9.2019 in Petition No. 181/TT/2018 in case of Asset-VI to Asset-X had approved the respective capital cost and ACE as follows:

(₹ in lakh)

Asset	FR apportioned approved capital cost	Admitted capital cost as on COD	ACE				Admitted capital cost as on 31.3.2019
			2015-16	2016-17	2017-18	2018-19	
Asset-I	545.75	307.64	3.78	186.10	0.00	0.00	497.52
Asset-II	499.50	264.12	50.87	109.69	0.00	0.00	424.68
Asset-III	881.28	530.93	87.24	141.37	0.00	0.00	759.54



Asset-IV	515.90	327.76	55.97	111.23	0.00	0.00	494.96
Asset-V	516.85	293.43	0.00	116.25	60.00	0.00	469.68
Asset-VI	572.92	509.17	0.00	0.00	35.99	10.00	555.16
Asset-VII	375.60	312.00	0.00	0.00	41.96	10.00	363.96
Asset-VIII	138.24	116.30	0.00	0.00	12.65	5.00	133.95
Asset-IX	40.86	35.54	0.00	0.00	2.58	1.00	39.12
Asset-X	109.07	49.78	0.00	0.00	40.50	15.41	105.69
Total	4195.97	2746.67	197.89	664.64	193.68	41.41	3844.26

11. The Petitioner in the instant true up petition has submitted capital cost as on COD, RCE vide affidavit dated 11.2.2021 and estimated ACE incurred or projected to be incurred in respect of the transmission assets as per Auditor's Certificate dated 31.7.2019 and the same are as follows:

Assets	Apportioned approved cost	RCE	Expenditure up to COD after adjustment of accrual IDC & disallowances	Add Cap 2014-2019 as per Auditor Certificate				Completion Cost as on 31.3.2019
				2015-16	2016-17	2017-18	2018-19	
Asset-I	545.75	527.33	307.63	3.78	147.49	39.38	28.85	527.13
Asset-II	499.50	438.33	264.12	50.87	90.00	2.04	31.13	438.16
Asset-III	881.28	798.20	530.93	87.24	100.00	3.67	76.05	797.89
Asset-IV	515.90	524.88	327.75	55.97	100.00	2.38	38.58	524.68
Asset-V	516.85	500.66	293.45	0.00	161.10	10.27	35.65	500.47
Asset-VI	572.92	583.41	509.17	0.00	0.00	33.30	40.72	583.19
Asset-VII	375.60	385.20	312.00	0.00	0.00	20.93	52.12	385.05
Asset-VIII	138.24	142.05	116.30	0.00	0.00	7.77	17.93	142.00
Asset-IX	40.86	40.87	35.54	0.00	0.00	2.21	3.10	40.85
Asset-X	109.07	111.07	49.78	0.00	0.00	46.66	14.59	111.03
Total	4195.97	4052.00	2746.67	197.86	598.59	168.61	338.72	4050.45

Cost Over-Run

12. The Petitioner has claimed capital cost of ₹307.63 lakh, ₹264.12 lakh, ₹530.93 lakh, ₹327.75 lakh, ₹293.45 lakh, ₹509.17 lakh, ₹312.00 lakh, ₹116.30 lakh, ₹35.54 lakh and ₹49.78 lakh for Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII, Asset-IX and Asset-X respectively, as on COD. The estimated completion cost of the transmission assets claimed by the Petitioner is within the RCE submitted by the Petitioner.



13. BSPHCL has submitted that the Petitioner has not submitted Revised Cost Estimate (RCE) detailing the element wise revised approval as well as justification for revision of the capital cost. The Petitioner is required to submit the details of approved RCE for truing up exercise the 2014-19 tariff period and the determination of tariff of the 2019-24 period. In the absence of such approval being given by the Board of Directors, the petition could not be sustained and the tariffs determined in the previous petition would continue to apply. BSPHCL has further submitted that the Petitioner has not furnished any documentary evidence for cost over-run, deferred work for execution and balance and retention payment after COD with detail explanation for retention of payment. The Petitioner is bound to furnish the details and explanation to the beneficiaries since the completion cost is being recovered from the beneficiaries through tariff. The Petitioner has not furnished any detailed substantiation/ justification/ bifurcation for cost over-run, deferred work for execution and balance and retention payment after COD with detail explanation for retention of payment. In light of the order passed by the Appellate Tribunal for Electricity in PGCIL Vs. CERC and Others (Appeal No. 165 of 2012), the Petitioner is bound to furnish the details and explanation to the Respondents and beneficiaries since the completion cost is being recovered from them through tariff. Therefore, BSPHCL has submitted that the Petitioner be directed to submit the detailed justification/ bifurcation of the same along with the supporting documents.

14. In response, the Petitioner has submitted that the contracts for various packages under the transmission project were awarded to the lowest evaluated and responsive bidder, on the basis of Domestic Competitive Bidding, after publication of NITs in leading newspapers. Thus, the award prices represent the



lowest prices available at the time of bidding of various packages. The packages under the transmission project are firm price contracts in nature. Hence, no LOA price variation has been considered in RCE of the transmission project. The Petitioner has also submitted that the price variation observed during execution of the transmission project is attributable to the market forces prevailing at the time of bidding process of various packages awarded for execution of project. The variation in quantities of approved items is on account of the requirement expressed by the constituents for achieving the desired functionality of the system and the said variation is as follows:

- a) After survey of sites of the constituents, the hardware accessories of RTUs (i.e. CPU card, DI and DO Cards, MFT, CMR, HDR and PLCC Modem etc.) increased with respect to the original contract for all constituents.
- b) In DVC sector, terminal servers were incorporated in the scope, as the communication system was not available for some of the RTUs.
- c) In DVC Sector, 5 numbers additional RTUs were incorporated for monitoring of Generator Unit LV side data.
- d) In Sikkim, 1 number RTU along with associated items for Melli 66 kV was incorporated for reporting at Sikkim Monitoring Centre due to separate control rooms of Melli 66 kV and Melli 132 kV.

15. We have considered the submissions of the Petitioner and BSPHCL. In Petition No. 232/TT/2016 and Petition No. 181/TT/2018, the Petitioner had claimed capital cost of ₹2959.28 lakh and ₹1236.69 lakh respectively which totals to ₹4195.97 lakh. However, the total completion cost including ACE for the transmission assets as claimed by the Petitioner in the instant petition is ₹4050.45 lakh against the capital cost of ₹3972.00 lakh in the IA. Therefore, the Petitioner had provided an erroneous bifurcation of the capital cost.



16. The Petitioner has submitted RCE, which has been accorded approval by “competent authority” on 12.3.2020 and conveyed vide Memorandum dated 27.3.2020 for an amount of ₹4052.00 lakh but the Petitioner has not submitted as to which is the “competent authority” to approve the RCE, when the IA has been approved by the Board of Directors of the Petitioner’s company. In the absence of the details of the “competent authority”, we are not considering the RCE. However, the Petitioner is given liberty to submit the RCE alongwith the details of the “competent authority” which has approved the RCE at the time of truing up with proper justification for the cost over-run. For the present, we have considered the capital cost as given in the IA dated 5.4.2013 and determined the apportionment of the individual cost of the transmission assets on the basis of the apportionment done by the Petitioner in its submissions, as given in the following table.

Asset	Apportioned approved cost (as per Petitioner)	Apportioned approved cost considered
Asset-I	545.75	516.62
Asset-II	499.50	472.84
Asset-III	881.28	834.24
Asset-IV	515.90	488.36
Asset-V	516.85	489.26
Asset-VI	572.92	542.34
Asset-VII	375.60	355.55
Asset-VIII	138.24	130.86
Asset-IX	40.86	38.68
Asset-X	109.07	103.25
Total	4195.97	3972.00

Time Over-run

17. As per IA, the transmission assets were scheduled to be put under commercial operation by 27.6.2015. There is time over-run in case of all the transmission assets. The time over in case of Asset-I to Asset-V was condoned vide order dated 14.12.2017 in Petition No.232/TT/2016 and in case of Asset-VI



to Asset-X vide order dated 30.9.2019 in Petition No.181/TT/2018. The details are as follows:

Asset	SCOD	COD	Time over-run	Previous orders	Time over-run condoned in previous order
Asset-I	27.6.2015	8.1.2016	195 days	Order dated 14.12.2017 in Petition No. 232/TT/ 2016	195 days
Asset-II		8.1.2016	195 days		195 days
Asset-III		8.1.2016	195 days		195 days
Asset-IV		8.1.2016	195 days		195 days
Asset-V		31.3.2016	278 days		278 days
Asset-VI		1.7.2017	735 days	Order dated 30.9.2019 in Petition No. 181/TT/ 2018	735 days
Asset-VII		1.7.2017	735 days		735 days
Asset-VIII		1.7.2017	735 days		735 days
Asset-IX		1.7.2017	735 days		735 days
Asset-X		19.9.2017	815 days		815 days

18. The Commission vide order dated 30.9.2019 in Petition No. 181/TT/2018 had held as follows:

“21. The Petitioner has submitted that the actual testing and commissioning/ integration and handing over in respect of Asset-I to Asset-IV and Asset-V was started from 1.6.2017 and 1.7.2017 and completed on 1.7.2017 and 19.9.2017, respectively. This indicates that the said activities were completed within one/ two months whereas the schedule time for this activity was around 14 months i.e. from 7.4.14 to 27.6.2015. Thus, there seems to be error in the submission of the Petitioner with regard to date of actual start of the testing and commissioning/ integration and handing over activity in respect of then instant assets. Accordingly, the Petitioner is directed to furnish these details at the time of truing up exercise”.

19. In response to the above, the Petitioner has submitted that the period for the execution of *“Testing & Commissioning/ Integration and SAT/ Handing over”* has been rightly mentioned as from 7.4.2014 to 27.6.2015, which is as per the planned schedule and spans approximately 14 months, since the said works include the following:

- a) Commissioning Works for the respective control centre*,
- b) Integration of these control centres with the SLDC etc,
- c) Site Acceptance Testing,
- d) Personnel Operation Training,
- e) Handing Over

*(*105 numbers control centres under this petition)*



20. The Petitioner has further submitted that these works are initiated after the Control centres, equipped in all technical aspects, are handed over to Petitioner by the respective States/ Constituents. The delay in handing over the respective control centres by the states/ constituents, with proper technical pre-requisites led to the delay in declaration of commercial operation of the transmission assets. The same has been acknowledged by the Commission while condoning the time over-run of the subject assets. The relevant extract from the order dated 30.9.2019 in Petition No. 181/TT/2018 is as follows:

“22..... it was incumbent upon these constituents to make available the site at least 12 months prior to the milestone of 1.6.2014 (i.e. by 1.6.2013). However, as per the documents submitted by the Petitioner, the 105 nos. premises of these constituents were actually made available to the Petitioner ranging from 19.5.2016 to 18.9.2017, against the schedule of 1.6.2013, with a delay ranging from 1083 days to 1570 days.....Therefore, we are of the view that the delay in handing over of working site by the constituents BSPTCL, DVC, JUSNL and Sikkim has resulted in the overall delay in commissioning of Asset-I to Asset-V and was beyond the control of Petitioner, therefore, the total time overrun is condoned.....”

21. However, the Petitioner has submitted that there has been a slight inadvertent error in submission of the period of actual execution of “Testing & Commissioning/ Integration and SAT/ Handing over” as 1.6.2017 to 1.7.2017 (for Asset-VI, Asset-VII, Asset-VIII and Asset-IX of this petition), which has presented an incomplete picture. The dates 1.6.2017 to 1.7.2017 are against head of “SAT (Site Acceptance testing)/ Handing over” activity only and not for entire “Testing & Commissioning/ Integration and SAT/ Handing over” activity. Within the period of 14 months (as planned from 7.4.2014 to 27.6.2015) for “Testing & Commissioning/ Integration and SAT/ Handing over”, the activity of “SAT (Site Acceptance testing) / Handing over” requires only one or two months. The dates of actual execution of activity of “Testing & Commissioning/ Integration and SAT/ Handing over” for Asset-VI, Asset-VII- Asset-VIII and Asset-IX are as follows:



Asset	Activity	Period of activity			
		Schedule		Actual	
		From	To	From	To
Asset-VI, Asset-VII, Asset-VIII and Asset-IX	LOA				
	Supplies				
	Testing and Commissioning/ Integration and SAT/ Handing over	7.4.2014	27.6.2015	19.5.2016* onwards	1.7.2017

**Dates by which the entire 5 numbers control centres under Sikkim (Asset-IX) were handed over to the Petitioner i.e. first of the entire set of RTUs under any of the subject assets handed over to the Petitioner was Asset-IX (Sikkim). All other were handed over (cumulatively for respective assets) after this date only, therefore "19.5.2016 onwards" is taken as actual start date of Testing & Commissioning/ Integration and SAT/ Handing over (Paragraph 22 of order dated 30.9.2019 in Petition No. 181/TT/2018).*

22. The Petitioner has submitted the following in case of Asset-X regarding dates of actual execution for activity "Testing & Commissioning/Integration and SAT/ Handing over":

Asset	Activity	Period of activity			
		Schedule		Actual	
		From	To	From	To
Asset-X	LOA				
	Supplies				
	Testing & Commissioning/ Integration and SAT/ Handing over	7.4.2014	27.6.2015	1.7.2017	19.9.2017

23. The Petitioner has submitted that Asset-X was the final asset to be completed under the transmission project. Asset-X is SCADA system for BSPTCL (COD: 19.9.2017), which is extension to works already executed as part of Asset-VI which was also for Constituent BSPTCL (COD: 1.7.2017). Therefore, in the instant case, a lot of initial work had been carried out along with the works which were undertaken for Asset-VI of the instant petition. The scope of work for testing/ commissioning/ integration of RTUs is sequential in nature to readiness of control centre handing over. As a result, a lot of work front was made available by effectively utilizing the lean time between readiness of subsequent sites and in



the end the 10 RTUs of BSPTCL were finally completed on 18.9.2017. The “*Testing & Commissioning/ Integration and SAT/ Handing over*” for the last group of RTUs were completed within a duration of two/three months as compared to other subject assets.

24. We have considered the submissions of the Petitioner. The Petitioner has clarified that the actual start of the testing and commissioning/ integration and handing over activity in respect of Asset-VI, Asset-VII, Asset-VIII, Asset-IX and Asset-X. We agree with the submissions of the Petitioner. Accordingly, we confirm the Commission’s decision of condoning the time over-run in case of Asset-VI, Asset-VII, Asset-VIII, Asset-IX and Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018.

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

25. The Petitioner has claimed IDC for the transmission assets and has submitted revised Auditor’s Certificates dated 3.8.2021 in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

26. BSPHCL has submitted that the Petitioner has not submitted the excel format of the detailed IDC discharge statement for the transmission assets in the present petition along with the amount of drawl, rate of interest, interest against each drawl, date of drawl, interest payment date up to COD and interest payment date after COD. Without the detailed bifurcation of actual IDC discharged, it will be difficult to ascertain the correct amount payable by BSPHCL for the transmission assets. The documents relied upon by the Petitioner and attached in the present petition are ambiguous, vague and incomplete.



27. In response, the Petitioner has submitted that IDC is calculated for the loan with floating rate of interest by multiplying the loan amount with prevailing interest rate for a particular time period and changed rate of interest is applied for the next particular time period for which rate of interest is changed. Such calculation is done from the date of drawl of the loan to COD. The cash IDC statement has already been filed along with the petition and soft copy of cash IDC statement has also been uploaded on e-filing portal.

28. We have considered the submissions of the Petitioner and BSPHCL. The allowable IDC has been worked out considering the information submitted by the Petitioner for the transmission assets separately on cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The un-discharged IDC as on COD has been considered as ACE during the year in which it has been discharged. Accordingly, based on the information filed by the Petitioner, IDC considered is summarized as follows:

(₹ in lakh)

Asset	IDC as per Auditor's Certificate	IDC Admissible	IDC Discharged as on COD	IDC Un-discharged as on COD	IDC Discharge during				
	A	B	C	D=(B-C)	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-I	9.01	9.01	4.47	4.54	-	3.77	0.77	-	-
Asset-II	7.26	7.26	3.57	3.69	-	3.69	-	-	-
Asset-III	11.11	11.11	11.11	-	-	-	-	-	-
Asset-IV	9.06	9.06	4.47	4.59	-	4.59	-	-	-
Asset-V	9.63	9.63	6.27	3.36	-	-	3.36	-	-
Asset-VI	89.71	85.89	63.83	22.06	-	-	-	22.06	-
Asset-VII	54.97	52.63	39.11	13.52	-	-	-	13.52	-
Asset-VIII	20.49	19.62	14.58	5.04	-	-	-	5.04	-
Asset-IX	6.52	5.83	4.40	1.44	-	-	-	1.44	-
Asset-X	7.21	7.17	5.73	1.44	-	-	-	1.03	0.41



29. The Petitioner has claimed IEDC for the transmission assets and has submitted Auditor's Certificate in support of the same. IEDC is allowed as claimed. The details of claimed and allowed IEDC are as follows:

(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run	IEDC allowed as on COD
	1	2	3=(1-2)
Asset-I	0.53	0.00	0.53
Asset-II	0.42	0.00	0.42
Asset-III	0.65	0.00	0.65
Asset-IV	0.52	0.00	0.52
Asset-V	0.57	0.00	0.57
Asset-VI	8.68	0.00	8.68
Asset-VII	5.32	0.00	5.32
Asset-VIII	1.98	0.00	1.98
Asset-IX	0.60	0.00	0.60
Asset-X	2.46	0.00	2.46

Capital cost as on COD

30. Accordingly, the capital cost allowed for the transmission assets as on COD is as follows:

(₹ in lakh)

Assets	Capital cost as on 1.4.2014 or COD whichever is later	Less: IDC as on COD due to		Less: IEDC disallowed as on COD	Capital cost considered as on 1.4.2014
		Time over-run/ Computational difference	Un-discharged		
Asset-I	312.18	0.00	4.54	0.00	307.64
Asset-II	267.81	0.00	3.69	0.00	264.12
Asset-III	530.93	0.00	0.00	0.00	530.93
Asset-IV	332.35	0.00	4.59	0.00	327.76
Asset-V	296.81	0.00	3.36	0.00	293.45
Asset-VI	532.33	3.82	22.06	0.00	506.45
Asset-VII	326.19	2.34	13.52	0.00	310.33
Asset-VIII	121.59	0.87	5.04	0.00	115.68
Asset-IX	37.02	0.69	1.44	0.00	34.90
Asset-X	51.27	0.04	1.44	0.00	49.79
Total					2746.20

Additional Capital Expenditure

31. The Commission vide order dated 14.12.2017 in Petition No. 232/TT/2016 in case of Asset-I, Asset-II, Asset-III, Asset-IV and Asset-V and vide order dated



30.9.2019 in Petition No. 181/TT/2018 in case of Asset-VI, Asset-VII, Asset-VIII and Asset-IX had approved respective ACE as follows:

Asset	ACE			
	2015-16	2016-17	2017-18	2018-19
Asset-I	3.78	186.10	0.00	0.00
Asset-II	50.87	109.69	0.00	0.00
Asset-III	87.27	141.37	0.00	0.00
Asset-IV	55.97	111.23	0.00	0.00
Asset-V	0.00	116.25	60.00	0.00
Asset-VI	0.00	0.00	35.99	10.00
Asset-VII	0.00	0.00	41.96	10.00
Asset-VIII	0.00	0.00	12.65	5.00
Asset-IX	0.00	0.00	2.58	1.00
Asset-X	0.00	0.00	40.50	15.41

32. The Petitioner has claimed ACE for the transmission assets and has submitted Auditor's Certificate in support of its claim as follows:

Asset	ACE			
	2015-16	2016-17	2017-18	2018-19
Asset-I	3.78	147.49	39.38	28.85
Asset-II	50.87	90.00	2.04	31.13
Asset-III	87.24	100.00	3.67	76.05
Asset-IV	55.97	100.00	2.38	38.58
Asset-V	0.00	161.10	10.27	35.65
Asset-VI	0.00	0.00	33.30	40.72
Asset-VII	0.00	0.00	20.93	52.12
Asset-VIII	0.00	0.00	7.77	17.93
Asset-IX	0.00	0.00	2.21	3.10
Asset-X	0.00	0.00	46.66	14.59
Total	197.86	598.59	168.61	338.72

33. ACE claimed includes the accrued IDC discharged during the 2014-19 tariff period. The total estimated completion cost including ACE for the 2014-19 period is beyond FR cost. Therefore, the ACE for the 2018-19 has been restricted up to FR cost.

34. ACE claimed by the Petitioner has been allowed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations as it is towards Balance and



Retention payments and works deferred for execution. The un-discharged IDC as on COD has been allowed as ACE. The details of ACE allowed are as follows:

(₹ in lakh)

Asset-I	ACE			
	2015-16	2016-17	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	-	48.06	39.38	18.33
Work deferred for execution/ ACE to the extent of unexecuted work	-	98.66	-	-
IDC Discharged	3.77	0.77	-	-
Less: Excess Initial Spares	-	-	-	-
Total ACE allowed	3.77	147.49	39.38	18.33

*ACE restricted to FR cost

(₹ in lakh)

Asset-II	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	17.78	37.24	2.04	31.13
Work deferred for execution/ ACE to the extent of unexecuted work	29.40	52.76	-	-
IDC Discharged	3.69	-	-	-
Less: Excess Initial Spares	-	-	-	-
Total ACE allowed	50.87	90.00	2.04	31.13

(₹ in lakh)

Asset-III	ACE			
	2015-16	2016-17	2017-18	2018-19
ACE to the extent of Balance and Retention Payments	28.55	24.86	3.67	76.05
Work deferred for execution/ ACE to the extent of unexecuted work	58.69	75.14	-	-
IDC Discharged	-	-	-	-
Less: Excess Initial Spares	-	-	-	-
Total ACE allowed	87.24	100.00	3.67	76.05

(₹ in lakh)

Asset-IV	ACE			
	2015-16	2016-17	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	18.73	35.19	2.38	2.25
Work deferred for execution/ ACE to the extent of unexecuted work	32.64	64.81	-	-
IDC Discharged	4.59	-	-	-
Less: Excess Initial Spares	-	-	-	-
Total ACE allowed	55.96	100.00	2.38	2.25

*ACE restricted to FR cost



(₹ in lakh)

Asset-V	ACE		
	2016-17	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	54.46	10.27	24.44
Work deferred for execution/ ACE to the extent of unexecuted work	103.28	-	-
IDC Discharged	3.36	-	-
Less: Excess Initial Spares	-	-	-
Total ACE allowed	161.10	10.27	24.44

*ACE restricted to FR cost

(₹ in lakh)

Asset-VI	ACE	
	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	10.14	3.69
Work deferred for execution/ ACE to the extent of unexecuted work	-	-
IDC Discharged	22.06	-
Less: Excess Initial Spares	-	-
Total ACE allowed	32.20	3.69

*ACE restricted to FR cost

(₹ in lakh)

Asset-VII	ACE	
	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	6.74	24.96
Work deferred for execution/ ACE to the extent of unexecuted work	-	-
IDC Discharged	13.52	-
Less: Excess Initial Spares	-	-
Total ACE allowed	20.26	24.96

*ACE restricted to FR cost

(₹ in lakh)

Asset-VIII	ACE	
	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	2.48	7.66
Work deferred for execution/ ACE to the extent of unexecuted work	-	-
IDC Discharged	5.04	-
Less: Excess Initial Spares	-	-
Total ACE allowed	7.52	7.66

*ACE restricted to FR cost

(₹ in lakh)

Asset-IX	ACE	
	2017-18	2018-19*
ACE to the extent of Balance and Retention	0.73	1.61



Payments		
Work deferred for execution/ ACE to the extent of unexecuted work	-	-
IDC Discharged	1.44	-
Less: Excess Initial Spares	-	-
Total ACE allowed	2.17	1.61

*ACE restricted to FR cost

(₹ in lakh)

Asset-X	ACE	
	2017-18	2018-19*
ACE to the extent of Balance and Retention Payments	45.18	6.45
Work deferred for execution/ ACE to the extent of unexecuted work	0.40	-
IDC Discharged	1.03	0.41
Less: Excess Initial Spares	-	-
Total ACE allowed	46.61	6.86

*ACE restricted to FR cost

Capital Cost for the 2014-19 tariff period

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

(₹ in lakh)

Particulars	Approved Capital Cost (FR)	Capital Cost as on COD on cash basis	ACE					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19*	
Asset-I	516.62	307.64	-	3.77	147.49	39.38	18.34	516.62
Asset-II	472.84	264.12	-	50.87	90.00	2.04	31.13	438.16
Asset-III	834.24	530.93	-	87.24	100.00	3.67	76.05	797.89
Asset-IV	488.36	327.76	-	55.97	100.00	2.38	2.25	488.36
Asset-V	489.26	293.45	-	-	161.10	10.27	24.44	489.26
Asset-VI	542.34	506.45	-	-	-	32.20	3.69	542.34
Asset-VII	355.55	310.33	-	-	-	20.26	24.96	355.55
Asset-VIII	130.86	115.68	-	-	-	7.52	7.66	130.86
Asset-IX	38.68	34.90	-	-	-	2.17	1.61	38.68
Asset-X	103.25	49.79	-	-	-	46.61	6.85	103.25
Total	3972.00	2741.05	-	197.85	598.59	166.50	196.98	3900.97

*ACE restricted to FR cost

Debt-Equity Ratio

36. The Petitioner has claimed debt-equity ratio of 70:30 as on COD and for ACE post COD. Debt-equity ratio has been considered in accordance with Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity ratio



as on COD and as on 31.3.2019 in respect of the transmission assets is as follows:

Asset-I	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	215.35	70.00	361.63	70.00
Equity	92.29	30.00	154.99	30.00
Total	307.64	100.00	516.62	100.00
Asset-II	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	184.88	70.00	306.71	70.00
Equity	79.24	30.00	131.45	30.00
Total	264.12	100.00	438.16	100.00
Asset-III	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	371.65	70.00	558.52	70.00
Equity	159.28	30.00	239.37	30.00
Total	530.93	100.00	797.89	100.00
Asset-IV	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	229.43	70.00	341.85	70.00
Equity	98.33	30.00	146.51	30.00
Total	327.76	100.00	488.36	100.00
Asset-V	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	205.42	70.00	342.48	70.00
Equity	88.04	30.00	146.78	30.00
Total	293.45	100.00	489.26	100.00
Asset-VI	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	354.52	70.00	379.64	70.00
Equity	151.94	30.00	162.70	30.00
Total	506.45	100.00	542.34	100.00
Asset-VII	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	217.23	70.00	248.89	70.00
Equity	93.10	30.00	106.67	30.00
Total	310.33	100.00	355.55	100.00
Asset-VIII	As on COD		As on 31.3.2019	



	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	80.98	70.00	91.60	70.00
Equity	34.70	30.00	39.26	30.00
Total	115.68	100.00	130.86	100.00
Asset-IX	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	24.43	70.00	27.07	70.00
Equity	10.47	30.00	11.60	30.00
Total	34.90	100.00	38.68	100.00
Asset-X	As on COD		As on 31.3.2019	
	Amount	(in %)	Amount	(in %)
	(₹ in lakh)		(₹ in lakh)	
Debt	34.85	70.00	72.28	70.00
Equity	14.94	30.00	30.98	30.00
Total	49.79	100.00	103.25	100.00

Depreciation

37. The Petitioner vide affidavit dated 27.8.2021 referring to Clause 12.3 of Statement of Reasons (SOR) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, (hereinafter referred to as the “2015 Amendment Regulations”) dated 24.11.2015 has submitted that communication equipment such as SCADA are to be considered as IT equipment and has revised its submissions considering communication equipment such as SCADA as IT equipment and accordingly claimed depreciation at the rate of 15%.

38. We have considered the submissions of the Petitioner. SCADA has been defined as a “communication system” under Regulation 3(11) of the 2014 Tariff Regulations. Regulation 3(11) of the 2014 Tariff Regulations provides as follows:

“(11) *Communication System*’ includes communication system of Power Grid Corporation of India Ltd. covered under Unified Load Dispatch and Communication (ULD&C) scheme, SCADA, Wide Area Measurement (WAMS), Fibre Optic Communication system, Remote Terminal Unit, Private Automatic Branch Exchange, Radio Communication System and



auxiliary power supply system etc. used for managing inter-state transmission of electricity;”

39. The reference to SCADA in Clause 12.3 of SOR of the 2015 Amendment Regulations is w.r.t salvage value and it states that the salvage value applicable to the IT equipment will be applicable to the communication equipment like SCADA, WAMS, RTUs etc. Therefore, reliance by the Petitioner on Clause 12.3 of SOR of the 2015 Amendment Regulations is misplaced. Moreover, the definition of “communication system” in the 2014 Tariff Regulations would prevail over the Clause 12.3 of SOR of the 2015 Amendment Regulations. Accordingly, depreciation has been considered for communication equipment such as SCADA @6.33% as part of PLCC upto 31.3.2019 while truing up the capital expenditure for the 2014-19 period. The depreciation has been allowed as per the methodology provided in Regulation 27 of the 2014 Tariff Regulations considering capital expenditure as on 1.4.2014 and approved ACE during the 2014-19 tariff period. The Gross Block during the 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I to Annexure-X has been worked out considering the depreciation rates of assets as specified in the 2014 Tariff Regulations and the trued-up depreciation allowed for the transmission assets for the 2014-19 tariff period is as follows:

(₹ in lakh)

Particulars		Asset-I			
		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	307.64	311.41	458.90	498.28
B	ACE	3.77	147.49	39.38	18.34
C	Closing Gross Block (A+B)	311.41	458.90	498.28	516.62
D	Average Gross Block [(A+C)/2]	309.53	385.16	478.59	507.45
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block	309.53	385.16	478.59	507.45



	(100% depreciable assets)				
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	278.57	346.64	430.73	456.70
J	Total Depreciable Value (G+H+I)	278.57	346.64	430.73	456.70
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
M	Balance useful life at the beginning of the year (Year)	15	15	14	13
N	Depreciation during the year (D*K)	4.50	24.38	30.29	32.12
O	Aggregate Cumulative Depreciation at the end of the year	4.50	28.88	59.17	91.29
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	274.08	317.76	371.56	365.41

(₹ in lakh)

		Asset-II			
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	264.12	314.99	404.99	407.03
B	ACE	50.87	90.00	2.04	31.13
C	Closing Gross Block (A+B)	314.99	404.99	407.03	438.16
D	Average Gross Block [(A+C)/2]	289.56	359.99	406.01	422.60
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	289.56	359.99	406.01	422.60
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	260.60	323.99	365.41	380.34
J	Total Depreciable Value	260.60	323.99	365.41	380.34



	(G+H+I)				
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
M	Balance useful life at the beginning of the year (Year)	15	15	14	13
N	Depreciation during the year (D*K)	4.21	22.79	25.70	26.75
O	Aggregate Cumulative Depreciation at the end of the year	4.21	26.99	52.69	79.44
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	256.39	297.00	312.71	300.89

(₹ in lakh)

		Asset-III			
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	530.93	618.17	718.17	721.84
B	ACE	87.24	100.00	3.67	76.05
C	Closing Gross Block (A+B)	618.17	718.17	721.84	797.89
D	Average Gross Block [(A+C)/2]	574.55	668.17	720.01	759.87
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	574.55	668.17	720.01	759.87
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	517.10	601.35	648.00	683.88
J	Total Depreciable Value (G+H+I)	517.10	601.35	648.00	683.88
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
M	Balance useful life at the beginning of the year (Year)	15	15	14	13
N	Depreciation during the	8.35	42.30	45.58	48.10



	year (D*K)				
O	Aggregate Cumulative Depreciation at the end of the year	8.35	50.64	96.22	144.32
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	508.75	550.71	551.79	539.56

(₹ in lakh)

		Asset-IV			
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Opening Gross Block	327.76	383.73	483.73	486.11
B	ACE	55.97	100.00	2.38	2.25
C	Closing Gross Block (A+B)	383.73	483.73	486.11	488.36
D	Average Gross Block [(A+C)/2]	355.75	433.73	484.92	487.24
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	355.75	433.73	484.92	487.24
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	320.17	390.36	436.43	438.51
J	Total Depreciable Value (G+H+I)	320.17	390.36	436.43	438.51
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
M	Balance useful life at the beginning of the year (Year)	15	15	14	13
N	Depreciation during the year (D*K)	5.17	27.46	30.70	30.84
O	Aggregate Cumulative Depreciation at the end of the year	5.17	32.62	63.32	94.16
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	315.00	357.73	373.11	344.35



(₹ in lakh)

Particulars		Asset-V			
		2015-16 (Pro-rata for 1 day)	2016-17	2017-18	2018-19
A	Opening Gross Block	293.45	293.45	454.55	464.82
B	ACE	0.00	161.10	10.27	24.44
C	Closing Gross Block (A+B)	293.45	454.55	464.82	489.26
D	Average Gross Block [(A+C)/2]	293.45	374.00	459.69	477.04
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	293.45	374.00	459.69	477.04
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	264.11	336.60	413.72	429.34
J	Total Depreciable Value (G+H+I)	264.11	336.60	413.72	429.34
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	1	2
M	Balance useful life at the beginning of the year (Year)	15	15	14	13
N	Depreciation during the year (D*K)	0.05	23.67	29.10	30.20
O	Aggregate Cumulative Depreciation at the end of the year	0.05	23.72	52.82	83.02
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	264.05	312.88	360.89	346.32

(₹ in lakh)

Particulars		Asset-VI		Asset-VII	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Gross Block	506.45	538.65	310.33	330.59
B	ACE	32.20	3.69	20.26	24.96
C	Closing Gross Block (A+B)	538.65	542.34	330.59	355.55
D	Average Gross Block [(A+C)/2]	522.55	540.50	320.46	343.07
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	522.55	540.50	320.46	343.07



G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	470.30	486.45	288.42	308.77
J	Total Depreciable Value (G+H+I)	470.30	486.45	288.42	308.77
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	0	0
M	Balance useful life at the beginning of the year (Year)	15	15	15	15
N	Depreciation during the year (D*K)	24.83	34.21	15.23	21.72
O	Aggregate Cumulative Depreciation at the end of the year	24.83	59.04	15.23	36.94
P	Remaining Aggregate Depreciable Value at the end of the year(J-O)	445.47	427.40	273.19	271.82

(₹ in lakh)

Particulars	Asset-VIII		Asset-IX		
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19	
A	Opening Gross Block	115.68	123.20	34.90	37.07
B	ACE	7.52	7.66	2.17	1.61
C	Closing Gross Block (A+B)	123.20	130.86	37.07	38.68
D	Average Gross Block [(A+C)/2]	119.44	127.03	35.98	37.87
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	119.44	127.03	35.98	37.87
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	107.50	114.33	32.38	34.08
J	Total Depreciable Value (G+H+I)	107.50	114.33	32.38	34.08
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0	0	0
M	Balance useful life at the beginning of the year (Year)	15	15	15	15
N	Depreciation during the year (D*K)	5.68	8.04	1.71	2.40



O	Aggregate Cumulative Depreciation at the end of the year	5.68	13.72	1.71	4.11
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	101.82	100.61	30.67	29.98

(₹ in lakh)

Particulars		Asset-X	
		2017-18(Pro-rata for 274 days)	2018-19
A	Opening Gross Block	49.79	96.40
B	ACE	46.61	6.85
C	Closing Gross Block (A+B)	96.40	103.25
D	Average Gross Block [(A+C)/2]	73.10	99.83
E	Average Gross Block (90% depreciable assets)	0.00	0.00
F	Average Gross Block (100% depreciable assets)	73.10	99.83
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00
I	Depreciable value of SCADA	65.79	89.84
J	Total Depreciable Value (G+H+I)	65.79	89.84
K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	0	0
M	Balance useful life at the beginning of the year (Year)	15	15
N	Depreciation during the year (D*K)	2.46	6.32
O	Aggregate Cumulative Depreciation at the end of the year	2.46	8.78
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	63.33	81.07

40. Depreciation allowed for Asset-I to Asset-V vide order dated 14.12.2017 in Petition No. 232/TT/2016 and Asset-VI to Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.50	25.60	31.49	31.49
	Claimed by the Petitioner in	10.66	57.77	71.79	76.91



	the instant petition				
	Approved after true-up in this order	4.50	24.38	30.29	32.12
Asset-II	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.21	23.41	26.88	26.88
	Claimed by the Petitioner in the instant petition	9.97	54.00	60.90	63.39
	Approved after true-up in this order	4.21	22.79	25.70	26.75
Asset-III	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	8.35	43.60	48.08	48.08
	Claimed by the Petitioner in the instant petition	19.78	100.23	108.00	113.98
	Approved after true-up in this order	8.35	42.30	45.58	48.10
Asset-IV	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	5.17	27.81	31.33	31.33
	Claimed by the Petitioner in the instant petition	12.25	65.06	72.74	75.81
	Approved after true-up in this order	5.17	27.46	30.70	30.84
Asset-V	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.05	22.25	27.83	29.73
	Claimed by the Petitioner in the instant petition	0.12	56.10	68.95	72.40
	Approved after true-up in this order	0.05	23.67	29.10	30.20
Asset-VI	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	25.03	34.83
	Claimed by the Petitioner in the instant petition	-	-	59.21	84.42
	Approved after true-up in this order	-	-	24.83	34.21
Asset-VII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	15.81	22.72
	Claimed by the Petitioner in the instant petition	-	-	36.31	53.85
	Approved after true-up in this order	-	-	15.23	21.72
Asset-VIII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	5.82	8.32
	Claimed by the Petitioner in the instant petition	-	-	13.53	19.96
	Approved after true-up in this order	-	-	5.68	8.04
Asset-IX	Allowed vide order dated 30.9.2019 in Petition No.	-	-	1.75	2.44



	181/TT/2018				
	Claimed by the Petitioner in the instant petition	-	-	4.13	5.90
	Approved after true-up in this order	-	-	1.71	2.40
Asset-X	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	2.36	6.20
	Claimed by the Petitioner in the instant petition	-	-	5.83	15.56
	Approved after true-up in this order	-	-	2.46	6.32

Interest on Loan (IoL)

41. The Petitioner has claimed Weighted Average Rate of Interest (WAROI) on loan based on its actual loan portfolio and rate of interest. Accordingly, IoL has been calculated based on actual interest rates in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Particulars		Asset-I			
		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	215.35	217.99	321.23	348.80
B	Cumulative Repayments up to Previous Year	0.00	4.50	28.88	59.17
C	Net Loan-Opening (A-B)	215.35	213.49	292.35	289.62
D	Addition due to Additional Capitalization	2.64	103.24	27.57	12.84
E	Repayment during the year	4.50	24.38	30.29	32.12
F	Net Loan-Closing (C+D-E)	213.49	292.35	289.62	270.34
G	Average Loan [(A+F)/2]	214.42	252.92	290.99	279.98
H	Weighted Average Rate of Interest on Loan (in %)	9.125	8.656	8.012	7.890
I	Interest on Loan (GxH)	4.49	21.89	23.31	22.09

(₹ in lakh)

Particulars		Asset-II			
		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	184.88	220.49	283.49	284.92
B	Cumulative Repayments up to Previous Year	0.00	4.21	26.99	52.69
C	Net Loan-Opening (A-B)	184.88	216.29	256.50	232.23
D	Addition due to Additional Capitalization	35.61	63.00	1.43	21.79



E	Repayment during the year	4.21	22.79	25.70	26.75
F	Net Loan-Closing (C+D-E)	216.29	256.50	232.23	227.27
G	Average Loan [(A+F)/2]	200.59	236.39	244.36	229.75
H	Weighted Average Rate of Interest on Loan (in %)	9.045	8.737	8.138	8.023
I	Interest on Loan (GxH)	4.16	20.65	19.89	18.43

(₹ in lakh)

Asset-III					
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	371.65	432.72	502.72	505.29
B	Cumulative Repayments up to Previous Year	0.00	8.35	50.64	96.22
C	Net Loan-Opening (A-B)	371.65	424.37	452.08	409.07
D	Addition due to Additional Capitalization	61.07	70.00	2.57	53.24
E	Repayment during the year	8.35	42.30	45.58	48.10
F	Net Loan-Closing (C+D-E)	424.37	452.08	409.07	414.21
G	Average Loan [(A+F)/2]	398.01	438.22	430.57	411.64
H	Weighted Average Rate of Interest on Loan (in %)	9.129	8.937	8.509	8.393
I	Interest on Loan (GxH)	8.34	39.17	36.64	34.55

(₹ in lakh)

Asset-IV					
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Gross Normative Loan	229.43	268.61	338.61	340.28
B	Cumulative Repayments up to Previous Year	0.00	5.17	32.62	63.32
C	Net Loan-Opening (A-B)	229.43	263.44	305.99	276.96
D	Addition due to Additional Capitalization	39.18	70.00	1.67	1.58
E	Repayment during the year	5.17	27.46	30.70	30.84
F	Net Loan-Closing (C+D-E)	263.44	305.99	276.96	247.69
G	Average Loan [(A+F)/2]	246.44	284.72	291.47	262.33
H	Weighted Average Rate of Interest on Loan (in %)	9.042	8.750	8.158	8.042
I	Interest on Loan (GxH)	5.11	24.91	23.78	21.10

(₹ in lakh)

Asset-V					
Particulars		2015-16 (Pro-rata for 1 day)	2016-17	2017-18	2018-19
A	Gross Normative Loan	205.42	205.42	318.19	325.37
B	Cumulative Repayments up to Previous Year	0.00	0.05	23.72	52.82



C	Net Loan-Opening (A-B)	205.42	205.36	294.46	272.55
D	Addition due to Additional Capitalization	0.00	112.77	7.19	17.11
E	Repayment during the year	0.05	23.67	29.10	30.20
F	Net Loan-Closing (C+D-E)	205.36	294.46	272.55	259.46
G	Average Loan [(A+F)/2]	205.39	249.91	283.51	266.01
H	Weighted Average Rate of Interest on Loan (in %)	9.483	8.868	8.102	7.979
I	Interest on Loan (GxH)	0.05	22.16	22.97	21.23

(₹ in lakh)

Particulars		Asset-VI		Asset-VII	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Gross Normative Loan	354.52	377.06	217.23	231.42
B	Cumulative Repayments up to Previous Year	0.00	24.83	0.00	15.23
C	Net Loan-Opening (A-B)	354.52	352.22	217.23	216.19
D	Addition due to Additional Capitalization	22.54	2.58	14.18	17.47
E	Repayment during the year	24.83	34.21	15.23	21.72
F	Net Loan-Closing (C+D-E)	352.22	320.59	216.19	211.94
G	Average Loan [(A+F)/2]	353.37	336.41	216.71	214.06
H	Weighted Average Rate of Interest on Loan (in %)	8.915	8.874	8.914	8.846
I	Interest on Loan (GxH)	23.65	29.85	14.50	18.94

(₹ in lakh)

Particulars		Asset-VIII		Asset-IX	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Gross Normative Loan	80.98	86.24	24.43	25.95
B	Cumulative Repayments up to Previous Year	0.00	5.68	0.00	1.71
C	Net Loan-Opening (A-B)	80.98	80.56	24.43	24.24
D	Addition due to Additional Capitalization	5.26	5.36	1.52	1.13
E	Repayment during the year	5.68	8.04	1.71	2.40
F	Net Loan-Closing (C+D-E)	80.56	77.89	24.24	22.97
G	Average Loan [(A+F)/2]	80.77	79.23	24.33	23.60
H	Weighted Average Rate of Interest on Loan (in %)	8.914	8.850	8.788	8.735
I	Interest on Loan (GxH)	5.40	7.01	1.61	2.06

(₹ in lakh)

Particulars		Asset-X	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Gross Normative Loan	34.85	67.48
B	Cumulative Repayments up to Previous Year	0.00	2.46
C	Net Loan-Opening (A-B)	34.85	65.02
D	Addition due to Additional Capitalization	32.63	4.80
E	Repayment during the year	2.46	6.32



F	Net Loan-Closing (C+D-E)	65.05	63.50
G	Average Loan [(A+F)/2]	49.94	64.26
H	Weighted Average Rate of Interest on Loan (in %)	8.174	8.209
I	Interest on Loan (GxH)	2.17	5.27

42. IoL allowed for Asset-I to Asset-V vide order dated 14.12.2017 in Petition No. 232/TT/2016 and Asset-VI to Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order is as follows:

(₹ in lakh)					
Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.49	24.26	27.60	24.73
	Claimed by the Petitioner in the instant petition	4.43	19.91	18.48	14.22
	Approved after true-up in this order	4.49	21.89	23.31	22.09
Asset-II	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.16	22.08	23.28	20.84
	Claimed by the Petitioner in the instant petition	4.10	18.79	15.45	11.17
	Approved after true-up in this order	4.16	20.65	19.89	18.43
Asset-III	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	8.34	41.40	41.71	37.27
	Claimed by the Petitioner in the instant petition	8.22	35.56	28.08	20.72
	Approved after true-up in this order	8.34	39.17	36.64	34.55
Asset-IV	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	5.11	26.19	27.04	24.20
	Claimed by the Petitioner in the instant petition	5.04	22.65	18.42	13.34
	Approved after true-up in this order	5.11	24.91	23.78	21.10
Asset-V	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.05	22.28	25.75	25.01
	Claimed by the Petitioner in the instant petition	0.05	20.72	18.72	14.08
	Approved after true-up in this order	0.05	22.16	22.97	21.23
Asset-VI	Allowed vide order dated 30.9.2019 in Petition No.	-	-	23.88	30.60



	181/TT/2018				
	Claimed by the Petitioner in the instant petition	-	-	22.66	25.96
	Approved after true-up in this order	-	-	23.65	29.85
Asset-VII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	15.08	20.01
	Claimed by the Petitioner in the instant petition	-	-	13.89	16.64
	Approved after true-up in this order	-	-	14.50	18.94
Asset-VIII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	5.55	7.33
	Claimed by the Petitioner in the instant petition	-	-	5.18	6.16
	Approved after true-up in this order	-	-	5.40	7.01
Asset-IX	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	1.64	2.11
	Claimed by the Petitioner in the instant petition	-	-	1.55	1.79
	Approved after true-up in this order	-	-	1.61	2.06
Asset-X	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	2.09	5.15
	Claimed by the Petitioner in the instant petition	-	-	2.10	4.84
	Approved after true-up in this order	-	-	2.17	5.27

Return on Equity

43. The Petitioner has claimed 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 Minimum Alternate Tax (MAT) rates and has claimed the effective tax rates for the 2014-19 tariff period as follows:

Year	Claimed effective tax (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
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



44. BSPHCL has submitted that the Petitioner has calculated the rate of RoE for 2014-15 and 2015-16 on the basis of the Assessment orders issued by Income-Tax Authorities which have not been attached in the present petition for perusal of BSPHCL in order to assess the actual tax paid by the Petitioner from 2014-2016 and the rate of RoE for 2016-17 and 2017-18 have been calculated on the basis of income-tax returns filed by the Petitioner which also have not been attached in the present petition. The rate of RoE for 2018-19 have been calculated on the basis of presumptive value of MAT rates and as and when the Income Tax Assessment for the year 2016-17, 2017-18 and 2018-19 are completed, BSPHCL will pay the differential tariff as per the assessment order to be passed after the due perusal of the said assessment orders.

45. BSPHCL has also submitted that the Commission vide order dated 31.3.2015 in Petition No. 532/TT/2014 (Power Grid Corporation of India Limited vs. Assam Electricity Grid Corporation Limited and Others) had directed the Petitioner therein to submit the computation of effective tax rate claimed along with actual tax paid (duly adjusted) relating to the respective financial year of the tariff period. BSPHCL has requested that the Petitioner may be directed to submit the figures of computation of effective tax for 2016-17, 2017-18 and 2018-19 and the actual tax paid by the Petitioner in 2014-15, 2015-16, 2016-17 and 2017-18 along with the Income Tax assessments/ re-assessments for the 2014-19 period.

46. In response, the Petitioner has submitted that it has already submitted all relevant documents in Petition No. 247/TT/2019, Petition No. 274/TT/2019 etc. The effective tax rate based on notified MAT rates has already been allowed by the Commission in several orders for the 2014-19 tariff period. The Petitioner has requested that the Petitioner may be allowed to claim differential tariff on account



of the trued-up RoE based on effective tax rate and Income Tax assessment/ re-assessment for 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 on receipt of the respective assessment orders, directly from the beneficiaries, on year to year basis as provided in the 2014 Tariff Regulations.

47. We have considered the submissions of the Petitioner and BSPHCL. It is observed that the Petitioner has submitted all the documents required for working out the effective rates and the same has been considered by the Commission in previous orders. The Commission in order dated 27.4.2020 in Petition No. 274/TT/2019 had arrived at the effective tax rates based on the notified MAT rates for the Petitioner and the same is given in the table below. The same MAT rates are considered for the purpose of grossing up of the rate of RoE for truing up of the tariff of the 2014-19 period in terms of the provisions of the 2014 Tariff Regulations.

Year	Notified MAT rates (in %) (inclusive of surcharge & cess)	Base rate of RoE (in %)	Grossed-up RoE (in %) [(Base Rate)/(1-t)]
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

48. The Petitioner has claimed RoE for the 2014-19 period after grossing up the RoE @15.50% with Effective Tax rates (based on MAT rates) each year. RoE is trued-up on the basis of MAT rates applicable in the respective years and is approved for the transmission assets for the 2014-19 tariff period as follows:



(₹ in lakh)

		Asset-I			
Particulars		2015-16	2016-17	2017-18	2018-19
		(Pro-rata for 84 days)			
A	Opening Equity	92.29	93.42	137.67	149.48
B	Additions	1.13	44.25	11.81	5.50
C	Closing Equity (A-B)	93.42	137.67	149.48	154.99
D	Average Equity [(A+B)/2]	92.86	115.55	143.58	152.23
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	4.20	22.77	28.29	30.08

(₹ in lakh)

		Asset-II			
Particulars		2015-16	2016-17	2017-18	2018-19
		(Pro-rata for 84 days)			
A	Opening Equity	79.24	94.50	121.50	122.11
B	Additions	15.26	27.00	0.61	9.34
C	Closing Equity (A-B)	94.50	121.50	122.11	131.45
D	Average Equity [(A+B)/2]	86.87	108.00	121.80	126.78
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	3.93	21.28	24.00	25.05

(₹ in lakh)

		Asset-III			
Particulars		2015-16	2016-17	2017-18	2018-19
		(Pro-rata for 84 days)			
A	Opening Equity	159.28	185.45	215.45	216.55
B	Additions	26.17	30.00	1.10	22.82
C	Closing Equity (A-B)	185.45	215.45	216.55	239.37
D	Average Equity [(A+B)/2]	172.37	200.45	216.00	227.96
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	7.80	39.50	42.56	45.04



(₹ in lakh)

Particulars		Asset-IV			
		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Opening Equity	98.33	115.12	145.12	145.83
B	Additions	16.79	30.00	0.71	0.68
C	Closing Equity (A-B)	115.12	145.12	145.83	146.51
D	Average Equity [(A+B)/2]	106.72	130.12	145.48	146.17
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	4.83	25.64	28.67	28.88

(₹ in lakh)

Particulars		Asset-V			
		2015-16 (Pro-rata for 1 day)	2016-17	2017-18	2018-19
A	Opening Equity	88.04	88.04	136.37	139.45
B	Additions	0.00	48.33	3.08	7.33
C	Closing Equity (A-B)	88.04	136.37	139.45	146.78
D	Average Equity [(A+B)/2]	88.04	112.20	137.91	143.11
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
G	Rate of Return on Equity	19.705	19.705	19.705	19.758
H	Return on Equity (DxG)	0.05	22.11	27.17	28.28

(₹ in lakh)

Particulars		Asset-VI		Asset-VII	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	151.94	161.60	93.10	99.18
B	Additions	9.66	1.11	6.08	7.49
C	Closing Equity (A-B)	161.60	162.70	99.18	106.67
D	Average Equity [(A+B)/2]	156.77	162.15	96.14	102.92
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549	21.342	21.549
G	Rate of Return on Equity	19.705	19.758	19.705	19.758
H	Return on Equity (DxG)	23.19	32.04	14.22	20.34



(₹ in lakh)

Particulars		Asset-VIII		Asset-IX	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	34.70	36.96	10.47	11.12
B	Additions	2.26	2.30	0.65	0.48
C	Closing Equity (A-B)	36.96	39.26	11.12	11.60
D	Average Equity [(A+B)/2]	35.83	38.11	10.79	11.36
E	Return on Equity (Base Rate) (%)	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (%)	21.342	21.549	21.342	21.549
G	Rate of Return on Equity	19.705	19.758	19.705	19.758
H	Return on Equity (DxG)	5.30	7.53	1.60	2.24

(₹ in lakh)

Particulars		Asset-X	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Opening Equity	14.94	28.92
B	Additions	13.98	2.06
C	Closing Equity (A-B)	28.92	30.98
D	Average Equity (A+B)/2	21.93	29.95
E	Return on Equity (Base Rate) (in %)	15.500	15.500
F	MAT Rate for respective year (in %)	21.342	21.549
G	Rate of Return on Equity	19.705	19.758
H	Return on Equity (DxG)	2.30	5.92

49. RoE allowed for Asset-I to Asset-V vide order dated 14.12.2017 in Petition No. 232/TT/2016 and Asset-VI to Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018, claimed by the Petitioner in the instant petition and true-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.18	23.79	29.27	29.27
	Claimed by the Petitioner in the instant petition	4.20	22.77	28.29	30.39
	Approved after true-up in this order	4.20	22.77	28.29	30.08
Asset-II	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	3.91	21.76	24.98	24.98
	Claimed by the Petitioner in the instant petition	3.93	21.28	24.00	25.05
	Approved after true-up in this	3.93	21.28	24.00	25.05



	order				
Asset-III	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	7.76	40.53	44.68	44.68
	Claimed by the Petitioner in the instant petition	7.80	39.50	42.56	45.04
	Approved after true-up in this order	7.80	39.50	42.56	45.04
Asset-IV	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	4.80	25.85	29.12	29.12
	Claimed by the Petitioner in the instant petition	4.83	25.64	28.66	29.95
	Approved after true-up in this order	4.83	25.64	28.67	28.88
Asset-V	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.05	20.68	25.87	27.63
	Claimed by the Petitioner in the instant petition	0.05	22.11	27.17	28.61
	Approved after true-up in this order	0.05	22.11	27.17	28.28
Asset-VI	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	23.26	32.37
	Claimed by the Petitioner in the instant petition	-	-	23.34	33.36
	Approved after true-up in this order	-	-	23.19	32.04
Asset-VII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	14.69	21.12
	Claimed by the Petitioner in the instant petition	-	-	14.31	21.28
	Approved after true-up in this order	-	-	14.22	20.34
Asset-VIII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	5.41	7.73
	Claimed by the Petitioner in the instant petition	-	-	5.34	7.89
	Approved after true-up in this order	-	-	5.30	7.53
Asset-IX	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	1.62	2.27
	Claimed by the Petitioner in the instant petition	-	-	1.63	2.33
	Approved after true-up in this order	-	-	1.60	2.24
Asset-X	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	2.19	5.76



	Claimed by the Petitioner in the instant petition	-	-	2.30	6.15
	Approved after true-up in this order	-	-	2.30	5.92

Operation & Maintenance Expenses (O&M Expenses)

50. The Petitioner has not claimed any O&M expenses in respect of the transmission assets.

Interest on Working Capital

51. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and the trued-up IWC allowed for the transmission assets are as follows:

(₹ in lakh)

		Asset-I			
	Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	9.80	11.77	13.96	14.37
D	Total Working Capital (A+B+C)	9.80	11.77	13.96	14.37
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.30	1.59	1.89	1.94

(₹ in lakh)

		Asset-II			
	Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for	9.14	11.04	11.86	11.97



	Receivables (Receivable equivalent to 2 months of fixed cost)				
D	Total Working Capital (A+B+C)	9.14	11.04	11.86	11.97
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.28	1.49	1.60	1.62

(₹ in lakh)

Asset-III					
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	18.19	20.62	21.27	21.77
D	Total Working Capital (A+B+C)	18.19	20.62	21.27	21.77
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.56	2.78	2.87	2.94

(₹ in lakh)

Asset-IV					
Particulars		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	11.22	13.30	14.18	13.78
D	Total Working Capital (A+B+C)	11.22	13.30	14.18	13.78
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.35	1.80	1.91	1.86



(₹ in lakh)

Particulars		Asset-V			
		2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	9.45	11.58	13.51	13.59
D	Total Working Capital (A+B+C)	9.45	11.58	13.51	13.59
E	Rate of Interest (in %)	13.50	13.50	13.50	13.50
F	Interest on Working Capital (DxE)	0.00	1.56	1.82	1.83

(₹ in lakh)

Particulars		Asset-VI		Asset-VII	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	16.25	16.36	9.97	10.38
D	Total Working Capital (A+B+C)	16.25	16.36	9.97	10.38
E	Rate of Interest (in %)	12.60	12.60	12.60	12.60
F	Interest on Working Capital (DxE)	1.54	2.06	0.94	1.31

(₹ in lakh)

Particulars		Asset-VIII		Asset-IX	
		2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00	0.00	0.00



B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	3.71	3.84	1.11	1.14
D	Total Working Capital (A+B+C)	3.71	3.84	1.11	1.14
E	Rate of Interest (in %)	12.60	12.60	12.60	12.60
F	Interest on Working Capital (DxE)	0.35	0.48	0.11	0.14

(₹ in lakh)

Particulars		Asset-X	
		2017-18 (Pro-rata for 274 days)	2018-19
A	Working Capital for O&M Expenses (1 month of O&M Expenses)	0.00	0.00
B	Working Capital for Maintenance Spares (Maintenance Spares @15% of O&M expenses)	0.00	0.00
C	Working Capital for Receivables (Receivable equivalent to 2 months of fixed cost)	2.22	2.98
D	Total Working Capital (A+B+C)	2.22	2.98
E	Rate of Interest (in %)	12.60	12.60
F	Interest on Working Capital (DxE)	0.15	0.38

52. IWC allowed for Asset-I to Asset-V vide order dated 14.12.2017 in Petition No. 232/TT/2016 and for Asset-VI to Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)

Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.30	1.70	2.03	1.97
	Claimed by the Petitioner in the instant petition	0.44	2.31	2.73	2.80
	Approved after true-up in this order	0.30	1.59	1.89	1.94
Asset-II	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.28	1.55	1.73	1.67
	Claimed by the Petitioner in the instant petition	0.41	2.17	2.31	2.29



	Approved after true-up in this order	0.28	1.49	1.60	1.62
Asset-III	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.56	2.89	3.10	2.99
	Claimed by the Petitioner in the instant petition	0.82	4.04	4.11	4.14
	Approved after true-up in this order	0.56	2.78	2.87	2.94
Asset-IV	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.35	1.84	2.01	1.95
	Claimed by the Petitioner in the instant petition	0.51	2.61	2.76	2.74
	Approved after true-up in this order	0.35	1.80	1.91	1.86
Asset-V	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.00	1.50	1.83	1.90
	Claimed by the Petitioner in the instant petition	0.01	2.28	2.64	2.65
	Approved after true-up in this order	0.00	1.56	1.82	1.83
Asset-VI	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	1.55	2.10
	Claimed by the Petitioner in the instant petition	-	-	2.26	3.08
	Approved after true-up in this order	-	-	1.54	2.06
Asset-VII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	0.98	1.37
	Claimed by the Petitioner in the instant petition	-	-	1.38	1.97
	Approved after true-up in this order	-	-	0.94	1.31
Asset-VIII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	0.36	0.50
	Claimed by the Petitioner in the instant petition	-	-	0.52	0.73
	Approved after true-up in this order	-	-	0.35	0.48
Asset-IX	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	0.11	0.15
	Claimed by the Petitioner in the instant petition	-	-	0.16	0.22
	Approved after true-up in this order	-	-	0.11	0.14
Asset-X	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	0.14	0.37



	Claimed by the Petitioner in the instant petition	-	-	0.22	0.57
	Approved after true-up in this order	-	-	0.15	0.38

Approved Annual Fixed Charges for the 2014-19 Tariff Period

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

(₹ in lakh)

Asset-I				
Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	4.50	24.38	30.29	32.12
Interest on Loan	4.49	21.89	23.31	22.09
Return on Equity	4.20	22.77	28.29	30.08
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.30	1.59	1.89	1.94
Total	13.49	70.63	83.79	86.23

(₹ in lakh)

Asset-II				
Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	4.21	22.79	25.70	26.75
Interest on Loan	4.16	20.65	19.89	18.43
Return on Equity	3.93	21.28	24.00	25.05
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.28	1.49	1.60	1.62
Total	12.58	66.21	71.19	71.85

(₹ in lakh)

Asset-III				
Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	8.35	42.30	45.58	48.10
Interest on Loan	8.34	39.17	36.64	34.55
Return on Equity	7.80	39.50	42.56	45.04
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.56	2.78	2.87	2.94
Total	25.04	123.74	127.65	130.63

(₹ in lakh)

Asset-IV				
Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	5.17	27.46	30.70	30.84
Interest on Loan	5.11	24.91	23.78	21.10
Return on Equity	4.83	25.64	28.67	28.88



O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.35	1.80	1.91	1.86
Total	15.46	79.80	85.05	82.68

(₹ in lakh)

Asset-V				
Particulars	2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
Depreciation	0.05	23.67	29.10	30.20
Interest on Loan	0.05	22.16	22.97	21.23
Return on Equity	0.05	22.11	27.17	28.28
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.00	1.56	1.82	1.83
Total	0.15	69.51	81.07	81.53

(₹ in lakh)

Particulars	Asset-VI		Asset-VII	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	24.83	34.21	15.23	21.72
Interest on Loan	23.65	29.85	14.50	18.94
Return on Equity	23.19	32.04	14.22	20.34
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	1.54	2.06	0.94	1.31
Total	73.21	98.17	44.89	62.30

(₹ in lakh)

Particulars	Asset-VIII		Asset-IX	
	2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	5.68	8.04	1.71	2.40
Interest on Loan	5.40	7.01	1.61	2.06
Return on Equity	5.30	7.53	1.60	2.24
O&M Expenses	0.00	0.00	0.00	0.00
Interest on Working Capital	0.35	0.48	0.11	0.14
Total	16.73	23.07	5.02	6.85

(₹ in lakh)

Particulars	Asset-X	
	2017-18 (Pro-rata for 274 days)	2018-19
Depreciation	2.46	6.32
Interest on Loan	2.17	5.27
Return on Equity	2.30	5.92
O&M Expenses	0.00	0.00
Interest on Working Capital	0.15	0.38
Total	7.07	17.89

54. Accordingly, the Annual Transmission Charges allowed for Asset-I to Asset-V vide order dated 14.12.2017 in Petition No. 232/TT/2016 and for Asset-VI



to Asset-X vide order dated 30.9.2019 in Petition No. 181/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:

(₹ in lakh)					
Asset	Particulars	2015-16	2016-17	2017-18	2018-19
Asset-I	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	13.47	75.35	90.39	87.46
	Claimed by the Petitioner in the instant petition	19.73	102.76	121.29	124.32
	Approved after true-up in this order	13.49	70.63	83.79	86.23
Asset-II	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	12.56	68.80	76.87	74.37
	Claimed by the Petitioner in the instant petition	18.41	96.24	102.66	101.90
	Approved after true-up in this order	12.58	66.21	71.19	71.85
Asset-III	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	25.01	128.42	137.57	133.02
	Claimed by the Petitioner in the instant petition	36.62	179.33	182.75	183.88
	Approved after true-up in this order	25.04	123.74	127.65	130.63
Asset-IV	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	15.43	81.69	89.50	86.60
	Claimed by the Petitioner in the instant petition	22.63	115.96	122.58	121.84
	Approved after true-up in this order	15.46	79.80	85.05	82.68
Asset-V	Allowed vide order dated 14.12.2017 in Petition No. 232/TT/2016	0.15	66.71	81.28	84.27
	Claimed by the Petitioner in the instant petition	0.23	101.21	117.48	117.74
	Approved after true-up in this order	0.15	69.51	81.07	81.53
Asset-VI	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	73.72	99.90
	Claimed by the Petitioner in the instant petition	-	-	107.47	146.82
	Approved after true-up in this order	-	-	73.21	98.17
Asset-VII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	46.56	65.22



	Claimed by the Petitioner in the instant petition	-	-	65.89	93.74
	Approved after true-up in this order	-	-	44.89	62.30
Asset-VIII	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	17.14	23.88
	Claimed by the Petitioner in the instant petition	-	-	24.57	34.74
	Approved after true-up in this order	-	-	16.73	23.07
Asset-IX	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	5.12	6.97
	Claimed by the Petitioner in the instant petition	-	-	7.47	10.24
	Approved after true-up in this order	-	-	5.02	6.85
Asset-X	Allowed vide order dated 30.9.2019 in Petition No. 181/TT/2018	-	-	6.78	17.48
	Claimed by the Petitioner in the instant petition	-	-	10.45	27.12
	Approved after true-up in this order	-	-	7.07	17.89

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

55. The Petitioner has submitted tariff forms combining Asset-I, Asset-II, Asset-III, Asset-IV, Asset-V, Asset-VI, Asset-VII, Asset-VIII, Asset-IX and Asset-X wherein COD has been achieved prior to 1.4.2019, as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the 2019 Tariff Regulations, single tariff for Combined Asset has been worked out for the 2019-24 tariff period.

56. The details of the transmission charges claimed by the Petitioner for Combined Asset for the 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	607.57	607.57	607.57	607.57	150.66
Interest on Loan	88.65	37.83	6.35	0.00	0.00
Return on Equity	228.21	228.21	228.21	228.21	228.21
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	13.90	13.17	12.70	12.60	5.70
Total	938.33	886.78	854.83	848.38	384.57



57. The details of IWC claimed by the Petitioner for Combined Asset for the 2019-24 tariff period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	115.37	109.33	105.39	104.59	47.28
Total Working Capital	115.37	109.33	105.39	104.59	47.28
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	13.90	13.17	12.70	12.60	5.70

Effective Date of Commercial Operation (E-COD) of Combined Asset

58. The Petitioner has claimed E-COD of Combined Asset as 6.7.2016. Based on the trued-up capital cost and COD of the transmission assets, E-COD of Combined Asset has been worked out as follows:

Computation of Effective COD					
Asset	COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weightage of cost (in %)	Number of days from last COD	Weighted Days
Asset-I	8.1.2016	516.62	13.00	620.00	82.11
Asset-II	8.1.2016	438.16	11.00	620.00	69.64
Asset-III	8.1.2016	797.89	20.00	620.00	126.81
Asset-IV	8.1.2016	488.36	13.00	620.00	77.62
Asset-V	31.3.2016	489.26	12.00	537.00	67.35
Asset-VI	1.7.2017	542.34	14.00	80.00	11.12
Asset-VII	1.7.2017	355.55	9.00	80.00	7.29
Asset-VIII	1.7.2017	130.86	3.00	80.00	2.68
Asset-IX	1.7.2017	38.68	1.00	80.00	0.79
Asset-X	19.9.2017	103.25	3.00	0.00	0.00
Total		3900.97	100.00		445.42
E-COD (Latest COD – Total Weighted Days) – 1.7.2016					

59. E-COD is used to determine the lapsed life of the project as a whole, which works out as 2 (two) 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)

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

61. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. Accordingly, WAL of Combined Asset has been worked out as 15 years as follows:

Particulars	Capital Cost as on 31.3.2019 (₹ in lakh) (1)	Life (Year) (2)	Weighted Cost (₹ in lakh) (3) = [(1)x(2)	WAL (Year) (4) = [(3)/(1)]
PLCC	3900.97	15	58514.55	
Total	3900.97		58514.55	15 years

62. WAL as on 1.4.2019 as determined above is applicable prospectively (i.e. for the 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed, E-COD of Combined Asset is 1.7.2016 and the lapsed life of the transmission project as a whole works out as 2 (two) 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 13 years.

Capital Cost

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

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

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

(a) The expenditure incurred or projected to be incurred up to the date of



commercial operation of the project;

(b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;

(c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;

(e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;

(f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;

(g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;

(h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;

(i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;

(k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;

(l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;

(m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;

(n) Expenditure on account of change in law and force majeure events; and

(o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;

(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;

(c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;

(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;

(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and

(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve



and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

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

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

(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.”

64. The Petitioner has claimed the capital cost of individual assets which has been added to arrive at the capital cost claimed during the 2019-24 period for Combined Asset as follows:

(₹ in lakh)			
Capital Cost as per IA	Capital Cost claimed as on 31.3.2019	ACE 2019-20	Estimated Completion Cost as on 31.3.2024
3972.00	4050.45	0.00	4050.45

65. As stated in paragraph 16 above, the capital cost of the transmission assets is restricted to the cost given in the IA and the same will be reviewed at the time of



truing up of the tariff of the 2019-24 tariff period on submission of the correct apportioned approved cost of the transmission assets and who is the “competent authority” to approve the RCE.

66. The capital cost has been dealt in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e., land, building, transmission line, sub-station and PLCC) as admitted by the Commission as on 31.3.2019 for the transmission assets has been considered as capital cost of Combined Asset as on 1.4.2019 as follows:

Element	(₹ in lakh)
	PLCC
Asset-I	516.62
Asset-II	438.16
Asset-III	797.89
Asset-IV	488.36
Asset-V	489.26
Asset-VI	542.34
Asset-VII	355.55
Asset-VIII	130.86
Asset-IX	38.68
Asset-X	103.25
Capital Cost for Combined Asset as on 31.3.2019	3900.97

67. The capital cost of ₹3900.97 lakh as on 31.3.2019 has been considered as opening capital cost as on 1.4.2019.

Additional Capital Expenditure

68. The Petitioner has not claimed any ACE in respect of Combined Asset for the 2019-24 tariff period.

Capital Cost for the 2019-24 tariff period

69. Accordingly, the capital cost of Combined Asset considered for the 2019-24 tariff period, subject to truing-up, is as follows:



(₹ in lakh)		
Capital Cost (as on 1.4.2019)	ACE (2019-20)	Total Estimated Completion Cost (up to 31.3.2024)
3900.97	0.00	3900.97

70. Against the overall apportioned approved capital cost as per FR cost of ₹3972.00 lakh, the estimated project cost of Combined Asset including ACE is ₹3900.97 lakh which is within the approved cost. Therefore, there is no cost over-run as per the apportioned approved cost.

Debt-Equity Ratio

71. 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.

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

72. The debt-equity considered for the purpose of computation of tariff for Combined Asset for the 2019-24 tariff period 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	2730.68	70.00	2730.68	70.00
Equity	1170.30	30.00	1170.30	30.00
Total	3900.98	100.00	3900.98	100.00

Depreciation

73. 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 decapitalized asset during its useful services.

(9) Where the emission control system is implemented within the original scope of the generating station and the date of commercial operation of the generating station or unit thereof and the date of operation of the emission control system



are the same, depreciation of the generating station or unit thereof including the emission control system shall be computed in accordance with Clauses (1) to (8) of this Regulation.

(10) Depreciation of the emission control system of an existing or a new generating station or unit thereof where the date of operation of the emission control system is subsequent to the date of commercial operation of the generating station or unit thereof, shall be computed annually from the date of operation of such emission control system based on straight line method, with salvage value of 10%, over a period of-

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

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

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

74. WAROD at Annexure-XI for Combined Asset has been worked out considering the depreciation rates assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The depreciation allowed for Combined Asset for the 2019-24 period is as follows:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	3900.98	3900.98	3900.98	3900.98	3900.98
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	3900.98	3900.98	3900.98	3900.98	3900.98
D	Average Gross Block [(A+C)/2]	3900.98	3900.98	3900.98	3900.98	3900.98
E	Average Gross Block (90% depreciable assets)	0.00	0.00	0.00	0.00	0.00
F	Average Gross Block (100% depreciable assets)	3900.98	3900.98	3900.98	3900.98	3900.98
G	Depreciable value (excluding IT equipment and software) (E*90%)	0.00	0.00	0.00	0.00	0.00
H	Depreciable value of IT equipment and software	0.00	0.00	0.00	0.00	0.00
I	Depreciable value of SCADA	3900.98	3900.98	3900.98	3900.98	3900.98
J	Total Depreciable Value (G+H+I)	3900.98	3900.98	3900.98	3900.98	3900.98



K	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
L	Elapsed useful life at the beginning of the year (Year)	2	3	4	5	6
M	Balance useful life at the beginning of the year (Year)	13	12	11	10	9
N	Depreciation during the year (D*K)	246.93	246.93	246.93	246.93	246.93
O	Aggregate Cumulative Depreciation at the end of the year	861.76	1108.69	1355.63	1602.56	1849.49
P	Remaining Aggregate Depreciable Value at the end of the year (J-O)	3039.22	2792.29	2545.35	2298.42	2051.49

Interest on Loan

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

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

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

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

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

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

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

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

(5a) *The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control*



system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

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

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

76. WAROI on loan has been considered on the basis of the 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 will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. Therefore, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for Combined Asset for the 2019-24 tariff period is as follows:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	2730.68	2730.68	2730.68	2730.68	2730.68
B	Cumulative Repayments upto Previous Year	614.83	861.76	1108.69	1355.63	1602.56
C	Net Loan-Opening (A-B)	2115.85	1868.92	1621.99	1375.05	1128.12
D	Additions	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	246.93	246.93	246.93	246.93	246.93
F	Net Loan-Closing (C+D-E)	1868.92	1621.99	1375.05	1128.12	881.19
G	Average Loan [(A+F)/2]	1992.38	1745.45	1498.52	1251.59	1004.66
H	Weighted Average Rate of Interest on Loan (in %)	8.347	8.323	8.418	8.559	8.550
I	Interest on Loan (GxH)	166.30	145.28	126.14	107.13	85.90

Return on Equity

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

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

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



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

Provided further that:

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

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

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

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

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

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

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

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

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

Rate of pre-tax return on equity = 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.”

78. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate prescribed under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up the RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation 31(2) of the 2019 Tariff Regulations for the 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued up 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 IT authorities pertaining to the 2019-24 tariff period on actual gross income. However, any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by it. Any under-recovery or over-recovery of grossed up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long-term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/adjustable during the 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

79. We have considered the submissions of the Petitioner. RoE allowed for Combined Asset under Regulation 30 of the 2019 Tariff Regulations is as follows:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	1170.30	1170.30	1170.30	1170.30	1170.30
B	Additions	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (A-B)	1170.30	1170.30	1170.30	1170.30	1170.30
D	Average Equity [(A+B)/2]	1170.30	1170.30	1170.30	1170.30	1170.30
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.470	17.470	17.470	17.470	17.470
G	Rate of Return on Equity (in %)	18.780	18.780	18.780	18.780	18.780
H	Return on Equity (DxG)	219.81	219.81	219.81	219.81	219.81

Operation & Maintenance Expenses

80. The Petitioner has not claimed O&M Expenses for Combined Asset for the 2019-24 tariff period.

Interest on Working Capital

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

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



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

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

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

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

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

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

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

“3. Definitions ...

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

82. The Petitioner has submitted that it has computed IWC for the 2019-24 tariff period considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest considered is 12.05% (SBI 1 year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, 11.25% (SBI 1 year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points).

83. We have considered the submissions of the Petitioner. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the



components of the working capital and interest allowed thereon for Combined Asset for the 2019-24 tariff period are as follows:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	79.00	76.52	74.05	71.68	68.84
D	Total Working Capital (A+B+C)	79.00	76.52	74.05	71.68	68.84
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital (DxE)	9.52	8.61	7.78	7.53	7.23

Annual Fixed Charges of the 2019-24 Tariff Period

84. Accordingly, the transmission charges approved for Combined Asset for the 2019-24 tariff period are as follows:

		(₹ in lakh)				
Particulars		2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation	246.93	246.93	246.93	246.93	246.93
	Interest on Loan	166.30	145.28	126.14	107.13	85.90
	Return on Equity	219.81	219.81	219.81	219.81	219.81
	O&M Expenses	0.00	0.00	0.00	0.00	0.00
	Interest on Working Capital	9.52	8.61	7.78	7.53	7.23
	Total	642.55	620.62	600.65	581.39	559.87

Filing Fee and Publication Expenses

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

86. BSPHCL has submitted that the Petitioner has not provided any justification for seeking reimbursement of actual filing fee and publication expenses incurred by the Petitioner in this petition. It is the discretion of the



Commission to allow the reimbursement of filing fee and publication expenses under Regulation 70(1) of the 2019 Tariff Regulations but the exercise of such discretion is a judicial discretion in the adjudication of tariff for which no justification has been filed by the Petitioner in this petition. BSPHCL has also submitted that vide order dated 11.9.2008 in Petition No. 129/2005 the claim of Central Power Sector Undertakings for allowing the reimbursement of the application filing fee.

87. In response, the Petitioner has submitted that it has requested for reimbursement of expenditure by the beneficiaries towards petition filing fee and publication expense, in terms of Regulation 70(1) of the 2019 Tariff Regulations. The Petitioner has further submitted that the Commission vide order dated 28.3.2016 in Petition No. 137/TT/2015 had allowed the recovery of petition filing fee and publication of notices from the beneficiaries on pro-rata basis.

88. We have considered the submissions of the Petitioner and BSPHCL. 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

89. The Petitioner has claimed licence fee and RLDC fee and charges. BSPHCL has submitted that the licence fee is the eligibility fee and ought to be borne by the Petitioner. We have considered the submissions of the Petitioner and BSPHCL. 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 Regulation 70(3) of the 2019 Tariff Regulations for the 2019-24 tariff period.

Good and Service Tax

90. The Petitioner has submitted that, if GST is levied any point of time in future on Charges of Transmission of Electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries. BSPHCL has submitted that GST is not applicable for transmission of electricity. In response, the Petitioner has reiterated its submissions already made regarding GST in this petition.

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

Security Expenses

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

93. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on projected basis for 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. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

95. BSPHCL has submitted that the Petitioner's submissions (regarding sharing of transmission charges) are admitted to the extent that the tariff for transmission of electricity for the 2019-24 period shall be recovered from Respondents on monthly basis in accordance with Regulation 57 of the 2019 Tariff Regulations and shall be shared by the beneficiaries and long-term transmission customers in accordance with the 2010 Sharing Regulations dated 15.6.2010. However, BSPHCL shall not be liable for sharing the transmission charges unless the same are calculated on fair and reasonable basis pursuant to justifications/ explanations/ documents as sought from the Petitioner in BSPHCL's reply, are provided by the Petitioner to the satisfaction of the Commission.

96. We have considered the submissions of the Petitioner and BSPHCL. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the provisions of the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of the 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 the 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.

97. To summarise:

- a) The trued-up AFC approved for the transmission assets for the 2014-19 tariff period are as follows:

(₹ in lakh)

Asset-I			
2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
13.49	70.63	83.79	86.23

(₹ in lakh)

Asset-II			
2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
12.58	66.21	71.19	71.85

(₹ in lakh)

Asset-III			
2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
25.04	123.74	127.65	130.63

(₹ in lakh)

Asset-IV			
2015-16 (Pro-rata for 84 days)	2016-17	2017-18	2018-19
15.46	79.80	85.05	82.68

(₹ in lakh)

2015-16 (Pro-rata for 1 day)	2016-17	2017-18	2018-19
0.15	69.51	81.07	81.53

(₹ in lakh)

Asset-VI		Asset-VII	
2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
73.21	98.17	44.89	62.30



(₹ in lakh)

Asset-VIII		Asset-IX	
2017-18 (Pro-rata for 274 days)	2018-19	2017-18 (Pro-rata for 274 days)	2018-19
16.73	23.07	5.02	6.85

(₹ in lakh)

Asset-X	
2017-18 (Pro-rata for 274 days)	2018-19
7.07	17.89

- b) AFC allowed for Combined Asset for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
642.55	620.62	600.65	581.39	559.87

98. Annexure-I to Annexure-XI given hereinafter form part of the order.

99. This order disposes of Petition No. 94/TT/2020 in terms of above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Annexure-I

Asset-I

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19				Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	307.64	3.78	147.49	39.38	18.34	516.62	6.33	-	19.59	24.38	30.29	32.12
Total	307.64	3.78	147.49	39.38	18.34	516.62		-	19.59	24.38	30.29	32.12
Average Gross Block (₹ in lakh)									309.53	385.16	478.59	507.45
Weighted Average Rate of Depreciation (in %)									6.33	6.33	6.33	6.33

Annexure-II

Asset-II

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19				Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	264.12	50.87	90.00	2.04	31.13	438.16	6.33	-	18.33	22.79	25.70	26.75
Total	264.12	50.87	90.00	2.04	31.13	438.16		-	18.33	22.79	25.70	26.75
Average Gross Block (₹ in lakh)									289.56	359.99	406.01	422.60
Weighted Average Rate of Depreciation (in %)									6.33	6.33	6.33	6.33



Annexure-III

Asset-III

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19				Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	530.93	87.24	100.00	3.67	76.05	797.89	6.33	-	36.37	42.30	45.58	48.10
Total	530.93	87.24	100.00	3.67	76.05	797.89		-	36.37	42.30	45.58	48.10
Average Gross Block (₹ in lakh)									574.55	668.17	720.01	759.87
Weighted Average Rate of Depreciation (in %)									6.33	6.33	6.33	6.33

Annexure-IV

Asset-IV

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19				Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 tariff Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	327.76	55.97	100.00	2.38	2.25	488.36	6.33	-	22.52	27.46	30.70	30.84
Total	327.76	55.97	100.00	2.38	2.25	488.36		-	22.52	27.46	30.70	30.84
Average Gross Block (₹ in lakh)									355.75	433.73	484.92	487.24
Weighted Average Rate of Depreciation (in %)									6.33	6.33	6.33	6.33



Annexure-V

Asset-V

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19				Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2015-16	2016-17	2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	293.45	0.00	161.10	10.27	24.44	489.26	6.33	-	18.58	23.67	29.10	30.20
Total	293.45	0.00	161.10	10.27	24.44	489.26		-	18.58	23.67	29.10	30.20
Average Gross Block (₹ in lakh)									293.45	374.00	459.69	477.04
Weighted Average Rate of Depreciation (in %)									6.33	6.33	6.33	6.33

Annexure-VI

Asset-VI

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	506.45	32.20	3.69	542.34	6.33	-	-	-	33.07	34.21
Total	506.45	32.20	3.69	542.34		-	-	-	33.07	34.21
Average Gross Block (₹ in lakh)						-	-	-	522.55	540.50
Weighted Average Rate of Depreciation (in %)						-	-	-	6.33	6.33



Annexure-VII

Asset-VII

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	310.33	20.26	24.96	355.55	6.33	-	-	-	20.29	21.72
Total	310.33	20.26	24.96	355.55		-	-	-	20.29	21.72
Average Gross Block (₹ in lakh)						-	-	-	320.46	343.07
Weighted Average Rate of Depreciation (in %)						-	-	-	6.33	6.33

Annexure-VIII

Asset-VIII

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	115.68	7.52	7.66	130.86	6.33	-	-	-	7.56	8.04
Total	115.68	7.52	7.66	130.86		-	-	-	7.56	8.04
Average Gross Block (₹ in lakh)						-	-	-	119.44	127.03
Weighted Average Rate of Depreciation (in %)						-	-	-	6.33	6.33



Annexure-IX

Asset-IX

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (%)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	34.90	2.17	1.61	38.68	6.33	-	-	-	2.28	2.40
Total	34.90	2.17	1.61	38.68		-	-	-	2.28	2.40
Average Gross Block (₹ in lakh)						-	-	-	35.98	37.87
Weighted Average Rate of Depreciation (in %)						-	-	-	6.33	6.33

Annexure-X

Asset-X

Particulars	Admitted Capital Cost as on 1.4.2014 (₹ in lakh)	ACE 2014-19		Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2014 Tariff Regulations (₹ in lakh)				
		2017-18	2018-19			2014-15	2015-16	2016-17	2017-18	2018-19
PLCC	49.79	46.61	6.85	103.25	6.33	-	-	-	4.63	6.32
Total	49.79	46.61	6.85	103.25		-	-	-	4.63	6.32
Average Gross Block (₹ in lakh)						-	-	-	73.10	99.83
Weighted Average Rate of Depreciation (in %)						-	-	-	6.33	6.33



Combined Asset

Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per the 2019 Tariff Regulations (₹ in lakh)				
		2019-20			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	3900.98	0.00	3900.98	6.33	246.93	246.93	246.93	246.93	246.93
TOTAL	3900.98	0.00	3900.98		246.93	246.93	246.93	246.93	246.93
Average Gross Block (₹ in lakh)					3900.98	3900.98	3900.98	3900.98	3900.98
Weighted Average Rate of Depreciation (in %)					6.33	6.33	6.33	6.33	6.33

