

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 312/TT/2022

Coram:

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

Date of order: 20.01.2024

In the matter of:

Approval under Regulation 86 of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999 and the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for determination of transmission tariff from COD to 31.3.2024 for **Asset-1:** OPGW link for LILO of Lonikhand-Kalwa at Navi Mumbai Transmission Line (Central Sector), **Asset-2:** OPGW link for Vapi-Kudus (upto LILO of Kala from Vapi) Transmission Line (Central Sector), **Asset-3:** OPGW link for 220 kV Kawas-Vav and 220 kV Kawas-Navsari Transmission Line (Central Sector) and **Asset-4:** OPGW link for 220 kV Bhopal-Govindpur SLDC (MPPTCL) Transmission Line (State Sector) under "Establishment of Fibre Optic Communication System under Master Communication Plan in the Western Region."

And in the matter of:

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

.....Petitioner

Versus

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.
2. Madhya Pradesh Power Transmission Company Limited,
Shakti Bhawan, Rampur,
Jabalpur-482008.
3. Madhya Pradesh Audyogik Kendra Vikas Nigam (Indore) Limited,
3/54, Press Complex, Agra-Bombay Road,
Indore-452008.
4. Maharashtra State Electricity Distribution Company Limited,



Hongkong Bank Building, 3rd Floor,
M.G. Road, Fort, Mumbai- 400001.

5. Maharashtra State Electricity Transmission Company Limited,
Prakashganga, 6th Floor, Plot No. C-19, E-Block,
Bandra Kurla Complex, Bandra (East) Mumbai-400051.
6. Gujarat Urja Vikas Nigam Limited,
Sardar Patel Vidyut Bhawan,
Race Course Road, Vadodara-390007.
7. Electricity Department,
Government of Goa, Vidyut Bhawan, Panaji,
Near Mandvi Hotel, Goa-403001.
8. Electricity Department,
Administration of Daman & Diu,
Daman-396210.
9. DNH Power Distribution Corporation Limited,
Vidyut Bhawan, 66 kV Road, Near Secretariat Amla,
Silvassa-396230.
10. Chhattisgarh State Power Transmission Company Limited,
Office of the Executive Director (C&P),
State Load Despatch Building,
Dangania, Raipur-492013.
11. Chhattisgarh State Power Distribution Company Limited,
P.O. Sunder Nagar, Dangania, Raipur,
Chhattisgarh-492013.

...Respondent(s)

For Petitioner : Shri S. S Raju, PGCIL
Shri D. K. Biswal, PGCIL
Shri V.P. Rastogi, PGCIL
Shri Zafrul Hassan, PGCIL
Shri Amit Yadav, PGCIL

For Respondent : Shri Anindya Khare, MPPMCL

ORDER

The instant petition has been filed by Power Grid Corporation of India Limited for determination of tariff under the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “the 2019 Tariff



Regulations”) for the period from COD to 31.3.2024 in respect of the following transmission assets (hereinafter referred to as “the transmission assets”) under “Establishment of Fibre Optic Communication System under Master Communication Plan in the Western Region” (hereinafter referred to as “the transmission project”):

Asset-1: OPGW link for LILO of Lonikhand-Kalwa at Navi Mumbai Transmission Line (Central Sector);

Asset-2: OPGW link for Vapi-Kudus (upto LILO of Kala from Vapi) (Central Sector);

Asset-3: OPGW link for 220 kV Kawas-Vav and 220 kV Kawas-Navsari (Central Sector); and

Asset-4: OPGW link for 220 kV Bhopal-Govindpur SLDC (MPPTCL) (State Sector)

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

- “1) Approve the DOCO of Asset-1 as 13.05.2019 as per Regulation 5(2) as claimed under **para 6.1** above.
- 2) Approve the Transmission Tariff for the tariff block 2019-24 block for the assets covered under this petition, as per **para –8.0** above.
- 3) Admit the capital cost as claimed in the Petition and approve the Additional Capitalization incurred / 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 2019 as per para 8 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 bill and adjust impact on Interest on Loan due to change in Interest rate on account of floating rate of interest applicable during 2019-24 period, if any, from the beneficiaries.
- 8) Allow the Petitioner to bill and recover GST on Transmission Charges separately from the respondents, if GST on transmission is levied at any rate in future. Further, any taxes including GST and duties including cess etc. imposed by any statutory/Govt./municipal authorities shall be allowed to be recovered from the beneficiaries.
- 9) Allow interim tariff in accordance with Regulation 10(3) of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 for purpose of inclusion in the PoC charges.



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) of the transmission project was accorded by Board of Directors of the Petitioner in its 267th meeting held on 8.2.2012 vide Memorandum No. C/CP/Master Comm. in WR dated 9.2.2012 at an estimated cost of ₹21807 lakh including an Interest During Construction (IDC) of ₹1305 lakh based on 4th Quarter, 2011 price level. The Board of Directors of the Petitioner's Company vide Memorandum No. PA2021-06-0K-RCE005 approved the Revised Cost Estimates (RCE) for ₹24061 lakh including IDC of ₹2710 lakh. The transmission project was scheduled for commercial operation by January, 2020.
 - b. The scope of work covered under the transmission project is as follows:
 - i. Installation of OPGW fiber optic cable on the existing EHV transmission line of the Petitioner and constituent, the estimated length of such cable is approximately 5536 km.
 - ii. Installation of OPGW fiber optic cable on the new EHV transmission line of the Petitioner, the estimated length of such cable is approximately 1355 km.
 - iii. Utilization of 6 numbers of fibers from existing OPGW cable of the Petitioner's Telecom network (535 km) for 2 numbers of links on cost sharing basis.
 - iv. 72 numbers of terminal equipment for communication based upon Synchronous Digital Hierarchy (SDH) technology shall be installed in the substations of the Petitioner mostly and few on the constituents. The project would also involve installation of 117 numbers of Multiplexer (Mux.)/ Drop and Insert (D&I)/ Digital Access Cross Connect Switch (DACS) at wideband nodes. To monitor the network, Network Management System (NMS) is also envisaged.
 - v. For Madhya Pradesh Power Transmission Company Limited (MPPTCL), 15 numbers of terminal equipment for communication based upon



Synchronous Digital Hierarchy (SDH) technology, 14 numbers of Mux/D&I and one set of NMS system is also envisaged.

- vi. Presently, Direct Current (DC) Power Supply has been envisaged at all the wideband locations. However, the requirement shall be optimized during detailed engineering.
- c. As per IA letter dated 9.2.2012, the transmission assets were scheduled to be executed progressively by January, 2020. The details of Scheduled Commercial Operation Date (SCOD), Date of Commercial Operation (COD) and time over-run in case of the transmission assets are as follows:

Assets	SCOD	COD	Time over-run
Asset-1	8.8.2014	13.5.2019 (Proposed)	1739 days
Asset-2		26.5.2019	1752 days
Asset-3		21.6.2019	1778 days
Asset-4		24.1.2020	1995 days

4. The Petitioner has claimed transmission tariff in respect of Asset-1 in Petition No. 180/TT/2021 and claimed COD for the said asset as 13.5.2019 under Regulation 5(2) of the 2019 Tariff Regulations. Accordingly, the transmission tariff for Asset-1 shall be considered in Petition No. 180/TT/2021, which was heard on 15.12.2023 and orders are reserved. The submissions made by the Respondents in case of Asset-1 are also not considered in this order and they may be raised by the Respondents in Petition No.180/TT/2021. Accordingly, the tariff for Asset-2, Asset-3 and Asset-4 are only considered in this order.

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

6. The Petitioner has served the petition on the Respondents and notice regarding filing of this petition has also been published in newspapers in accordance with



Section 64 of the Electricity Act, 2003. No comments or suggestions have been received from the general public in response to the aforesaid notice published in the newspapers by the Petitioner. Madhya Pradesh Power Management Company Limited (MPPMCL), Respondent No. 1, vide affidavit dated 30.11.2022 has filed its reply and has raised issues of time over-run, Additional Capitalization and effects of CGST. Madhya Pradesh Power Transmission Company Limited (MPPTCL), Respondent No. 2, vide affidavit dated 19.12.2022 has filed reply concurring with the submissions made by MPPMCL in its reply. The Petitioner has filed rejoinder to the reply of MPPMCL and MPPTCL vide affidavits dated 14.12.2022 and 30.12.2022 respectively. The issues raised by MPPMCL and MPPTCL, and the clarifications given by the Petitioner are considered in the relevant portions of this order.

7. This order is issued considering the submissions made by the Petitioner vide affidavit dated 8.8.2022, replies filed by MPPMCL and MPPTCL vide affidavits dated 30.11.2022 and 19.12.2022 respectively and the Petitioner's rejoinders to the replies of MPPMCL and MPPTCL vide affidavits dated 14.12.2022 and 30.12.2022 respectively.

8. The hearing in this matter was held on 12.1.2023 through video conference and the order was reserved.

9. Having heard the representatives of the Petitioner, and after perusing the material on record, we proceed to dispose of the petition.

DETERMINATION OF ANNUAL FIXED CHARGES FOR 2019-24 TARIFF PERIOD

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



Asset-2

(₹ in lakh)

Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	24.05	28.66	28.66	28.66	28.66
Interest on Loan	20.92	22.75	20.40	18.05	15.58
Return on Equity	21.40	25.51	25.51	25.51	25.51
O&M Expenses	7.69	9.06	9.06	9.06	9.06
Interest on Working Capital	1.33	1.56	1.52	1.48	1.44
Total	75.39	87.54	85.15	82.76	80.25

Asset-3

(₹ in lakh)

Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	18.70	20.11	21.06	21.06	21.06
Interest on Loan	17.33	16.78	15.91	14.08	12.24
Return on Equity	16.65	17.90	18.74	18.74	18.74
O&M Expenses	5.18	6.65	6.65	6.65	6.65
Interest on Working Capital	1.10	1.12	1.13	1.10	1.07
Total	58.96	62.56	63.49	61.63	59.76

Asset-4

(₹ in lakh)

Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
Depreciation	1.54	8.42	8.54	8.54	8.54
Interest on Loan	1.44	7.45	6.83	6.10	5.35
Return on Equity	1.37	7.50	7.60	7.60	7.60
O&M Expenses	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	0.07	0.35	0.35	0.33	0.32
Total	4.42	23.72	23.32	22.57	21.81

11. The Petitioner has claimed the following Interest on Working Capital (IWC) in respect of the transmission assets for 2019-24 tariff period:

Asset-2

(₹ in lakh)

Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.76	0.76	0.76	0.76	0.76
Maintenance Spares	1.36	1.36	1.36	1.36	1.36



Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
Receivables	10.91	10.79	10.50	10.20	9.87
Total Working Capital	13.03	12.91	12.62	12.32	11.99
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1.33	1.56	1.52	1.48	1.44

Asset-3

(₹ in lakh)

Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
O&M Expenses	0.55	0.55	0.55	0.55	0.55
Maintenance Spares	1.00	1.00	1.00	1.00	1.00
Receivables	9.30	7.71	7.83	7.60	7.35
Total Working Capital	10.85	9.26	9.38	9.15	8.90
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	1.02	1.12	1.13	1.10	1.07

Asset-4

(₹ in lakh)

Particulars	2019-20 (pro-rata for 68 days)	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	2.92	2.92	2.88	2.78	2.68
Total Working Capital	2.92	2.92	2.88	2.78	2.68
Rate of Interest (in %)	12.05	12.05	12.05	12.05	12.05
Interest on Working Capital	0.07	0.35	0.35	0.35	0.35

Data of Commercial Operation ("COD")

12. The Petitioner has claimed the following COD in respect of the transmission assets:

Assets	COD
Asset-2	26.5.2019
Asset-3	21.6.2019
Asset-4	24.1.2020

13. Regulation 5 of the 2019 Tariff Regulations provides as follows:



“5. Date of Commercial Operation: (1) *The date of commercial operation of a generating station or unit thereof or a transmission system or element thereof and associated communication system shall be determined in accordance with the provisions of the Grid Code.*

(2) *In case the transmission system or element thereof executed by a transmission licensee is ready for commercial operation but the interconnected generating station or the transmission system of other transmission licensee as per the agreed project implementation schedule is not ready for commercial operation, the transmission licensee may file petition before the Commission for approval of the date of commercial operation of such transmission system or element thereof:*

Provided that the transmission licensee seeking the approval of the date of commercial operation under this clause shall give prior notice of at least one month, to the generating company or the other transmission licensee and the long term customers of its transmission system, as the case may be, regarding the date of commercial operation:

Provided further that the transmission licensee seeking the approval of the date of commercial operation of the transmission system under this clause shall be required to submit the following documents along with the petition:

- (a) Energisation certificate issued by the Regional Electrical Inspector under Central Electricity Authority;*
- (b) Trial operation certificate issued by the concerned RLDC for charging element with or without electrical load;*
- (c) Implementation Agreement, if any, executed by the parties;*
- (d) Minutes of the coordination meetings or related correspondences regarding the monitoring of the progress of the generating station and transmission systems;*
- (e) Notice issued by the transmission licensee as per the first proviso under this clause and the response;*
- (f) Certificate of the CEO or MD of the company regarding the completion of the transmission system including associated communication system in all respects.*

(3) *The date of commercial operation in case of integrated mine(s), shall mean the earliest of —*

- a) the first date of the year succeeding the year in which 25% of the Peak Rated Capacity as per the Mining Plan is achieved; or*
- b) the first date of the year succeeding the year in which the value of production estimated in accordance with Regulation 7A of these regulations, exceeds total expenditure in that year; or*
- c) the date of two years from the date of commencement of production:*

Provided that on earliest occurrence of any of the events under sub-clauses (a) to (c) of Clause (3) of this Regulation, the generating company shall declare the date of commercial operation of the integrated mine(s) under the relevant sub-clause with one week prior intimation to the beneficiaries of the end-use or associated generating station(s);



Provided further that in case the integrated mine(s) is ready for commercial operation but is prevented from declaration of the date of commercial operation for reasons not attributable to the generating company or its suppliers or contractors or the Mine Developer and Operator, the Commission, on an application made by the generating company, may approve such other date as the date of commercial operation as may be considered appropriate after considering the relevant reasons that prevented the declaration of the date of commercial operation under any of the sub-clauses of Clause (3) of this Regulation;

Provided also that the generating company seeking the approval of the date of commercial operation under the preceding proviso shall give prior notice of one month to the beneficiaries of the end-use or associated generating station(s) of the integrated mine(s) regarding the date of commercial operation.”

14. In support of the COD of Asset-2, Asset-3 and Asset-4, the Petitioner has submitted Western Regional Load Despatch Centre (WRLDC) Charging Certificates dated 18.7.2019, 18.7.2019 and 8.4.2020 respectively and self-declaration COD letters dated 23.7.2019, 22.7.2019 and 8.5.2020 respectively.

15. Taking into consideration the WRLDC Charging Certificates, self-declaration COD letters, the COD of Asset-2, Asset-3 and Asset-4 is approved as 26.5.2019, 21.6.2019 and 24.1.2020 for the tariff purpose.

Capital Cost

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

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

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

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



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

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

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

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

- (a) cost of approved rehabilitation and resettlement (R&R) plan of the project in conformity with National R&R Policy and R&R package as approved; and
- (b) cost of the developer's 10% contribution towards Rajiv Gandhi Grameen



Vidyutikaran Yojana (RGGVY) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) project in the affected area.

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

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

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

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

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

17. The Petitioner vide Auditor's Certificates dated 16.4.2020, 29.7.2020 and 29.7.2020 has claimed capital cost as on COD and Additional Capital Expenditure (ACE) projected in 2021-22 and 2022-23 in respect of the transmission assets and the same are as follows:

(₹ in lakh)

Assets	FR apportioned approved cost	Expenditure up to COD	Projected ACE		Estimated completion cost
			2021-22	2022-23	
Asset-2	1113.09	452.79	0.00	0.00	452.79
Asset-3	611.53	474.14	(-)171.37	29.89	332.66
Asset-4	224.52	133.59	0.00	1.30	134.89

Cost

18. The Petitioner has submitted that the total FR approved cost is ₹2051.03 lakh and the estimated completion cost is ₹961.72 lakh. Thus, there is no cost over-run.



Further, the estimated completion of the individual assets is also within the apportioned approved capital cost of the transmission assets.

Time Over-run

19. As per the IA dated 8.2.2012, the transmission project was scheduled to be put under commercial operation within 30 months from the date of IA i.e. by 8.8.2014. However, the details of actual execution of the transmission asset are as follows:

Assets	SCOD	COD	Time over-run
Asset-2	8.8.2014	26.5.2019	1752 days
Asset-3		21.6.2019	1778 days
Asset-4		24.1.2020	1995 days

20. There is a delay of 1752 days, 1778 days and 1995 days in execution of Asset-2, Asset-3 and Asset-4 respectively.

21. The detailed reasons submitted by the Petitioner vide affidavit dated 8.8.2022 for time over-run in case of the transmission assets are as follows:

Asset-2

22. The time over-run in case of Asset-2 is due to time over-run in case of 400 kV Vapi-Kudus (upto LILO of Kala from Vapi) Transmission Line, on which the instant OPGW links are to be laid, which was put into commercial operation in parts. The details of commissioning of Vapi-Kudus Transmission Line is as follows:

Portion of transmission line	COD of transmission line	Project name	True-up Petition No.	Decision on time over-run
Part of 400 kV Double Circuit ("D/C") Vapi-Navi Mumbai Transmission Line ("T/L") (from Vapi Gantry till 1st M/C point at Loc. AP-18) along with bay at Vapi	1.4.2013	WRSS V	88/TT/2020	Vide order dated 9.10.2015 in Petition No. 60/TT/2013, time over-run from April, 2012 to March, 2013 was condoned
400 kV D/C Vapi-Navi	1.4.2014	WRSS V	88/TT/2020	Vide order dated



Mumbai T/L, WR1 portion from AP18 to AP38				22.3.2016 in Petition No. 412/TT/2014, entire time over-run was condoned
Part of 400 kV D/C Vapi - Kudus T/L from AP 38/0 to AP 44	1.3.2015	WRSS V	236/TT/2018	Vide order dated 6.8.2019 in Petition No. 236/TT/2018, entire time over-run was condoned
Part of 400 kV D/C Vapi-Kudus T/L from location 44-45A/0	1.3.2015	Mundra UMPP	403/TT/2020	Vide order dated 6.8.2019 in Petition No. 207/TT/2017, entire time over-run was condoned.
Part of 400 kV D/C Vapi - Kudus T/L from 45A/0 to 69/0 (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari-Boisar and 400 kV D/C Vapi-Kudus), Part of 400 kV D/C Vapi - Kudus T/L from 69/0 - 104/0	31.12.2017	Mundra UMPP	403/TT/2020	Vide order dated 23.7.2018 in Petition No. 207/TT/2017, entire time over-run was condoned.
Part of 400 kV D/C Vapi - Kudus T/L from 104/0 to Kudus (MSETCL) Sub-station and associated bays at Kudus (MSETCL) S) Sub-station	31.12.2017	WRSS V	236/TT/2018	Vide order dated 6.8.2019 in Petition No. 236/TT/2018, entire time over-run was condoned

23. It is clear from the above that 400 kV Vapi-Kudus transmission line was put under commercial operation on 31.12.2017.

24. The reasons submitted by the Petitioner for the time over-run in case of 400 kV Vapi-Kudus (upto LILO of Kala from Vapi) Transmission Line is as follows:

Shifting of termination point from Navi Mumbai to Kudus

As per Investment Approval dated 26.12.2007, the transmission system was approved as 400 kV D/C Vapi-Navi Mumbai (new location). Rigorous efforts



were made to identify land as per the original scheme and the process of land identification for acquisition under Section 68 of Electricity Act, 2003 was started soon after approval from Ministry of Power on 21.8.2007. Difficulties were faced in finalizing land for Navi Mumbai (new location) such as RoW issues, non-availability of adequate corridor and lack of proper approach/ connectivity specifically for transportation of heavy equipment. Therefore, in the interest of the project, it was proposed to change the termination point from Navi Mumbai to Kudus. Approval for change in termination point of Vapi-Navi Mumbai (new location) to Kudus was agreed and approved in the 35th Standing Committee of Power System planning of Western Region held on 3.1.2013 i.e. 38 months after the investment approval dated 15.10.2008 of Mundra UMPP. The difficulties due to RoW were also discussed during various SCMs from 32nd to 40th as indicated in the following chronology of events:

Reference to various Standing Committee Meetings wherein ROW issues were brought to the notice of the beneficiaries			
S. No.	SCM No.	Meeting Date	Remarks/ Details
1	32 nd	13.5.2011	RoW issues encountered in the commissioning of 400 kV D/C Navsari-Boisar T/L and 400 kV Vapi-Kudus T/L. Commissioning of these lines on multi-circuit towers at several stretches recorded and agreed.
2	34 th	9.5.2012	Severe RoW issues being encountered in the commissioning of 400 kV D/C Navsari-Boisar T/L and 400 kV Vapi-Kudus T/L. Contingency arrangement of inter-connection of Vapi-Kudus and Navsari-Boisar at the multi-circuit point discussed and agreed till the commissioning of onward portion of both the T/Ls.
3	35 th	3.1.2013	Termination of Vapi-Kudus 400 kV D/C T/L at upcoming Kudus) Sub-station of MSETCL discussed and agreed because if severe RoW issues and involvement of eco-sensitive zones.
4	37 th	5.9.2014	Severe RoW issues being encountered beyond KALA GIS towards Boisar) Sub-station and Kudus) Sub-station. Contingency arrangement in and around Kala GIS and Magarwada GIS discussed and agreed. Configuration being - Vapi → Kala GIS →Magarwada GIS→Navsari) Sub-station, so as to energise Kala GIS in UT D&NH and Magarwada GIS in UT D&D.



RoW issues

Severe RoW issues were faced in the implementation of 400 kV Vapi-Kudus Transmission Line that led to time over-run. The Petitioner has submitted the detailed chronology of events and steps taken by the Petitioner to solve the RoW issues. The Petitioner has further submitted that the shifting of termination point and severe RoW issued faced in the COD of the 400 kV Vapi-Kudus Transmission Line (upto LILO of Kala from Vapi) resulted in the delay of associated OPGW link (i.e. Asset-2 in the instant petition) as the OPGW link could not have been put into commercial operation without the completion of associated transmission line. The Petitioner has also submitted the details of the various activities scheduled and the actual date of completion, which is as follows:

Description of Activity/Works/Service	Original Schedule (as per planning)		Actual Achieved (as per actual)		Time over-run	Reasons for time over-run
	Start Date	Completion Date	Start Date	Completion Date	Months	
LoA	6.6.2012		28.5.2012		Nil	Severe RoW issues in the associated transmission line
Supply of OPGW and its accessories	9.9.2012	8.5.2014	7.8.2012	8.9.2015	16.27	
OPGW Stringing	17.5.2013	8.6.2014	8.10.2014	14.9.2018	51.97	
Testing of OPGW (Completion of SAT)	16.5.2013	8.8.2014	23.2.2019	26.5.2019	58.40	

Asset-3

25. The Petitioner has submitted that the inclusion of implementation of OPGW links under Asset-3 and Asset-4 was discussed and approved in 21st WRPC meeting held on 9.11.2012, i.e. 274 days after the investment approval dated 9.8.2012. Therefore, the time over-run of 274 days in the case of Asset-2 and Asset-3 was



beyond the control of the Petitioner. Further, another 5 months time is required for pre-tendering activities. Therefore, delay of 181 days may also be condoned on this account. The Petitioner vide letter dated 23.6.2016 informed GETCO that the executing agency LS Cables was employed for erection work. However, due to non-availability of work permission from GETCO site official, the work could not be started, and the gang was demobilized by the agency. Therefore, GETCO was requested to issue PTW for the online OPGW stringing work. GETCO consented vide letter date 5.8.2016. This has caused time over-run of 43 days.

Description of Activity/Works/Service	Original Schedule (As per Planning)		Actual Achieved (As per Actual)		Time Over-Run	Reasons for delay
	Start Date	Completion Date	Start Date	Completion Date	Months	
LoA	6.6.2012		9.5.2013		11.23	Link was added in the scope after Investment Approval
Supply of OPGW and its accessories	9.9.2012	8.5.2014	7.8.2013	8.9.2016	28.47	Period between dates for permission from GETCO towards diamond formation on their lines crossing 220 kV Kawas-Navsari
OPGW Stringing	17.5.2013	8.6.2014	8.10.2014	14.9.2018	51.97	
Testing of OPGW (Completion of SAT)	16.5.2013	8.8.2014	23.2.2019	21.6.2019	59.27	

Asset-4

26. The Petitioner has submitted that the inclusion of implementation of OPGW links under Asset-3 and Asset-4 was discussed and approved in 21st WRPC meeting held on 9.11.2012, i.e. 274 days after the investment approval dated 9.8.2012. Therefore, the time over-run of 274 days in case of Asset-3 and Asset-4 was beyond



the control of the Petitioner. Further, another 5 months time is required for pre-tendering activities. Therefore, time over-run of 181 days may be condoned.

Description of Activity/Works/Service	Original Schedule (As per planning)		Actual Achieved (As per actual)		Time Over-Run	Reasons for delay
	Start Date	Completion Date	Start Date	Completion Date	Months	
LoA	6.6.2012		9.5.2013		11.23	Link was added in the scope after Investment approval
Supply of OPGW and its accessories	9.9.2012	8.5.2014	7.8.2013	8.9.2016	28.47	
OPGW Stringing	17.5.2015	8.6.2014	8.10.2014	14.9.2018	51.97	
Testing of OPGW (Completion of SAT)	16.5.2013	8.8.2014	23.2.2019	24.1.2020	66.50	

27. MPPMCL, Respondent No. 1 vide affidavit dated 30.11.2022 has submitted the following:

(a) There is time over-run of 1752 days, 1778 days and 1995 days in the execution of Asset-2, Asset-3 and Asset-4 respectively.

(b) The Petitioner has not given any reason for the time over-run in case of Asset-2. Therefore, the time over-run of 1752 days should not be condoned.

(c) The Petitioner has submitted justification for time over-run of 498 days in case of Asset-3 and delay of 455 days against Asset-4, against the time over-run of 1778 days and 1995 days respectively. The justification given are without any support of documentary evidences. Therefore, same are liable for rejection. MPPMCL has requested not to condone time over-run of 1778 days and 1995 days with respect to Asset-3 and Asset-4 respectively.

(d) The Petitioner has not provided any valid reasons supported with documentary evidence for condonation of time over-run in case of Asset-2,



Asset-3, and Asset-4. The time over-run in execution of the transmission project is solely attributable to the Petitioner and, therefore, the time over-run in case of the said assets should not be condoned.

28. In response to the reply filed by MPPMCL, the Petitioner vide affidavit dated 14.12.2022 reiterated its submissions without submitting any additional documentary evidence.

29. In addition to the above, MPPTCL, vide affidavit dated 19.12.2022 has submitted that the time over-run in respect of Asset-4 is entirely attributable to the Petitioner and, hence, prayed that the time over-run should not be condoned.

30. In response to the reply filed by MPPTCL, the Petitioner vide affidavit dated 30.12.2022 has submitted that the Petitioner has already submitted the detailed justification for the time over-run in execution of the Asset-4 vide affidavit dated 14.12.2022.

31. We have considered the submission of the Petitioner, MPPMCL and MPPTCL. The asset-wise time over-run is analysed as follows:

Asset-2

32. As per IA dated 9.2.2012, the assets are scheduled to be commissioned within 30 months i.e. 8.8.2014 against which Asset-2 is put under commercial operation on 26.5.2019 with a time over-run of 1752 days. The Petitioner has submitted that the execution of the Asset-2 is delayed due to delay in execution of the 400 kV Vapi-Kudus (upto LILO of Kala from Vapi) transmission line due to shifting of termination point from Navi Mumbai to Kudus, RoW issues and the OPGW link cannot be executed without execution of the associated transmission line.



33. We have gone through the submissions of the Petitioner. The Petitioner has to install OPGW link for Vapi-Kudus (upto LILO of Kala from Vapi) transmission line. The Petitioner has to implement Vapi-Kudus (upto LILO of Kala from Vapi) transmission line under separate project, i.e. WRSS-V and IA for implementation of WRSS-V in Western Region was accorded by the Board of Directors of the Petitioner vide Memorandum Ref: C/CP/WRSS-V dated 26.12.2007 in 203rd meeting held on 30.11.2007. As per IA dated 26.12.2007, the assets under subject project were scheduled to be put into commercial operation within 33 months from the date of investment approval. Accordingly, the scheduled date of commercial operation was 25.9.2010 against which the Petitioner has executed assets on different dates and claimed tariff under different tariff petitions. The details of COD of the transmission assets under WRSS-V and the time over-run condoned/ not condoned are as follows:

Asset details	SCOD	Actual COD	Total time over-run	Time over-run condoned/ not condoned
(i) 400 kV D/C Vapi-Navi Mumbai transmission line (from Vapi Gantry till 1 st M/C point at location AP-18)	25.9.2010	1.4.2013	30 months	Out of the 30 months, 12 months of time over-run condoned due to RoW issues.
(ii) 400 kV D/C Vapi-Navi Mumbai transmission line, WR1 portion from AP18 to AP38 (Part of 400 kV D/C Vapi-Navi Mumbai transmission line) (COD: 1.4.2014)	25.9.2010	1.4.2014	42 months	The time over-run of 42 months due to RoW issues has been condoned.
(iii) Part of 400 kV D/C Navsari-Boisar transmission line from AP 18 to AP 38/0 through LILO point of 400 kV D/C Navsari-Boisar at Magarwada GIS (23B/0) (D/C portion strung on M/C Twin-Twin portion comprising of 400 kV D/C Navsari - Boisar and 400 kV D/C Vapi-Kudus)	25.9.2010	1.3.2015	53 months 6 days	Time over-run of 30 months 13 days due to change in termination point of 400 kV D/C Navsari-Mumbai (New location) to Boisar instead of Mumbai (New Location) from 26.12.2007 to 8.7.2010 is condoned. 39 months 23 days is condoned due to RoW issues.



(iv) Part of 400 kV D/C Vapi - Kudus transmission line from 104/0 to Kudus (MSETCL) Sub-station	25.9.2010	31.12.2017	87 months 6 days	Time over-run condoned due change in termination point of Vapi-Mumbai (new location) to Kudus, and RoW issues.
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34. From the above, it is observed that Vapi-Kudus (upto LILO of Kala from Vapi) transmission line (WRSS-V scheme) was executed from 1.4.2013 to 31.12.2017 and the Commission condoned the time over-run of the said assets due to on RoW issues and change in termination point of Vapi-Mumbai (new location) to Kudus.

35. We are of the view that the installation of OPGW link is dependent on COD of the transmission line. The Petitioner has taken separate Investment Approval for establishment of fibre optic communication system in WR on 8.2.2012 with schedule completion of 30 months i.e. 8.8.2014. The last portion of the Vapi-Kudus (upto LILO of Kala from Vapi) transmission line is executed on 31.12.2017 and the Commission vide order dated 6.8.2019 in Petition No. 236/TT/2018, condoned the time over-run of 87 months 6 days (2654 days). Accordingly, the time over-un in case of Asset-2 from 8.8.2014 upto COD of the Vapi-Kudus transmission line i.e. 31.12.2017 is condoned. After execution of the transmission line on 31.12.2017, the Petitioner has executed the OPGW link on 21.6.2019 and the Petitioner has not submitted the reasons for the time over-run for this period. Therefore, the time over-run from 31.12.2017 to 21.6.2019 i.e. 511 days is not condoned. However, the petitioner is given liberty to submit the detailed justification of time overrun from 31.12.2017 to 21.6.2019 at the time of truing-up and the same will be reviewed at the time of truing-up.

Asset-3 and Asset-4



36. There is time over-run of 1778 days and 1995 days in case of Asset-3 and Asset-4 respectively. In case of Asset-3, out of the total time over-run of 1778 days, the Petitioner has submitted that 274 days of time over-run is attributable to the addition of OPGW links after approval in the 21st WRPC on 9.11.2012, which is after the IA of the transmission project. Additionally, 43 days were affected due to delay in obtaining permission from GETCO towards diamond formation of GETCO transmission lines (with respect to Asset-3 only) crossing 220 kV Kawas-Navsari line and 181 days were affected due to pre-tendering works.

37. As per IA dated 8.2.2012, the transmission project is scheduled to be completed within 30 months. The additional requirement of OPGW under master communication plan in WR was discussed in 21st WRPC meeting held on 9.11.2012 and the same was approved. The relevant extracts of the 21st WRPC meeting held on 9.11.2012 are extracted as follows:

“29.1 Proposal for additional requirement of OPGW under Master Communication Plan in WR Member Secretary I/c intimated following proposals received from PGCIL:

(i) The Master Communication Plan in WR which involved implementation of 6710 Kms of Fiber Optics was approved in 14th WRPC meeting held on 19th August, 2010. Accordingly, Communication System consisting of 6652Kms for Central Sector and 239Kms for MPPTCL is under implementation. LOA for this requirement has already been placed and survey work is in progress.

However, some of the stations such as Gwalior 765kV, Indore765kV, Jabalpur Pooling, Damoh, Birsinghpur & Dharamjaygarh could not be planned with physical redundancy as appropriate route was not available and Sipat, Bilaspur, Kawas, Kakrapar Betul & Mauda were not included in the network. Considering the subsequent development in power system network and communication related problems faced during the recent grid disturbance, connectivity with physical path redundancy has been planned for balance stations which shall require installation of 2672Kms of OPGW.

This requirement was discussed in the SCADA committee meeting held on 12th September 2012 at WRLDC Mumbai. During the discussions in the SCADA committee meeting, WRLDC & other constituents opined that Fiber connectivity to SLDCs (Planned) of DD & DNH, existing SLDC at Goa & Kalwa, Kawas, RGPPL and Bina (JAYPEE) power plants may also be provided in order to establish wide band connectivity for these sub-stations and control centers. To meet this requirement, in addition to 2672Kms of OPGW mentioned above, the following links are required:

a) SLDC (DNH) – Bhilad S/S – Vapi



- b) SLDC (Varkoond) – Magarwada – Vapi
- c) SLDC (Panjim) – Ponda – Mapusa
- d) Navsari GIS – Navsari (GETCO) - Kawas
- e) Kawas – Vav
- f) RGPPL – New Koyna
- g) Bina(JAYPEE) – Bina(PG)
- h) CGPL Mundra – Jetpur

(ii) MPPTCL vide their letter dated 31.7.12, has requested for inclusion of approximately 14kms of OFC along with wideband communication equipment of adequate capacity for setting up of back-up SLDC at Govindpura, Bhopal in the Master Communication Plan of WR under central sector portion, adopting the guidelines of ULDC project and guidelines adopted for sharing of wideband communication cost for shifting of SLDC CSPTCL from Bhilai to Raipur. This was discussed and agreed during SCADA committee meeting held on 12th September 2012 at WRLDC Mumbai.

(iii) GETCO vide their letter ref. SLDC/Mastercommunication/1895 dated 11.10.2012 have requested for connectivity of Sub-LDC Gandhinagar and Sub-LDC Jetpur to SLDC Vadodara (Gotri) on OFC with suitable end equipments. In the SCADA committee meeting, it was also observed that physical path redundancy to Gwalior S/S can be provided with Gwalior-Agra inter-regional link (140kms) instead of Gwalior-Satna link (330kms) proposed in the agenda for SCADA committee meeting which will reduce the overall requirement by 190kms. Considering all the above requirements, approximately 3666 kms of additional fibre optic cable along with communication equipment are proposed to be implemented under Master Communication Plan for WR. The revised network diagram with all additional requirements is attached herewith at Annexure-SA2.”

38. From the above it is observed that the 2 number of OPGW links namely 220 kV Kawaas-Vav and 220 kV Kawas-Navsari are newly added due to which the placement of Letter of Awards (LoA) need to be amended due to which the implementation of these two OPGW links are affected. Taking into consideration the submission of the Petitioner that the delay occurred due to LoA amendments, the time period of 274 days from 9.2.2012 upto 9.11.2012 has a cascading effect on the completion of the communication assets and it is beyond the control of the Petitioner. Therefore, the time over-run of 274 days from 9.2.2012 upto 9.11.2012 due to amendments in the LoA is condoned. The delay in condonation of 274 days is common to Asset-3 and Asset-4, therefore, it is applicable to Asset-3 and Asset-4 covered in the instant petition.



39. The Petitioner has submitted that 6 months' time is required to complete pre-tendering activities, including survey, engineering, cable design approval, BoQ approval, manufacturing in South Korea, Factory Acceptance Test, receipt at site, installation. Accordingly, the time period from 9.11.2012 to 9.5.2013 (181 days) may be condoned. We have considered the submission of the Petitioner. It is noted that petitioner has claimed 6 months for various activities on account of prebid requirements for survey, engineering, cable design approval, BoQ approval etc, however, the petitioner has not furnished the date award of subject works. Thus, the delay claimed on account above could not be assessed appropriately and further, the delay claimed appears to be higher side and petitioner has not substantiated the same with any supporting documents. Therefore, at this stage, we are not able to agree with the Petitioner that further 6 months' time is required to complete the pre-tendering activities. Accordingly, the time over-run of 181 days in case of Asset-3 and Asset-4 is not condoned. However, the petitioner granted liberty to claim the same along with supporting documents at the time of trying up of tariff.

40. The Petitioner has submitted that vide letter dated 23.6.2016, it was informed to GETCO that executing agency was employed for erection work and requested for work permission and GETCO has given permission on 5.8.2016. We have gone through the submission of the Petitioner. We are of the view that some time is required to GETCO to permit the replacement of earth wire with OPGW which would have been envisaged in original timelines. Accordingly, the time period from 23.6.2016 to 5.8.2016 (43 days) is not beyond the control of the Petitioner and the same is not condoned with respect to Asset-3.



41. The Petitioner has not submitted the reasons for time over-run from 5.8.2016 to 21.6.2019. Due to non-submission of any justification, the time over-run from 5.8.2016 to 21.6.2019 in case of Asset-3 is not condoned.

42. As discussed above, out of the total time over-un of 1778 days and 1995 days in case Asset-3 and Asset-4 respectively, the time over-run of 274 days due to addition of OPGW links are as per the 21st WRPC approval is condoned, and the remaining time over-run of 1504 days in case of Asset-3 and 1721 days in case of Asset-4 is not condoned.

43. The details of time over-run condoned/ not condoned are as follows:

Asset	Schedule COD as per IA	Actual COD	Time over-run	Time over-run condoned	Time over-run not condoned
Asset-2	8.8.2014	26.5.2019	1752 days	1241 days	511 days
Asset-3		21.6.2019	1778 days	274 days	1504 days
Asset-4		24.1.2020	1995 days	274 days	1721 days

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

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

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC discharged upto COD	IDC discharged during 2019-20	IDC discharged during 2020-21
Asset-2	106.03	94.67	11.36	0.00
Asset-3	162.35	144.37	17.98	0.00
Asset-4	44.35	40.88	1.08	2.39

45. We have considered the submissions of the Petitioner. As discussed above in this order, the time over-run in the execution of the transmission assets has been partially condoned. Accordingly, IDC on cash basis up to the COD has been worked



out based on the loan details given in the statement showing discharge of IDC and Form-9C for the transmission asset. The IDC claimed and considered as on COD and summary of discharge of IDC liability up to COD and, thereafter, for the purpose of tariff determination subject to revision at the time of truing up is as follows:

(₹ in lakh)

Assets	IDC as per Auditor's Certificate	IDC disallowed due to time over-run not condoned	IDC allowed	IDC Discharged upto COD	IDC discharged during 2019-20	IDC discharged during 2020-21
Asset-2	106.03	34.49	71.54	71.54	0.00	0.00
Asset-3	162.35	111.89	50.46	50.46	0.00	0.00
Asset-4	44.35	32.03	12.32	12.32	0.00	0.00

46. Further, the Petitioner has claimed IEDC for the transmission assets as per the Auditor's Certificate. The Petitioner has further submitted that the entire amount of IEDC for the transmission assets has been discharged up to COD and the time over-run for the transmission assets has been fully condoned, there is no disallowance of IEDC. IEDC claimed as per the Auditor's Certificate, IEDC considered and discharged up to COD is as follows:

(₹ in lakh)

Assets	IEDC claimed as per Auditor's certificate (A)	IEDC disallowed due to time over-run not condoned (B)	IEDC allowed (C)=(A-B)
Asset-2	53.53	10.27	43.26
Asset-3	46.05	25.75	20.30
Asset-4	8.78	5.20	3.58

Initial Spares

47. Regulation 23(d) of the 2019 Tariff Regulations provides that Initial Spares shall be capitalised as a percentage of plant and machinery cost up to cut-off date, subject to the following ceiling norms:



“(d) Transmission System

- (i) Transmission line- 1.00%
- (ii) Transmission sub-station
 - Green Field- 4.00%
 - Brown Field- 6.00%
- (iii) Series Compensation devices and HVDC Station- 4.00%
- (iv) Gas Insulated Sub-station (GIS)
 - Green Field- 5.00%
 - Brown Field- 7.00%
- (v) Communication System- 3.50%
- (vi) Static Synchronous Compensator- 6.00%

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

(₹ in lakh)

Assets	Particulars	Norm as per Regulation (in %)	Plant and Machinery cost	Initial spares claimed	Initial spares allowable
Asset-2	OPGW	3.5	293.23	2.81	10.53
Asset-3	OPGW	3.5	124.26	4.35	4.35
Asset-4	OPGW	3.5	81.76	2.86	2.86

49. We have considered the submissions of the Petitioner. Based on the information available on record, the Initial Spares for the transmission assets are allowed as per the respective percentage of the plant and machinery cost as on the cut-off date. The Initial Spares allowed for the transmission assets are as follows:

(₹ in lakh)

Assets	Particulars	Plant and Machinery cost (excluding IDC/IEDC, Land cost and Cost of Civil Works)	Initial Spares claimed	Norms as per 2019 Tariff Regulations (in %)	Initial Spares allowable	Initial Spares disallowed	Initial Spares Allowed
		A	B	C	$D=(A-B)*C/(100-C)$	$E=B-D$	
Asset-2	OPGW	293.23	2.81	3.50	10.53	0.00	2.81
Asset-3	OPGW	124.26	4.35	3.50	4.35	0.00	4.35
Asset-4	OPGW	81.76	2.86	3.50	2.86	0.00	2.86



50. Accordingly, there is no excess Initial Spares claimed for the transmission assets. Therefore, the Initial Spares have been allowed as claimed by the Petitioner. The capital cost allowed as on COD is as follows:

(₹ in lakh)

Assets	Capital cost claimed as on COD (Auditor's Certificate) (A)	IDC disallowed (B)	Undischarged IDC as on COD (C)	IEDC disallowed (D)	Capital Cost as on COD (E) = (A-B-C-D)
Asset-2	452.79	34.49	0.00	10.27	408.04
Asset-3	474.14	111.89	0.00	25.75	336.50
Asset-4	133.59	32.03	0.00	5.20	96.36

Additional Capital Expenditure (ACE)

51. Regulation 24 of the 2019 Tariff Regulations provides as follows:

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

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

- (a) Undischarged liabilities recognized to be payable at a future date;*
- (b) Works deferred for execution;*
- (c) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 23of 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.”

52. The Petitioner has claimed that the ACE incurred/ projected to be incurred is mainly on account of balance/ retention payments and, hence, the same is claimed under Regulation 24(1)(a) and Regulation 24(1)(b) of the 2019 Tariff Regulations. The



Petitioner has claimed capital cost as per the cash IDC discharge as on 31.3.2024 as follows:

(₹ in lakh)

Assets	Capital cost as on COD	Projected ACE		Capital cost as on 31.3.2024
		2019-20	2020-21	
Asset-2	452.79	0.00	0.00	452.79
Asset-3	474.14	(-)171.37	29.89	332.66
Asset-4	133.59	0.00	1.30	134.89

53. MPPMCL has submitted that the Petitioner has has claimed ACE towards Balance/Retention payments under Regulation 24(1) of the 2019 Tariff Regulations. However, has not provided any details and justification for the same. Hence, the claims of the Petitioner may only be allowed at the true-up stage on the basis of actual claims.

54. In response, the Petitioner vide affidavit dated 14.12.2022 has submitted that the element-wise details of ACE claimed has been submitted in Form-5.

55. In response to a query of the Commission regarding decapitalisation in case of Asset-3, the Petitioner vide affidavit dated 8.8.2022 has submitted that the cost of the optical fibre should be apportioned between ULDC scheme and Telecom projects as decided by the Government of India (GoI) in the Press Information Bureau (PIB) meeting held on 12.10.2001. The relevant portion of the Minutes of PIB Meeting dated 12.10.2001 is as follows:

“...Six(6) out of 12/24 fibres installed under this project shall be utilized for ULDC project only. The balance fibres shall be utilized by POWERGRID for telecom purpose. Accordingly, it is proposed to apportion (i) 50% of the optical fibre cost for 24 fibre cable and (ii) 25% of optical fibre cost for 12 fibre cable to the telecom venture. Apportionment as per the above methodology shall be made at the time of submission of tariff proposal to GOI/CERC.”



56. The criteria for sharing of cost of the fibre optic cables, as decided by Gol in PIB meeting dated 12.10.2001 was approved by the Commission vide order dated 8.12.2011 in Petition No. 68/2010. The relevant extract of the said order is as follows:

“25. In our view, status quo should be maintained as regards the criteria for sharing of cost of the fibre optic cables as decided by Government of India in the PIB meeting dated 12.10.2001 and adopted by the Commission for the existing ULDC schemes. However, the Commission will take a final decision at the time of determining the tariff of the ULDC system based on the actual usage of the optical fibre cable for power system operation and for commercial purposes by other agencies including the petitioner.”

57. In line with the above-mentioned guidelines, expenditure of ₹180.07 lakh has been transferred to Telecom towards 50% of 24 fibre cable OPGW cost in 2019-20.

58. We have considered the submissions of the Petitioner and the Respondents. The actual/ projected ACE allowed under Regulation 25(1)(d) of the 2019 Tariff Regulations on account of liabilities for works executed prior to the cut-off date, subject to truing-up in respect of Asset-2, Asset-3 and Asset-4 are as follows:

Asset-2

(₹ in lakh)

Particulars	2019-20	Total
ACE as per Auditor's certificate	0.00	0.00
Add: IDC Discharged	0.00	0.00
ACE allowed in the instant order	0.00	0.00

Asset-3

(₹ in lakh)

Particulars	2019-20	2020-21	Total
ACE as per Auditor's certificate	(-)171.37	29.89	(-)141.48
Add: IDC Discharged	0.00	0.00	0.00
ACE allowed in the instant order	(-)171.37	29.89	(-)141.48

Asset-4

(₹ in lakh)

Particulars	2020-21	Total
ACE as per Auditor's certificate	1.30	1.30
Add: IDC Discharged	0.00	0.00
ACE allowed in the instant order	1.30	1.30



59. The capital cost considered for the transmission assets for the 2019-24 tariff period is as follows:

Assets	Capital cost as on COD	Allowed ACE		Capital cost as on
		2019-20	2020-21	31.3.2024
Asset-2	408.04	0.00	0.00	408.04
Asset-3	336.50	(-171.37)	29.89	195.02
Asset-4	96.36	0.00	1.30	97.66

Debt-Equity ratio

60. Regulation 18 of the 2019 Tariff Regulations provides as follows:

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

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

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

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

Provided that in case of a generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost,



equity in excess of 30% shall not be taken into account for tariff computation;

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

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

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

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

61. The debt-equity considered for the purpose of computation of tariff for the 2019-24 tariff period for the transmission assets are as follows:

Asset-2

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	285.63	70.00	0.00	70.00	285.63	70.00
Equity	122.41	30.00	0.00	30.00	122.41	30.00
Total	408.04	100.00	0.00	100.00	408.04	100.00

Asset-3

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	235.55	70.00	-99.04	70.00	136.52	70.00
Equity	100.95	30.00	-42.44	30.00	58.51	30.00
Total	336.55	100.00	-141.48	100.00	195.02	100.00

Asset-4

Particulars	Capital Cost as on COD (₹ in lakh)	(in %)	ACE during 2019-24 (₹ in lakh)	(in %)	Capital Cost as on 31.3.2024 (₹ in lakh)	(in %)
Debt	67.45	70.00	0.91	70.00	68.36	70.00
Equity	28.91	30.00	0.39	30.00	29.30	30.00
Total	96.36	100.00	1.30	100.00	97.66	100.00



Depreciation

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

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

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

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

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

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

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

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

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

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

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

Provided that the remaining depreciable value as on 31st March of the year



closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

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

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

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

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

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

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

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

or

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

63. We have considered the submissions of the Petitioner. The depreciation has been worked out considering the admitted capital expenditure as on 31.3.2019 and accumulated depreciation up to 31.3.2019. The Weighted Average Rate of Depreciation (WAROD) has been worked out and placed as Annexure-I for Asset-2, Asset-3 and Asset-4, as per the rates of depreciation prescribed in the 2019 Tariff



Regulations. Depreciation allowed in respect of the transmission assets for the 2019-24 tariff period are as follows:

Asset-2

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	408.04	408.04	408.04	408.04	408.04
B	ACE	0.00	0.00	0.00	0.00	0.00
C	Closing Gross Block (A+B)	408.04	408.04	408.04	408.04	408.04
D	Average Gross Block (A+C)/2	408.04	408.04	408.04	408.04	408.04
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset	15	15	14	13	12
G	Lapsed life at the beginning of the year (Year)	0	0	1	2	3
H	Aggregate Depreciable Value	367.24	367.24	367.24	367.24	367.24
I	Combined Depreciation during the year	21.95	25.83	25.83	25.83	25.83
J	Aggregate Cumulative Depreciation	21.95	47.78	73.61	99.43	125.26
K	Remaining Aggregate Depreciable Value	345.29	319.46	293.63	267.80	241.97

Asset-3

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	336.50	165.13	195.02	195.02	195.02
B	ACE	-171.37	29.89	0.00	0.00	0.00
C	Closing Gross Block (A+B)	165.13	195.02	195.02	195.02	195.02
D	Average Gross Block (A+C)/2	250.82	180.08	195.02	195.02	195.02
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset	15	15	14	13	12
G	Lapsed life at the beginning of the year (Year)	0	0	1	2	3
H	Aggregate Depreciable Value	225.74	162.07	175.52	175.52	175.52
I	Combined Depreciation during the year	12.36	11.40	12.34	12.34	12.34
J	Aggregate Cumulative Depreciation	12.36	23.76	36.11	48.45	60.80



	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
K	Remaining Aggregate Depreciable Value	213.37	138.31	139.41	127.07	114.72

Asset-4

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
	Depreciation					
A	Opening Gross Block	96.36	96.36	97.66	97.66	97.66
B	ACE	0.00	1.30	0.00	0.00	0.00
C	Closing Gross Block (A+B)	96.36	97.66	97.66	97.66	97.66
D	Average Gross Block (A+C)/2	96.36	97.01	97.66	97.66	97.66
E	Weighted average rate of Depreciation (WAROD) (in %)	6.33	6.33	6.33	6.33	6.33
F	Balance useful life of the asset	15	15	14	13	12
G	Lapsed life at the beginning of the year (Year)	0	0	1	2	3
H	Aggregate Depreciable Value	86.73	87.31	87.90	87.90	87.90
I	Combined Depreciation during the year	1.13	6.14	6.18	6.18	6.18
J	Aggregate Cumulative Depreciation	1.13	7.27	13.46	19.64	25.82
K	Remaining Aggregate Depreciable Value	85.59	80.04	74.44	68.26	62.08

Interest on Loan (IoL)

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

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

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

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

(4) Notwithstanding any moratorium period availed by the generating company or



the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

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

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

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

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

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

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

65. The IoL has been considered on the basis of rate prevailing as on COD. The Petitioner has prayed that the change in interest rate due to floating rate of interest applicable, if any, during the 2019-24 tariff period will be adjusted. Accordingly, the floating rate of interest, if any, shall be considered at the time of true-up. Therefore, the IoL has been allowed in accordance with Regulation 32 of the 2019 Tariff Regulations for the transmission assets as follows:

Asset-2

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	285.63	285.63	285.63	285.63	285.63
B	Cumulative Repayments upto Previous Year	0.00	21.95	47.78	73.61	99.43
C	Net Loan-Opening (A-B)	285.63	263.68	237.85	212.02	186.19
D	Additions due to ACE	0.00	0.00	0.00	0.00	0.00
E	Repayment during the year	21.95	25.83	25.83	25.83	25.83



	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
F	Net Loan-Closing (C+D-E)	263.68	237.85	212.02	186.19	160.36
G	Average Loan (C+F)/2	274.65	250.77	224.94	199.11	173.28
H	Weighted Average Rate of Interest on Loan (in %)	8.1793	8.1659	8.1618	8.1574	8.0907
I	Interest on Loan	19.09	20.48	18.36	16.24	14.02

Asset-3

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	235.55	115.59	136.52	136.52	136.52
B	Cumulative Repayments upto Previous Year	0.00	12.36	23.76	36.11	48.45
C	Net Loan-Opening (A-B)	235.55	103.23	112.75	100.41	88.06
D	Additions due to ACE	-119.96	20.92	0.00	0.00	0.00
E	Repayment during the year	12.36	11.40	12.34	12.34	12.34
F	Net Loan-Closing (C+D-E)	103.23	112.75	100.41	88.06	75.72
G	Average Loan (C+F)/2	169.39	107.99	106.58	94.24	81.89
H	Weighted Average Rate of Interest on Loan (in %)	8.6855	8.6676	8.6676	8.6676	8.6572
I	Interest on Loan	11.46	9.36	9.24	8.17	7.09

Asset-4

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
A	Gross Normative Loan	67.45	67.45	68.36	68.36	68.36
B	Cumulative Repayments upto Previous Year	0.00	1.13	7.27	13.46	19.64
C	Net Loan-Opening (A-B)	67.45	66.32	61.09	54.91	48.73
D	Additions due to ACE	0.00	0.91	0.00	0.00	0.00
E	Repayment during the year	1.13	6.14	6.18	6.18	6.18
F	Net Loan-Closing (C+D-E)	66.32	61.09	54.91	48.73	42.54
G	Average Loan (C+F)/2	66.89	63.71	58.00	51.82	45.64
H	Weighted Average Rate of Interest on Loan (in %)	8.5331	8.5214	8.5136	8.5136	8.4691
I	Interest on Loan	1.06	5.43	4.94	4.41	3.86

Return on Equity (RoE)

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



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

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

Provided that return on equity in respect of additional capitalization after cutoff date beyond the original scope, excluding additional capitalization on 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 ₹ 1,000 crore;
- (b) Estimated Advance Tax for the year on above is ₹ 240 crore;
- (c) Effective Tax Rate for the year 2019-20 = ₹ 240 Crore / ₹ 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.”

67. The Petitioner has submitted that MAT rate is applicable to the Petitioner's company. Accordingly, the MAT rate applicable in 2019-20 has been considered for



the purpose of RoE, which shall be trued-up with actual tax rate in accordance with Regulation 31(3) of the 2019 Tariff Regulations. The RoE allowed for the transmission assets is as follows:

Asset-2

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	122.41	122.41	122.41	122.41	122.41
B	Additions (B)	0.00	0.00	0.00	0.00	0.00
C	Closing Equity (C) = (A+B)	122.41	122.41	122.41	122.41	122.41
D	Average Equity (D) = (A+C)/2	122.41	122.41	122.41	122.41	122.41
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity	19.54	22.99	22.99	22.99	22.99

Asset-3

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	100.95	49.54	58.51	58.51	58.51
B	Additions (B)	-51.41	8.97	0.00	0.00	0.00
C	Closing Equity (C) = (A+B)	49.54	58.51	58.51	58.51	58.51
D	Average Equity (D) = (A+C)/2	75.25	54.02	58.51	58.51	58.51
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity	11.00	10.15	10.99	10.99	10.99

Asset-4

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
A	Opening Equity (A)	28.91	28.91	29.30	29.30	29.30
B	Additions (B)	0.00	0.39	0.00	0.00	0.00
C	Closing Equity (C) = (A+B)	28.91	29.30	29.30	29.30	29.30



	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
D	Average Equity (D) = (A+C)/2	28.91	29.10	29.30	29.30	29.30
E	Return on Equity (Base Rate) (in %)	15.500	15.500	15.500	15.500	15.500
F	MAT Rate for respective year (in %)	17.472	17.472	17.472	17.472	17.472
G	Rate of Return on Equity (in %)	18.782	18.782	18.782	18.782	18.782
H	Return on Equity	1.01	5.47	5.50	5.50	5.50

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

68. The O&M Expenses claimed by the Petitioner for the transmission assets for the 2019-24 period are as follows:

Asset-2

(₹ in lakh)

Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
Communication System (OPGW)					
Original Project Cost	452.79	452.79	452.79	452.79	452.79
Norms (in %)	2.00	2.00	2.00	2.00	2.00
Total O&M Expenses	7.69	9.06	9.06	9.06	9.06

Asset-3

(₹ in lakh)

Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
Communication System (OPGW)					
Original Project Cost	332.66	332.66	332.66	332.66	332.66
Norms (in %)	2.00	2.00	2.00	2.00	2.00
Total O&M Expenses	5.18	6.65	6.65	6.65	6.65

69. The Petitioner has not claimed any O&M Expenses with respect to Asset-4 as it is a State-Sector asset. Accordingly, we have not allowed any O&M Expenses with respect to Asset-4.

70. The norms specified under Regulation 35(3)(a) and Regulation 35(4) of the 2019 Tariff Regulations provide that:

"35 (4) Communication system: The operation and maintenance expenses for the communication system shall be worked out at 2.0% of the original project cost related



to such communication system. The transmission licensee shall submit the actual operation and maintenance expenses for truing up.”

71. We have considered the submissions of the Petitioner. The O&M Expenses are approved for the transmission assets as per Regulation 35(4) of the 2019 Tariff Regulations and same are as follows:

Asset-2

(₹ in lakh)

Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
Communication System (OPGW)					
Original Project Cost	452.79	452.79	452.79	452.79	452.79
Norms (in %)	2.00	2.00	2.00	2.00	2.00
Total O&M Expenses	7.69	9.06	9.06	9.06	9.06

Asset-3

(₹ in lakh)

Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
Communication System (OPGW)					
Original Project Cost	332.66	332.66	332.66	332.66	332.66
Norms (in %)	2.00	2.00	2.00	2.00	2.00
Total O&M expenses	5.18	6.65	6.65	6.65	6.65

Interest on Working Capital (IWC)

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

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

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

- (i) Receivables equivalent to 45 days of annual fixed cost;
- (ii) Maintenance spares @ 15% of operation and maintenance expenses including security expenses; and
- (iii) Operation and maintenance expenses, including security expenses for one month.

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



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

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

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

‘**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;”

73. The Petitioner has submitted that it has computed 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 10.50%.

74. The IWC is worked out in accordance with Regulation 34 of the 2019 Tariff Regulations. The Rate of Interest (RoI) is considered as 10.50% (SBI 1 year MCLR applicable as on 1.4.2021 of 7.00% plus 350 basis points) for 2021-22 onwards. The components of the working capital and interest thereon allowed are as follows:

Asset-2

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 month)	0.75	0.76	0.76	0.76	0.76
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	1.36	1.36	1.36	1.36	1.36
C	WC for Receivables (Equivalent to 45 days of annual transmission charges)	10.06	9.83	9.55	9.29	8.98
D	Total Working Capital	12.17	11.94	11.66	11.40	11.10
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital	1.25	1.34	1.23	1.22	1.17

Asset-3

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M	0.55	0.55	0.55	0.55	0.55



	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
	Expenses (O&M Expenses for 1 month)					
B	Working Capital for Maintenance Spares (15% of O&M Expenses)	1.00	1.00	1.00	1.00	1.00
C	Working Capital for Receivables (Equivalent to 45 days of annual transmission charges)	6.43	4.72	4.92	4.79	4.64
D	Total Working Capital	7.99	6.27	6.47	6.34	6.19
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital	0.75	0.71	0.68	0.67	0.65

Asset-4

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
A	Working Capital for O&M Expenses (O&M Expenses for 1 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 transmission charges)	2.15	2.13	2.08	2.01	1.94
D	Total Working Capital	2.15	2.13	2.08	2.01	1.94
E	Rate of Interest (in %)	12.05	11.25	10.50	10.50	10.50
F	Interest on Working Capital	0.05	0.24	0.22	0.21	0.20

Annual Fixed Charges for the 2019-24 Tariff Period

75. The transmission charges allowed for the transmission assets for the 2019-24 tariff period are as follows:

Asset-2

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 311 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	21.95	25.83	25.83	25.83	25.83
B	Interest on Loan	19.09	20.48	18.36	16.24	14.02
C	Return on Equity	19.54	22.99	22.99	22.99	22.99
D	O&M Expenses	7.69	9.06	9.06	9.06	9.06
E	Interest on Working Capital	1.25	1.34	1.23	1.20	1.17
F	Total	69.52	79.70	77.47	75.32	73.07



Asset-3

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 285 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	12.36	11.40	12.34	12.34	12.34
B	Interest on Loan	11.46	9.36	9.24	8.17	7.09
C	Return on Equity	11.00	10.15	10.99	10.99	10.99
D	O&M Expenses	5.18	6.65	6.65	6.65	6.65
E	Interest on Working Capital	0.75	0.71	0.68	0.67	0.65
F	Total	40.75	38.27	39.90	38.82	37.72

Asset-4

(₹ in lakh)

	Particulars	2019-20 (pro-rata for 68 days)	2020-21	2021-22	2022-23	2023-24
A	Depreciation	1.13	6.14	6.18	6.18	6.18
B	Interest on Loan	1.06	5.43	4.94	4.41	3.86
C	Return on Equity	1.01	5.47	5.50	5.50	5.50
D	O&M Expenses	0.00	0.00	0.00	0.00	0.00
E	Interest on Working Capital	0.05	0.24	0.22	0.21	0.20
F	Total	3.25	17.28	16.84	16.30	15.74

Filing Fee and the Publication Expenses

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

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

Licence Fee & RLDC Fees and Charges

78. The Petitioner has sought reimbursement of licensee fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The Petitioner shall be entitled for reimbursement of licence fee in accordance with Regulation 70(4) of the 2019 Tariff Regulations for the 2019-24 tariff period. The



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

Goods and Services Tax

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

80. MPPMCL has submitted that the Petitioner has claimed the implementation of GST and prayed that GST has not been applicable on electricity sector so the demand of GST shall be disallowed.

81. In response, the Petitioner vide affidavit dated 9.11.2022 has submitted that under the Central Goods and Services Tax (CGST) Act, 2017 implemented w.e.f. 1.7.2017, GoI has exempted the charges of transmission of electricity vide Notification No. 12/2017 -Central Tax (Rate) dated 28.6.2017 at serial No. 25 under the heading 9969 "Transmission or distribution of electricity by an electric transmission or distribution utility" by giving applicable GST rate as NIL. Hence, the transmission charges claimed is exclusive of GST.

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



Security Expenses

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

84. We have considered the submissions of the Petitioner. The Petitioner has claimed consolidated security expenses on projected basis for 2019-24 tariff period on the basis of actual security expenses incurred in 2018-19 in Petition No. 260/MP/2020. The Commission vide order dated 3.8.2021 in Petition No. 260/MP/2020 approved security expenses from 1.4.2019 to 31.3.2024. Therefore, the security expenses will be shared in terms of the order dated 3.8.2021 in Petition No. 260/MP/2020. Accordingly, the Petitioner's prayer in the instant petition for allowing it to file a separate petition for claiming the overall security expenses and consequential IWC has become infructuous.

Capital Spares

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

Sharing of Transmission Charges

86. The Petitioner has submitted that the transmission charges of Asset-2 and Asset-3, which are the Central Portion, will be shared as per Regulation 57 of the 2019 Tariff Regulations. These charges shall be recovered on monthly basis and the billing collection and disbursement of Transmission Charges shall be governed by provision of the Central Electricity Regulatory Commission (Sharing of inter-State Transmission Charges and Losses) Regulations, 2020 (hereinafter referred to as "the



2020 Sharing Regulations”). The Petitioner has submitted that the transmission charges of Asset-4, which is the State Portion, will be borne by MPPTCL.

87. We have considered the submissions of the Petitioner. With effect from 1.7.2011, sharing of transmission charges for inter-State transmission systems was governed by the 2010 Sharing Regulations and with effect from 1.11.2020 (after repeal of the 2010 Sharing Regulations), sharing of transmission charges is governed by the 2020 Sharing Regulations. The transmission charges approved in this order for the State Sector, i.e. Asset-4, for the 2019-24 tariff period shall be shared by MPPTCL, in accordance with the applicable Sharing Regulations as provided under Regulation 57(2) of the 2019 Tariff Regulations. The transmission charges approved in this order for the Central Sector, i.e. Asset-2 and Asset-3, for the 2019-24 tariff period shall be recovered in accordance with the applicable Sharing Regulations in accordance with Regulation 57(2) of the 2019 Tariff Regulations.

88. To summarise, AFC allowed for the 2019-24 tariff period is as follows:

Particulars	(₹ in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Asset-2	69.52	79.70	77.47	75.32	73.07
Asset-3	40.75	38.27	39.90	38.82	37.72
Asset-4	3.25	17.28	16.84	16.30	15.74

89. The Annexure to this order form part of the order.

90. This order disposes of Petition No. 312/TT/2022 in terms of the above findings and discussions.

sd/-
(P. K. Singh)
Member

sd/-
(I. S. Jha)
Member

sd/-
(Arun Goyal)
Member



ANNEXURE-I**Asset-2**

2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)	Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)					
		Total			2019-20	2020-21	2021-22	2022-23	2023-24	
Capital Expenditure										
PLCC	408.04	-	408.04	6.33	25.83	25.83	25.83	25.83	25.83	25.83
Total	408.04	-	408.04		25.83	25.83	25.83	25.83	25.83	25.83
Average Gross Block (₹ in lakh)					408.04	408.04	408.04	408.04	408.04	408.04
Weighted Average Rate of Depreciation (in %)					6.33	6.33	6.33	6.33	6.33	6.33

Asset-3

2019-24	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)			Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations (in %)	Annual Depreciation as per Regulations (₹ in lakh)				
		2019-20	2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
Capital Expenditure											
PLCC	336.50	(-)171.37	29.89	(-)141.48	195.02	6.33	15.88	11.40	12.34	12.34	12.34
Total	336.50	(-)171.37	29.89	(-)141.48	195.02		15.88	11.40	12.34	12.34	12.34
Average Gross Block (₹ in lakh)							250.82	180.08	195.02	195.02	195.02
Weighted Average Rate of Depreciation (in %)							6.33	6.33	6.33	6.33	6.33



Asset-4

2019-24 Capital Expenditure	Admitted Capital Cost as on COD (₹ in lakh)	Projected ACE (₹ in lakh)		Admitted Capital Cost as on 31.3.2024 (₹ in lakh)	Rate of Depreciation as per Regulations (%)	Annual Depreciation as per Regulations (₹ in lakh)				
		2020-21	Total			2019-20	2020-21	2021-22	2022-23	2023-24
PLCC	96.36	1.30	1.30	97.66	6.33	6.10	6.14	6.18	6.18	6.18
Total	96.36	1.30	1.30	97.66		6.10	6.14	6.18	6.18	6.18
Average Gross Block (₹ in lakh)						96.36	97.01	97.66	97.66	97.66
Weighted Average Rate of Depreciation (in %)						6.33	6.33	6.33	6.33	6.33

