

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 352/TT/2020

Coram:

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

Date of order: 26.05.2022

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and truing-up of the 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 for **Asset-A:** Consisting of Asset-I: Combined Asset of 400 kV D/C Orai-Orai (UPPTCL) line and associated bays at both ends; 1000 MVA 765/400 kV ICT-I along with associated bays at Orai (GIS) Sub-station; 330 MVAR, 765 kV Bus Reactor-I along with bay at Orai Sub-station; Asset-II: 330 MVAR, 765 kV Bus Reactor-II along with bay at Orai Sub-station; Asset-IV(b): Circuit- II of 765 kV D/C Orai-Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end, Asset-V: Combined Asset of LILO of 765 kV S/C Kanpur-Jhattikara Line at Aligarh with associated bays; 330 MVAR, 765 kV Bus Reactor-I along with bay at Aligarh Sub-station; 330 MVAR switchable L/R in 765 kV S/C Kanpur-Aligarh Line at Aligarh, Asset-VI: Combined Asset of 330 MVAR, 765 kV Bus Reactor-II along with bay at Aligarh Sub-station; LILO of 765 kV S/C Agra-Meerut Line at Aligarh with associated bays, Asset-VII: Bay extension at Jhattikara end to convert line reactor of 765 kV S/C Kanpur-Jhattikara TL into switchable line reactor, Asset-IX: 765 kV D/C Jabalpur Pooling station - Orai TL along with 2x330 MVAR line reactor along with Bay Extension at 765/400 kV Jabalpur Pooling Station and 02 nos. 765 Jabalpur Line bays along with 2x330 MVAR line reactor at Orai Sub-station, Asset-X: LILO of one circuit of 765 kV Satna-Gwalior TL along with 765 kV Satna Line Bay at Orai Sub Station and 240 MVAR Line Reactor at Orai Sub-station and 765 kV Gwalior bay at Orai Sub-station; **Asset-B:** consists of Asset-VIII: Conversion of existing line reactor at Gwalior end of Satna-Gwalior Ckt-1 TL (to be LILO at Orai) in to switchable line reactor and **Asset-C:** Consists of Asset-III-1000 MVA, 765/400 kV ICT-II along with associated bays at Orai(GIS) Sub-station and Asset IV(a): Circuit-I of 765 kV D/C Orai- Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end under "Inter-Regional System Strengthening Scheme in WR and NR (Part-B)" in Northern Region and Western Region.

And in the Matter of:

Power Grid Corporation of India Limited



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

.....Petitioner

Versus

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited,
Vidyut Bhawan, Vidyut Marg,
Jaipur-302005 (Rajasthan).
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 (Himachal Pradesh).
6. Punjab State Electricity Board,
Thermal Shed Tia, Near 22 Phatak,
Patiala-147001 (Punjab).
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 (Uttar Pradesh).
10. Delhi Transco Limited,
Shakti Sadan, Kotla Road,
New Delhi-110002.



11. BSES Yamuna Power Limited,
B-Block, Shakti Kiran Building (Near Karkadooma Court),
Karkadooma, 2nd Floor,
New Delhi-110092.
12. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
13. Tata Power Delhi Distribution Limited,
NDPL house, Hudson Lines Kingsway Camp,
Delhi-110009.
14. Chandigarh Administration,
Sector-9,
Chandigarh.
15. Uttarakhand Power Corporation Limited,
Urja Bhawan, Kanwali Road,
Dehradun (Uttarakhand).
16. North Central Railway,
Allahabad (Uttar Pradesh).
17. New Delhi Municipal Council,
Palika Kendra, Sansad Marg,
New Delhi-110002.
18. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.
19. Madhya Pradesh Audyogik Kendra,
Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore- 452008.
20. Maharashtra State Electricity Distribution Company Limited,
Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort,
Mumbai-400001.
21. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East),
Mumbai- 400051.
22. Gujarat Urja Vikas Nigam Limited,



Sardar Patel Vidyut Bhawan, Race Course Road,
Vadodara-390007.

23. Gujarat Energy Transmission Corporation Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road,
Vadodara-390007.
 24. Electricity Department,
Government of Goa, Vidyut Bhawan, Near Mandvi Hotel,
Panaji, Goa-403001.
 25. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
 26. Electricity Department,
Administration of Dadra Nagar Haveli,
U.T., Silvassa-396 230.
 27. Chhattisgarh State Electricity Board,
P.O.Sunder Nagar, Dangania,
Raipur, Chhattisgarh-492013.
 28. Chhattisgarh State Power Transmission Company Limited,
State Load Despatch Building, Dangania,
Raipur-492013.
 29. Chhattisgarh State Power Distribution Company Limited,
P.O. Sunder Nagar, Dangania,
Raipur, Chhattisgarh-492013.
-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: Shri Manoj Dubey, Advocate, MPPMCL
Shri Anindya Khare, MPPMCL



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 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 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) of the period from 1.4.2019 to 31.3.2024 in respect of the following assets (hereinafter referred to as the “transmission assets/ Combined Asset”) under “Inter-Regional System Strengthening Scheme in WR and NR (Part-B)” (hereinafter referred to as the “transmission system”) in Northern Region and Western Region:

Asset-A: Consisting of Asset-I: Combined Asset of 400 kV D/C Orai-Orai (UPPTCL) line and associated bays at both ends; 1000 MVA 765/400 kV ICT-I along with associated bays at Orai (GIS) Sub-station; 330 MVAR, 765 kV Bus Reactor-I along with bay at Orai Sub-station; Asset-II: 330 MVAR, 765 kV Bus Reactor-II along with bay at Orai Sub-station; Asset-IV(b): Circuit-II of 765 kV D/C Orai- Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end, Asset-V: Combined Asset of LILO of 765 kV S/C Kanpur-Jhatikara Line at Aligarh with associated bays; 330 MVAR, 765 kV Bus Reactor-I along with bay at Aligarh Sub-station; 330 MVAR switchable line reactor in 765 kV S/C Kanpur-Aligarh Line at Aligarh, Asset-VI: Combined Asset of 330 MVAR, 765 kV Bus Reactor-II along with bay at Aligarh Sub-station; LILO of 765 kV S/C Agra-Meerut Line at Aligarh with associated bays, Asset-VII: Bay extension at Jhatikara end to convert line reactor of 765 kV S/C Kanpur-Jhatikara Transmission Line into switchable line reactor, Asset-IX: 765 kV D/C Jabalpur Pooling station - Orai Transmission Line along with 2x330 MVAR line reactor along with Bay Extension at 765/400 kV Jabalpur Pooling Station and 02 numbers 765



Jabalpur Line bays along with 2x330 MVAR line reactor at Orai Sub-station, Asset-X: LILO of one circuit of 765 kV Satna-Gwalior Transmission Line along with 765 kV Satna Line Bay at Orai Sub-station and 240 MVAR Line Reactor at Orai Sub-station and 765 kV Gwalior bay at Orai Sub-station;

Asset-B: Consists of Asset-VIII: Conversion of existing line reactor at Gwalior end of Satna-Gwalior Ckt-1 Transmission Line (to be LILO at Orai) in to switchable line reactor;

Asset-C: Consists of Asset-III: 1000 MVA, 765/400 kV ICT-II along with associated bays at Orai (GIS) Sub-station and Asset IV(a): Circuit- I of 765 kV D/C Orai- Aligarh Line with associated bays including 240 MVAR Line Reactor in both Ckt at both end.

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

"1) Approve the actual Additional Capital Expenditure incurred during 2014-19 tariff block as per para 6.5 and projected additional capital expenditure during 2019-24 block as per para no. 7.3.

2) 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 6.7 and 7.4.

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

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

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

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



7) Allow the Petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 7.10 above.

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

9) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the beneficiaries, if GST on transmission is withdrawn from negative list at any time 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 of the case

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

(a) The Investment Approval (IA) for implementation of the transmission system was accorded by the Board of Directors of the Petitioner on 24.12.2014 communicated vide Memorandum No. C/CP/IA/IRSS.NR-WR (B)/WR/421 dated 29.12.2014 at an estimated cost of ₹651736 lakh including Interest During Construction (IDC) of ₹40393 lakh based on October, 2014 price level.

(b) The scope of the transmission system was discussed and agreed as a system strengthening scheme in the 31st Standing Committee meeting on Transmission System Planning of Northern Region held on 2.1.2013. Further, the transmission system has also been discussed in the 28th meeting of Northern Regional Power Committee (NRPC) held on 26.4.2013.

(c) The scope of work covered under the transmission system is as follows:

Transmission Lines

- i. Jabalpur Pooling station-Orai 765 kV D/C line – 419 km
- ii. Orai–Aligarh 765 kV D/C line – 300 km
- iii. Orai–Orai (UPPTCL) 400 kV D/C (Quad) line – 38 km
- iv. LILO of one circuit of Satna-Gwalior 765 kV 2x S/Cline at Orai Sub-station –80 km
- v. LILO of Agra-Meerut 765 kV S/C line at Aligarh Sub-station–35 km
- vi. LILO of Kanpur–Jhatikara 765 kV S/C at Aligarh Sub-station–35 km



Sub-station

i. 765/400 kV Jabalpur Pooling Station Extension

765 kV

- Line Bay : 2 numbers
- Line reactors-330 MVAR : 2 numbers

ii. Establishment of 2x1000 MVA, 765/400 kV Sub-station at Orai GIS Sub-station

765 kV

- Line Bays : 6 numbers
- Transformer Bays : 2 numbers
- 1000 MVA, 765/400 kV transformer : 2 numbers
- Bus Reactor Bay : 2 numbers
- Bus Reactor -330 MVAR : 2 numbers
- Line Reactors-330 MVAR : 2 numbers
- Line Reactors-240 MVAR : 3 numbers

400 kV

- Line Bays : 2 numbers
- Transformer bays : 2 numbers

iii. Establishment of 765 kV Switching station (GIS) at Aligarh

765 kV

- Line Bays : 6 numbers
- Bus Reactor bay : 2 numbers
- Bus reactors – 330 MVAR : 2 numbers
- Line reactors – 240 MVAR : 2 numbers
- Switchable Line Reactor-330 MVAR : 1 number

iv. Extension of 765 kV Jhatikara Sub-station

Line reactor at Jhatikara end for Kanpur-Jhatikara 765 kV S/C line to be converted into switchable line reactor along with a spare unit.

v. Extension of 400 kV Orai (UPPTCL) Sub-station

400 kV

- Line Bay : 2 numbers

vi. Extension of 765 kV Gwalior Sub-station



Existing Line reactor at Gwalior end of Satna-Gwalior line, which is to be LILOed at Orai, to be converted into switchable line reactor.

Reactive Compensation

	Particulars	Approximate Line Length	Line Reactor- From bus	Line Reactor- To bus
	Line Reactors			
1.	Jabalpur Pooling Station – Orai 765 kV D/C	419 km	330 MVAR	330 MVAR
2.	Orai-Aligarh 765 kV D/C Line	300 km	240 MVAR	240 MVAR
3.	Orai- Orai (UPPTCL)	38 km	-	-
4.	LILO of one circuit of Satna-Gwalior 765 kV D/C at Orai	80 km		
	Existing Satna-Gwalior 765 kV S/C	350 km	240 MVAR (Switchable)	240 MVAR*
	Satna-Orai 765 kV S/C	320 km	240 MVAR (Switchable) – To be retained	240 MVAR (New) NGR – shifted from Gwalior end
	Orai-Gwalior 765 kV S/C	130 km		
5.	LILO of Agra-Meerut 765 kV S/C Line at Aligarh	35 km		
	Existing Agra-Meerut 765 kV S/C	270 km		240 MVAR (Switchable)
	Agra-Aligarh 765 kV S/C	130 km	-	-
	Aligarh -Meerut 765 kV S/C	200 km		240 MVAR (Switchable)
6.	LILO of Kanpur-Jhatikara 765 kV S/C Line at Aligarh Sub-station	35 km		
	Existing Kanpur-Jhatikara 765 kV S/C Line	465 km	330 MVAR (Switchable)	330 MVAR (Fixed)
	Kanpur-Aligarh 765 kV S/C	330 km	330 MVAR (Switchable)	330 MVAR (Switchable)
	Aligarh-Jhatikara 765 kV S/C	190 km		330 MVAR (Presently fixed – to be made Switchable)
	Bus Reactors			
7.	2x1000 MVA, 765/400 kV Sub-station at Orai GIS Sub-station	2x330 MVAR bus reactor		
8.	765 kV Switching Station at Aligarh (GIS)	2x330 MVAR bus reactor		

**Existing non-switchable line reactor at Gwalior end of Satna-Gwalior line which is to be LILOed at Orai shall be converted into switchable line reactor.*

(d) The entire scope of work under the transmission system has been completed and is covered under the instant petition.

(e) The transmission assets were scheduled to be put into commercial operation within 40 months from the date of IA, which is 24.12.2014.



Accordingly, the transmission system was scheduled to be commissioned by 23.4.2018. The details of scheduled commercial operation date (SCOD), date of commercial operation (COD) and time over-run are as follows:

Assets	SCOD	COD	Time over-run
Asset-A	23.4.2018	31.3.2018	-
Asset-B		1.4.2017	-
Asset-C		15.4.2018	-

(f) The transmission tariff in respect of Asset-A, Asset-B and Asset-C was approved by the Commission from their respective COD to 31.3.2019 vide order dated 9.5.2019 in Petition No.127/TT/2018.

(g) The Annual Fixed Charges (AFC) approved by the Commission vide order dated 9.5.2019 in Petition No.127/TT/2018 and trued up tariff claimed by the Petitioner in respect of the transmission assets for the 2014-19 tariff period are as follows:

Particulars	(₹ in lakh)				
	Asset-A		Asset-B		Asset-C
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
AFC approved vide order dated 9.5.2019 in Petition No. 127/TT/2018	178.02	67349.90	121.74	135.02	6938.35
AFC claimed by the Petitioner based on truing up in the instant petition	178.56	67170.22	127.64	139.52	7290.50

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

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



the newspapers. MPPMCL i.e. Respondent No. 18, has filed its reply vide affidavit dated 5.6.2020 and has raised issues regarding effective tax rate and grossing up of Return on Equity (RoE) during 2014-19, effects of GST and calculation of Initial Spares. The Petitioner vide affidavit dated 12.8.2021 has filed rejoinder to MPPMCL's reply.

6. It has been placed before us that MPPMCL has repeatedly been raising the issue of grossing up of RoE in almost all the petitions despite clear findings of the Commission. The contentions of MPPMCL with reference to RoE have been rejected by the Commission in other petitions including in order dated 25.4.2021 in Petition No. 348/TT/2019. Since, MPPMCL did not challenge the findings of the Commission, the same have attained finality. In view of this, the pleas raised by MPPMCL with reference to grossing up of RoE are rejected. The submissions of MPPMCL on RoE, the Petitioner's response thereto and the Commission's finding thereon have not been reproduced here again to avoid repetition. Other issues of MPPMCL which are specific to the present petition and the clarifications given by the Petitioner have been addressed in the relevant portions of this order.

7. This order is issued considering the submissions made by the Petitioner in the petition vide affidavit dated 24.1.2020 and affidavit dated 2.7.2021, MPPMCL's reply filed vide affidavit dated 5.6.2020, the Petitioner's rejoinder filed vide affidavit dated 12.8.2021 to MPPCL's reply.

8. The hearing in this matter was held on 2.11.2021 through video conference and the order was reserved.



9. Having heard the representatives of the Petitioner and MPPMCL and having perused the material on record, we proceed to dispose off the petition.

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

10. The details of the trued up transmission charges claimed by the Petitioner are as follows:

Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
Depreciation	52.95	20042.83	10.28	13.27	2105.95
Interest on Loan	50.57	18982.15	8.33	10.91	1845.62
Return on Equity	63.07	23922.12	10.00	13.38	2449.95
Interest on working capital	3.98	1503.46	5.42	5.76	168.74
O&M Expenses	7.99	2719.66	93.11	96.20	720.24
Total	178.56	67170.22	127.64	139.52	7290.50

11. The details of the Interest on Working Capital (IWC) claimed by the Petitioner are as follows:

Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
O&M Expenses	240.04	248.02	7.76	8.02	62.41
Maintenance Spares	432.08	446.43	13.97	14.43	112.35
Receivables	10856.32	11237.80	21.27	23.25	1263.55
Total	11528.44	11932.25	43.00	45.70	1438.31
Rate of Interest (in %)	12.60	12.60	12.60	12.60	12.20
Interest on Working Capital	3.98	1503.46	5.42	5.76	168.74

Capital Cost

12. The Commission vide order dated 9.5.2019 in Petition No. 127/TT/2018 has approved the following capital cost as on COD and ACE up to 31.3.2019:

Assets	Approved Cost (FR)	Capital Cost allowed as on COD	ACE		Total Capital Cost as on 31.3 2019
			2017-18	2018-19	
Asset-A	596560.75	377246.23	0.00	35577.40	412823.63
Asset-B	368.06	98.48	82.29	42.09	222.86
Asset-C	54807.19	39666.19	0.00	4151.95	43818.14



13. The Petitioner in the instant true-up petition has submitted capital cost as on COD and ACE incurred for Asset-A, Asset-B and Asset-C as per Auditor's Certificates dated 16.10.2019, 18.8.2019 and 31.7.2019 as follows:

Assets	Apportioned Approved Cost (FR)	Capital Cost as on COD	ACE		Total Capital Cost as on 31.3.2019
			2017-18	2018-19	
Asset-A	596560.75	383250.54	0.00	21454.19	404704.73
Asset-B	368.06	126.95	78.70	26.04	231.69
Asset-C	54807.19	39999.13	0.00	3596.50	43595.63

Cost Over-run

14. The Petitioner has claimed capital cost of ₹383250.54 lakh, ₹126.95 lakh and ₹39999.13 lakh in respect of Asset-A, Asset-B and Asset-C respectively as on COD.

15. The total completion cost including ACE in respect of Asset-A, Asset-B and Asset-C is ₹404704.73 lakh, ₹231.69 lakh and ₹43595.63 lakh and the apportioned approved FR cost is ₹596560.75 lakh, ₹368.06 lakh and ₹54807.19 lakh in respect of Asset-A, Asset-B and Asset-C. Hence, the completion cost in respect of the transmission assets is within the apportioned approved FR cost and, therefore, there is no cost over-run.

Time Over-run

16. As per IA, the transmission assets were scheduled to be put under commercial operation within 40 months from the date of IA, which is 24.12.2014. Accordingly, the scheduled date of commercial operation was 23.4.2018 against which Asset-A, Asset-B and Asset-C were put into commercial operation on 31.3.2018, 1.4.2017 and 15.4.2018. Hence, there is no time over-run.

Interest During Construction (IDC) and Incidental expenditure during construction (IEDC)



17. The Petitioner has claimed Interest During Construction (IDC) in respect of the transmission assets and has submitted the Auditor's Certificates in support of the same. The Petitioner has submitted computation of IDC along with the year-wise details of the IDC discharged.

18. The allowable IDC has been worked out considering the information submitted by the Petitioner for the individual assets separately on cash basis. The loan details submitted in Form-9C for 2014-19 tariff period and IDC computation sheet have been considered for the purpose of IDC calculation on cash and accrued basis. The undischarged IDC as on COD has been considered as ACE during the year in which it has been discharged.

19. Accordingly, based on the information furnished by the Petitioner, IDC considered is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC Admissible	IDC Disallowed due to computational difference	IDC Discharged as on COD	IDC Undischarged as on COD	IDC Discharge During	
						2017-18	2018-19
	A	B	C=(A-B)	D	E=(B-D)		
Asset-A	21753.22	21753.22	0.00	15758.04	5995.18	0.00	5995.18
Asset-B	4.86	4.84	0.02	0.00	4.84	4.84	0.00
Asset-C	2238.93	2223.27	15.66	1904.19	319.08	0.00	319.08

20. The Petitioner has claimed IEDC of ₹5505.37 lakh, ₹1.81 lakh and ₹902.95 lakh in respect of Asset-A, Asset-B and Asset-C respectively and has submitted Auditor's Certificate in support of the same. The Petitioner has also submitted that the entire IEDC has been discharged as on COD in respect of the transmission assets. Accordingly, IEDC of ₹5505.37 lakh, ₹1.81 lakh and ₹902.95 lakh respectively has been allowed in respect of Asset-A, Asset-B and Asset-C.



Initial Spares

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

“(d) *Transmission system*

(i) *Transmission line* – 1.00%

(ii) *Transmission Sub-station (Green Field)* – 4.00%

(iii) *Transmission Sub-station (Brown Field)* – 6.00%

(iv) *Series Compensation devices and HVDC Station* – 4.00%

(v) *Gas Insulated Sub-station (GIS)* – 5.00%

(vi) *Communication system* – 3.5%

.....”

22. The Petitioner in the instant petition has claimed the following Initial Spares:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)	Initial Spares allowable (₹ in lakh)
Transmission Line				
Asset-A	261994.80	2538.40	1	2620.77
Asset-C	20386.49	191.75	1	203.99
Total	282381.29	2730.15		2824.76
Sub-station				
Asset-A	113720.50	4845.87	5	5730.25
Asset-B	258.81	37.20	6	14.15
Asset-C	22960.99	1025.10	5	1154.52
Total	136940.30	5908.17		6898.92

23. MPPMCL has submitted that the Commission in many orders has established that Initial Spares is to be counted asset-wise as every asset has own identity and is different from the other assets. Therefore, excess initial spares claimed in respect of Asset-B (sub-station) may be disallowed.

24. In response, the Petitioner has submitted that calculation of Initial Spares has been submitted in the instant petition and the same has been re-calculated based on completion cost as per the revised Auditor certificate and as per the methodology approved by the APTEL vide their judgement dated 14.9.2019 in Appeal No. 74 of



2017. The Petitioner has further prayed to allow Initial Spares on overall project basis in respect of all the transmission assets covered in the instant true-up petition.

25. We have considered the submissions of the Petitioner and MPPMCL. As per the APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017, Initial Spares are to be allowed as a percentage of the project cost as a whole. In the present case, the transmission assets were put under commercial operation during 2014-19 tariff period. The overall project cost is arrived at only when all the transmission assets are combined and in the instant case they are combined in 2019-24 tariff period. Therefore, Initial Spares are allowed on the basis of cost of the individual transmission assets during 2014-19 tariff period and on the basis of overall project cost during 2019-24 tariff period.

26. The details of Initial Spares allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)	Initial Spares allowable (₹ in lakh)	Initial Spares allowed (₹ in lakh)	Excess Initial Spares (₹ in lakh)
Transmission Line						
Asset-A	254629.71	2538.40	1	2546.38	2538.40	0.00
Asset-C	18748.32	191.75	1	187.44	187.44	4.31
Sub-station						
Asset-A	110115.15	4845.87	5	5540.49	4845.87	0.00
Asset-B	258.81	37.20	6	14.15	14.15	23.05
Asset-C	21237.19	1025.10	5	1063.79	1025.10	0.00

Capital cost considered as on COD

27. The details of capital cost considered as on COD now after adjustment of IDC, IEDC and excess initial spares is as follows:



(₹ in lakh)

Assets	Capital cost as on COD as per Auditor's Certificate	Less: IDC as on COD due to		Excess Initial Spares	Capital cost considered as on COD (on cash basis)
		Computational difference	Undischarged		
	1	2	3	4	5=1-2-3-4
Asset-A	383250.54	0.00	5995.18	0.00	377255.36
Asset-B	126.95	0.02	4.84	23.05	99.04
Asset-C	39999.13	15.66	319.08	4.31	39660.08

Additional Capital Expenditure ("ACE")

28. The Petitioner has claimed the following ACE in respect of the transmission assets:

(₹ in lakh)

Assets	ACE	
	2017-18	2018-19
Asset-A	0.00	21454.19
Asset-B	78.70	26.04
Asset-C	0.00	3596.50

29. The Petitioner has submitted that ACE has been claimed under Regulations 14(1)(i) and 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date. The Petitioner has submitted Auditor's Certificate in support of the same. The Petitioner vide affidavit dated 2.7.2021 has submitted party-wise details of undischarged liabilities.

30. We have considered the submissions of Petitioner. The undischarged IDC as on COD have been allowed as ACE during the year of discharge. ACE claimed by the Petitioner has been allowed under Regulation 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations pertaining to un-discharged liabilities recognized to be payable at a future date and liabilities towards works deferred for execution respectively. Accordingly, ACE allowed for 2014-19 tariff period are as follows:



(₹ in lakh)

Assets	ACE*	
	2017-18	2018-19
Asset-A	0.00	27449.37
Asset-B	83.54	26.04
Asset-C	0.00	3915.58

*includes discharge of IDC.

31. The capital cost allowed as on 31.3.2019 after inclusion of ACE in respect of the transmission assets is as follows:

(₹ in lakh)

Assets	Particulars	Capital cost as on COD on cash basis	ACE		Total Capital cost including ACE as on 31.3.2019
			2017-18	2018-19	
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	377246.23	0.00	35577.40	412823.63
	Claimed by the Petitioner in the instant petition	383250.54	0.00	21454.19	404704.73
	Allowed after trued-up in the instant order	377255.36	0.00	27449.37	404704.73
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	98.48	82.29	42.09	222.86
	Claimed by the Petitioner in the instant petition	126.95	78.70	26.04	231.69
	Allowed after trued-up in the instant order	99.04	83.54	26.04	208.62
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	39666.19	0.00	4151.95	43818.14
	Claimed by the Petitioner in the instant petition	39999.13	0.00	3596.50	43595.63
	Allowed after trued-up in the instant order	39660.08	0.00	3915.58	43575.66

Debt-Equity Ratio

32. The Petitioner has considered debt-equity ratio of 70:30 as on COD and for ACE. Debt-equity ratio of 70:30 has been considered as provided under Regulation 19 of the 2014 Tariff Regulations. The same is as follows:



Asset-A	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	264078.75	70.00	283293.31	70.00
Equity	113176.61	30.00	121411.42	30.00
Total	377255.36	100.00	404704.73	100.00
Asset-B	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	69.32	70.00	146.04	70.00
Equity	29.71	30.00	62.58	30.00
Total	99.04	100.00	208.62	100.00
Asset-C	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	27762.06	70.00	30502.96	70.00
Equity	11898.02	30.00	13072.70	30.00
Total	39660.08	100.00	43575.66	100.00

Depreciation

33. The Petitioner's claim towards depreciation in this petition was found to be higher than the depreciation allowed in order dated 9.5.2019 in Petition No. 127/TT/2018. The Petitioner has neither given any justification for claiming higher depreciation than that allowed earlier nor made any specific prayer for allowing higher depreciation in this petition. It is observed that vide order dated 9.5.2019 in Petition No. 127/TT/2018, the depreciation for IT equipment was allowed @5.28%. The Petitioner now at the time of truing-up of the tariff of 2014-19 period has segregated the IT equipment cost from the Sub-station cost and has considered depreciation rate for IT Equipment @15% and the salvage value for IT Equipment is NIL as per the 2014 Tariff Regulations. A similar issue had come up in some petitions filed by the Petitioner earlier. In this regard, the Commission vide order dated 9.5.2020 in Petition No. 19/TT/2020 held as follows:

"31. We have considered the submissions of the Petitioner. The instant assets were put into commercial operation during the 2009-14 period and the tariff from the respective CODs to 31.3.2014 was allowed vide orders dated 30.8.2012 and 9.5.2013 in Petition No.343/2010 and Petition No. 147/TT/2011 respectively. Further, the tariff of the 2009-14 period was trued up and tariff for the 2014-19 period was allowed vide order dated 25.2.2016 in Petition No.10/TT/2015. The Petitioner did not



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

34. In line with the above decision vide order dated 9.5.2020 in Petition No. 19/TT/2020, depreciation has been considered for IT Equipment @5.28% as part of the sub-station upto 31.3.2019 while truing up the capital expenditure for 2014-19 period. However, for 2019-24 tariff period, the IT Equipment has been considered separately and depreciation has been allowed @15% for the balance depreciable value of IT Equipment in accordance with Regulation 33 of the 2019 Tariff Regulations. The Gross Block during 2014-19 tariff period has been depreciated at weighted average rate of depreciation (WAROD) and working of WAROD is at Annexure-I, Annexure-II and Annexure-III. WAROD has been worked out after taking into account the depreciation rates of assets as prescribed in the 2014 Tariff Regulations and depreciation allowed during 2014-19 tariff period is as follows:



(₹ in lakh)

Sl. No.	Particulars	Asset-A		Asset-B		Asset-C
		2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
A	Opening Gross Block	377255.36	377255.36	99.04	182.58	39660.08
B	ACE	0.00	27449.37	83.54	26.04	3915.58
C	Closing Gross Block (A+B)	377255.36	404704.73	182.58	208.62	43575.66
D	Average Gross Block [(A+C)/2]	377255.36	390980.05	140.81	195.60	41617.87
E	Weighted average rate of Depreciation (WAROD) (in %)	5.11	5.12	5.28	5.28	5.25
F	Balance useful life of the asset at the beginning of the year	0.00	0.00	0.00	1.00	0.00
G	Depreciable Value (D*90%)	330295.13	342647.35	126.73	176.04	37242.73
H	Combined Depreciation during the year (D*E)	52.83	20000.74	7.43	10.33	2102.75
I	Remaining Aggregated Depreciable Value (G-H)	330242.30	322593.77	119.29	158.28	35139.98

35. The details of depreciation allowed for the transmission assets vide order dated 9.5.2019 in Petition No. 127/TT/2018, claimed by the Petitioner in the instant Petition and trued up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	52.83	20175.41
	Claimed by the Petitioner in the instant petition	52.95	20042.83
	Allowed after true-up in the instant order	52.83	20000.74
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	7.37	10.66
	Claimed by the Petitioner in the instant petition	10.28	13.27
	Allowed after true-up in the instant order	7.43	10.33
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	2108.72
	Claimed by the Petitioner in the instant petition	0.00	2105.95
	Allowed after true-up in the instant order	0.00	2102.75

Interest on Loan ("IoL")

36. The Petitioner has claimed the Weighted Average Rate of IoL based on its actual loan portfolio and rate of interest. Accordingly, IoL is calculated based on actual interest rate, in accordance with Regulation 26 of the 2014 Tariff Regulations.

The details of IoL allowed are as follows:



Sl. No.	Particulars	(₹ in lakh)				
		Asset-A		Asset-B		Asset-C
		2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
A	Opening Normative Loan	264078.75	264078.75	69.32	127.81	27762.06
B	Cumulative Repayments up to Previous Year	0.00	52.83	0.00	7.43	0.00
C	Net Loan-Opening (A-B)	264078.75	264025.92	69.32	120.37	27762.06
D	Addition due to ACE	0.00	19214.56	58.48	18.23	2740.91
E	Repayment during the year	52.83	20000.74	7.43	10.33	2102.75
F	Net Loan-Closing (C+D-E)	264025.92	263239.73	120.37	128.27	28400.22
G	Average Loan [(C+F)/2]	264052.33	263632.83	94.85	124.32	28081.14
H	Weighted Average Rate of Interest on Loan (in %)	6.99	7.20	8.06	8.02	6.83
I	Interest on Loan (G*H)	50.57	18983.79	7.64	9.97	1844.77

37. The details of IoL allowed for the transmission assets vide order dated 9.5.2019 in Petition No.127/TT/2018, claimed by the Petitioner in the instant Petition and trued up in the instant order are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	50.75	18777.34
	Claimed by the Petitioner in the instant petition	50.57	18982.15
	Allowed after true-up in the instant order	50.57	18983.79
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	7.49	10.24
	Claimed by the Petitioner in the instant petition	8.83	10.91
	Allowed after true-up in the instant order	7.64	9.97
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	1708.69
	Claimed by the Petitioner in the instant petition	0.00	1845.62
	Allowed after true-up in the instant order	0.00	1844.77

Return on Equity ("RoE")

38. The Petitioner has claimed RoE for 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 following effective tax rates for 2014-19 tariff period as follows:



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

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

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

40. MAT rates allowed vide order dated 27.4.2020 in Petition No. 274/TT/2019 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, are considered in the instant case, which is as follows:

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

41. The Commission vide order dated 9.5.2019 in Petition No. 127/TT/2018 has allowed additional RoE of 0.5% for putting transmission asset in to commercial operation within the timeline specified in the 2014 tariff regulations. Accordingly, RoE base rate of 16% is considered for truing up of tariff of 2014-19 period.



42. The Petitioner has claimed RoE for 2014-19 period after grossing up RoE @16.00% with Effective Tax rates (based on MAT rates) each year as per the above said Regulation. RoE is trued-up on the basis of MAT rates applicable in the respective years and is approved in respect of the transmission assets for 2014-19 tariff period as follows:

(₹ in lakh)						
	Particulars	Asset-A		Asset-B		Asset-C
		2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
A	Opening Equity	113176.61	113176.61	29.71	54.77	11898.02
B	Addition due to ACE	0.00	8234.81	25.06	7.81	1174.67
C	Closing Equity(A+B)	113176.61	121411.42	54.77	62.58	13072.70
D	Average Equity [(A+C)/2]	113176.61	117294.01	42.24	58.68	12485.36
E	Return on Equity (Base Rate) (in %)	16.000	16.000	16.000	16.000	16.000
F	Tax Rate applicable (in %)	21.342	21.549	21.342	21.549	21.549
G	Applicable RoE Rate (in %)	20.341	20.395	20.341	20.395	20.395
H	Return on Equity for the year(D*G)	63.07	23922.11	8.59	11.97	2448.72

43. The details of RoE allowed for the transmission assets vide order dated 9.5.2019 in Petition No.127/TT/2018, claimed by the Petitioner in the instant petition and trued up in the instant order are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	62.77	23990.07
	Claimed by the Petitioner in the instant petition	63.07	23922.12
	Allowed after true-up in the instant order	63.07	23922.11
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	8.48	12.26
	Claimed by the Petitioner in the instant petition	10.00	13.38
	Allowed after true-up in the instant order	8.59	11.97
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	2437.73
	Claimed by the Petitioner in the instant petition	0.00	2449.95
	Allowed after true-up in the instant order	0.00	2448.72



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

44. O&M Expenses claimed by the Petitioner for the various elements covered under the transmission assets and allowed as per the norms specified under the 2014 Tariff Regulations areas follows:

(₹ in lakh)		
Asset-A		
Particulars	2017-18 (Pro-rata for 1 day)	2018-19
Sub-station		
400 kV AIS: Orai (UPPCL):ORAI Bay-I	1	1
400 kV AIS: Orai (UPPCL):ORAI Bay -II	1	1
400 kV GIS: Orai:ICT Bay	1	1
400 kV GIS: Orai:ORAI (UPPCL) Bay – I	1	1
400 kV GIS: Orai:ORAI (UPPCL) Bay – II	1	1
765 kV GIS: Orai:765 kV BR-II Bay	1	1
765 kV GIS: Orai:765 kV BR-I Bay	1	1
765 kV GIS: Orai:BAY-I of LILO of Gwalior-Satna Transmission Line	1	1
765 kV GIS: Orai:ICT Bay	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay -I	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay -II	1	1
765 kV GIS: Orai: Bay -II of LILO of Satna-Gwalior Transmission Line	1	1
765 kV GIS: Aligarh: Bay -I of LILO of Agra-Meerut Transmission Line	1	1
765 kV GIS: Aligarh:765 kV BR-I Bay	1	1
765 kV GIS: Aligarh:765 kV BR-II Bay	1	1
765 kV GIS: Aligarh:BAY-II of LILO of Agra-Meerut Transmission Line	1	1
765 kV GIS: Aligarh: Bay I of Kanpur-Jhatikara Transmission Line	1	1
765 kV GIS: Aligarh: Bay II of Kanpur-Jhatikara Transmission Line	1	1
765 kV GIS: Aligarh:765 kV Switchable Line Reactor Bay	1	1
765 kV GIS: Orai:Aligarh Bay	1	1
765 kV GIS: Aligarh:Orai Bay	1	1
765 kV AIS: Jabalpur:Orai Bay I	1	1
765 kV AIS: Jabalpur:Orai Bay -II	1	1
765 kV AIS: Jhatikara:Switchable Line Reactor Bay	1	1
Norm (₹ lakh/ bay)		
400 kV AIS	66.51	68.71
400 kV GIS	56.84	58.73
765 kV GIS	93.11	96.20
765 kV AIS	93.11	96.20
Total Sub-station Expenses	2072.63	2141.41
Transmission Line		
765 kV S/C: Ckt-II Orai-Aligarh Transmission Line*	331.93	331.93



765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	3.060	3.060
765 kV D/C: Jabalpur - Orai Transmission Line	360.58	360.58
400 kV D/C: Orai-Orai (UPPCL)	41.84	41.84
765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	33.7	33.7
765 kV D/C: LILO of 765 kV S/C Kanpur-Jhatikara Transmission Line at Aligarh	10.55	10.55
765 kV M/C: LILO of 765 kV S/C Agra-Meerut at Aligarh	10.87	10.87
Norm (₹ lakh/ bay)		
S/C Bundle Conductor- 6 or more sub-conductor	0.780	0.806
D/C Bundled with 4 or more sub-conductor	1.171	1.210
Multi Ckt Bundled with 4 or more sub-conductor	2.055	2.123
Total Transmission Line Expenses	807.88	577.51
Total O&M Expenses	7.89	2718.92

**The Petitioner has claimed Ck-II Orai-Aligarh Transmission Line as S/C for the period 31.3.2018 to 14.4.2018*

(₹ in lakh)

Asset-B		
Particulars	2017-18	2018-19
Sub-station		
765 kV AIS: Gwalior:Conversion of Existing Line Reactor at Gwalior End of Satna-Gwalior CKT-I	1	1
Norm (₹ lakh/ bay)		
765 kV AIS	93.11	96.20
Total Sub-station Expenses	93.11	96.20
Total O&M Expenses	93.11	96.20

(₹ in lakh)

Asset-C	
Particulars	2018-19 (Pro-rata for 351 day)
Sub-station	
400 kV GIS: Orai:ICT II Bay	1
765 kV GIS: Orai:765 kV ICT-II Bay	1
765 kV GIS: Orai:765 kV Aligarh-I Bay	1
765 kV GIS: Aligarh:765 kV Orai-I Bay	1
Norm (₹ lakh/ bay)	
400 kV GIS	58.73
765 kV GIS	96.20
Total Sub-station Expenses	347.33
Transmission Line	
400 kV D/C: Ckt-I & II of 765 kV D/C Orai-Aligarh Line	331.930
Norm (₹ lakh/ bay)	
D/C Bundled with 4 or more sub-conductor	1.210
Total Transmission Line Expenses	401.64
Total O&M Expenses	720.24



45. The details of O&M Expenses allowed for the transmission assets vide order dated 9.5.2019 in Petition No.127/TT/2018, claimed by the Petitioner in the instant Petition and trued up in the instant order are as follows:

		(₹ in lakh)	
Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	7.71	2907.26
	Claimed by the Petitioner in the instant petition	7.99	2719.66
	Allowed after true-up in the instant order	7.89	2718.92
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	93.11	96.20
	Claimed by the Petitioner in the instant petition	93.11	96.20
	Allowed after true-up in the instant order	93.11	96.20
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	527.12
	Claimed by the Petitioner in the instant petition	0.00	720.24
	Allowed after true-up in the instant order	0.00	720.24

O&M Expenses towards Ck-II of Orai-Aligarh Transmission Line allowed under S/C for the period from 31.3.2018 to 14.4.2018 in case of Asset-A and thereafter i.e. 15.4.2018 onwards allowed under D/C in case of Asset-C

Interest on Working Capital (“IWC”)

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

		(₹ in lakh)				
Sl. No.	Particulars	Asset-A		Asset-B		Asset-C
		2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
A	Working Capital for O&M Expenses (O&M Expenses for One Month)	240.04	226.58	7.76	8.02	62.41
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	432.08	407.84	13.97	14.43	112.34
C	Working Capital for Receivables (Equivalent to two months of annual transmission charges)	10849.51	11185.85	20.35	22.35	1262.61
D	Total Working Capital (A+B+C)	11521.63	11820.26	42.07	44.80	1437.37
E	Rate of Interest on working capital (in %)	12.60	12.60	12.60	12.60	12.20
F	Interest of working capital (D*E)	3.98	1489.35	5.30	5.64	168.63



47. The details of IWC expenses allowed for the transmission assets vide order dated 9.5.2019 in Petition No.127/TT/2018, claimed by the Petitioner in the instant Petition and trued up in the instant order are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	3.97	1499.82
	Claimed by the Petitioner in the instant petition	3.98	1503.46
	Allowed after true-up in the instant order	3.98	1489.35
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	5.29	5.66
	Claimed by the Petitioner in the instant petition	5.42	5.76
	Allowed after true-up in the instant order	5.30	5.64
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	156.09
	Claimed by the Petitioner in the instant petition	0.00	168.74
	Allowed after true-up in the instant order	0.00	168.63

Approved Annual Fixed Charges for 2014-19 Tariff Period

48. The trued-up AFC allowed in respect of the transmission assets for 2014-19 tariff period are as follows:

(₹ in lakh)					
Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
Depreciation	52.83	20000.74	7.43	10.33	2102.75
Interest on Loan	50.57	18983.79	7.64	9.97	1844.77
Return on Equity	63.07	23922.11	8.59	11.97	2448.72
O&M Expenses	7.89	2718.92	93.11	96.20	720.24
Interest on Working Capital	3.98	1489.35	5.30	5.64	168.63
Total	178.35	67114.92	122.08	134.10	7285.11

49. Accordingly, the Annual Transmission Charges allowed vide order dated 9.5.2019 in Petition No.127/TT/2018, claimed by the Petitioner in the instant petition and trued-up in the instant order are as follows:



(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-A	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	178.02	67349.90
	Claimed by the Petitioner in the instant petition	178.56	67170.22
	Allowed after true-up in the instant order	178.35	67114.92
Asset-B	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	121.74	135.02
	Claimed by the Petitioner in the instant petition	127.64	139.52
	Allowed after true-up in the instant order	122.08	134.10
Asset-C	Allowed vide order dated 9.5.2019 in Petition No. 127/TT/2018	0.00	6938.35
	Claimed by the Petitioner in the instant petition	0.00	7290.50
	Allowed after true-up in the instant order	0.00	7285.11

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	23396.02	24030.03	24336.81	24336.81	24336.81
Interest on Loan	20916.80	19881.48	18422.13	16612.58	14812.64
Return on Equity	25670.99	26438.63	26808.28	26808.28	26808.28
Interest on Working Capital	1183.30	1196.39	1189.28	1166.91	1141.86
O&M Expenses	3002.85	3106.10	3213.87	3326.61	3441.33
Total	74169.96	74652.63	73970.37	72251.19	70540.92

51. The details of IWC claimed claimed by the Petitioner for the transmission assets for 2019-24 period are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	250.24	258.84	267.82	277.22	286.78
Maintenance Spares	450.43	465.92	482.08	498.99	516.20
Receivables	9119.26	9203.75	9119.63	8907.68	8673.06
Total Working Capital	9819.93	9928.51	9869.53	9683.89	9476.04
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1183.30	1196.39	1189.28	1166.91	1141.86



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

52. The Petitioner has claimed E-COD of the Combined Asset as 2.4.2018. Based on the trued-up admitted capital cost and actual COD of all the assets, E-COD has been worked out as follows:

Computation of E-COD					
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (in %)	Number of Days from last COD	Weighted Days
Asset-A	31.3.2018	404704.73	90.24	15.00	13.54
Asset-B	1.4.2017	208.62	0.05	379.00	0.18
Asset-C	15.4.2018	43575.66	9.72	0.00	0.00
Total		404704.73	90.24		13.71
Effective COD (Latest COD – Total weighted Days) 2.4.2018					

53. E-COD is used to determine the lapsed life of the project as a whole, which works out as zero (0) 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)

54. The life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determination of Weighted Average Life. The Combined Asset may have multiple elements such as land, building, transmission line, Sub-station and PLCC and each element may have different span of life. Therefore, the concept of Weighted Average Life (WAL) has been used as the useful life of the project as a whole.

55. WAL has been determined based on the admitted capital cost of individual elements as on 31.3.2019 and their respective life as stipulated in the 2019 Tariff Regulations. The element-wise life as defined in the 2014 Tariff Regulations prevailing at the time of actual COD of individual assets has been ignored for this purpose. The life as defined in the 2019 Tariff Regulations has been considered for



determination of WAL. Accordingly, WAL of the Combined Asset has been worked out as 33 years as follows:

Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Asset Cost (₹ in lakh) (1)	Life in Years (2)	Weighted Cost (3)=[(1)x(2)]	WAL of Asset (in years) (4)=[(3)/(1)]
Building & Other Civil Works	6568.06	25	164201.51	
Transmission Line	301344.63	35	10547061.97	
Sub-Station Equipment	127547.54	25	3188688.56	
PLCC	1954.24	15	29313.54	
IT Equipment and Software	503.40	6.67	3356.02	
Total	437917.87		13932621.60	31.82 years, rounded off to 32 years

56. 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, the Effective COD of the assets is 2.4.2018 and the lapsed life of the project as a whole, works out as zero (0) year as on 1.4.2019 (i.e. the number of completed years as on 1.4.2019 from Effective COD). Accordingly, WAL has been used to determine the remaining useful life as on 31.3.2019 to be 32 years.

Capital Cost

57. 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 asset 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 up to 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 GrameenVidyutikaranYojana (RGGVY) and DeendayalUpadhyaya Gram JyotiYojana (DDUGJY) project in the affected area.

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

(a) The asset forming part of the project, but not in use, as declared in the tariff petition;
(b) De-capitalised Asset 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 asset.

(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."

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

(₹ in lakh)

Elements	Asset-A	Asset-B	Asset-C	Capital Cost for Combined Asset as on 31.3.2019
Freehold Land	10260.77	0.00	237.06	10497.83
Leasehold Land	73.31	0.00	0.00	73.31
Building & Other Civil Works	6524.20	0.00	43.86	6568.06



Transmission Line	279656.28	0.00	21688.35	301344.63
Sub-station Equipment	105990.24	190.65	21366.66	127547.55
PLCC	1737.98	0.00	216.25	1954.23
IT Equipment and Software	461.95	17.97	23.48	503.4
Total	404704.73	208.62	43575.66	448489.01

59. The trued-up capital cost of ₹448489.01 lakh in respect of the Combined Asset is considered as admitted capital cost as on 31.3.2019 for working out tariff for 2019-24 tariff period.

Initial Spares

60. As stated above in this order, Initial Spares are allowed for 2014-19 period on the basis of cost of the individual assets. The transmission assets covered in the transmission project are combined during 2019-24 tariff period and as such the Initial Spares are allowed on the basis of the overall project cost as per APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017.

61. Accordingly, Initial Spares allowed in 2019-24 tariff period are as follows:

Assets	Plant & machinery cost up to cut-off date (excluding IDC and IEDC) (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)	Initial Spares allowable (₹ in lakh)	Initial Spares allowed during 2014-19 period (₹ in lakh)	Initial Spares allowed on combined asset (₹ in lakh)
Transmission Line						
Asset-A	254629.71	2538.40	1	2546.38	2538.40	
Asset-C	18748.32	191.75	1	187.44	187.44	
Total	273378.03	2730.15		2733.82	2725.84	4.31
Sub-station						
Asset-A	110115.15	4845.87	5	5540.49	4845.87	
Asset-B	258.81	37.20	6	14.15	14.15	
Asset-C	21237.19	1025.10	5	1063.79	1025.10	
Total	131611.15	5908.17		6618.43	5885.12	23.05

**Additional Initial Spares of ₹4.31 lakh (₹2730.15-₹2725.84) is allowed for sub-station and ₹23.05 lakh (₹5908.17-₹5885.12) is allowed for transmission line.*

62. Thus, in line with APTEL's judgement dated 14.9.2019 in Appeal No. 74 of 2017 additional initial spares of ₹27.36 lakh (₹4.31 + ₹23.05) are admissible.



Assets	Total Capital Cost as on 31.3.2019	Additional Initial Spares as per APTEL's Judgment dated 14.9.2019	Total Capital Cost as on 1.4.2019
Combined Asset	448489.01	27.36	448516.38

Additional Capital Expenditure

63. Regulation 24 and Regulation 25 of the 2019 Tariff Regulations provide as follows:

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

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

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

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

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

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

(1) The ACE 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 cutoff 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; and
(g) Raising of ash dyke as a part of ash disposal system

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

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

64. The Petitioner has claimed the following ACE for the Combined Asset under Regulation 24 of the 2019 Tariff Regulations and has claimed the same is within the cut-off date as follows:

(₹ in lakh)

Assets	ACE		Total ACE
	2019-20	2020-21	
Asset-A	12475.16	11503.11	23978.27
Asset-B	33.79	0.00	33.79
Asset-C	1617.70	1617.70	3235.54
Total	14126.65	13120.81	27247.60

65. Further, the Petitioner vide affidavit dated 2.7.2021 has submitted details of ACE/ Liability Flow Statement as follows:

(₹ in lakh)

Assets	Headwise/ Partywise	Particulars	Year of Actual Capitalisation	Outstanding Liability as on 31.3.2019	Discharge		
					2019-20	2020-21	Total
Asset-A2	M/s HSCC(1) Limited and Miscellaneous Small Vendors	Civil & Building Work	31.3.2018	0.00	0.00	0.00	0.00



	Skipper Limited Karamtara Engineering Private Limited, KEC Limited, Larsen and Tubro Limited, Kalptaru Power Transmission Limited, Apar Industries Limited, Vijai Electrical Limited, Goldstone Infratech Limited, Sterlite Power Transmission Limited, Aditya Birla Insulators	Transmission Line work	31.3.2018	36.82	36.82	0.00	36.82
	M/s NHVS, M/s KEC, M/s Hyosung LOA-5553 & M/s L&T, M/s GE, Techno Electric and Engineerin Company Limited, M/S CG Power and Industrial Solution, GE T&D India Limited.	S/S Work	31.3.2018	1,318.89	313.07	1,005.81	1,318.88
	M/s NHVS LOA- 5549 & 5552 & M/s KEC LOA-5550 & 5551 & M/s Hyosung LOA-5553 & M/s L&T LOA- 5554 & 5555 Techno Electric and Engineering Company Limited.	PLCC Work	31.3.2018	57.91	28.96	28.98	57.91
	M/s NHVS M/s KFC, M/s Hyosung, M/s L&T, Techno Electric and Engineerin Company Limited, M/s CG Power and Industrial Solution, GE T&D India Limited.	IT Works	31.3.2018	3.82	1.91	1.91	3.82
Asset-A1	M/s HSCC(I) Limited and Miscellaneous Small Vendors	Civil & Building Work	31.3.2018	0.00	0.00	0.00	0.00
	M/s EMCO Limited, M/s L&T-I & II, M/s TATA, M/s Karnataka, Crop & Tree Compensating & M/s Smita M/s Gupta	Transmission Line work	31.3.2018	1930.20	965.10	965.10	1930.20
	M/s NHVS, M/s KEC, M/s Hyosung, M/s L&T, M/s GE, M/s TBEA Energy, M/s CG Power and Industrial Solution	S/S Work	31.3.2018	6630.36	2117.87	4512.50	6630.36



	Limited, M/s GE T&D India Limited.						
	M/s NHVS, M/s KEC, M/s Hyosung, M/s L&T, M/s GE, M/s TBEA Energy, M/s CG Power and Industrial Solution Limited, M/s GE T&D India Limited.	PLCC Work	31.3.2018	73.05	36.52	36.52	73.05
	M/s NHVS, M/s KEC, M/s Hyosung, M/s L&T.	IT Works	31.3.2018	47.68	23.84	23.84	47.68
Asset-B	GE T&D India Limited & ABB India Limited	S/S Work	1.4.2017	33.79	33.79	0.00	33.79
Asset- C	M/s EMCO Limited, M/s TATA, M/s Skipper LOA-5351 & 5352 & M/s Karamtara, Crop Tree Compensation & M/s Smita & M/s Gupta.	Transmission Line work	15.4.2018	323.76	161.88	161.88	323.76
	M/s NHVS, M/s KEC, M/s Hyosung, L&T, M/s GE & M/s TBEA Energy.	S/S Work	15.4.2018	1416.43	0.00	1416.43	1416.43
	M/s NHVS, M/s KEC, M/s Hyosung & L&T	PLCC Work	15.4.2018	16.92	8.46	8.46	16.92
	M/s NHVS, M/s KEC, M/s Hyosung & L&T	IT Works	15.4.2018	1.17	1.17	0.00	1.17
Total				11890.80	3729.39	8161.43	11890.79

66. We have considered the liability flow statement submitted by the Petitioner. It is observed that as on 31.3.2019, the outstanding liability to be paid to various contractors was ₹11890.80 lakh, out of which ₹3729.39 lakh was discharged in 2019-20 and ₹8161.43 lakh was discharged in 2020-21. Further, the Petitioner has not given the breakup of element wise cost in ACE during 2019-24 period. The entire ACE as claimed by the Petitioner is allowed. However, the Petitioner is directed to submit element wise cost breakup in ACE along with the justification at the time of truing up.

67. Accordingly, ACE allowed in respect of the Combined Asset are as follows:



ACE	
2019-20	2020-21
14126.65*	13120.81

*after adjustment of cost of optical fibre sharing.

Capital cost for 2019-24 tariff period

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

Combined Assets			
Combined Capital cost as on 1.4.2019	ACE		Combined Capital cost as on 31.3.2024
	2019-20	2020-21	
448516.38	14126.65*	13120.81	475763.84

*after adjustment of cost of optical fibre sharing.

Sharing of OPGW

69. The Commission in order dated 9.5.2019 in Petition No. 127/TT/2018 observed as follows:

“42. BRPL in affidavit dated 24.7.2018 has made submissions that:

a) The Petitioner has not filed the details of the Communication System in the Tariff Filing Forms related to Transmission and Communication System. However, it is noted from Form-5, that the Petitioner is using Optical Ground Wire (OPGW) in place of earth wire for this asset. In the context of the OPGW, the Petitioner is required to file information related to the number of fibres and whether all the fibres will be used for the utility's own data and voice communication or some dark fibres (spares) are also available which may be leased or sold out to third parties to serve as high speed fibre interconnection between two points.

b) Further, the provisions of Section 41 of the Electricity Act, 2003 is also required to be complied with requiring separate accounts for this purpose and use a proportion of the revenues derived from Communication business to be utilized for reducing transmission charges in accordance with the provisions of the Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of Transmission assets for other business) Regulations, 2007. The Petitioner may be asked to file complete details on this issue to the Commission as well as to the Respondents.

c) Further, as per Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of Transmission assets for other business) Regulations, 2007, PGCIL is sharing only 3000 per year per km of right of way utilized, which is quite low and the Commission has also addressed the same in Consultation Paper on Terms and Conditions of Tariff for Tariff period 1.4.2019 to 31.3.2024.

43. In response, Petitioner in affidavit dated 5.9.2018 has submitted that no sharing of fibres is being done till now and whenever, fibres is shared with the third parties, supply cost of fibres shall be adjusted in the auditor certificate as per the prescribed



norms. Further, it is also submitted that sharing of `3000 per year km of right of way utilized is governed by notification as per the prescribed norms.

44. We have considered the submissions made by the Petitioner and BRPL. From the submissions placed on record by the Petitioner, it is understood that, as of now, sharing of fibres is not being done. We direct the Petitioner to submit all such information and details as pointed out by BRPL, once such sharing of fibres is being done, at the time of truing up”

70. The Petitioner has submitted the details of the cost of OPGW to be shared and has submitted the Auditor's Certificate dated 16.10.2019 in support of the same.

The details submitted by the Peittioner are as follows:

(₹ in lakh)	
Assets	2019-20
Asset-A:	
50% of cost of the optical fibre to be shared in respect of LILO of 765 kV S/C Agra-Meerut line at Aligarh with associated bays in 2019-20	-31.03
50% of cost of optical fibre to be shared in respect of LILO of 400 kV D/C Orai-Orai (UPPTCL) line and associated bays at both ends in 2019-20 at Aligarh with associated bays	-67.53

71. We have considered the submissions of the Petitioner. The Petitioner has submitted that the cost of OPGW has been shared at the rate of 50% and has submitted Auditor's Certificate in support of the same. However, the Petitioner is directed to specify the Regulation in accordance to which the Petitioner has shared the cost at the rate of 50%. It is observed that the Petitioner has not submitted details and documents regarding the number of fibres and whether all the fibres are used by it for own data and voice communication or whether some dark fibres (spares) are also available, which may be leased or sold out to third parties. Further, the Petitioner has also failed to give any clarification on the issue of sharing ₹ 3000 per year per km of right of way utilized.



72. The Petitioner is directed to specify the Regulation under which the Petitioner has shared the cost at the rate of 50%. Further, the Petitioner is also directed to submit the details of sharing of revenue at the time of truing-up of 2019-24 tariff period.

Debt-Equity Ratio

73. 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.”

74. Debt-equity ratio for 2019-24 period is allowed as per Regulation 18(3) of the 2019 Tariff Regulations. The details of debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period in respect of the Combined Asset is as follows:

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	313961.47	70.00	333034.70	70.00
Equity	134554.91	30.00	142729.14	30.00
Total	448516.38	100.00	475763.84	100.00

Depreciation

75. 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 asset 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 asset 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 asset 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 asset.

(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 up to 31.3.2019 from the gross depreciable value of the asset.

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

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

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

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

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

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

76. We have considered the submissions of the Petitioner. IT equipment has been considered as part of the Gross Block and depreciated using Weighted Average Rate of Depreciation (WAROD). WAROD has been worked out and placed as Annexure-IV 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 nil, i.e. IT asset has been considered as 100% depreciable. The 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:



(₹ in lakh)

	(A) Existing Assets	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Gross Block	448516.38	462643.03	475763.84	475763.84	475763.84
B	ACE	14126.65	13120.81	0.00	0.00	0.00
C	Closing Gross Block (A+B)	462643.03	475763.84	475763.84	475763.84	475763.84
D	Average Gross Block [(A+C)/2]	455579.70	469203.43	475763.84	475763.84	475763.84
E	Depreciable Value (D*90%)	400625.37	412889.36	418795.01	418795.01	418795.01
F	Weighted average rate of Depreciation (WAROD) (in %)	5.14	5.12	5.12	5.12	5.12
G	Remaining life at the beginning of the year (Year)	0.00	1.00	2.00	3.00	4.00
H	Elapsed life at the beginning of the year (Year)	32.00	31.00	30.00	29.00	28.00
K	Depreciation during the year (D*F)	23395.20	24029.20	24335.99	24335.99	24335.99
M	Cumulative Depreciation at the end of the year	45569.29	69598.50	93934.49	118270.47	142606.46
N	Remaining depreciable value at the end of the year	355056.08	343290.86	324860.53	300524.54	276188.55

Interest on Loan (“IoL”)

77. 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 Asset, 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 up to 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 project, 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”.

78. The weighted average rate of interest of IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. In view of above, IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed in respect of the Combined Asset is follows:

						(₹ in lakh)
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	313961.47	323850.13	333034.70	333034.70	333034.70
B	Cumulative Repayments upto Previous Year	22174.09	45569.29	69598.50	93934.49	118270.47
C	Net Loan-Opening (A-B)	291787.38	278280.83	263436.20	239100.21	214764.22
D	Addition due to ACE	9888.66	9184.57	0.00	0.00	0.00
E	Repayment during the year	23395.20	24029.20	24335.99	24335.99	24335.99
F	Net Loan-Closing (C+D-E)	278280.83	263436.20	239100.21	214764.22	190428.23
G	Average Loan [(C+F)/2]	285034.11	270858.52	251268.21	226932.22	202596.23
H	Weighted Average Rate of Interest on Loan (in %)	7.34	7.34	7.33	7.32	7.31
I	Interest on Loan (G*H)	20919.83	19884.55	18425.24	16615.66	14815.89

Return on Equity (“RoE”)

79. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations specify 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 rates 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 follows:

Rate of pre-tax return on equity = Base rate / (1-t)

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

Illustration-

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

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 trueing up, shall be recovered or refunded to beneficiaries or the long term customers, as the case may be, on year to year basis."

80. The Petitioner has submitted that it is liable to pay Income Tax at MAT rate specified under the Taxation laws (Amendment) Ordinance 2019. Further, RoE has been calculated @18.782% after grossing up RoE with MAT rate of 17.472% (Base Rate 15% + Surcharge 12% + Cess 4%) based on the formula given in Regulation



31(2) of the 2019 Tariff Regulations for 2019-24 tariff period. As per Regulation 31(3) of the 2019 Tariff Regulations, the grossed-up rate of RoE at the end of every financial year shall be trued-up based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the IT authorities pertaining to 2019-24 tariff period on actual gross income. However, if any penalty arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Petitioner. Any under-recovery or over-recovery of grossed-up rate on RoE after truing up shall be recovered or refunded to beneficiaries or the long term customers on yearly basis. The Petitioner has further submitted that any adjustment due to additional tax demand including interest duly adjusted for any refund of tax including interest received from IT authorities shall be recoverable/ adjustable during 2019-24 tariff period on yearly basis on receipt of Income Tax assessment order.

81. We have considered the submissions of the Petitioner. MAT rate applicable in 2019-20 has been considered for the purpose of RoE, which will 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 for 2019-24 tariff period is as follows:

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	134554.91	138792.90	142729.14	142729.14	142729.14
B	Additions due to ACE	4237.99	3936.24	0.00	0.00	0.00
C	Closing Equity (A+B)	138792.90	142729.14	142729.14	142729.14	142729.14
D	Average Equity [(A+C)/2]	136673.90	140761.02	142729.14	142729.14	142729.14
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	25670.09	26437.73	26807.39	26807.39	26807.39

Operation & Maintenance Expenses ("O&M Expenses")



82. The O&M norms specified for transmission system under Regulation 35(3)(a) of the 2019 Tariff Regulations are as follows:

“35. Operation and Maintenance Expenses:

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

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



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

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

Provided further that:

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

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

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

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

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



83. O&M Expenses claimed by the Petitioner in respect of the Combined Asset are as follows:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station (in Number)					
400 kV AIS: Orai (UPPCL):Orai Bay-I	1	1	1	1	1
400 kV AIS: Orai (UPPCL): Orai BAY-II	1	1	1	1	1
400 kV AIS: Gwalior: Conversion of Existing Line Reactor at Gwalior end of Satna- Gwalior Ckt -I	1	1	1	1	1
400 kV GIS: Orai:ICT Bay	1	1	1	1	1
400 kV GIS: Orai:Orail (UPPCL) Bay – I	1	1	1	1	1
400 kV GIS: Orai:Orai (UPPCL) Bay – II	1	1	1	1	1
400 kV GIS: Orai:ICT II Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV ICT-II Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV Aligarh-I Bay	1	1	1	1	1
765 kV GIS: Aligarh:765 kV Orai-I Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV BR-II Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV BR-I Bay	1	1	1	1	1
765 kV GIS: Orai: Bay-I of LILO of Gwalior-Satna Transmission Line	1	1	1	1	1
765 kV GIS: Orai:ICT Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay-I	1	1	1	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay-II	1	1	1	1	1
765 kV GIS: Orai: Bay-II of LILO of Satna-Gwalior Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh: Bay-I of LILO of Agra-Meerut Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:765 kV BR-I Bay	1	1	1	1	1
765 kV GIS: Aligarh:765 kV BR-II Bay	1	1	1	1	1
765 kV GIS: Aligarh: Bay-II of LILO of Agra-Meerut	1	1	1	1	1



Transmission Line					
765 kV GIS: Aligarh: Bay I of Kanpur-Jhatikara Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh: BayII of Kanpur-Jhatikara Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:765 kV Switchable Line Reactor Bay	1	1	1	1	1
765 kV GIS: Orai:Aligarh Bay	1	1	1	1	1
765 kV GIS: Aligarh:Orai Bay	1	1	1	1	1
765 kV AIS: Jabalpur:Orai Bay I	1	1	1	1	1
765 kV AIS: Jabalpur:Orai Bay-II	1	1	1	1	1
765 kV AIS: Jhatikara:Switchable Line Reactor Bay	1	1	1	1	1
765 kV AIS: Gwalior:Conversion of Existing Line Reactor at Gwalior End of Satna-Gwalior Ckt-I	1	1	1	1	1
Norm (₹ lakh/ bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
400 kV GIS	22.51	23.30	24.12	24.96	25.84
765 kV GIS	31.51	32.62	33.76	34.95	36.18
765 kV AIS	45.01	46.60	48.23	49.93	51.68
Total Sub-station Expenses (A)	920.13	952.60	985.96	1020.69	1056.46
Transmission Line (in km)					
765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	3.060	3.060	3.060	3.060	3.060
765 kV D/C: Jabalpur - Orai Transmission Line	360.58	360.58	360.58	360.58	360.58
400 kV D/C: Orai-Orai (UPPCL)	41.84	41.84	41.84	41.84	41.84
765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	33.70	33.70	33.70	33.70	33.70
765 kV D/C: LILO of 765 kV S/C Kanpur-Jhatikara Transmission Line at Aligarh	10.55	10.55	10.55	10.55	10.55
765 kV M/C: LILO of 765 kV S/C Agra-Meerut at Aligarh	10.87	10.87	10.87	10.87	10.87
400 kV D/C: Ckt -I & II of 765 kV D/C Orai-Aligarh Line	331.930	331.930	331.930	331.930	331.930
Norm (₹ lakh/ km)					
D/C Bundled with 4 or more sub-conductor	1.322	1.368	1.416	1.466	1.517
Multi Ckt Bundled with 4 or more sub-conductor	2.319	2.401	2.485	2.572	2.662
Total Transmission Line Expenses (B)	1058.56	1095.41	1133.84	1173.87	1214.71
Transformer (in MVA)					



765 kV GIS: Orai:765 kV 1000 MVA Orai ICT I	1000	1000	1000	1000	1000
765 kV GIS: Orai:Orai ICT II	1000	1000	1000	1000	1000
Norm (₹ lakh/MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
Total Transformer (C)	982.00	1016.00	1052.00	1090.00	1128.00
Communication System					
PLCC (₹ in lakh)	2103.56	2103.56	2103.56	2103.56	2103.56
Norms (in %)	2	2	2	2	2
Total Communication System (D)	42.07	42.07	42.07	42.07	42.07
Total O&M Expenses (A+B+C+D)	3002.77	3106.08	3213.87	3326.63	3441.25

84. The Petitioner has claimed O&M Expenses separately for PLCC under Regulation 35(4) of the 2019 @2% of its original project cost in the instant petition and 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 and 2019 Tariff Regulations and the norms for sub-station has 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.

85. O&M Expenses allowed for the Combined Asset are as follows:

	(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Sub-station (in Number)					
400 kV AIS: Orai (UPPCL):Orai Bay-I	1	1	1	1	1
400 kV AIS: Orai (UPPCL):Orai Bay-II	1	1	1	1	1
400 kV GIS: Orai:ICT Bay	1	1	1	1	1
400 kV GIS: Orai:Orai (UPPCL) Bay – I	1	1	1	1	1
400 kV GIS: Orai:Orai (UPPCL) Bay – II	1	1	1	1	1
400 kV GIS: Orai:ICT II Bay	1	1	1	1	1



765 kV GIS: Orai:765 kV ICT-II Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV Aligarh-I Bay	1	1	1	1	1
765 kV GIS: Aligarh:765 kV Orai-I Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV BR-II Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV BR-I Bay	1	1	1	1	1
765 kV GIS: Orai:Bay-I of LILO of Gwalior-Satna Transmission Line	1	1	1	1	1
765 kV GIS: Orai:ICT Bay	1	1	1	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay-I	1	1	1	1	1
765 kV GIS: Orai:765 kV Jabalpur Bay-II	1	1	1	1	1
765 kV GIS: Orai:Bay-II of LILO of Satna-Gwalior Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:Bay-I of LILO of Agra-Meerut Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:765 kV BR-I Bay	1	1	1	1	1
765 kV GIS: Aligarh:765 kV BR-II Bay	1	1	1	1	1
765 kV GIS: Aligarh:Bay-II of LILO of Agra-Meerut Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:Bay I of Kanpur-Jhatikara Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:Bay II of Kanpur-Jhatikara Transmission Line	1	1	1	1	1
765 kV GIS: Aligarh:765 kV Switchable Line Reactor Bay	1	1	1	1	1
765 kV GIS: Orai:Aligarh Bay	1	1	1	1	1
765 kV GIS: Aligarh:Orai Bay	1	1	1	1	1
765 kV AIS: Jabalpur:Orai Bay I	1	1	1	1	1
765 kV AIS: Jabalpur:Orai Bay-II	1	1	1	1	1
765 kV AIS: Jhatikara:Switchable Line Reactor Bay	1	1	1	1	1
765 kV AIS: Gwalior:Conversion of Existing Line Reactor at Gwalior End of Satna-Gwalior Ckt -I	1	1	1	1	1
Norm (₹ lakh/ bay)					
400 kV AIS	32.15	33.28	34.45	35.66	36.91
400 kV GIS	22.51	23.30	24.12	24.96	25.84



765 kV GIS	31.51	32.62	33.76	34.95	36.18
765 kV AIS	45.01	46.60	48.23	49.93	51.68
Total Sub-station Expenses (A)	932.99	965.92	999.74	1034.96	1071.23
Transmission Line (in km)					
765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	3.060	3.060	3.060	3.060	3.060
765 kV D/C: Jabalpur - Orai Transmission Line	360.58	360.58	360.58	360.58	360.58
400 kV D/C: Orai-Orai (UPPCL)	41.84	41.84	41.84	41.84	41.84
765 kV D/C: LILO of One Ckt of 765 kV Satna-Gwalior Transmission Line at Orai	33.70	33.70	33.70	33.70	33.70
765 kV D/C: LILO of 765 kV S/C Kanpur-Jhatikara Transmission Line at Aligarh	10.55	10.55	10.55	10.55	10.55
765 kV M/C: LILO of 765 kV S/C Agra-Meerut at Aligarh	10.87	10.87	10.87	10.87	10.87
765 kV D/C: Ckt -I & II of 765 kV D/C Orai-Aligarh Line	331.930	331.930	331.930	331.930	331.930
Norm (₹ lakh/ km)					
D/C Bundled with 4 or more sub-conductor	1.322	1.368	1.416	1.466	1.517
Multi Ckt Bundled with 4 or more sub-conductor	2.319	2.401	2.485	2.572	2.662
Total Transmission Line Expenses (B)	1058.56	1095.41	1133.84	1173.87	1214.71
Transformer (in MVA)					
765 kV GIS: Orai:765 kV 1000 MVA Orai ICT I	1000	1000	1000	1000	1000
765 kV GIS: Orai:Orai ICT II	1000	1000	1000	1000	1000
Norm (₹ lakh/MVA)					
765 kV	0.491	0.508	0.526	0.545	0.564
Total Transformer (C)	982.00	1016.00	1052.00	1090.00	1128.00
Total O&M Expenses D= (A+B+C)	2973.56	3077.33	3185.58	3298.83	3413.95

Interest on Working Capital ("IWC")

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

"34. Interest on Working Capital

(1)...

(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;”

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

88. We have considered the submissions of the Petitioner. IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations and the components of the working capital and interest allowed thereon in respect of the Combined Asset for 2019-24 tariff period are as follows:



(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	247.80	256.44	265.47	274.90	284.50
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	446.03	461.60	477.84	494.82	512.09
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/annual transmission charges)	9115.66	9190.30	9097.08	8885.55	8651.47
D	Total Working Capital (A+B+C+D)	9809.49	9908.34	9840.38	9655.28	9448.05
E	Rate of Interest of working capital (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest of working capital (D*E)	1182.04	1114.69	1033.24	1013.80	992.05

Annual Fixed Charges for 2019-24 Tariff Period

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

(₹ in lakh)

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	23395.20	24029.20	24335.99	24335.99	24335.99
Interest on Loan	20919.83	19884.55	18425.24	16615.66	14815.89
Return on Equity	25670.09	26437.73	26807.39	26807.39	26807.39
O&M Expenses	2973.56	3077.33	3185.58	3298.83	3413.95
Interest on Working Capital	1182.04	1114.69	1033.24	1013.80	992.05
Total	74140.73	74543.51	73787.44	72071.67	70365.25

Filing Fee and Publication Expenses

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

Licence Fee & RLDC Fees and Charges

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

Goods and Services Tax (“GST”)

92. 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.

93. MPPMCL has submitted that the demand of the Petitioner is premature and need not to be considered at this juncture. In response, the Petitioner has reiterated its submissions.

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

Security Expenses

95. The Petitioner has submitted that security expenses in respect of the Combined Asset are not claimed in the instant petition and it would file a separate petition for claiming the overall security expenses and the consequential IWC.

96. We have considered the above submissions of Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission asset owned by it 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 wherein the Commission approved security expenses from 1.4.2019 to 31.3.2024. Accordingly, security expenses will be shared in terms of order dated 3.8.2021 in Petition No. 260/MP/2020. Therefore, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

97. 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

98. 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, the 2010 Sharing Regulations has been repealed and sharing of transmission charges is governed by the provisions of the 2020 Sharing Regulations. Accordingly, the liabilities of DICs for arrears of transmission charges determined through this order shall be computed DIC-wise in accordance with the provisions of respective Tariff Regulations and Sharing Regulations and shall be recovered from the concerned DICs through Bill under Regulation 15(2)(b) of the 2020 Sharing Regulations. Billing, collection, and disbursement of transmission charges for subsequent period shall be recovered in terms of provisions of the 2020 Sharing Regulations as provided in Regulation 57 of the 2019 Tariff Regulations.



99. To summarise:

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

Particulars	Asset-A		Asset-B		Asset-C
	2017-18 (Pro-rata for 1 day)	2018-19	2017-18	2018-19	2018-19 (Pro-rata for 351 days)
AFC	178.35	67114.92	122.08	134.10	7285.11

- 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	74140.73	74543.51	73787.44	72071.67	70365.25

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

101. This order disposes of Petition No. 352/TT/2020 in terms of the above discussion and findings.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(P. K. Pujari)
Chairperson



Asset - A

Annexure – I

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 (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on COD		2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Free Hold Land	10260.77	0.00	10260.77	0.00	0.00	0.00	0.00	0.00	0.00
Building	5534.41	989.79	6524.20	3.34	0.00	0.00	0.00	184.85	201.38
Transmission Line	268184.66	11471.62	279656.28	5.28	0.00	0.00	0.00	14160.15	14463.00
Sub Station	91271.52	14718.72	105990.24	5.28	0.00	0.00	0.00	4819.14	5207.71
PLCC	1527.84	210.14	1737.98	6.33	0.00	0.00	0.00	96.71	103.36
Leasehold Land	72.13	1.18	73.31	3.34	0.00	0.00	0.00	2.41	2.43
IT Equipment and software	404.03	57.92	461.95	5.28	0.00	0.00	0.00	60.60	22.86
TOTAL	377255.36	27449.37	404704.73		0.00	0.00	0.00	19323.86	20000.74
Average Gross Block (₹ in lakh)					0.00	0.00	0.00	377255.36	390980.05
Weighted Average Rate of Depreciation (in %)					0.00	0.00	0.00	5.11	5.12



Asset - B

Annexure – 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 (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on COD		2017-18	2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Sub-station	83.46	81.15	26.04	190.65	5.28	0.00	0.00	0.00	6.55	9.38
IT Equipment and software	15.58	2.39	0.00	17.97	5.28	0.00	0.00	0.00	0.89	0.95
TOTAL	99.04	83.54	26.04	208.62		0.00	0.00	0.00	7.43	10.33
Average Gross Block (₹ in lakh)						0.00	0.00	0.00	140.81	195.60
Weighted Average Rate of Depreciation (in %)						0.00	0.00	0.00	5.28	5.28



Asset - C

Annexure – III

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 (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on COD		2018-19			2014-15 (₹ in lakh)	2015-16 (₹ in lakh)	2016-17 (₹ in lakh)	2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
Free Hold Land	237.06	0.00	237.06	0.00	0.00	0.00	0.00	0.00	0.00
Building	0.00	43.86	43.86	3.34	0.00	0.00	0.00	0.00	0.73
Transmission Line	20675.45	1012.90	21688.35	5.28	0.00	0.00	0.00	0.00	1118.40
Sub Station	18534.63	2832.03	21366.66	5.28	0.00	0.00	0.00	0.00	1053.39
PLCC	190.81	25.44	216.25	6.33	0.00	0.00	0.00	0.00	12.88
IT Equipment and software	22.13	1.35	23.48	5.28	0.00	0.00	0.00	0.00	1.20
TOTAL	39660.08	3915.58	43575.66		0.00	0.00	0.00	0.00	2186.62
Average Gross Block (₹ in lakh)					0.00	0.00	0.00	0.00	41617.87
Weighted Average Rate of Depreciation (in %)					0.00	0.00	0.00	0.00	5.25



Combined Assets										
2019-24 Capital Expenditure as on 1.4.2019	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE		Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations				
		2019-20	2020-21			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
Free Hold Land	10497.83	0.00	0.00	10497.83	0.00	0.00	0.00	0.00	0.00	0.00
Building	6568.06	4889.74	4252.04	15709.84	3.34	301.03	453.70	524.71	524.71	524.71
Transmission Line	301348.94	1065.24	1126.98	303541.16	5.28	15939.35	15997.22	16026.97	16026.97	16026.97
Sub Station	127570.60	8069.44	7642.10	143282.14	5.28	6948.76	7363.55	7565.30	7565.30	7565.30
PLCC	1954.24	75.31	73.94	2103.49	6.33	126.09	130.81	133.15	133.15	133.15
Leasehold Land	73.31	0.00	0.00	73.31	3.34	2.45	2.45	2.45	2.45	2.45
IT Equipment and software	503.40	26.92	25.75	556.07	15.00	77.53	81.48	83.41	83.41	83.41
TOTAL	448516.38	14126.65	13120.81	475763.84		23395.20	24029.20	24335.99	24335.99	24335.99
Average Gross Block (₹ in lakh)						455579.70	469203.43	475763.84	475763.84	475763.84
Weighted Average Rate of Depreciation (in %)						5.14	5.12	5.12	5.12	5.12

