

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 18/TT/2022

Coram:

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

Date of Order: 20.06.2023

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for determination of transmission tariff from the date of commercial operation to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and determination of transmission tariff of 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 in respect of Asset-1: Central Sector Portion for 660.145 km of Fibre Optic Communication System; Asset-2: UPPTCL Portion for 252.913 km of Fibre Optic Communication System, Asset-3: Establishment of Fiber Optic Communication System in Northern Region Kishenpur-New Wanpoh Link (137.52 km) (Central Sector Portion); Asset-4: Establishment of Fiber Optic Communication System in the Northern Region Bairasul-Pong Link (96.77 km) (Central Sector Portion) under "Establishment of Fibre Optic Communication System in Northern Region under fibre optic expansion project (Additional Requirement)".

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.

...Respondent(s)

For Petitioner: Shri Mukesh Khanna, PGCIL
Shri S.S. Raju, PGCIL
Shri D.K. Biswal, PGCIL
Shri V.P. Rastogi, PGCIL

For Respondents: None

ORDER

Power Grid Corporation of India Limited has filed the instant petition for determination-cum-truing up of transmission tariff from the date of commercial operation (COD) to 31.3.2019 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as the “the 2014 Tariff Regulations”) and determination of tariff for 2019-24 under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff Regulations”) in respect of the following assets (hereinafter referred to as the “the communication assets”) under “Establishment of Fibre Optic Communication System in the Northern Region under fibre optic expansion project (Additional Requirement)” (hereinafter referred to as the “the transmission project”):

Asset-1: Central Sector Portion for 660.145 km of Fibre Optic Communication System;

Asset-2: UPPTCL Portion for 252.913 km of Fibre Optic Communication System;

Asset-3: Establishment of Fiber Optic Communication System in Northern Region Kishenpur-New Wanpoh Link (137.52 km) (Central Sector Portion); and

Asset-4: Establishment of Fiber Optic Communication System in the Northern Region Bairasul-Pong Link (96.77 km) (Central Sector Portion).



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

- "1) Approve the Transmission Tariff for 2014-19 block and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 8.5 and 9.2 above.*
- 2) Allow tariff as 90% of the Annual Fixed Charges in accordance with clause 7 (i) of Regulation 7 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 for the purpose of inclusion in the PoC charges.*
- 3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalisation incurred / projected to be incurred.*
- 4) Tariff may be allowed on the estimated completion cost, since few elements of the project are yet to be completed, the completion cost for the assets covered under instant Petition are within the overall project cost.*
- 5) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 9.4, 9.5 and 9.6 above for respective block.*
- 6) Approve the reimbursement of expenditure by the beneficiaries towards petition filing fee, and expenditure on publishing of notices in newspapers in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and 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.*
- 7) Allow the petitioner to bill and recover Licensee fee and RLDC fees and Charges, separately from the respondents in terms of Regulation 52 Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and Regulation 70 (3) and (4) Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019.*
- 8) 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 2014-19 and 2019-24 period, if any, from the respondents.*
- 9) Allow the petitioner to file a separate petition before Hon'ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 9.7 above.*
- 10) Allow the petitioner to claim the capital spares at the end of tariff block as per actual.*
- 11) Allow the petitioner to bill and recover GST on Transmission charges separately from the respondents, if GST on Transmission of electricity is withdrawn from the exempted (negative) list at any time in future. Further any taxes and duties including cess, etc. imposed by any Statutory/Govt./Municipal Authorities shall be allowed to be recovered from the beneficiaries."*

Background

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

- (a) The Petitioner has been entrusted with the implementation of the communication system of the transmission project in the 28th NRPC and 25th TCC meeting held on 26.4.2013 and 25.4.2013 respectively.



- (b) The Investment Approval (IA) for implementation of transmission project was accorded by the Board of Directors of the Petitioner on 1.3.2015 in its 311th meeting held on 4.3.2015, at an estimated cost of ₹19740 lakh including IDC of ₹1325 lakh, based on October, 2014 price level.
- (c) The scope of work covered under the transmission project as per IA is as follows:
- (i) Implementation of OPGW fiber optic cable on existing EHV transmission lines of POWERGRID (~2806 km) and constituents (~2161 km) - total estimated length-4967 km.
 - (ii) Installation of 216 numbers of terminal equipment based on Synchronous Digital Hierarchy (SDH) technology at Sub-stations of POWERGRID and constituents, 301 number of Multiplexers/D&I/DACS at wideband nodes and Network Management System (NMS).
 - (iii) DC Power Supply- Presently envisaged at all the wideband locations where equipment are to be installed. However, the requirement shall be optimized during detailed engineering.
 - (iv) Approach cable for providing connectivity between OPGW and equipment.
- (d) The details of the communication assets covered in the instant petition and their CODs are as follows:

Asset	COD
Asset-1: Central Sector Portion for 660.145 km of Fibre Optic Communication System	3.3.2019
Asset-2: UPPTCL Portion for 252.913 km of Fibre Optic Communication System	3.3.2019
Asset-3: Establishment of Fiber Optic Communication System in Northern Region Kishenpur-New Wanpoh Link (137.52 km) (Central sector portion)	1.2.2018
Asset-4: Establishment of Fiber Optic Communication System in Northern Region Bairasul-Pong Link (96.77 km) (Central Sector Portion)	25.8.2018



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

5. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. None of the Respondents have filed any reply in the matter.

6. This order is issued considering the submissions made by the Petitioner in the main petition vide affidavits dated 14.12.2020, 31.3.2022 and 6.10.2022.

7. The hearing in this matter was held on 14.9.2022 and order was reserved.

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

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

9. The details of the transmission tariff-cum-true up tariff claimed by the Petitioner in respect of the communication assets for 2014-19 tariff period is as follows:

Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (pro-rata 29 days)	2018-19 (pro-rata 29 days)	2017-18 (pro-rata 59 days)	2018-19	2018-19 (pro-rata 219 days)
Depreciation	9.29	4.17	4.15	27.56	8.38
Interest on Loan	7.88	3.54	3.52	22.23	7.16
Return on Equity	8.70	3.89	3.88	25.81	7.84
O&M Expenses	9.20	0.00	0.28	3.24	0.32
Interest on Working Capital	1.00	0.24	0.26	1.79	0.50
Total	36.07	11.84	12.09	80.63	24.20



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

(₹ in lakh)					
Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (pro-rata 29 days)	2018-19 (pro-rata 29 days)	2017-18 (pro- rata 59 days)	2018-19	2018-19 (pro-rata 219 days)
Working Capital for O&M Expenses (O&M Expenses for one month)	9.65	0.00	0.14	0.27	0.04
Working Capital for Maintenance Spares (15% of O&M Expenses)	17.37	0.00	0.26	0.49	0.08
Working Capital for Receivables (Equivalent to two months of annual fixed cost)	75.66	24.84	12.47	13.44	6.72
Total Working Capital	102.68	24.84	12.87	14.20	6.84
Rate of Interest (in %)	12.20	12.20	12.60	12.60	12.20
Interest on Working Capital	1.00	0.24	0.26	1.79	0.50

Data of Commercial Operation (“COD”)

11. The Petitioner has claimed the COD of Asset-1, Asset-2, Asset-3 and Asset-4 as 3.3.2019, 3.3.2019, 1.2.2018 and 25.8.2018 respectively.

12. Regulation 4(3) of the 2014 Tariff Regulations provides as follows:

“4. Date of Commercial Operation: The date of commercial operation of a generating station or unit or block thereof or a transmission system or element thereof shall be determined as under:

xxx

(3) Date of commercial operation in relation to a transmission system shall mean the date declared by the transmission licensee from 0000 hour of which an element of the transmission system is in regular service after successful trial operation for transmitting electricity and communication signal from sending end to receiving end:

Provided that:

(i) where the transmission line or substation is dedicated for evacuation of power from a particular generating station, the generating company and transmission licensee shall endeavour to commission the generating station and the transmission system simultaneously as far as practicable and shall ensure the same through appropriate Implementation Agreement in accordance with Regulation 12(2) of these Regulations:

(ii) in case a transmission system or an element thereof is prevented from regular service for reasons not attributable to the transmission licensee or its supplier or its contractors but is on account of the delay in commissioning of the concerned generating station or in commissioning of the upstream or downstream transmission system, the



transmission licensee shall approach the Commission through an appropriate application for approval of the date of commercial operation of such transmission system or an element thereof.”

13. The Petitioner has submitted the following documents in support of COD of the communication assets:

Asset	COD	Document Submitted	
		RLDC Certificate	Self-declaration COD certificate
Asset-1	3.3.2019	RLDC Certificates dated 30.6.2018, 28.6.2018, 28.12.2018, 20.4.2018 and 8.4.2019	Dated 14.6.2019
Asset-2	3.3.2019	RLDC Certificate dated 28.6.2018	Dated 14.6.2019
Asset-3	1.2.2018	RLDC Certificate dated 19.12.2019	Dated 23.1.2020
Asset-4	25.8.2018	RLDC Certificate dated 13.12.2019	Dated 23.1.2020

14. Taking into consideration RLDC Certificates, we approve the COD of Asset-1, Asset-2, Asset-3 and Asset-4 as 3.3.2019, 3.3.2019, 1.2.2018 and 25.8.2018, respectively.

Capital Cost

15. Regulation 9(1) and Regulation 9(2) of the 2014 Tariff Regulations provide as follows:

“(1) The Capital cost as determined by the Commission after prudence check in accordance with this regulation shall form the basis of 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;

(bi) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period shall form part of the capital cost.

(c) Increase in cost in contract packages as approved by the Commission;

(d) Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;

(e) Capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;



- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the COD as specified under Regulation 18 of these regulations; and
- (h) Adjustment of any revenue earned by the transmission licensee by using the assets before COD.”

16. The Petitioner has claimed the following capital cost in respect of the communication assets and has submitted Auditor’s Certificate dated 26.11.2019 for Asset-1 and Asset-2 and Auditor’s Certificate dated 12.5.2020 for Asset-3 and Asset-4:

(₹ in lakh)

Assets	FR apportioned approved cost	Capital cost up to COD	Additional Capital Expenditure (ACE)				Estimated Completion Cost
			2017-18	2018-19	2019-20	2020-21	
Asset-1	2401.74	1888.68	0.00	0.00	376.32	0.00	2265.00
Asset-2	1070.71	844.71	0.00	0.00	164.20	0.00	1008.91
Asset-3	778.77	412.62	2.13	49.20	5.46	303.44	772.85
Asset-4	408.38	218.25	0.00	8.97	2.46	167.89	397.57

Cost variation

17. The Petitioner has submitted that estimated capital cost of the communication assets is within the FR apportioned cost. Hence, there is no cost over-run. However, item-wise cost variation between apportioned approved cost vis-à-vis the estimated completion cost has been explained in Form-5 submitted with the petition.

18. The Petitioner vide affidavit dated 31.3.2022, has submitted that there is minor cost variation of 0.76% to 5.69% in case of the communication assets. The Petitioner has submitted following details of total apportioned approved cost vis-à-vis the estimated completion cost of the communication assets:

(₹ in lakh)

Assets	Approved Cost (a)	Estimated completion Cost (b)	Cost Variation (c=a-b)	(In%) Variation
Asset-1	2401.74	2265.00	136.74	5.69 %
Asset-2	1070.71	1008.91	61.80	5.77%
Asset-3	778.77	772.85	5.92	0.76%
Asset-4	408.38	397.57	10.81	2.64%



19. The Petitioner has submitted that it is following a well laid down procurement policy which ensures both transparency and competitiveness in the bidding process. Through this process, lowest possible market prices for required product/services/as per detailed designing is obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may vary as compared to the cost estimate depending upon prevailing market forces, design and site requirements, whereas, the estimates, are prepared by the Petitioner as per well-defined procedures. The FR cost estimate is broad indicative cost worked out generally on the basis of average unit rates of recently awarded contracts/general practice.

20. With regard to variation in cost of individual item, the Petitioner has submitted that the packages under subject scope of works comprise of a large number of items and the same are awarded through open competitive bidding. In the said bidding process, bids are received from multiple parties quoting different rates for various BOQ items under the said package. Further, lowest bidder can be arrived at/evaluated on overall basis only. Hence, item-wise unit prices in contracts and its variation over unit rate considered in FR estimates are beyond the control of the Petitioner.

21. We have considered the submissions of the Petitioner. It is observed that the estimated completion cost is within FR apportioned approved cost. Hence, there is no cost over-run.

Time over-run

22. As per IA dated 4.3.2015, the transmission project was scheduled to be put into commercial operation (SCOD) within 36 months from the date of IA i.e. by 4.3.2018. The details of SCOD, COD and time over-run with respect to the communication assets covered in the instant petition are as follows:



Asset	SCOD	Actual COD	Time Over-run
Asset-1	4.3.2018	3.3.2019	364 days
Asset-2		3.3.2019	364 days
Asset-3		1.2.2018	Nil
Asset-4		25.8.2018	174 days

23. The Petitioner has submitted that there is time over-run of 12 to 364 days in execution of various links associated with Asset-1 and Asset-2. Asset-3 has been executed within the SCOD. However, in respect of Asset-4, there is time over-run of 174 days. The delay in execution of the communication assets is attributed mainly on account of inordinate and uncontrollable delay in execution of various new lines over which OPGW links were to be installed, addition/deletion of links as per requirement of the beneficiaries, issues in getting work permits/ outages of charged lines, RoW issues and also due to collective charging of links for optimal utility of the system.

24. The Petitioner has submitted the following reasons for the time over-run to substantiate its claim in execution of Asset-1 and Asset-2:

Asset-1 (Central Sector) and Asset-2 (UPPTCL)

(i) Delay due to non-availability of Permit to Work (PTW):

(a) OPGW installation works was carried out in several transmission lines of 765/400/220 voltage level under establishment of OPGW communication network for ULDC. These works were being carried out under live line conditions by change in Auto Reclose relay setting from Auto to Non-Auto mode and for this purpose respective control center i.e. NLDC/RLDC/SLDCs issue codes based on OCC approval. During OPGW laying works under this project, it was observed that NLDC and RLDC were reluctant to issue code in view of perceived grid security even through OPGW installation work was carried out in live line conditions and approvals are obtained in monthly OCC meetings. 'Permission to Work' (PTW) had been denied by NLDC and RLDC on several occasions, especially in 400 kV Dadri-



Greater Noida and 765 kV Agra-Meerut line via Greater Noida and Aligarh and 400 kV Bhinmal-Zerda line on one pretext or the other.

(b) PTW was denied on several occasions in 400 kV Dadri-Maharanibagh and 765 kV Agra-Meerut line due to perceived grid security and criticality of sub-stations. In this regard, various communications were done from the Petitioner and POSOCO to confirm delay in works. Maharani Bagh Station is connected with only two transmission lines i.e. Dadri and Ballabgarh and Maharani Bagh Station is very critical to meet power demand of Delhi-NCR. In one incident, Ballabgarh line was out of service for almost one month and work permission was denied by Grid Operator (NRLDC). Such issues were reported several times during OPGW installation. The Petitioner vide letter dated 14.8.2018 wrote to NRLDC/NLDC that NRLDC vide letter dated 23.5.2018 denied permission to work due to tower collapse and equipment damage caused by severe dust storm in Northern Region on 2.5.2018 and 3.5.2018. Even after the restoration of collapsed tower and approval in the 147th, 148th and 149th OCC, the Petitioner repeatedly requested vide mails dated 11.7.2018, 19.7.2018, 23.7.2018 and 6.8.2018 for issuance of permission for laying of OPGW on 400 kV Dadri-Maharanibagh (Dadri-Greater Noida) line. However, permission was not granted. Further, 765 kV Agra-Meerut (Agra-Aligarh-Greater Noida-Meerut) line shut-down was required for termination of OPGW at Agra, LILO point of Agra-Greater Noida and Meerut Gantries and the same was already approved in the 147th and 148th OCC. However, shut-down was not permitted, resulting in idling of team and delayed the execution of OPGW link. Accordingly, NRLDC/NLDC was requested to allow PTW in 400 kV Dadri-Greater Noida (2nd Peak of Dadri-Maharanibagh) and 765 kV Agra-Meerut (Agra-Aligarh-Greater Noida-Meerut) transmission lines. Thereafter, NRLDC vide communication



dated 18.10.2018 allowed shut-down in the above stated lines on 21.10.2018. Subsequently, the OPGW and communication equipment was installed and executed in the aforesaid lines and COD was declared on 3.3.2019.

(c) In some cases shut-down was required in stretches where earth wire was not available or they were in poor conditions or there was break-down of earth wire during installation. However, shut-down was not available immediately when these situations were encountered as NRLDC on several occasions insisted for prior OCC approval of shut-down which was not possible in the instant case. This led to manpower idling, stoppage of work and demobilisation of manpower due to uncertainty in getting the shut-down.

(ii) Severe ROW issues during laying of OPGW:

(a) Severe ROW issues were also reported in Dadri-Maharanibagh and Agra-Meerut line and matter was raised with District Administration and police protection was taken to complete the works. Other links were complete on time and Site Acceptance Test (SAT) reports were submitted by the Petitioner. However, to avoid multiple assets and in order to restrict number of petitions, combined COD certificate was taken from NRLDC.

(b) In view of the aforesaid reasons, there is delay of 12 days to 364 days in execution of links associated with Asset-1 and Asset-2 comprising of total 13 links as mentioned in the COD certificate and RLDC certificate issued by NRLDC. These 13 links comprise of old as well as new transmission lines. The details of execution of various links covered in Asset-1 and Asset-2 as per RLDC Certificates and delays with respect to SCOD are as follows :



Asset-1: Central Sector Portion (660.145 km)			
Sl. No.	Name of the link	COD as per RLDC Certificates	Delay (Days)
1	400 kV Deepalpur-Bawana	30.3.2018	27
2	400 kV Kanpur-Unchahar	28.3.2018	25
3	400 kV Gorakhpur (UPPTCL)-Azamgarh (UP)	25.10.2018	236
4	400 kV Dadri - Maharaniabagh	2.3.2019	364
5	400 kV Gorakhpur (PG)-Gorakhpur (UPPCL)	26.8.2018	176
6	400 kV Agra (PG)-Agra (UPPCL)	15.3.2018	12
7	765 kV Agra-Meerut via Aligarh	22.2.2019	356

Asset-2: UPPTCL Portion (252.913 km)			
Sl. No.	Name of the link	COD as per RLDC Certificates	Delay (Days)
1	400 kV Mau – Azamgarh	26.4.2018	54
2	220 kV Agra - Hathras - Harduaganj (T)	12.5.2018	70
3	220 kV LILO at Khair	20.4.2018	
4	220 kV Moradabad - Sambhal	3.5.2018	
5	220 kV Varanasi — 220 kV Ghazipur	20.6.2018	
6	220 kV LILO at Hathras	20.5.2018	

(c) The Petitioner has submitted that all the links covered under Asset-1 and Asset-2 were commissioned progressively from 15.3.2018 to 22.2.2019 as indicated in RLDC certificate for trial operation. However, COD of all the 13 links was declared on 3.3.2019 together as the value of individual links was less and it was not justifiable to file separate petitions. Accordingly, the Petitioner has combined COD of all 13 links to minimize the number of petitions.

25. The Petitioner has submitted following link-wise reasons of time over-run in respect of Asset-1 and Asset-2:

Asset-1 (Central Sector)

(1) 400 kV Deepalpur-Bawana, (2) 400 kV Kanpur-Unchahar, and (3) 400 kV Agra (PG)-Agra (UPPCL)

(a) OPGW link was completed and executed within the schedule time in these 3 number of links. The Site Acceptance Test (SAT) was completed on 25.1.2017, 28.9.2017 and 5.7.2017, respectively, which is within the SCOD of the communication assets i.e. 4.3.2018. However, COD of Asset-1 as 3.3.2019 was



delayed due to clubbing of multiple links as mentioned in detail above. The same was informed by the Petitioner in the Telecommunication, SCADA & Telemetry (TeST) sub-committee meeting of NRPC. As per MOM dated 22.12.2017 of TeST meeting, all works were completed in State Sector and Central Sector except for 19 km (DTL-10 km and UPPTCL-9 km) due to site/ROW related issues. However, these links were completed.

(4) 400 kV Gorakhpur (UPPTCL) - Azamgarh (UP)

(ii) This link owned by UPPTCL was delayed due to the delay in grant of work permit. Initially work suffered due to severe ROW and heavy fog issues between November, 2017 to January, 2018 in Gorakhpur area. UPPTCL denied permission citing VIP area and any outage of the line may hamper the power flow in Gorakhpur area due to which the works suffered for about 3 months. Thereafter, team was re-deployed on 3.2.2018. However, severe ROW was faced at location numbers 7, 8, 33 and 84 of the line and execution of the link was further delayed as is evident from letters dated 27.2.2018, 16.2.2018 and 8.3.2018 in this regard. PTW was further denied on 15.3.2018 due to frequent tripping in the line due to poor earthwire condition. The Chief Engineer (TNE), Azamgarh issued instructions to local site officials not to issue PTW in Gorakhpur (UPPTCL)-Azamgarh line, being a critical line for Gorakhpur area. Additionally, the earthwire was missing in tower span numbers 116 to 117 and 112 to 113 and shut-down was required to carry out works. In this connection, the Petitioner vide letter/mail dated 16.3.2018 and 22.3.2018 requested UPPTCL for carrying out joint verification for missing members and missing earthwire. Subsequently, PTW was obtained from UPPTCL on 4.4.2018 in order to complete the balance works.



(iii) ROW problem was again reported at tower location number 212 vide letter dated 12.4.2018. The work was stopped due to severe dust storm in Northern India on the intervening night of 2.5.2018 and 3.5.2018. Due to outage of several elements, all auto/reclose and shut-down activities were postponed vide NLDC letter dated 25.5.2018. The Petitioner again requested for PTW in order to complete the works on 17.6.2018. Subsequently, all OPGW work in this link was completed in July, 2018.

(5) 400 kV Dadri – Maharaniabagh

a. Initially, the work was awarded to Metric Telecom Networks Private Limited, Gurgaon vide LOA dated 10.1.2017 for laying of OPGW works for 455 km of OPGW links. However, the vendor was non-responsive due to which the contract was terminated in May, 2017. Since, the vendor was MSME no CPG/EMD was taken by the Petitioner as per MSME regulations in order to promote business in India. Thereafter, the LOA was issued on 31.8.2017 through new tender which took around 3 months. The whole exercise of termination of old contract and placement of new LOA was completed in about 8 months.

b. Further, PTW was denied on several occasions since the Dadri-Maharaniabagh line was very critical transmission line for Delhi-NCR connectivity. Severe ROW issues were also faced and last work was completed with police protection and line shutdown. ROW issue was reported on 24.11.2017 at tower number 58. Additionally, the Petitioner needed to establish connectivity through ADSS cable instead of OPGW as no earthwire could be laid due to clearance problem at tower numbers 25 and 26. Thus, additional number of joint boxes and ADSS cable needed to be procured. Due to planned outage of 400 kV Maharaniabagh Sub-station from 15.12.2017 to 31.12.2017, permission was



denied by NRLDC in view of perceived grid security. PTW was also denied by NRLDC from 16.1.2018 to 24.1.2018.

c. The Petitioner faced ROW issues at tower numbers 22 and 23 and whole drum was kept on hold due to full drum length materials that needed to be installed in one single span, in order to avoid/minimise joints. Further, during the execution of work, other constituents were also involved due to LILO of line due to which OPGW was to be laid on other peak and UPPTCL and HVPNL were required to issue PTW on daily basis. Further, the work suffered in February, 2018 where work permission was issued for 10-12 days due to outage of other elements in Dadri station. PTW was again denied in March, 2018 due to outage of other major elements in the Northern Region. The work was also stopped after severe dust storm in Northern India in the intervening night of 2.5.2018 and 3.5.2018, due to outage of several elements, all auto/reclose and shut-down activities were postponed vide NLDC letter dated 25.5.2018. Due to non-issuance of work permit, already laid pilot ropes got burnt and line got tripped as is evident from mail dated 30.6.2018 provided by the Petitioner. These issues were highlighted at the highest level of NLDC. PTW was eventually issued after the issue was raised in TEST sub-committee meeting and work was carried out in shut-down condition of the line.

(6) 400 kV Gorakhpur (PG)-Gorakhpur (UPPCL)

a. As already discussed above, the work awarded to Metric Telecom Networks Private Limited, Gurgaon vide LOA dated 10.1.2017 for laying of OPGW works for 455 km of OPGW links was terminated and new LOA was placed on 31.8.2017. The whole exercise of termination of old contract and placing of new LOA consumed about 8 months.



(7) 765 kV Agra-Meerut via Aligarh

a. Initially, the link was approved for Agra-Meerut line. Thereafter, transmission line was LILoed at Greater Noida (UPPTCL). Later, the line was LILoed at Aligarh (PGCIL). Work suffered due to severe ROW issues and work permit issues from NLDC, being a 765 kV line and involvement of other utility, UPPTCL. Since beginning the PTW for laying of OPGW was denied by NLDC/NRLDC as is evident from several e-mails dated 25.9.2017, 10.10.2017, 13.10.2017, 31.10.2017, 1.11.2017, 2.11.2017, 3.11.2017, 7.11.2017, 11.11.2017, 13.11.2017, 17.11.2017, 20.11.2017 21.11.2017, 8.12.2017 and 19.12.2017. Thereafter, severe ROW issues were encountered including complications due to non-completion of work on account of work permit. The Petitioner sent several communications to NRLDC, NLDC and NRPC to close the works specially in 400 kV Dadri-Maharanibagh, 765 kV S/C Agra-Meerut line and 400 kV S/C Bhinmal-Zerda line.

Asset-2 (UPPTCL)

(1) 400 kV Mau–Azamgarh, (2) 220 kV Agra-Hathras-Harduaganj (T), (3) 220 kV LILo at Khair, (4) 220 kV Moradabad–Sambhal, (5) 220 kV Varanasi—220 kV Ghazipur and (6) 220 kV LILo at Hathras:

a. OPGW Link was completed and executed within the scheduled time in these 6 number of links. SAT was completed on 3.5.2017, 6.10.2017, 6.11.2017, 18.2.2017, 24.7.2017 and 6.10.2017, respectively i.e. well before the SCOD i.e. 4.3.2018. However, COD of Asset-2 as 3.2.2019 was delayed due to clubbing of multiple links as discussed above. The same was informed by the Petitioner in the TeST sub-committee meeting of NRPC. As per MOM dated 22.12.2017 of TeST meeting, all works were completed in State Sector and Central Sector



except 19 for km (DTL-10 km and UPPTCL-9 km) due to site/ROW related issues.

However, these links were completed timely.

26. The Petitioner vide affidavit dated 31.3.2022 has submitted that there was an inadvertent error while submitting delay justifications in respect of Asset-4 in the main petition. Therefore, the Petitioner has requested the Commission to consider fresh submissions for condonation of time over-run in respect of Asset-4 made vide affidavit dated 31.3.2022. Accordingly, we take into consideration the submissions of the Petitioner made vide affidavit dated 31.3.2022 in respect of Asset-4.

Asset-4 (Establishment of Fibre Optic Communication System in Northern Region Bairasul-Pong Link 97.77 km)

27. The Petitioner has submitted the following reasons to substantiate its claim for condonation of delay in respect of Asset-4:

a. The Petitioner has submitted that there is delay of 175 days in the execution of Asset-4. The delay was mainly due to requirement of new communication equipment at Pong Sub-station while Pong Sub-station did not have capacity for installation of new communication equipment. For this purpose, Bairasul–Pong link was end to end tested with Optical Time-Domain Reflectometer (OTDR) on 9.2.2017.

b. Further, the Petitioner vide letter dated 2.2.2018 informed Dy. Director, Load Despatch Cell, BBMB, Chandigarh for confirmation of DC supply (BBMB scope) at Pong end before the supply of SDH/PDH equipment (Powergrid scope). In response, BBMB confirmed via mail dated 5.3.2018 that 1 number new 48 V DC battery charger may be installed at Pong Sub-station.

c. Considering that Pong did not have adequate spare capacity for new communication equipment and BBMB has also requested for installation of 1 number 48 V DC Battery Charger, the Petitioner initiated action for amendment



in the LOA for providing new DCPS at Pong Sub-station. The same was supplied and installed at Pong Sub-station. This resulted in delay of execution of Bairasiul - Pong link.

d. The Petitioner has submitted the following details of communication/letters/e-mail etc., in this regard to substantiate the efforts made to expedite the execution of Asset-4 alongwith document evidence:

	Date	Communication / Letter/Meeting		Remarks
		From	To	
1		The OPGW link was successfully end to end tested on 8.2.2017 and 9.2.2017. However, due to following issues execution was delayed.		
2	8.2.2017	Joint end-to-end test using OTDR for Bairasiul - Tower number 125 (towards Pong)		Joint Test Report dated 8.2.2017
3	9.2.2017	Joint end- to -end test using OTDR for Pong-Tower number 125 (towards Bairasiul)		Joint Test Report dated 9.2.2017
4	2.2.2018	POWERGRID	BBMB	Confirmation of DCPS at Pong for Bairasiul-Pong Link. Supply of SDH expected within month.
5	21.2.2018	Mail from DY. Director, BBMB	अति. अधीक्षण अभियन्ता/तकनीकी, बीबीएमबी, चंडीगढ़	Mail regarding whether existing 48 V DC PS installed at Pong PH can cater this additional load requirement.
6	1.3.2018	अति. अधीक्षण अभियन्ता/तकनीकी, बीबीएमबी, चंडीगढ़	DY. Director, BBMB.	BBMB requested that 1 Number New 48V DC battery charger compatible for 200 AH VRLA battery may please be got installed to provide uninterrupted supply to all the equipment installed there.
7	5.3.2018	BBMB	POWERGRID	BBMB requested POWERGRID that 1 no. New 48 V DC battery charger compatible for 200 AH VRLA battery may please be got installed to provide uninterrupted supply to all the equipment installed there.



	Date	Communication / Letter/Meeting		Remarks
		From	To	
8	5.3.2018	Dy. Manager, POWERGRID	Manager, LD&C, CC, POWERGRID	Communication regarding addition of one No DCPS in LOA at Pong Power House in Package-V for commissioning of Bairasul-Pong link of Central Sector
9	1.6.2018	MOM of 13th meeting of TeST Sub-Committee -NRPC		DCPS at Pong did not have adequate spare capacity for new communication equipment and new DCPS was envisaged in project for Pong which resulted in delay of execution.
10	The BOQ of one number DCP was prepared and incorporated in LOA after Approval/Amendment. The same was installed at Pong Sub-station which was not under the scope of the Petitioner. This process resulted in a delay of 5 months. The matter was also discussed in 13 th meeting of TEST Sub-Committee – NRPC.			

28. We have considered the submissions made by the Petitioner and have gone through the justifications and documents placed on record by the Petitioner. As per IA dated 4.3.2015, SCOD of the communication assets was 4.3.2018, against which Asset-1 and Asset-2 were put under commercial operation on 3.3.2019 with time over-run of 364 days whereas Asset-4 was put under commercial operation on 25.8.2018 with time delay of 174 days. However, COD of Asset-3 is 1.2.2018 which is within the SCOD i.e. 4.3.2018. Delay in respect of the communication assets is being discussed on case to case basis. The major reasons submitted by the Petitioner for time over-run having substantial impact on execution of communication assets are as follows:

Asset-1

Delay due to clubbing of COD of other links

29. The OPGW link was completed and executed within the scheduled time in 3 number of links, namely, (1) 400 kV Deepalpur-Bawana, (2) 400 kV Kanpur-Unchahar



and (3) 400 kV Agra (PG)-Agra (UPPCL). SAT was completed on 25.1.2017, 28.9.2017 and 5.7.2017, respectively, i.e., within the SCOD of the communication assets i.e. 4.3.2018. However, COD of Asset-1 was delayed due to clubbing of multiple links in order to reduce the number of assets/petitions as the value of individual links was very less and it was not justifiable to file separate petitions. Accordingly, the Petitioner combined COD of all 7 links under Asset-1 to minimize the number of petitions. This was informed by the Petitioner in the Telecommunication, SCADA and Telemetry (TeST) Sub-committee meeting of NRPC. As per MOM dated 22.12.2017 of TeST meeting, all works were completed in State Sector and Central Sector except for 19 km (DTL-10 km and UPPTCL-9 km) due to site/ROW related issues.

Delay due to RoW issues on 400 kV Gorakhpur (UPPTCL) - Azamgarh (UP), 400 kV Dadri – Maharaniabagh and 765 kV Agra -Meerut via Aligarh transmission lines

30. The OPGW links pertaining to Asset-1 were envisaged to be installed on 400 kV Gorakhpur (UPPTCL) - Azamgarh (UP), 400 kV Dadri – Maharaniabagh and 765 kV Agra -Meerut via Aligarh transmission lines. However, the Petitioner faced severe ROW issues while installing OPGW links and other communication equipment in these lines. The work at tower location numbers 7, 8, 33, 84 and 212 of Gorakhpur-Azamgarh link, tower location numbers 22, 23 and 58 of Dadri-Maharaniabagh link and various locations of Agra-Meerut line were hampered due to hindrances being caused by severe ROW issues and the same is evident from letters dated 24.11.2017, 27.2.2018, 16.2.2018, 8.3.2018 and 12.4.2018 etc. submitted by the Petitioner.

Delay due to Permission to Work (PTW) issues

31. There were several occasions where PTW was not given by the Control Room as shut-down was disallowed citing load flow in VIP areas of Gorakhpur during November, 2017 to January, 2018 for about 3 months. PTW was further denied on 15.3.2018 in Gorakhpur-Azamgarh line, being critical line for Gorakhpur area. There were further



instances of PTW denial in April, 2018 and May, 2018. Similarly, in the case of Dadri-Maharanibagh line PTW was denied from 15.12.2017 to 31.12.2017 due to planned shut-down of main link and from 16.1.2018 to 24.1.2018 in view of perceived grid security by NRLDC. Further, the work suffered in February, 2018 wherein work permission was issued only for 10-12 days due to outage of other elements in Dadri station. PTW was again denied in March, 2018 due to outage of other major elements in the Northern Region. With regard to 765 kV Agra-Meerut via Aligarh line PTW for laying of OPGW was denied by NLDC/NRLDC which is evident from various e-mails dated 25.9.2017, 10.10.2017, 13.10.2017, 31.10.2017, 1.11.2017, 2.11.2017, 3.11.2017, 7.11.2017, 11.11.2017, 13.11.2017, 17.11.2017, 20.11.2017 21.11.2017, 8.12.2017 and 19.12.2017. The Petitioner vide letter dated 14.8.2018 requested NRLDC and NLDC with regard to the issue of PTW of Dadri-Maharanibagh and 765 kV Agra-Meerut transmission lines on 14.8.2018. Finally, PTW was granted on 21.10.2018 by NRLDC vide communication dated 18.10.2018.

32. In view of above submissions of the Petitioner, we are of the view that delay in grant of PTW has a direct impact on execution of 400 kV Dadri-Maharanibagh and 765 kV Agra-Meerut transmission lines which are covered under Asset-1. Thus, PTW related issues of about 391 days between 25.9.2017 to 21.10.2018 led to delay in installation of OPGW in the associated links. This additional time of 391 days had a cascading effect on execution of Asset-1. However, the Petitioner compressed the execution time due to which the overall delay comes to 364 days. Therefore, we hold that time over-run of 364 days in respect of Asset-1 due to PTW issues was beyond the control of the Petitioner and is accordingly condoned. The other issue of delay due to clubbing of COD of other links and ROW etc. is subsumed in the delay due to PTW issues.



Asset-2

33. The OPGW link was completed and executed within the scheduled time in all the 6 number of links of UPPTCL covered under Asset-2, namely, (1) 400 kV Mau–Azamgarh, (2) 220 kV Agra-Hathras-Harduaganj (T), (3) 220 kV LILO at Khair, (4) 220 kV Moradabad–Sambhal, (5) 220 kV Varanasi—220 kV Ghazipur and (6) 220 kV LILO at Hathras. SAT in these links were completed on 3.5.2017, 6.10.2017, 6.11.2017, 18.2.2017, 24.7.2017 and 6.10.2017, respectively i.e. before the SCOD of the communication assets (4.3.2018). However, COD of Asset-2 was delayed due to clubbing of multiple links in order to reduce the number of assets/petitions as the value of individual links was less and it was not proper to file separate petitions. Accordingly, the Petitioner has combined COD of all 6 links of Asset-2 to minimize the number of petitions.

34. We have considered the above submissions of the Petitioner. It is observed that all the 6 number of links covered under Asset-2 were executed between 18.2.2017 to 6.11.2017 i.e. before the SCOD of the communication assets (4.3.2018). The Petitioner has submitted that it could have declared the COD of said 6 number of links within the SCOD. However, the Petitioner declared the commercial operation of Asset-2 on 3.3.2019 due to clubbing of multiple links in order to reduce the number of assets/petitions as value of individual links was less and it was not justifiable to file separate petitions. We have considered the submissions of the Petitioner and are of the view that the Petitioner had completed 6 number of OPGW links before the SCOD and it also obtained their successful trial on 26.4.2018, 12.5.2018, 20.4.2018, 3.5.2018, 20.6.2018 and 20.5.2018. However, the Petitioner claimed COD of Asset-2 as on 3.3.2019. No plausible reasons have been given by the Petitioner for COD of Asset-2 on 3.3.2019 especially when it had done trial operation of all the OPGW links by June,



2018. In these circumstances, we think it proper to refer to Regulation 12(2) of the 2014 Tariff Regulations which is as follows:

“12. Controllable and Uncontrollable factors: The following shall be considered as controllable and uncontrollable factors leading to cost escalation impacting Contract Prices, IDC and IEDC of the project :

(2) The “uncontrollable factors” shall include but shall not be limited to the following:
i. Force Majeure events.; and
ii. Change in law.”

35. In view of above, we are of the view that Asset-2 was not impacted by any *force majeure* events. Accordingly, the time over-run in the case of Asset-2 is not condoned.

Asset-3

36. Asset-3 has been declared under commercial operation on 1.2.2018 and the same is well within the SCOD (4.3.2018). Therefore, there is no time over-run in respect of Asset-3.

Asset-4

Delay due to inadequate DC Power Back-up System (DCPS) at Pong

37. The Petitioner has submitted that there is delay of 175 days in execution of Asset-4 as against the SCOD of 4.3.2018. The delay was mainly due to requirement of new communication equipment at Pong Power House switchyard of BBMB. Pong did not have sufficient DC power capacity for installation of new communication equipment. The Petitioner completed the laying of OPGW in the associated Bairasul-Pong line and carried out end to end test using OTDR on 9.2.2017 which is well within the SCOD. The Petitioner vide letter dated 2.2.2018 informed BBMB to make provisions for power up of upcoming communication equipment being installed by the Petitioner. However, BBMB after making internal communications dated 21.2.2018 and 1.3.2018 intimated the Petitioner vide mail dated 5.3.2018 that 3 number 48 V Battery Chargers along with battery sets were installed in the Carrier Room of Pong. All the 3 number battery sets



were in healthy conditions. However, two out of three battery chargers were unreliable and in damaged conditions. Hence, 1 number new 48 V DC battery charger was required to provide uninterrupted power supply to new fibre optic (FO) equipment proposed to be installed at Pong. Accordingly, the Petitioner was required to procure 1 number battery charger by way of necessary amendment to the contract. Thus, there was considerable delay due to procurement of a new battery charger which was originally in the scope of BBMB. The matter was also discussed and recorded at para 2.1.4.3 of the MOM dated 1.6.2018 of 13th meeting of TeST held on 24.4.2018, wherein, it was stated that Pong-Bairasul link integration was delayed as DCPS at Pong did not have adequate spare capacity for new communication equipment. New DCPS was envisaged in the contract for Pong and accordingly, Pong-Bairasul link would be executed within 15 days.

38. We have considered the submissions of the Petitioner. From the record, we find that the Petitioner was ready with laying and testing of OPGW in the Bairasul-Pong link on 9.2.2017. However, the same could not be executed due to non-availability of necessary power back-up arrangement at Pong HEP under the scope of BBMB. It is observed that BBMB vide communication dated 5.3.2018 requested the Petitioner to arrange DCPS, which was originally in the scope of BBMB, for smooth execution of new equipment at Pong. It is also observed from CPM chart submitted by the Petitioner that the supplies were scheduled to be completed by 8.9.2017. Thus, this additional procurement activity consumed extra time beyond 8.9.2017 due to contract amendment and fresh supply. Hence, we are convinced that delay of about 178 days between 8.9.2017 (scheduled completion of supplies) to 5.3.2018 (fresh requisition for new procurement) was due to fresh procurement as claimed by the Petitioner is justified. This additional time of 178 days had a cascading effect on the execution of Asset-4. However, the Petitioner compressed the execution time due to which the overall delay comes to



174 days. Therefore, we hold that delay of 174 days in respect of Asset-4 was due to non-availability of adequate DCPS (originally in the scope of BBMB) was beyond the control of the Petitioner and the same is accordingly condoned.

39. The details of time over-run condoned and not condoned in respect of the communication assets covered in the present petition are as follows:

Assets	SCOD	COD	Time over-run (days)	Time over-run condoned (days)	Time over-run not condoned (days)
Asset-1	4.3.2018	3.3.2019	364	364	0
Asset-2		3.3.2019	364	-	364
Asset-3		1.2.2018	Nil	-	-
Asset-4		25.8.2018	174	174	0

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

40. The Petitioner has claimed IDC in respect of the communication assets and has submitted statement showing IDC claim, discharge of IDC liability as on COD and has submitted asset-wise Auditor’s Certificate in support of the same. However, It was observed that the Petitioner has submitted combined IDC statement in respect of Asset-1 and Asset-2 in the main petition. The Commission vide RoP dated 14.9.2022 directed the Petitioner to submit revised IDC statement for Asset-1 and Asset-2 duly reconciled with the Auditor’s Certificate. Accordingly, the Petitioner vide affidavit dated 6.10.2022, has submitted revised IDC statement for Asset-1 and Asset-2. The details of IDC claimed are as follows:

(₹ in lakh)

Assets	IDC as per Auditor’s Certificate	IDC Discharged upto COD	Accrued IDC discharged in		
			2017-18	2018-19	2019-20
Asset-1	209.41	161.39	-	8.07	39.95
Asset-2	79.81	63.70	-	3.10	12.99
Asset-3	23.22	15.43	0.00	7.79	0.00
Asset-4	13.14	9.16	-	3.48	0.49



41. We have considered the submissions of the Petitioner. The Petitioner has submitted IDC computation statement containing the name of loan, drawl date, loan amount, interest rate and interest claimed. IDC is worked out based on the details given in IDC statement. Further, loan amount as on COD has been mentioned in Form-6 and Form-9C. The allowable IDC has been worked out based on the information available on record and relying on loan amount as per Form-9C. IDC considered as on COD and summary of discharge of IDC liability up to the COD of the communication assets and thereafter for the purpose of tariff determination is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC disallowed due to time over-run not condoned	IDC disallowed due to computational difference	IDC allowed
	(A)	(B)	(C)	(D=A-B-C)
Asset-1	209.41	0.00	0.02	209.39
Asset-2	79.81	41.23	0.00	38.58
Asset-3	23.22	0.00	0.06	23.16
Asset-4	13.15	0.00	0.02	13.13

42. Discharge details of IDC in respect of the communication assets are as follows:

(₹ in lakh)

Assets	IDC discharged upto COD	IDC undischarged as on COD	Accrued IDC discharged in		Total IDC
			2018-19	2019-20	
Asset-1	161.39	48.00	8.07	39.93	209.39
Asset-2	38.58	0.00	0.00	0.00	38.58
Asset-3	15.43	7.73	7.73	0.00	23.16
Asset-4	9.16	3.97	3.48	0.49	13.13

43. The Petitioner has claimed IEDC in respect of communication assets and has submitted Auditor's Certificate in support of the same. IEDC claimed and considered as on COD and summary of discharge of IEDC liability upto COD of the communication assets for the purpose of tariff determination is as follows:



(₹ in lakh)

Assets	IEDC claimed as per Auditor's Certificate	IEDC disallowed due to time over-run not condoned	IEDC considered as on COD	IEDC discharged up to COD
Asset-1	64.16	0.00	64.16	64.16
Asset-2	31.69	7.90	23.79	23.79
Asset-3	17.51	0.00	17.51	17.51
Asset-4	14.37	0.00	14.37	14.37

Initial Spares

44. Regulation 13(d) of the 2014 Tariff Regulations provides as follows:

"13. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost, 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%"*

45. Initial Spares as claimed by the Petitioner in respect of the communication assets are as follows:

(₹ in lakh)

Assets	Elements	Plant and Machinery cost up to the cut-off date (A)	Initial Spares claimed (B)	Ceiling (in %) (C)	Initial Spares worked out $D = [(A-B)*C / (100-C)]$	Excess Initial Spares [B-D] if B>D
Asset-1	OPGW	1991.43	26.44	3.50	71.26	Nil
Asset-2	OPGW	897.41	18.83	3.50	31.86	Nil
Asset-3	OPGW	696.55	15.36	3.50	24.70	Nil
Asset-4	OPGW	347.43	10.81	3.50	12.20	Nil

46. We have considered the submissions of the Petitioner. Initial Spares claimed by the Petitioner are within ceiling of 3.5%. Accordingly, the Initial Spares allowed in respect of the communication assets are as follows:



(₹ in lakh)

Assets	Elements	Plant and Machinery cost up to cut-off date (excluding IDC and IEDC) (A)	Initial Spares claimed (B)	Ceiling (in %) (C)	Initial Spares worked out $D = [(A-B)*C / (100-C)]$	Excess [B-D] If B>D	Initial spares allowed
Asset-1	OPGW	1991.43	26.44	3.50	71.27	0.00	26.44
Asset-2	OPGW	897.41	18.83	3.50	31.87	0.00	18.83
Asset-3	OPGW	696.55	15.36	3.50	24.71	0.00	15.36
Asset-4	OPGW	347.43	10.81	3.50	12.21	0.00	10.81

47. The details of capital cost allowed in respect of the communication assets as on COD after adjustment of IDC, IEDC and Initial Spares, are as follows:

(₹ in lakh)

Assets	Capital Cost claimed as on COD as per Auditor's Certificate (A)	IDC disallowed (B)	IDC Undischarged as on COD (C)	IEDC Disallowed (D)	Capital Cost as on COD (E=A-B-C-D)
	(A)	(B)	(C)		(D)=(A-B-C)
Asset-1	1888.68	0.02	48.00	0.00	1840.66
Asset-2	844.71	41.23	0.00	7.90	795.58
Asset-3	412.62	0.06	7.73	0.00	404.83
Asset-4	218.25	0.02	3.97	0.00	214.26

Additional Capital Expenditure ("ACE")

48. Regulation 14(1) of the 2014 Tariff Regulations provides as follows :

“(1) The capital expenditure in respect of the 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:

- (i) Undischarged liabilities recognised to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in Law or compliance of any existing law:*

Provided that 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 shall be submitted along with the application for determination of tariff.”

49. Regulation 3(13) of the 2014 Tariff Regulations defines “cut-off” date as follows:

“(13) ‘Cut-off Date’ means 31st March of the year closing after two years of the year of commercial operation of whole or part of the project, and in case the whole or part of the project is declared under commercial operation in the last quarter of the year, the cut-off date shall be 31st March of the year closing after three years of the year of commercial operation:

Provided that the cut-off date may be extended by the Commission if it is proved on the basis of documentary evidence that the capitalisation could not be made within the cut-off date for reasons beyond the control of the project developer.”

50. The Petitioner has claimed the following ACE based on actual expenditure and has submitted Auditor’s Certificate in support of the same:

(₹ in lakh)

Asset	ACE				
	2014-15	2015-16	2016-17	2017-18	2018-19
Asset-1	0.00	0.00	0.00	0.00	0.00
Asset-2	0.00	0.00	0.00	0.00	0.00
Asset-3	0.00	0.00	0.00	2.13	49.20
Asset-4	0.00	0.00	0.00	0.00	8.97

51. The Petitioner has submitted that ACE has been claimed under Regulation 14(1)(ii) of the 2014 Tariff Regulations and the same is within the cut-off date.

52. ACE claimed by the Petitioner has been verified from the Auditor’s Certificate. Accordingly, ACE (including IDC discharge) has been allowed under Regulations 14(1)(i) and Regulation 14(1)(ii) of the 2014 Tariff Regulations. The capital cost allowed in respect of the communication assets for 2014-19 tariff period is as follows:

(₹ in lakh)

Assets	FR apportioned approved cost	Capital cost allowed as on COD	ACE (including IDC discharged)		Capital Cost as on 31.3.2019
			2017-18	2018-19	
Asset-1	2401.74	1840.66	-	8.07	1848.73
Asset-2	1070.71	795.58	-	-	795.58
Asset-3	778.77	404.83	2.13	56.93	463.89
Asset-4	408.38	214.27	-	12.45	226.72



Debt-Equity Ratio

53. Regulation 19(1) of the 2014 Tariff Regulations provides as follows:

“Debt-Equity Ratio: (1) For a project declared under commercial operation on or after 1.4.2014, the debt-equity ratio would be considered as 70:30 as on COD. 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.”

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

Asset-1

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	1288.46	70.00	5.65	70.00	1294.11	70.00
Equity	552.20	30.00	2.42	30.00	554.62	30.00
Total	1840.66	100.00	8.07	100.00	1848.73	100.00

Asset-2

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	556.91	70.00	0.00	70.00	556.91	70.00
Equity	238.67	30.00	0.00	30.00	238.67	30.00
Total	795.58	100.00	0.00	100.00	795.58	100.00



Asset-3

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	283.38	70.00	41.35	70.00	324.72	70.00
Equity	121.45	30.00	17.72	30.00	139.17	30.00
Total	404.83	100.00	59.06	100.00	463.89	100.00

Asset-4

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE 2014-19 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2019 (₹ in lakh)	(in %)
Debt	149.99	70.00	8.72	70.00	158.70	70.00
Equity	64.28	30.00	3.74	30.00	68.02	30.00
Total	214.27	100.00	12.45	100.00	226.72	100.00

Depreciation

55. Regulation 27 of the 2014 Tariff Regulations provides as follows:

“Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. 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 or elements thereof.

Provided that effective date of commercial operation shall be worked out 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 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 in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

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

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



not be allowed to be recovered at a later stage during the useful life and the extended life.

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

(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-II to these regulations for the assets of the generating station and transmission system:

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

(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets.

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

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

56. Regulation 3(67) of 2014 Tariff Regulations defines useful life as follows:

“(67) **‘Useful life’** in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:

(a) Coal/Lignite based thermal generating station	25 years
(b) Gas/Liquid fuel based thermal generating station	25 years
(c) AC and DC sub-station	25 years
(d) Gas Insulated Sub-station (GIS)	25 years
(e) Hydro generating station including pumped Storage hydro generating stations	35 years
(f) Transmission line (including HVAC & HVDC)	35 years
(g) Communication system	15 years

Provided that the useful life for AC and DC Sub-stations and GIS for which Notice Inviting Tender is floated on or after 01.04.2014 shall be considered as 35 years.

Provided further that the extension of life of the projects beyond the completion of their useful life shall be decided by the Commission.”

57. Depreciation in respect of the communication assets has been allowed considering capital expenditure as on COD and approved ACE during 2014-19 tariff period. Since the communication assets consist of only one element of PLCC, the gross block during 2014-19 tariff period has been depreciated at rate of 6.33% as provided for communication equipment in the 2014 Tariff Regulations. Depreciation for 2014-19 tariff



period is trued-up in respect of the communication assets as per the methodology provided under Regulation 27 of the 2014 Tariff Regulations and the same is as follows:

(₹ in lakh)

	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Depreciation					
A	Opening Gross Block	1840.66	795.58	404.83	406.96	214.27
B	ACE	8.07	0.00	2.13	56.93	12.45
C	Closing Gross Block (A+B)	1848.73	795.58	406.96	463.89	226.72
D	Average Gross Block (A+C)/2	1844.70	795.58	405.89	435.42	220.50
E	Weighted Average Rate of Depreciation (in %)	6.33	6.33	6.33	6.33	6.33
F	Aggregate Depreciable Value	1660.23	716.02	365.30	391.88	198.44
G	Balance useful life of the asset (Year)	15	15.00	15	15	15
H	Lapsed Life (Year)	0	0.00	0	0	0
I	Depreciation during the year (E*K)	9.28	4.00	4.15	27.56	8.37
J	Cumulative Depreciation at the end of the year	9.28	4.00	4.15	31.72	8.37
K	Remaining Depreciable Value (F-J)	1650.95	712.02	361.15	360.16	190.07

58. The details of depreciation claimed in respect of the communication assets in the instant petition and trued-up depreciation are as follows:

(₹ in lakh)

	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Depreciation					
A	Claimed by Petitioner in the instant petition	9.29	4.17	4.15	27.56	8.38
B	Allowed in this order	9.28	4.00	4.15	27.56	8.37

Interest on Loan ("IoL")

59. Regulation 26 of 2014 Tariff Regulations defines Interest on Loan and the same is as follows:



“26. Interest on loan capital: (1) *The loans arrived at in the manner indicated in Regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*

(2) *The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*

(3) *The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of decapitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered 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 system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

(7) *The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*

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

(9) *In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of refinancing of loan.”

60. The Petitioner has claimed Weighted Average Rate of IoL, based on actual loan portfolio and rate of interest in respect of the communication assets.

61. IoL in respect of the communication assets has been calculated based on actual interest rate submitted by the Petitioner, in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL claimed in respect of the communication assets is as follows:



(₹ in lakh)

	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Interest on Loan					
A	Gross Normative Loan	1288.46	556.91	283.38	284.87	149.99
B	Cumulative Repayments upto Previous Year	0.00	0.00	0.00	4.15	0.00
C	Net Loan-Opening (A-B)	1288.46	556.91	283.38	280.72	149.99
D	Additions	5.65	0.00	1.49	39.85	8.72
E	Repayment during the year	9.28	4.00	4.15	27.56	8.37
F	Net Loan-Closing (C+D-E)	1284.83	552.91	280.72	293.01	150.33
G	Average Loan (A+F)/2	1286.65	554.91	282.05	286.86	150.16
H	Weighted Average Rate of Interest on Loan (in%)	7.7047	7.7045	7.7206	7.7486	7.9538
I	Interest on Loan (G*H)	7.88	3.40	3.52	22.23	7.17

62. The details of trued up IoL claimed and allowed in respect of the communication assets is as follows:

(₹ in lakh)

	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Interest on Loan					
A	Claimed by Petitioner in the instant petition	7.88	3.54	3.52	22.23	7.16
B	Allowed in this order	7.88	3.40	3.52	22.23	7.17

Return on Equity (“RoE”)

63. The Petitioner has claimed RoE in respect of communication assets in terms of Regulation 24(1), Regulation 24(2) and Regulation 25 of the 2014 Tariff Regulations which provide as follows:

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the 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:



(i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% 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)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.”

25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the 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 income on other income stream (i.e., income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of “effective tax rate”.

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

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

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

Illustration-

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess:

$$\text{Rate of return on equity} = 15.50 / (1 - 0.2096) = 19.610\%$$

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

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.

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

(c) Effective Tax Rate for the year 2014-15 = 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 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.”

64. The Petitioner has claimed RoE for the communication assets in terms of Regulations 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are liable to pay income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax rate (in %)	Grossed up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.715
2016-17	21.338	19.704
2017-18	21.337	19.704
2018-19	21.549	19.757

65. 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 are as follows:

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	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

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

Year	Notified MAT rates (inclusive of surcharge & cess) (in %)	Base rate of RoE (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	15.50	19.610



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

67. Trued-up RoE is allowed in respect of the communication assets on the basis of MAT rates applicable in the respective years for 2014-19 tariff period which are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
Return on Equity					
A Opening Equity	552.20	238.67	121.45	122.09	64.28
B Additions	2.42	0.00	0.64	17.08	3.74
C Closing Equity (A+B)	554.62	238.67	122.09	139.17	68.02
D Average Equity (A+C)/2	553.41	238.67	121.77	130.63	66.15
E Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F MAT Rate for respective year (in %)	21.549	21.549	21.342	21.549	21.549
G Rate of Return on Equity (in %)	19.758	19.758	19.705	19.758	19.758
H Return on Equity (D*G)	8.69	3.75	3.88	25.81	7.84

68. The details of RoE claimed in respect of the communication assets in the instant petition and trued-up RoE allowed in this order are as follows:

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
Return on Equity					
A Claimed by Petitioner in the instant petition	8.70	3.89	3.88	25.81	7.84
B Allowed in this order	8.69	3.75	3.88	25.81	7.84



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

69. The Petitioner has claimed the following O&M Expenses for the communication assets supported by Auditor’s certificate for 2014-19 period except for Asset-2 being State Sector (UPPTCL):

	(₹ in lakh)	
Assets	2017-18	2018-19
Asset-1	-	9.20
Asset-3	0.28	3.24
Asset-4	-	0.32

70. The O&M Expenses norms for the communication assets as per the 2014 Tariff Regulations are as follows:

“29 (4) Transmission System

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

71. We have considered the submissions of the Petitioner. The actual O&M Expenses claimed by the Petitioner and allowed by the Commission in respect of Asset-1, Asset-3 and Asset-4 are as follows:

	(₹ in lakh)	
Assets	2017-18	2018-19
Asset-1	-	9.20
Asset-3	0.28	3.24
Asset-4	-	0.32

Interest on Working Capital (“IWC”)

72. Regulation 28(1)(c) and Regulation 3(5) of the 2014 Tariff Regulations provides as follows:

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

(a) *Xxxxx*

(b) *Xxxxx*

(c) *Hydro generating station including pumped storage hydro-electric generating station and transmission system including communication system:*

(i) *Receivables equivalent to two months of fixed cost;*



(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) Operation and maintenance 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 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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.

(5) “Bank Rate” means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points;”

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

(₹ in lakh)					
Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (pro-rata 29 days)	2018-19 (pro-rata 29 days)	2017-18 (pro-rata 59 days)	2018-19	2018-19 (pro-rata 219 days)
Working Capital for O&M Expenses (O&M Expenses for one month)	9.65	0.00	0.14	0.27	0.04
Working Capital for Maintenance Spares (15% of O&M Expenses)	17.37	0.00	0.26	0.49	0.08
Working Capital for Receivables (Equivalent to two months of annual fixed cost)	75.59	23.86	12.47	13.44	6.72
Total Working Capital	102.61	23.86	12.87	14.19	6.85
Rate of Interest (in %)	12.20	12.20	12.60	12.60	12.20
Interest on Working Capital	0.99	0.23	0.26	1.79	0.50

74. The trued up IWC claimed and allowed in respect of the communication assets as per the 2014 Tariff Regulations is as follows:

(₹ in lakh)						
	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Interest on Working Capital					
A	Claimed by Petitioner in the instant petition	1.00	0.24	0.26	1.79	0.50
B	Allowed in this order	0.99	0.23	0.26	1.79	0.50



Annual Fixed Charges (“AFC”) for 2014-19 Tariff Period

75. The trued-up AFC allowed in respect of the communication assets for 2014-19 tariff period is as follows:

		(₹ in lakh)				
	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (pro-rata 29 days)	2018-19 (pro-rata 29 days)	2017-18 (pro-rata 59 days)	2018-19	2018-19 (pro-rata 219 days)
	Annual Transmission Charges					
A	Depreciation	9.28	4.00	4.15	27.56	8.37
B	Interest on Loan	7.88	3.40	3.52	22.23	7.17
C	Return on Equity	8.69	3.75	3.88	25.81	7.84
D	O & M Expenses	9.20	0.00	0.28	3.24	0.32
E	Interest on Working Capital	0.99	0.23	0.26	1.79	0.50
F	Total	36.05	11.38	12.09	80.63	24.20

76. The trued-up AFC claimed and allowed for the communication assets is as follows:

		(₹ in lakh)				
	Particulars	Asset-1	Asset-2	Asset-3		Asset-4
		2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
	Annual Transmission Charges					
A	Claimed by Petitioner in the instant petition	36.07	11.84	12.09	80.63	24.20
B	Allowed in this order	36.05	11.38	12.09	80.63	24.20

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

77. The Petitioner has claimed the following transmission charges in respect of the communication assets for 2019-24 tariff period:

Asset-1

		(₹ in lakh)				
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24	
Depreciation	130.26	143.37	143.37	143.37	143.37	
Interest on Loan	105.38	106.09	95.41	84.71	73.43	
Return on Equity	115.95	127.62	127.62	127.62	127.62	
O&M Expenses	45.30	45.30	45.30	45.30	45.30	
Interest on Working Capital	7.26	7.66	7.50	7.34	7.16	
Total	404.15	430.04	419.20	408.34	396.88	



Asset-2

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	58.20	63.86	63.86	63.86	63.86
Interest on Loan	47.11	47.26	42.51	37.74	32.72
Return on Equity	51.71	56.75	56.75	56.75	56.75
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	2.36	2.53	2.46	2.39	2.31
Total	159.38	170.40	165.58	160.74	155.64

Asset-3

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	29.54	39.32	48.92	48.92	48.92
Interest on Loan	21.82	27.55	32.34	28.50	24.69
Return on Equity	26.29	35.00	43.55	43.55	43.55
O&M Expenses	2.66	15.46	15.46	15.46	15.46
Interest on Working Capital	1.28	2.21	2.56	2.50	2.44
Total	81.59	119.54	142.83	138.93	135.06

Asset-4

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	14.45	19.85	25.17	25.17	25.17
Interest on Loan	11.53	14.94	17.84	15.82	13.79
Return on Equity	12.86	17.67	22.40	22.40	22.40
O&M Expenses	0.64	1.14	1.33	1.30	1.27
Interest on Working Capital	1.22	7.95	7.95	7.95	7.95
Total	40.70	61.55	74.69	72.64	70.58

78. The Petitioner has claimed the following IWC in respect of communication assets for 2019-24 tariff period:

Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	3.78	3.78	3.78	3.78	3.7
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	6.80	6.80	6.80	6.80	6.80
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	49.69	53.02	51.68	50.34	48.80



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
D	Total Working Capital (A+B+C)	60.27	63.60	62.26	60.92	59.38
E	Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
F	Interest on Working Capital (D*E)	7.26	7.66	7.50	7.34	7.16

Asset-2

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	19.60	21.01	20.41	19.82	19.14
D	Total Working Capital (A+B+C)	19.60	21.01	20.41	19.82	19.14
E	Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
F	Interest on Working Capital (D*E)	2.36	2.53	2.46	2.39	2.31

Asset-3

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	0.22	1.29	1.29	1.29	1.29
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	0.40	2.32	2.32	2.32	2.32
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	10.03	14.74	17.61	17.13	16.61
D	Total Working Capital (A+B+C)	10.65	18.35	21.22	20.74	20.22
E	Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
F	Interest on Working Capital (D*E)	1.28	2.21	2.56	2.50	2.44



Asset-4

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (Equivalent to annualized O&M Expenses for 1 month)	0.10	0.66	0.66	0.66	0.66
B	Working Capital for Maintenance Spares (Equivalent to 15% of O&M Expenses)	0.18	1.19	1.19	1.19	1.19
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	5.00	7.59	9.21	8.96	8.68
D	Total Working Capital (A+B+C)	5.28	9.44	11.06	10.81	10.53
E	Rate of Interest (in%)	12.05	12.05	12.05	12.05	12.05
F	Interest on Working Capital (D*E)	0.64	1.14	1.33	1.30	1.27

Capital Cost

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

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

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

- (a) The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;
- (b) Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;
- (c) Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;
- (d) Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;
- (e) Capitalised initial spares subject to the ceiling rates in accordance with these regulations;
- (f) Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;
- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the assets before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including



- handling and transportation facility;*
- (j) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;*
 - (k) *Capital expenditure on account of biomass handling equipment and facilities, for co-firing;*
 - (l) *Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;*
 - (m) *Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;*
 - (n) *Expenditure on account of change in law and force majeure events; and*
 - (o) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (3) *The Capital cost of an existing project shall include the following:*
- (a) *Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
 - (b) *Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
 - (c) *Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
 - (d) *Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) *Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
 - (f) *Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*
- (4) *The capital cost in case of existing or new hydro generating station shall also include:*
- (a) *cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and*
 - (b) *cost of the developer's 10% contribution towards Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.*
- (5) *The following shall be excluded from the capital cost of the existing and new projects:*
- (a) *The assets forming part of the project, but not in use, as declared in the tariff petition;*
 - (b) *De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its



redeployment;

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

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

80. The Petitioner has claimed the capital cost of ₹1850.67 lakh, ₹829.93 lakh, ₹463.95 lakh and ₹226.72 lakh as on 31.3.2019 in respect of Asset-1, Asset-2, Asset-3 and Asset-4, respectively. However, trued-up capital cost of ₹1848.73 lakh, ₹795.58 lakh, ₹463.89 lakh and ₹226.71 lakh as on 31.3.2019 in respect of Asset-1, Asset-2, Asset-3 and Asset-4, respectively is considered as the opening capital cost as on 1.4.2019 for determination of tariff in accordance with Regulation 19 of the 2019 Tariff Regulations.

Additional Capital Expenditure (“ACE”)

81. 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 cut-off date may be admitted by the Commission, subject to prudence check:

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

82. The Petitioner has submitted that ACE incurred/projected to be incurred in respect of the communication assets is mainly on account of balance/retention payments and is covered under Regulation 24(1)(a) of the 2019 Tariff Regulations. The Petitioner has claimed the following capital cost in respect of the communication assets as on 31.3.2024:

Assets	FR approved cost	Capital cost up 1.4.2019	Projected ACE				Capital Cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	
Asset-1	2401.74	1850.67	414.33	0.00	0.00	.0.00	2265.00
Asset-2	1070.71	829.93	178.98	0.00	0.00	0.00	1008.91
Asset-3	778.77	463.95	5.46	303.44	0.00	0.00	772.85
Asset-4	408.38	226.71	2.95	167.89	0.00	0.00	397.55

(₹ in lakh)



83. In response to Commission's query with reference to ACE claimed for the communication assets, the Petitioner vide affidavit dated 31.3.2022, has submitted the following information:

Asset-1

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention/ Deferred work
2019-20	244.36	1) JV of Jiangsu Zhongtian Technology Co. Ltd., China (ZTT) (the lead partner of JV) and Steel products Ltd, Kolkata (the partner of JV) 2) Shenzhen SDG Information Co. Ltd 3) Inventive Growth International Engineering Services Pvt. Ltd 4) JV of Prem Power Construction (Pvt.), Gurgaon (Lead Partner) & Jiangsu Tongguang Optical Fibre Cable co. Ltd. China (other Partner)	PLCC/ Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	131.96	-do-	PLCC/ Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations

Asset-2:

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention/ Deferred work
2019-20	76.57	JV of Jiangsu Zhongtian Technology Co. Ltd., China (ZTT) (the lead partner of JV) and Steel Products Ltd., Kolkata (the partner of JV)	PLCC/ Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	87.43	JV of Jiangsu Zhongtian Technology Co. Ltd., China (ZTT) (the lead partner of JV) and Steel products Ltd, Kolkata (the partner of JV)	PLCC/ Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations



Asset-3:

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention/Deferred work
2019-20	2.89	ZTT & Steel Product	PLCC/Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	2.57	ZTT & Steel Product	PLCC/Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2020-21	142.92	ZTT & Steel Product	PLCC/Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	160.52	ZTT & Steel Product	PLCC/Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations

Asset-4:

(₹ in lakh)

Year	ACE	Party Name	Package	Balance and Retention/Deferred work
2019-20	1.15	ZTT & Steel Product	PLCC/Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	1.31	ZTT & Steel Product	PLCC/Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations
2020-21	65.20	ZTT & Steel Product	PLCC/Communication System	Balance and Retention payment as per Regulation 24(1)(a) of the 2019 Tariff Regulations
	102.69	ZTT & Steel Product	PLCC/Communication System	Deferred work liability as per Regulation 24(1)(b) of the 2019 Tariff Regulations

84. We have considered the submissions made by the Petitioner. ACE claimed by the Petitioner in respect of the communication assets has been allowed towards balance and retention payments as well as balance work under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. Accordingly, ACE allowed in respect of the communication assets for 2019-24 period is as follows:



(₹ in lakh)

ACE 2019-24						
	Asset-1	Asset-2	Asset-3		Asset-4	
Particulars	2019-20	2019-20	2019-20	2020-21	2019-20	2020-21
ACE claimed as per Auditor's Certificate	376.32	164.20	5.46	303.44	2.46	167.89
Add: IDC Discharged	39.93	0.00	0.00	0.00	0.49	0.00
ACE allowed	416.25	164.20	5.46	303.44	2.95	167.89

85. Capital cost considered in respect of the communication assets for 2019-24 tariff period is as follows:

(₹ in lakh)

Assets	FR approved cost	Capital cost up to 1.4.2019	Allowed ACE				Capital Cost as on 31.3.2024
			2019-20	2020-21	2021-22	2022-23	
Asset-1	2401.74	1848.73	416.25	0.00	0.00	0.00	2264.98
Asset-2	1070.71	795.58	164.20	0.00	0.00	0.00	959.78
Asset-3	778.77	463.89	5.46	303.44	0.00	0.00	772.79
Asset-4	408.38	226.71	2.95	167.89	0.00	0.00	397.55

Debt-Equity ratio

86. 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:

- where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
- 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.”

87. Debt-equity ratio considered for the purpose of computation of tariff for 2019-24 tariff period in respect of the communication assets is as follows:

Asset-1

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	1294.11	70.00	291.38	70.00	1585.49	70.00
Equity	554.62	30.00	124.88	30.00	679.49	30.00
Total	1848.73	100.00	416.25	100.00	2264.98	100.00

Asset-2

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	556.91	70.00	114.94	70.00	671.85	70.00



Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Equity	238.67	30.00	49.26	30.00	287.93	30.00
Total	795.58	100.00	164.20	100.00	959.78	100.00

Asset-3

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	324.72	70.00	216.23	70.00	540.95	70.00
Equity	139.17	30.00	92.67	30.00	231.84	30.00
Total	463.89	100.00	308.90	100.00	772.79	100.00

Asset-4

Particulars	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	158.70	70.00	119.59	70.00	278.29	70.00
Equity	68.01	30.00	51.25	30.00	119.27	30.00
Total	226.71	100.00	170.84	100.00	397.55	100.00

Depreciation

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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



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

89. We have considered the submissions of the Petitioner. The depreciation in respect of the communication assets has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. Since the communication assets consist of only one element of PLCC, the Gross Block during 2019-24 tariff period has been depreciated at rate of 6.33% as provided for communication equipment in the 2019 Tariff Regulations. The depreciation allowed for the communication assets is as follows:

Asset-1

		(₹ in lakh)				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	1848.73	2264.98	2264.98	2264.98	2264.98
B	ACE	416.25	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	2264.98	2264.98	2264.98	2264.98	2264.98
D	Average Gross Block (A+C)/2	2056.86	2264.98	2264.98	2264.98	2264.98
E	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset (Year)	15	14	13	12	11
G	Lapsed life at the beginning of the year (Year)	0	1	2	3	4
H	Aggregate Depreciable Value	1851.17	2038.48	2038.48	2038.48	2038.48
I	Depreciation during the year (D*E)	130.20	143.37	143.37	143.37	143.37
J	Cumulative Depreciation	139.48	282.85	426.22	569.59	712.96
K	Remaining Depreciable Value (H-L)	1711.69	1755.64	1612.27	1468.90	1325.53



Asset-2

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	795.58	959.78	959.78	959.78	959.78
B	ACE	164.20	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	959.78	959.78	959.78	959.78	959.78
D	Average Gross Block (A+C)/2	877.68	959.78	959.78	959.78	959.78
E	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset (Year)	15	14	13	12	11
G	Lapsed life at the beginning of the year (Year)	0	1	2	3	4
H	Aggregate Depreciable Value	789.91	863.80	863.80	863.80	863.80
I	Depreciation during the year (D*E)	55.56	60.75	60.75	60.75	60.75
J	Cumulative Depreciation	59.56	120.31	181.06	241.81	302.56
K	Remaining Depreciable Value (H-L)	730.35	743.49	682.74	621.99	561.24

Asset-3

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	463.89	469.35	772.79	772.79	772.79
B	ACE	5.46	303.44	0.00	0.00	0.00
C	Closing Gross Block (A+B)	469.35	772.79	772.79	772.79	772.79
D	Average Gross Block (A+C)/2	466.62	621.07	772.79	772.79	772.79
E	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset (Year)	14	13	12	11	10
G	Lapsed life at the beginning of the year (Year)	1	2	3	4	5
H	Aggregate Depreciable Value	419.96	558.96	695.51	695.51	695.51
I	Depreciation during the year (D*E)	29.54	39.31	48.92	48.92	48.92
J	Cumulative Depreciation	61.26	100.57	149.49	198.41	247.33
K	Remaining Depreciable Value (H-L)	358.70	458.40	546.03	497.11	448.19



Asset-4

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	226.71	229.66	397.55	397.55	397.55
B	ACE	2.95	167.89	0.00	0.00	0.00
C	Closing Gross Block (A+B)	229.66	397.55	397.55	397.55	397.55
D	Average Gross Block (A+C)/2	228.19	313.61	397.55	397.55	397.55
E	Weighted Average Rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset (Year)	14	13	12	11	10
G	Lapsed life at the beginning of the year (Year)	1	2	3	4	5
H	Aggregate Depreciable Value	205.37	282.25	357.80	357.80	357.80
I	Depreciation during the year (D*E)	14.44	19.85	25.17	25.17	25.17
J	Cumulative Depreciation	22.81	42.66	67.83	93.00	118.17
K	Remaining Depreciable Value (H-L)	182.55	239.58	289.96	264.79	239.62

Interest on Loan (“IoL”)

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

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

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

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

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

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

Provided that if there is no actual loan for a particular year but normative loan is still



outstanding, the last available weighted average rate of interest shall be considered;

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

(5a) The rate of interest on loan for installation of emission control system shall be the weighted average rate of interest of actual loan portfolio of the emission control system or in the absence of actual loan portfolio, the weighted average rate of interest of the generating company as a whole shall be considered.

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

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

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

92. We have considered the submissions of the Petitioner. The Weighted Average Rate of Interest on IoL has been considered on the basis of the rates prevailing as on 1.4.2019. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. IoL in respect of the communication assets has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. IoL allowed for the communication assets is as follows:

Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	1294.11	1585.49	1585.49	1585.49	1585.49
B	Cumulative Repayments upto Previous Year	9.28	139.48	282.85	426.22	569.59
C	Net Loan-Opening (A-B)	1284.83	1446.01	1302.64	1159.27	1015.90
D	Additions	291.38	0.00	0.00	0.00	0.00
E	Repayment during the year	130.20	143.37	143.37	143.37	143.37
F	Net Loan-Closing (C+D-E)	1446.01	1302.64	1159.27	1015.90	872.53
G	Average Loan (C+F)/2	1365.42	1374.32	1230.95	1087.58	944.21



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
H	Weighted Average Rate of Interest on Loan (in %)	7.7138	7.7195	7.7515	7.7890	7.7772
I	Interest on Loan (G*H)	105.33	106.09	95.42	84.71	73.43

Asset-2

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	556.91	671.85	671.85	671.85	671.85
B	Cumulative Repayments upto Previous Year	4.00	59.56	120.31	181.06	241.81
C	Net Loan-Opening (A-B)	552.91	612.29	551.54	490.79	430.04
D	Additions	114.94	0.00	0.00	0.00	0.00
E	Repayment during the year	55.56	60.75	60.75	60.75	60.75
F	Net Loan-Closing (C+D-E)	612.29	551.54	490.79	430.04	369.29
G	Average Loan (C+F)/2	582.60	581.91	521.16	460.41	399.66
H	Weighted Average Rate of Interest on Loan (in %)	7.7124	7.7172	7.7490	7.7865	7.7747
I	Interest on Loan (G*H)	44.93	44.91	40.38	35.85	31.07

Asset-3

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Loan					
A	Gross Normative Loan	324.72	328.54	540.95	540.95	540.95
B	Cumulative Repayments upto Previous Year	31.72	61.26	100.57	149.49	198.41
C	Net Loan-Opening (A-B)	293.01	267.29	440.39	391.47	342.55
D	Additions	3.82	212.41	0.00	0.00	0.00
E	Repayment during the year	29.54	39.31	48.92	48.92	48.92
F	Net Loan-Closing (C+D-E)	267.29	440.39	391.47	342.55	293.63
G	Average Loan (C+F)/2	280.15	353.84	415.93	367.01	318.09
H	Weighted Average Rate of Interest on Loan (in %)	7.7860	7.7843	7.7744	7.7633	7.7616
I	Interest on Loan (G*H)	21.81	27.54	32.34	28.49	24.69



Asset-4

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	158.70	160.76	278.29	278.29	278.29
B	Cumulative Repayments upto Previous Year	8.37	22.81	42.66	67.83	93.00
C	Net Loan-Opening (A-B)	150.32	137.95	235.62	210.45	185.28
D	Additions	2.07	117.52	0.00	0.00	0.00
E	Repayment during the year	14.44	19.85	25.17	25.17	25.17
F	Net Loan-Closing (C+D-E)	137.95	235.62	210.45	185.28	160.11
G	Average Loan (C+F)/2	144.14	186.79	223.04	197.87	172.70
H	Weighted Average Rate of Interest on Loan (in %)	8.0009	7.9986	8.0003	7.9963	7.9834
I	Interest on Loan (G*H)	11.53	14.94	17.84	15.82	13.79

Return on Equity ("RoE")

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

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

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

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 7 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:
- rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;
 - an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

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

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

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

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

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

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

Illustration-

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

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

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

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



- (b) Estimated Advance Tax for the year on above is Rs 240 crore;
(c) Effective Tax Rate for the year 2019-20 = Rs 240 Crore/Rs 1000 Crore = 24%;
(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

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

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

Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	554.62	679.49	679.49	679.49	679.49
B	Additions	124.88	0.00	0.00	0.00	0.00
C	Closing Equity (A+B)	679.49	679.49	679.49	679.49	679.49
D	Average Equity (A+C)/2	617.06	679.49	679.49	679.49	679.49
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)	115.90	127.62	127.62	127.62	127.62

Asset-2

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	238.67	287.93	287.93	287.93	287.93
B	Additions	49.26	0.00	0.00	0.00	0.00



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
C	Closing Equity (A+B)	287.93	287.93	287.93	287.93	287.93
D	Average Equity (A+C)/2	263.30	287.93	287.93	287.93	287.93
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)	49.45	54.08	54.08	54.08	54.08

Asset-3

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	139.17	140.80	231.84	231.84	231.84
B	Additions	1.64	91.03	0.00	0.00	0.00
C	Closing Equity (A+B)	140.80	231.84	231.84	231.84	231.84
D	Average Equity (A+C)/2	139.99	186.32	231.84	231.84	231.84
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)	26.29	34.99	43.54	43.54	43.54

Asset-4

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Return on Equity					
A	Opening Equity	68.01	68.90	119.27	119.27	119.27
B	Additions	0.89	50.37	0.00	0.00	0.00
C	Closing Equity (A+B)	68.90	119.27	119.27	119.27	119.27
D	Average Equity (A+C)/2	68.46	94.08	119.27	119.27	119.27
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)	12.86	17.67	22.40	22.40	22.40



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

95. The O&M Expenses claimed by the Petitioner in respect of the communication assets for 2019-24 period (except Asset-2, being State Sector-UPPTCL) are as follows:

(₹ in lakh)					
Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	45.30	45.30	45.30	45.30	45.30
Asset-3	2.66	15.46	15.46	15.46	15.46
Asset-4	1.22	7.95	7.95	7.95	7.95

96. The Petitioner vide affidavit dated 6.10.2022 has submitted that actual O&M Expenses shall be submitted at the time of filing of truing up petition for 2019-24. Further, the Petitioner has submitted following details of O&M Expenses in respect of Asset-1, Asset-3 and Asset-4 and provided Auditor’s Certificate in support of the same:

(₹ in lakh)					
Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	57.95	88.61	81.43	87.13	93.23
Asset-3	2.66	NA*	NA*	NA*	NA*
Asset-4	1.22	NA*	NA*	NA*	NA*

**Actual O&M expenses to be submitted at the time of filing of truing up petition for 2019-24.*

97. The norms specified under Regulation 35(3)(4) of the 2019 Tariff Regulations provide as follows:

“35. Operation and Maintenance Expenses:

...

(3) *Transmission system:*

...

(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.”*

98. We have considered the submissions of the Petitioner. The O&M Expenses are allowed for the communication assets for 2019-24 tariff period @ 2% of the capital cost subject to review at the time of truing-up as provided under Regulation 35(3)(4) 2019 Tariff Regulations. The Petitioner is directed to submit the details of actual O&M



Expenses in respect of Asset-1, Asset-3 and Asset-4 at the time of true-up. The O&M Expenses allowed are as follows:

Asset-1

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses claimed	57.95	88.61	81.43	87.13	93.23
O&M Expenses Allowed	45.30	45.30	45.30	45.30	45.30

Asset-3

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses claimed	2.66	-	-	-	-
O&M Expenses Allowed	9.39	15.46	15.46	15.46	15.46

Asset-4

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses claimed	1.22	-	-	-	-
O&M Expenses Allowed	4.59	7.95	7.95	7.95	7.95

Interest on Working Capital (“IWC”)

99. 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) *The working capital shall cover:*

.....

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

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

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

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

(4) *Interest on working capital shall be payable on normative basis notwithstanding that*



the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

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

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

100. 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 (RoI) considered is 12.05% (SBI 1-year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for 2019-20, RoI for 2020-21 has been considered as 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points), RoI for 2021-22 has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) whereas RoI for 2022-23 onwards has been considered as 10.50% (SBI 1-year MCLR applicable as on 1.4.2022 of 7.00% plus 350 basis points). The components of the working capital and interest allowed thereon for the communication assets are as follows:

Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (O&M Expenses for one month)	3.77	3.77	3.77	3.77	3.77
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	6.79	6.79	6.79	6.79	6.79
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	49.67	52.96	51.56	50.22	48.68
D	Total Working Capital (A+B+C)	60.24	63.53	62.13	60.79	59.25
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital (D*E)	7.26	7.15	6.52	6.38	6.22



Asset-2

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Interest on Working Capital					
B	Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Maintenance Spares (15% of O&M Expenses)	0.00	0.00	0.00	0.00	0.00
D	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	18.71	19.97	19.39	18.82	18.17
E	Total Working Capital (A+B+C)	18.71	19.97	19.39	18.82	18.17
F	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
G	Interest on Working Capital (D*E)	2.25	2.25	2.04	1.98	1.91

Asset-3

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Interest on Working Capital					
B	Working Capital for O&M Expenses (O&M Expenses for one month)	0.78	1.29	1.29	1.29	1.29
C	Working Capital for Maintenance Spares (15% of O&M Expenses)	1.41	2.32	2.32	2.32	2.32
D	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	10.89	14.72	17.57	17.08	16.56
E	Total Working Capital (A+B+C)	13.08	18.32	21.17	20.69	20.17
F	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
G	Interest on Working Capital (D*E)	1.58	2.06	2.22	2.17	2.12

Asset-4

(₹ in lakh)

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Interest on Working Capital					
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.38	0.66	0.66	0.66	0.66



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	0.69	1.19	1.19	1.19	1.19
C	Working Capital for Receivables (Equivalent to 45 days of annual fixed cost/ annual transmission charges)	5.43	7.58	9.19	8.93	8.66
D	Total Working Capital (A+B+C)	6.51	9.43	11.04	10.79	10.51
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital (D*E)	0.78	1.06	1.16	1.13	1.10

Annual Fixed Charges for 2019-24 Tariff Period

101. The AFC allowed in respect of the communication assets in the instant petition is as follows:

Asset-1

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Transmission Charges						
A	Depreciation	130.20	143.37	143.37	143.37	143.37
B	Interest on Loan	105.33	106.09	95.42	84.71	73.43
C	Return on Equity	115.90	127.62	127.62	127.62	127.62
D	O&M Expenses	45.30	45.30	45.30	45.30	45.30
E	Interest on Working Capital	7.26	7.15	6.52	6.38	6.22
F	Total (A+B+C+D+E)	403.99	429.53	418.23	407.38	395.94

Asset-2

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Transmission Charges						
A	Depreciation	55.56	60.75	60.75	60.75	60.75
B	Interest on Loan	44.93	44.91	40.38	35.85	31.07
C	Return on Equity	49.45	54.08	54.08	54.08	54.08
D	O&M Expenses	0.00	0.00	0.00	0.00	0.00
E	Interest on Working Capital	2.25	2.25	2.04	1.98	1.91
F	Total (A+B+C+D+E)	152.19	161.99	157.25	152.66	147.81

Asset-3

(₹ in lakh)						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Annual Transmission Charges						
A	Depreciation	29.54	39.31	48.92	48.92	48.92



	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Annual Transmission Charges					
B	Interest on Loan	21.81	27.54	32.34	28.49	24.69
C	Return on Equity	26.29	34.99	43.54	43.54	43.54
D	O&M Expenses	9.39	15.46	15.46	15.46	15.46
E	Interest on Working Capital	1.58	2.06	2.22	2.17	2.12
F	Total (A+B+C+D+E)	88.61	119.36	142.48	138.58	134.73

Asset-4

	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
	Annual Transmission Charges					
A	Depreciation	14.44	19.85	25.17	25.17	25.17
B	Interest on Loan	11.53	14.94	17.84	15.82	13.79
C	Return on Equity	12.86	17.67	22.40	22.40	22.40
D	O&M Expenses	4.59	7.95	7.95	7.95	7.95
E	Interest on Working Capital	0.78	1.06	1.16	1.13	1.10
F	Total (A+B+C+D+E)	44.20	61.47	74.52	72.47	70.41

(₹ in lakh)

Filing Fee and Publication Expenses

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

103. We have considered the submissions of the Petitioner. 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 Fees & RLDC Fees and Charges

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



Goods and Services Tax

105. 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 will be borne and additionally paid by the Respondents to the Petitioner and the same will be charged and billed separately by the Petitioner. Further additional taxes, if any, are to be paid by the Petitioner on account of demand from Government / Statutory authorities, the same may be allowed to be recovered from the beneficiaries.

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

Security Expenses

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

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

109. 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 revenue from telecom business

110. The Petitioner vide affidavit dated 6.10.2022 has submitted that six fibres are being used for ULDC purpose (Grid operation data/voice availability) and the remaining dark fibers may be leased out to the third parties as and when required. The sharing of revenue will be as per the Commission's Sharing Regulations. The Petitioner has further submitted that as per Regulation 4(a)(ii) of the Central Electricity Regulatory Commission (Sharing of Revenue derived from utilization of transmission assets for other business) Regulations, 2007, the transmission owner shall share revenue @ Rs 3000/- per year per km of right of way utilized for laying of one optical fiber cable or optical fiber composite overhead ground wire over the transmission towers. Accordingly, the Petitioner has submitted that it has shared the revenue with beneficiaries on annual basis.

111. The Petitioner has submitted that the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2007 has since been repealed and replaced with Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2020 vide notification dated 17.2.2020. As per Regulation 5(a) of the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2020, any transmission licensee who engages in telecommunication business, shall share with



the long term customers, an amount equal to 10% of the gross revenue from the telecom business. Accordingly, the Petitioner has started sharing the revenue with the Long-Term beneficiaries from 1.7.2020 onwards as per the new norms. The Petitioner has submitted the following details of revenue shared with respect to telecom business and furnished the letter of intimation regarding revenue sharing and Auditor's Certificates of Gross Revenue pertaining to telecom business:

Sl. No.	Period of Revenue Sharing	Amount of Revenue Sharing (₹ in lakh)
1.	1.7.2020 to 31.3.2021	5965.77
2.	1.4.2021 to 31.3.2022	6705.56

Sharing of Transmission Charges

Central Sector (Asset-1, Asset-3 and Asset-4)

112. 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. However, with effect from 1.11.2020, sharing of transmission charges is governed by the Central Electricity Regulatory Commission (Sharing of Transmission Charges and Losses) Regulations, 2020 (2020 Sharing Regulations). Accordingly, the billing, collection and disbursement of transmission charges shall be recovered in terms of the provisions of the 2010 Sharing Regulations and 2020 Sharing Regulations as provided in Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations.

State Sector (Asset-2)

113. The transmission charges approved in this order for communication Asset-2 (State Sector) shall be borne by the concerned State beneficiary as provided under Regulation 43 of the 2014 Tariff Regulations and Regulation 57 of the 2019 Tariff Regulations, as the case may be.



114. To summarise:

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

(₹ in lakh)

Particulars	Asset-1	Asset-2	Asset-3		Asset-4
	2018-19 (Pro-rata for 29 days)	2018-19 (Pro-rata for 29 days)	2017-18 (Pro-rata for 59 days)	2018-19	2018-19 (Pro-rata for 219 day)
AFC	36.05	11.38	12.09	80.63	24.20

- b. Annual Fixed Charges (AFC) allowed in respect of the communication assets for 2019-24 tariff period are as follows:

(₹ in lakh)

Assets	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-1	AFC claimed	404.15	430.04	419.20	408.34	396.88
	AFC allowed	403.99	429.53	418.23	407.38	395.94
Asset-2	AFC claimed	159.38	170.40	165.58	160.74	155.64
	AFC allowed	152.19	161.99	157.25	152.66	147.81
Asset-3	AFC claimed	81.59	119.54	142.83	138.93	135.06
	AFC allowed	88.61	119.36	142.48	138.58	134.73
Asset-4	AFC claimed	40.70	61.55	74.69	72.64	70.58
	AFC allowed	44.20	61.47	74.52	72.47	70.41

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

116. This order disposes of Petition No. 18/TT/2022 in terms of the above discussions and findings.

sd/-
(P.K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I S Jha)
Member



ANNEXURE-I**Asset-1**

2014-19		ACE (₹ in lakh)			Depreciation as per Regulations		
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2018-19	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation	2018-19	
PLCC	1840.66	8.07	8.07	1848.73	6.33%	116.77	
Total	1840.66	8.07	8.07	1848.73	Total	116.77	
						Average Gross Block (₹ in lakh)	1844.70
						Weighted Average Rate of Depreciation	6.33%

Asset-2

2014-19		ACE (₹ in lakh)			Depreciation as per Regulations		
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2018-19	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation	2018-19	
PLCC	795.58	0.00	0.00	795.58	6.33%	50.36	
Total	795.58	0.00	0.00	795.58	Total	50.36	
						Average Gross Block (₹ in lakh)	795.58
						Weighted Average Rate of Depreciation	6.33%



Asset-3

2014-19		ACE (₹ in lakh)				Depreciation as per Regulations			
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2017-18	2018-19	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	2017-18	2018-19	
PLCC	404.83	2.13	56.93	59.06	463.89	6.33%	25.69	27.56	
Total	404.83	2.13	56.93	59.06	463.89	Total	25.69	27.56	
							Average Gross Block (₹ in lakh)	405.89	435.42
							Weighted Average Rate of Depreciation	6.33%	6.33%

Asset-4

2014-19		ACE (₹ in lakh)			Depreciation as per Regulations			
Capital Cost	Capital Cost as on 1.4.2014 / COD (₹ in lakh)	2018-19	Allowed ACE (₹ in lakh)	Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depn.	2018-19		
PLCC	214.26	12.45	12.45	226.71	6.33%	13.96		
Total	214.26	12.45	12.45	226.71	Total	13.96		
						Average Gross Block (₹ in lakh)	220.49	
						Weighted Average Rate of Depreciation	6.33%	



ANNEXURE-II**Asset-1**

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	1848.73	416.25	416.25	2264.98	6.33%	130.20	143.37	143.37	143.37	143.37
Total	1848.73	416.25	416.25	2264.98		130.20	143.37	143.37	143.37	143.37
Average Gross Block (₹ in lakh)						2056.86	2264.98	2264.98	2264.98	2264.98
Weighted Average Rate of Depreciation						6.33%	6.33%	6.33%	6.33%	6.33%

Asset-2

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	Total			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	795.58	164.20	164.20	959.78	6.33%	55.56	60.75	60.75	60.75	60.75
Total	795.58	164.20	164.20	959.78		55.56	60.75	60.75	60.75	60.75
Average Gross Block (₹ in lakh)						877.68	959.78	959.78	959.78	959.78
Weighted Average Rate of Depreciation						6.33%	6.33%	6.33%	6.33%	6.33%



Asset-3

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	463.89	5.46	303.44	308.90	772.79	6.33%	29.54	39.31	48.92	48.92	48.92
Total	463.89	5.46	303.44	308.90	772.79		29.54	39.31	48.92	48.92	48.92
Average Gross Block (₹ in lakh)							466.62	621.07	772.79	772.79	772.79
Weighted Average Rate of Depreciation							6.33%	6.33%	6.33%	6.33%	6.33%

Asset-4

2019-24 Capital Expenditure	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	226.71	2.95	167.89	170.84	397.55	6.33%	14.44	19.85	25.17	25.17	25.17
Total	226.71	2.95	167.89	170.84	397.55		14.44	19.85	25.17	25.17	25.17
Average Gross Block (₹ in lakh)							228.19	313.61	397.55	397.55	397.55
Weighted Average Rate of Depreciation							6.33%	6.33%	6.33%	6.33%	6.33%

