

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 348/TT/2020

Coram:

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

Date of order: 15.02.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for truing up of transmission tariff of 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of the Combined Asset consisting of **Asset-I:** LILO of Dehar-Bhiwani 400 kV S/C Line at Rajpura Sub-station, **Asset-II:** LILO of Dehar-Panipat 400 kV S/C Line at Panhckula Sub-station, **Asset-III:** Extension of Chamera 400/220 kV Pooling Sub-station (GIS)- 01 number of 220 kV line bay and **Asset-IV:** 400 kV Anta Bay at Kota Sub-Station for 400 kV S/C Anta-Kota Line (Line owned by RVPNL) associated with the "Northern Region System Strengthening Scheme-XXVII" in the Northern Region.

And in the matter of:

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

.....Petitioner

Vs.

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005.
2. Ajmer Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).



3. Jaipur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
4. Jodhpur Vidyut Vitran Nigam Limited,
132 kV, GSS RVPNL Sub-Station Building,
Caligiri Road, Malviya Nagar,
Jaipur-302017 (Rajasthan).
5. Himachal Pradesh State Electricity Board,
Vidyut Bhawan, Kumar House Complex Building II,
Shimla-171004.
6. Punjab State Electricity Board,
The Mall, Patiala-147001.
7. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-6,
Panchkula-134109 (Haryana).
8. Power Development Department,
Government of Jammu & Kashmir,
Mini Secretariat, Jammu.
9. Uttar Pradesh Power Corporation Limited,
(Formerly Uttar Pradesh State Electricity Board),
Shakti Bhawan, 14, Ashok Marg,
Lucknow-226001.
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.
11. BSES Yamuna Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi.



13. Tata Power Delhi Distribution Limited,
33 kV Sub-station Building,
Hudson Lane, Kingsway Camp,
North Delhi-110009.
14. Chandigarh Administration,
Sector- 9, Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun.
16. North Central Railway,
Allahabad.
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg
New Delhi-110002.
18. Punjab State Transmission Corporation Limited,
PSEB Head Office,
The Mall, Patiala-147001.

...Respondent(s)

For Petitioner: Shri S. S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri Ved Prakash Rastogi, PGCIL
Shri Amit Yadav, PGCIL

For Respondents: None

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited, a deemed transmission licensee, for truing up of transmission tariff from the date of commercial operation (“COD”) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and 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 assets associated with “Northern Region System Strengthening Scheme-XXVII” (hereinafter referred to as “the transmission project”) in Northern Region:

Asset-I: LILO of Dehar-Bhiwani 400 kV S/C Line at Rajpura Sub-station;

Asset-II: LILO of Dehar-Panipat 400 kV S/C Line at Panhckula Sub-station;

Asset-III: Extension of Chamera 400/220 kV Pooling Sub-station (GIS)- 01 number of 220 kV line bay; and

Asset-IV: 400 kV Anta Bay at Kota Sub-Station for 400 kV S/C Anta-Kota Line (Line owned by RVPNL).

Asset-I, Asset-II, Asset-III and Asset-IV have hereinafter been referred to as “the transmission assets” with reference to 2014-19 tariff period. The transmission assets have been combined and combined tariff has been claimed with respect to them for 2019-24 tariff period. Accordingly, the transmission assets have been termed as “Combined Asset” for 2019-24 tariff period.

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 8 and 9 above.*
- 2) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8 and 9 above for respective block.*
- 3) 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.*
- 4) 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.*
- 5) 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.

- 6) 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 9.10 above.
- 7) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.
- 8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.

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

Background

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

- a) The Investment Approval (IA) in respect of the transmission project was accorded by the Board of Directors of the Petitioner Company vide Memorandum No. C/CP/NRSS-XXVII dated 19.12.2012 in the meeting held on 6.12.2012 with an estimated cost of ₹9627 lakh, including IDC of ₹445 lakh (based on August, 2012 price level).
- b) The scope of the transmission project was approved in 29th Standing Committee Meeting held on 29.12.2010 and 19th (special) NRPC Meeting held on 4.1.2011.
- c) The scope of work covered under the transmission project is as follows:

Transmission Line:

- (i) LILO of Dehar - Bhiwani 400 kV S/C line at Rajpura Sub-station (PSTCL);
- (ii) LILO of Dehar - Panipat 400 kV S/C line at Panchkula Sub-station;

Sub-stations:

- (i) Extension of Rajpura 400/220 kV Sub-station (PSTCL*);
- (ii) Extension of Panchkula 400/220 kV Sub-station;



- (iii) Extension of Kota 400/220 kV Sub-station- 1 number of 400 kV line bay;
- (iv) Extension of Chamera 400/220 kV Pooling Sub-station (GIS) - 1 number of 220 kV line bay.

* The line bays are to be carried out on deposit work basis by PSTCL on behalf of the Petitioner

d) The transmission tariff from the dates of commercial operation to 31.3.2019 in respect of Asset-I, Asset-II and Asset-III was determined *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 and for Asset-IV *vide* order dated 20.7.2018 in Petition No. 264/TT/2017. However, tariff in respect of Asset-I was allowed from anticipated date of commercial operation i.e. 1.6.2016 and was made applicable from the actual date of commercial operation subject to truing up.

e) The dates of commercial operation approved in respect of Asset-I, Asset-II and Asset-III *vide* order dated 27.5.2016 in Petition No. 62/TT/2015, for Asset-IV *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 and details of time over-run are as follows:

Assets' nomenclature in the instant Petition	Previous Order	Assets' nomenclature in previous Petition	COD	Time over-run	Time over-run
*Asset-I	Order dated 27.5.2016 in Petition No. 62/TT/2015	*Asset 1	27.6.2016*	695 days	Time over-run of 665 days based on anticipated COD was not condoned.
Asset-II		Asset 2	2.4.2015	239 days	Time over-run of 187 days condoned and 51 days' time over-run was disallowed.
Asset-III		Asset 3	6.8.2014	NA	NA
Asset-IV	Order dated 20.7.2018 in Petition No. 264/TT/2017	Asset-A	19.3.2016	19 months 13 days	Not Condoned

*Anticipated COD approved was 1.6.2016 *vide* order dated 27.5.2016 in Petition No. 62/TT/2015. However, actual COD of Asset-1 in the present petition is claimed as 27.6.2016 and as such the total time over-run in case of Asset-1 is 665+ 26= 691 days).



f) The Commission vide order dated 27.5.2016 in Petition No. 62/TT/2015 did not entertain the issue of time over-run of 665 days with respect to Asset-I observing that it was yet to achieve COD and that merits of time over-run shall be considered when actual COD of the asset is achieved. The relevant excerpts of the order dated 27.5.2016 in Petition No. 62/TT/2015 are as follows:

“27. We have considered the submissions of the petitioner for time over-run in case of the instant assets. There is a time overrun of 665 days, on the basis of anticipated date of commercial operation, in case of Asset 1. We are not going into the details of time overrun in case of Asset 1 as the asset has not yet been commissioned. The merits of time overrun in case of Asset 1 shall be considered when the actual COD of the asset is achieved. Thus, IDC and IEDC for 665 days is being adjusted in the capital cost in respect of Asset 1.”

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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Uttar Pradesh Power Corporation Limited, (UPPCL), Respondent No. 9, vide affidavit dated 21.1.2021 has filed its reply and has raised issues of delay in commissioning of Asset-I and Asset-II, apportionment of the capital cost, capital cost of the transmission project, time over-run and cost over-run, grossing up Return on Equity (RoE) with effective tax rates, adoption of “First-time Adoption of Indian Accounting Standards”, Annual Fixed Charges (“AFC”) on overall project basis, Interest on Loan (“IoL”) for and Additional Capital Expenditure (“ACE”) incurred after the cut-off date. The Petitioner vide affidavit dated 2.7.2021 has filed its rejoinder to the reply of UPPCL. Punjab State Transmission Corporation Limited (PSTCL),



Respondent No. 18, *vide* affidavit dated 6.8.2021 has filed its reply and has submitted justification for delay in commissioning of 400 kV Sub-station at Rajpura. The Petitioner *vide* affidavit dated 5.10.2021 has filed rejoinder to the reply of PSTCL. The issues raised by MPPMCL and PSTCL and the clarifications given by the Petitioner are considered in the relevant portions of this order.

6. The hearing in this matter was held on 6.7.2021 through video conference and the Commission reserved order.

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

8. This order is issued considering the submissions made by the Petitioner in the petition *vide* affidavit dated 23.1.2020, 24.11.2021 and 2.7.2021, UPPCL’s reply filed *vide* affidavit dated 21.1.2021, Petitioner’s rejoinder to the reply of UPPCL filed *vide* affidavit dated 2.7.2021, PSTCL’s reply filed *vide* affidavit dated 6.8.2021 and the Petitioner’s rejoinder to the reply of PSTCL filed *vide* affidavit dated 5.10.2021.

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

9. The details of the trued-up transmission charges claimed by the Petitioner in respect of the transmission assets are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Depreciation	159.45	224.98	232.59
Interest on Loan	169.45	217.96	204.34
Return on Equity	169.77	239.64	248.05
O&M Expenses	106.28	144.19	148.96
Interest on Working Capital	16.43	22.42	22.72
Total	621.38	849.19	856.66



Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Depreciation	111.89	127.49	138.50	138.50
Interest on Loan	130.10	133.91	129.23	115.59
Return on Equity	119.14	136.18	148.18	148.58
O&M Expenses	130.86	135.58	140.09	144.72
Interest on Working Capital	15.54	16.64	17.31	17.26
Total	507.53	549.80	573.31	564.65

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	26.74	45.60	48.14	48.14	48.14
Interest on Loan	32.64	51.01	48.85	43.40	38.74
Return on Equity	29.23	50.13	52.89	52.89	53.03
O&M Expenses	27.52	43.61	45.06	46.55	48.10
Interest on Working Capital	3.56	5.79	5.94	5.90	5.88
Total	119.69	196.14	200.88	196.88	193.89

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Depreciation	1.18	36.45	39.88	39.88
Interest on Loan	1.10	32.02	30.85	27.32
Return on Equity	1.08	33.38	36.30	36.39
O&M Expenses	2.21	64.37	66.51	68.71
Interest on Working Capital	0.20	5.90	6.14	6.18
Total	5.77	172.12	179.68	178.48

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

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
O&M Expenses	11.63	12.02	12.41
Maintenance Spares	20.93	21.63	22.34
Receivables	135.98	141.53	142.78
Total Working Capital	168.54	175.18	177.53
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	16.43	22.42	22.72



Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
O&M Expenses	10.94	11.30	11.67	12.06
Maintenance Spares	19.68	20.34	21.01	21.71
Receivables	84.82	91.63	95.55	94.11
Total Working Capital	115.44	123.27	128.23	127.88
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	15.54	16.64	17.31	17.26

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
O&M Expenses	3.52	3.63	3.76	3.88	4.01
Maintenance Spares	6.33	6.54	6.76	6.98	7.22
Receivables	30.60	32.69	33.48	32.81	32.32
Total Working Capital	40.45	42.86	44.00	43.67	43.55
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	3.56	5.79	5.94	5.90	5.88

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
O&M Expenses	5.19	5.36	5.54	5.73
Maintenance Spares	9.35	9.66	9.98	10.31
Receivables	27.09	28.69	29.95	29.75
Total Working Capital	41.63	43.71	45.47	45.79
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.20	5.90	6.14	6.18

Date of commercial operation (“COD”)

11. The Commission vide order dated 27.5.2016 in Petition No. 62/TT/2015 approved COD of Asset-I on anticipated basis as 1.6.2016. The Petitioner in the instant petition has claimed actual COD of Asset-I as 27.6.2016.

12. In support of actual COD of Asset-I, the Petitioner has submitted self-declaration of COD letter dated 14.7.2016, RLDC charging certificate for Asset-I dated 1.7.2016, CEA energisation certificate dated 23.6.2016 approving the energisation



under Regulation 43 of the CEA (Measures relating to safety and Electric Supply) Regulations, 2010.

13. Taking into consideration RLDC charging certificate for completion of trial run, CEA energisation certificate and self-declaration COD certificate, COD of Asset-I is approved as 27.6.2016.

14. Accordingly, COD of the transmission assets considered in this order is as follows:

Asset	Actual COD
Asset-I	27.6.2016
Asset-II	2.4.2015
Asset-III	6.8.2014
Asset-IV	19.3.2016

Capital Cost

15. The Commission *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 allowed capital cost as on COD for Asset-I, Asset-II and Asset-III and projected ACE for 2014-19 period. The Commission *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 allowed capital cost as on COD in case of Asset-IV and projected ACE for 2014-19 period. The capital cost as on COD and ACE as allowed by the Commission in the aforesaid orders are as follows:

Particulars	Capital Cost allowed as on COD	ACE					Capital Cost allowed as on 31.3.2019
		2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	3486.85			461.41	184.56	92.28	4225.10
Asset-II	1947.02		845.04	455.02	0.00	0.00	3247.08
Asset-III	718.56	81.83	173.20	52.73	0.00	0.00	1026.32
Asset-IV	516.86		0.00	96.68	85.49	0.00	699.03

(₹ in lakh)



16. The apportioned approved capital cost, capital cost as on COD and actual ACE during 2014-19 period claimed by the Petitioner in the Auditor's Certificate dated 30.7.2019 are as follows:

(₹ in lakh)

Particulars	Apportioned approved Capital Cost	Capital Cost as on COD	ACE Claimed					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	4530.99	3663.26			313.73	165.75	85.99	4228.73
Asset-II	3312.76	1989.00		137.24	406.11	0.00	0.00	2532.35
Asset-III	1053.00	757.61	77.73	89.36	0.00	0.00	0.00	924.70
Asset-IV	730.25	547.08		0.00	96.68	0.00	0.00	643.76

17. The Petitioner has further submitted that the Commission *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 disallowed IDC and IEDC of ₹20.01 lakh with respect to Asset-II on account of disallowing time over-run of 51 days and reduced the same from the capital cost as on COD. The Commission *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 disallowed IDC and IEDC of ₹29.75 lakh for Asset-IV on account of non-condonation of time over-run and reduced it from the capital cost as on COD. The apportioned approved capital cost, capital cost as on COD and actual ACE during 2014-19 period as claimed by the Petitioner after deducting the excess Initial Spares and adjusting IDC/IEDC on cash discharge basis are as follows:

(₹ in lakh)

Particulars	Apportioned approved Capital Cost	Capital Cost as on COD	ACE Claimed					Total Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	4530.99	3575.52			391.28	175.96	85.99	4228.73
Asset-II	3312.76	1939.42		161.07	406.11	0.00	0.00	2506.60
Asset-III	1053.00	722.48	77.94	94.34	0.00	0.00	0.00	894.76
Asset-IV	730.25	515.27		0.00	98.74	0.00	0.00	614.01



Cost Over-run

18. UPPCL has submitted that scope of work under NRSSS-XXVII as per the IA has not been grouped into Asset-I, Asset-II, Asset-III and Asset-IV. Asset-I was last asset to be commissioned that achieved COD on 27.6.2016. UPPCL has further submitted that the Petitioner had stated that after IA, LoA was placed in June 2013 for Asset-I. However, as per order dated 27.5.2016 in Petition No. 62/TT/2015, the Petitioner invited bid for the entire scope of work under the transmission project and one LoA was issued by PGCIL in June 2013 for all the four assets. UPPCL has submitted that the Petitioner has apportioned the original approved cost as well as Revised Cost Estimate (RCE) into Asset-I, Asset-II, Asset-III and Asset-IV based on unknown criteria. The apportioned costs are as follows (as per paragraph 3 of order dated 27.5.2016 in Petition No. 62/TT/2015):

Asset Name	Apportioned Capital Cost (₹ in lakh)	
	Original (19.12.2012)	Revised (13.5.2016)
Asset-I	4415.92	4530.99
Asset-II	3212.75	3312.76
Asset-III	1247.87	1053.00
Asset-IV	750.46	730.25
Total	9627.00	9627.00

19. UPPCL has submitted that the Petitioner should clarify the rationale of seeking the approval of RCE. UPPCL has further submitted that actual capital cost as on 31.3.2019 was ₹8329.54 lakh including ACE of ₹1372.59 lakh during 2014-19 period. The completion cost of the transmission project was ₹8329.54 lakh which went down by ₹1317.67 lakh with respect to RCE and as such the Petitioner should explain the reason as to why RCE was approved for ₹9647.21 lakh even after COD of the transmission project. UPPCL has submitted that the Petitioner should submit clarifications regarding the cost variation. UPPCL has also submitted that cost of the



transmission project is highly over-estimated and as such the Petitioner must seek determination of tariff on the basis of bid price received by it and may be directed to get the tariff determined on the basis of overall cost of the project based on the price quoted by the successful bidder executing the transmission project subject to prudence check.

20. In response, the Petitioner vide affidavit dated 2.7.2021 has submitted that RCE has not been prepared in the instant petition as completion cost is well within the IA cost. The apportioned approved capital cost as approved by the Commission *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 and *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 has been considered in the instant petition. The Petitioner has further submitted that no RCE was submitted *vide* affidavit dated 13.5.2016 in Petition No. 62/TT/2015 and only apportionment of capital cost amongst transmission assets was changed and the same has already been approved by the Commission *vide* order dated 27.5.2016 in Petition No. 62/TT/2015. The Petitioner has submitted that cost estimates are prepared based on Schedule of Rates. The schedule of rates is prepared based on the average of unit rates of latest three bids/ LOAs/ raw material prices in order to achieve the cost efficiency by estimating the capital cost of the transmission project. Subsequently, award for execution of the project was placed after following the transparent process of tendering, bid evaluation and award of work to lowest technical and commercially responsive bid. The Petitioner has further submitted that it follows a robust and time-tested system for preparing cost estimates before obtaining IA. After IA, award letters are placed on the executing agencies on the basis of tendering process as per best industry practices and due diligence is undertaken including justification of bid prices vis-à-vis estimated cost before placing



the awards. Cost control measures are taken during execution of the project and only under unavoidable situations caused by the actual soil/ terrain conditions, crossing requirements (river, power line, railway line, forest stretches and any other compelling technical reason), the cost may undergo changes. The date of award of work was submitted in Form-5A in Petition No. 62/TT/2015 and Petition No. 264/TT/2017. The instant petition is only for true-up of tariff of 2014-19 period and determination of tariff for 2019-24 period. Tariff has been claimed on actual expenditure incurred towards work as per Tariff Regulations and the same cost has also been audited by the Auditor.

21. We have considered the submissions of the Petitioner and UPPCL. The completion cost including ACE claimed in respect of Asset-I, Asset-II, Asset-III and Asset-IV is ₹4228.73 lakh, ₹2506.60 lakh, ₹894.76 lakh and ₹614.01 lakh and apportioned approved cost is ₹4530.99 lakh, ₹3312.76 lakh, ₹1053.00 lakh and ₹730.25 lakh respectively. Hence, completion cost in respect of Asset-I, Asset-II, Asset-III and Asset-IV is within the apportioned cost and, therefore, there is no cost over-run with regard to Asset-I, Asset-II, Asset-III and Asset-IV. We also note that no RCE has been submitted by the Petitioner and, therefore, claims of UPPCL are not correct.

Time Over-run

22. As per IA dated 6.12.2012, scheduled date of commissioning (“SCOD”) of the transmission assets was 6.8.2014 against which they were put into commercial operation as follows:



Assets	SCOD	Actual COD	Time over-run	Decision on condonation of time over-run
Asset-I	6.8.2014	27.6.2016	691 days	To be considered in the instant petition.
Asset-II		2.4.2015	239 days	Condoned - 187 days; not condoned - 51 days.
Asset-III		6.8.2014	NA	NA
Asset-IV		19.3.2016	591 days	Not condoned

23. As decided in order dated 27.5.2016 in Petition No. 62/TT/2015, time over-run in respect of Assets-I is being considered in this order.

24. The Petitioner has submitted that the time over-run in case of Asset-I is mainly due to RoW issues and non-readiness of Rajpura Sub-station which was under the scope of PSTCL. After approval of IA, LoA was placed in June 2013 and construction activities started thereafter. The Petitioner has submitted that it faced continuous RoW problems from December 2013 onwards at various locations including Rajpura, Fatehgarh Sahib and Patiala. The Petitioner has further submitted that during the commencement of work, local villagers/ land-owners began intervening in the work and later on a group of people stopped the work in a few locations. However, the Petitioner continued the work at other locations.

25. To resolve RoW issues, the Petitioner requested administration. Chief Minister *vide* letter dated 13.8.2014 directed the SHO, Patiala to provide police protection for execution of work. Police force was also deployed at Rajpura and the work was completed under police protection.

26. The Petitioner has submitted detailed chronology of incidents which led to time over-run in case of Asset-I due to RoW issues and the same is as follows:

Sl. No.	Particulars/ Remarks	Date	From	To
1	Stiff resistance by land owners	27.12.2013	CM, Powergrid	DC, Patiala



	(Locations Rajpura and Fatehgarh Sahib)			
2	Letter regarding instructions issued to Senior Superintendent of Police and SDM of District Fatehgarh Sahib.	15.1.2014	IAS (Government of Punjab)	Secretary to Government of Punjab
3	Letter from Government of Punjab regarding instructions to SSP and SDM.	19.1.2014	Government of Punjab	CM, Powergrid
4	Letter from Government of Punjab regarding instructions to SSP and SDM (Fatehgarh Sahib)	19.2.2014	Government of Punjab	CM, Powergrid
5	Meeting was held and agreement was made to pay 30% more crop compensation (Rajpura)	12.2.2014	SDM	Deputy Commissioner
6	RoW issues (Rajpura and Fatehgarh Sahib)	7.2.2014	G.M.	Chief Secretary Punjab
7	Request for administrative measures for village Aluna, Rajpura District.	21.5.2014	Engineer, Powergrid	SDM, Patiala
8	Request for administrative measures village Aluna, Rajpura District.	22.5.2014	CM, Powergrid	SSP, Patiala
9	Request for administrative measures at village Jiwanpura, Fatehgarh Sahib.	30.5.2014	CM, Powergrid	DC, Fatehgarh Sahib
10	Request for directions to SHO for security.	26.6.2014	Engineer, Powergrid	SHO, Rajpura
11	For deployment of Police.	3.7.2014	Engineer, Powergrid	DSP, Rajpura
12	Request for instructions to DC of Patiala, Fatehgarh Sahib.	25.7.2014	CMD	CM, Punjab
13	Request approved	13.8.2014	CM, Punjab	CMD
14	DM instructions to local public.	29.8.2014	DM, Fatehgarh Sahib	
15	DM instructions to Local Public	21.11.2014	DM, Patiala	
16	To increase compensation.	8.12.2014	DC, Patiala	
17	Regarding completion of work in villages Aluna and Chanduakhurd (Rajpura)	27.2.2015	CM	SHO Rajpura
18	Regarding certification of ownership of land at Alura to pay compensation to actual owners.	22.6.2015	CM	SDM, Rajpura, Distt Patiala



27. The Petitioner has further submitted that after resolving the RoW issues, Asset-I was put into commercial operation by July 2015. The Petitioner has placed on record copy of CEA report dated 30.9.2015. However, the Petitioner has submitted that COD of Asset-I was not declared due to non-commissioning of Rajpura Sub-station which was under the scope of work of PSTCL. Chronology of incidents which led to delay in commissioning due to non-readiness of PSTCL Sub-station at Rajpura is as follows:

Sl. No.	Particulars/Remarks	Date	From	To
1	Request to expedite the work of switchyard to charge LILO of Asset 1.	17.12.2014	A.G.M Patiala	Chief Engineer, PSTCL Patiala
2	Regarding earth filling and commissioning of 400/220 kV Rajpura Sub-station.	27.12.2014	Dy. Manager, Patiala	Executive Engineer, PSTCL, Patiala
3	Regarding laying of earth mat and commissioning/ charging of 400/220 kV Rajpura Sub-station due to which work of riser for earthing of the tower and equipment was held up in bay extension area.	31.12.2014	Dy. Manager, Patiala	Executive Engineer, PSTCL, Patiala
4	Regarding power Line Cross Approval	16.2.2015	PSTCL	CM
5	Regarding Earth filling and Commissioning of 400/220 kV Rajpura Sub-station	28.2.2015	Dy. Manager, Patiala	Superintending Engineer, PSTCL, Patiala
6	Request to expedite the work of laying of main earth mat grid in bay extension area.	10.3.2015	A.G.M Patiala	Superintending Engineer PSTCL, Patiala
7	AC/DC supply was to be provided by PSTCL. PSTCL was requested to arrange installation of 415 Volt AC supply system and commissioning of battery banks for supply of 220 volt for relays and supply of 50 volt for PLCC so that the commissioning activity can be completed.	17.8.2015	A.G.M Patiala	Chief Engineer, PSTCL, Patiala
8	Request to expedite the supply of AC auxiliary supply.	27.9.2015	A.G.M Patiala	Chief Engineer, PSTCL Patiala
9	Non-availability of auxiliary AC supply and request to expedite the commissioning of 630 kVA transformer to charge LILO bays.	9.10.2015	A.G.M Patiala	Chief Engineer, PSTCL Patiala



10	Regarding earth filling and expediting commissioning of 400/220 kV Rajpura Sub-station.	10.10.2015	A.G.M Patiala	Chief Engineer, PSTCL Patiala
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28. The Petitioner has submitted that the matter of non-readiness of Rajpura sub-station was also discussed in various OCC meetings wherein Rajpura sub-station was anticipated to be put into commercial operation by March 2016. However, Rajpura sub-station was charged in June 2016 after which arrangements were made to declare COD of Asset-I and it was finally put into commercial operation on 27.6.2016. COD of Rajpura Sub-station was discussed in 125th OCC meeting held on 17.8.2016 wherein it was stated that Rajpura sub-station was finally put into commercial operation in July 2016. The Petitioner has placed on record relevant extracts of 121st OCC meeting to 125th OCC meeting.

29. PSTCL has submitted that work of 400 kV Rajpura sub-station was awarded to Jyoti Structures Limited (JSL) through the Petitioner. As per the contract between PSTCL and JSL, dated 9.12.2011, turnkey project (400 kV Rajpura) was to be completed by 10.5.2013. However, progress of work at site remained slow as JSL went into financial crisis and became bankrupt which led to delay in COD of 400 kV Rajpura sub-station. PSTCL has further submitted that JSL failed to complete the construction as per the contract agreement and, therefore, contract with JSL was terminated. The remaining balance work was done by PSTCL itself and through other contractors. PSTCL has submitted that time over-run in case of 400 kV sub-station at Rajpura was due to the fault of JSL and the sub-station was charged on 27.6.2016.

30. UPPCL has submitted that the transmission project has been delayed by over 20 months and the Commission has concluded that there was time over-run in



execution of the transmission project and the cost of the project had been over-estimated. The Commission should apply prudence check on the capital cost of the project on the basis of bid price received by the Petitioner for execution of the project and escalation in price paid to the bidder by the Petitioner in accordance with the contract signed with the executing Company.

31. We have considered the above submissions of the Petitioner, PSTCL, UPPCL and have also scrutinized the record carefully. The Petitioner has claimed time over-run with regard to Asset-I of (i) 691 days on account of RoW issues faced during construction of the transmission line, and (ii) non-readiness of Rajpura sub-station under the scope of work of PSTCL.

32. The Petitioner faced RoW issues at multiple locations and has submitted relevant communications/ letters from 27.12.2013 to 22.6.2015. We have gone through letter dated 27.2.2015, which is addressed to SHO, Rajpura Sadar, Patiala district wherein the Petitioner has mentioned that construction work in villages of Aluna and Chanduakhurd has been completed and no further action was required. Thus, RoW issues were resolved by 27.2.2015. Letter dated 22.6.2015 submitted by the Petitioner is about ownership of the land for crop compensation and is not relevant for time over-run in case of Asset-I. The time over-run from 6.8.2014 to 27.2.2015 (204 days) was due to RoW issues/ problems which were beyond the control of the Petitioner and the same is, accordingly, condoned.

33. As regards claim of the Petitioner that time over-run in case of Asset-I due to non-readiness of Rajpura Sub-station under the scope of PSTCL, we note that Regulation 12(1) and Regulation 12(2) of the 2014 Tariff Regulations provide as follows as regards controllable and uncontrollable factors:



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

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

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

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

(2) The “uncontrollable factors” shall include but shall not be limited to the following:

(i) Force Majeure events; and

(ii) Change in law

Provided that no additional impact of time over-run or cost over-run shall be allowed on account of non-commissioning of the generating station or associated transmission system by SCOD, as the same should be recovered through Implementation Agreement between the generating company and the transmission licensee:

Provided further that if the generating station is not commissioned on the SCOD of the associated transmission system, the generating company shall bear the IDC or transmission charges if the transmission system is declared under commercial operation by the Commission in accordance with second proviso of Clause 3 of Regulation 4 of these regulations till the generating station is commissioned:

Provided also that if the transmission system is not commissioned on SCOD of the generating station, the transmission licensee shall arrange the evacuation from the generating station at its own arrangement and cost till the associated transmission system is commissioned.”

34. With regard to “Change in Law” and “Force majeure”, Regulations 3(9) and 3(25) of the 2014 Tariff Regulations provide as follows:

“3. (9) “Change in Law” means occurrence of any of the following events:

(a) Enactment, bringing into effect or promulgation of any new Indian law; or

(b) Adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or

(c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or

(d) Change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or

(e) Coming into force or change in any bilateral or multilateral agreement/treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these Regulations.”

“3. (25) “Force Majeure” for the purpose of these regulations means the event or circumstance or combination of events or circumstances including those stated below



which partly or fully prevents the generating company or transmission licensee to complete the project within the time specified in the Investment Approval, and only if such events or circumstances are not within the control the generating company or transmission licensee and could not have been avoided, had the generating company or transmission licensee taken reasonable care or complied with prudent utility practices:

(a) Act of God including lightning, drought, fire and explosion, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado, geological surprises, or exceptionally adverse weather conditions which are in excess of the statistical measures for the last hundred years; or

(b) Any act of war, invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist or military action; or

c) Industry wide strikes and labour disturbances having a nationwide impact in India.”

35. The Petitioner has submitted that Asset-I was ready for commissioning in the month of July 2015, but due to non-commissioning of 400 kV Rajpura Sub-station under the scope work of PSTCL, the Petitioner was unable to put Asset-I under commercial operation. The Petitioner, on its own volition, took the decision to match COD of Asset-I with COD of the Rajpura sub-station under the scope of PSPTCL. Therefore, time over-run on this count is not condoned. We also note that PSTCL has submitted that work of 400 kV Rajpura sub-station was awarded to Jyoti Structures Limited (JSL) through the Petitioner. Due to problems with the contractor, the work got delayed. In our view, the Petitioner being part of execution of the Rajpura sub-station, cannot put onus only on PSTCL for delay in commissioning of Rajpura sub-station.

36. To sum-up, time over-run from 6.8.2014 to 27.2.2015 (205 days) due to Row issues/ problems is condoned in view of the foregoing discussions, while time over-run from 28.2.2015 to 27.6.2016 (486 days) is not condoned.

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

37. As decided in this order, out of the total delay 691 days in case of Asset-I, we have condoned the delay from 6.8.2014 to 27.2.2015 (205 days) and delay from



27.2.2015 to 27.6.2016 (486 days) has not been condoned. The Commission *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 had condoned time over-run of 187 days and disallowed time over-run of 51 days in case of Asset-II. The Commission *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 did not condone time over-run of 591 days with respect to Asset-IV.

38. The Petitioner has claimed IDC in respect of the transmission assets covered in the instant petition and has submitted statement showing IDC claim, discharge of IDC liability as on COD and thereafter as follows:

Assets	IDC as per Auditor's Certificate	IDC Discharged upto COD	IDC discharged during the year				Total IDC
			2014-15	2015-16	2016-17	2017-18	
Asset-I	378.45	290.72			77.54	10.20	378.45
Asset-II	124.13	100.30		23.83	0.00	0.00	124.13
Asset-III	36.93	29.29	0.21	7.43	0.00	0.00	36.93
Asset-IV	31.78	29.72		0.00	2.06	0.00	31.78

39. The Petitioner has submitted IDC computation statement which contains name of the loan, drawl date, loan amount, interest rate and interest claimed. IDC is worked out based on the details given in IDC statement. Further, loan amount as on COD has been mentioned in Forms 6 and 9C. On scrutiny of these documents, certain discrepancies have been noted such as mismatch in loan amount between IDC statement and Forms 6 and 9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form 9C. IDC considered as on COD and summary of discharge of IDC liability up to COD and thereafter for the purpose of tariff determination is as follows:



(₹ in lakh)

Assets	IDC as per Auditor's certificate	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational error	IDC allowed	IDC discharged upto COD	IDC discharged during the year			
						2014-15	2015-16	2016-17	2017-18
1	2	3	4	5=2-3-4	6	7	8	9	10
Asset-I	378.45	274.95	0.00	103.50	103.50			0.00	0.00
Asset-II	124.13	20.32	0.00	103.81	91.88		11.93	0.00	0.00
Asset-III	36.93	0.00	6.45	30.48	29.29	0.21	0.98	0.00	0.00
Asset-IV	31.78	20.69	0.00	11.09	11.09		0.00	0.00	0.00

40. The Petitioner has claimed IEDC in respect of the transmission assets covered in the instant petition as per the following table. The Petitioner has claimed IEDC in respect of the transmission assets as per the Auditor's Certificate and also considered IEDC disallowed due to time over-run not condoned. The Petitioner has submitted that IEDC mentioned in the Auditor's Certificate is on cash basis and was paid upto COD.

(₹ in lakh)

Asset	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC discharged up to COD
Asset-I	158.58	0.00	158.58
Asset-II	69.23	4.17	65.06
Asset-III	18.55	0.00	18.55
Asset-IV	16.79	8.27	8.52

41. There is disallowance of IEDC for Asset-I, Asset-II and Asset-IV due to time over-run not condoned. IEDC considered as on COD for the purpose of tariff determination is as follows:

(₹ in lakh)

Asset	IEDC as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC allowed
Asset-I	158.58	59.33	99.25
Asset-II	69.23	4.17	65.06
Asset-III	18.55	0.00	18.55
Asset-IV	16.79	8.28	8.51



Initial Spares

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

*“(d) Transmission System
Transmission line: 1.00%
Transmission sub-station (Green Field): 4.00%
Transmission sub-station (Brown Field): 6.00%
Gas Insulated sub-station :5.00%
Communication System: 3.5%”*

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

(₹ in lakh)

Particulars	Plant and Machinery Cost			Initial spares claimed by the Petitioner			Initial Spares allowable as claimed by Petitioner		
	Transmission Line	Sub-station	PLCC	Transmission Line	Sub-station	PLCC	Transmission Line	Sub-station	PLCC
Asset-I	2338.99	1191.01	0.00	23.32	84.48	0.00	23.39	70.63	0.00
Asset-II	1240.1	1002.38	41.36	12.02	39.42	6.45	12.40	61.47	0.71
Asset-III	0.00	869.22	0.00	0.00	85.34	0.00	0.00	50.03	0.00
Asset-IV	0.00	643.59	0.00	0.00	41.28	0.00	0.00	38.45	0.00

44. We have considered the submissions of the Petitioner. The Petitioner has claimed Initial Spares for PLCC separately for Asset-II. The Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already considered PLCC to be a part of Sub-station. Therefore, Initial Spares have been computed by combining the cost of both PLCC and Sub-station and allowed as per the norms specified for sub-station in the 2014 Tariff Regulations. The Petitioner has submitted that Asset-I and Asset-II are brown-field Sub-stations and Asset-III is brown-field GIS Sub-station. Initial Spares allowed in respect of transmission assets as per percentage specified in the 2014 Tariff Regulations is as follows:



Assets	Particulars	Plant and Machinery cost (excluding IDC and IEDC, land cost & cost of civil works) upto cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per the 2014 Tariff Regulations	Initial Spares allowable (₹ in lakh)	Excess Initial Spares (₹ in lakh)	Initial Spares allowed (₹ in lakh)
		A	B	D	$E = (A - B) * C / (100 - C)$	E-B	
Asset-I	Transmission Line	2338.99	23.32	1.00%	23.39	Nil	23.32
	Sub-station (Brownfield AIS)	1191.01	84.48	6.00%	70.63	13.85	70.63
Asset-II	Transmission Line	1240.10	12.02	1.00%	12.40	Nil	12.02
	Sub-station (Brownfield AIS) and PLCC	1043.74	45.87	6.00%	63.69	Nil	45.87
Asset-III	Sub-station (Brownfield GIS)	869.22	85.34	5.00%	41.26	44.08	41.26
Asset-IV	Sub-station (Brownfield)	643.59	41.28	6.00%	38.45	2.83	38.45

45. The Petitioner has submitted that discharge of Initial Spares has been considered on cash basis in the Auditor's Certificates. The discharge statement of Initial Spares as submitted by the Petitioner is as follows:

Asset-I

(₹ in lakh)

Particulars	Initial Spares		
	Transmission Line	Sub-station	PLCC
Expenditure upto COD (26.6.2016)	20.20	73.18	93.38
Expenditure from 27.6.2016 to 31.3.2017	1.73	6.27	8.00
Expenditure during 2017-18	0.91	3.31	4.23
Expenditure during 2018-19	0.47	1.72	2.19
Total	23.32	84.48	107.80



Asset-II

(₹ in lakh)

Particulars	Initial Spares		
	Transmission Line	Sub-station	PLCC
Expenditure upto COD (2.4.2015)	9.44	34.73	6.45
Expenditure from 3.4.2015 to 31.3.2016	0.65	0.35	0.00
Expenditure during 2016-17	1.93	4.34	0.00
Total	12.02	39.42	6.45

Asset-III

(₹ in lakh)

Particulars	Initial Spares
	Sub-station
Expenditure Upto COD (6.8.2014)	82.89
Expenditure from 7.8.2014 to 31.3.2015	0.00
Expenditure during 2015-16	2.45
Total	85.34

Asset-IV

(₹ in lakh)

Particulars	Initial Spares
	Sub-station
Expenditure upto COD (19.3.2016)	31.72
Expenditure from 20.3.2016 to 31.3.2016	0
Expenditure during 2016-17	6.09
Expenditure during 2019-20	3.47
Total	41.28

46. The Petitioner has submitted that actual capital cost discharged against Initial Spares is included in the capital cost shown in Auditor's Certificate for respective years i.e. Initial Spares discharged up to COD is included in the capital cost as on COD and the cost discharged towards Initial Spares in subsequent period is added in ACE.



47. We have considered the submissions of the Petitioner. Based on the excess Initial Spares calculated and actual Initial Spares discharged as submitted by the Petitioner, Initial Spares for Asset-II are within the limit specified in the 2014 Tariff Regulations. Initial Spares disallowed in respect of Asset-I, Asset-III and Asset-IV as they are beyond the limit specified under the 2014 Tariff Regulations, are as follows:

Asset-I

(₹ in lakh)

Particulars	Initial Spares		
	Transmission Line	Sub-station	PLCC
Expenditure upto COD (26.6.2016)	0.00	2.55	0.00
Expenditure from 27.6.2016 to 31.3.2017	0.00	6.27	0.00
Expenditure during 2017-18	0.00	3.31	0.00
Expenditure during 2018-19	0.00	1.72	0.00
Total	0.00	13.85	0.00

Asset-III

(₹ in lakh)

Particulars	Initial Spares
	Sub-station
Expenditure upto COD (6.8.2014)	41.63
Expenditure during 2014-15	0.00
Expenditure during 2015-16	2.45
Total	44.08

Asset-IV

(₹ in lakh)

Particulars	Initial Spares
	Sub-station
Expenditure in 2019-20	2.83
Total	2.83



48. Since excess Initial Spares in respect of Asset-IV has been discharged in 2019-20, it has been dealt in later part of this order while tariff for 2019-24 tariff period is determined.

Capital Cost as on COD

49. UPPCL has submitted that the Petitioner has adopted the “First Time Adoption of Indian Accounting Standards”. UPPCL has further submitted that the Petitioner’s submission is so concise that it is difficult to understand the reason for adopting this approach. The Petitioner has not submitted any impact of adoption of the said standards on calculation of opening balance of the capital cost and depreciation thereon. UPPCL has, therefore, submitted that the Petitioner may be directed to show opening balances in the old system and under the said standards during 2014-19 period to ascertain comparison.

50. In response, the Petitioner has submitted that on account of adoption of Indian Accounting Standards, there is no impact on tariff.

51. We have considered the submissions of the Petitioner and UPPCL. The capital cost of the transmission assets has been calculated in accordance with Regulation 9(3) of the 2014 Tariff Regulations. The details of the capital cost approved as on COD after adjustment of IDC, IEDC and Initial Spares are as follows:

(₹ in lakh)

Particulars	Capital Cost claimed as on COD (A)	Un-discharged IDC (B)	IDC Disallowed due to time over-run (C)	IDC Disallowed due to computational error (D)	IEDC Disallowed due to time over-run (E)	Excess Initial Spares disallowed (F)	Capital Cost allowed as on COD (E) = (A-B-C-D-E-F)
Asset-I	3663.26	0.00	274.95	0.00	59.33	2.55	3326.43



Asset-II	1989.00	11.93	20.32	0.00	4.17	0.00	1952.58
Asset-III	757.61	1.19	0.00	6.45	0.00	41.63	708.34
Asset-IV	547.08	0.00	20.69	0.00	8.28	0.00	518.11

Additional Capital Expenditure (“ACE”)

52. The Commission allowed ACE for Asset-I, Asset-II and Asset-III for 2014-19 period *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 under clause 14(1)(i) of the 2014 Tariff Regulations. The Commission had allowed ACE for Asset-IV for 2014-19 period *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 on account of balance and retention payments and accrued IDC under Regulation 14(1)(i) of the 2014 Tariff Regulations.

53. The details of ACE earlier allowed by the Commission for Asset-I, Asset-II, Asset-III and Asset-IV are as follows:

Particulars	Capital cost as on COD	ACE allowed					(₹ in lakh)
		2014-15	2015-16	2016-17	2017-18	2018-19	Capital
Asset-I	3486.85			461.41	184.56	92.28	4225.10
Asset-II	1947.02		845.04	455.02	0.00	0.00	3247.08
Asset-III	718.56	81.83	173.20	52.73	0.00	0.00	1026.32
Asset-IV	516.86		0.00	96.68	85.49	0.00	699.03

54. The Petitioner has claimed ACE in respect of Asset-I, Asset-II, Asset-III and Asset-IV upto the cut-off date in accordance with Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations.

55. The details of ACE claimed by the Petitioner with respect to Asset-I, Asset-II, Asset-III and Asset-IV are as follows:



Asset-I

(₹ in lakh)

Particulars	Regulation	ACE claimed		
		2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	167.08	73.57	73.07
Addition in gross block	14(1)(ii) of the 2014 Tariff Regulations	146.65	92.18	12.92
IDC discharged after COD	14(1)(i) of the 2014 Tariff Regulations	77.55	10.21	0.00
Total ACE		391.28	175.96	85.99

Asset-II

(₹ in lakh)

Particulars	Regulation	ACE claimed			
		2015-16	2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	137.24	0.00	0.00	0.00
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	406.11	0.00	0.00
IDC discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	23.83	0.00	0.00	0.00
Total ACE		161.07	406.11	0.00	0.00

Asset-III

(₹ in lakh)

Particulars	Regulation	ACE claimed				
		2014-15	2015-16	2016-17	2017-18	2018-19
Balance and retention	Regulation 14(1)(i) of	77.73	0.00	0.00	0.00	0.00



payments for liabilities other than IDC	the 2014 Tariff Regulations					
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	89.36	0.00	0.00	0.00
Less: Excess initial spares		0.00	2.45	0.00	0.00	0.00
IDC Discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.21	7.43	0.00	0.00	0.00
Total ACE		77.94	94.34	0.00	0.00	0.00

Asset-IV

(₹ in lakh)

Particulars	Regulation	ACE claimed			
		2015-16	2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	79.19	0.00	0.00
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	17.48	0.00	0.00
IDC Discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations.	0.00	2.07	0.00	0.00
Total ACE		0.00	98.74	0.00	0.00

56. We have considered the submissions of the Petitioner. ACE claimed by the Petitioner is allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The un-discharged IDC and Initial Spares as on COD have been allowed as ACE during the year of its discharge. ACE allowed is as follows:



Asset-I

(₹ in lakh)

Particulars	Regulation	ACE allowed		
		2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	167.08	73.57	73.07
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	146.65	92.18	12.92
IDC discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	0.00	0.00
Less: Excess Initial Spares		6.27	3.31	1.72
Total ACE		307.46	162.44	84.27

Asset-II

(₹ in lakh)

Particulars	Regulation	ACE allowed			
		2015-16	2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	137.24	0.00	0.00	0.00
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	406.11	0.00	0.00
IDC discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	11.93	0.00	0.00	0.00
Total ACE		149.17	406.11	0.00	0.00



Asset-III

(₹ in lakh)

Particulars	Regulation	ACE allowed				
		2014-15	2015-16	2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	77.73	0.00	0.00	0.00	0.00
Addition in gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	89.36	0.00	0.00	0.00
IDC discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.21	0.98	0.00	0.00	0.00
Less: Excess Initial Spares		0.00	2.45	0.00	0.00	0.00
Total ACE		77.94	87.89	0.00	0.00	0.00

Asset-IV

(₹ in lakh)

Particulars	Regulation	ACE allowed			
		2015-16	2016-17	2017-18	2018-19
Balance and retention payments for liabilities other than IDC	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	79.19	0.00	0.00
Addition in Gross block	Regulation 14(1)(ii) of the 2014 Tariff Regulations	0.00	17.48	0.00	0.00
IDC Discharged after COD	Regulation 14(1)(i) of the 2014 Tariff Regulations	0.00	0.00	0.00	0.00
Total ACE		0.00	96.68	0.00	0.00

57. Accordingly, the capital cost considered for truing up of transmission tariff for 2014-19 period is as follows:



(₹ in lakh)

Assets	Apportioned Approved Capital Cost	Capital cost as on COD	ACE allowed					Capital Cost as on 31.3.2019
			2014-15	2015-16	2016-17	2017-18	2018-19	
Asset-I	4530.99	3326.43			307.46	162.44	84.27	3880.60
Asset-II	3312.76	1952.58		149.17	406.11	0.00	0.00	2507.86
Asset-III	1053.00	708.34	77.94	87.89	0.00	0.00	0.00	874.16
Asset-IV	730.25	518.11		0.00	96.68	0.00	0.00	614.79

Debt-Equity ratio

58. The Petitioner has claimed debt-equity ratio of 70:30 as on COD of the transmission assets. Debt-equity ratio of 70:30 is considered as provided under Regulation 19 of the 2014 Tariff Regulations. The details of debt-equity as on COD and as on 31.3.2019 for Asset-I, Asset-II, Asset-III and Asset-IV considered for the purpose of tariff of 2014-19 period are as follows:

Asset-I

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	2328.50	70.00	387.92	70.00	2716.42	70.00
Equity	997.93	30.00	166.25	30.00	1164.18	30.00
Total	3326.43	100.00	554.17	100.00	3880.60	100.00

Asset-II

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	1366.80	70.00	388.70	70.00	1755.50	70.00
Equity	585.77	30.00	166.59	30.00	752.36	30.00
Total	1952.58	100.00	555.28	100.00	2507.86	100.00

Asset-III

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	495.84	70.00	116.08	70.00	611.91	70.00
Equity	212.50	30.00	49.75	30.00	262.25	30.00
Total	708.34	100.00	165.83	100.00	874.16	100.00



Asset-IV

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	362.68	70.00	67.68	70.00	430.36	70.00
Equity	155.43	30.00	29.00	30.00	184.43	30.00
Total	518.11	100.00	96.68	100.00	614.79	100.00

Depreciation

59. The Petitioner's claim towards depreciation in respect of the transmission assets was found higher than the depreciation allowed for the transmission assets vide order dated 27.5.2016 in Petition No. 62/TT/2015 and vide order dated 20.7.2018 in Petition No. 264/TT/2017. The Petitioner has not given any justification for claiming higher depreciation than what was allowed earlier vide order dated 27.5.2016 in Petition No. 62/TT/2015 and vide order dated 20.7.2018 in Petition No. 264/TT/2017 nor made any specific prayer for allowing higher depreciation in this petition. It is noted that the Petitioner has segregated IT equipment from the sub-station and claimed higher depreciation though the same was not claimed while tariff for the 2014-19 period was determined.

60. Similar issue had come up in Petition No. 19/TT/2020, wherein the Commission vide order dated 9.5.2020 had considered depreciation for IT equipment @ 5.28% as part of the Sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 2019-24 tariff period, IT equipment has been considered separately and depreciation has been allowed @15% for balance depreciable value of IT equipment in accordance with Regulation 33 read with Sr. No. (p) of the Appendix-I (Depreciation Schedule) of the 2019 Tariff Regulations.



61. In line with the above decision, depreciation @5.28% has been considered for IT Equipment as part of the Sub-station up to 31.3.2019 while truing up the capital expenditure for 2014-19 period for the transmission assets. The Gross Block during 2014-19 tariff period has been depreciated at Weighted Average Rate of Depreciation (“WAROD”) and is placed as Annexure-I, Annexure-II, Annexure-III and Annexure-IV for Asset-I, Asset-II, Asset-III and Asset-IV respectively. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations. The asset-wise trued up depreciation allowed in respect of the transmission assets is as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Opening Gross Block	3326.43	3633.89	3796.33
ACE	307.46	162.44	84.27
Closing Gross Block	3633.89	3796.33	3880.60
Average Gross Block	3480.16	3715.11	3838.46
Weighted average rate of Depreciation (WAROD) (in %)	5.30	5.30	5.30
Balance useful life of the asset (Year)	32	32	31
Lapsed life (Year)	0	0	1
Aggregate Depreciable Value	3132.14	3343.60	3454.62
Combined Depreciation during the year	140.39	196.78	203.33
Aggregate cumulative depreciation at the end of the year	140.39	337.17	540.51
Remaining aggregate depreciable value at the end of the year	2991.75	3006.42	2914.11

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Opening Gross Block	1952.58	2101.75	2507.86	2507.86
ACE	149.17	406.11	0.00	0.00
Closing Gross Block	2101.75	2507.86	2507.86	2507.86
Average Gross Block	2027.16	2304.81	2507.86	2507.86
Weighted average rate of Depreciation (WAROD) (in %)	5.30	5.30	5.30	5.30



Balance useful life of the asset (Year)	30	30	29	28
Lapsed life (Year)	0	0	1	2
Depreciable Value	1824.45	2074.33	2257.08	2257.08
Combined Depreciation during the year	107.20	122.16	132.88	132.88
Cumulative depreciation at the end of the year.	107.20	229.36	362.24	495.12
Remaining depreciable value at the end of the year.	1717.24	1844.96	1894.83	1761.95

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	708.34	786.28	874.16	874.16	874.16
ACE	77.94	87.89	0.00	0.00	0.00
Closing Gross Block	786.28	874.16	874.16	874.16	874.16
Average Gross Block	747.31	830.22	874.16	874.16	874.16
Weighted average rate of Depreciation (WAROD) (in %)	5.28	5.28	5.28	5.28	5.28
Balance useful life of the asset (Year)	25	25	24	23	22
Lapsed life (Year)	0	0	1	2	3
Aggregate Depreciable Value	672.58	747.20	786.75	786.75	786.75
Combined Depreciation during the year	25.73	43.84	46.16	46.16	46.16
Aggregate cumulative depreciation at the end of the year	25.73	69.56	115.72	161.88	208.03
Remaining aggregate depreciable value at the end of the year.	646.85	677.63	671.03	624.87	578.71

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Opening Gross Block	518.11	518.11	614.79	614.79
ACE	0.00	96.68	0.00	0.00
Closing Gross Block	518.11	614.79	614.79	614.79
Average Gross Block	518.11	566.45	614.79	614.79
Weighted Average rate of Depreciation (WAROD) (in %)	5.39	5.38	5.38	5.38
Balance useful life of the asset (Year)	24	24	23	22
Lapsed life (Year)	0	0	1	2
Depreciable Value	466.30	509.81	553.31	553.31



Combined Depreciation during the year	0.99	30.49	33.09	33.09
Cumulative depreciation at the end of the year	0.99	31.48	64.57	97.66
Remaining depreciable value at the end of the year.	465.31	478.32	488.74	455.66

62. The details of depreciation approved *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, depreciation claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	164.00	214.02	221.35
Claimed by the Petitioner in the instant petition	159.45	224.98	232.59
Allowed after true-up in this order	140.39	196.78	203.33

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	125.24	159.96	172.00	172.00
Claimed by the Petitioner in the instant petition	111.89	127.49	138.50	138.50
Allowed after true-up in this order	107.20	122.16	132.88	132.88

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015.	26.15	46.83	52.80	54.19	54.19
Claimed by the Petitioner in the instant petition	26.74	45.60	48.14	48.14	48.14
Allowed after true-up in this order.	25.73	43.84	46.16	46.16	46.16



Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved vide order dated 20.7.2018 in Petition No. 264/TT/2017	0.99	30.43	35.28	37.54
Claimed by the Petitioner in the instant petition	1.18	36.45	39.88	39.88
Allowed after true-up in this order	0.99	30.49	33.09	33.09

Interest on Loan ("IoL")

63. The Petitioner has claimed the weighted average rate of IoL based on its actual loan portfolio and rate of interest. We have considered the submissions of the Petitioner. IoL has been calculated based on actual interest rate submitted by the Petitioner in accordance with Regulation 26 of the 2014 Tariff Regulations. The true-up IoL allowed in respect of the transmission assets is as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Gross Normative Loan	2328.50	2543.72	2657.43
Cumulative Repayments up to Previous Year	0.00	140.39	337.17
Net Loan-Opening	2328.50	2403.33	2320.25
Additions due to ACE	215.22	113.71	58.99
Repayment during the year	140.39	196.78	203.33
Net Loan-Closing	2403.33	2320.25	2175.91
Average Loan	2365.91	2361.79	2248.08
Weighted Average Rate of Interest on Loan (in %)	8.6901	8.4918	8.4103
Interest on Loan	156.59	200.56	189.07

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Gross Normative Loan	1366.80	1471.23	1755.50	1755.50
Cumulative Repayments up to Previous Year	0.00	107.20	229.36	362.24
Net Loan-Opening	1366.80	1364.02	1526.14	1393.26
Additions due to ACE	104.42	284.28	0.00	0.00
Repayment during the year	107.20	122.16	132.88	132.88



Net Loan-Closing	1364.02	1526.14	1393.26	1260.38
Average Loan	1365.41	1445.08	1459.70	1326.82
Weighted Average Rate of Interest on Loan (in %)	9.6069	9.3194	8.9368	8.8404
Interest on Loan	130.82	134.67	130.45	117.30

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	495.84	550.39	611.91	611.91	611.91
Cumulative Repayments up to Previous Year	0.00	25.73	69.56	115.72	161.88
Net Loan-Opening	495.84	524.67	542.35	496.19	450.04
Additions due to ACE	54.56	61.52	0.00	0.00	0.00
Repayment during the year	25.73	43.84	46.16	46.16	46.16
Net Loan-Closing	524.67	542.35	496.19	450.04	403.88
Average Loan	510.25	533.51	519.27	473.12	426.96
Weighted Average Rate of Interest on Loan (in %)	9.6315	9.3804	9.2183	9.0086	8.9346
Interest on Loan	32.05	50.05	47.87	42.62	38.15

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Gross Normative Loan	362.68	362.68	430.36	430.36
Cumulative Repayments up to Previous Year	0.00	0.99	31.48	64.57
Net Loan-Opening	362.68	361.69	398.87	365.79
Additions due to ACE	0.00	67.68	0.00	0.00
Repayment during the year	0.99	30.49	33.09	33.09
Net Loan-Closing	361.69	398.87	365.79	332.70
Average Loan	362.18	380.28	382.33	349.24
Weighted Average Rate of Interest on Loan (in %)	8.5919	8.5195	8.2874	8.2187
Interest on Loan	1.11	32.40	31.69	28.70

64. The details of IoL approved *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, IoL claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:



Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	185.30	225.45	214.42
Claimed by the Petitioner in the instant petition	169.45	217.96	204.34
Allowed after true-up in this order	156.59	200.56	189.07

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	154.85	185.66	185.04	168.37
Claimed by the Petitioner in the instant petition	130.10	133.91	129.23	115.59
Allowed after true-up in this order	130.82	134.67	130.45	117.30

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	32.79	55.41	58.20	54.72	49.40
Claimed by the Petitioner in the instant petition	32.64	51.01	48.85	43.40	38.74
Allowed after true-up in this order	32.05	50.05	47.87	42.62	38.15

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 20.7.2018 in Petition No. 264/TT/2017	1.10	32.45	34.98	34.44
Claimed by the Petitioner in the instant petition	1.10	32.02	30.85	27.32
Allowed after true-up in this order	1.11	32.40	31.69	28.70

Return on Equity ("RoE")

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



Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.624
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

66. UPPCL has submitted that RoE has been grossed up by year-wise effective tax rate. Assessment order for the years 2014-15 and 2015-16 have been issued while income tax returns for the year 2018-19 has not yet been filed. The Petitioner is considering grossing up of RoE by MAT @18.5%, surcharge @ 12% and Cess @ 4% for crossing up of RoE for the year 2018-19.

67. In response, the Petitioner has submitted that the effective rate of tax considered for 2014-15, 2015-16 and 2016-17 are based on Assessment Orders issued by Income-Tax authorities for the purpose of grossing up of RoE rate. Further, the effective rates of tax considered for 2017-18 and 2018-19 are based on the Income-tax returns filed, for the purpose of grossing up of RoE rate of the respective years.

68. The Petitioner has submitted that tariff for each year of 2014-19 period is being determined by the Commission considering the above effective tax rates to arrive at grossed up RoE. In view of the above, the Petitioner has submitted that grossed up RoE (in %) and effective tax rate for 2014-19 period has already been determined by the Commission. The Petitioner has claimed differential tariff on account of the trued up RoE based on effective tax rate calculated on completion of Income Tax assessment/ re-assessment for financial years 2014-15 to 2018-19 on receipt of



respective assessment orders directly from the beneficiaries on year to year basis as provided in the regulation

69. We have considered the submissions made by UPPCL and the Petitioner. The Commission *vide* order dated 27.4.2020 in Petition No. 274/TT/2019, had arrived at the effective tax rate for the Petitioner based on the notified MAT rates and the same is given in the following table:

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

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

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

71. The Petitioner has claimed RoE for 2014-19 tariff 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 allowed in respect of the transmission assets as follows:



Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Opening Equity	997.93	1090.17	1138.90
Additions due to ACE	92.24	48.73	25.28
Closing Equity	1090.17	1138.90	1164.18
Average Equity	1044.05	1114.53	1151.54
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.758
Return on Equity	156.69	219.62	227.52

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Opening Equity	585.77	630.53	752.36	752.36
Additions due to ACE	44.75	121.83	0.00	0.00
Closing Equity	630.53	752.36	752.36	752.36
Average Equity	608.15	691.44	752.36	752.36
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	119.51	136.25	148.25	148.65

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Opening Equity	212.50	235.88	262.25	262.25	262.25
Additions due to ACE	23.38	26.37	0.00	0.00	0.00
Closing Equity	235.88	262.25	262.25	262.25	262.25
Average Equity	224.19	249.07	262.25	262.25	262.25
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	20.961	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.610	19.705	19.705	19.705	19.758
Return on Equity	28.67	49.08	51.68	51.68	51.82



Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Opening Equity	155.43	155.43	184.43	184.43
Additions due to ACE	0.00	29.00	0.00	0.00
Closing Equity	155.43	184.43	184.43	184.43
Average Equity	155.43	169.93	184.43	184.43
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	21.342	21.342	21.342	21.549
Rate of Return on Equity (in %)	19.705	19.705	19.705	19.758
Return on Equity	1.09	33.49	36.34	36.44

72. The details of RoE approved *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, RoE claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	183.04	238.86	247.05
Claimed by the Petitioner in the instant petition	169.77	239.64	248.05
Allowed after true-up in this order	156.69	219.62	227.52

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	139.70	178.51	191.96	191.96
Claimed by the Petitioner in the instant petition	119.14	136.18	148.18	148.58
Allowed after true-up in this order	119.51	136.25	148.25	148.65

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated	29.13	52.18	58.83	60.38	60.38



27.5.2016 in Petition No. 62/TT/2015					
Claimed by the Petitioner in the instant petition	29.23	50.13	52.89	52.89	53.03
Allowed after true-up in this order	28.67	49.08	51.68	51.68	51.82

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved vide order dated 20.7.2018 in Petition No. 264/TT/2017	1.08	33.25	38.61	41.12
Claimed by the Petitioner in the instant petition	1.08	33.38	36.30	36.39
Allowed after true-up in this order	1.09	33.49	36.34	36.44

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

73. O&M Expenses claimed by the Petitioner in respect of the transmission assets are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17	2017-18	2018-19
Total O&M Expenses	106.28	144.19	148.96

Asset-II

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Total O&M Expenses	130.86	135.58	140.09	144.72

Asset-III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Total O&M Expenses	27.52	43.61	45.06	46.55	48.10

Asset-IV

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Total O&M Expenses	2.21	64.37	66.51	68.71



74. We have considered the submissions of the Petitioner. O&M Expenses norms specified for the elements covered in the transmission assets under Regulation 29(3) of the 2014 Tariff Regulations are as follows:

(₹ in lakh)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays 400 kV (Conventional)					
Norms (₹ lakh/bays)	60.30	62.30	64.37	66.51	68.71
Transmission Line (Twin Conductor- Double Circuit)					
Norms (₹ lakh/km)	0.707	0.731	0.755	0.78	0.806
Sub-station Bays 220 kV (GIS)					
Norms (₹ lakh/bays)	42.21	43.61	45.06	46.55	48.10

75. O&M Expenses determined are in line with the norms specified in Regulation 29(3) of the 2014 Tariff Regulations and are allowed as follows:

(₹ in lakh)			
Asset-I			
Particulars	2016-17	2017-18	2018-19
Transmission Line (Twin Conductor- Double Circuit)			
LILO of Dehar-Bhiwani Transmission Line (km)	14.32	14.32	14.32
Norms (₹ lakh/km)	0.755	0.78	0.806
O&M Expenses (₹ in lakh)	10.81	11.17	11.54
Sub-station Bays 400 kV (Conventional)			
Rajpura: Rajpura 400 kV Bay	2	2	2
Norms (₹ lakh/bay)	64.37	66.51	68.71
O&M Expenses (₹ in lakh)	128.74	133.02	137.42
Total O&M Expenses (₹ in lakh)	106.29	144.19	148.96

(₹ in lakh)				
Asset-II				
Particulars	2015-16	2016-17	2017-18	2018-19
Transmission Line (Twin Conductor- Double Circuit)				
LILO of Dehar-Panipat Transmission Line (km)	9.06	9.06	9.06	9.06



Norms (₹ lakh/km)	0.731	0.755	0.78	0.806
O&M Expenses (₹ in lakh)	6.62	6.84	7.07	7.30
Sub-station Bays 400 kV (Conventional)				
Panchkula:400 kV Bay	2	2	2	2
Norms (₹ lakh/bay)	62.30	64.37	66.51	68.71
O&M Expenses (₹ in lakh)	124.60	128.74	133.02	137.42
Total O&M Expenses (₹ in lakh)	130.86	135.58	140.09	144.72

Asset-III

(₹ in lakh)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Sub-station Bays 220 kV (GIS)					
Chamera:220 kV Bay	1	1	1	1	1
Norms (₹ lakh/bay)	42.21	43.61	45.06	46.55	48.10
Total O&M Expenses (₹ in lakh)	27.52	43.61	45.06	46.55	48.10

Asset-IV

(₹ in lakh)

Particulars	2015-16	2016-17	2017-18	2018-19
Sub-station Bays 400 kV (Conventional)				
Panchkula:400 kV Bay	1	1	1	1
Norms (₹ lakh/bay)	62.30	64.37	66.51	68.71
Total O&M Expenses (₹ in lakh)	2.21	64.37	66.51	68.71

76. The details of O&M Expenses approved *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, O&M Expenses claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015.	116.23	144.19	148.96
Claimed by the Petitioner in the instant petition	106.28	144.19	148.96
Allowed after true-up in this order	106.29	144.19	148.96



Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	130.86	135.58	140.09	144.72
Claimed by the Petitioner in the instant petition	130.86	135.58	140.09	144.72
Allowed after true-up in this order	130.86	135.58	140.09	144.72

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	27.52	43.61	45.06	46.55	48.10
Claimed by the Petitioner in the instant petition	27.52	43.61	45.06	46.55	48.10
Allowed after true-up in this order	27.52	43.61	45.06	46.55	48.10

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 20.7.2018 in Petition No. 264/TT/2017	2.22	64.37	66.51	68.71
Claimed by the Petitioner in the instant petition	2.21	64.37	66.51	68.71
Allowed after true-up in this order	2.21	64.37	66.51	68.71

Interest on Working Capital (“IWC”)

77. IWC has been worked out as per the methodology provided in Regulation 28 of the 2014 Tariff Regulations and is allowed in respect of the transmission assets as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Interest on Working Capital			
Working Capital for O&M Expenses (O&M Expenses for one month)	11.63	12.02	12.41
Working Capital for Maintenance Spares (15% of O&M Expenses)	20.93	21.63	22.34
Working Capital for Receivables	125.92	130.36	131.70



(Equivalent to two months of annual fixed cost)			
Total Working Capital	158.48	164.00	166.46
Rate of Interest (in %)	12.80	12.80	12.80
Interest on Working Capital	15.45	20.99	21.31

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Interest on Working Capital				
Working Capital for O&M Expenses (O&M Expenses for one month)	10.94	11.30	11.67	12.06
Working Capital for Maintenance Spares (15% of O&M Expenses)	19.68	20.34	21.01	21.71
Working Capital for Receivables (Equivalent to two months of annual fixed cost)	84.21	90.87	94.81	93.45
Total Working Capital	114.82	122.50	127.50	127.22
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	15.46	16.54	17.21	17.18

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital					
Working Capital for O&M Expenses (O&M Expenses for one month)	3.52	3.63	3.76	3.88	4.01
Working Capital for Maintenance Spares (15% of O&M Expenses)	6.33	6.54	6.76	6.98	7.22
Working Capital for Receivables (Equivalent to two months of annual fixed cost)	30.03	32.04	32.77	32.13	31.67
Total Working Capital	39.88	42.22	43.28	43.00	42.89
Rate of Interest (in %)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	3.51	5.70	5.84	5.80	5.79

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Interest on Working Capital				
Working Capital for O&M Expenses (O&M Expenses for one month)	5.19	5.36	5.54	5.73
Working Capital for Maintenance Spares (15% of O&M Expenses)	9.35	9.66	9.98	10.31



Working Capital for Receivables (Equivalent to two months of annual fixed cost)	26.24	27.75	28.94	28.83
Total Working Capital	40.78	42.77	44.46	44.87
Rate of Interest (in %)	13.50	13.50	13.50	13.50
Interest on Working Capital	0.20	5.77	6.00	6.06

78. The details of IWC approved vide order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, vide order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, IWC claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved vide order dated 27.5.2016 in Petition No. 62/TT/2015	18.67	23.58	23.95
Claimed by the Petitioner in the instant petition	16.43	22.42	22.72
Allowed after true-up in this order	15.45	20.99	21.31

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved vide order dated 27.5.2016 in Petition No. 62/TT/2015	16.89	19.55	20.37	20.25
Claimed by the Petitioner in the instant petition	15.54	16.64	17.31	17.26
Allowed after true-up in this order	15.46	16.54	17.21	17.18

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved vide order dated 27.5.2016 in Petition No. 62/TT/2015	3.55	5.96	6.40	6.47	6.43
Claimed by the Petitioner in the instant petition	3.56	5.79	5.94	5.90	5.88
Allowed after true-up in this order	3.51	5.70	5.84	5.80	5.79

Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved vide order dated 20.7.2018 in	0.20	5.77	6.18	6.40



Petition No. 264/TT/2017				
Claimed by the Petitioner in the instant petition	0.20	5.90	6.14	6.18
Allowed after true-up in this order	0.20	5.77	6.00	6.06

Approved Annual Fixed Charges for 2014-19 Tariff Period

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

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Depreciation	140.39	196.78	203.33
Interest on Loan	156.59	200.56	189.07
Return on Equity	156.69	219.62	227.52
O&M Expenses	106.29	144.19	148.96
Interest on Working Capital	15.45	20.99	21.31
Total	575.42	782.14	790.19

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Depreciation	107.20	122.16	132.88	132.88
Interest on Loan	130.82	134.67	130.45	117.30
Return on Equity	119.51	136.25	148.25	148.65
O&M Expenses	130.86	135.58	140.09	144.72
Interest on Working Capital	15.46	16.54	17.21	17.18
Total	503.85	545.20	568.88	560.72

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Depreciation	25.73	43.84	46.16	46.16	46.16
Interest on Loan	32.05	50.05	47.87	42.62	38.15
Return on Equity	28.67	49.08	51.68	51.68	51.82
O&M Expenses	27.52	43.61	45.06	46.55	48.10
Interest on Working Capital	3.51	5.70	5.84	5.80	5.79
Total	117.47	192.27	196.60	192.81	190.01



Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Depreciation	0.99	30.49	33.09	33.09
Interest on Loan	1.11	32.40	31.69	28.70
Return on Equity	1.09	33.49	36.34	36.44
O&M Expenses	2.21	64.37	66.51	68.71
Interest on Working Capital	0.20	5.77	6.00	6.06
Total	5.59	166.52	173.63	173.00

80. The details of AFC approved *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 in respect of Asset-I, Asset-II and Asset-III, *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 in respect of Asset-IV, AFC claimed by the Petitioner in the instant petition and as trued up in the instant order are as follows:

Asset-I

(₹ in lakh)

Particulars	2016-17 (278 days)	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	667.24	846.10	855.72
Claimed by the Petitioner in the instant petition	621.38	849.19	856.66
Allowed after true-up in this order	575.42	782.14	790.19

Asset-II

(₹ in lakh)

Particulars	2015-16 (365 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	567.54	679.27	709.45	697.29
Claimed by the Petitioner in the instant petition	507.53	549.80	573.31	564.65
Allowed after true-up in this order	503.85	545.20	568.88	560.72

Asset-III

(₹ in lakh)

Particulars	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 27.5.2016 in Petition No. 62/TT/2015	119.14	204.00	221.29	222.31	218.50
Claimed by the Petitioner in the instant petition	119.69	196.14	200.88	196.88	193.89
Allowed after true-up in this order	117.47	192.27	196.60	192.81	190.01



Asset-IV

(₹ in lakh)

Particulars	2015-16 (13 days)	2016-17	2017-18	2018-19
Approved <i>vide</i> order dated 20.7.2018 in Petition No. 264/TT/2017	5.59	166.27	181.56	188.21
Claimed by the Petitioner in the instant petition	5.77	172.12	179.68	178.48
Allowed after true-up in this order	5.59	166.52	173.63	173.00

81. The Annual Transmission Charges in respect of the transmission assets approved after truing up have decreased in comparison to what was approved earlier *vide* order dated 27.5.2016 in Petition No. 62/TT/2015 and *vide* order dated 20.7.2018 in Petition No. 264/TT/2017 and the same is mainly because of changes in calculation of Initial Spares, time over-run not condoned for Asset-I, Asset-II and Asset-IV leading to disallowance of IDC and IEDC disallowance, IDC disallowed due to computational error in respect of Asset-III and lower ACE than projected for all the transmission assets.

Determination of Annual Fixed Charges for 2019-24 Tariff Period

82. The Petitioner has combined the transmission assets for 2019-24 tariff period and has claimed combined tariff in respect of the Combined Asset as provided under Regulation 8(1) of the 2019 Tariff Regulations.

83. The Petitioner has claimed the following transmission charges for 2019-24 tariff period in respect of the Combined Asset:

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	462.86	464.15	464.15	450.07	426.32
Interest on Loan	351.64	312.62	273.04	234.04	196.01
Return on Equity	465.83	467.19	467.19	467.19	467.19
O&M Expenses	200.52	207.44	214.61	222.02	229.69
Interest on Working Capital	27.99	27.81	27.52	27.05	26.39
Total	1508.84	1479.21	1446.51	1400.37	1345.60

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	16.71	17.29	17.88	18.50	19.14
Maintenance Spares	30.08	31.12	32.19	33.30	34.45
Receivables	185.51	182.37	178.34	172.65	165.44
Total Working Capital	232.30	230.78	228.41	224.45	219.03
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	27.99	27.81	27.52	27.05	26.39

Effective Date of Commercial Operation (“E-COD”)

85. The Petitioner has claimed E-COD of the Combined Asset as 20.11.2015. Based on the trued-up admitted capital cost as on 31.3.2019 and actual COD of all the transmission assets, E-COD has been worked out as follows:

Particulars	Capital Cost as on 31.3.2019 (₹ in lakh)	COD	Number of days from last COD	Weightage of Cost (in %)	Weighted days	Effective COD (latest COD – weighted days)
Asset-I	3880.60	27.6.2016	0.00	49.26	0.00	11.11.2015
Asset-II	2507.86	2.4.2015	452	31.84	143.90	
Asset-III	874.16	6.8.2014	691	11.10	76.68	
Asset-IV	614.79	19.3.2016	100	7.80	7.80	
Total	7877.41			100.00	228.38	

86. E-COD is used to determine the lapsed life of the project as a whole which works out as 3 (three) 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”)

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

88. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as specified in the 2019 Tariff Regulations. Accordingly, WAL of the transmission assets has been worked out as 29 years as shown follows:

Particulars	Capital Cost as on 31.3.2019 (₹ in lakh) (1)	Life (in years) (2)	Weighted Cost (₹ in lakh) (3) = (1)x(2)	Weighted Average Life of Asset (in years) (4) = (3)/(1)
Transmission Line	3785.27	35	132484.37	29.0235 (rounded off to 29 years)
Sub Station	3678.83	25	91970.67	
PLCC	170.36	15	2555.38	
IT Equipment (Including Software)	242.96	6.67	1619.72	
Total	7877.41		228630.14	

89. WAL as on 1.4.2019, as determined above, is applicable prospectively (i.e., for 2019-24 tariff period onwards) and no retrospective adjustment of depreciation in previous tariff period is required to be done. As discussed above, E-COD of the Combined Asset is 11.11.2015 and lapsed life of the project as a whole works out to 3 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 26 years.

Initial Spares

90. As stated above in this order, Initial Spares are allowed for 2014-19 period on the basis of cost of the individual assets. The assets covered in the transmission project are combined and overall project cost is arrived at during 2019-24 tariff period and, therefore, Initial Spares have been allowed during 2019-24 tariff period as follows



on the basis of overall project cost as per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017:

(₹ in lakh)

Particulars	Asset type	Plant & Machinery cost upto cut-off date (excluding IDC and IEDC)	Initial Spares claimed	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per norms and APTEL judgement dated 14.9.2019	Initial Spares allowed in 2014-19	Additional spares now allowed	
							Discharged upto 31.3.2019	Discharged in 2019-20
Asset-I	Sub-station	1191.01	84.48	6.00	172.77	70.63	13.85	3.47
Asset-II	Sub-station and PLCC	1043.74	45.87					
Asset-IV	Sub-station	643.59	41.28			37.81*		
Total		2878.34	171.63			154.31		
Asset-III	GIS Sub-station	869.22	85.34	5.00	41.26	41.26	0.00	
Asset-I	Transmission Line	2338.99	23.32	1.00	35.80	23.39	0.00	
Asset-II	Transmission Line	1240.10	12.02			12.40		
Total		3579.09	35.34			35.80		

*Initial Spares allowed for Asset-IV during 2014-19 period is ₹38.45 lakh wherein ₹3.47 lakh was discharged during 2019-20 and excess Initial Spares of ₹2.83 lakh was to be disallowed from the year 2019-20. Therefore, only ₹37.81 lakh (₹38.45 lakh – ₹3.47 lakh + ₹2.83 lakh) is allowed during 2014-19 period.

91. Thus, in compliance of the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, additional Initial Spares of ₹13.85 lakh for Sub-station of the Combined Asset are being allowed as part of the combined capital cost as on 1.4.2019 and Initial Spares of ₹3.47 lakh is allowed in ACE during 2019-20 period. Accordingly, the total Initial Spares claimed of ₹171.63 lakh is allowed and, therefore, excess Initial Spares of ₹2.83 lakh as discharged during the year 2019-20 is not deducted from ACE during that year.



Capital Cost

92. 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 ash disposal and utilization including handling and transportation facility;

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

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

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

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

(a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and

(b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

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

(a) The assets forming part of the project, but not in use, as declared in the tariff petition;

(b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:

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

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

(c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;

(d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and

(e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”

93. The Petitioner has claimed capital cost of ₹8244.10 lakh as on 31.3.2019 in respect of the Combined Asset.



94. UPPCL has submitted that the Petitioner has considered capital cost as on 31.3.2019 for calculation of tariff for 2019-24 period. After consideration of ACE for 2019-24 period, closing capital cost of the transmission project as on 31.3.2024 is ₹8292.50 lakh in comparison to RCE of ₹9647.21 lakh. According to the Petitioner, there is no cost over-run as the capital cost as on 31.3.2024 is well within the RCE cost. All the transmission assets have average delay of about 22 months and as such the cost of the project is required to be scrutinized with reference to cost over-run. UPPCL has further submitted that the Commission has determined tariff for 2014-19 period based on apportioned cost of the transmission assets and the actual cost of the project is available now in the form of quoted bid price (i.e., original completion cost) and total completion cost based on bills paid to the successful bidder including escalations, if any. UPPCL has submitted that capital cost of the project as on June 2013, COD on 27.6.2016 and cut-off date on 31.3.2019 may be re-determined based on quoted bid price and bills plus escalations paid to the executing Agency and thereafter on 31.3.2024.

95. The Petitioner has further submitted that no RCE has been prepared for the transmission project and the Investment Approved is for the transmission project and not for expenditure within some time period. The Petitioner has further submitted that estimated completion cost is well within the approved apportioned cost.

96. We have considered the submissions of the Petitioner and UPPCL. The capital cost of ₹7877.41 lakh was admitted in respect of the Combined Asset as on 31.3.2019. Further, as discussed above in this order, the incremental Initial Spares of



₹13.85 lakh for Sub-station element is added back to the capital cost of the Combined Asset as on 31.3.2019.

97. Capital cost as on 1.4.2019 allowed after adding Initial Spares is as follows:

(₹ in lakh)

Particulars	Combined Capital Cost as on 31.3.2019	Additional Initial Spares allowed as per APTEL judgement dated 14.9.2019	Combined Capital Cost as on 1.4.2019
Combined Asset	7877.41	13.85	7891.26

98. Accordingly, the opening capital cost of ₹7891.26 lakh as on 1.4.2019 in respect of the Combined Asset is considered for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (“ACE”)

99. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provides as follows:

“24. Additional Capitalization within the original scope and up to the cut-off date:

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

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

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



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

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

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

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

(2) *In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed asset and the cumulative depreciation, subject to prudence check on the following grounds:*

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

100. The Petitioner has claimed ACE of ₹48.40 lakh for 2019-24 period under Regulation 25(1)(d) of the 2019 Tariff Regulations on account of undischarged liability towards final payment after the cut-off date for works executed prior to the cut-off date/ works differed for execution as follows:

Asset	ACE Claimed
Asset-I	0.00
Asset-II	0.00
Asset-III	0.00
Asset-IV	48.40
Total	48.40



101. The Petitioner *vide* affidavit dated 24.11.2020 has submitted package-wise break-up of ACE incurred during 2019-24 period and the same is as follows:

(₹ in lakh)

Year	Party	Amount	Balance and retention payment/deferred work
Asset-IV			
2019-20	Larsen and Toubro Limited	48.40	Balance and Retention payment as per Regulation 25(1)(d) of the 2019 Tariff Regulations.

102. UPPCL has submitted that cut-off dates of all the transmission assets have already lapsed by 31.3.2019. UPPCL has submitted that the unutilized amount of ₹1322.67 lakh (expenditure of ₹8324.54 lakh as on 31.3.2019 minus RCE of ₹9647.21 lakh) is not available to the Petitioner for the purpose of incurring ACE of ₹48.40 lakh after the cut-off date (31.3.2019) i.e. for capital additions during 2019-20 period. UPPCL has further submitted that the Petitioner is required to obtain fresh approval of its Board of Directors in respect of ₹48.40 lac towards projected capital additions during 2019-20 period. UPPCL has submitted that tariff proposal for 2019-24 period in the present form may not be accepted until capital cost for 2014-19 is re-determined on the basis of quoted bid price and escalation price paid to the executing agency after prudence check for cost-over run.

103. We have considered the submissions of the Petitioner and UPPCL. ACE claimed by the Petitioner has been allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations as it is towards undischarged liabilities discharged after the cut-off date for works executed prior to the cut-off date. The total capital expenditure as on 31.3.2024 is within the apportioned approved cost of ₹9647.21 lakh. Accordingly, ACE for 2019-20 period and capital cost as on 31.3.2024 in respect of the Combined Asset has been considered and the same is as follows:



(₹ in lakh)

Capital Cost admitted as on 1.4.2019 (A)	ACE allowed for 2019-20 (B)	Capital Cost allowed as on 31.3.2024 (C)=(A)+(B)
7891.26	48.40	7939.66

104. Therefore, capital cost of ₹7891.26 lakh as on 1.4.2019 and ₹7939.66 lakh as on 31.3.2024 has been considered for the purpose of determination of transmission tariff for 2019-24 period in accordance with Regulation 19 of the 2019 Tariff Regulations.

Debt-Equity ratio

105. 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.”

106. The details of debt-equity considered for the purpose of computation of tariff of 2019-24 tariff period in respect of the Combined Asset are as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE in 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	5523.88	70.00	33.88	70.00	5557.76	70.00
Equity	2367.38	30.00	14.52	30.00	2381.90	30.00
Total	7891.26	100.00	48.40	100.00	7939.66	100.00

Depreciation

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

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



of the generating station or the transmission system taking into consideration the depreciation of individual units:

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

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

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

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

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

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

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

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

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

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

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

(7) The generating company or the transmission licensee, as the case may be,



shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

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

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

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

- a) twenty five years, in case the generating station or unit thereof is in operation or 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.”

108. WAROD has been worked out after taking into account the depreciation rates of IT and non-IT assets as prescribed in the 2019 Tariff Regulations. The salvage value of IT equipment has been considered as nil, i.e. IT asset has been considered as 100 per cent depreciable. The calculation of WAROD for 2019-24 period is placed in Annexure-V. Depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Depreciation allowed in respect of the Combined Asset is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	7891.26	7939.66	7939.66	7939.66	7939.66



Addition during the year due to projected ACE	48.40	0.00	0.00	0.00	0.00
Closing Gross Block	7939.66	7939.66	7939.66	7939.66	7939.66
Average Gross Block	7915.46	7939.66	7939.66	7939.66	7939.66
Weighted Average Rate of Depreciation (in %)	5.60	5.60	5.60	5.60	5.60
Balance useful life at the beginning of the year (Year)	26	25	24	23	22
Lapsed Life at the beginning of the year (Year)	3	4	5	6	7
Aggregate Depreciable Value	7148.21	7169.99	7169.99	7169.99	7169.99
Combined Depreciation during the year	443.35	444.63	444.63	444.63	444.63
Aggregate Cumulative depreciation at the end of year	1784.66	2229.29	2673.91	3118.54	3563.17
Remaining Aggregate Depreciable Value at the end of year	5363.55	4940.70	4496.08	4051.45	3606.82

Interest on Loan (“IoL”)

109. 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.”

110. UPPCL has submitted that IoL is calculated based on actual rate of interest and the Petitioner is proposing to claim or adjust the change in interest rate due to floating interest rates directly from the beneficiaries. UPPCL has requested that in line with the order dated 30.12.2015 in Petition No. 435/TT/2014, the Petitioner may be directed that the 'Weighted Average Rate' of interest based on loan prevailing as on 1.4.2014 should be considered for calculation of interest. The impact of floating rate of interest may be considered at the time of truing up of 2019-24 tariff period.

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Normative Loan	5523.88	5557.76	5557.76	5557.76	5557.76



Cumulative Repayments up to Previous Year	1341.31	1784.66	2229.29	2673.91	3118.54
Net Loan-Opening	4182.57	3773.10	3328.47	2883.85	2439.22
Additions due to ACE	33.88	0.00	0.00	0.00	0.00
Repayment during the year	443.35	444.63	444.63	444.63	444.63
Net Loan-Closing	3773.10	3328.47	2883.85	2439.22	1994.59
Average Loan	3977.83	3550.79	3106.16	2661.53	2216.90
Weighted Average Rate of Interest on Loan (in %)	8.5992	8.5823	8.5902	8.6003	8.5851
Interest on Loan	342.06	304.74	266.83	228.90	190.32

Return on Equity (“RoE”)

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

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

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

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

Provided further that:

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

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



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

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

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

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

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

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

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

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

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

Illustration-

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

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

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



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

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

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Equity	2367.38	2381.90	2381.90	2381.90	2381.90
Additions due to ACE	14.52	0.00	0.00	0.00	0.00
Closing Equity	2381.90	2381.90	2381.90	2381.90	2381.90
Average Equity	2374.64	2381.90	2381.90	2381.90	2381.90
Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
Return on Equity	446.00	447.37	447.37	447.37	447.37

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

114. O&M Expenses claimed by the Petitioner for various elements included in the Combined Asset for 2019-24 tariff period are as follows:



(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line (Twin Conductor- Double Circuit)					
LILO of Dehar-Panipat Transmission Line (km)	9.06	9.06	9.06	9.06	9.06
LILO of Dehar-Bhiwani Transmission Line (km)	14.32	14.32	14.32	14.32	14.32
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M Expenses (₹ in lakh)	20.60	21.32	22.07	22.84	23.64
Sub-station Bays 400 kV (Conventional)					
400 kV Bay Panchkula- 2 Numbers, Kota:Kota line Bay (RVPNL)- 1 Number, 400 kV Bay Rajpura:Rajpura – 2 Numbers	5	5	5	5	5
Norms (₹ lakh/km)	32.15	33.28	34.45	35.66	36.91
O&M Expenses (₹ in lakh)	160.75	166.40	172.25	178.30	184.55
Sub-station Bays 220 kV (GIS)					
220 kV Bay Chamera -1 Number	1	1	1	1	1
Norms (₹ lakh/km)	15.76	16.31	16.88	17.47	18.09
O&M Expenses (₹ in lakh)	15.76	16.31	16.88	17.47	18.09
PLCC					
O&M Expenses (₹ in lakh)	3.41	3.41	3.41	3.41	3.41
Total O&M Expenses (₹ in lakh)	200.52	207.44	214.61	222.02	229.69

115. Regulation 35(3)(a) and Regulation 33(4) of the 2019 Tariff Regulations provide as follows:

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

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Norms for sub-station Bays (₹ Lakh per bay)					
765 kV	45.01	46.60	48.23	49.93	51.68
400 kV	32.15	33.28	34.45	35.66	36.91
220 kV	22.51	23.30	24.12	24.96	25.84

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



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

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

Provided further that:

i. the operation and maintenance expenses for new HVDC bi-pole schemes commissioned after 1.4.2019 for a particular year shall be allowed pro-rata on the basis of normative rate of operation and maintenance expenses of similar HVDC bi-pole scheme for the corresponding year of the tariff period;

ii. the O&M expenses norms for HVDC bi-pole line shall be considered as Double Circuit quad AC line;

iii. the O&M expenses of ±500 kV Mundra-Mohindergarh HVDC bipole scheme (2000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±500 kV Talchar-Kolar HVDC bi-pole scheme (2000 MW);

iv. the O&M expenses of ±800 kV Champa-Kurukshetra HVDC bi-pole scheme (3000 MW) shall be on the basis of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme;

v. the O&M expenses of ±800 kV, Alipurduar-Agra HVDC bi-pole scheme (3000 MW) shall be allowed as worked out by multiplying 0.80 of the normative O&M expenses for ±800 kV, Bishwanath-Agra HVDC bi-pole scheme; and

vi. the O&M expenses of Static Synchronous Compensator and Static Var Compensator shall be worked at 1.5% of original project cost as on commercial operation which shall be escalated at the rate of 3.51% to work out the O&M expenses during the tariff period. The O&M expenses of Static Synchronous Compensator and Static Var Compensator, if required, may be reviewed after three year

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

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

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



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

116. We have considered the submissions of the Petitioner. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 Tariff Regulations @2% of its original project cost in the instant petition. The Petitioner has made similar claim in other petitions as well. Though PLCC is a communication system, it has been considered as part of the Sub-station in the 2014 Tariff Regulations and the 2019 Tariff Regulations and the norms for Sub-station have been specified accordingly. Accordingly, the Commission vide order dated 24.1.2021 in Petition No. 126/TT/2020 has already concluded that no separate O&M Expenses can be allowed for PLCC under Regulation 35(4) of the 2019 Tariff Regulations even though PLCC is a communication system. Therefore, the Petitioner’s claim for separate O&M Expenses for PLCC @2% is not allowed.

117. O&M Expenses have been worked out in respect of the Combined Asset in accordance with Regulation 35(3)(a) of the 2019 Tariff Regulations and the same are as follows:

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line (Twin Conductor- Double Circuit)					
LILO of Dehar-Panipat Transmission Line (km)	9.06	9.06	9.06	9.06	9.06
LILO of Dehar-Bhiwani Transmission Line (km)	14.32	14.32	14.32	14.32	14.32
Norms (₹ lakh/km)	0.881	0.912	0.944	0.977	1.011
O&M Expenses for Transmission Line (₹ in lakh)	20.60	21.32	22.07	22.84	23.64
Sub-station Bays 400 kV (Conventional)					
400 kV Bay Panchkula- 2 Numbers, Kota:Kota line Bay (RVPNL)- 1 Number, 400 kV Bay Rajpura:Rajpura – 2	5	5	5	5	5



Numbers					
Norms (₹ lakh/km)	32.15	33.28	34.45	35.66	36.91
O&M Expenses for 400 kV Bays (₹ in lakh)	160.75	166.40	172.25	178.30	184.55
Sub-station Bays 220 kV (GIS)					
220 kV Bay Chamera -1 Number	1	1	1	1	1
Norms (₹ lakh/km)	15.76	16.31	16.88	17.47	18.09
O&M Expenses for 200 kV Bays (₹ in lakh)	15.76	16.31	16.88	17.47	18.09
Total O&M Expenses (₹ in lakh)	197.10	204.03	211.20	218.61	226.28

Interest on Working Capital (“IWC”)

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

“34. Interest on Working Capital

(1) The working capital shall cover:

.....

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

- i. Receivables equivalent to 45 days of 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;”

119. The Petitioner has submitted that it has computed IWC for 2019-24 period considering SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%.

120. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. ROI considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, whereas ROI for 2020-21 onwards has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for 2020-21 and from 2021-22 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon for the Combined Asset is as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for O&M Expenses (O&M Expenses for one month)	16.43	17.00	17.60	18.22	18.86
Working Capital for Maintenance Spares (15% of O&M Expenses)	29.57	30.60	31.68	32.79	33.94
Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	178.97	175.80	171.77	167.98	163.69
Total Working Capital	224.96	223.40	221.05	218.99	216.49
Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
Interest on Working Capital	27.11	25.13	23.21	22.99	22.73



Annual Fixed Charges for 2019-24 Tariff Period

121. The transmission charges allowed in respect of Combined Asset for 2019-24 tariff period are as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	443.35	444.63	444.63	444.63	444.63
Interest on Loan	342.06	304.74	266.83	228.90	190.32
Return on Equity	446.00	447.37	447.37	447.37	447.37
O&M Expenses	197.10	204.03	211.20	218.61	226.28
Interest on Working Capital	27.11	25.13	23.21	22.99	22.73
Total	1455.62	1425.90	1393.24	1362.50	1331.33

Filing Fee and Publication Expenses

122. The Petitioner has sought reimbursement of fee paid by it for filing the Petition and publication expenses in terms of Regulation 70(1) of the 2019 Tariff Regulations. 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.

License Fee and Publication Expenses

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

Goods and Services Tax

124. The Petitioner has submitted that if GST is levied at any rate and at any point of time in future on charges of transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid



by the Petitioner on account of demand from Government/ Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

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

127. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said petition has already been disposed of by the Commission vide order dated 3.8.2021. Therefore, security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. 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

128. 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

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

130. To summarise:

a. The trued-up AFC allowed for 2014-19 tariff period are:

Asset-I

Particulars	(₹ in lakh)		
	2016-17 (278 days)	2017-18	2018-19
AFC	575.42	782.14	790.19

Asset-II

Particulars	(₹ in lakh)			
	2015-16 (365 days)	2016-17	2017-18	2018-19
AFC	503.85	545.20	568.88	560.72

Asset-III

Particulars	(₹ in lakh)				
	2014-15 (239 days)	2015-16	2016-17	2017-18	2018-19
AFC	117.47	192.27	196.60	192.81	190.01



Asset-IV

Particulars	(₹ in lakh)			
	2015-16 (13 days)	2016-17	2017-18	2018-19
AFC	5.59	166.52	173.63	173.00

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

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
AFC	1455.62	1425.90	1393.24	1362.50	1331.33

131. Annexure-I, Annexure-II, Annexure-III, Annexure-IV and Annexure-V given hereinafter form part of the instant order.

132. This order disposes of Petition No. 348/TT/2020 in terms of above discussions and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I.S. Jha)
Member



Asset-I

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)				Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	2017-18	2018-19	Total			2016-17	2017-18	2018-19	
Transmission Line	2228.88	226.54	0.00	0.00	226.54	2455.42	0.05	94.19	129.65	129.65	
Sub Station	955.58	72.36	152.68	73.60	298.64	1254.22	0.05	39.88	58.31	64.28	
PLCC	51.03	8.21	0.00	7.40	15.61	66.64	0.06	2.66	3.75	3.98	
IT Equipment (Incl. Software)	90.94	0.35	9.76	3.27	13.38	104.32	0.05	3.66	5.08	5.42	
Total	3326.43	307.46	162.44	84.27	554.17	3880.60	Total	140.39	196.78	203.33	
								Average Gross Block (₹ in lakh)	3480.16	3715.11	3838.46
								Weighted Average Rate of Depreciation (in %)	5.30%	5.30%	5.30%



Asset-II

2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
Capital Expenditure		2015-16	2016-17	Total			2015-16	2016-17	2017-18	2018-19
Transmission Line	1018.70	37.22	273.93	311.15	1329.84	5.28%	54.62	62.98	70.22	70.22
Sub Station	837.08	111.37	126.30	237.67	1074.74	5.28%	47.01	53.41	56.75	56.75
PLCC	43.96	0.27	0.00	0.27	44.23	6.33%	2.78	2.80	2.80	2.80
IT Equipment (Incl. Software)	52.84	0.32	5.88	6.20	59.05	5.28%	2.79	2.96	3.12	3.12
Total	1952.58	149.17	406.11	555.28	2507.86	Total	107.20	122.16	132.88	132.88
Average Gross Block (₹ in lakh)							2027.16	2304.81	2507.86	2507.86
Weighted Average Rate of Depreciation (in %)							5.30%	5.30%	5.30%	5.30%



Asset-III

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2014-15	2015-16	Total			2014-15	2015-16	2016-17	2017-18	2018-19
Sub Station	700.08	77.94	86.97	164.90	864.98	5.28%	25.44	43.38	45.67	45.67	45.67
IT Equipment (Incl. Software)	8.26	0.00	0.92	0.92	9.18	5.28%	0.28	0.46	0.48	0.48	0.48
Total	708.34	77.94	87.89	165.83	874.16		25.73	43.84	46.16	46.16	46.16
Average Gross Block (₹ in lakh)							747.31	830.22	874.16	874.16	874.16
Weighted Average Rate of Depreciation (in %)							5.28%	5.28%	5.28%	5.28%	5.28%



Asset-IV

2014-19 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)			
		2016-17	Total			2015-16	2016-17	2017-18	2018-19
Sub Station	411.82	73.06	73.06	484.88	5.28%	0.77	23.67	25.60	25.60
PLCC	51.97	7.52	7.52	59.49	6.33%	0.12	3.53	3.77	3.77
IT Equipment (Incl. Software)	54.31	16.10	16.10	70.41	5.28%	0.10	3.29	3.72	3.72
Total	518.11	96.68	96.68	614.79		0.99	30.49	33.09	33.09
Average Gross Block (₹ in lakh)						518.11	566.45	614.79	614.79
Weighted Average Rate of Depreciation (in %)						5.39%	5.38%	5.38%	5.38%



Combined Asset

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Transmission Line	3785.27	0.00	0.00	3785.27	5.28%	199.86	199.86	199.86	199.86	199.86
Sub Station	3692.68	47.52	47.52	3740.20	5.28%	196.23	197.48	197.48	197.48	197.48
PLCC	170.36	0.88	0.88	171.24	6.33%	10.81	10.84	10.84	10.84	10.84
IT Equipment (Incl. Software)	242.96	0.00	0.00	242.96	15.00%	36.44	36.44	36.44	36.44	36.44
Total	7891.26	48.40	48.40	7939.66		443.35	444.63	444.63	444.63	444.63
Average Gross Block (₹ in lakh)						7915.46	7939.66	7939.66	7939.66	7939.66
Weighted Average Rate of Depreciation (in %)						5.60%	5.60%	5.60%	5.60%	5.60%

