

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 1/TT/2022

Coram:

**Shri Jishnu Barua, Chairperson
Shri Ramesh Babu V., Member
Shri Harish Dudani, Member**

Date of Order: 21.04.2025

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 for the determination and truing up of the transmission tariff of the 2014-19 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 and the determination of transmission tariff of the 2019-24 period under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for 11 Nos. Assets (OPGW links along with associated communication equipment) under "Establishment of Communication System under Expansion/ Up gradation of SCADA/ EMS System at SLDCs of Eastern Region (BSPTCL)."

And in the matter of:

Power Grid Corporation of India Limited,
"Saudamini", Plot No. 2,
Sector 29, Gurgaon-122001.

...Petitioner

Vs.

Bihar State Power (Holding) Company Limited,
(Formerly Bihar State Electricity Board -BSEB),
Vidyut Bhavan, Bailey Road, Patna-800 001.

...Respondent

Parties Present: Shri Mohd. Mohsin, PGCIL
Shri Zafrul Hasan, PGCIL
Shri Arjun Malhotra, PGCIL
Ms. Rohini Prasad, Advocate, BSPHCL

ORDER

The Petitioner, Power Grid Corporation of India Limited, has filed the instant Petition for the determination and truing up of the tariff for the 2014-19 tariff period



under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”) and the determination of tariff for the 2019-24 tariff period 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 “communication assets/ combined communication asset”) under “Establishment of Communication System under Expansion/ Upgradation of SCADA/ EMS System at SLDCs” in the Eastern Region (hereinafter referred to as the “communication project”).

Asset-I: 01 No. OPGW link, along with communication equipment for BSPTCL

Asset-II: 10 Nos. OPGW link, along with communication equipment for BSPTCL

Asset-III: 01 No. OPGW link, along with communication equipment for BSPTCL

Asset-IV: 12 Nos. OPGW link, along with communication equipment for BSPTCL

Asset-V: 09 Nos. OPGW link, along with communication equipment for BSPTCL

Asset-VI: 11 Nos. PLCC link and associated equipment for BSPTCL

Asset-VII: 07 Nos. PLCC link and associated equipment for BSPTCL

Asset-VIII: 10 Nos. PLCC link and associated equipment for BSPTCL

Asset-IX: 06 Nos. PLCC link and associated equipment for BSPTCL

Asset-X: 02 Nos. PLCC link and associated equipment for BSPTCL

Asset-XI: 03 Nos. PLCC link and associated equipment for BSPTCL

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



“1) Allow the Petitioner to approach Hon’ble Commission for claiming the transmission tariff along with truing up tariff for the period 2014-19 owing to merit of the instant special case.

2) Approve the Transmission Tariff –cum- Truing Up tariff for the tariff block 2014-19 block for the asset covered under this petition, as per para –8.2 above and transmission tariff for 2019-24 block for the assets covered under this petition, as per para 9.2 above.

3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization projected to be incurred.

4) Allow the petitioner to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission as provided in Tariff Regulation 2014 and Tariff regulations 2019 as per para 8.2 and 9.2 above for respective block.

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

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

7) Allow the petitioner to file a separate petition before Hon’ble Commission for claiming the overall security expenses and consequential IOWC on that security expenses as mentioned at para 10.6 above

8) 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 under clause 25 of the Tariff regulations 2014.

9) 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 other expenditure (if any) in relation to the filing of petition.

10) 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.

11) 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 period, if any, from the respondents.



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

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

Background

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

(a) The Investment Approval (IA) for the communication project was accorded by the Board of Directors of the Petitioner in its 313th meeting dated 17.4.2015 and communicated vide Memorandum Ref. No. K/KA/FOCSER, dated 24.2.2015, with an estimated cost of ₹8531 lakh, including an IDC of ₹582 lakh based on the December 2014 price level.

(b) The scope of work covered under the communication project is as follows:

- (i) Implementation of OPGW fibre optic cable on EHV transmission line of constituents, the estimated length of such cable is approximately 1965 km.
- (ii) Installation of 87 Nos. terminal equipment based upon Synchronous Digital Hierarchy (SDH) technology at Sub-stations of the constituents, 116 Nos. of Multiplexers/D&I/DACS at wide band nodes and Network Management System (NMS).
- (iii) DC power supply- Presently envisaged at all the wideband locations where equipment is to be installed. However, the requirement shall be optimized during detailed engineering.
- (iv) Approach cable for providing connectivity between OPGW and equipment.

(c) The Revised Cost Estimate (RCE) of the communication project was accorded by the Competent Authority of the Petitioner on 30.11.2021 and communicated vide



Memorandum No. C/CP/PA2122-09-0AB-RCE006, dated 6.12.2021, with an estimated cost of ₹9216 lakh, including IDC of ₹687 lakh based on the June 2021 price level.

(d) The revised scope of work under the communication project is as under:

- (i) Implementation of OPGW fibre optic cable on EHV transmission line of constituents, the estimated length of such cable is approximately 2417.44 km.
- (ii) Installation of 88 Nos. terminal equipment based upon SDH technology at Sub-stations of the constituents, 106 Nos. Multiplexers/D&I/DACS at wideband nodes.
- (iii) 91 Nos. DC power supply and 100 Nos. of PLCC on existing EHV transmission lines of constituents, including NMS system.

(e) The scheme of the communication project was discussed and approved in the 21st TCC and ERPC meetings held on 20.4.2012 and 21.4.2012, respectively, in Kolkata, and the 25th TCC and ERPC meetings held on 20.9.2013 and 21.9.2013, respectively, in Kolkata.

(f) The details of the complete communication project are as follows:

Assets	Description	COD	Petition No.
Asset	Establishment of a Communication System for DVC under Expansion/Up-gradation of SCADA EMS System of SLDCs	10.10.2017	Covered under Petition No. 419/TT/2019 for true-up of the 2014-19 tariff period)
Asset-I	01 No OPGW link along with communication equipment for BSPTCL	20.4.2017	Covered under the instant Petition
Asset-II	10 Nos OPGW link along with communication equipment for BSPTCL	6.4.2018	
Asset-III	01 No OPGW link along with communication equipment for BSPTCL	28.7.2018	
Asset-IV	12 No. OPGW link, along with communication equipment for BSPTCL	8.7.2018	
Asset-V	09 Nos OPGW link along with communication equipment for BSPTCL	6.8.2018	



Asset-VI	11 Nos PLCC link and associated equipment for BSPTCL	31.3.2018	
Asset-VII	07 Nos PLCC link and associated equipment for BSPTCL	30.5.2018	
Asset-VIII	10 Nos PLCC link and associated equipment for BSPTCL	14.6.2018	
Asset-IX	06 Nos PLCC link and associated equipment for BSPTCL	18.8.2018	
Asset-X	02 Nos PLCC link and associated equipment for BSPTCL	18.12.2018	
Asset-XI	03 Nos PLCC link and associated equipment for BSPTCL	11.3.2019	

4. As per the IA dated 24.4.2015, the communication project was scheduled to be commissioned within 30 months from the date of IA, i.e., by 23.10.2017. However, there was a delay in the commissioning of the communication assets. The details of the scheduled date of commercial operation (SCOD), date of commercial operation, and time overrun of the communication assets are as follows:

Assets	SCOD	Actual COD	Delay
Asset-I	23.10.2017	20.4.2017	Nil
Asset-II		6.4.2018	5 Months and 14 days
Asset-III		28.7.2018	9 Months and 5 days
Asset-IV		8.7.2018	8 Months and 15 days
Asset-V		6.8.2018	9 Months and 14 days
Asset-VI		31.3.2018	5 Months and 7 days
Asset-VII		30.5.2018	7 Months and 7 days
Asset-VIII		14.6.2018	7 Months and 22 days
Asset-IX		18.8.2018	9 Months and 22 days
Asset- X		18.12.2018	13 Months and 25 days
Asset- XI		11.3.2019	16 Months and 16 days

5. The Respondents are the Distribution Licensees, Power Departments, Power Utilities, and Transmission Licensees, who are procuring transmission services from the Petitioner, mainly beneficiaries of the Eastern Region.

6. The Petitioner has served a copy of the Petition on the Respondents, and



notice regarding the filing of this Petition has also been published in the newspapers in accordance with Section 64 of the Electricity Act, 2003 (hereinafter referred to as “the Act”). No comments or suggestions have been received from the general public in response to the aforesaid notices published in the newspapers by the Petitioner. Bihar State Power (Holding) Company Limited (BSPHCL), has filed its reply, vide affidavit dated 20.9.2022, and has raised the issues of time overrun, details regarding Additional Capital Expenditure (ACE), cost variation, Initial Spares, O&M Expenses of the communication system, Interest on Loan (IoL), filing fee and the expenses incurred on publication of notices and Return on Equity (RoE). The Petitioner has filed its rejoinder to the reply of BSPHCL, vide affidavit dated 13.10.2022. We considered the issues raised by BSPHCL and the clarifications provided by the Petitioner in the relevant sections of this order.

7. The hearing in this matter was held on 29.5.2024, and the order was reserved. However, the order could not be issued prior to a Member who formed part of the coram, demitting the office. Accordingly, the matter was re-listed for the hearing on 30.9.2024, and the order was reserved.

8. Having heard the representatives of the Petitioner and the learned counsel for BSPHCL and having perused the material on record, we proceed to dispose of the Petition.

9. This order is issued considering the submissions made by the Petitioner in the Petition vide affidavit dated 22.9.2021 and subsequent affidavits dated 3.3.2022, 29.3.2022 and 30.9.2022, BSPHCL’s reply vide affidavit dated 20.9.2022, additional submissions of BSPHCL vide affidavit dated 22.2.2024 and the Petitioner’s rejoinder to the reply filed by BSPHCL vide affidavit dated 13.10.2022.



Determination and Truing up of Annual Fixed Charges for the 2014-19 Tariff Period

10. The details of the charges claimed by the Petitioner in respect of the communication assets are as follows:

(₹ in lakh)

Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
	2017-18 (pro-rata 346 days)	2018-19	2018-19 (pro-rata 360 days)	2018-19 (pro-rata 247 days)	2018-19 (pro-rata 267 days)
Depreciation	1.08	1.15	65.01	6.66	44.78
Interest on Loan	0.87	0.84	52.45	5.37	35.42
Return on Equity	1.00	1.07	60.87	6.23	41.94
Interest on Working Capital	0.07	0.07	3.70	0.38	2.54
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	3.02	3.13	182.03	18.64	124.68

(₹ in lakh)

Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
	2018-19 (pro-rata 238 days)	2017-18 (pro-rata 01 days)	2018-19	2018-19 (pro-rata 306 days)	2018-19 (pro-rata 291 days)
Depreciation	27.80	0.02	7.97	7.87	10.02
Interest on Loan	22.65	0.02	6.43	6.20	7.85
Return on Equity	26.03	0.02	7.46	7.38	9.38
Interest on Working Capital	1.58	0.00	0.47	0.44	0.57
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	78.06	0.06	22.33	21.89	27.82

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI
	2018-19 (pro-rata 226 days)	2018-19 (pro-rata 104 days)	2018-19 (pro-rata 21 days)
Depreciation	6.45	0.58	0.31
Interest on Loan	5.10	0.51	0.27
Return on Equity	6.04	0.54	0.29
Interest on Working Capital	0.37	0.03	0.02
O&M Expenses	0.00	0.00	0.00
Total	17.96	1.66	0.89

11. The details of the Interest on Working Capital (IWC) for the 2014-19 tariff period claimed by the Petitioner in respect of the communication assets are as follows:



(₹ in lakh)

Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
	2017-18 (pro-rata 346 days)	2018-19	2018-19 (pro-rata 360 days)	2018-19 (pro-rata 247 days)	2018-19 (pro-rata 267 days)
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	0.53	0.52	30.76	4.59	28.41
Total of Working Capital	0.53	0.52	30.76	4.59	28.41
Rate of Interest on Working capital (in %)	12.60	12.60	12.20	12.20	12.20
Interest on Working Capital	0.07	0.07	3.70	0.38	2.54

(₹ in lakh)

Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
	2018-19 (pro-rata 238 days)	2017-18 (pro-rata 01 days)	2018-19	2018-19 (pro-rata 306 days)	2018-19 (pro-rata 291 days)
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	19.95	3.73	3.72	4.35	5.82
Total of Working Capital	19.95	3.73	3.72	4.35	5.82
Rate of Interest on Working Capital (in %)	12.20	12.60	12.60	12.20	12.20
Interest on Working Capital	1.58	0.00	0.47	0.44	0.57

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI
	2018-19 (pro-rata 226 days)	2018-19 (pro-rata 104 days)	2018-19 (pro-rata 21 days)
O&M Expenses	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00
Receivables	4.82	0.98	2.57
Total of Working Capital	4.82	0.98	2.57
Rate of Interest on Working Capital (in %)	12.20	12.20	12.20
Interest on Working Capital	0.37	0.03	0.02

Date of Commercial Operation ("COD")

12. The details of COD claimed by the Petitioner for the communication assets are as follows:

Assets	COD Claimed
Asset-I	20.4.2017
Asset-II	6.4.2018
Asset-III	28.7.2018
Asset-IV	8.7.2018
Asset-V	6.8.2018
Asset-VI	31.3.2018



Asset-VII	30.5.2018
Asset-VIII	14.6.2018
Asset-IX	18.8.2018
Asset-X	18.12.2018
Asset-XI	11.3.2019

13. Regulation 4 of the 2014 Tariff Regulations provides as under:

“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:*

(1) Date of commercial operation in case of a generating unit or block of the thermal generating station shall mean the date declared by the generating company after demonstrating the maximum continuous rating (MCR) or the installed capacity (IC) through a successful trial run after notice to the beneficiaries, if any, and in case of the generating station as a whole, the date of commercial operation of the last generating unit or block of the generating station:

Provided that

(i) where the beneficiaries have been tied up for purchasing power from the generating station, the trial run shall commence after seven days notice by the generating company to the beneficiaries and scheduling shall commence from 0000 hr after completion of the trial run:

(ii) the generating company shall certify to the effect that the generating station meets the key provisions of the technical standards of Central Electricity Authority (Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Grid Code:

(iii) the certificate shall be signed by CMD/CEO/MD of the company subsequent to its approval by the Board of Directors in the format enclosed at Appendix VI and a copy of the certificate shall be submitted to the Member Secretary, (concerned Regional Power Committee) and concerned RLDC before declaration of COD:

(2) Date of commercial operation in relation to a generating unit of hydro generating station including pumped storage hydro generating station shall mean the date declared by the generating company from 0000 hour after the scheduling process in accordance with the Grid code is fully implemented, and in relation to the generating station as a whole, the date declared by the generating company after demonstrating peaking capability corresponding to installed capacity of the generating station through a successful trial run:

Provided that:

(i) where beneficiaries have been tied up for purchasing power from generating station, scheduling process for a generating unit of the generating station or demonstration of peaking capability corresponding to installed capacity of the generating station through a successful trial run shall commence after seven days notice by the generating company to the beneficiaries and scheduling shall commence from 0000 hr after completion of trial run:

(ii) the generating company shall certify to the effect that the generating station meets key provisions of the technical standards of Central Electricity Authority



(Technical Standards for Construction of Electrical plants and electric lines) Regulations, 2010 and Grid code:

(iii) the certificate shall be signed by CMD/CEO/MD of the company subsequent to its approval by the Board of Directors in the format enclosed at Appendix VI and a copy of the certificate shall be submitted to the Member Secretary, (concerned Regional Power Committee) and concerned RLDC before declaration of COD:

(iv) in case a hydro generating station with pondage or storage is not able to demonstrate peaking capability corresponding to the installed capacity for the reasons of insufficient reservoir or pond level, the date of commercial operation of the last unit of the generating station shall be considered as the date of commercial operation of the generating station as a whole, and it will be mandatory for such hydro generating station to demonstrate peaking capability equivalent to installed capacity of the generating unit or the generating station as and when such reservoir/pond level is achieved:

(v) if a run-of-river hydro generating station or a generating unit thereof is declared under commercial operation during lean inflows period when the water inflow is insufficient for such demonstration of peaking capability, it shall be mandatory for such hydro generating station or generating unit to demonstrate peaking capability equivalent to installed capacity as and when sufficient water inflow is available.

(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.

(4) Date of commercial operation in relation to a communication system or element thereof shall mean the date declared by the transmission licensee from 0000 hour of which a communication system or element is put into service after completion of site acceptance test including transfer of voice and data to respective control centre as certified by the respective Regional Load Dispatch Centre."

14. The communication system considered in the instant Petition comprises Fibre Optic and Microwave Systems for providing a communication facility between the



control centres and the data concentrator nodes for handling large data volumes. The operating voltage for the communication system operation is a 24/48-volt D/C supply. Therefore, as per the Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulation 2010 (2010 CEA Regulations), a minimum of 650 volts is required for inspection. Further, the Central Government has specified the notified voltage for the purpose of self-certification under Regulations 30 and 43 of the 2010 CEA Regulations, which is 11 kV; that is, for up to 11 kV, no inspection is required by the CEA Inspector. Hence, the CEA clearance letter is not applicable in the case of the instant communication system.

15. In support of the COD of the communication assets, the Petitioner has submitted the certificate of successful commissioning of the trial-run operation certificate, self-declaration COD letter as required under the Grid Code. The details of the same are as follows:

Assets	COD Claimed	Trial run operation Certificate date	Date of self-declaration of COD
Asset-I	20.4.2017	23.10.2019	24.12.2019
Asset-II	6.4.2018	23.10.2019	24.12.2019
Asset-III	28.7.2018	23.10.2019	24.12.2019
Asset-IV	8.7.2018	15.12.2020	16.12.2020
Asset-V	6.8.2018	8.2.2021	11.2.2021
Asset-VI	31.3.2018	18.10.2019	24.12.2019
Asset-VII	30.5.2018	18.10.2019	24.12.2019
Asset-VIII	14.6.2018	18.10.2019	24.12.2019
Asset-IX	18.8.2018	18.10.2019	24.12.2019
Asset-X	18.12.2018	18.10.2019	24.12.2019
Asset-XI	11.3.2019	18.10.2019	24.12.2019

16. It is observed that the Petitioner has obtained the trial run certificate after a lapse of approximately two years in the case of Asset-I, and for other assets, the certificates were also obtained significantly later than the Commercial Operation Date (COD) of the respective assets. The Petitioner is directed to provide detailed



reasons for the delay in obtaining the trial run certificates at the time of truing-up.

17. Taking into consideration the certificate of successful commissioning and trial-run operation certificate, self-declaration COD letter, we approve the COD of the communication assets as follows:

Assets	COD Approved
Asset-I	20.4.2017
Asset-II	6.4.2018
Asset-III	28.7.2018
Asset-IV	8.7.2018
Asset-V	6.8.2018
Asset-VI	31.3.2018
Asset-VII	30.5.2018
Asset-VIII	14.6.2018
Asset-IX	18.8.2018
Asset-X	18.12.2018
Asset-XI	11.3.2019

Capital Cost as on COD

18. Regulation 9 of the 2014 Tariff Regulations provides as under:

“9. Capital Cost: (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:*

- i. The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- ii. 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;*
- iii. Increase in cost in contract packages as approved by the Commission;*
- iv. Interest during construction and incidental expenditure during construction as computed in accordance with Regulation 11 of these regulations;*
- v. capitalised Initial spares subject to the ceiling rates specified in Regulation 13 of these regulations;*
- vi. expenditure on account of additional capitalization and de-capitalisation determined in accordance with Regulation 14 of these regulations;*
- vii. 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*



- viii. Adjustment of any revenue earned by the transmission licensee by using the assets before COD.

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

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly tried up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”

19. The Petitioner, vide Auditor's Certificates dated 26.8.2020, has submitted the capital cost as on COD along with ACE up to 31.3.2019. The details of the FR apportioned approved cost and Revised Cost Estimate (RCE), capital cost incurred as on COD, and the ACE incurred up to 31.3.2019 as claimed by the Petitioner for the communication assets are as follows:

(₹ in lakh)					
Assets	FR Apportioned cost	Revised apportioned cost as per RCE	Capital Cost as on COD	ACE (as per Auditor's Certificate)	Capital cost as on 31.3.2019
				2018-19	
Asset-I	19.76	18.09	18.09	0.00	18.09
Asset-II	776.92	1089.49	1013.81	75.68	1089.49
Asset-III	117.52	157.87	157.87	0.00	157.87
Asset-IV	950.57	1104.05	975.54	10.46	986.00
Asset-V	720.87	939.89	668.78	30.24	699.02
Asset-VI	188.64	153.31	126.88	0.00	126.88
Asset-VII	154.48	178.28	151.62	0.00	151.62
Asset-VIII	173.79	250.31	203.38	0.00	203.38
Asset-IX	109.92	196.71	166.01	0.00	166.01
Asset-X	44.56	46.88	32.07	0.00	32.07
Asset-XI	69.61	105.50	85.38	0.00	85.38

Cost Overrun

20. The Petitioner submitted that the capital cost claimed exceeds the FR apportioned approved cost. The Petitioner has submitted the following reasons for cost over-run with respect to FR apportioned approved cost:



Reasons for cost variation:

- a. There is a variation in the awarded cost due to rates discovered through competitive bidding compared to the initial estimates (FR cost). For procurement, an open competitive bidding route was followed, and by providing equal opportunity to all the eligible firms, the lowest possible market prices for required products/services were obtained, and the contracts were awarded on the basis of the lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate, depending upon prevailing market conditions.

Cost Variation Due to Change in Quantity:

- b. The cost has been increased as compared to the DPR is mainly due to the quantity variation of the communication assets related to BSPTCL:

Particulars	Quantity as per DPR	Quantity as per actual
OPGW	1064.00	1272.00
SDH equipment	51	51
Multiplexers	72	98
DCPS	51	64
PLCC	88	100

- c. The cost variation was mainly due to the actual quantity required, awarded rate and other associated factors that were beyond the Petitioner's control. Therefore, the Commission may allow the marginal cost variation in respect of the communication assets on its merit.

Foreign Exchange Rate Variation (FERV) (Package) (Net increase of ₹ 115 lakh: 1.35%)

- d. The communication project involves foreign currency payments in US Dollars for Fibre Optic Cabling packages. The details of exchange rates considered are as follows:



Foreign Currency (in INR)		
	Approved DPR(December 2014 Price Level)	RCE
1 USD	63.07	Average rate varied from 62.31 to 76.75

e. Due to the variation in exchange rates, there is an actual/ anticipated increase of ₹115 lakh under the head FERV for packages.

21. However, the Petitioner, vide the affidavit dated 3.3.2022, has placed on record the RCE approved by the competent authority as on 30.11.2021. The Petitioner, in the said affidavit, has submitted that there is no cost overrun in the communication assets with respect to the RCE (there was cost overrun in the communication asset-V, with respect to the FR apportioned approved cost). Therefore, the tariff may be approved considering the revised apportioned cost based on the RCE.

22. In response, BSPHCL has submitted that the CODs of the communication assets have been achieved on different dates between 20.4.2017 and 11.3.2019, and the Petitioner may be directed to explain the reason for the same.

23. We have considered the submissions of the Petitioner and BSPHCL. The estimated completion cost of Asset-II, Asset-III, Asset-IV, Asset-VIII, Asset-IX, and Asset-XI varies by approximately ₹312.57 lakh, ₹40.35 lakh, ₹35.43 lakh, ₹29.59 lakh, ₹56.09 lakh, and ₹15.77 lakh, compared to the FR apportioned approved cost. The capital cost of Asset-I, Asset-V, Asset-VI, Asset-VII, and Asset-X is within the FR cost. The Petitioner has submitted the RCE approved by the competent authority on 30.11.2021. The RCE of the communication project is ₹9216.00 lakh, including an IDC of ₹687.00 lakh. The Petitioner has re-apportioned the capital cost of the communication assets, and it has been observed that the estimated completion cost, including the ACE of all the communication assets, is within the apportioned



approved cost as per the RCE. Therefore, there is no cost overrun as per RCE cost. Considering the submissions of the petitioner regarding cost escalations with respect to FR cost, the revised cost is approved subject to the decisions in the paras below.

Time Overrun

24. The Petitioner has submitted that as per the IA dated 24.4.2015, the communication project was scheduled to be put into commercial operation within 30 months progressively from the date of the IA. Accordingly, the SCOD of the communication project is 23.10.2017. The details of the SCOD, COD, and time overrun of the communication assets are as follows:

Assets	SCOD	COD Claimed	Time Over-run
Asset-I	23.10.2017	20.4.2017	Nil
Asset-II		6.4.2018	5 Months and 14 days
Asset-III		28.7.2018	9 Months and 5 days
Asset-IV		8.7.2018	8 Months and 15 days
Asset-V		6.8.2018	9 Months and 14 days
Asset-VI		31.3.2018	5 Months and 7 days
Asset-VII		30.5.2018	7 Months and 7 days
Asset-VIII		14.6.2018	7 Months and 22 days
Asset-IX		18.8.2018	9 Months and 22 days
Asset-X		18.12.2018	13 Months and 25 days
Asset-XI		11.3.2019	16 Months and 16 days

25. The Petitioner has submitted that, as per the IA dated 24.4.2015, the SCOD of Asset I was 23.10.2017, against which it was commissioned on 20.4.2017. Therefore, there is no time overrun in the commissioning of Asset I.

26. The Petitioner has submitted the following justifications for the time overrun of Assets II to XI:



Assets	Name of link OPGW/PLCC	COD	Delay reasons
Asset-II	220 kV Begusari-BTPS (Old)	6.4.2018	The 5-month and 14-day delays were mainly due to the change in scope (OPGW link quantity increased from 6 to 12, and the existing 4 links were deleted from the scope). The change in scope was decided and finally approved on 18.12.2015 by BSPTCL. After the finalisation of the scope, a technical amendment for the change of links was issued to the agency on 13.1.2016. The survey for the revised links was carried out by the agency from February 2016 to April 2016. A change in the scope (OPGW links) required an amendment in the contract. The amendment for the supply, installation, and commissioning of the additional scope was issued to the agency on 9.9.2016. Due to the change in the scope, the LoA award was delayed from 17.9.2015 to 9.9.2016 which was approximately 1 year. Further, the asset was delayed due to the non-availability of a permit to work, entry permission, shutdown at BSPTCL end and the delay due to the non-readiness of the front/ space constraint at the site by BSPTCL (BSPTCL front was ready by April 2018).
	220 kV D/C LILO of Begusarai-Biharsharif at BTPS (New)		
	220 kV D/C Sipara-Khagaul		
	132 kV D/C Sipara-Jakkanpur		
	132 kV D/C Chandauti-Bodhgaya		
	132 kV D/C Chandauti-Sonenagar		
	132 kV D/C Sonenagar-Dehri		
	220 kV D/C Dehri-Pusauli		
	220 kV D/C Pusauli (BH)-Pusauli (PG)		
	132 kV S/C MTPS-SKMCH		
Asset-III	132 kV S/ C Samastipur-Dharbhanga	28.7.2018	The 9-month and 5-day delay was mainly due to the change in the scope (OPGW link quantity increased from 6 to 12, and the existing 4 links were deleted from the scope). A change in the scope was decided upon and finally approved on 18.12.2015 by BSPTCL. After the finalisation of the scope, a technical amendment for the change of links was issued to the agency on 13.1.2016. The survey for the revised links was carried out by the agency from February 2016 to April 2016. A change in the scope (OPGW links) required an amendment to the contract. The amendment for the supply, installation, and commissioning of the additional scope was issued to the agency on 9.9.2016.



			Due to the change in the scope, the LoA award was delayed from 17.9.2015 to 9.9.2016, which is approximately 1 year. Further, the communication asset was delayed due to the non-availability of the permit to work, entry permission, shutdown at BSPTCL end, and the delay due to the non-readiness of the front/ space constraint at the site by BSPTCL (BSPTCL front was ready by April 2018)
Asset-IV	132 kV MTPS-Muzzafarpur (BH) 132 kV MTPS-Motihari 132 kV Motihari-Bettiah 132 kV Pandaul-Gangwara 132 kV Bettiah-Ramnagar 132 kV Chandauti-tehta 132 kV Masaurhi-Sipara 132 kV Tehata-Jehanabad 132 kV Jehanabad-Masaurhi 132 kV Madhepura-Saharsa 132 kV Gangwara-Darbhanga 132 kV Madhepura-Sonbarsa	8.7.2018	The 8-month and 15-day delays were mainly due to the change in the scope (OPGW link quantity increased from 847 km to 993, 12 existing links were deleted from the scope, and 11 new links were added to the scope). A change in the scope was decided and finally approved on 18.3.2016 by BSPTCL. After the finalisation of the scope, a technical amendment for the change of links was issued to the agency on 16.5.2016. The agency carried out the survey for the revised links from May 2016 to July 2016. A change in the scope (OPGW links) required an amendment to the contract. The amendment for the supply, installation, and commissioning of the additional scope was issued to the agency on 16.2.2017. Due to the change in the scope, the LoA award was delayed from 17.9.2015 to 16.2.2017, which is approximately 1 year and 5 months, delayed due to non-readiness of front/ space constraint at the site by BSPTCL (BSPTCL front ready by April, 2018)
Asset V	132 kV Ara (PG) - Ara (BH) 132 kV Banka (PG) - Banka (BH) 132 kV Banka (PG) - Sabour 132 kV Sabour - Sultanganj 132 kV Sultanganj - Jamalpur 132 kV Pandaul - Madhubani 132 kV Jamalpur - Lakhisarai (BH) 132 Lakhisarai (PG)-Lakhisarai (BH) 220 kV MTPS-Dharbhanga	6.8.2018	The 9-month and 14-day delays were mainly due to the change in the scope (OPGW link quantity increased from 847 km to 993 km, 12 existing links were deleted from the scope, and 11 new links were added in the scope). A change in the scope was decided upon and finally approved on 18.3.2016 by BSPTCL. After the finalisation of the scope, a technical amendment for the change of links was issued to the agency on



			16.5.2016. The survey for the revised links was carried out by the agency from May, 2016 to July, 2016. A change in the scope (OPGW links) required an amendment to the contract. The amendment for the supply, installation and commissioning of the additional scope was issued to the agency on 16.2.2017. Due to the change in the scope, the LoA award was delayed from 17.9.2015 to 16.2.2017 which is approximately 1 year and 5 months, delay due to non-readiness of front/ space constraint at the site by BSPTCL (BSPTCL front was ready by April, 2018)
Asset-VI	Daigha-Khagaul Jagdishpur-Ara Gaighat-Fatua Imamganj-Bodhgaya Sherghati-Bodhgaya Goh-Tekari-Chandauti Tekari-Chandauti Kochas-Dehri Kudra-Dehri Dhaka-Motihari Karpi-Jehanabad	31.3.2018	The delay from 5 months to 9 months was mainly due to the non-availability of the control centre, cable trench, equipment rooms and dismantling of the damaged/ defective/ non-working coupling capacitor, coupling device, LMU and PLCC equipment, which were in the scope of BSPTCL. Further, the commissioning was also delayed due to the change in the scope, i.e., 88 Nos. PLCC equipment and associated outdoor equipment were envisaged to be supplied, installed and commissioned under the instant package, which was later revised to 100 PLCC equipment and associated outdoor equipment, as per the requirement of BSPTCL. The amendment for the supply, installation and commissioning of the additional scope was issued to the agency on 29.6.2017 by the Petitioner after getting the confirmation of the changed scope by the BSPTCL. Finally, the control centre, cable trench, equipment rooms and dismantling of damaged/ defective/ non-working coupling capacitor, coupling device, LMU was handed over by BSPTCL from February 2018 to April 2018. Due to this, the activity was delayed by 18 months.
Asset-VII	Buxar-Dumraon – Ara (PG) Dumraon-Ara (PG) Jainagar-Madhubani Phulparas-Jainagar-Madhubani Sheikhpura-Biharsharif Barh-Biharsharif Nagachhia-BTPS Old	30.5.2018	
Asset-VIII	Vaishali-Muzzafarpur (BH) Sasaram-Dehri Banjari-Dehri Hulasganj-Ekangarsarai-Biharsharif (BH) Katra-Fatua Bikramganj-Dehri Nawada-Biharsharif Ekangarsarai-Biharsharif (BH) Jandaha-Samastipur Valmikinagar-Ramnagar	14.6.2018	
Asset-IX	Supaul-Madhepura Rajgir-Biharsharif Jamui-Lakhisarai Khagaria-Purnea (BH) Katihar-Manihari-Purnea (BH) Rafiganj-Chandauti	18.8.2018	



Asset-X	Masrak-Gopalganj	18.12.2018	<p>A delay of 13 months and 25 days was mainly due to the non-availability of the control centre, cable trench, and equipment rooms and the dismantling of the damaged/ defective/ non-working coupling capacitor, coupling device, LMU, and PLCC equipment, which were in the scope of BSPTCL. Further, the commissioning was also delayed due to the change in the scope, i.e., 88 Nos. PLCC equipment and associated outdoor equipment were envisaged to be supplied, installed, and commissioned under the instant package, which was later revised to 100 PLCC equipment and the associated outdoor equipment, as per the requirement of BSPTCL. The amendment for the supply, installation and commissioning of the additional scope was issued to the agency on 29.6.2017 by the Petitioner after getting the confirmation of the changed scope by BSPTCL. Finally, the control centre, cable trench, equipment rooms and dismantling of damaged/ defective/ non-working coupling capacitor, coupling device, LMU was handed over by BSPTCL from February, 2018 to April, 2018, Due to this the activity was delayed by 18 months. Further, vide letter 9.8.2018 the Petitioner informed that the local commissioning of Masaraka Gopalganj link has been completed by Puncom, but the data reporting of Masraka RTU over the said link was delayed due to the commissioning of MTPS-Gopalganj PGW link which in turn was delayed due to the acute RoW problems in the 132 kV MTPS - Gopalganj transmission line being executed by BSPTCL. Due to this, the activity was delayed by 18 months.</p>
	Koshi-Supaul-Madhepura		
Asset-XI	Mohania-Pusauli	11.3.2019	<p>The delay of 16 months and 16 days was mainly due to the non-availability of a control centre, cable trench, and equipment rooms, and the dismantling of the damaged/ defective/ non-working coupling capacitor, coupling device, LMU, and PLCC equipment, which were in the scope of BSPTCL.</p>
	Karnamasa-Mohania -Pusauli		
	Belaganj-Chandauti		



			<p>Further, the commissioning was delayed due to the change in scope, i.e., 88 Nos. PLCC equipment and associated outdoor equipment were envisaged to be supplied, installed, and commissioned under the instant package, which was later revised to 100 PLCC equipment and associated outdoor equipment, as per the requirement of BSPTCL. The amendment for the supply, installation, and commissioning of the additional scope was issued to the agency on 29.6.2017 by the Petitioner after getting the confirmation of the changed scope by BSPTCL. Finally, the control centre, cable trench, equipment rooms, and dismantling of damaged/ defective/ non-working coupling capacitor, coupling device, and LMU were handed over by BSPTCL from February 2018 to April 2018. Further, the link got delayed due to the unavailability of the shutdown. The Petitioner requested the shutdown vide letters dated 9.8.2018 and 15.1.2019, but the shutdown was granted in February 2019, and finally, the communication asset was commissioned in March 2019. Thus, the activity got delayed by 22 months from December 2016 to January 2019.</p>
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Delay Reasons For Assets II and III

27. The Petitioner has submitted that there was a time overrun in the commissioning of Asset II of 5 months and 14 days, and for Asset III, it was 9 months and 5 days. The details of time overrun concerning Assets II and III are categorized under the following heads:

A. Delay Due To Revision (increase) in the Quantity of OPGW Links by BSPTCL (Change in scope)

- (i) Initially, the plan was to supply, install, and commission 6 Nos. (212 km) OPGW Links, along with the associated communication and auxiliary



equipment. However, this plan was later revised to include 12 Nos. (282.432 km) OPGW links and associated communication and auxiliary equipment, as per the requirement of BSPTCL outlined in their email dated 7.9.2015 and Memorandum of Meeting (MoM) dated 18.12.2015. This revision involved deleting 4 out of the 6 OPGW links initially planned and including 10 new OPGW links in the scope of Taihan.

- (ii) BSPTCL finalized the link implementation by 18.12.2015 and issued the Technical Amendment for changing links to the agency on 13.1.2016. The agency surveyed the revised links from February 2016 to April 2016. The agency progressively submitted the Survey Reports, which were approved by the end of April 2016.
- (iii) The change in the scope (OPGW links) required an amendment to the contract. The amendment for the additional scope's supply, installation, and commissioning was issued to the agency on 9.9.2016. Therefore, the LoA award was delayed from 17.9.2015 to 9.9.2016, i.e., approximately for one year.

B. Delay Due to Non-availability of Permit to Work, Entry Permission And Shutdown at BSPTCL's End:

- (i) The permit to work for live line OPGW installation in 12 Nos. links was sought from BSPTCL, which was provided on a time-to-time basis. However, the installation agency (Sabari Electricals) did not receive PTW/ Shutdown/ Entry permission to the site to complete the balance works in 4 nos. links, wherein the earth wire (required for Live line OPGW installation) was found missing. The shutdown was delayed and resulted in a delay in the commissioning of the following links:



(a) Shutdown of 132 kV Sipara-Jakkanpur Link

Tower No. 284 and Jakkanpur Gantry were idle for over a month. The first request for the shutdown was submitted to BSPTCL on 8.4.2017, with subsequent requests made on 19.4.2017, 25.4.2017, 14.5.2017, 18.5.2017, and 25.5.2017. These repeated requests caused a delay in the shutdown by more than a month.

(b) Shutdown of 132 kV Samastipur - Darbhanga link

For Tower Nos. 92 and 93 on 15.2.2017.

(c) Entry Permission at BTPS (New) Sub-station:

A request for entry permission was sent to BSPTCL through an email dated 6.4.2017 for the installation of FOAC, HDPE Duct, FODP, and termination of OPGW at Gantry Tower for both LILO links, which delayed the commissioning of the communication assets by one (1) month.

C. Delay Due to Non-readiness of Front/ Space Constraints at Site by BSPTCL

- (i) BSPTCL was to allocate a clear front at sites to install SDH, PDH, and Auxiliary Power Supply equipment. However, at many locations/sites, communication rooms, a cable trench from the gantry tower to the communication room, existing communication rooms to new communication rooms, an air-conditioned environment required for the smooth functioning of the equipment, etc., were not ready. The identification of space for equipment installation took substantial time, which resulted in a delay in the overall progress.
- (ii) The issue of the non-readiness of infrastructures like the communication room, cable trench, and air conditioning at BSPTCL Sub-stations was raised



through various emails, communications, and meetings. Due to the non-readiness of such infrastructures, the installation of SDH, PDH MUX, FODP, and approach cable was delayed.

Delay Reasons for Assets IV and V

28. The Petitioner has claimed a delay of 8 months and 15 days for Asset IV and a delay of 9 months and 14 days for Asset V. In support of the delay for Assets IV and V, the Petitioner has made the following submissions:

A. Delay Due to Revision (Increase) in Quantity of OPGW Links by BSPTCL (Change in scope)

- (i) The initial plan was to supply, install, and commission 31 OPGW Links (847 km) along with communication and auxiliary equipment. However, this plan was later revised to 28 OPGW Links (993 km) and associated communication and auxiliary equipment, as per the request of BSPTCL in its email dated 23.12.2015 and jointly signed letter dated 18.3.2016. Twelve out of the 31 OPGW links originally planned for implementation were removed, and 11 new OPGW links were included in the scope of M/s SDGI.
- (ii) As the links were to be implemented under the instant package and were changed and finalized by BSPTCL by 18.3.2016 only, the technical amendment for the change of links was issued to the agency on 16.5.2016. The agency surveyed the revised links from May 2016 to July 2016. The agency progressively submitted the Survey Reports, which were approved progressively by the end of August 2016.
- (iii) A change in links required an amendment to the contract. The amendment for the supply, installation, and commissioning of the additional scope was



issued to the agency on 16.2.2017. Due to a change in scope, the LOA award was delayed from 17.9.2015 to 16.2.2017, which is approximately 17 months.

- (iv) Subsequent to the completion of the survey in July 2016 and subsequent approval in August 2016, M/s SDGI supplied the first lot of OPGW cable and hardware fittings at the site in January 2017. The delay in the finalization of links and the subsequent survey resulted in the delayed supply of OPGW at the site. The OPGW supply was delayed due to the revision of links and their cascading effect on commissioning.

B. Delay Due to Non-readiness of Front/ Space Constraints at Site by BSPTCL

- (i) BSPTCL was to allocate a clear front at sites to install SDH, PDH, and auxiliary power supply equipment. However, at many locations/sites, communication rooms, cable trenches from the gantry tower to the communication room, existing communication rooms to new communication rooms, an air-conditioned environment required for the smooth functioning of the equipment, etc., were not ready. The identification of space for equipment installation took substantial time, resulting in a delay in the overall progress.
- (ii) The Petitioner, vide various email communications and meetings, raised the issue of the non-readiness of infrastructures like the communication room, cable trench, and air conditioning at the BSPTCL Sub-station. The installation of SDH, PDH MUX, FODP, and approach cable was delayed due to the non-readiness of such infrastructures.



Delay Reasons for Assets VI to XI

29. The Petitioner has submitted that there was a time overrun concerning Assets VI to XI in the range of 5 months to 16 ½ months. The Petitioner has submitted the following reasons for the time overrun for Assets VI to XI:

- (i) The meeting dated 21.10.2016 was held between BSPTCL and the Petitioner. In this meeting, the Petitioner informed that the erection of OPGW shall start from 15.11.2016 and will be completed by the end of August 2017. Further, the Petitioner informed that the supply, erection, and commissioning of communication equipment (SDH, PDH, PLCC, and DCPS) from January 2017 and all communication equipment, i.e., SDH, PDH, PLCC, and DCPS, would be installed and commissioned by September 2017.
- (ii) In this meeting, the Petitioner also raised the issue of the non-availability of air conditioning machines at sites. AC environments are essentially required for the communication equipment, without which the commissioning of this equipment will be hardly possible.
- (iii) In the above-said meeting, BSPTCL informed that 48 new communication rooms were constructed by the civil department of BSPTCL. The provision of AC was made later, but it could not be finalized.
- (iv) Upon approval, the ESE Transmission Circle of Patna requested the installation of air conditioning in the newly constructed communication rooms of Jakkanpur, Fatuha, Biharsharif, Bodhgaya, Hajipur and Samastipur (132 kV). The budget for this was allocated from ULDC. However, only the Patna Circle complied with the request.



- (v) There is a requirement for a cable trench at GSS for laying of the approach cable of OPGW and communication/fibre patch between RTU located in the control room and PDH/SDH to be installed in the communication room. It is relevant to mention here that six nos. PLCCs were proposed at the Biharsharif Sub-station. However, there is no space available for the installation of PLCC. In this regard, BSPTCL informed the agency that it could only be installed after dismantling some non-functional PLCC, whereas the dismantling of PLCC was not in the scope of the agency.
- (vi) The Petitioner again requested BSPTCL to carry out civil work, as mentioned in the email dated 3.11.2016. Furthermore, in a letter dated 4.4.2017 referencing the meeting held on 21.3.2017, the Petitioner asked BSPTCL to ensure the completion of civil works, cable trench, equipment rooms, and the dismantling of damaged, defective, or non-working coupling capacitors, coupling devices, LMUs, and PLCC equipment. This was necessary to provide a smooth interface to M/s Puncom for the installation and commissioning activities.

Addition in Scope

- (i) Initially, 88 Nos. PLCC equipments and associated outdoor equipments were envisaged to be supplied, installed, and commissioned under the instant package, which was later revised to 100 PLCC equipment and associated outdoor equipment, as per the requirement of BSPTCL. A survey for the same was subsequently carried out by the agency. The amendment for the supply, installation, and commissioning of the additional scope was issued to the agency on 29.6.2017.



- (ii) Further, as per the meeting dated 9.2.2018 with BSPTCL, BSPTCL informed that air conditioners at all 46 locations had been delivered and would be progressively functional within two weeks. In this meeting, the Petitioner informed that the agency had already made the supply of an isolation transformer and earthing. Further, erection at 28 sites had also been completed. The requirement for 40 priority sites was in the notice of agency M/s Puncom, which agreed to complete the same by March 2018. In the meeting dated 9.2.2018, BSPTCL requested the Petitioner to get the same done through the agency. Accordingly, the Petitioner took up the matter of additional work/ scope with M/s Puncom, which did not agree to take up the additional scope. However, on the Petitioner's insistence, the additional work was carried out by M/s Puncom, which took additional time at the respective site.

Asset-X

The Petitioner informed, vide the letter dated 9.8.2018, that the local commissioning of the Masarak Gopalganj link had been completed by M/s. Puncom, but the data reporting of Masrak RTU over the said link was delayed due to the commissioning of the MTPS – Gopalganj OPGW link, which in turn was delayed due to acute ROW problems in the MTPS –Gopalganj Transmission line.

Asset-XI

The Petitioner has submitted that Asset-XI was delayed due to the non-availability of the shutdown. The shutdown was requested by Petitioner vide letters dated



9.8.2018 and 15.1.2019, but the shutdown was granted in February 2019, and finally, the asset was commissioned in March 2019.

The Petitioner has further submitted that from the above, it is clearly apparent that there is a delay from November 2016 to January 2019 (26 months) for readiness in the control centre/deciding the final scope by BSPTCL. Despite facing various challenges and delays beyond its control, the Petitioner commissioned the instant asset from 6.4.2018 to 11.3.2019 progressively. After providing the clear front by BSPTCL in April 2018, the Petitioner completed the work within one year and progressively commissioned the elements by March 2019.

Submissions by BSPHCL in Reply

30. In response, BSPHCL, vide its affidavit dated 20.9.2022, has made the following submissions on the issue of time overrun in the commissioning of the communication assets:

For Assets II and III

A. Delay Due to Revision (increase) in Quantity of OPGW Links by BSPTCL

- (i) The finalization of the change was communicated on 18.12.2015. However, the amendment for supply, installation, and commission was issued as per the Petitioner to the agency on 9.9.2016, i.e., approximately 10 months later. Further, in the Proposal for Technical Approval of Change of Priority Links of BSPTCL dated 22.12.2015, BSPTCL raised the issue of additional requirements of OPGW, and the Petitioner gave assurance to take care of those requirements during the detailed engineering of OPGW packages. This ought to be explained by the Petitioner.



B. Delay Due to the Non-Availability of Permit to Work, Entry Permission, And Shutdown at BSPTCL's End

- (i) A perusal of the e-mails regarding the shutdown of the 132 kV Sipara-Jakkanpur link shows that, as per the agency/contractor of the Petitioner, installation of OPGW could have been done with one circuit (Circuit-II) in shutdown (e-mails dated 18.5.2017, 25.5.2017, and other e-mails).
- (ii) However, initially, it insisted on both circuits of the transmission line being shut down (emails dated 8.4.2017 and 25.4.2017). The Petitioner should explain that if shutting down only one circuit was sufficient, it would have been more efficient to do so from the beginning. The failure to do this was due to the actions of the contractor/agency of the Petitioner and a lack of efficiency in implementing the project, especially considering that the shutdown was subject to system constraints. Further, the e-mail dated 18.5.2017, unlike the previous e-mail dated 8.4.2017, records that the agency had completed the entire OPGW erection in priority links (277 km out of 282 km) except for drum no. 5. Reference may also be had in this regard to the e-mail dated 11.5.2017. Further, a perusal of the e-mail dated 8.4.2017 shows that the agency requested a shutdown on a short notice of two days only, i.e., on 10.4.2017. Subsequently, a perusal of the e-mail dated 19.4.2017 shows that the agency sought to state that the installation gang had been idle since 12.4.2017, thus indicating that there was no installation gang on 10.4.2017. Sufficient notice requesting a shutdown ought to be given by the Petitioner/ its agency, which it failed to do in the present case.
- (iii) In so far as the shutdown of the 132 KV Samastipur-Darbhanga link is concerned, a perusal of the e-mail dated 15.2.2017 shows that in a short notice



of 3 days, the shutdown was sought for 18.2.2017, and as such, the Petitioner/ its agency failed to give sufficient notice for the shutdown. The Petitioner has not provided the dates when the shutdown and permissions were made available.

The said shutdown/permissions were requested before the SCOD, and the Petitioner ought to have contemplated the time that might be taken for these activities. Thus, it is apparent that sufficient notice was not given for requesting a shutdown. Hence, any claim for delay on this account may not be condoned.

C. Delay Due to Non-readiness of Front/ Space Constraint at Site by BSPTCL

- (i) A perusal of the e-mail dated 6.4.2017 shows that it refers to one link, and the e-mail dated 11.4.2017 pertains to Hajipur 132 kV GSS. As per the Petitioner, there was no delay insofar as Asset-I is concerned. Further, the e-mail dated 1.11.2017 mentions only two link names, and in them, as is apparent from the said e-mail, insofar as SDH and DCPS are concerned, space issues were indicated only against Darbhanga 132. However, in Annexure II, annexed to the letter dated 31.8.2017, the Samastipur-Darbhang link at Sl. No. 6 SDH is mentioned as 'done' and DCPS as NA. This ought to be explained and clarified by the Petitioner. The Minutes of Meeting with BSPTCL on 9.2.2018 (which bear no signature from the parties) show that, in so far as these links are concerned, the space constraint at Darbhanga 132 remained (Sl No. 15). Further, as per the Petitioner, the BSPTCL front was ready by April 2018, yet Asset-III was commissioned on 28.7.2018.
- (ii) Further, the e-mail dated 4-5 July 2016, containing the status of various works, shows that there was a delay in the award of the packages involved in the



communication system for reasons that cannot be said to be attributable to BSPTCL (refer to point 3 of the said e-mail), and also that there were at least three air conditioning units in nine locations. Further, the minutes dated 9.2.2018 also show that BSPTCL informed that air conditioners at all 46 locations had been delivered and would be progressively functional within 2 weeks.

Delay Reasons for Assets IV and V

31. With respect to the delay for Assets IV and V, BSPHCL has made the following submissions:

A. Delay Due to Revision (increase) in Quantity of OPGW Links by M/s BSPTCL

- (i) The quantity variation for OPGW was to ensure better connectivity of the BSPTCL transmission network. Through email dated 23.12.2015, a request was made by Powergrid, Patna, to deploy a survey team to carry out a survey on the enumerated links on an urgent basis and to take the necessary actions. The letter dated 18.3.2016, bearing reference no. ER-I/PT/ULDC/BSPTCL/SHENZHEN/02/7165 (which is not a signed joint letter as claimed) was also in furtherance of conducting the survey work and mentioned the representatives deputed by M/s Shenzhen. It also refers to the list of links finalised through e-mail dated 23.12.2015 and states that additional links shall be finalised and communicated to the party subsequently. Hence, it shows that a number of links were finalised way back on 23.12.2015, and since then, survey work was to be carried on. Further, the amendment for supply, installation, and commissioning was issued, as per the Petitioner, to the agency on 16.2.2017, i.e., approximately 14 months after 23.12.2015. The delay on



account of the Petitioner's inefficiency in the implementation of the project is a controllable factor, and delay on this account ought not to be condoned.

- (ii) The Petitioner has stated that after the completion of the survey in July 2016 and subsequent approval in August 2016, M/s SDGI supplied the first lot of OPGW cable and hardware fittings at the site in January 2017, attributing the delay to the finalisation of links and the subsequent survey. This is inexplicable, especially when the Petitioner issued an amendment to the agency on 16.2.2017, i.e., after the supply of the first lot. All this lacks explanation and demonstrates the lapses of the Petitioner and its agency, for which the delay is not liable to be condoned.
- (iii) The e-mail dated July 4-5, 2016, containing the status of various works, shows that the award of the packages involved in the communication system was delayed for reasons that cannot be said to be attributable to BSPTCL (at point 3).

B. Delay Due to Non-readiness of front/ Space Constraint at Site by BSPTCL

- (i) A perusal of the e-mail dated 1.11.2017 shows that the names of the links given therein, i.e., Samastipur-Darbhanga 132 and MTPS-SKMCH, do not pertain to Assets IV and V, and Annexure II, attached to the letter dated 31.8.2017, also does not pertain to these assets. Point 3 of the said letter dated 31.8.2017 also shows that, as per the Petitioner, it was further expediting the balance work and hoped that all remaining OPGW links would be ready for commissioning by November-December 2017, i.e., after the scheduled COD of 23.10. 2017. In view of the above, any claim of delay for this purported reason is liable to be disregarded.



Delay Reasons for Assets VI to XI

32. BSPHCL has made the following submissions for the delay of Assets VI to XI:

- (i) From a perusal of the minutes of the meeting dated 9.2.2018, it is clear that BSPTCL informed that air conditioners at all 46 locations had been delivered and shall be functional progressively within 2 weeks, and the Petitioner informed that the agency had already made the supply of isolation transformers and earthing and that erection at 28 sites had been completed. The requirement of 40 priority sites was in the notice of agency M/s Puncom, who agreed to complete it by March 2018, yet only Asset-VI was claimed by the Petitioner to have attained COD on 31.3.2018. A perusal of the meeting minutes on 21.10.2016 shows that Patna Circle had already complied with the air conditioning requirement and that this requirement had to be assessed with procurement done, matching it with the delivery of communication equipment. The Petitioner did not specify clearly when the communication equipment was delivered and how any alleged delay due to the non-availability of air conditioning impacted it.
- (ii) Further, it is the case of the Petitioner that the control centre, cable trench, equipment rooms, and the dismantling of damaged, defective, or non-working coupling capacitor, coupling device, and LMU were handed over by BSPTCL from February 2018 to April 2018. However, the COD of Asset VII was 30.5.2018, Asset VIII was 14.6.2018, Asset IX was 18.8.2018, Asset X was 18.12.2018, and Asset XI was 11.3.2019. In the meeting held on 21.3.2017 and by letter dated 4.4.2017, the Petitioner provided a list of civil works and dismantling works. It was initiated for floating a tender for the completion of civil



works. The estimate prepared was technically sanctioned and administratively approved. Still, later, it was decided that the transmission circle offices would carry out the work, and this was communicated to the field through letter no. 280, dated 15.11.2017.

- (iii) The quantity variation for PLCC equipment was to ensure communication from 101 GSS (proposed at that time) with SLDC Patna, fulfilling data availability for the entire transmission network. The Petitioner has not stated in the Petition when the change in this scope was communicated to it. The letter for the survey of the revised quantity of PLCC, i.e., 100 numbers, was sent to the Petitioner vide letter no. 106, dated 2.7.2016, and the amendment for additional scope was issued to M/s Puncom by Petitioner on 29.6.2017. The Petitioner did not explain this, and thus, the claim of delay on this ground is not liable to be considered or condoned.
- (iii) Further, a perusal of the letter dated 9.8.2018 shows that one of the two links of Asset-X, i.e., Madhepura, was stated to be a work-in-progress link; hence, the delay in commissioning this asset was attributable to the Petitioner. The Petitioner cannot attribute the claim for delay in commissioning this asset to other reasons, i.e., the data reporting of Masrak RTU over the Masaraka Gopalganj link being delayed due to the commissioning of the MTPS-Gopalganj PGW link, which in turn was delayed due to an acute ROW problem in the MTPS–Gopalganj transmission line; the delay in their commissioning is not liable to be condoned. The commissioning of the OPGW link in the MTPS-Gopalganj link was delayed due to a ROW issue between the tower location. Nos. 153 to 161 that needed to be resolved by the executing vendor, i.e., the



Petitioner, due to which the reporting of Masrak RTU was delayed. ROW was resolved by BSPTCL on 6.10.2020. The Petitioner has stated that COD of Asset-X was achieved on 8.12.2018. Thus, the repetition of this reason in the letter dated 15.1.2019 is inexplicable.

- (iv) Letters dated 9.8.2018 and 15.1.2019 show that two of the three links of Asset-XI were stated to be work-in-progress links. Hence, the delay in commissioning this asset was attributable to the Petitioner, and the Petitioner cannot attribute the delay in commissioning this asset to other reasons, i.e., non-availability of shutdown. The shutdown in the Belaganj–Chandauti link was delayed as the line was tapped with a single source. The letter dated 15.1.2019 also shows that the Petitioner had stated that work was in progress in Pusauli (PG) - Mohania and Pusauli (PG) - Mohania - Karamnasa, which was likely to be commissioned by the end of January 2019, subject to the availability of shutdown by BSPTCL, and the shutdown was requested on 18.1.2019 by M/s. Puncom. This ought to be explained by the Petitioner. The Petitioner has stated that the shutdown was granted in February 2019, and as such, the claim of delay on this account is not liable to be condoned.

Additional Submissions by BSPHCL on Shut Down Request at Short Notice

33. BSPHCL, vide its affidavit dated 22.2.2024, has made the following additional submissions with reference to the submissions of the Petitioner regarding the shutdown being requested at short notice:

- (i) According to the Petitioner's own submission, the dynamic power network shows that a shutdown may not be granted immediately whenever the Petitioner requests it, and some time consumed in obtaining the shutdown



ought to be part of the Petitioner's planning for executing the project. A shutdown is allowed only when there is a conclusive condition for availing the shutdown to avoid load shedding/load restriction in VVIP areas, such as the State Legislative Assembly, the Chief Minister's residence, etc. During the said period, there was no software-based portal for communication regarding shutdown approval.

34. In response, the Petitioner has reiterated the submissions as made in the Petition. The Petitioner has, however, made the following additional submissions:

- (i) With regard to the requirements of shutdown, the Petitioner has submitted that the OPGW installation work is generally carried out in a live-line condition without any shutdown by keeping the auto-reclose switch in non-auto mode. However, in certain circumstances, such as the non-availability of the earth wire, a damaged earth wire, or any special conditions, a shutdown of the line is taken for safety purposes.
- (ii) In the case of 132 kV Jakkanpur-Sipara (Asset-II), the shutdown of both circuits was requested on 8.4.2017 and 25.4.2017 through email due to various reasons such as splitting of double circuit line into two nos. single circuit lines, presence of earth wire in the middle of both circuits, the proper dismantling of the earth wire in this section, etc. The shutdown of both circuits was mandatory from a safety point of view in such cases for 132 kV or 220 kV lines, as the earth wire was present in the middle at an equal distance from both circuit conductors. But BSPTCL did not provide any confirmation regarding the accord or rejection of the shutdown. After repeated follow-ups



(email dated 11.5.2017), BSPTCL verbally intimated that the shutdown of one circuit could be approved.

- (iii) Accordingly, work was planned with the modified arrangement and completed with some modifications in the stringing, clamping, and earth wire recovery processes. The Petitioner requested a shutdown of Circuit-II through email dated 18.5.2017. Again, a request was made to BSPTCL through an email dated 25.5.2017 with details of the modified planning. Accordingly, the shutdown was received, and work was completed. The project's scope involves replacing the existing earth wire with OPGW and BSPTCL to ensure the availability of the earth wire. A shutdown shall be arranged in case of non-availability of the same. In the present case, the delay occurred due to the non-availability of a shutdown as well as the non-confirmation of the shutdown of the single circuit by BSPTCL. Further, additional work procedure was taken up by the Petitioner in view of the agreement to shutdown of the single circuit without any financial implication.

35. As regards the submission that shut-downs were requested much prior to the date of scheduled COD, the Petitioner has submitted that OPGW installation is carried out in live-line conditions. However, a shutdown is required in some cases due to non-availability or damage to the earth wire or any special condition, considering safety aspects. In the present cases, a shutdown was requested due to the unavailability of the earth wire and the diversion of the transmission line from a double circuit to a single line. After OPGW installation, there were other activities; subsequently, the link was commissioned, and COD was declared.



36. Petitioner has submitted that for the commissioning of the communication link, the following are the steps involved-

- a) Installation of OPGW
- b) Splicing at joint location after each OPGW cable drum (generally every 4-5 km)
- c) Installation of Terminal Equipment at both ends
- d) Testing and Commissioning

Link Name	Request made	Received/Follow-up	Remarks
Sipara – Jakkanpur (Asset - II)	08.4.2017	25.5.2017	BSPTCL usually did not give written confirmation. The shutdown was confirmed over the phone, which was being availed of. Hence, the last follow-up email from the Petitioner's side is given.
BTPS-Begusarai (Asset - II)	19.07.2017	21.07.2017	BSPTCL usually does not give written confirmation. The shutdown was confirmed over the phone, which was being availed of. Hence, the last follow-up email from the Petitioner's side is given.
Samastipur-Darbhangra (Asset - III)	15.02.2017	18.02.2017	

37. On the issue of non-readiness of front/space constraint at the site by BSPTCL, the Petitioner has made the following submissions:

Delay due to non-readiness of front/space	Correspondences in chronological order
<p>BSPTCL was to allocate a clear front at sites for the Installation of SDH, PDH, and Auxiliary Power Supply Equipment. However, at many location/site, Communication Rooms, Cable Trench from Gantry Tower to Communication Room, Existing Communication Rooms to New Communication Rooms, Air-Conditioned Environment required for smooth functioning of the Equipment etc. was not ready and the identification of space for installation of equipment took substantial time and this resulted in delay in the overall progress.</p> <p>The Petitioner, via various email communications and meetings, raised the issue of non-readiness of</p>	<ol style="list-style-type: none"> 1. Letter to BSPTCL- Status of ULDC Projects and Infrastructure issues at BSPTCL end. 2. Email to BSPTCL- Delay in respect of Hajipur-Hajipur link due to Cable trench issue. 3. Letter to Director (BSPTCL)- non-readiness of site-reg.



<p>infrastructures like the Communication Room, Cable trench, and Air Conditioning at the BSPTCL Sub-station. The installation of SDH, PDH MUX, FODP, and Approach Cable was delayed due to the non-readiness of such infrastructures.</p> <ol style="list-style-type: none"> 1. Entry permission at BTPS (New) Sub-station: Request for entry permission has been sent to BSPTCL vide email dtd. 6.4.2017, for installation of FOAC, HDPE Duct, FODP, and termination of OPGW at Gantry Tower for both LILO links.(Asset - II) 2. Cable trench issue at Hazipur. (Asset - II) 3. Space Constraint at MTPS(Asset - II), SKMCH(Asset - II) & Darbhanga 132 Sub-station (Asset - III) 4. Non-availability of air conditioning at several sites (All Assets) 5. Carrying out civil work for the new communication room & trench by BSPTCL.(All Assets) 6. Non-readiness of the site at Muzaffarpur, Saharsa, & Siwan. (MOM dtd 9.2.2018) - (Asset IV & V) <p>The readiness of the same could be ascertained by BSPTCL progressively by December 2018.</p> <p>BSPTCL, being the owner, has to make ready all the above requirements critical by the IA date (24.4.2015) for the commissioning of the link by the Petitioner.</p> <p>Delay= 1347 days (24.04.2015 to 31.12.2018)</p>	<ol style="list-style-type: none"> 4. Email dated 3.11.2016 regarding civil work to be carried out by BSPTCL for the new communication room & trench. 5. Letter to BSPTCL dated 4.4.2017 (Letter to BSPTCL- Site readiness issues) 6. Email to BSPTCL for BTPS (New) LILO OPGW. Revised request dated 21.7.2017. 7. Email to BSPTCL dated 1.11.2017 regarding space constraints. 8. A Reminder Email dated 20.12.2017 was sent to BSPTCL for works in their scope-reg. 9. MOM dtd 9.2.2018 regarding non-readiness of site, space & cable trench, and air-conditioning
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38. The Petitioner has submitted that as per Minutes of the Meeting with BSPTCL held on 9.2.2018, the space constraint issue was persisting only at Darbhanga as on 9.2.2018, and in this regard, the following information is submitted:

- I. The Petitioner, vide email dated 3.11.2016, requested BSPTCL regarding civil work to be carried out by BSPTCL for a new communication room and trench at various wideband locations. (All Assets).
- II. Space constraints were also present in MTPS (Asset II), SKMCH (Asset II), and Darbhanga (Asset III). The space issue was resolved in MTPS and SKMCH prior to 9.2.2018.



III. In the MOM dated 9.2.2018, it was also mentioned that the Muzaffarpur, Saharsa, and Siwan sites needed to be prepared. (Assets IV and V)

39. On the issue of time overrun of Assets IV and V qua the increase in the quantity of OPGW links, the Petitioner has submitted that BSPTCL had to make space ready in advance for the commencement of work by the Petitioner. However, space was not prepared for some links as detailed below:

- I. The Petitioner, vide email dated 3.11.2016, requested BSPTCL regarding civil work to be carried out by BSPTCL for a new communication room and trench at various wideband locations.
- II. Space constraints were also present in MTPS, SKMCH, in addition to Darbhanga. The space issue was resolved in MTPS, SKMCH, prior to 9.2.2018.
- III. In the MOM dated 9.2.2018, it was also mentioned that the Muzaffarpur, Saharsa, and Siwan sites were not ready.

In some cases, civil work for the communication room and trench was also pending before the space could be ready for the equipment to be put in.

40. On the issue of time overrun of Assets VI to XI due to the non-availability of air conditioners for the installation of the communication system, the Petitioner has submitted that the Petitioner, vide email dated 5.7.2016, requested BSPTCL for the readiness of air-conditioning at various sites. In the Minutes of the meeting dated 9.2.2018, it was agreed by BSPTCL that air-conditioning at all 46 locations would be functional within 2 weeks. However, the same were actually made functional gradually over a time period of approximately 3-4 months. Communication equipment was also commissioned gradually, and COD was done accordingly.



41. In addition, various other factors, such as execution after revision/change in links, non-availability of shutdown and PTW, non-readiness of site and civil works, space constraints, ROW issues, etc., also caused delays, due to which links were commissioned later.

42. With regard to emails placed on record concerning Assets X and XI, the Petitioner has made the following submissions:

Reason for Delay

Increase in No. of PLCC Links and Associated Equipment due to the Revision of Links by BSPTCL

- (i) The survey is critical as critical information was being collected on which design, engineering, and finalisation of item quantity were based. LOA was placed on 30.9.2015.
- (ii) Initially, 88 Nos. PLCC equipment and associated outdoor equipment were envisaged to be supplied, installed, and commissioned under the instant package, which was later revised to 100 PLCC equipment and associated outdoor equipment, as per the requirement of BSPTCL.
- (iii) However, maximum links were revised, new links were added, and links (PLCC) were finalised on 2.7.2016. Due to this, technical approval was obtained, the survey of links was completed, and the final amendment was made on 29.6.2017. These procedures took approximately 12 months, which is quite practical.

Delay due to Non-readiness of the Front at the Site by BSPTCL

- (i) BSPTCL was to allocate a clear front at sites for the installation of PLCC and associated equipment at the site (103 in Nos.). At many locations, the



site/communication room, cable trench, etc., were not ready, and the identification of space for the installation of equipment took substantial time, resulting in a delay in the overall progress.

Dismantling Work Carried Out on BSPTCL's Behalf

- (i) At many sites, there was a space crunch and non-availability. To facilitate the installation of new panels and outdoor equipment, the existing defunct panels and outdoor equipment had to be dismantled.
- (ii) It is pertinent to mention that the dismantling of existing defunct panels and outdoor equipment was not in the scope of the agency but was within BSPTCL's scope. However, the same could not be carried out by BSPTCL on time despite assurances given by it during meetings and telephone discussions with the Petitioner.
- (iii) Later, in the meeting dated 9.2.2018, BSPTCL requested the Petitioner do the same through the Agency. Accordingly, the Petitioner took up the matter of additional work/scope with M/s PUNCOM, which did not agree to take on the additional scope. However, at the Petitioner's insistence, the additional work was carried out by M/s PUNCOM, which took extra time at the respective site.

Delay in Allowing Shutdown of Transmission Lines for Carrying Out Termination of Outdoor Equipment

- (i) The shutdown of various transmission lines of BSPTCL was required to carry out the termination of outdoor equipment, namely, coupling capacitor, coupling device, and line trap. However, BSPTCL could not provide the shutdown of the concerned lines during the equipment installation on time, causing a delay in link commissioning.



Non-readiness of Cable Trench, Outdoor Structures

- (i) The matter of the non-readiness of cable trench and outdoor structures was taken up with BSPTCL time and again during several telephonic discussions and various meetings. The readiness of the same could be ascertained by BSPTCL progressively by the end of December 2018.

Modification of Approved Links by BSPTCL

- (i) BSPTCL diverted/modified five PLCC links at a very late stage of the project (request received on 10.4.2018). The aforementioned diversion required rework on these links and caused additional delay.

A. The shutdown was requested on short notice of 2 days only.

Generally, the shutdown of a transmission line is given at short notice of 2–3 days. This is due to the fact that the power network is dynamic, and arranging a shutdown at a very advanced stage may also lead to its cancellation if the scenario changes. Even in the case of RLDCs, there is a concept of D-3 for applying shutdown requests, which implies that the shutdown is requested 3 days prior to the date of requirement.

Analysis and Decision for Time Overrun

43. We have considered the submissions of the Petitioner and BSPHCL and have also gone through the documentary evidence placed on record.

44. As against the SCOD of 16.10.2017, Asset-1 is commissioned on 20.4.2017. Therefore, there is no time overrun in the Commissioning of the Asset-I.



Assets II and III

45. As regards Assets II and III, the Petitioner has claimed a delay of 172 days (five months and fourteen days) and 285 days (nine months and five days), respectively. The Petitioner has contended that the main reason attributable to the delay was that the initially planned OPGW links, along with associated communication and auxiliary equipment, were revised based on the requirements of BSPTCL. Contending such, the Petitioner has stated that a Technical Amendment for changes was issued to the agency, and due to the change in the scope, the LOA award was delayed. According to the Petitioner, the installation work was delayed due to non-receipt of PTW/Shutdown/Entry permission to the site. The Petitioner has contended that at many locations, communication rooms, cable trenches, air-conditioned environments, etc., were under the scope of BSPTCL and were not ready, and the identification of spaces for installation of equipment took substantial time and thus resulted in a delay in the overall progress.

46. Per contra, BSPHCL has contended that the required changes after the finalisation were communicated to the Petitioner on 18.12.2015, while the amendment was issued on 9.9.2016, i.e., approximately after 10 months. BSPHCL has further contended that the Petitioner initially insisted on the shutdown of both the circuits, whereas installation of OPGW could have been done with one circuit in shutdown. Further, the shutdown was requested on short notice of only 2 days. As regards the delay in non-readiness of fronts, BSPHCL has contended that the said averment has been made by the Petitioner without any basis as to how all the links covered under Assets-I to III were affected. BSPHCL has contended that the e-mail dated 4th/5th July 2016 shows that there was a delay in the award of the packages



involved in the communication system, and as such, this reason cannot be said to be attributable to BSPTCL. Contending such, BSPHCL has stated that the minutes of the meeting dated 9.2.2018 show that BSPTCL informed that air conditioners at all 46 locations had been delivered and would be functional within 2 weeks progressively. The petitioner has submitted its rejoinder to the replies by BSPTCL.

47. We have considered the submissions of the Petitioner and BSPTCL. The item-wise time overrun is analysed, and the same is as follows:

Delay on account of a change in scope

(i) Change in link:

(a) The Petitioner has submitted that the time period from 13.10.2015 to 18.12.2015 (66 days) was due to a change in the link. We have gone through the submissions of the petitioner. It is observed that originally, as per the plan, the petitioner needs to install 6 no. of OPGW links, which is about 212 KM in length, the same has been revised to 12 no. of OPGW links, which is about 282.4 KM in length. BSPTCL vide e-mail dated 7.9.2015 has communicated the revised links for installation of OPGW, and thereafter, the petitioner has taken technical approval on 22.12.2015 for change of priority links of BSPTCL. We are of the view that a minimum time is required for the Petitioner for the preparation of technical approval for a change in the scope of the works. Accordingly, the time period sought by the petitioner from 13.10.2015 to 18.12.2015 **(66 days)** on account of change in link is beyond the control of the petitioner, and the same is condoned.



(ii) Technical approval of change taken and issued to the party, survey of revised links and amendment in the contract for supply, installation, and commissioning of the additional /revised scope:

(b) The Petitioner has submitted that the time period from 19.12.2015 to 13.01.2016 (25 days) was taken for technical approval for the revised links. We are of the view that a minimum time is required for the petitioner to communicate the revised technical approval to BSPTCL. The time overrun of **25 days** for communication of technical approval to BSPTCL is beyond the control of the petitioner, and the same has been condoned.

(c) The Petitioner has submitted that the time period from 14.01.2016 to 30.04.2016 (107 days) is due to a survey of revised links. We are of the view that 10 no. of new OPGW links are added, and the petitioner needs to do a survey for the installation of OPGW on the newly proposed links. It is noted that as per the original plan, the petitioner was to install OPGW about 212 Km, and as per the revised plan, the petitioner has to install OPGW about 282.4 Km, which is a variation of about 70.4 KM. The Petitioner has orally submitted a survey of the links, but was not able to produce any survey-related documents. We are of the view that a minimum time is required for the petitioner to carry out a survey of the links. Therefore, a two-month **(60 days)** time period is allowed under the survey of the links, as against 107 days as claimed by the petitioner.

(d) The Petitioner has submitted that the time period from 1.05.2016 to 9.9.2016 (131 days) is taken into account for the issuance of the amendment in the contract for the supply of OPGW cable. In the instant case, the petitioner



has originally awarded the Shore supply contract on 12.10.2015 through International Competitive Bidding (IBC). The Petitioner has taken about 6 months from the date of investment approval for award the original of shore supply contract. The Petitioner has taken 131 days for the issuance of the amendment of the existing offshore contract. We are of the view that the time period of 131 days is on the higher side. Therefore, a time period of 2 months for issuing an amendment to the existing contract is allowed. Out of the total delay of 131 days, the time delay of **60** days is condoned on account of the issuance of the amendment of the existing contract.

48. As per the above analysis, out of the total time overrun of 172 days and 285 days in the case of Asset-II and Asset-III, the total time overrun in the case of Asset-II is condoned, and the time overrun of 211 days is condoned in the case of Asset-III.

Assets IV & V

49. The Petitioner has submitted that there is a delay in the commissioning of Assets IV and V of 265 days (8 months and 15 days) and 294 days (9 months and 15 days), respectively. The Petitioner has contended that initially planned OPGW links, along with associated communication and auxiliary equipment, were revised as per the requirement of BSPHTCL, vide email dated 23.12.2015 and joint signed letter dated 18.3.2016. The Petitioner has further contended that the technical amendment for changes was issued to the agency on 16.5.2016. The survey for the revised links was carried out by the agency from May 2016 to July 2016, and after approval of the survey reports by the end of August 2016, the amendment for the supply, installation, and commissioning of the additional scope was issued to the



agency on 16.2.2017. Due to a change in scope, the LOA award was delayed. Further, the delay in the finalisation of links and the subsequent survey resulted in the delayed supply of OPGW at the site. The OPGW supply was delayed due to the revision of links and their cascading effect on commissioning. The Petitioner has further contended that installation work was delayed due to non-receipt of PTW/Shutdown/Entry permission to the site. Further, at many locations, the communication room, cable trenches, air-conditioned environment, etc., which were under the scope of BSPHTCL, were not ready, and the identification of spaces for installation of equipment took substantial time and thus resulted in a delay in the overall progress.

50. BSPHCL has contended that, vide e-mail dated 23.12.2015, a request was made by Engr. (ULDC)/ ERTS-I, Powergrid, Patna to deploy a survey team to carry out a survey on the enumerated links on an urgent basis, and to the needful. Further, the letter dated 18.3.2016 bearing reference no. ER-I/PT/ULDC/BSPTCL/SHENZHEN/02/7165, in furtherance of carrying out the survey work and mentions the representatives deputed by M/s SHENZHEN, it also refers to the list of links finalized vide e-mail dated 23.12.2015 and states that additional links shall be finalized and communicated to the party subsequently. Hence, it shows that a number of links were finalized way back on 23.12.2015, and since then, survey work was to be carried on. BSPHCL has further contended that the amendment for supply, installation, and commission was issued as per the Petitioner to the agency on 16.2.2017, i.e., approximately 14 months after 23.12.2015.

51. With regard to the delay in non-readiness of fronts, BSPHCL has contended that a perusal of the e-mail dated 1.11.2017 shows that the link names given therein,



i.e., Samastipur-Darbhanga 132 and MTPS-SKMCH, do not pertain to Assets – IV and V, and Annex -II attached with the letter dated 31.8.2017 also does not pertain to these assets. Point 3 of the said letter dated 31.8.2017 also shows that as per the Petitioner, it was further expediting the balance work and hoped that all balance OPGW links shall be ready for commissioning by November-December 2017, i.e., after the Scheduled COD of 23.10.2017.

52. We have considered the submission of the Petitioner and BSPHCL and have also gone through the documents placed on record. The item-wise time overrun is analysed, and the same is as follows:

Delay on account of a change in scope

(i) Change in link:

53. The Petitioner has submitted that the time period from 1.10.2015 to 18.03.2016 (169 days) had to change due to the link. We have gone through the submissions of the petitioner. It is observed that as per the original plan, the petitioner needed to install 31 no., of OPGW links, which is about 847 KM in length, 12 no. of links was to be deleted and 11 no. of links to be newly added, due to which the length of OPGW is increased to 993 KM. A perusal of the e-mail dated 23.12.2015 and letter dated 18.3.2016 shows that a request to deploy the survey team to carry out the survey of links, i.e., part of Assets IV and V, was made by the ULDC, and accordingly, the Petitioner communicated the deployment of M/s. Shenzhen survey team to BSPTCL vide letter dated 18.3.2016 to carry out the survey as per the list finalised vide email dated 23.12.2015. We are of the view that the time period from 1.10.2015 to 18.3.2016 (**169** days), which is on account of revision of links and new links finalised by BSPTCL, impacted the Commissioning of



the Asset-IV and Asset-V, which is beyond the control of the Petitioner, and the same has been condoned.

(ii) Technical approval of change taken and issued to the party, survey of revised links and amendment in the contract for supply, installation, and commissioning of the additional /revised scope:

- (a) The Petitioner has submitted that the time period from 19.03.2016 to 16.05.2016 (58 days) was taken for obtaining technical approval for the revised links. In the case of Asset-III and Asset-IV, the petitioner has taken only 25 days, whereas in the instant case, the Petitioner has taken 58 days. We are of the view that a minimum time is required for the petitioner to communicate the revised technical approval to BSPTCL; therefore, the time overrun of 25 days for intimation of technical approval to BSPTCL is condoned as against the claim of 58 days.
- (b) The Petitioner has submitted that the time period from 17.05.2016 to 31.07.2016 (75 days) is due to a survey of revised links. We are of the view that 11 no. of new OPGW links are added, and the petitioner needs to do a survey for the installation of OPGW on the newly proposed links. It is noted that as per the original plan, the petitioner was to install OPGW about 847 Km, and as per the revised plan, the petitioner has to install OPGW about 993 Km, which is a variation of about 146 KM. The Petitioner has orally submitted a survey of the links, but was not able to produce any survey-related documents. We are of the view that a minimum time is required to the petitioner to carry out a survey of the links. Therefore, a two-month **(60 days)** time period is allowed towards the survey of the links as against 75



days as claimed by the petitioner.

- (c) The Petitioner has submitted that the time period from 1.08.2016 to 16.02.2017 (199 days) is taken into account of the issuance of the amendment in the contract for the supply of OPGW cable. In the instant case, the petitioner was originally awarded the off-Shore supply contract on 30.09.2015 through International Competitive Bidding (IBC). The Petitioner has taken about 5 months from the date of investment approval to award the original of the shore supply contract. The Petitioner has taken 199 days for the issuance of the amendment of the existing off-shore contract. We are of the view that the time period of 199 days is higher and not reasonable. Therefore, the time period of 2 months for issuing an amendment to the existing contract is allowed. Out of the total delay of 199 days, the time delay of 60 days is condoned on account of the issuance of the amendment of the existing contract.

54. As per the above analysis, the total time overrun of 265 days and 294 days in the case of Asset-IV and Asset-V, respectively, is condoned.

Analysis and Decision on Assets VI to XI.

55. The Petitioner has contended that there is a delay in the commissioning of Assets VI to XI, ranging from 5 months to more than 16 months. The Petitioner has further contended that in the meeting held on 21.10.2016 with BSPTCL, the issue of the non-availability of air-conditioning machines at sites was raised by the Petitioner as the AC environment is essentially required for the communication equipment, without which commissioning of this equipment is hardly possible. The Petitioner informed BSPTCL about the requirements of the cable trench at GSS for laying the



approach cable of OPGW and the communication/fibre patch between the RTU located in the control room and PDH/SDH to be installed in the communication room. According to the Petitioner, six nos. PLCC was proposed at the Biharsharif Sub-station, but there was no space available for the installation of PLCC. Contending such, the Petitioner has stated that the Petitioner further took up the matter with BSPTCL vide email dated 3.11.2016 and letter dated 4.4.2017 (referring the meeting dated 21.3.2017), email dated 20.12.2017 and requested to carry out the balance civil work, cable trenches, etc. in order to provide smooth front to M/s Puncom for carrying out installation and commissioning activities.

56. The contention of the Petitioner is that initially planned PLCC and associated outdoor equipment were revised as per the requirement of BSPTCL, and pursuant to this amendment for the supply, the installation and commissioning of the additional scope was issued to the agency on 29.6.2017. The additional work of the control room, like coupling capacitor foundation and structures, replacement of old LMU and HF cables, etc., which was originally under the scope of BSPTCL, was done by the agency, which took additional time at respective sites.

57. With regard to Asset-X, the Petitioner has contended that it informed vide letter dated 9.8.2018 that local commissioning of the Masaraka Gopalganj link had been completed by M/s. Puncom, but the data reporting of Masrak RTU over the said link was delayed due to the commissioning of MTPS – Gopalganj OPGW link, which in turn was delayed due to an acute ROW problem in the MTPS –Gopalganj Transmission Line.

58. Concerning Asset-XI, the Petitioner has contended that Asset-XI was delayed due to the unavailability of the shutdown. The shutdown was requested by the



Petitioner vide letters dated 9.8.2018 and 15.1.2019, but the same was granted in February 2019, and finally, the asset was commissioned in March 2019.

59. Per contra, BSPHCL has contended that in the meeting on 9.2.2018, BSPTCL had informed that air conditioners at all 46 locations had been delivered and shall be functional within 2 weeks progressively. BSPHCL has further contended that a perusal of the minutes of the meeting dated 21.10.2016 shows that Patna Circle had already complied with the air conditioning requirement and that this requirement had to be assessed and procurement done, matching it with the delivery of communication equipment. According to BSPHCL, the quantity variation for PLCC equipment was to ensure communication from 101 GSS (proposed at that time) with SLDC Patna, fulfilling data availability of all transmission networks. It is contended that the letter for a survey of the revised quantity of PLCC, i.e., 100 numbers, was sent to the Petitioner, vide letter no. 106, dated 2.7.2016, and the amendment for additional scope was issued to M/s Puncom by the Petitioner on 29.6.2017.

60. According to BSPHCL a perusal of the letter dated 9.8.2018 shows that one of the two links of Asset X i.e. Koshi-Supaul - Madhepura was stated to be work in progress links and as such the delay in commissioning of this asset was attributable to the Petitioner and claim for delay in commissioning of this asset cannot be sought to be attributed by the Petitioner to other reasons. It is contended by BSPHCL that the commissioning of the OPGW link in the MTPS-Gopalganj link was delayed due to ROW issues between tower Loc. Nos. 153 to 161 to be resolved by the executing vendor, i.e., the Petitioner, due to which the reporting of Masrak RTU was delayed. It is further contended that ROW issues were resolved by BSPTCL on 6.10.2020.

61. BSPHCL has contended that the shutdown in the Belaganj–Chandauti link



was delayed as the line was tapped with a single source. Further, the letter dated 15.1.2019 also shows that the Petitioner had stated that the work was in progress in Pusauli (PG)- Mohania and Pusauli (PG)-Mohania-Karamnasa, which was likely to be commissioned by the end of January 2019, subject to the availability of shutdown by BSPTCL, and shutdown was requested on 18.1.2019 by M/s. Puncom.

62. We have considered the contentions of the Petitioner and BSPHCL and have gone through the documents placed on record. On perusal of the Minutes of Meeting dated 21.10.2016, we find that during the said meeting, the Petitioner raised the issue of non-availability of air-conditioning at sites, as an AC environment is necessarily required for the communication equipment. The minutes of the meeting further reveal that the BSPTCL informed 48 new communication rooms were constructed by the civil department, and a provision of AC was also made, which could not be finalised at a later stage. As per the record of the said minutes, BSPTCL informed that due to approval, ESE, Transmission Circle of Patna, Gaya and Muzaffarpur were requested to install the AC in the newly constructed communication room of Jakkanpur, Fatuha, Biharsharif, Bodhgaya, Hajipur, and Samastipur from the budget of ULDC, whereas only Patna Circle had complied with the same. The said minutes of the meeting shows that the Petitioner also submitted the requirement of trench at GSS for laying of approach cable of OPGW and communication/fiber patch between RTU located in control room and PDH/SDH to be installed in the communication room, and that the concerned authority of BSPTCL directed to ensure the same as per the requirements of the Petitioner. We also note from the record that the said matter had also been taken up by the Petitioner with BSPTCL vide e-mails dated 3.11.2016 and 21.3.2017.



63. On perusal of the record, we find that during the meeting on 9.2.2018, BSPTCL informed that the air conditioners at all 46 locations had been delivered and would be functional within 2 weeks. However, no supporting documents are placed on record by the Petitioner to substantiate when the air conditioners were made functional and the front was made ready for the commissioning of communication equipment. Therefore, in view of the above discussion, we are of the view that the period up to 9.2.2018 is condoned in the facts and circumstances of the case. Accordingly, the period from SCOD, i.e., 16.10.2017 to 9.2.2018, is hereby condoned on account of non-readiness of the requisite conditions for commissioning of the communication equipment for Assets-VI to XI.

64. As regards the contention regarding the revision of the original scope by BSPTCL, we observe that the letter for a survey of the revised quantity of PLCC, i.e., 100 numbers, was sent to the Petitioner, vide letter dated 2.7.2016, and an amendment for additional scope was issued to M/s Puncom by the Petitioner on 29.6.2017. We have gone through the submissions of the petitioner. It is noted that Asset-VI, VII, VII, IX, and X consist of 11 no. of PLCC links, 7 no. of PLC links, 10 no. of PLCC links, 6 no. of PLCC links, 2 no. of PLCC links, and 3 no. of PLCC links, which is about 49 no. of PLCC links only, whereas the petitioner has submitted that the delay is on account of 100 no. of PLCC links newly added. The Petitioner has submitted Amendment-1 to the LoA for the communication package (PLCC equipment) on 29.06.2017, wherein the petitioner has mentioned that the quantity as per LOA is 88 Nos and the proposed quantity as per amendment-1 is 100 nos. As per this discrepancy, it is observed towards the total no., of PLCC commissioned and the total no. of PLCC that are amended as per the letter dated 29.6.2017. The



Petitioner has submitted a letter dated 9.08.2018 wherein the petitioner has submitted that 37 Nos. PLCC links have been commissioned out of 51 nos. links, and the petitioner, vide the letter dated 15.01.2019, has submitted that 41 nos of PLCC links have been commissioned out of 49 nos. links. Taking into consideration these two letters of PGCIL, we observe discrepancies with respect to the total no. of PLCC vs the commissioned. It is further observed that the petitioner's letter dated 9.08.2018 and 15.01.2019 have not mentioned amendment -1. Also, BSPTCL wrote a letter on 2.7.2016, and the amendment for additional scope was issued to M/s Puncom by the Petitioner on 29.6.2017. The petitioner has taken about 1 year for the amendment of the contract, which seems to be on the higher side. The Petitioner is given liberty to place all the information about discrepancies of PLCC nos and reasons for taking one year's time for amendment of the existing contract at the time of truing-up, and the same will be reviewed at the time of truing-up. Therefore, we are not inclined to condone the time overrun from 2.7.2016 to 29.6.2017, and the same will be reviewed at the time of truing-up.

65. As regards the Petitioner's contention that the data reporting of Masrak RTU over the Masaraka-Gopalganj link is being delayed due to the commissioning of MTPS – Gopalganj OPGW link, which in turn is delayed due to an acute ROW problem in the MTPS –Gopalganj Transmission Line, we do not find any documents on record substantiating the RoW issues faced in the MTPS–Gopalganj Transmission Line. In the absence of any documents on record, we are not inclined to condone the said delay.

66. Further, on perusal of letters dated 9.8.2018 and 15.1.2019, it is observed that the Petitioner intimated about the progress of various communication links along



with constraints to BSPTCL vide letter dated 9.8.2018 and requested for approval of shutdown for Termination of Coupling Capacitor & Line Trap at Belaganj- Chandauti link vide letter dated 15.1.2019. However, the Petitioner has failed to provide any documentary evidence of when the desired shutdown was approved by BSPTCL and why the same was rejected on the pre-requisite date as requested by the Petitioner. For the reasons mentioned above, we are not inclined to condone the delay for the non-availability of shutdown up to February 2019. Therefore, as discussed above in this order, the total delay of 116 days, i.e., from 16.10.2017 to 9.2.2018, is hereby condoned in respect of Assets VI to XI.

67. The summary of time over-run condoned/not condoned for the communication assets, i.e., Assets II to XI, is as follows:

Assets	SCOD	COD Claimed	Time Over-run Claimed	Time Over-run Condoned	Time Over-run not-Condoned
Asset-I	16.10.2017	20.4.2017	Nil	Nil	Nil
Asset-II		6.4.2018	172 days	172 days	Nil
Asset-III		28.7.2018	285 days	211 days	74 days
Asset-IV		8.7.2018	265 days	265 days	Nil
Asset-V		6.8.2018	294 days	294 days	Nil
Asset-VI		31.3.2018	166 days	116 days	50 days
Asset-VII		30.5.2018	226 days	116 days	110 days
Asset-VIII		14.6.2018	241 days	116 days	125 days
Asset-IX		18.8.2018	306 days	116 days	190 days
Asset-X		18.12.2018	428 days	116 days	312 days
Asset-XI		11.3.2019	511 days	116 days	395 days

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

68. The Petitioner has claimed IDC for the communication assets and has submitted the Auditor's Certificates to support the same. The Petitioner has submitted the computation of IDC along with year-wise details of the IDC discharged.

69. We have considered the submissions of the Petitioner. The allowable IDC has been worked out considering the information submitted by the Petitioner for the



communication assets separately on a cash basis. The loan details submitted in Form-9C for the 2014-19 tariff period and the IDC computation sheets have been considered for IDC calculations on a cash and accrued basis. The un-discharged IDC, as on the COD of the communication assets, was considered as ACE during the year in which it was discharged.

70. Accordingly, based on the information furnished by the Petitioner, the IDC considered for communication assets is as follows:

Assets	IDC as per the Auditor's Certificate	IDC Admissible	IDC disallowed due to computational difference/ Time Over-run not condoned	IDC Discharged as on COD	IDC Undischarged as on COD	(₹ in lakh)		
						IDC Discharge During		
						2017-18	2018-19	2019-20
	A	B	C=A-B	D	E=B-D	F	G	H
Asset-I	0.29	0.29	0.00	0.00	0.29	0.29	0.00	0.00
Asset-II	22.64	22.33	0.31	1.90	20.43	0.00	20.43	0.00
Asset-III	6.82	5.09	1.73	0.25	4.84	0.00	4.84	0.00
Asset-IV	64.17	63.20	0.97	24.15	39.05	0.00	39.05	0.00
Asset-V	39.25	37.53	1.72	17.44	20.09	0.00	20.09	0.00
Asset-VI	4.04	3.10	0.94	1.72	1.38	0.00	1.38	0.00
Asset-VII	6.45	4.06	2.39	0.00	4.06	0.00	4.06	0.00
Asset-VIII	9.58	5.96	3.62	0.00	5.96	0.00	5.96	0.00
Asset-IX	9.29	4.87	4.42	0.00	4.87	0.00	0.17	4.70
Asset-X	1.47	0.16	1.31	0.08	0.08	0.00	0.00	0.08
Asset-XI	5.13	0.53	4.60	0.00	0.53	0.00	0.00	0.53

71. The Petitioner has claimed IEDC and submitted Form-12A and Auditor's Certificates to support its claim.

72. We have considered the submissions of the Petitioner and have examined the Form-12A along with the Auditor's Certificates submitted by the Petitioner. The IEDC allowed for communication assets are as follows:



(₹ in lakh)

Assets	IEDC claimed	IEDC disallowed due to time over-run not condoned (Pro-rata)	IEDC allowed
Asset-I	1.39	0.00	1.39
Asset-II	83.58	0.00	83.58
Asset-III	11.83	0.73	11.10
Asset-IV	84.99	0.00	84.99
Asset-V	77.14	0.00	77.14
Asset-VI	10.49	0.49	10.00
Asset-VII	12.12	1.17	10.95
Asset-VIII	16.83	1.82	15.01
Asset-IX	16.33	2.54	13.79
Asset-X	1.53	0.36	1.17
Asset-XI	7.01	1.94	5.07

Initial Spares

73. The Initial Spares claimed by the Petitioner for the 2014-19 tariff period are as follows:

Assets	Estimated Completion Cost (₹ in lakh)	Initial Spares Claimed (₹ in lakh)	Ceiling Limit (in %)
PLCC			
Asset-I	16.41	0.57	3.50
Asset-II	983.26	31.96	3.50
Asset-III	139.22	4.73	3.50
Asset-IV	954.89	30.75	3.50
Asset-V	823.5	27.91	3.50
Asset-VI	138.78	4.79	3.50
Asset-VII	159.7	5.35	3.50
Asset-VIII	223.9	7.08	3.50
Asset-IX	171.09	5.65	3.50
Asset-X	43.87	1.49	3.50
Asset-XI	93.36	2.94	3.50

74. Regulation 13(d) of the 2014 Tariff Regulations provides 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%

75. BSPHCL has submitted that the claim of the Petitioner may only be considered as contemplated by Regulation 13 of the 2014 Tariff Regulations.

76. We have considered the submissions of the Petitioner and BSPHCL. The details of the Initial Spares allowed as per Regulation 13(d) of the 2014 Tariff Regulations in respect of the communication assets for the 2014-19 tariff period are as follows:

Assets	Plant & Machinery cost considered as on cut-off date (₹ in lakh)	Initial Spares claimed (₹ in lakh)	Norms as per 2014 Tariff Regulations (in %)	Initial Spares allowable as per 2014 Tariff Regulations (₹ in lakh)	Excess Initial Spares disallowed (₹ in lakh)	Initial Spares allowed (₹ in lakh)
PLCC						
Asset-I	16.41	0.57	3.50	0.57	0.00	0.57
Asset-II	983.26	31.96	3.50	34.50	0.00	31.96
Asset-III	139.22	4.73	3.50	4.88	0.00	4.73
Asset-IV	954.89	30.75	3.50	33.52	0.00	30.75
Asset-V	823.5	27.91	3.50	28.86	0.00	27.91
Asset-VI	138.78	4.79	3.50	4.86	0.00	4.79
Asset-VII	159.7	5.35	3.50	5.60	0.00	5.35
Asset-VIII	223.9	7.08	3.50	7.86	0.00	7.08
Asset-IX	171.09	5.65	3.50	6.00	0.00	5.65
Asset-X	43.87	1.49	3.50	1.54	0.00	1.49
Asset-XI	93.36	2.94	3.50	3.28	0.00	2.94

Capital Cost allowed as on COD

77. The capital cost allowed as on COD for the communication assets is as follows:



(₹ in lakh)

Assets	Capital Cost as on COD as per Auditor's Certificate	Less: IDC disallowed due to computational difference / Time Over-run not condoned	Less: Undischarged IDC as on COD	Less: IEDC disallowed due to Time Over-run not condoned (Pro-rata)	Capital Cost as on COD (on cash basis)
Asset-I	18.09	0.00	0.29	0.00	17.80
Asset-II	1013.81	0.31	20.43	0.00	993.07
Asset-III	157.87	1.73	4.84	0.73	150.57
Asset-IV	975.54	0.97	39.05	0.00	935.52
Asset-V	668.78	1.72	20.09	0.00	646.97
Asset-VI	126.88	0.94	1.38	0.49	124.07
Asset-VII	151.62	2.39	4.06	1.17	144.00
Asset-VIII	203.38	3.62	5.96	1.82	191.98
Asset-IX	166.01	4.42	4.87	2.54	154.18
Asset-X	32.07	1.31	0.08	0.36	30.32
Asset-XI	85.38	4.60	0.53	1.94	78.31

Additional Capital Expenditure (ACE)

78. The Petitioner has submitted that ACE claimed till the respective cut-off dates for all the communication assets covered in the Petition are claimed under Regulation 14(1) of the 2014 Tariff Regulations. Regulation 14(1) of the 2014 Tariff Regulations provides as follows:

“14. Additional Capitalisation and De-capitalisation:

(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 recognized 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 of law; 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.

79. The Petitioner has claimed the following ACE for the communication assets for the 2014-19 tariff period and has submitted the Auditor's Certificates in support of the same:

Assets	(₹ in lakh) ACE (as per Auditor's Certificate)
	2018-19
Asset-I	0.00
Asset-II	75.68
Asset-III	0.00
Asset-IV	10.46
Asset-V	30.24
Asset-VI	0.00
Asset-VII	0.00
Asset-VIII	0.00
Asset-IX	0.00
Asset-X	0.00
Asset-XI	0.00

80. The communication assets have been executed during the 2014-19 period, and accordingly, the cut-off date for the communication assets are as follows:

Assets	COD Date	Cut-off date
Asset-I	20.4.2017	31.3.2020
Asset-II	6.4.2018	31.3.2021
Asset-III	28.7.2018	31.3.2021
Asset-IV	6.8.2018	31.3.2021
Asset-V	6.8.2018	31.3.2021
Asset-VI	31.3.2018	31.3.2021
Asset-VII	30.5.2018	31.3.2021
Asset-VIII	14.6.2018	31.3.2021
Asset-IX	18.8.2018	31.3.2021
Asset-X	18.12.2018	31.3.2021
Asset-XI	11.3.2019	31.3.2022

81. The Petitioner has submitted that the ACE to be incurred with respect to the communication assets is mainly on account of the balance/ retention payments. The Petitioner, vide affidavit dated 29.3.2022, has submitted the liability flow statement with regard to the ACE for the 2014-19 tariff period as follows:



(₹ in lakh)								
Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additio nal liability recog nized	Outstandi ng liability as on 31.3.2019
				2018-2019	Total (2014-19)	2014 -19	2014-19	
Asset-II (10 Nos. OPGW link along with communication equipment)	M/s Taihan Fibreopti c Co. Ltd. (Taihan) & M/s Sabari Electrical s. M/s Tejas Networks Ltd. M/s FIBCOM India Ltd.	Fiber Optical Cable and Accessories & Communicati on Equipment along with auxiliary Power supply	75.68	75.68	75.68	-	-	-

(₹ in lakh)								
Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)	2014 -19	2014-19	
Asset-IV (12 Nos of OPGW link along with communication equipment's)	M/s Taihan Fibreopti c Co. Ltd. (Taihan) & M/s Sabari Electrica ls. M/s Tejas Network s Ltd.	Fiber Optical Cable and Accessories & Communicat ion Equipment along with auxiliary Power supply	128.51	10.46	10.46	-	-	118.05



(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)			
Asset-V (09 Nos OPGW link along with communication equipment	M/s Taihan Fibreopti c Co. Ltd. (Taihan) & M/s Sabari Electrica ls. M/s Tejas Network s Ltd. M/s FIBCOM India Ltd.	Fiber Optical Cable and Accessories & Communicat ion Equipment along with auxiliary Power supply	271.11	30.24	30.24	-	-	240.87

(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)			
Asset-VI (11 Nos OPGW link along with communication equipment	M/s Punjab Commu nication Limited. M/s FIBCOM India Ltd.	Communicat ion Equipment along with auxiliary Power supply	26.43	-	-	-	-	26.43



(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)	2014 -19	2014-19	
Asset-VII (07 Nos OPGW link along with communication equipment)	M/s Punjab Commu nication Limited. M/s FIBCOM India Ltd.	Communicat ion Equipment, along with auxiliary Power supply	26.65	-	-	-	-	26.65

(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)	2014 -19	2014-19	
Asset-VIII (10 Nos OPGW link along with communication equipment)	M/s Punjab Commu nication Limited. M/s FIBCOM India Ltd.	Communicat ion Equipment along with auxiliary Power supply	46.93	-	-	-	-	46.93

(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018-2019	Total (2014-19)	2014 -19	2014-19	
Asset-IX (06 Nos OPGW link along with communication)	M/s Punjab Commu nication Limited. M/s	Communicat ion Equipment along with auxiliary Power	30.70	-	-	-	-	30.70



equipment	FIBCOM India Ltd.	supply						
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(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.03.20 19
				2018- 2019	Total (2014- 19)	2014 -19	2014- 19	
Asset-X (02 Nos OPGW link along with communication equipment	M/s Punjab Commu nication Limited. M/s FIBCOM India Ltd.	Communicat ion Equipment, along with auxiliary Power supply	14.80	-	-	-	-	14.80

(₹ in lakh)

Asset Name	Party	Particulars	Outstand ing liability as on COD	Discharge		Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.201 9
				2018- 2019	Total (2014- 19)	2014 -19	2014- 19	
Asset-XI (03 Nos OPGW link along with communication equipment	M/s Punjab Commu nication Limited. M/s FIBCOM India Ltd.	Communica tion Equipment along with auxiliary Power supply	20.12	-	-	-	-	20.12

82. BSPHCL has submitted that the Petitioner may be directed to specify under what head of Regulation 14 of the 2014 Tariff Regulations the Petitioner has claimed the ACE and, further, the details as required by the provisos of Regulation 14 of the 2014 Tariff Regulations may also be furnished. BSPHCL has further submitted that additional capitalization may be considered after taking into consideration the cut-off



date as per Regulation 3(13) of the 2014 Tariff Regulations. BSPHCL has further submitted that the Petitioner in the main Petition has claimed a different COD for Asset-IV for claiming the ACE.

83. We have considered the submissions made by the Petitioner and BSPHCL. The undischarged IDC as on COD has been allowed as the ACE during the year of discharge. The ACE claimed by the Petitioner has been allowed under Regulation 14(1) of the 2014 Tariff Regulations. The actual ACE allowed with respect to the communication assets is as follows:

(₹ in lakh)

Particulars	Actual ACE				
	Asset-I		Asset-II	Asset-III	Asset-IV
	2017-18	2018-19	2018-19	2018-19	2018-19
ACE allowed under Regulations 14(1) of the 2014 Tariff Regulations	0.00	0.00	75.68	0.00	10.46
Add: IDC discharge	0.29	0.00	20.43	4.84	39.05
Total	0.29	0.00	96.11	4.84	49.51

(₹ in lakh)

Particulars	Actual ACE				
	Asset-V	Asset-VI	Asset-VII	Asset-VIII	Asset-IX
	2018-19	2018-19	2018-19	2018-19	2018-19
ACE allowed under Regulations 14(1) of the 2014 Tariff Regulations	30.24	0.00	0.00	0.00	0.00
Add: IDC discharge	20.09	1.38	4.06	5.96	0.17
Total	50.33	1.38	4.06	5.96	0.17

(₹ in lakh)

Particulars	Actual ACE	
	Asset-X	Asset-XI
	2018-19	2018-19
ACE allowed under Regulations 14(1) of the 2014 Tariff Regulations	0.00	0.00
Add: IDC discharge	0.00	0.00
Total	0.00	0.00

84. Accordingly, the capital cost allowed as on 31.3.2019, after including ACE in respect of the communication assets, is as follows:



(₹ in lakh)

Assets	Capital cost allowed as on COD	ACE allowed		Capital Cost as on 31.3.2019
		2017-18	2018-19	
Asset-I	17.80	0.29	0.00	18.09
Asset-II	993.07	0.00	96.11	1089.18
Asset-III	150.57	0.00	4.84	155.41
Asset-IV	935.52	0.00	49.51	985.03
Asset-V	646.97	0.00	50.33	697.30
Asset-VI	124.07	0.00	1.38	125.45
Asset-VII	144.00	0.00	4.06	148.06
Asset-VIII	191.98	0.00	5.96	197.94
Asset-IX	154.18	0.00	0.17	154.35
Asset-X	30.32	0.00	0.00	30.32
Asset-XI	78.31	0.00	0.00	78.31

Debt-Equity Ratio

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

19. 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:

- 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 shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund 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 1.4.2014, debt-equity ratio allowed by the Commission for determination of tariff for the period



ending 31.3.2014 shall be considered.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014, the Commission shall approve the debt:equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 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.

86. The Petitioner has claimed a debt-equity ratio of 70:30 as on COD and for ACE post COD. The debt-equity ratio of 70:30 has been considered for the capital cost as on COD and the ACE during the 2014-19 tariff period as provided under Regulation 19 of the 2014 Tariff Regulations. The details of the debt-equity ratio with respect to the communication assets as on COD and 31.3.2019 are as follows:

Asset –I	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	12.46	70.00	12.66	70.00
Equity	5.34	30.00	5.43	30.00
Total	17.80	100.00	18.09	100.00
Asset –II	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	695.15	70.00	762.42	70.00
Equity	297.92	30.00	326.75	30.00
Total	993.07	100.00	1089.18	100.00
Asset –III	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	105.40	70.00	108.78	70.00
Equity	45.17	30.00	46.62	30.00
Total	150.57	100.00	155.41	100.00
Asset –IV	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	654.86	70.00	689.52	70.00
Equity	280.66	30.00	295.51	30.00
Total	935.52	100.00	985.03	100.00
Asset –V	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)



Debt	452.88	70.00	488.11	70.00
Equity	194.09	30.00	209.19	30.00
Total	646.97	100.00	697.30	100.00
Asset –VI	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	86.85	70.00	87.82	70.00
Equity	37.22	30.00	37.64	30.00
Total	124.07	100.00	125.45	100.00
Asset –VII	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	100.80	70.00	103.64	70.00
Equity	43.20	30.00	44.42	30.00
Total	144.00	100.00	148.06	100.00
Asset –VIII	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	134.39	70.00	138.56	70.00
Equity	57.59	30.00	59.38	30.00
Total	191.98	100.00	197.94	100.00
Asset –IX	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	107.93	70.00	108.05	70.00
Equity	46.25	30.00	46.31	30.00
Total	154.18	100.00	154.35	100.00
Asset –X	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	21.22	70.00	21.22	70.00
Equity	9.10	30.00	9.10	30.00
Total	30.32	100.00	30.32	100.00
Asset –XI	Amount as on COD (₹ in lakh)	(in %)	Amount as on 31.3.2019 (₹ in lakh)	(in %)
Debt	54.82	70.00	54.82	70.00
Equity	23.49	30.00	23.49	30.00
Total	78.31	100.00	78.31	100.00

Depreciation

87. Regulation 27 of the 2014 Tariff Regulations provides as under:

"27. 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 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 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.

(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.
...*

88. Depreciation has been allowed as per the methodology provided in



Regulation 27 of the 2014 Tariff Regulations. The depreciation has been allowed, considering the capital expenditure as on COD and the approved ACE during the 2014-19 tariff period. The gross block during the 2014-19 tariff period has been depreciated at the Weighted Average Rate of Depreciation (WAROD). WAROD at Annexure-I has been worked out considering the depreciation rates of the communication assets as prescribed in the 2014 Tariff Regulations. Accordingly, depreciation allowed during the 2014-19 tariff period is as follows:

(₹ in lakh)						
	Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
		2017-18 (Pro-rata for 346 days)	2018-19	2018-19 (Pro-rata for 360 days)	2018-19 (Pro-rata for 247 days)	2018-19 (Pro-rata for 267 days)
A	Opening Capital Cost	17.80	18.09	993.07	150.57	935.52
B	Additional Capitalisation	0.29	0.00	96.11	4.84	49.51
C	Closing Capital Cost (A+B)	18.09	18.09	1089.18	155.41	985.03
D	Average Capital Cost (A+C)/2	17.95	18.09	1041.12	152.99	960.27
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Aggregated Depreciable Value (D*90%)	16.15	16.28	937.01	137.69	864.25
G	Depreciation during the year (D*E)	1.08	1.15	65.00	6.55	44.46
H	Cumulative Depreciation at the end of the year	1.08	2.22	65.00	6.55	44.46
I	Remaining Depreciable Value at the end of the year	15.07	14.06	872.01	131.14	819.78

(₹ in lakh)						
	Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
		2018-19 (Pro-rata for 238 days)	2017-18 (Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
A	Opening Capital Cost	646.97	124.07	124.07	144.00	191.98
B	Additional Capitalisation	50.33	0.00	1.38	4.06	5.96
C	Closing Capital Cost (A+B)	697.30	124.07	125.45	148.07	197.94
D	Average Capital Cost (A+C)/2	672.14	124.07	124.76	146.03	194.96
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Aggregated Depreciable Value (D*90%)	604.92	111.66	112.28	131.43	175.46
G	Depreciation during the year (D*E)	27.74	0.02	7.90	7.75	9.84



	Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
		2018-19 (Pro-rata for 238 days)	2017-18 (Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
H	Cumulative Depreciation at the end of the year	27.74	0.02	7.92	7.75	9.84
I	Remaining Depreciable Value at the end of the year	577.18	111.64	104.37	123.68	165.82

(₹ in lakh)				
	Particulars	Asset-IX	Asset-X	Asset-XI
		2018-19 (Pro-rata for 226 days)	2018-19 (Pro-rata for 104 days)	2018-19 (Pro-rata for 21 days)
A	Opening Capital Cost	154.18	30.32	78.31
B	Additional Capitalisation	0.17	0.00	0.00
C	Closing Capital Cost (A+B)	154.35	30.32	78.31
D	Average Capital Cost (A+C)/2	154.26	30.32	78.31
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33
F	Aggregated Depreciable Value (D*90%)	138.84	27.29	70.48
G	Depreciation during the year (D*E)	6.05	0.55	0.29
H	Cumulative Depreciation at the end of the year	6.05	0.55	0.29
I	Remaining Depreciable Value at the end of the year	132.79	26.74	70.19

89. The details of depreciation for the communication assets as allowed in the previous order, claimed by the Petitioner in the instant Petition and allowed after the truing up in the instant order, are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-I	Claimed by the Petitioner in the instant Petition	1.08	1.15
	Approved after true-up in this order	1.08	1.15
Asset-II	Claimed by the Petitioner in the instant Petition	0.00	65.01
	Approved after true-up in this order	0.00	65.00
Asset-III	Claimed by the Petitioner in the instant Petition	0.00	6.66
	Approved after true-up in this order	0.00	6.55
Asset-IV	Claimed by the Petitioner in the instant Petition	0.00	44.78
	Approved after true-up in this order	0.00	44.46
Asset-V	Claimed by the Petitioner in the instant Petition	0.00	27.80
	Approved after true-up in this order	0.00	27.74
Asset-VI	Claimed by the Petitioner in the instant Petition	0.02	7.97
	Approved after true-up in this order	0.02	7.90
Asset-VII	Claimed by the Petitioner in the instant Petition	0.00	7.87
	Approved after true-up in this order	0.00	7.75
Asset-VIII	Claimed by the Petitioner in the instant Petition	0.00	10.02



Assets	Particulars	2017-18	2018-19
	Approved after true-up in this order	0.00	9.84
Asset-IX	Claimed by the Petitioner in the instant Petition	0.00	6.43
	Approved after true-up in this order	0.00	6.05
Asset-X	Claimed by the Petitioner in the instant Petition	0.00	0.58
	Approved after true-up in this order	0.00	0.55
Asset-XI	Claimed by the Petitioner in the instant Petition	0.00	0.31
	Approved after true-up in this order	0.00	0.29

Interest on Loan (“IoL”)

90. Regulation 26 of the 2014 Tariff Regulations provides as under:

“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 decapitalisation 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 re-financing of loan.”

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

92. BSPHCL has submitted that no claim may be considered beyond Regulation 26 of the 2014 Tariff Regulations. The claim or adjustment directly from the beneficiary, as claimed by the Petitioner, is not envisaged by the said regulation. As per the Petitioner, the CODs of the communication assets have been achieved on different dates, i.e., between 20.4.2017 and 11.3.2019, and the same may be kept in view while considering the Petitioner's claims. BSPHCL has further submitted that the Petitioner did not show the basis for a claim of change in the interest rate due to the floating rate of interest applicable, if any, for this period.

93. We have considered the submission of the Petitioner and BSPHCL. The IoL is calculated based on the actual interest rate in accordance with Regulation 26 of the 2014 Tariff Regulations. The trued-up IoL allowed for the 2014-19 tariff period is as follows:



(₹ in lakh)

	Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
		2017-18 (Pro-rata for 346 days)	2018-19	2018-19 (Pro-rata for 360 days)	2018-19 (Pro-rata for 247 days)	2018-19 (Pro-rata for 267 days)
A	Gross Normative Loan	12.46	12.66	695.15	105.40	654.86
B	Cumulative Repayments upto Previous Year	0.00	1.08	0.00	0.00	0.00
C	Net Loan-Opening (A-B)	12.46	11.59	695.15	105.40	654.86
D	Addition due to Additional Capitalization	0.20	0.00	67.28	3.39	34.66
E	Repayment during the year	1.08	1.15	65.00	6.55	44.46
F	Net Loan-Closing (C+D-E)	11.59	10.44	697.42	102.23	645.06
G	Average Loan (C+F)/2	12.02	11.01	696.29	103.82	649.96
H	Weighted Average Rate of Interest on Loan (in %)	7.62	7.63	7.64	7.53	7.40
I	Interest on Loan (G*H)	0.87	0.84	52.45	5.29	35.17

(₹ in lakh)

	Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
		2018-19 (Pro-rata for 238 days)	2017-18 Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
A	Gross Normative Loan	452.88	86.85	86.85	100.80	134.39
B	Cumulative Repayments upto Previous Year	0.00	0.00	0.02	0.00	0.00
C	Net Loan-Opening (A-B)	452.88	86.85	86.83	100.80	134.39
D	Addition due to Additional Capitalization	35.23	0.00	0.97	2.85	4.17
E	Repayment during the year	27.74	0.02	7.90	7.75	9.84
F	Net Loan-Closing (C+D-E)	460.37	86.83	79.90	95.90	128.72
G	Average Loan (C+F)/2	456.63	86.84	83.36	98.35	131.55
H	Weighted Average Rate of Interest on Loan (in %)	7.59	7.63	7.64	7.40	7.35
I	Interest on Loan (G*H)	22.60	0.02	6.37	6.10	7.71

(₹ in lakh)

	Particulars	Asset-IX	Asset-X	Asset-XI
		2018-19 (Pro-rata for 226 days)	2018-19 (Pro-rata for 104 days)	2018-19 (Pro-rata for 21 days)
A	Gross Normative Loan	107.93	21.22	54.82
B	Cumulative Repayments upto Previous Year	0.00	0.00	0.00
C	Net Loan-Opening (A-B)	107.93	21.22	54.81
D	Addition due to Additional Capitalization	0.12	0.00	0.00
E	Repayment during the year	6.05	0.55	0.29
F	Net Loan-Closing (C+D-E)	102.00	20.68	54.53
G	Average Loan (C+F)/2	104.96	20.95	54.67
H	Weighted Average Rate of Interest on Loan (in %)	7.36	8.14	8.05
I	Interest on Loan (G*H)	4.79	0.49	0.25



94. The details of IoL for the communication assets as allowed in the previous order, claimed by the Petitioner in the instant Petition and allowed after true up in the instant order, are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-I	Claimed by the Petitioner in the instant Petition	0.87	0.84
	Approved after true-up in this order	0.87	0.84
Asset-II	Claimed by the Petitioner in the instant Petition	0.00	52.45
	Approved after true-up in this order	0.00	52.45
Asset-III	Claimed by the Petitioner in the instant Petition	0.00	5.37
	Approved after true-up in this order	0.00	5.29
Asset-IV	Claimed by the Petitioner in the instant Petition	0.00	35.42
	Approved after true-up in this order	0.00	35.17
Asset-V	Claimed by the Petitioner in the instant Petition	0.00	22.65
	Approved after true-up in this order	0.00	22.60
Asset-VI	Claimed by the Petitioner in the instant Petition	0.02	6.43
	Approved after true-up in this order	0.02	6.37
Asset-VII	Claimed by the Petitioner in the instant Petition	0.00	6.20
	Approved after true-up in this order	0.00	6.10
Asset-VIII	Claimed by the Petitioner in the instant Petition	0.00	7.85
	Approved after true-up in this order	0.00	7.71
Asset-IX	Claimed by the Petitioner in the instant Petition	0.00	5.09
	Approved after true-up in this order	0.00	4.79
Asset-X	Claimed by the Petitioner in the instant Petition	0.00	0.51
	Approved after true-up in this order	0.00	0.49
Asset-XI	Claimed by the Petitioner in the instant Petition	0.00	0.27
	Approved after true-up in this order	0.00	0.25

Return on Equity ("RoE")

95. Clauses (1) and (2) of Regulation 24 and Clause (2) of Regulation 25 of the 2014 Tariff Regulations provide as under:

"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:

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

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 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.”

96. The Petitioner is entitled to RoE for the communication assets in terms of Regulations 24 and 25 of the 2014 Tariff Regulations. The Petitioner has submitted that they are paying income tax at MAT rates and has claimed the following effective tax rates for the 2014-19 tariff period:

Year	Claimed effective tax (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	21.018	19.625
2015-16	21.382	19.716
2016-17	21.338	19.705
2017-18	21.337	19.704
2018-19	21.549	19.758

97. BSPHCL has submitted that the claims of the Petitioner may only be considered in accordance with Regulation 25 of the 2014 Tariff Regulations, particularly Regulation 25(3) of the 2014 Tariff Regulations thereof, and nothing beyond it may be considered.

98. The Commission, in order dated 27.4.2020 in Petition No. 274/TT/2019, has



arrived at the effective tax rate for the Petitioner based on the notified MAT rates as follows:

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

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

Year	MAT Rate (in %)	Grossed-up RoE [(Base Rate)/(1-t)] (in %)
2014-15	20.961	19.610
2015-16	21.342	19.705
2016-17	21.342	19.705
2017-18	21.342	19.705
2018-19	21.549	19.758

100. Accordingly, the RoE allowed for the communication assets is as follows:

(₹ in lakh)						
	Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
		2017-18 (Pro-rata for 346 days)	2018-19	2018-19 (Pro-rata for 360 days)	2018-19 (Pro-rata for 247 days)	2018-19 (Pro-rata for 267 days)
A	Opening Equity	5.34	5.43	297.92	45.17	280.66
B	Addition due to ACE	0.09	0.00	28.83	1.45	14.85
C	Closing Equity (A+B)	5.43	5.43	326.75	46.62	295.51
D	Average Equity (A+C)/2	5.38	5.43	312.34	45.90	288.08
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	21.342	21.549	21.549	21.549	21.549
G	Rate of Return on Equity (Pre-tax)	19.705	19.758	19.758	19.758	19.758
H	Return on Equity (Pre-tax) (D*G)	1.01	1.07	60.87	6.14	41.64



(₹ in lakh)						
	Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
		2018-19 (Pro-rata for 238 days)	2017-18 Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
A	Opening Equity	194.09	37.22	37.22	43.20	57.59
B	Addition due to ACE	15.10	0.00	0.41	1.22	1.79
C	Closing Equity (A+B)	209.19	37.22	37.64	44.42	59.38
D	Average Equity (A+C)/2	201.64	37.22	37.43	43.81	58.49
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	21.549	21.342	21.549	21.549	21.549
G	Rate of Return on Equity (Pre-tax)	19.758	19.705	19.758	19.758	19.758
H	Return on Equity (Pre-tax) (D*G)	25.98	0.02	7.40	7.26	9.21

(₹ in lakh)				
	Particulars	Asset-IX	Asset-X	Asset-XI
		2018-19 (Pro-rata for 226 days)	2018-19 (Pro-rata for 104 days)	2018-19 (Pro-rata for 21 days)
A	Opening Equity	46.25	9.10	23.49
B	Addition due to ACE	0.05	0.00	0.00
C	Closing Equity (A+B)	46.30	9.10	23.49
D	Average Equity (A+C)/2	46.28	9.10	23.49
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500
F	Tax Rate applicable (in %)	21.549	21.549	21.549
G	Rate of Return on Equity (Pre-tax)	19.758	19.758	19.758
H	Return on Equity (Pre-tax) (D*G)	5.66	0.51	0.27

101. The details of RoE for the communication assets as allowed in the previous order, claimed by the Petitioner in the instant Petition, and allowed after true up in the instant order are as follows:

(₹ in lakh)			
Assets	Particulars	2017-18	2018-19
Asset-I	Claimed by the Petitioner in the instant Petition	1.00	1.07
	Approved after true-up in this order	1.01	1.07
Asset-II	Claimed by the Petitioner in the instant Petition	0.00	60.87
	Approved after true-up in this order	0.00	60.87
Asset-III	Claimed by the Petitioner in the instant Petition	0.00	6.23
	Approved after true-up in this order	0.00	6.14
Asset-IV	Claimed by the Petitioner in the instant Petition	0.00	41.94
	Approved after true-up in this order	0.00	41.64
Asset-V	Claimed by the Petitioner in the instant Petition	0.00	26.03
	Approved after true-up in this order	0.00	25.98
Asset-VI	Claimed by the Petitioner in the instant Petition	0.02	7.46



Assets	Particulars	2017-18	2018-19
	Approved after true-up in this order	0.02	7.40
Asset-VII	Claimed by the Petitioner in the instant Petition	0.00	7.38
	Approved after true-up in this order	0.00	7.26
Asset-VIII	Claimed by the Petitioner in the instant Petition	0.00	9.38
	Approved after true-up in this order	0.00	9.21
Asset-IX	Claimed by the Petitioner in the instant Petition	0.00	6.02
	Approved after true-up in this order	0.00	5.66
Asset-X	Claimed by the Petitioner in the instant Petition	0.00	0.54
	Approved after true-up in this order	0.00	0.51
Asset-XI	Claimed by the Petitioner in the instant Petition	0.00	0.29
	Approved after true-up in this order	0.00	0.27

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

102. The Petitioner has not claimed O&M Expenses separately in the Petition for the 2014-19 period. However, the Petitioner has made a submission that the wage revision of its employees is due, and the actual impact of the hike would be effective from a future date. Accordingly, the Petitioner reserves its right to approach the Commission for suitable revision in the norms for O&M Expenditure for claiming the impact of wage hike, if any, during the 2014-19 period.

103. BSPHCL has submitted that the Petitioner’s plea to approach the Commission for approval of wage revision may not be considered as anything beyond the ambit of Regulation 29(3) (c) of the 2014 Tariff Regulations can be allowed to the Petitioner.

104. We have considered the submissions of the Petitioner and Respondent. As the Petitioner has not claimed any O&M charges under this Petition for Tariff Period 2014-19, O&M charges are not allowed separately in this order.

105. It is further observed that the petitioner has filed petition No. 279/MP//2019 on account of additional cost incurred owing to revision of scales of pay for executives and non-executives from 1.1.2017 to 31.3.2019 consequent to implementation of pay revision and revision of gratuity amount with effect from



1.1.2017. The commission vide order dated 26.12.2022 in Petition No. 279/MP//2019 is held as under:

“33. It is observed that the total normalized actual O&M Expenses incurred by the Petitioner are lower than the normative O&M Expenses allowed by the Commission during 2014-19 control period, even though, the Commission has not factored the impact of pay revision of employees in the allowed normative O&M Expenses for 2014-19 tariff period. As the normative O&M Expenses for 2014-19 tariff period are higher than the normalized actual O&M Expenses, the additional O&M Expenses of ₹95082.49 lakh claimed by the Petitioner for the period from 1.1.2017 to 31.3.2019 on account of pay revision with effect from 1.1.2017 and increase in ceiling of gratuity from ₹10 lakh to ₹20 lakh w.e.f. 1.1.2017 are not allowed.”

106. Accordingly, the submissions of the petitioner for revision in the norms for O&M Expenditure for claiming the impact of wage hike, if any, during the 2014-19 period has become infructuous. .

Interest on Working Capital (“IWC”)

107. Regulation 28(1)(c) of the 2014 Tariff Regulations provides as follows:

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

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

(i) Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;

(ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;

(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;

(iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;

(v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and

(vi) Operation and maintenance expenses for one month.

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

(i) Fuel cost for 30 days corresponding to the normative annual plant availability



factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

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

(iii) Maintenance spares @ 30% of operation and maintenance expenses specified in Regulation 29;

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

(v) Operation and maintenance expenses for one month.

(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.”

108. The IWC has been allowed as per Regulation 28(1)(c) of the 2014 Tariff

Regulations. The trued-up IWC allowed for the communication assets are as follows:

(₹ in lakh)						
	Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
		2017-18 (Pro-rata for 346 days)	2018-19	2018-19 (Pro-rata for 360 days)	2018-19 (Pro-rata for 247 days)	2018-19 (Pro-rata for 267 days)
A	Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges)	0.53	0.52	30.76	4.52	28.20
D	Total of Working Capital (A+B+C)	0.53	0.52	30.76	4.52	28.20
E	Rate of Interest on working capital (in %)	12.60	12.60	12.20	12.20	12.20
F	Interest of working Capital (D*E)	0.06	0.07	3.70	0.37	2.52



(₹ in lakh)

	Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
		2018-19 (Pro-rata for 238 days)	2017-18 (Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
A	Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges)	19.91	3.71	3.69	4.28	5.71
D	Total of Working Capital (A+B+C)	19.91	3.71	3.69	4.28	5.1
E	Rate of Interest on working capital (in %)	12.20	12.60	12.60	12.20	12.20
F	Interest of working Capital (D*E)	1.58	0.00	0.46	0.44	0.56

(₹ in lakh)

	Particulars	Asset-IX	Asset-X	Asset-XI
		2018-19 (Pro-rata for 226 days)	2018-19 (Pro-rata for 104 days)	2018-19 (Pro-rata for 21 days)
A	Working Capital for O&M Expenses (O&M expenses for one month)	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (15% of O&M expenses)	0.00	0.00	0.00
C	Working Capital for Receivables (Equivalent to two months of annual fixed cost / annual transmission charges)	4.53	0.92	2.38
D	Total of Working Capital (A+B+C)	4.53	0.92	2.38
E	Rate of Interest on working capital (in %)	12.20	12.20	12.20
F	Interest of working Capital (D*E)	0.34	0.03	0.02

109. The details of IWC for the communication assets as allowed in the previous order, claimed by the Petitioner in the instant Petition and allowed after trued up in the instant order are as follows:

(₹ in lakh)

Assets	Particulars	2017-18	2018-19
Asset-I	Claimed by the Petitioner in the instant Petition	0.07	0.07
	Approved after true-up in this order	0.06	0.07
Asset-II	Claimed by the Petitioner in the instant Petition	0.00	3.70
	Approved after true-up in this order	0.00	3.70
Asset-III	Claimed by the Petitioner in the instant Petition	0.00	0.38
	Approved after true-up in this order	0.00	0.37
Asset-IV	Claimed by the Petitioner in the instant Petition	0.00	2.54



Assets	Particulars	2017-18	2018-19
	Approved after true-up in this order	0.00	2.52
Asset-V	Claimed by the Petitioner in the instant Petition	0.00	1.58
	Approved after true-up in this order	0.00	1.58
Asset-VI	Claimed by the Petitioner in the instant Petition	0.00	0.47
	Approved after true-up in this order	0.00	0.46
Asset-VII	Claimed by the Petitioner in the instant Petition	0.00	0.44
	Approved after true-up in this order	0.00	0.44
Asset-VIII	Claimed by the Petitioner in the instant Petition	0.00	0.57
	Approved after true-up in this order	0.00	0.56
Asset-IX	Claimed by the Petitioner in the instant Petition	0.00	0.37
	Approved after true-up in this order	0.00	0.34
Asset-X	Claimed by the Petitioner in the instant Petition	0.00	0.03
	Approved after true-up in this order	0.00	0.03
Asset-XI	Claimed by the Petitioner in the instant Petition	0.00	0.02
	Approved after true-up in this order	0.00	0.02

Approved Annual Fixed Charges for the 2014-19 Tariff Period

110. The following trued-up Annual Fixed Charges (AFC) have been allowed for the communication assets for the 2014-19 tariff period:

Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
	2017-18 (Pro Rata for 346 days)	2018-19	2018-19 (Pro-rata for 360 days)	2018-19 (Pro-rata for 247 days)	2018-19 (Pro-rata for 267 days)
Depreciation	1.08	1.15	65.00	6.55	44.46
Interest on Loan	0.87	0.84	52.45	5.29	35.17
Return on Equity	1.01	1.07	60.87	6.14	41.64
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.06	0.07	3.70	0.37	2.52
Total	3.02	3.13	182.01	18.35	123.78

Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
	2018-19 (Pro-rata for 238 days)	2017-18 (Pro-rata for 01 day)	2018-19	2018-19 (Pro-rata for 306 days)	2018-19 (Pro-rata for 291 days)
Depreciation	27.74	0.02	7.90	7.75	9.84
Interest on Loan	22.60	0.02	6.37	6.10	7.71
Return on Equity	25.98	0.02	7.40	7.26	9.21
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	1.58	0.00	0.46	0.44	0.56
Total	77.91	0.06	22.13	21.55	27.32



Particulars	(₹ in lakh)		
	Asset-IX 2018-19 (Pro-rata for 226 days)	Asset-X 2018-19 (Pro-rata for 104 days)	Asset-XI 2018-19 (Pro-rata for 21 days)
Depreciation	6.05	0.55	0.29
Interest on Loan	4.79	0.49	0.25
Return on Equity	5.66	0.51	0.27
O&M Expenses	0.00	0.00	0.00
Interest on Working Capital	0.34	0.03	0.02
Total	16.84	1.58	0.83

111. The details of charges for the communication assets as allowed in the previous order, claimed by the Petitioner in the instant Petition, and allowed after trued up in the instant order are as follows:

Assets	Particulars	(₹ in lakh)	
		2017-18	2018-19
Asset-I	Claimed by the Petitioner in the instant Petition	3.02	3.13
	Approved after true-up in this order	3.02	3.13
Asset-II	Claimed by the Petitioner in the instant Petition	0.00	182.03
	Approved after true-up in this order	0.00	182.01
Asset-III	Claimed by the Petitioner in the instant Petition	0.00	18.64
	Approved after true-up in this order	0.00	18.35
Asset-IV	Claimed by the Petitioner in the instant Petition	0.00	124.68
	Approved after true-up in this order	0.00	123.78
Asset-V	Claimed by the Petitioner in the instant Petition	0.00	78.06
	Approved after true-up in this order	0.00	77.91
Asset-VI	Claimed by the Petitioner in the instant Petition	0.06	22.33
	Approved after true-up in this order	0.06	22.13
Asset-VII	Claimed by the Petitioner in the instant Petition	0.00	21.89
	Approved after true-up in this order	0.00	21.55
Asset-VIII	Claimed by the Petitioner in the instant Petition	0.00	27.82
	Approved after true-up in this order	0.00	27.32
Asset-IX	Claimed by the Petitioner in the instant Petition	0.00	17.91
	Approved after true-up in this order	0.00	16.84
Asset-X	Claimed by the Petitioner in the instant Petition	0.00	1.66
	Approved after true-up in this order	0.00	1.58
Asset-XI	Claimed by the Petitioner in the instant Petition	0.00	0.89
	Approved after true-up in this order	0.00	0.83

Determination of Annual Fixed Charges for the 2019-24 Tariff Period

112. The Petitioner has submitted the combined tariff forms for the communication assets as a single asset. Accordingly, as per proviso (i) of Regulation 8(1) of the



2019 Tariff Regulations, a single tariff for the combined assets has been worked out for the 2019-24 tariff period.

113. The Petitioner has claimed the following charges for the combined assets for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	240.91	250.34	261.10	268.37	268.37
Interest on Loan	178.65	167.89	157.56	143.63	123.29
Return on Equity	214.43	222.83	232.40	238.88	238.88
Interest on Working Capital	9.53	9.67	9.82	9.82	9.48
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Total	643.52	650.73	660.88	660.70	640.02

114. The Petitioner has claimed the following IWC for the combined assets for the 2019-24 tariff period:

(₹ in lakh)					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Maintenance Spares	0.00	0.00	0.00	0.00	0.00
Receivables	79.12	80.23	81.48	81.46	78.69
Total	79.12	80.23	81.48	81.46	78.69
Rate of Interest	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	9.53	9.67	9.82	9.82	9.48

Effective Date of Commercial Operation ("E-COD")

115. The Petitioner has claimed E-COD of the combined asset as of 17.6.2018. Based on the trued-up admitted capital cost and actual COD of all the communication assets, the E-COD has been worked out as follows:

Computation of E-COD					
Assets	Actual COD	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Weight of the cost (in %)	No. of Days from last COD	Weighted Days
Asset-I	20-04-2017	18.09	0.49	690	3.39
Asset-II	06-04-2018	1089.18	29.60	339	100.35
Asset-III	28-07-2018	155.41	4.22	226	9.55
Asset-IV	08-07-2018	985.03	26.77	246	65.86



Asset-V	06-08-2018	697.30	18.95	217	41.12
Asset-VI	31-03-2018	125.45	3.41	345	11.76
Asset-VII	30-05-2018	148.06	4.02	285	11.47
Asset-VIII	14-06-2018	197.94	5.38	270	14.52
Asset-IX	18-08-2018	154.35	4.19	205	8.60
Asset-X	18-12-2018	30.32	0.82	83	0.68
Asset-XI	11-03-2019	78.31	2.13	0	0.00
Total	11-03-2019*	3679.44	100.00		268.00
E-COD (Latest COD – Total weighted Days) = 16.6.2018					

**Latest COD*

116. The E-COD is used to determine the lapsed life of the project as a whole, which works out as zero (0) years as on 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from E-COD).

Weighted Average Life (“WAL”)

117. Life as defined in Regulation 33 of the 2019 Tariff Regulations has been considered for determining WAL. The combined assets may have multiple elements, such as land, building, transmission line, substation, and PLCC, and each element may have a different span of life. Therefore, the concept of WAL has been used to determine the useful life of the communication project as a whole.

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



Admitted Capital Cost as on 31.3.2019				
Particulars	Combined Assets Cost (₹ in lakh) (1)	Life in Years (2)	Weighted Cost (3)=(1) x(2) (in lakh) (3)	Weighted Avg. Life of Asset (in years) (4)=(3)/(1)
PLCC	3679.44	15	55191.60	
Total	3679.44		55191.60	15 years

119. WAL as on 1.4.2019, as determined above, is applicable prospectively (i.e., for the 2019-24 tariff period), and no retrospective adjustment of depreciation in the previous tariff period is required to be done. As discussed above, the E-COD of the combined asset is 17.6.2018, and the lapsed life of the communication project as a whole works out as 0 (zero) years as of 1.4.2019 (i.e., the number of completed years as on 1.4.2019 from E-COD). Accordingly, WAL has been used to determine the remaining useful life of the combined asset as on 31.3.2019 to be 15 years.

Capital Cost

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

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

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

- (a) *The expenditure incurred or projected to be incurred up to the date of commercial operation of the project;*
- (b) *Interest during construction and financing charges, on the loans (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the funds deployed;*
- (c) *Any gain or loss on account of foreign exchange risk variation pertaining to the loan amount availed during the construction period;*
- (d) *Interest during construction and incidental expenditure during construction as computed in accordance with these regulations;*
- (e) *Capitalised Initial Spares subject to the ceiling rates in accordance with these regulations;*
- (f) *Expenditure on account of additional capitalization and de-capitalisation determined in accordance with these regulations;*



- (g) Adjustment of revenue due to sale of infirm power in excess of fuel cost prior to the date of commercial operation as specified under Regulation 7 of these regulations;
- (h) Adjustment of revenue earned by the transmission licensee by using the Asset-before the date of commercial operation;
- (i) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (j) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of the generating station but does not include the transportation cost and any other appurtenant cost paid to the railway;
- (k) Capital expenditure on account of biomass handling equipment and facilities, for co-firing;
- (l) Capital expenditure on account of emission control system necessary to meet the revised emission standards and sewage treatment plant;
- (m) Expenditure on account of fulfilment of any conditions for obtaining environment clearance for the project;
- (n) Expenditure on account of change in law and force majeure events; and
- (o) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.

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

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;
- (c) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal up to the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."

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

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



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

- (a) The Asset-forming part of the project, but not in use, as declared in the tariff petition;*
- (b) De-capitalised Asset-after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*

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

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

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

121. The Petitioner has claimed the capital cost for the 2019-24 tariff period after combining all the communication assets as the combined asset. BSPHCL has submitted that the capital cost of the combined asset is to be determined in accordance with Regulation 19 of the 2019 Tariff Regulations, subject to the prudence check as contemplated by Regulation 20 of the 2019 Tariff Regulations.

122. We have considered the submission of the Petitioner and BSPHCL. The trued-up capital cost as on 31.3.2019 for Assets-I to XI has been considered as the capital cost as on 31.3.2019 for the combined assets. The capital cost has been dealt with in line with Regulation 19(3) of the 2019 Tariff Regulations. The element-wise capital cost (i.e., land, building, transmission line, Sub-station, and PLCC) as admitted by the Commission as on 31.3.2019 for the communication assets are clubbed together, and the capital cost worked out has been considered as capital



cost for the combined asset as on 31.3.2019 as per the following details:

(₹ in lakh)						
Particulars	Asset-I	Asset-II	Asset-III	Asset-IV	Asset-V	Asset-VI
Free hold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	18.09	1089.18	155.41	985.03	697.30	125.45
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	0.00	0.00	0.00	0.00	0.00	0.00
Total	18.09	1089.18	155.41	985.03	697.30	125.45

(₹ in lakh)						
Particulars	Asset-VII	Asset-VIII	Asset-IX	Asset-X	Asset-XI	Total Capital Cost as on 31.3.2019
Free hold Land	0.00	0.00	0.00	0.00	0.00	0.00
Building & Other Civil Works	0.00	0.00	0.00	0.00	0.00	0.00
Transmission Line	0.00	0.00	0.00	0.00	0.00	0.00
Sub-Station Equipment	0.00	0.00	0.00	0.00	0.00	0.00
PLCC	148.06	197.94	154.35	30.32	78.31	3679.44
Leasehold Land	0.00	0.00	0.00	0.00	0.00	0.00
IT Equipment and Software	0.00	0.00	0.00	0.00	0.00	0.00
Total	148.06	197.94	154.35	30.32	78.31	3679.44

123. The trued-up capital cost as on 31.3.2019 of ₹3679.44 lakh has been considered as admitted capital cost as on 1.4.2019 for working out the tariff for the 2019-24 tariff period for the combined asset.

Additional Capital Expenditure (“ACE”)

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

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*



- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23 of these regulations;
- (d) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority or order or decree of any court of law;
- (e) Change in law or compliance of any existing law; and
- (f) Force Majeure events;

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

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

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

(1) The 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."*

125. The Petitioner has claimed the projected ACE for the 2019-24 period on account of the balance and retention payments due to the undischarged liability projected for the works executed within the cut-off date, work deferred for execution,



and undischarged liabilities recognized to be payable at a future date. The details of the projected ACE in respect of the communication assets are as follows:

(₹ in lakh)

Assets	ACE (as per Auditor's Certificate)		
	2019-20	2020-21	2021-22
Asset-I	0.00	0.00	0.00
Asset-II	0.00	0.00	0.00
Asset-III	0.00	0.00	0.00
Asset-IV	0.00	0.00	118.05
Asset-V	119.65	9.50	111.72
Asset-VI	11.04	15.39	0.00
Asset-VII	9.50	17.15	0.00
Asset-VIII	21.03	25.90	0.00
Asset-IX	10.84	19.86	0.00
Asset-X	3.39	11.41	0.00
Asset-XI	9.22	10.90	0.00
Total	184.67	110.11	229.77

126. The liability flow statement submitted by the Petitioner, vide affidavit dated 29.3.2022, concerning ACE of certain communication assets for the 2019-24 tariff period, is as follows:

(₹ in lakh)

Asset Name	Party	Particulars	Outstandi ng liability as on 31.3.2019	Discharge		Reve rsal	Additio nal liability recogn ized	Outstan ding liability as on 31.3.202 4
				2021- 22	Total (2019- 24)			
Asset-IV (12 Nos OPGW link along with communic ation equipment' s	M/s Taihan Fibreop tic Co. Ltd. (Taihan) & M/s Sabari Electric als. M/s Tejas Networ ks Ltd. M/s FIBCO	Fiber Optic Cable and Accessorie s & Communic ation Equipment along with auxiliary Power supply	118.05	118.05	118.05	-	-	-



	M India Ltd.							
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(₹ in lakh)										
Asset Name	Party	Particulars	Outstanding liability as on 31.3.2019	Discharge				Reversal	Additional liability recognized	Outstanding liability as on 31.3.2024
				2019-20	2020-21	2021-22	Total (2019-24)	2019-24	2019-24	
Asset-V (09 Nos of OPGW link along with communication equipments)	M/s Taihan Fibreoptic Co. Ltd. (Taihan) & M/s Sabari Electric als. M/s Tejas Networks Ltd. M/s FIBCO M India Ltd.	Fiber Optical Cable and Accessories & Communication Equipment along with auxiliary Power supply	240.87	119.65	9.50	111.72	240.87	-	-	-

(₹ in lakh)									
Asset Name	Party	Particulars	Outstanding liability as on 31.3.2019	Discharge			Reversal	Additional liability recognized	Outstanding liability as on 31.3.2024
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-VI (11 Nos. of OPGW link along with communication equipment)	M/s Punjab Communication Limited. M/s FIBCO M India Ltd.	Communication Equipment along with auxiliary Power supply	26.43	11.04	15.39	26.43	-	-	-



(₹ in lakh)									
Asset Name	Party	Particulars	Outstand ing liability as on 31.3.2019	Discharge			Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.202 4
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-VII (07 Nos. of OPGW link along with communication equipment)	M/s Punjab Commu nication Limited. M/s FIBCO M India Ltd.	Communic ation Equipment along with auxiliary Power supply	26.65	9.50	17.15	26.65	-	-	-

(₹ in lakh)									
Asset Name	Party	Particulars	Outstand ing liability as on 31.3.2019	Discharge			Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.202 4
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-VIII (10 Nos of OPGW link along with communication equipment)	M/s Punjab Commu nication Limited. M/s FIBCO M India Ltd.	Communic ation Equipment along with auxiliary Power supply	46.93	21.03	25.90	46.93	-	-	-

(₹ in lakh)									
Asset Name	Party	Particulars	Outstand ing liability as on 31.3.2019	Discharge			Reve rsal	Additi onal liabilit y recog nized	Outstan ding liability as on 31.3.202 4
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-IX (06 Nos of	M/s Punjab	Communic ation	30.70	10.84	19.86	30.70	-	-	-



OPGW link along with communication equipment	Communication Limited. M/s FIBCOM India Ltd.	Equipment along with auxiliary Power supply							
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(₹ in lakh)									
Asset Name	Party	Particulars	Outstanding liability as on 31.3.2019	Discharge			Reversal	Additional liability recognized	Outstanding liability as on 31.3.2024
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-X (02 Nos of OPGW link along with communication equipment)	M/s Punjab Communication Limited. M/s FIBCOM India Ltd.	Communication Equipment along with auxiliary Power supply	14.80	3.39	11.41	14.80	-	-	-

(₹ in lakh)									
Asset Name	Party	Particulars	Outstanding liability as on 31.3.2014	Discharge			Reversal	Additional liability recognized	Outstanding liability as on 31.3.2024
				2019-20	2020-21	Total (2019-24)	2019-24	2019-24	
Asset-XI (03 Nos of OPGW link along with communication equipment)	M/s Punjab Communication Limited. M/s FIBCOM India Ltd.	Communication Equipment along with auxiliary Power supply	20.12	9.22	10.90	20.12	-	-	-

127. BSPHCL has submitted that any claim of the Petitioner regarding ACE may only be considered as per the applicable Regulation, and claims beyond it may not



be considered. BSPHCL has further submitted that the Petitioner is required to state specifically under which head of Regulation 24 of the 2019 Tariff Regulation it is making its claim.

128. We have considered the submissions of the Petitioner and BSPHCL. The ACE claimed towards the balance and retention payments and undischarged liability are allowed under Regulations 24(1)(a) and 25(1)(d) of the 2019 Tariff Regulations.

The ACE allowed for the combined asset is as follows, subject to its true-up:

(₹ in lakh)				
Assets	Regulations	ACE (as per Auditor's Certificate)		
		2019-20	2020-21	2021-22
Combined Asset	Regulation 24(1)(a) and 25(1)(d) of the 2019 Tariff Regulations	184.67	110.11	229.77
	Discharged of IDC	5.31	0.00	0.00
	Total	189.98	110.11	229.77

Capital Cost considered for the 2019-24 tariff period

129. Accordingly, the capital cost of the combined asset considered for the 2019-24 tariff period, subject to its true-up, is as follows:

(₹ in lakh)					
Asset	Capital Cost as on 1.4.2019	Admitted ACE			Capital Cost as on 31.3.2024
		2019-20	2020-21	2021-22	
Combined Asset	3679.44	189.98	110.11	229.77	4209.30

Debt-Equity Ratio

130. Regulations 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:



- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.”

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



131. The details of the debt-equity ratio considered for the purpose of computation of tariff for the 2019-24 tariff period are as follows:

Combined Asset	Capital Cost as on 1.4.2019 (₹ in lakh)	(in %)	Total Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	2575.61	70.00	2946.51	70.00
Equity	1103.83	30.00	1262.79	30.00
Total	3679.44	100.00	4209.30	100.00

Depreciation

132. Regulation 33 of the 2019 Tariff Regulations provide 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 Asset of the generating station and transmission system:

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

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

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

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

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

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

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

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



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

133. The Petitioner has submitted that the depreciation till 2023-24 has been calculated based on the straight-line method and at the rate specified in Appendix-I as per Regulation 33(5) of the 2019 Tariff Regulations.

134. BSPHCL has submitted that the claim of the Petitioner may only be considered as per Regulation 33(5) of the 2019 Tariff Regulation, and nothing beyond it may be considered.

135. We have considered the submissions of the Petitioner and BSPHCL. WAROD at Annexure-II has been worked out considering the depreciation rates of assets as prescribed in the 2019 Tariff Regulations. The depreciation has been worked out considering the admitted capital cost as on 1.4.2019, admitted ACE during 2019-24, and accumulated depreciation up to 31.3.2019. The depreciation allowed for the combined asset is as follows:

(₹ in lakh)						
	Combined Assets					
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Capital Cost	3679.44	3869.42	3979.53	4209.30	4209.30
B	Projected Additional Capitalisation	189.98	110.11	229.77	0.00	0.00
C	Closing Capital Cost (A+B)	3869.42	3979.53	4209.30	4209.30	4209.30
D	Average Capital Cost (A+C)/2	3774.43	3924.48	4094.42	4209.30	4209.30
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Lapsed useful life at the beginning of the year (Year)	0.00	1.00	2.00	3.00	4.00
G	Balance useful life at the beginning of the year (Year)	15.00	14.00	13.00	12.00	11.00
H	Depreciable value (D*90%)	3396.99	3532.03	3684.97	3788.37	3788.37
I	Combined Depreciation during the year (D*E)	238.92	248.42	259.18	266.45	266.45
J	Cumulative Depreciation at the end of the year	417.29	665.71	924.89	1191.34	1457.78



Combined Assets						
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
K	Remaining Aggregate Depreciable Value at the end of the year	2979.70	2866.32	2760.09	2597.03	2330.59

Interest on Loan (“IoL”)

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

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

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

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

137. The weighted average rate of interest on the IoL has been considered on the basis of the rates prevailing as on 1.4.2019. The Petitioner has prayed that the change in interest rate due to the floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of its true-up.

138. BSPHCL has submitted that the communication assets have achieved the COD on different dates between 20.4.2017 to 11.3.2019 and the 2019 Tariff Regulations permit the change in interest rate due to the floating rate of interest applicable, if any, to be adjusted/claimed over the tariff block of 5 years directly from/with the beneficiaries. Therefore, the interest on loan may be calculated as contemplated under Regulation 32 of the 2019 Tariff Regulations only.

139. We have considered the submission of the Petitioner and BSPHCL. The IoL has been worked out in accordance with Regulation 32 of the 2019 Tariff Regulations. The IoL allowed in respect of the combined asset is as follows:

(₹ in lakh)						
	Combined Assets					
	Particular	2019-20	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	2575.61	2708.59	2785.67	2946.51	2946.51
B	Cumulative Repayments upto Previous Year	178.37	417.29	665.71	924.89	1191.34
C	Net Loan-Opening (A-B)	2397.24	2291.30	2119.96	2021.62	1755.17
D	Addition due to Additional Capitalization	132.99	77.08	160.84	0.00	0.00
E	Repayment during the year	238.92	248.42	259.18	266.45	266.45
F	Net Loan-Closing (C+D-E)	2291.30	2119.96	2021.62	1755.17	1488.73
G	Average Loan (C+F)/2	2344.27	2205.63	2070.79	1888.40	1621.95
H	Weighted Average Rate of Interest on Loan (in %)	7.56	7.56	7.56	7.56	7.56
I	Interest on Loan (G*H)	177.16	166.69	156.50	142.71	122.58



Return on Equity ("RoE")

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

"30. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.
(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of-river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

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

Provided further that:

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

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

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

- a) rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;*
- b) an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%;*

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

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



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

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

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

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

Illustration-

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

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

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

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

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



141. The Petitioner has submitted that the MAT rate is applicable to it. BSPHCL has submitted that the RoE and tax on RoE as contemplated under Regulations 30 and 31 of the 2019 Tariff Regulations may only be taken into consideration.

142. We have considered the submissions of the Petitioner and BSPHCL. The MAT rate applicable in the 2019-20 has been considered for the purpose of RoE, which shall be trued-up in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE allowed under Regulation 30 of the 2019 Tariff Regulations is as follows:

(₹ in lakh)						
		Combined Assets				
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Opening Equity	1103.83	1160.83	1193.86	1262.79	1262.79
B	Addition due to Additional Capitalization	56.99	33.03	68.93	0.00	0.00
C	Closing Equity (A+B)	1160.83	1193.86	1262.79	1262.79	1262.79
D	Average Equity (A+C)/2	1132.33	1177.34	1228.32	1262.79	1262.79
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	Tax Rate applicable (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (Pre-tax)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity (D*G)	212.67	221.13	230.70	237.18	237.18

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

143. The Petitioner has not claimed O&M Expenses separately for the combined asset. Therefore, O&M Expenses are not allowed separately in this order.

Interest on Working Capital (“IWC”)

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

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

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



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

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

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

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

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

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

“3. Definition - *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;”

145. The Petitioner has submitted that it has computed the IWC for the 2019-24 period, considering the SBI Base Rate plus 350 basis points as on 1.4.2019. The Petitioner has considered the rate of IWC as 12.05%. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The rate of IWC considered is 12.05% (SBI 1 Year MCLR applicable as on 1.4.2019 of 8.55% plus 350 basis points) for the FY 2019-20, 11.25% (SBI 1-year MCLR applicable as on 1.4.2020 of 7.75% plus 350 basis points) for the FY 2020-21, 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for the FY 2021-23 and 12.00% (SBI 1 year MCLR applicable as on 1.4.2023 of 8.50% plus 350 basis points) for the FY 2023-24. The components of the working capital and interest allowed thereon for the combined asset are as follows:



(₹ in lakh)						
	Combined Assets					
	Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for one month)	0.00	0.00	0.00	0.00	0.00
B	Working Capital for Maintenance Spares (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 fixed cost / annual transmission charges)	78.47	79.54	80.74	80.73	78.14
D	Total of Working Capital	78.47	79.54	80.74	80.73	78.14
E	Rate of Interest for Working Capital (in %)	12.05	11.25	10.50	10.50	12.00
F	Interest of working capital	9.46	8.95	8.48	8.48	9.38

Annual Fixed Charges for the 2019-24 Tariff Period

146. The charges allowed in respect of the combined assets for the 2019-24 tariff period are as follows:

(₹ in lakh)					
Combined Assets					
Particulars	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	238.92	248.42	259.18	266.45	266.45
Interest on Loan	177.16	166.69	156.50	142.71	122.58
Return on Equity	212.67	221.13	230.70	237.18	237.18
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	9.46	8.95	8.48	8.48	9.38
Total	638.21	645.19	654.86	654.82	635.59

Filing Fee and Publication Expenses

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

148. BSPHCL has submitted that the grant of the filing fee and expenses incurred is at the discretion of the Commission and need not necessarily be allowed in all cases. Further, nothing beyond what is contemplated by the 2019 Tariff Regulations



may be granted.

149. We have considered the submissions of the Petitioner and BSPHCL. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present Petition, directly from the beneficiaries on a pro-rata basis in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

Licence Fee & RLDC Fees and Charges

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

Security Expenses

151. The Petitioner has submitted that security expenses for the transmission assets are not claimed in the instant Petition, and it will file a separate Petition for claiming the overall security expenses and the consequential IWC.

152. We have considered the above submissions of the Petitioner. The Petitioner has claimed consolidated security expenses for all the transmission assets owned by it on a projected basis for the 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The said Petition has already been disposed of by the Commission vide the 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.



Goods and Services Tax (“GST”)

153. The Petitioner has submitted that if GST is levied at any rate and at any point of time in the future on the transmission of electricity, the same shall be borne and additionally paid by the Respondent(s) to the Petitioner, and the same shall be charged and billed separately by the Petitioner. Further additional taxes, if any, paid by the Petitioner on account of demand from Government/ Statutory authorities, may also be allowed to be recovered from the beneficiaries.

154. BSPHCL has submitted that Regulation 56 of the 2019 Tariff Regulations contemplates recovery of statutory charges by the generating company and not by the transmission licensee. Therefore, the said claim is liable to be rejected.

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

Capital Spares

156. The Petitioner has prayed to claim the capital spares at the end of the tariff period as per actual.

157. We have considered the submissions of the Petitioner. The Petitioner's claim, if any, shall be dealt with in accordance with the provisions of the 2019 Tariff Regulations at the time of the truing up of the 2019-24 tariff period.

Sharing of Transmission Charges

158. With effect from 1.7.2011, the sharing of transmission charges for inter-state transmission systems was governed by the provisions of the 2010 Sharing Regulations. With effect from 1.11.2020, the 2010 Sharing Regulations have been



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

159. To summarise,

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

(₹ in lakh)

Particulars	Asset-I		Asset-II	Asset-III	Asset-IV
	2017-18	2018-19	2018-19	2018-19	2018-19
Total	3.02	3.13	182.01	18.35	123.78

(₹ in lakh)

Particulars	Asset-V	Asset-VI		Asset-VII	Asset-VIII
	2018-19	2017-18	2018-19	2018-19	2018-19
Total	77.91	0.06	22.13	21.55	27.32

(₹ in lakh)

Particulars	Asset-IX	Asset-X	Asset-XI
	2018-19	2018-19	2018-19
Total	16.84	1.58	0.83

- b. The AFC allowed for the combined assets for the 2019-24 tariff period in this order are as follows:

(₹ in lakh)

Asset	2019-20	2020-21	2021-22	2022-23	2023-24
Combined Assets	638.21	645.19	654.86	654.82	635.59



160. Annexures I and II, given hereinafter, form part of the order.

161. This order disposes of Petition No. 1/TT/2022 in terms of the above discussions and findings.

sd/-
(Harish Dudani)
Member

sd/-
(Ramesh Babu V.)
Member

sd/-
(Jishnu Barua)
Chairperson



Annexure I

Asset-I						
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations	
Capital Expenditure as on COD		2014-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
PLCC	17.80	0.29	18.09	6.33	1.14	1.15
Total	17.80	0.29	18.09		1.14	1.15
Average Gross Block (₹ in lakh)					17.95	18.09
Weighted Average Rate of Depreciation (in %)					6.33	6.33

Asset-II					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	993.07	96.11	1089.18	6.33	65.90
Total	993.07	96.11	1089.18		65.90
Average Gross Block (₹ in lakh)					1041.13
Weighted Average Rate of Depreciation (in %)					6.33



Asset-III					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	150.57	4.84	155.41	6.33	9.68
Total	150.57	4.84	155.41		9.65
Average Gross Block (₹ in lakh)					152.99
Weighted Average Rate of Depreciation (in %)					6.33

Asset-IV					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	935.52	49.51	985.03	6.33	60.79
Total	935.52	49.51	985.03		60.79
Average Gross Block (₹ in lakh)					960.27
Weighted Average Rate of Depreciation (in %)					6.33



Asset-V					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	646.97	50.33	697.30	6.33	42.55
Total	646.97	50.33	697.30		42.55
Average Gross Block (₹ in lakh)					672.14
Weighted Average Rate of Depreciation (in %)					6.33

Asset-VI						
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations	
Capital Expenditure as on COD		2014-19			2017-18 (₹ in lakh)	2018-19 (₹ in lakh)
PLCC	124.07	1.38	125.45	6.33	7.85	7.90
Total	124.07	1.38	125.45		7.85	7.90
Average Gross Block (₹ in lakh)					124.07	124.76
Weighted Average Rate of Depreciation (in %)					6.33	6.33



Asset-VII					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	144.00	4.06	148.06	6.33	9.24
Total	144.00	4.06	148.06		9.24
Average Gross Block (₹ in lakh)					146.03
Weighted Average Rate of Depreciation (in %)					6.33

Asset-VIII					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	191.98	5.96	197.94	6.33	12.34
Total	191.98	5.96	197.94		12.34
Average Gross Block (₹ in lakh)					194.96
Weighted Average Rate of Depreciation (in %)					6.33



Asset-IX					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	154.18	0.17	154.35	6.33	9.76
Total	154.18	0.17	154.35		9.76
Average Gross Block (₹ in lakh)					154.26154
Weighted Average Rate of Depreciation (in %)					6.33

Asset-X					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	30.32	0.00	30.32	6.33	1.92
Total	30.32	0.00	30.32		1.92
Average Gross Block (₹ in lakh)					30.32
Weighted Average Rate of Depreciation (in%)					6.33



Asset-XI					
2014-19	Admitted Capital Cost as on COD (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2019 (₹ in lakh)	Rate of Depreciation (in %)	Annual Depreciation as per Regulations
Capital Expenditure as on COD		2014-19			2018-19 (₹ in lakh)
PLCC	78.31	0.00	78.31	6.33	4.96
Total	78.31	0.00	78.31		4.96
Average Gross Block (₹ in lakh)					78.31
Weighted Average Rate of Depreciation (in %)					6.33



Annexure-II

Combined Asset									
2019-24	Admitted Capital Cost as on 1.4.2019 (₹ in lakh)	ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreci ation (in %)	Annual Depreciation as per Regulations				
Capital Expenditure as on 1.4.2019		2019-24			2019-20 (₹ in lakh)	2020-21 (₹ in lakh)	2021-22 (₹ in lakh)	2022-23 (₹ in lakh)	2023-24 (₹ in lakh)
PLCC	3679.44	529.86	4209.30	6.33	238.92	248.41	259.18	266.45	266.45
Total	3679.44	529.86	4209.30		238.92	248.41	259.18	266.45	266.45
Average Gross Block (₹ in lakh)					3774.43	3924.28	4094.42	4209.30	4209.30
Weighted Average Rate of Depreciation (in %)					6.33	6.33	6.33	6.33	6.33

